Public documents of the state of Wisconsin ... for the fiscal term ending June 30, 1904. Volume 3 1902/1904

Madison, Wisconsin: Democrat Printing Company, 1902/1904

PUBLIC DOCUMENTS

OF THE

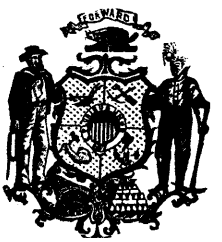
STATE OF WISCONSIN

BEING THE REPORTS OF THE VARIOUS

State Officers, Departments and Institutions

For the Fiscal Term ending June 30, 1904.

VOLUME 3



MADISON:
DEMOCRAT PRINTING COMPANY, STATE PRINTER,
1905

PUBLIC DOCUMENTS

FOR 1903-1904.

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ELEVENTH BIENNIAL REPORT

OF THE

BUREAU OF LABOR

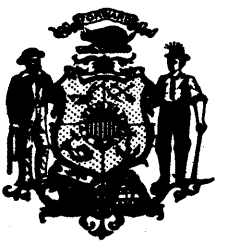
AND INDUSTRIAL STATISTICS.

STATE OF WISCONSIN

1903 - 1904.

HALFORD ERICKSON, Commissioner.

J. D. BECK, Deputy.



MADISON
DEMOCRAT PRINTING COMPANY, STATE PRINTER
1904

LETTER OF TRANSMITTAL.

BUREAU OF LABOR AND
INDUSTRIAL STATISTICS.
MADISON, WIS., September 30, 1904.

To His Excellency HON. R. M. LA FOLLETTE,
Governor of Wisconsin.

DEAR SIR:—I have the honor to transmit herewith the Eleventh Biennial Report of this Bureau as required by the laws of this state.

Very Respectfully Yours,
HALFORD ERICKSON,
Commissioner.

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INTRODUCTION.

In the preparation of this report we have had many difficulties to overcome. The fire which occurred in the State House a few months ago destroyed our office together with its files, material collected and several investigations that were either ready for the report or well under way to completion. Among the investigations thus lost were our "Manufacturing Statistics;" an inquiry into the freight rates charged in this state, and into the earnings and financial condition of the railroads doing business in this state; the course of wholesale and retail prices; the "Domestic service"; "what employers are doing for their employees." In addition to this we also lost a great deal of data relating to the liquor traffic in the state and to tenement conditions in Milwaukee which had been collected during the preceding year.

This accident has proved a serious set back to our work, for it resulted in the total loss of the matter that had been prepared for publication as well as the original data upon which this matter was based. Although we have done our best to make up for the loss we have not been entirely successful. Much of the material which was destroyed cannot from its very nature be fully replaced. The time left for the preparation of the report was also too short for extensive investigations in other lines. The present report is for these reasons less complete and satisfactory than would otherwise have been the case.

In this report considerable space is devoted to factory inspection, or to what has been done in the way of enforcing the factory laws. It includes a fairly complete record of the factories and other places that have been inspected from time to

time during the present term, together with a great deal of data relating to the various places inspected as well as to the condition as a whole. In this connection there is an article on some of the economic aspects of factory legislation as well as an article on Sweating which is based on the facts collected at the inspection of the smaller shops and home industries.

The Statistics of Manufactures which has been one of the features of the reports of this Bureau for some years past have been continued in the present report, although not exactly upon the same basis as formerly. In the past these statistics have consisted of comparisons from year to year of the facts collected from identical establishments. But for the present report such comparisons are out of the question. The reason for this is that we have been unable to replace the reports or data for the preceding year which were destroyed in the late fire. The statistics of manufactures presented in this report cover only one year, that of 1903. While the fact that the figures for one year only are included tend to lower the importance of these statistics, but the shortcomings from this source is in a measure made up by the fact that the figures as to earnings and employment in the present report are more complete than in the past. The schedules upon which the original data are collected have been revised. In their present form they require detailed reports upon the rate of wages, hours of labor, and time of employment of every person employed for wages. To obtain even fairly complete returns of this character is a difficult matter. It was made possible in this case by a system of classifying the employees according to the rate of wages and the hours employed. Under this method it is possible to obtain detailed data with little if any more labor than that required to obtain the weekly earnings alone under the old method. Under the former method classified weekly earnings only could be presented. Under the present method it is possible to present in detail the facts as to wages and employment for each person, as well as the classified weekly earnings. It is believed that these changes in our manufacturing statistics will lead to much more satisfactory results all around.

This report also contains a study of the growth of leading industries and their location in this state. This part is based upon the reports of U. S. census and upon data collected by this Bureau. It deals chiefly with the importance and growth of the various industries and with the advantages of location which are offered by the various industrial centers. There has been a rapid development of nearly all the industries in this state and there is a constant demand for information concerning them as well as for the chances of finding favorable locations for new enterprises of various kinds. This part of the report will in a measure serve as a reply to such inquiries, and although it was manifestly out of the question to go into all the details it is hoped that this part will be of some value to those who seek information along such lines.

The last part of this report deals with "Workmen's compensation for industrial accidents," and was prepared by Mr. William Dunton Kerr of Milwaukee. It deals historically and theoretically with the several most important phases of the subject. It is a valuable contribution to the literature of this group of economic questions. It is commendable for the careful, scientific and scholarly manner in which the data is handled.

I take this occasion to call attention to the work of the State Free Employment offices.

Milwaukee Office.—During the past two fiscal years there were 9,676 applications from employers for help or for workers of some sort, and of these the office was able to fill 9,316.

Superior Office.—During the past two fiscal years there were 8,855 applications from employers for help and of these 8,125 were filled.

The offices in Milwaukee and Superior have thus found employment for 17,441 laborers and other workers during the past two years.

About July 1, 1903, under Chapter 434, laws of 1903, a Free Employment Office was established at La Crosse. During the 26 weeks this office has been in operation it received 1,053 requests for labor or for help and secured employment for 868 workers.

About November 1, 1903, a Free Employment Office was also established at Oshkosh. During the six weeks which this office has been in operation it secured employment for 117 persons.

FACTORY INSPECTION.

The meaning of the term "Factory Inspection," the duties of the inspectors and the nature of their work, the scope of the factory laws of this state, the explanation of the various blank forms used by the inspectors, the relation of the department of factory inspection to the bureau of labor and industrial statistics, and to the free employment bureau, are treated in some detail in the last biennial report and will not be repeated here. The last legislature added to the duties of the inspectors by narrowing down the number of officials qualified to issue child labor permits and by changing the method of ascertaining ages of children. This will be explained in greater detail in another part of this report. The last legislature also conferred the power of truancy officers upon the factory inspectors in enforcing the compulsory education law where children under 14 years of age are found working in violation of the child labor law. All this was done without any increase in force of factory inspectors.

The work of inspecting factories and other establishments exclusive of those where cigars are manufactured and shops where garments are made covers a period of eighteen months ending August 30th, 1904. The most important results obtained in this work are presented in tabular form in the following pages. The first table in order presents in detail the entire field covered by the factory inspectors. It shows by cities and villages the name of the firms whose establishments were inspected, the kind of business each firm is engaged in, the number of buildings used by each establishment classified as to height, the total number of employes of each firm or company classified as to sex, the

number of children under 16 years of age employed, and, where steam is used as power, the total number of boilers and total horse power used in each establishment. While this table does not include all the cities and villages of the state or the establishments where manufacturing or repairing is done, it includes 173 cities and villages and 3,029 establishments, forming a fairly complete directory of the manufacturing industry of Wisconsin.

The second table is a summary of the first. It presents the manufacturing industries of the state by cities and villages, giving the number of establishments in each place, the total number of buildings classified as to height, the total number of employes classified as to sex, the number of children under 16 years of age employed, and the total number of boilers and total horse power. The table will be of interest as showing the relative importance of the 173 places visited by the inspectors as manufacturing centers.

Following these are numerous other tables and exhibits which treat of hours of labor, wages, safety of machinery, accidents, ventilation and sanitation, elevators, doors and exits, etc., which will be briefly discussed in their turn.

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
ABBOTTSFORD, CLARK CO.—								
Abbottsford Creamery Co., Creamery	1	....	2	....	2	....	1	15
Wisconsin Central Ry. Shops, Car Shops	11	....	42	3	45	....	3	165
Total	12	....	44	3	47	....	4	180
ABRAMS, OCONTO CO.—								
Baldwin & Swobodor, Elevator	1	....	3	....	3	....	....	....
Maple Leaf Creamery, Creamery	1	....	2	....	2	....	1	15
Peters, J. H., Feed Mill	1	....	2	....	2	....	1	30
Total	3	....	7	....	7	....	2	45
ALGOMA, KEWAUNEE CO.—								
Ahnapee Veneer & Seating Co., chairs, etc.	10	2	100	....	100	2	2	220
Algoma Fly Net Co., Fly Nets	1	....	4	....	4	....	....	....
Algoma Packing Co., Canning	6	....	125	70	195	36	2	150
Algoma Water & Light Co., Water & Light	1	....	4	....	4	....	2	160
Guim, Henry, Boxes	3	....	12	....	12	....	1	125
Total	21	2	245	70	315	38	7	655
ANTIGO, LANGLADE CO.—								
Columbia Mfg. Co., Screen Doors, etc.	6	....	35	1	36	1	2	120
Crocker Chair Co., Chairs	2	2	72	....	72	3	3	300
Frost Veneer Seating Co., Veneer	4	....	70	6	76	4	3	240
Kingsbury & Henshaw, Flour	2	1	6	....	6	....	2	170
Mitchel Bros., Saw Mill	1	....	20	....	20	....	1	30
Total	15	3	203	7	210	8	11	860
APPLETON, OUTAGAMIE CO.—								
Appleton Brewing & Malting Co., Brewing, etc.	....	1	15	....	15	....	2	100
Appleton Chair Co., Chairs	1	....	47	....	47	10	2	135
Appleton Crescent, Printing	1	....	8	3	11	1	1	5
Appleton Electric Laundry, Laundry	1	....	4	4	8	....	1	5
Appleton Knitting Co., Knitting	1	....	7	36	43	2	....	....
Appleton Machine Co., Machines	1	....	63	....	63	....	....	....
Appleton Paper & Pulp Co., Pulp	1	....	15	....	15	1	....	....
Appleton Post Publishing Co., Printing	....	1	10	....	10	1	....	....
Appleton Screen Plate Co., Screen Plates	1	....	17	3	20	....	1	10
Appleton Shirt & Pants Co., Shirts & Pants	1	....	2	10	12	....	....	....
Appleton Steam Laundry, Laundry	1	....	5	4	9	....	1	6
Appleton Toy & Furniture Co., Wooden Toys	2	1	43	8	51	29	1	20
Appleton Volksfreund, Printing	1	....	12	....	12	....	....	....
Appleton Waterworks Co., Water	1	....	4	....	4	....	2	200
Appleton Wecker, Printing	1	....	4	1	5	1	....	....
Appleton Wire Works, Wire	2	....	51	8	59	....	2	60
Appleton Woolen Mills, Felt & Yarn	1	1	25	43	68	....	2	225
Atlas Paper Co., Paper	1	....	54	16	70	....	2	400
Brown & Moore Co., Shingles	1	....	25	....	25	....	3	112
Crescent Knitting Co., Knitting	1	....	12	46	58	6	....	....
Eagle Mfg. Co., Machines	1	....	19	....	19	....	....	....
Fairbanks & Timm, Machines	1	....	7	....	7	....	....	....
Fox River Screen Plate Co., Screen Plates	1	....	3	....	3	....	....	....
Fox River Paper Co., Paper	....	3	185	140	325	9	11	1275
Interlake Paper & Pulp Co., Pulp	3	1	123	3	126	3	8	1125
Kimberly-Clark Co., Paper	....	2	84	11	95	....	5	1000
Kurg & Root, Electrical Goods	1	....	7	1	8	....	....	....
Lake Superior Knitting Works, Knitting	....	1	7	18	25	2	....	....
Mauser, Remer & Groef, Planing Mill	3	....	23	....	23	....	1	100
Morston, J. H., Hub & Spoke Co., Hubs, etc.	2	....	15	....	15	....	....	....
Patten Paper Co., Paper	2	1	51	39	90	4	6	630
Post Bindery Co., Bindery	1	....	3	3	6	....	....	....
Post Publishing Co., Printing	1	....	10	....	10	....	....	....

ESTABLISHMENTS INSPECTED.

Location, Name and Business	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
APPLETON—Continued.								
Remington Watch Co., Watches	1	....	41	72	113	16	1	50
Riverside Fiber Paper Co., Paper	1	....	44	6	50	....	2	550
Riverside Fiber & Pulp Co., Pulp	....	1	118	....	118	1	7	1200
Schroeder, Paul, Marble Works	1	....	7	....	7	....	....	....
Standard Mfg. Co., Bank & Bar Fixtures	3	....	20	....	20	....	1	75
Telula Paper Co., Paper	1	1	78	40	118	1	6	1000
The Atlas Car Mover Co., Car Movers	1	....	2	....	2	....	....	....
The McMurray Packing Co., Canning	2	....	45	38	83	47	4	400
Tuttle Press Co., Printing	1	....	22	8	30	1	....	....
Valley Iron Works, Paper Machines	1	....	64	1	65	....	....	....
Walter, Geo., Estate, Brewery	1	....	16	....	16	....	2	160
Wau Kee, Laundry	1	....	3	....	3	....	....	....
Webster, W. M., & Son, Planing Mill	1	....	3	....	3	....	....	....
Willy & Co., Flour	1	1	12	....	12	....	2	260
Wisconsin Malt & Grain Co., Malt & Grain	1	2	25	....	25	....	2	285
Wisconsin Tissue Paper Co., Paper	1	....	18	6	24	....	1	150
Wisconsin Wire Works, Wire	1	....	18	4	22	....	1	25
Total	55	17	1496	572	2068	136	80	9565
ARBOR VITAE, VILAS CO.—								
Des Revieres, Geo., Shavings	1	....	8	....	8	2	....	....
Ross Lumber Co., Saw Mill	10	....	225	....	225	3	5	400
Total	11	....	233	....	233	5	5	400
ASHLAND, ASHLAND CO.—								
Ashland Brewing Co., Brewery	3	....	7	1	8	....	2	90
Ashland Daily News, Printing	1	....	8	2	10	....	....	....
Ashland Dye Works, Dye works	1	....	3	....	3	....	1	12
Ashland Iron & Steel Co., Steel Works	91	....	180	....	180	....	15	2550
Ashland Light, Power & St. Ry. Co., Power Plant	3	....	40	....	40	....	4	400
Ashland Lumber Co., Lumber	3	1	150	....	150	....	7	360
Ashland Novelty Co., Box Factory	3	....	40	....	40	6	3	120
Ashland Steam Laundry, Laundry	1	....	4	16	20	....	1	30
Ashland Tile Ware, Tile	1	....	5	....	5	....	....	....
Ashland Water Co., Water	4	....	35	....	35	....	3	700
Barker & Stewart, Lumber	4	1	200	....	200	....	5	500
Bowron, A. W., & Son, Printing	....	1	4	....	4	....	....	....
Bretting, C. G., Mfg. Co., Iron Works	8	....	54	1	55	1	2	100
Chequamegon Critic, Printing	....	1	6	....	6	....	....	....
C. & N. W. Ry. Shops, Car Shops	4	....	60	....	60	....	2	100
Cole Bros., Coal & Wood	1	....	20	....	20	5	....	....
East End Mill, Lumber	3	....	309	1	310	6	7	500
Fahrig Metal Co., Metal Works	1	....	3	....	3	....	....	....
Gallagher & Dyer, Machine Shops	1	....	4	....	4	....	....	....
Garland City Iron Works, Iron Works	1	....	5	....	5	....	1	12
Goodman, Piser & Co., Umbrellas	....	1	5	7	12	....	....	....
Keystone Lumber Co., Lumber	3	1	209	1	210	....	9	1000
Kinkel, Julius, Woodworking	3	....	7	....	7	....	1	60
Lake Superior Lumber Co., Lumber	4	....	75	....	75	....	4	800
Mackie, D. S., Repair Shop	1	....	2	....	2	....	....	....
Minneapolis, St. Paul & Ashland Ry., Shops	2	....	25	....	25	....	1	30
Murray Lumber Co., Lumber	3	1	90	....	90	2	5	500
Pufall, John, Sausage	1	....	3	....	3	....	1	60
Rinehart, Geo. B., Machine Shops	1	....	3	....	3	....	....	....
Sanders, R. E., Foundry	1	....	20	....	20	....	....	....
Scott & Taylor, Woodworking	2	....	30	....	30	....	2	80
Smith, Fred C., Greenhouse	1	....	2	....	2	1	1	10
Trostenson Laundry, Laundry	1	....	1	3	4	....	1	6
Wis. Central Ry. Ore Docks, Ore Docks	1	....	65	....	65	....	....	....
Wis. Central Ry. Shops, Car Shops	2	....	30	....	30	....	1	120
Total	160	7	1704	32	1736	21	79	8140

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
ATHENS, MARATHON CO.—								
Alden Printing Co., Printing	1	....	1	1	2	....	....	....
Athens Mfg. Co., Lumber	1	....	75	....	75	....	2	140
Braun & Son, Lumber	2	....	25	....	25	....	1	60
Ceres Roller Mills, Roller Mills	1	1	5	....	5	1	1	80
Degner, H., Heading Mill	1	....	15	....	15	4	1	150
Essleman, H. B., Wagons	1	....	4	....	4	....	....	....
Grunewald, Gust, Wagons	2	....	5	....	5	....	....	....
Paul, Karl, Wagons	1	....	3	....	3	....	1	8
Rietbrock Land & Lumber Co., Lumber	5	....	60	....	60	1	3	40
Total	15	1	193	1	194	6	9	478
BANGOR, LA CROSSE CO.—								
Hussa Brg. Co., Brewery	1	1	9	....	9	....	2	140
Independent, Printing	1	....	1	1	2	....	....	....
Neshoroc Electric Light Co., Power Plant	1	....	1	....	1	....	....	....
Total	3	1	11	1	12	....	2	140
BARABOO, SAUK CO.—								
Altpeter, Oscar, Soda Water	1	....	2	....	2	....	....	....
Baraboo Creamery Co., Creamery	2	....	1	....	1	....	1	30
Baraboo Iron Works, Foundry & Machines	2	....	4	....	4	....	....	....
Baraboo Gas and Elec. Lighting Co., Lt. Plant	3	....	5	....	5	....	2	300
Baraboo Republic, Printing	1	....	4	5	9	....	....	....
Baraboo Steam Dyeworks, Dyeing	1	....	2	1	3	....	1	10
Baraboo Steam Laundry, Laundry	1	....	3	4	7	....	1	15
Baraboo Towel Mills, Towels and Rugs	4	....	17	23	40	....	....	....
Baraboo Water Works, Water	1	....	1	....	1	....	1	90
C. & N. W. Ry. Co., Round-house & Repair S.	9	....	140	1	141	....	2	250
Democrat, Printing	1	....	3	3	6	....	....	....
Effinger, Ferd., Brewery	5	....	7	1	8	....	2	68
Gem Steam Laundry, Laundry	1	....	4	3	7	....	1	15
Gollmar, G. J., Machine Shop	1	....	3	....	3	....	....	....
Graf, H. C., Planing Mill	2	....	2	....	2	....	1	25
Island Woolen Co., Woolen Cloth	5	1	40	40	80	....	1	85
Manchester Roller Mills, Flour & Feed	1	....	2	....	2	....	....	....
McFarland Bros., Contractors & Builders	1	....	4	....	4	....	....	....
Moeller & Sons, Wagons & Carriages	1	....	....	....	....	....	....	....
The News, Printing	1	....	4	5	9	....	....	....
Ruel, Geo. M., Planing Mill	1	....	1	....	1	....	1	80
Ruhland, Geo., Brewery	3	....	5	....	5	....	1	20
Total	48	1	254	86	340	....	15	988
BARKSDALE, BAYFIELD CO.—								
Atlantic Mfg. Co., High Explosives	54	....	75	....	75	....	3	375
BARRON, BARRON CO.—								
Barron Co-operative Creamery Co., Creamery	1	....	2	....	2	....	1	20
Barron Stave & Heading Co., Stave Mill	4	....	25	....	25	5	2	160
Barron Woolen Mill Co., Woolen Mill	2	....	13	14	27	....	....	....
Holtz, C., Wood-working	1	....	10	....	10	....	1	25
Taylor, J. W., Flour Mill	....	1	6	....	6	....	....	....
The Frank F. Stare Co., Canning	3	....	60	15	75	10	2	80
Total	11	1	116	29	145	15	6	285
BAYFIELD, BAYFIELD CO.—								
Bayfield Mill Co., Lumber	2	....	50	....	50	....	4	400
Bayfield Water, Light & Power Co., Works	1	....	5	....	5	....	2	150
Bell, W. H., Wood-working	1	....	5	....	5	....	....	....
Booth, A., & Co., Fish Packers	5	....	30	....	30	....	2	60
Buffalo Fish Co., Fish Packers	1	....	10	....	10	....	....	....
Pike, R. D. Lumber Co., Lumber	6	....	120	....	120	2	6	580
Total	16	....	220	....	220	2	14	1190

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
BEAVER DAM, DODGE CO.—								
American Steam Laundry, Laundry	1	....	2	3	5	....	1	12
Beaver Dam Brewery, Brewery	3	....	5	....	5	....	....	....
Beaver Dam Gas Co., Gas	1	....	5	....	5	....	....	....
Beaver Dam Gas Engine Works, Plant	1	....	6	....	6	....	....	....
Beaver Dam Illuminating Co., Plant	1	....	5	....	5	....	2	200
Beaver Dam Malleable Iron Co., Works	6	....	250	....	250	18	2	200
Beaver Dam Overall Factory, Overalls	1	....	2	4	6	....	....	....
Binzel, Phil., Brewery	3	....	5	....	5	....	1	20
Empire Mills, Flour	1	1	5	....	5	....	1	100
Malleable Iron Range Co., Stoves	2	....	85	5	90	....	1	65
Miller, J. W., Marble Works	1	....	6	....	6	....	....	....
Rissman's Elevator, Grain Elevator	1	....	7	....	7	....	....	....
Rowell, J. S., Mfg. Co., Agricultural Imp.	7	1	139	1	140	....	1	125
Williams, T. F., Grain Elevator	1	....	3	....	3	....	....	....
Woolen Mfg. Co., Woolen Mills	3	1	40	80	120	13	2	175
Total	33	3	565	93	658	31	11	897
BELDENVILLE, PIERCE CO.—								
Beldenville Creamery Co., Creamery	1	....	2	....	2	....	1	12
Brimmer, W. D., Heading Mill	3	....	18	....	18	1	1	80
Junkman, H. O., Grain Elevator	1	....	3	....	3	....	....	....
Larson Bros., Lumber	1	....	60	....	60	....	....	....
Total	6	....	83	....	83	1	2	92
BELOIT, ROCK CO.—								
Barrett Mfg. Co., Paper Mills	2	....	39	1	40	....	6	480
Beloit Carriage Co., Carriages	2	....	10	....	10	....	1	6
Beloit Electric Light & Power Co., Plant	1	....	12	....	12	....	2	350
Beloit Gas Light Co., Plant	1	....	8	....	8	....	1	25
Beloit Glove & Mitten Co., Factory	1	....	10	10	20	....	....	....
Beloit Iron Works, Plant	2	....	160	....	160	1	2	160
Beloit Sanitary Milk Co., Creamery	1	....	3	....	3	....	1	15
Beloit Steam Laundry, Steam Laundry	1	....	3	7	10	....	1	30
Beloit Water Works, Plant	2	....	5	....	5	....	3	250
Berlin Machine Works, Plant	2	1	545	15	560	....	3	460
Besley, C. H., Tools	1	....	50	....	50	5	....	....
Blodgett Milling Co, Elevator	1	....	2	....	2	....	....	....
City Mills, Feed	1	....	3	....	3	....	....	....
Crahen, P. H., Tobacco Warehouse	1	....	13	22	35	....	....	....
Cunningham Bros., Sash & Doors	1	....	65	....	65	....	....	....
Dowd, R. J., & Son, Knives	3	....	19	1	20	....	1	80
Eureka Laundry, Laundry	1	....	4	9	13	....	....	....
Fairbanks, Morse & Co., Pumps	17	....	1448	4	1452	22	6	850
Ferguson Bros., Wagons	1	....	7	....	7	....	....	....
Foster, J. A., Box Factory	....	1	3	3	6	1	....	....
Foster Co., The John, Shoes	1	....	90	60	150	3	2	95
Freiday & Mills, Machines	1	....	3	....	3	....	....	....
Gaston, N. B., & Son, Scales	....	1	40	....	40	....	....	....
Goddard & Allen Co., The, Bicycles	1	....	8	....	8	....	....	....
Johnson & Reese, General Repairing	2	....	4	....	4	....	....	....
Leonard, H. J., Mfg. Co., Gloves	1	....	6	24	30	....	....	....
Mattison, C., Machinery	1	....	10	....	10	....	....	....
Mead, A., Elevator	1	....	2	....	2	....	1	25
Munger, A. L., Carriages	1	....	4	....	4	....	....	....
Newton & Zimmerman, Machine Shops	1	....	20	....	20	....	....	....
Pierce, M. C., Specialty Co., Specialties	1	....	3	1	4	....	....	....
Rockford, Beloit & Janesville Mfg. Co., Power House	1	....	10	....	10	....	3	1050
Rosenblatt, H., & Son, Clothing	3	....	25	100	125	5	....	....
Sanner & Hanewall, Machinery	2	....	3	....	3	....	....	....
Schlenk, Frank, Brewery	1	....	3	....	3	....	1	10
Star Mill, Feed Mill	1	....	3	....	3	....	....	....
Stockwell, F. C., Printing	1	....	2	....	2	....	....	....

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
BELOIT—Continued.								
Thompson, J., & Sons Mfg. Co., Farm Mach.	1	....	200	....	200	....	3	200
Thorsby & Sanner, Machines	1	....	3	....	3	....	....	....
Warner, C. O., Wood-work	1	....	3	....	3	....	....	....
Warner Ins. Co., Machines	1	....	4	1	5	....	....	....
Total	66	3	2855	258	3113	37	37	4086
BENTON, LAFAYETTE CO.—								
Hoskins Mining Co., Mining	5	....	65	....	65	....	2	250
Kennedy Mining Co., Mining	4	4	33	....	33	....	4	200
Rowley Mining Co., Mining	3	....	19	....	19	....	1	80
Total	12	4	117	....	117	....	7	530
BLACK RIVER FALLS, JACKSON CO.—								
Badger State Banner, Printing	1	....	6	....	6	....	....	....
Bright & Bailey, Feed Mill	1	....	1	....	1	....	....	....
City Electric Light Co., Lighting	1	....	3	....	3	....	....	....
City Water Works Co., Water	1	....	1	....	1	....	1	80
Charter Oak Milling Co., Flour	1	....	4	....	4	....	....	....
Dunn, John S., Elevator	2	....	2	....	2	....	....	....
Jackson Co. Journal, Printing	1	....	3	....	3	....	....	....
Marracony, C. W., Flour	1	....	3	....	3	....	....	....
Mathron, M. B., Co., Wagons	2	....	10	....	10	....	....	....
McGillivary, J. J., Lumber, etc.	3	....	15	....	15	....	....	....
Mower, C. E., Creamery	2	....	1	....	1	....	1	12
Oderbolz Brewing Co., Brewery	4	1	3	....	3	....	1	18
Paschman, J. L., Elevator	1	....	1	....	1	....	....	....
Olson, P. R., Wagons	1	....	3	....	3	....	....	....
Thompson Iron Works, Machine and Foundry	5	....	6	....	6	....	....	....
Total	27	1	62	....	62	....	3	110
BOSCOBEL, GRANT CO.—								
Albeiter, M., Wagons, etc.	3	....	5	....	5	....	....	....
Bekkedahl, M. E., Tobacco Warehouses	1	....	10	75	85	....	....	....
Bock, F. E., Soda Water	1	....	2	1	3	....	1	2
Boscobel Brewing Co., Brewery	3	2	4	....	4	....	1	20
Boscobel Light & Power Co., Light, etc.	1	....	2	....	2	....	2	160
Boscobel Sentinel, Printing	1	....	5	1	6	....	....	....
Botten, L. P., Wagon Mfg.	1	....	3	....	3	....	....	....
Dial Enterprise, Printing	1	....	4	1	5	....	....	....
North & Dilger, Flour and Feed	1	1	3	....	3	....	1	60
Ruka Bros. Mfg. Co., Wagons and Buggies	3	....	20	....	20	....	1	40
Rustic Novelty Works, Rustic Chairs	1	....	3	....	3	....	1	4
Total	17	3	61	78	139	....	7	286
BREED, OCONTO CO.—								
Greely, S., Sawmill	1	....	10	....	10	....	1	60
BRODHEAD, GREEN CO.—								
Brodhead Register, Printing	1	....	2	2	4	....	....	....
Brodhead Steam Laundry, Laundry	1	....	1	2	3	....	....	....
Holliday, Frank, Machine Shops	1	....	1	....	1	....	....	....
Pierce Bros., Flour and Feed	1	....	3	....	3	....	....	....
The Brodhead Independent, Printing	....	1	3	2	5	1	....	....
The Brodhead Electric Light Co, Lighting	1	....	2	....	2	....	....	....
Vehling, T. O. & Co., Creamery	2	....	2	....	2	....	1	20
Total	7	1	14	6	20	1	1	20
BROKAW, MARATHON CO.—								
Wausaw Paper Mill, Paper and Pulp	11	....	192	8	200	....	....	....

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
BROOKLYN, GREEN CO.—								
Brooklyn Creamery Co., Creamery	1	....	2	....	2	....	1	15
Capital Chair Co., Chairs	2	1	25	....	25	....	1	150
Green, J. L. & M. F., Tobacco Warehouse	1	....	18	12	30	....	....	....
Richards, Graves & Roberts, Elevator	1	....	4	....	4	....	....	....
Total	5	1	49	12	61	....	2	165
BUSHMAN—								
Bushman, G. H., Cheese Factory	1	....	2	....	2	....	1	14
BURLINGTON, RACINE CO.—								
Burlington Blanket Co., Blankets	8	1	40	110	150	....	2	100
Burlington Brass Works, Brass	2	....	9	....	9	1	1	25
Burlington Electric Light & Power Co., Light & Power	5	....	5	....	5	....	2	180
Burlington Free Press, Printing	1	....	3	....	3	....	....	....
Burlington Steam Laundry, Laundry	1	....	1	3	4	....	1	10
City Water Works, Water	1	....	1	....	1	....	2	100
Finke & Uhen Brewing Co., Brewery	5	3	14	....	14	....	3	195
Klein, F. G., Bottling	6	....	10	....	10	....	1	25
Standard Democrat, Printing	1	....	3	....	3	....	....	....
Wisconsin Condensed Milk Co., Condensed Milk	5	1	43	7	50	....	6	400
Zwiebel, A., Jr., Machinery	1	....	6	....	6	1	1	40
Total	36	5	135	120	255	2	19	1075
CAMERON, BARRON CO.—								
Breitenbach, J. A., Creamery	1	....	2	....	2	....	1	15
Hessell, H., Bottling	1	....	2	....	2	....	....	....
Oak Grove Handle Co., Factory	1	....	10	....	10	....	1	60
St. Louis, G. H., Repair Shop	1	....	3	....	3	....	....	....
Total	4	....	17	....	17	....	2	75
CARROLLVILLE, MILWAUKEE CO.—								
Lake Side Distilling Co., Distilling	5	1	22	....	22	....	9	700
U. S. Glue Co., Glue	15	2	146	29	175	5	4	1600
Total	20	3	168	29	197	5	13	2300
CEDARBURG, OZAUKEE CO.—								
Cedarburg Wire Nail Co., Wire Nails	....	1	10	....	10	....	1	25
Cedarburg Woolen Mills, Woolen Goods	2	1	60	38	98	26	3	200
Excelsior Shoe & Slipper Co., Shoes	1	....	40	10	50	6	1	25
Hilgen Mfg. Co., Sash & Doors	6	1	45	....	45	....	2	100
Total	9	3	155	48	203	32	7	350
CHILTON, CALUMET CO.—								
Chilton Malting Co., Elevator	1	2	7	....	7	....	2	120
Dorschal & Schultz, Sash & Doors	1	....	15	....	15	....	1	80
Gierow & Hoch, Brewery	2	....	10	....	10	....	1	41
Jackman, L., Elevator	....	1	7	....	7	....	....	....
Knauff & Tiesch, Elevator	....	1	3	....	3	....	....	....
Total	4	4	42	....	42	....	4	241
CHIPPEWA FALLS, CHIPPEWA CO.—								
Bresina, John, Wagons	1	....	4	....	4	....	....	....
Brooks, H. L., Marble Works	1	....	3	....	3	....	....	....
Chippewa Falls B. & B. Co., Brooms, etc.	1	....	8	....	8	....	....	....
Chippewa Falls Canning Co., Canning	4	....	45	20	65	....	2	60
Chippewa Falls El. Lt. & P. Co., Lt. & Water	4	....	12	....	12	....	3	175

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
CHIPPEWA FALLS—Continued.								
Chippewa Falls Woolen Mills, Woolen Goods..	1	....	7	8	15	....	1	60
Chippewa Lumber & Boom Co., Mill.....	6	1	450	....	450	....	4	450
Chippewa Shoe Mfg. Co., Factory	1	....	25	4	29	....	....	....
Chippewa Spring Co., Bottling	1	....	5	....	5	....	1	12
Chippewa Standard Made Boot & Shoe Co., Boots & Shoes	1	....	43	7	50	....	....	....
Chippewa Steam Laundry, Laundry	1	....	3	13	16	....	1	12
Chippewa Valley Creamery Co., Creamery.....	1	....	4	....	4	....	....	....
City Marble Works, Monuments	1	....	2	....	2	....	....	....
Clark & Taylor, Elevators	2	....	5	....	5	....	....	....
Consolidated Mill'g & Power Co., Mill Elevator	1	1	10	....	10	....	....	....
Daily Independent, Printing	1	....	5	6	11	....	....	....
Felber & Misfeldt, Wagons	1	....	6	....	6	....	....	....
Hand Made Boot & Shoe Co., Boots & Shoes..	1	....	25	10	35	....	....	....
Harshman Shoe Mfg. Co., Shoes	....	1	95	40	135	6	....	....
Herald, Printing	1	....	6	4	10	....	....	....
Joas, Frank, Shirts	1	....	1	3	4	....	....	....
Leinenkugel, J., Brewing Co., Brewery	1	2	20	....	20	....	2	90
Panmir, E. G., Wagons	1	....	6	....	6	....	....	....
South Side Mfg. Co., Sash & Doors.....	....	1	41	1	42	....	1	45
Stanley, F G. & C. A., Mfg. Co., Sash & Doors	4	....	45	1	46	5	3	95
Theriault, J. B., Brickyard	2	....	30	....	30	....	2	55
Tilden Roller Mills, Flour	....	1	3	....	3	....	....	....
Total	40	7	909	117	1026	11	20	1054
CLINTONVILLE, WAUPACA CO.—								
Kachan & Besierdich, Machinists	1	....	6	....	6	....	1	60
Melzer, Wm., Monuments	1	....	3	....	3	....	....	....
Pigeon River Creamery Co., Creamery	1	....	1	....	1	....	1	20
Rohrer, D. J., Sash & Doors	1	....	10	....	10	....	1	65
Roehr, L., Planing Mill	4	....	20	....	20	....	2	100
Total	8	....	40	....	40	....	5	245
COLFAX, DUNN CO.—								
Colfax Mgf. Co., Mill	1	....	3	....	3	....	1	50
Colfax Starch Co., Factory	2	....	25	....	25	....	1	50
Horner & Olson, Feed	1	....	2	....	2	....	1	25
Lister, Wm., Stairs	1	....	50	....	50	....	....	....
Northern Grain Co., Elevators	2	....	3	....	3	....	....	....
Total	7	....	83	....	83	....	3	125
COLUMBUS, COLUMBIA CO.—								
City Water & Light Co., Water & Light.....	2	....	3	....	3	....	2	160
Columbus Canning Co., Canning	2	....	20	20	40	....	2	120
Columbus Democrat, Printing	1	....	2	....	2	....	....	....
Columbus Mill, Flour & Feed	1	1	3	....	3	....	2	70
Columbus Republican, Printing	1	....	3	....	3	....	....	....
Columbus Steam Laundry, Laundry	1	....	2	6	8	....	1	15
Kurth, John H., Elevator	1	1	2	....	2	....	....	....
Roberts & Thied, Repair Shop	1	....	5	....	5	....	....	....
The Kurth Co., Brewery	7	5	30	2	32	....	2	300
Total	17	7	70	28	98	....	9	665
CORLISS, RACINE CO.—								
Brown Corliss Engine Co., Engines	8	....	200	....	200	....	2	300
CRANDON, FOREST CO.—								
Crandon Mfg. Co., Hubs	3	....	20	....	20	....	2	100
Hagen, Chas., Saw Mill	2	....	45	....	45	....	1	60
Kempf, Geo. & Bro., Planing Mill	1	....	18	....	18	....	1	40
Mills, Wm., Heading	3	....	20	....	20	2	2	120
Moe, J. S., Broom Handles	1	....	12	....	12	....	1	50
Page & Landeck Lumber Co., Lumber	2	....	350	....	350	....	3	240
Total	12	....	465	....	465	2	10	610

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
CUDAHY, MILWAUKEE CO.—								
Cudahy Bros. Co., Packing House	10	7	1015	15	1030	36	16	3000
Milwaukee Rubber Works, Rubber Goods	4	....	37	3	40	2	2	150
Power & Mining Machine Co., Machinery	9	1	321	4	325	....	3	350
Reinhart, F. C., Cooperage	2	....	20	....	20	....	....	....
Total	25	8	1393	22	1415	38	21	3500
DARLINGTON, LAFAYETTE CO.—								
Badger State Mineral Water Co., Min. Water	1	....	2	....	2	....	....	....
Darlington Cheese & B. Co., Cheese & Butter	2	....	2	....	2	....	1	20
Darlington E. L. & W. Pow. Co., E. L. & W.	3	....	3	....	3	....	1	150
Darlington Light & Power Button Dept., Buttons	1	....	23	....	23	....	....	....
Sauer, A. E., Feed Mill	1	....	1	....	1	....	1	20
Total	8	....	31	....	31	....	3	190
DELAVAN, WALWORTH CO.—								
Delavan City Water Works, Water	1	....	1	....	1	....	2	140
Delavan Enterprise, Printing	1	....	4	4	8	....	....	....
Delavan Light & Fuel Co., Lighting	2	....	3	....	3	....	2	150
Delavan Milling Co., Flour & Feed	....	1	3	....	3	....	....	....
Delavan Republican, Printing	1	....	6	2	8	....	....	....
Delavan Steam Laundry, Laundry	1	....	2	4	6	....	1	20
Globe Knitting Mills, Woolen Goods	2	....	20	45	65	1	....	....
Hoag, N. W., Grain & Feed	3	....	2	....	2	....	1	35
Reader, J. B., Wind Mills & Tanks	3	....	4	....	4	....	1	20
Wagner Bros., Machinery	4	....	3	....	3	....	1	15
West End Creamery, Creamery	1	....	1	....	1	....	1	15
Total	19	1	49	55	104	1	9	395
DE PERE, BROWN CO.—								
American Writing Paper Co., Paper	1	1	139	136	275	18	4	700
Burns Boiler Mfg. Co., Boilers	6	....	79	1	80	....	....	....
Dausman, J. P., Milling Co., Milling	2	1	20	....	20	1	....	....
De Pere Light & Power Co., Light & Power	1	....	5	....	5	....	....	....
De Pere Lumber & Fuel Co., Planing Mill	1	....	18	....	18	....	1	100
De Pere Pickle Co., Pickling	1	....	3	....	3	....	....	....
Hockers, John, Brickyard	7	....	25	....	25	2	....	....
Kidney & Son, Boats	1	....	12	....	12	....	1	25
Oneida Knitting Co., Knitting	1	....	1	35	36	....	....	....
Sam Wing, Laundry	1	....	1	....	1	....	....	....
Shattuck & Babcock	7	2	130	140	270	....	....	....
The A. G. Wells Co., Elevator	2	1	15	....	15	....	....	....
The De Pere News, Printing	1	....	3	1	4	....	....	....
The De Pere Tablet Co., Tablets	1	....	1	2	3	....	....	....
The C. A. Lawton Co., Machine Shops	1	....	40	....	40	....	2	75
Total	34	5	452	315	767	21	8	900
DODGEVILLE, IOWA CO.—								
Dodgeville Electric Lt. Co., Electric Lights	5	....	2	....	2	....	1	140
Draper, R. A., Laundry	2	....	1	3	4	....	1	20
Esch, Wm. P., Butter Tubs	1	....	1	....	1	....	....	....
Johns, John, Flour & Feed	1	1	2	....	2	....	1	40
Mitchell, Griffiths & Co., Creamery	5	....	2	....	2	....	1	20
Stratman, F. W., Wagons & Carriages	2	....	20	....	20	....	1	30
Total	16	1	28	3	31	....	5	250
DORCHESTER, CLARK CO.—								
Dorchester Roller Mills, Flour	....	1	3	....	3	....	1	45
Ellingson, E. K., Lumber	3	....	30	....	30	....	3	140
Total	3	1	33	....	33	....	4	195

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
DRUMMOND, BAYFIELD CO.—								
Rust-Owen Lumber Co., Lumber	7	1	200	....	200	....	7	1450
EAU CLAIRE, EAU CLAIRE CO.—								
Acme Mills, Feed	....	1	3	....	3	....	1	50
Ashbaugh & Wiley, Printing	1	....	3	....	3	....	....	....
Bergman & Craemer, Feed	2	....	3	....	3	....	....	....
Bonell & Son, Wagons	2	....	17	1	18	....	....	....
Cheney, C. W. & Co., Elevator	1	....	5	....	5	....	....	....
Chippewa Valley Elec. Ry. Co., The P. H.	2	....	3	....	3	....	2	300
City Laundry, Laundry	1	....	11	49	60	....	1	50
Cutter, A. A., Shoes	1	....	65	15	80	....	....	....
Davis, W. J., Elevator	1	....	7	1	8	....	1	25
Dells Lumber & Shingle Co., Lumber, etc.	2	....	280	....	280	....	7	350
Dells Paper & Pulp Co., Paper Mills	13	6	335	15	350	....	7	1500
Drummond Bros., Packing House	12	1	50	....	50	....	1	50
Eau Claire Bedding Co., Bedding	2	....	4	1	5	....	....	....
Eau Claire Boiler Works, Boilers	1	....	10	....	10	....	....	....
Eau Claire Book & Stationery Co., Printing	1	....	6	4	10	....	....	....
Eau Claire Book Bindery, Book Binding	1	....	2	1	3	....	....	....
Eau Claire B. & B. Co., Brooms & Brushes	1	....	3	....	3	....	....	....
Eau Claire Gas Light Co., Gas	2	....	5	....	5	....	1	40
Eau Claire Gran. & Marble Wks., Monuments	1	....	3	....	3	....	....	....
Eau Claire Linen Mills, Linens	1	1	6	44	50	....	....	....
Eau Claire Mill Supply Co., Loggers' Supplies	3	....	18	....	18	....	....	....
Eau Claire Robe & Fur Tannery, Tannery	1	....	2	1	3	....	....	....
Eau Claire Steam Dye Works, Dyeing	....	1	2	....	2	....	1	10
Eau Claire Steam Laundry, Laundry	1	....	5	....	5	....	1	12
Eau Claire Trunk Co., Trunks	1	....	14	3	17	1	....	....
Evening Telegram, Printing	....	1	10	5	15	1	....	....
Fish, E. M. & Co., Sash & Doors	4	....	49	1	50	2	1	50
Giranu, P. & Co., Carriages	2	....	11	....	11	....	....	....
Half Moon Lake Shingle Co., Mill	4	....	50	....	50	2	6	360
Hawley, J. D., Shop	1	....	2	....	2	....	....	....
Herold, Printing	1	....	3	1	4	....	....	....
Hoeppner, Bartlett & Co., Wood Working	6	....	65	....	65	....	....	....
Kurven Dress Stay Co., Dress Stays	1	....	2	8	10	....	....	....
Lake Side Elevator Co., Feed Mill	2	....	4	....	4	....	1	50
Lange Canning Co., Canning	4	1	90	90	180	33	2	150
Larson, C. P., Shoes	1	....	15	15	30	....	....	....
Lee, C. S., Fuel	1	....	5	....	5	....	....	....
Lindeman Box & Veneer Co., Boxes, etc.	5	....	120	....	120	36	2	100
Luffkin, G. W., Produce	1	1	34	12	46	14	....	....
Madison Street Mfg. Co., Wood working	2	....	20	....	20	....	....	....
McDonough Mfg. Co., Iron	4	....	97	1	98	....	....	....
McDonough Novelty Co., Wood Working	2	....	15	....	15	....	....	....
Meadee, R. L., Candy	1	....	10	18	28	....	....	....
Michel's Brewery, Brewery	2	....	8	....	8	....	1	20
Phoenix Furniture Co., Furniture	1	....	50	....	50	....	1	80
Phoenix Mfg. Co., Lumber	10	....	83	2	85	....	1	100
Pioneer Furniture Co., Furniture	1	2	119	1	120	14	2	200
Quong Kee, Laundry	1	....	2	....	2	....	1	3
Reform, Printing	1	....	4	3	7	....	....	....
Richardson, G., Monuments	1	....	4	....	4	....	....	....
Schneider & Heinz, Carriages	1	....	5	....	5	....	....	....
Schroeder, W. A., Harness	1	....	5	....	5	....	....	....
Shaw-Daniels Lumber Co., Lumber	9	....	280	....	280	....	8	1000
Tifft & Co., J. H., Printing	1	....	5	4	9	....	....	....
Volkman, Chris, Bottling Works	1	....	3	....	3	....	....	....
Walters, John, Brewery,	2	1	16	....	16	....	1	100
Water Works, Pumping	2	....	5	....	5	....	3	350
Wisconsin Refrigerator Co., Refrigerators	5	....	65	....	65	....	2	160
Total	135	16	2118	296	2414	103	55	5110

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings. Under 3 stories.	Buildings. Three or more stories.	Employes. Male.	Employes. Female.	Employes. Total.	Employes. Under 16 yrs. of age.	Boilers. Number.	Boilers. Total horse power.
EDGERTON, ROCK COUNTY—								
American Cigar Co., Tobacco Warehouse	2	....	65	75	140	....	....	....
Brill, Wm., Tobacco Warehouse	1	....	10	20	30	....	....	....
Buncel, Jo & Sons, Tobacco Warehouse	2	....	53	47	100	2	....	....
Burges, F. F., Gun Shop	1	....	2	....	2	....	....	....
City Steam Laundry, Laundry	1	....	2	1	3	....	....	....
Child, H. W., Tobacco Warehouse	1	....	20	55	75	8	....	....
Conway & Hubbell, Tobacco Warehouse	1	....	40	40	80	....	....	....
Coon & Atwood, Tobacco Warehouse	1	....	20	15	35	....	....	....
Culton, Charles L., Tobacco Warehouse	1	....	6	14	20	....	....	....
Earle, T. B., Tobacco Warehouse	1	....	40	....	40	1	....	....
Edgerton Eagle, Printing	1	....	2	1	3	....	....	....
Eisenlohr, Otto & Bro., Tobacco Warehouse	1	....	25	50	75	....	....	....
Ellingson, T. H., Tobacco Warehouse	1	....	20	10	30	1	....	....
Fischer & Leary, Tobacco Warehouse	1	....	5	25	30	....	....	....
Ford & Kellogg, Tobacco Warehouse	1	....	20	10	30	1	....	....
Heddles Lumber Co., Feed Mill	2	....	1	....	1	....	....	....
Jensen, Andrew, Tobacco Warehouse	1	....	30	50	80	....	....	....
Mabbitt, C. F., Tobacco Warehouse	2	....	54	36	90	1	....	....
Marsdon & Watson, Machine Shops	1	....	5	....	5	....	....	....
McIntosh Bros., Tobacco Warehouse	1	....	15	35	50	2	....	....
Peavy, T. A., Tobacco Warehouse	1	....	20	....	20	....	....	....
Pomeroy, O. R., Tobacco Warehouse	1	....	5	15	20	....	....	....
Pomeroy, W. T. & Co., Tobacco Warehouse	1	....	30	....	30	....	....	....
United Cigar Mfg. Co., Tobacco Warehouse	1	....	80	70	150	....	....	....
Wettit Bros., Tobacco Warehouse	1	....	5	....	5	....	....	....
Whitter Bros., Brickyard	6	....	25	....	25	....	1	60
Wilson Bros., Laboratory	....	2	14	5	19	....	....	....
Wisconsin Tobacco Reporter, Printing	1	....	4	....	4	....	....	....
Total	36	2	618	574	1192	15	1	60
ELCHO, LANGLADE CO.—								
Fish & Mullen, Lumber	3	....	35	....	35	....	3	150
ELKHORN, WALWORTH CO.—								
Blade, Printing	1	....	1	....	1	....	....	....
Elkhorn Carriage & Wagon Co., Carriages & Wagons	5	....	12	....	12	....	1	16
Elkhorn Independent, Printing	....	1	3	5	8	....	....	....
Elkhorn Lumber Co., Feed Mill	2	1	1	....	1	....	1	20
Elkhorn Steam Laundry, Laundry	1	....	1	2	3	....	1	10
Elkhorn Water & Light Co., Water & Light	1	....	3	....	3	....	2	150
Frates, Geo., Tanks, etc.	1	....	2	....	2	....	1	25
Wisconsin Butter & Cheese Co., Creamery	1	....	5	....	5	....	1	30
Zwiebel & Griebel, Repairs	3	....	5	....	5	....	1	30
Total	15	2	33	7	40	....	8	281
ELKMOUND, DUNN CO.—								
Cargill, W. W.	1	1	1	....	....	....	....	....
Elkmound Creamery Co., Creamery	1	....	2	....	2	....	1	20
Wisconsin Elevator Co., Elevator	1	....	2	....	2	....	....	....
Total	3	....	5	....	5	....	1	20
ELLSWORTH, PIERCE CO.—								
Buck Bros., Light & Water	1	....	3	....	3	....	1	150
Ellsworth Brewing Co., Brewery	1	....	2	....	2	....	1	40
Ellsworth Iron Works, Iron	1	....	3	....	3	....	....	....
Ellsworth Mfg. Co., Mill	2	....	16	....	16	....	....	....
Ellsworth Roller Mills, Mills	1	1	4	....	4	....	1	50
Herald, Printing Co.	1	....	2	1	3	....	....	....
Hines, F. W., Elevator	1	....	4	....	4	....	....	....
Milborn Dairy Co., Creamery	1	....	2	....	2	....	1	20
New Richmond Roller Mills, Flour	2	....	2	....	2	....	....	....
Record, Printing	1	....	2	1	3	....	....	....
Weitgal, J., Wagons	1	....	3	....	3	....	....	....
Total	18	1	43	2	45	....	4	260

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
EVANSVILLE, ROCK CO.—								
Baker Mfg. Co., Windmills	5	....	134	1	135	....	2	225
Baldwin, L. A., Feed Mill	1	....	3	....	3	....	....	....
Barnard & Wilder, Tobacco Warehouse	1	....	8	32	40	....	....	....
Brand, John & Co., Tobacco Warehouse	1	....	17	28	45	....	....	....
Calony, O. C., & Co., Tobacco Warehouse	1	....	22	14	36	....	....	....
Evansville Steam Laundry, Laundry	1	....	1	5	6	....	1	10
Evansville Water & Light Co., Water, etc.	1	....	3	....	3	....	2	220
Morgan, J. W., Repairs, Wagons	1	....	3	....	3	....	....	....
Rumville, G. H., Tobacco Warehouse	1	....	17	23	40	....	....	....
Wood, D. E., Butter Co., Creamery	1	....	25	....	25	....	4	225
Total	14	....	233	103	336	....	9	680
FIFIELD, PRICE CO.—								
Ocker, Henry, Lumber	1	....	10	....	10	....	2	45
FOND DU LAC, FOND DU LAC CO.—								
Abel Bros., Machine Shops	1	....	2	....	2	....	....	....
Abel, T. W., Machine Shops	1	....	1	....	1	....	....	....
American Chemical Co., Patent Medicine	1	....	2	3	5	....	....	....
Badger Book Binding Co., Bindery	1	....	1	1	2	....	....	....
Badger Envelope Co., Envelopes	1	....	4	3	7	....	....	....
Badger Sewing Co., Overalls, etc.	3	....	12	126	138	4	....	....
Badger Suspender Co., Suspenders	....	1	1	2	3	....	....	....
Bechaud Brewing Co., Brewery	7	2	8	....	8	....	2	175
Bonloy Bros., Feed Mill	3	1	4	....	4	....	....	....
Bowen Mfg. Co., Refrigerators	4	1	75	....	75	....	3	160
Bulletin Printing Co., Printing	....	1	6	2	8	....	....	....
Cargies, W. W., Elevator	....	1	2	....	2	....	....	....
Clark Mfg. Co., Gas Engines	2	....	3	1	4	....	....	....
Courier Printing House, Printing	....	1	3	2	5	....	....	....
Eastern Wisconsin Ry. Light Co., Gas Plant	4	....	10	....	10	....	....	....
Eastern Wisconsin Ry. Light, Power House	2	....	66	4	70	....	2	100
Engel, A., & Son, Bottling	1	....	3	....	3	....	....	....
Eureka Steam Laundry, Laundry	....	1	3	9	12	....	1	20
Fond du Lac Awning & Tent Co., Awnings	1	2	5	17	22	....	....	....
Fond du Lac Boiler Works, Boilers	1	....	5	....	5	....	....	....
Fond du Lac Canning Co., Canning	3	....	50	....	50	....	3	100
Fond du Lac File Works, Files	2	....	2	....	2	....	1	35
Fond du Lac Implement Co., Machinery	4	....	10	1	11	....	1	40
Fond du Lac Malt & Grain Co., Malt House	4	3	10	....	10	....	1	200
Fond du Lac Shirt & Overall Co., Shirts, etc.	1	....	9	75	84	2	....	....
Fond du Lac Steam Laundry, Laundry	1	....	6	18	24	....	1	30
Fond du Lac Table Mfg. Co, Tables	7	....	48	....	48	4	2	250
Moore & Galloway Lumber Co., Lumber	1	....	17	....	17	2	3	350
Moore & Galloway Lumber Co., Sash & Doors	1	....	125	....	125	4	6	500
Reupeng, F., Leather Co., Tannery	1	2	275	....	275	7	5	500
Steenberg, O. C., Co., Sash, Doors & Blinds	....	1	60	....	60	2	2	100
The Boex Holman Co., Confectionery	....	1	16	43	59	6	1	40
Winnebago Furniture Mfg. Co., Furniture	....	2	225	....	225	19	2	260
Total	57	25	1069	307	1376	50	36	2860
FORT ATKINSON, JEFFERSON CO.—								
City Brewery, Brewery	2	....	4	....	4	....	1	30
City Water & Light Co., Water, etc.	....	1	4	....	4	....	2	220
Cornish, Curtis & Green Mfg. Co., Creamery Supplies	12	1	140	2	142	....	2	275
Ft. Atkinson Canning Co, Canning	5	....	40	60	100	....	2	100
Hoard's Creamery, Creamery	6	....	8	3	11	....	2	50
Hoard's Dairyman & Jeff. Co. Union, Printing	1	....	10	20	30	....	1	65
Jones Dairy Farm, Sausage	1	....	14	6	20	....	1	20
Landgraf & Wandschneider, Repairing	1	....	4	....	4	....	....	....
Merriman Bros. & Co., Repairing	1	....	6	....	6	....	....	....

ESTABLISHMENTS INSPECTED.

Location, Name, and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
FORT ATKINSON—Continued.								
Northwestern Mfg. Co., Wagons, etc.	23	5	225	....	225	....	2	21
Pottinger, W. A., Feed Mill	1	....	1	....	1	....	....	....
Pounder, G. H., Harrows	7	....	5	....	5	....	1	16
The Ft. Atkinson Steam Laundry, Laundry	1	....	2	3	5	....	1	14
Wilcox & Morris, Feed	....	1	5	1	6	....	1	55
Zeugner & Hoffman, Lumber, Fuel & Feed	4	2	7	....	7	....	1	45
Total	65	10	475	95	570	....	17	911
GILE, IRON CO.—								
Montreal River Lumber Co., Lumber	7	....	225	....	225	10	8	700
GILLETT, OCONTO CO.—								
Brummer, Fred, Flour Mills	2	....	6	....	6	....	1	60
Frisbie, M. F., Machinists	2	....	5	....	5	....	1	15
Gillett Times, Printing	1	....	2	1	3	....	....	....
Gillett Wooden-ware Co., Pails, etc.	5	....	25	....	25	5	1	50
Sorenson, Jacob, Bottling	1	....	3	....	3	....	....	....
Thibeaudau, Emil, Machinist	1	....	3	....	3	....	....	....
Wisconsin Butter & Cheese Co., Butter, etc.	1	....	1	....	1	....	1	12
Total	13	....	45	1	46	5	4	137
GRAFTON, OZAUKEE CO.—								
Badger Worsted Mills, Worsted	....	1	15	25	40	2	....	....
Sheboygan Knitting Mills, Knitting	1	1	3	20	23	4	....	....
Total	1	2	18	45	63	6	....	....
GRAND RAPIDS, WOOD CO.—								
Badger Box & Lumber Co., Boxes, etc.	6	....	30	....	30	5	....	....
Centralia Paper & Pulp Co., Paper & Pulp	6	....	70	5	75	3	3	375
Grand Rapids Electric & Water Co., Light, etc.	1	....	8	....	8	....	2	500
Grand Rapids Foundry Co., Machines, etc.	1	....	12	....	12	....	....	....
Grand Rapids Lumber Co., Lumber	9	....	130	....	130	2	6	330
Grand Rapids Milling Co., Flour	4	....	7	....	7	....	....	....
Grand Rapids Pulp & Paper Co., Pulp & Paper	4	....	80	5	85	2	3	375
Grand Rapids Table Co, Furniture	3	1	25	....	25	....	1	70
Grand Rapids Tribune, Printing	1	....	2	3	5	....	....	....
Krieger, Geo. F., & Co., Machinists	1	....	2	....	2	....	....	....
Mackinnon Mfg. Co., Wagon Stock, etc.	15	....	63	1	64	3	1	100
Overbeck Bros. Mfg. Co., Furniture	5	2	125	6	131	23	2	150
Pioneer Wood Pulp Co., Pulp	3	....	12	....	12	....	....	....
Riverside Steam Laundry, Laundry	1	....	3	3	6	1	1	12
Wood Co. Reporter, Printing	1	....	6	3	9	1	....	....
Totals	61	3	575	26	601	40	19	1912
GREEN BAY, BROWN CO.—								
Alort & McGuire, Pickles	1	....	6	3	9	....	1	40
Allouez Mineral Spring Co., Water	1	....	12	....	12	....	....	....
American Steam Laundry, Laundry	1	....	3	5	8	....	1	15
American Wood Working Machine Co., Mach.	8	....	50	....	50	....	1	85
Annen Candy & Biscuit Co., Candy & Biscuits	....	1	47	128	175	32	1	65
Barkhause Brick & Tile Co, Brick & Tile	6	....	25	....	25	....	1	75
Boex-Wendells Co., Candy	....	1	15	31	46	9	....	....
Brenner & Gazette Co., Candy	....	1	20	32	52	4	1	40
Britton, D. W., Cooperage Co., Barrels	2	....	84	....	84	2	2	150
Burns Boiler Co., Boilers	....	1	15	....	15	....	1	40
Columbia Bowling Alley, Bowling Alley	1	....	14	....	14	11	....	....
Diamond Match Co., Saw Mill	1	1	174	1	175	4	5	500
Dickman Mfg. Co., Mill Work	9	....	85	....	85	....	1	70
Diekmann Schober Mfg. Co., Sash, Doors, etc.	1	....	29	....	29	....	1	50
Duncan, A. M., Foundry	2	....	25	1	26	....	1	12

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs of age.	Number.	Total horse power.
GREEN BAY—Continued.								
Ebeling, J. H., Flour, etc.	....	1	16	....	16	....	2	160
Evans, R. O., & Co., School Supplies	....	2	43	2	45	3	1	60
Fox River Electric Ry. & Power Co., St. Ry.	7	....	42	1	43	....	4	1400
Gobry, Adam, Lumber	1	....	22	....	22	....	....	....
Green Bay Carriage Co., Carriages, etc.	1	....	12	....	12	....	....	....
Green Bay Light & Power Co., Light & Power	7	....	15	....	15	....	4	700
Green Bay Machine Co., Machinery	1	....	2	....	2	....	....	....
Green Bay Paper Fiber Co., Sulplute Pulp	3	....	103	....	103	....	6	900
Green Bay Planing Mill Co., Planing	1	1	34	....	34	....	1	125
Green Bay Pure Milk Co., Milk	2	....	5	1	6	....	1	40
Green Bay Soap Co., Soap	1	....	8	....	8	....	1	20
Green Bay Water Co., Water	5	....	6	....	6	....	5	350
Green Bay & Western Ry., Repair Shops	11	....	77	....	77	....	....	....
Hagemeister, H., Brewing Co., Brewery	5	....	74	....	74	....	2	150
Handlen, J. J., Mineral Springs, Water	7	....	12	....	12	....	....	....
Hess, G. B., Co., Flour	....	1	12	1	13	....	1	120
Hoberg, John, Co., Paper	3	....	46	8	54	2	3	380
Hochgreve Brewing Co., Brewery	8	....	13	....	13	....	2	300
Howard Foundry & Machine Co., Foundry, etc.	1	....	14	....	14	....	1	15
Hudson & Sharp, Machine Shops	1	....	9	....	9	....	1	12
Jones Bros. Spice Mills, Spices	1	1	47	7	54	....	1	75
Keeper, P. C., Jewelry	1	....	4	3	7	....	....	....
Kemnitz Furniture Co., Furniture	4	2	145	2	147	7	2	200
Larson, Wm., Canning Co., Canning	4	....	16	27	43	3	3	180
Manger, E. C., & Sons Co., Caskets	4	2	33	2	35	....	1	75
Manthey, Carl, Marble Works, Monuments	1	....	8	....	8	....	....	....
McDonald, H., Planing Mill	2	....	20	....	20	....	1	60
Milwaukee Sanding Mach. Co., Sanding Mach.	1	....	7	....	7	....	1	100
Mueller Bros. & Co., Planing Mill	1	....	24	....	24	....	1	70
Murphy Box Co., Boxes	1	....	76	....	76	17	2	200
Murphy Lumber Co., Lumber	3	....	125	....	125	....	6	360
Northern Tissue Paper Co., Tissue Paper	1	....	23	12	35	....	2	320
O'Leary Bros., Boilers	1	....	6	....	6	....	1	25
Rahr, H., Sons Co., Brewery	1	1	32	....	32	....	2	175
Rice, Geo. H., Boxes & Planing	3	....	107	....	107	12	2	200
Riemer Bros. Shoe Co., Shoes, etc	2	....	25	15	40	1	....	....
Rothe, Jos. F., Foundry	1	....	7	....	7	....	....	....
Salvator Mineral Springs, Water	1	....	10	....	10	....	....	....
Sam Wing Laundry, Laundry	1	....	3	....	3	....	....	....
Shepek, Frank, Brooms	1	....	2	....	2	....	....	....
Straubel Machine Co., Machine Shops	1	....	8	....	8	....	....	....
The Cargile Coal Co., Wood & Coal	5	....	66	....	66	....	3	450
The Chase Mattress Co., Mattresses	1	....	5	2	7	....	....	....
Union Steam Laundry, Laundry	2	....	3	6	9	....	1	50
Van Dyke Brewing Co., Brewery	2	....	16	....	16	....	2	300
Woelz, Fred, Paper Boxes	1	....	1	7	8	....	....	....
Total	146	16	1988	297	2285	107	83	8714
HARTFORD, WASHINGTON CO.—								
Badger Steam Laundry, Laundry	1	....	1	2	3	....	1	12
Bellack, C. H. & Co., Clothing	1	....	11	24	35	2	....	....
Gilt Edge Creamery, Creamery	2	....	2	....	2	....	1	12
Hartford Machine Shops, Machine Shops	1	....	2	....	2	....	....	....
Hartford Press, Printing	1	....	2	....	2	....	....	....
Hartford Plow Works, Plows	5	....	32	1	33	....	1	80
Hartford Tannery, Tannery	2	....	3	3	6	....	1	20
Hartford Times, Printing	1	....	4	....	4	....	....	....
Hartford Roller Mills, Flour & Feed	2	....	2	....	2	....	....	....
Konrad Bros. & Werner, Malt & Grain	4	2	9	....	9	....	1	45
Laubenstein, A. G., Malt & Grain	3	....	6	....	6	....	2	100
Nehrbass Casket Co., Caskets	6	....	25	2	27	....	1	85
Place & Co., W. B., Tannery & Gloves	1	1	5	....	5	....	1	20
Portz Bros., Malt & Grain	1	2	7	....	7	....	2	110
Schwartz, Jos., Brewing Co., Brewery	1	1	7	....	7	....	1	45
Uber Bros., Tannery	2	....	10	....	10	....	1	80
Total	34	6	128	32	160	2	13	609

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
HAYWARD, SAWYER CO.—								
City Water Plant, Water	1	....	4	....	4	....	2	150
Hayward Enterprise, Printing	1	....	3	....	3	....	....	....
Hayward Republican, Printing	1	....	2	2	4	....	....	....
Hines Lumber Co., Lumber	2	....	250	....	250	....	10	950
New Richmond Roller Mills, Flour	2	....	4	....	4	....	1	40
Total	7	....	263	2	265	....	13	1140
HAZEL GREEN, GRANT CO.—								
Hazel Green Mining Co., Mining	4	2	40	....	40	....	....	....
Jefferson Mining Co., Mining	1	1	18	....	18	....	....	....
Mermaid Mining Co., Mining	1	....	10	....	10	....	1	20
Scrabble Creek Mining Co., Mining	1	....	12	....	12	....	2	80
Total	7	3	80	....	80	....	3	100
HAZELHURST, ONEIDA CO.—								
Yakey Lumber Co., Lumber	9	....	190	....	190	6	5	700
HOUGHTON, BAYFIELD CO.—								
Prentice-Brown Stone Co., Quarries	4	....	40	....	40	....	2	120
Smith, W. H., Quarries	2	....	25	....	25	....	1	20
Total	6	....	65	....	65	....	3	140
HUDSON, ST. CROIX CO.—								
Artesan Brewery, Brewery	1	1	4	....	4	....	1	40
Burkhardt, C., Electric Plant	1	....	1	....	1	....	....	....
Cassanova Brewing Co., Brewery	1	1	4	....	4	....	1	35
Central Lumber Co., Lumber	4	....	200	....	200	....	5	300
C., St. P., M. & O. Ry., Shops	11	....	300	....	300	....	4	600
City Carriage & Wagon Shops, Carriages, etc.	1	....	5	....	5	....	....	....
City Water Works, Water	1	....	2	....	2	....	2	100
Enterprise Steam Laundry, Laundry	1	....	2	2	4	....	1	15
Fullerton, E. M., Shops	1	....	2	....	2	....	....	....
Hosford, Geo. K., Elevator	2	....	2	....	2	....	....	....
Hudson Bottling Works, Bottling	1	....	1	1	2	....	....	....
Hudson Produce Co., Sorting	4	....	8	12	20	....	....	....
Hudson Star Times, Printing	1	....	3	1	4	....	....	....
Interstate Box Mfg. Co., Boxes	1	2	30	10	40	....	1	20
New Richmond Roller Mills, Flour	....	1	3	....	3	1	....	....
St. Croix Observer, Printing	1	....	2	1	3	....	....	....
Thorson, C. S., Wagons	2	....	3	....	3	....	....	....
True Republican, Printing	1	....	1	1	2	....	....	....
Total	35	5	573	28	601	1	15	1110
HURLEY, IRON CO.—								
Harmony Mining, Mine	4	....	50	....	50	....	3	300
Hurley Boiler Works, Boilers	1	....	5	....	5	....	....	....
Hurley Bottling Works, Bottling	1	....	2	....	2	....	....	....
Odanah Iron Co., Mine	4	....	140	....	140	1	2	250
Twin City Iron Works, Iron	2	....	12	....	12	....	....	....
Total	12	....	209	....	209	1	5	550
IRON RIVER, BAYFIELD CO.—								
Alexander, Edgar, Lumber Co., Lumber	2	1	200	....	200	....	6	700
Iron River Pioneer, Printing	1	....	3	....	3	....	....	....
Iron River, Water, Light & Power Co., Water	1	....	3	....	3	....	2	100
McIntosh Lumber Co., Lumber	5	....	25	....	25	....	1	40
Total	9	1	231	....	231	....	9	840
IRVINGTON, DUNN CO.—								
Box Factory, Boxes	5	....	75	....	75	16	3	140

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
JANESVILLE, ROCK CO.—								
Badger State Machine Co., Machines	1	....	8	....	8	....	....	....
Baines, F. S., Tobacco Warehouse	1	....	25	40	65	3	....	....
Bicknell Hardware Co., Machines	1	....	4	....	4	....	....	....
Blodgett Milling Co., Flour	3	1	21	1	22	....	2	160
Burns, T. P. & Son, Cotton	3	1	4	3	7	....	1	34
Carle, L. B., & Son, Tobacco Warehouse	1	....	24	56	80	1	....	....
C., M. & St. P. Ry., Shops	1	....	15	....	15	....	1	30
C. & N. W. Ry., Shops	2	....	60	....	60	....	1	125
Choate-Hollister Furniture Co., Furniture	2	....	109	....	109	2	2	80
Clinton, W. E., & Co., Bindery	....	1	3	6	9	....	....	....
Concentrated Flaked Potato Co., Flaked Potatoes	....	1	15	....	15	....	1	30
Croak Brewing Co., Brewery	6	....	5	1	6	....	2	90
Decker, Geo. M., Tobacco Warehouse	1	....	8	22	30	....	....	....
Doty, E. P., Feed	....	1	4	....	4	....	....	....
Fifield Bros., Lumber Co.	1	....	5	....	5	....	....	....
Globe Windmill Co., Windmills	1	....	6	....	6	....	....	....
Green, J. L. & M. F., Tobacco Warehouse	....	1	30	80	110	9	....	....
Hanson Furniture Co., Furniture	....	1	35	....	35	....	1	80
Heddles, S. B., Tobacco Warehouse	1	....	22	38	60	....	....	....
Hemming, Wm., Sons, Ale Brewing	2	....	4	....	4	....	1	10
Hohenadel, P., Jr., Co., Canning	3	1	250	....	250	....	3	240
Hough Shade Co-operative Co., Shades	3	....	15	45	60	4	1	80
Isabel Mfg. Co., Skirts	1	....	5	40	45	....	....	....
Janesville Barb Wire Co., Wire	2	....	120	....	120	....	1	200
Janesville Batten Co., Batting	2	....	16	4	20	....	1	50
Janesville Carriage Co., Carriages, etc.	2	1	25	....	25	....	....	....
Janesville Cement Post Co., Cement Posts	2	....	75	....	75	....	1	150
Janesville Clothing Co., Clothing	....	1	10	35	45	....	....	....
Janesville Daily Recorder, Printing	....	1	9	1	10	....	....	....
Janesville Electric Co., Plant	1	....	15	....	15	....	2	160
Janesville Daily Gazette, Printing	....	1	33	3	36	....	....	....
Janesville Journal, Printing	....	1	1	1	2	....	....	....
Janesville Machine Co, Machines, etc.	16	3	247	3	250	....	3	420
Janesville Pearl Button Co., Buttons	1	....	13	15	28	4	....	....
Janesville Plating Co., Novelties	1	....	6	....	6	....	....	....
Janesville Steam Laundry, Laundry	....	1	3	12	15	....	1	60
Janesville St. Ry Co., Power Station	1	....	15	....	15	....	2	180
Jeffries Co., Sash & Doors	3	1	65	....	65	....	2	200
Jones, A. W., Tobacco Warehouse	1	....	10	40	50	1	....	....
Kent Corn Planter Co., Corn Planters	1	....	12	1	13	1	1	50
Knipp, F., Brewery	....	1	8	....	8	....	2	50
Kruger, A. C., Shop	1	....	10	....	10	....	....	....
Lewis Knitting Co., Knitting	1	....	5	75	80	....	1	25
Marquesee, J., & Co., Tobacco Warehouse	1	....	17	24	41	2	....	....
Marzluff, F. M., & Co., Shoes	1	1	85	50	135	12	....	....
Milwaukee Elevator Co., Elevator	1	....	2	....	2	....	....	....
New Doty Mfg. Co., Machinery	10	....	43	1	44	....	....	....
New Gas Light Co., Gas	1	....	7	....	7	....	2	300
Parker Penn Co., Pens	....	1	61	9	70	....	....	....
Randall & Athon, Machine Shop	1	....	5	....	5	....	....	....
Riverside Steam Laundry, Laundry	1	....	4	14	18	....	....	....
Robinsons Brewing Co., Brewery	6	....	1	....	1	....	1	150
Rock River Cotton Co., Cotton Goods	....	3	45	30	75	....	1	150
Rock River Hay Tool Co., Hay Tools	1	....	5	1	6	....	....	....
Rock River Machine Co., Machinery	1	1	25	....	25	....	1	25
Rock River Woolen Mills, Woolen Goods	9	....	40	40	80	4	2	260
Rumrill, G. H., Tobacco Warehouse	1	....	12	25	37	4	....	....
Sanford & Soverhill, Tobacco Warehouse	1	....	16	39	55	4	....	....
Shurtleff & Co., Ice Cream	1	....	6	2	8	....	1	15
Soulman, John, & Co., Tobacco Warehouse	1	....	7	23	30	3	....	....
South Side Brewing Co., Brewery	2	....	6	....	6	....	2	85
Sylvester & Sons, Tobacco Warehouse	1	....	15	50	65	....	....	....
Taylor, Lowell Mfg. Co., Wire Fence	1	....	10	....	10	....	....	....
Thoroughgood & Co., Boxes	2	1	25	20	45	2	1	125

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
JANESVILLE—Continued.								
Troy Steam Laundry, Laundry	1	....	3	4	7	....	1	20
Tuckwood Co., Windmills	1	....	7	....	7	....	....	....
Walsh, T. E., Tobacco Warehouse	1	....	10	25	35	....	....	....
Wisconsin Carriage Co., Carriages	....	1	55	....	55	....	1	60
Total	115	27	1878	879	2757	56	46	3604
JEFFERSON, JEFFERSON CO.—								
Ambrose, F. O., Machinery	2	....	5	....	5	....	....	....
Banner Printing Co., Printing	1	....	4	1	5	1	....	....
City Brewery, Brewery	5	3	20	....	20	....	2	160
Fernholz Lumber Co., Sash & Doors	3	....	20	....	20	....	1	50
Haubenschild, A., Wagons	1	....	2	....	2	....	1	6
Heimer Hide & Leather Co., Tannery	3	1	10	....	10	....	1	80
Jefferson Brewing & Malting Co., Brewery	2	....	4	....	4	....	1	8
Jefferson Brick & Tile Co, Brick & Tile	5	....	45	....	45	....	1	100
Jefferson City Electric Light & Water Co., Light and Water	2	....	3	....	3	....	2	200
Jefferson Flouring Mill, Flour	1	1	4	....	4	....	....	....
Jefferson Printing Co., Printing	1	....	5	....	5	....	....	....
Jefferson Steam Laundry, Laundry	1	....	1	2	3	....	1	15
Jefferson Woolen Mfg. Co., Woolens	4	1	16	4	20	....	....	....
John & Beck Shoe Co., Shoes	1	....	13	3	16	....	....	....
Kemmeter Bros., Brick	3	....	22	....	22	....	1	40
Lytle & Stoppenbach, Elevators	2	1	2	....	2	....	1	65
Lytle & Stoppenbach, Malt	4	2	6	....	6	....	2	110
Neis, Leonard, Monuments	1	....	2	....	2	....	....	....
Rock Valley Creamery, Creamery	1	....	2	....	2	....	1	15
Shumacher & Sons, Creamery	1	....	2	....	2	....	1	30
Stoppenbach's Sons, C., Packing House	8	1	20	....	20	....	1	80
The Copeland-Ryder Co., Shoes	5	1	87	23	110	2	2	100
Troeger, Geo., Tannery	3	....	3	....	3	....	1	40
Union Upholstering Co., Couches	1	....	4	....	4	....	1	65
Vaughn, O. C., Wagons & Harrows	6	....	20	....	20	....	1	65
Wisconsin Mfg. Co., Chairs	4	1	46	4	50	....	1	100
Total	71	12	368	37	405	3	23	1329
JEFFRIES, ONEIDA CO.—								
Worden Lumber Co., Lumber	5	....	50	....	50	2	2	250
JOHNSON'S CREEK, JEFFERSON CO.—								
Grell Butter & Egg Co., Creamery	2	....	4	....	4	....	1	20
Kottke & Warne Co., Carriages	2	....	10	....	10	....	....	....
Mansfield, G. C. Co., Creamery	2	1	6	....	6	....	2	40
Pitzne & Huebner, Feed	2	....	3	....	3	....	1	40
Total	8	1	23	....	23	....	4	100
KAUKAUNA, OUTAGAMIE CO.—								
Hoehn Machine Co., Machinery	3	....	4	....	4	....	....	....
Kaukauna Fiber Co., Pulp	10	....	60	....	60	....	3	450
Kaukauna Lumber Co., Lumber	9	....	7	....	7	....	....	....
Kaukauna Machine Works, Machinery	6	....	14	1	15	....	....	....
Kaukaunna Sun, Printing	1	....	3	2	5	....	....	....
Kaukauna Steam Laundry, Laundry	3	....	2	4	6	....	1	16
Kaukauna Times, Printing	1	....	3	2	5	....	1	7
Kaukaunna Water Power Co., Water	1	....	1	....	1	....	2	160
Lindaur Pulp Co., Pulp	5	....	28	....	28	....	1	12
Outagamie Paper Co., Paper	5	4	77	33	110	6	2	160
Thillmay Pulp Co., Pulp	3	....	18	....	18	1	1	75
Thillmay Pulp & Paper Co., Pulp & Paper	8	....	126	24	150	....	3	600
Union Bag & Paper Co., Paper Bags	5	2	95	75	170	5	3	450
Total	60	6	438	141	579	12	17	1930

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
KENOSHA, KENOSHA CO.—								
Allen, N. R., Sons, Tannery	12	4	725	2	727	....	12	1400
American Steam Laundry, Laundry	4	....	6	8	14	....	1	20
Arnold, W. G., Gasoline Engines	1	....	2	....	2	....	....	....
Badger Brass Mfg. Co., Brass	2	....	64	7	71	1	....	....
Boosted, Emil, Repairs	2	....	4	....	4	....	....	....
Chicago Brass Co., Brass Works	21	....	275	....	275	3	8	800
Chicago–Rockford Hosiery Co., Hosiery	11	....	500	700	1200	300	6	900
Christian, W. E., & Co., Machinery	1	....	4	....	4	....	....	....
Cooper Underwear Co., Underwear	3	....	38	57	95	4	....	....
Davy Burnt Clay Ballast Co., Ballast	6	....	5	....	5	....	1	60
Eagle Steam Laundry, Laundry	2	....	2	6	8	....	1	20
Frost Mfg. Co., Brass goods	7	....	65	5	70	....	1	80
Grant Planing Co., Sash, Doors, etc.	6	....	14	....	14	....	1	75
Jeffery Bros., B, & Co., Automobiles	17	....	500	....	500	9	4	300
Kenosha Brass & Iron Works, Foundry	8	....	15	....	15	....	1	75
Kenosha Crib Co., Cribs	5	....	100	1	101	5	2	160
Kenosha Evening News, Printing	1	....	11	3	14	....	....	....
Kenosha Gas & Electric Co., Light	8	....	9	....	9	....	9	690
Kenosha Sash, Door & Blind Co., Sash, etc.	5	....	15	....	15	....	1	40
Kenosha Steam Laundry, Laundry	1	....	4	6	10	....	1	15
Krebs, Charles, Repairs	1	....	1	....	1	....	....	....
Modern Mfg. Co., Gloves & Mittens	1	....	2	6	8	....	....	....
Muselback, A. D., Typewriter Co., Typewriters	6	....	150	3	153	....	4	480
Pettit, M. H., Malting Co., Malt	3	3	17	....	17	....	2	180
Pirsch, Nicholas, Wagons	1	....	11	....	11	....	....	....
Pirsch, Peter & Co., Wagons	2	....	6	....	6	....	....	....
Remers Laundry, Laundry	1	....	4	4	8	....	1	14
The Bain Wagon Co., Wagons	35	6	265	....	265	....	2	270
The Kenosha Daily Gazette, Printing	....	1	6	1	7	....	....	....
The Kenosha Union, Printing	1	....	2	1	3	....	....	....
The Simmons Mfg. Co., Bed Springs, etc.	10	3	850	100	950	....	9	900
Wells, Frank, Machinery Co., Machinery	2	....	30	....	30	....	....	....
Windsor Spring Co, Machinery	4	....	56	4	60	....	1	100
Total	190	17	3758	914	4672	322	68	6579
KEWASKUM, WASHINGTON CO.—								
Backhaus & Stark, Mill	1	....	3	....	3	....	....	....
Grill, H. J., Butter & Egg Co., Creamery	1	....	2	....	2	....	1	10
Remmell, Matt, Lumber	1	....	8	....	8	....	1	50
Remmell, Nicholas, Machine Shop	1	....	3	....	3	....	....	....
Rosenheimer, L., Malt & Grain, Malthouse	2	2	18	....	18	....	2	300
Total	6	2	34	....	34	....	4	360
KEWAUNEE, KEWAUNEE CO.—								
Altar Factory, Church Altars	1	....	2	....	2	....	....	....
Borgman, J. M., Sash, Doors & Blinds	6	....	10	....	10	....	1	60
Devall, Joe, & Co., Elevator	1	....	4	....	4	....	....	....
Hornmechect & Son, Farm Machinery	2	....	4	....	4	....	1	60
Kewaunee Iron Works, Iron	1	....	6	....	6	....	1	40
Mach, Anton, Brewery	5	....	5	....	5	....	1	35
Seyk, W. Co., Canning	3	1	35	30	65	30	2	200
Seyk, W., Co., Elevator	2	....	4	....	4	....	....	....
Svoboda, Jos., Church Furniture	3	....	8	....	8	....	1	20
Syks, Lumber	1	....	6	....	6	....	....	....
Waninger, W. F., Canning	6	1	84	36	120	20	1	125
Ziemer, Aug, Foundry	1	....	3	....	3	....	1	10
Total	32	2	171	66	237	50	9	550
KILBOURN CITY, PORTAGE CO.—								
Dells Reporter, Printing	1	....	1	1	2	....	....	....
Enterprise Steam Laundry, Laundry	1	....	2	3	5	1	....	....
Kilbourn City Water Works, Water	1	....	1	....	1	....	1	60

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
KILBOURN CITY—Continued.								
Kilbourn Machine Co., Windmills, etc.	1	....	7	....	7	....	1	60
Marshall, G. M., Repair Shops	1	....	1	....	1	....	....	....
Mirror Gazette, Printing	1	....	1	2	3	....	....	....
Total	6	....	13	6	19	1	2	120
LAC DU FLAMBEAU, VILAS CO.—								
Lac du Flambeau Lumber Co., Lumber	8	....	240	....	240	....	7	700
LA CROSSE, LA CROSSE CO.—								
Ammundson & Schulz, Screens, etc.	2	....	6	....	6	....	....	....
Badger Steel Roofing & Corrugating Co., Roofing, etc.	1	....	12	....	12	1	....	....
Bell Machine Co., Machine Shops	1	....	4	....	4	....	....	....
Benton, T. P., & Son, Electrical Machinery	1	....	20	....	20	....	....	....
Cargill, W. W., Elevator	1	1	6	....	6	....	1	80
Central Electric Co, Light & Power	1	1	11	1	12	....	3	450
Central Newspaper Union, Printing	....	1	5	....	5	....	....	....
Chicago, Burlington & Quincy Ry., Shops	8	....	205	....	205	....	2	150
Chicago, Milwaukee & St. P. Ry., Shops	5	....	45	....	45	....	2	230
City Water Works, Water	1	....	7	....	7	....	4	440
Close, C. T., Gasoline Engines	2	....	2	....	2	....	....	....
Coleman, C. L., Lumber Co., Lumber	12	1	230	20	250	....	6	620
Dagendesh, Geo., Building Stone	2	....	4	....	4	....	1	40
Davis, Medary & Platz, Tannery	5	1	90	....	90	1	5	275
Doud & Son, Flour Barrels	2	....	12	....	12	....	1	60
Fountain City Drill Co., Drills	11	....	96	2	98	....	1	100
Franklin Iron Works, Foundry & Repairs	3	....	3	....	3	....	....	....
Franz-Bartl, Brewery	1	1	8	....	8	....	1	50
Funke, Jos. B., & Co., Candy	....	1	40	120	160	16	1	75
Funk, M., Boiler Works, Boilers	5	....	15	....	15	....	....	....
Gardner Printing Co., Printing	1	....	8	4	12	2	....	....
Gateway Pearl Button Co., Buttons	....	1	29	....	29	1	....	....
Graus, A., & Son, Feed	....	1	6	....	6	....	....	....
Gund, John, Brewing Co., Brewery	14	5	159	30	189	10	4	600
Hackner, E., Church Furniture	3	....	48	....	48	4	....	....
Haerter, Nic., Bindery	1	....	4	1	5	1	....	....
Heilemnan, G., Brewing Co., Brewery	9	4	75	8	83	1	3	270
Herkin, Geo., Trunks	1	....	4	....	4	....	....	....
Holway, N. B. (Estate), Lumber & Planing	10	....	185	....	185	3	7	400
Hyde, S. Y., Grain Elevator	1	1	6	....	6	....	1	80
James John, Foundry & Machines	5	....	37	1	38	....	1	30
Kellar, G. A., Printing	1	....	4	....	4	1	....	....
Kratchwill, M., Candy	....	1	19	20	39	10	....	....
Kuhn, R. C., Sash & Door Co., Sash & Doors	3	2	75	....	75	4	2	160
La Crosse Art Glass Co., Mirrors & Lettered Glass	1	....	3	....	3	....	....	....
La Crosse Boot & Shoe Co, Shoes	....	1	23	9	32	1	....	....
La Crosse Box Co., Boxes	3	....	20	....	20	....	....	....
La Crosse Bridge & Steel Co., Bridge Building	1	....	13	....	13	....	....	....
La Crosse Carriage Co., Carriages	....	2	60	....	60	1	....	....
La Crosse Cheese & Butter Co., Butter, etc.	1	....	9	5	14	....	1	10
La Crosse City Ry. Co., St. Car Line	2	....	60	....	60	....	3	375
La Crosse Clothing Co., Shirts & Overalls	1	....	7	55	62	2	....	....
La Crosse Cooperage Co., Barrels, etc.	1	....	15	....	15	....	....	....
La Crosse Cracker & Candy Co., Crackers, etc.	1	....	44	38	82	17	1	25
La Crosse Engraving Co., Engraving	....	1	10	....	10	....	....	....
La Crosse Gas & Electric Co., Gas	4	....	7	....	7	....	1	50
La Crosse Gas & Electric Co., Light, etc.	1	....	15	....	15	....	5	1000
La Crosse Knitting Co., Knitting	1	1	15	68	83	10	1	75
La Crosse Paper Box Co., Paper Boxes	1	....	4	10	14	....	....	....
La Crosse Plow Co., Farm Machinery	12	5	223	2	225	1	2	350
La Crosse Press Co., Printing	1	....	22	1	23	1	....	....
La Crosse Rubber Mills Co., Mackintosh Coats	7	....	50	155	205	....	2	180
La Crosse Soap Co., Soap	....	1	3	....	3	....	1	25

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
LA CROSSE—Continued.								
La Crosse Steam Laundry, Laundry	2	1	12	45	57	....	1	40
La Crosse Steel Roofing & Corrugating Co., Roofing, etc.	3	....	45	1	46	....	....	....
La Crosse Threshing Mach. Mfg. Co., Th. Ma.	3	....	27	....	27	....	1	60
La Crosse Volksfreund, Printing	1	....	5	....	5	....	....	....
La Crosse Wagon Stock Co., Wagon Stock	2	....	11	....	11	....	1	40
La Crosse Well Drill Works, Drills & Forging	1	....	5	....	5	....	1	12
Langdon & Boyd, Packing house	3	....	25	5	30	....	2	120
Larson & Bros. Co., Boxes & Crates	1	....	10	....	10	....	1	13
Listman Mill Co., Flour	2	2	67	6	73	....	4	400
Martin Bros. Co., Overalls, Jackets, etc.	....	1	3	47	50	1	....	....
Medary, J. S., Co., Harness & Saddles	2	1	36	4	40	....	....	....
Michel, C. & J., Brewing Co., Brewery	13	4	61	4	65	1	3	300
Miller, Aug., Brooms	1	....	14	....	14	....	....	....
Modern Steam Laundry, Laundry	1	1	4	18	22	....	1	20
Monitor Brewing Co., Brewery	2	....	4	....	4	....	1	40
Moore's, C. N., Laundry, Laundry	1	....	1	4	5	....	....	....
Northern Wisconsin Leaf Tobacco Co., Tobacco Warehouse	....	1	8	42	50	6	....	....
North Side Bottling Works, Soda Water	1	....	10	1	11	....	1	15
Ott, B., & Sons, Bark Mills & Repairing	1	....	11	....	11	....	....	....
Reimers, D., Packing House	3	....	10	....	10	....	....	....
Reliance Steam Boiler Works, Boilers	2	....	15	1	16	....	....	....
Reliable Steam Laundry, Laundry	1	....	8	35	43	....	1	40
Salzer, John A., Seed Co., Seeds	4	1	78	33	111	5	....	....
Segelke & Kohlhaus Mfg. Co., Sash, etc.	3	3	128	2	130	3	4	200
Seidenzol, Theo., Tool	1	....	1	....	1	....	....	....
Shorna, Chas., Furrier	1	....	1	3	4	....	....	....
Smith Mfg. Co., Wagons	7	....	50	....	50	1	2	120
Sorensen, O. J., Store & Bar Fixtures	2	....	30	1	31	....	1	70
Spicer & Buschman, Printing	1	....	10	....	10	....	....	....
Stamping & Tool Co., Tools	....	1	11	3	14	....	....	....
Starch Bros., Creamery	1	....	13	....	13	1	....	....
Star Knitting Co., Knitting	....	1	2	22	24	....	....	....
The Morning Chronicle, Printing	1	....	14	1	15	....	....	....
The Northern Association, Printing	1	....	7	2	9	1	....	....
The Shertz–Wiltz Co., Printing	....	1	14	2	16	1	....	....
Tisch Bros. Co., Cigar Boxes	1	....	13	4	17	2	....	....
Tomasak & Nekola, Plows and Repairing	2	....	2	....	2	....	1	20
Torrance, J. & Son, Foundry	4	....	19	....	19	1	....	....
Trow, A. S. & Co., Lumber, Planing, etc.	6	....	85	....	85	....	5	235
Valstenee, Printing	1	....	4	1	5	1	....	....
Voight (Estate) & H. Ritter, Carriages and Repairing	1	1	20	....	20	....	1	25
Vought–Berger Co., The, Telephones, etc.	3	....	71	6	77	....	1	35
Waringer–Houthmaker, Soda Water	1	....	7	....	7	....	1	10
Weekly Argus, Printing	1	....	2	....	2	....	....	....
West'n Banana Crate Mfg. Co., Banana Crates	1	....	10	2	12	....	....	....
Wisconsin Pearl Button Co., Buttons	1	....	100	116	216	....	1	100
Yeo & Clark (city mills), Flour	1	1	5	....	5	....	1	60
Total	242	53	3172	961	4133	112	99	8175
LAKE GENEVA, WALWORTH CO.—								
Equitable Electric Light Co., Light	4	....	6	....	6	....	2	160
Lake Geneva Creamery, Creamery	1	....	9	....	9	....	1	15
Lake Geneva Water & Light Co., Water, etc.	4	....	2	....	2	....	2	200
Steam Laundry, Laundry	1	....	2	3	5	....	1	20
The Herold, Printing	1	....	3	....	3	....	....	....
The News, Printing	1	....	4	1	5	....	....	....
Total	12	....	26	4	30	....	6	395
LAKE NEBAGAMON, DOUGLAS CO.—								
Nebagamon Lumber Co., Lumber	8	....	306	....	306	4	5	400

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male	Female.	Total.	Under 16 yrs of age	Number.	Total horse power.
LANCASTER, GRANT CO.—								
Brooker Bros., Planing Mill	3	....	2	....	2	....	....	....
Grebe & Karper, Flour, etc.	1	1	3	....	3	....	1	80
Lancaster Bridge Works, Bridges	1	....	7	....	7	....	....	....
Lancaster Elec. Light Co., Light	4	....	3	....	3	....	2	200
Schuster Bros., Feed	1	....	3	....	3	....	....	....
Total	10	1	18	....	18	....	3	280
LAONA, FOREST CO.—								
Connor Lumber & Land Co., Lumber	8	....	400	....	400	11	5	650
LENA, OCONTO CO.—								
Bassett, J. M., Elevator	....	1	5	....	5	....	....	....
Grunwaldt, O. W., Lumber, Sash & Doors	3	....	10	....	10	....	1	80
Metzen, N. C., Roller Mill	1	1	5	....	5	....	1	100
Niquell, Ed., Creamery	1	....	2	....	2	....	1	15
Total	5	2	22	....	22	....	3	195
LENOX, FOREST CO.—								
Wolfgram, Ed., Lumber	1	....	10	....	10	....	1	50
MADISON, DANE CO.—								
Alford Bros, Laundry	1	....	8	30	38	....	2	120
American Cigar Co., Tobacco Warehouse	1	....	50	220	270	18	....	....
America Publishing Co., Printing	....	1	4	2	6	....	....	....
Badger State Shoe Co., Shoes	2	....	37	30	87	9	1	40
Barnard & Wilder, Tobacco Warehouse	1	....	18	20	38	....	....	....
Breckheimer Brewing Co., Brewery	8	....	8	....	8	....	1	30
Cantwell, M. J. Printing Co., Printing	1	....	28	4	32	2	....	....
C., M. & St. P. Ry. Shops, Shops	10	....	30	....	30	....	2	105
C. & N. W. Ry. Shops, Shops	5	....	17	....	17	....	1	60
Cohn, A & Co., Tobacco Warehouse	....	1	22	56	78	2	....	....
Curtis Collar & Pad Co., Collars & Pads	2	....	6	8	14	....	1	25
Democrat Printing Co., Printing	1	....	67	24	91	....	....	....
Fauerbach Brewing Co., Brewery	8	2	15	2	17	....	2	100
F. F. F. Steam Laundry, Laundry	....	1	5	15	20	....	1	35
Findorf, J. H., Sash, Doors & Planing	3	1	50	....	50	....	1	20
Frederickson Mfg. Co., Sash & Doors	9	....	40	....	40	....	....	....
Fuller & Johnson Mfg. Co., Agr. Mach	23	1	325	....	325	6	3	400
Garilus & Spooner, Gasoline Engines	1	....	3	....	3	1	....	....
Gisholt Machine Co, Tools & Machinery	10	....	247	3	250	2	2	300
Grimm's Book Bindery, Bindery	1	....	8	6	14	1	....	....
Hausmann Brewing Co., Brewery	8	2	25	....	25	....	2	205
Johnson, Adolph, Sash & Doors	2	....	10	....	10	....	....	....
King & Walker, Foundry & Machinery	9	....	40	....	40	....	1	30
Kupfer, Theo., Foundry	1	....	5	....	5	....	....	....
Madison Candy Co., Confectionery	1	....	17	20	37	8	....	....
Madison City Waterworks, Water	1	....	5	....	5	....	2	300
Madison Gas & Electric Co., Gas, etc	9	....	80	....	80	....	5	1025
Madison Knitting Co., Knitting	1	....	2	10	12	....	1	25
Madison Muslin Underwear Co., Underwear	1	....	3	32	35	....	....	....
Madison Saddlery Co., Harness	....	1	21	1	22	....	....	....
Madison Steam Laundry, Laundry	1	....	3	5	8	....	1	12
Madisonian, Printing	1	....	4	....	4	....	....	....
Mason & Kipp Mfg. Co., Oil Pumps	3	....	16	1	17	....	1	30
Mayer, Walter, Printing	1	....	2	....	2	....	....	....
Northern Electric Mfg. Co., Dynamos	2	....	237	44	281	1	3	600
Payton-Martin, Foundry	1	....	31	....	31	....	....	....
Rosenmayer, J. J. & Co., Pickles	1	....	3	....	3	....	....	....
Sayle Building & Mfg. Co, Sash & Doors	2	....	25	....	25	....	1	12
Silbernagel, J. J., Sash & Doors	5	....	10	....	10	....	1	35
Standard Telephone Co., Telephone	1	....	27	3	30	1	....	....

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
MADISON—Continued.								
State Journal Printing Co., Printing	2	1	52	8	60	5	1	30
Strehlow, H., Dyeing	1	....	4	2	6	....	1	5
Sutter Bros., Tobacco Warehouse	....	1	8	44	52	3	....	....
Taylor & Gleason, Printing	....	1	6	....	6	....	....	....
Teckmeyer Candy Co, Candy	1	....	14	22	36	4	....	....
Tracy-Gibbs & Co., Printing	1	1	13	2	15	2	1	20
Wisconsin Botschafter, Printing	1	....	4	....	4	....	....	....
Wisconsin Staatz Zeitung, Printing	1	....	3	....	3	1	....	....
Wisconsin Wagon Co., Wagons	1	1	5	....	5	....	....	....
Total	146	15	1683	614	2297	66	38	3564
MANITOWOC, MANITOWOC CO.—								
Aluminum Foundry Co., Aluminum Goods	1	....	2	....	2	....	....	....
American School Furn. Co., School Furniture	7	1	217	1	218	14	3	300
Brachman, W. J., Contractor	1	....	5	....	5	....	1	5
Bradl, Ignatz, Wagons	1	....	3	....	3	....	....	....
Brandt Printing & Bindery Co., Ptg., etc	1	....	7	2	9	....	....	....
Burger, H. B., Boats	1	....	8	....	8	....	....	....
Cartwright-Mattson Co., Gloves	1	....	40	90	130	....	....	....
Dobberts, Chas. & Sons, Tannery	2	....	5	....	5	....	1	35
Drost, H. Son, Paper Boxes	3	....	6	8	14	....	1	25
Electric Light Co., Light	1	....	4	....	4	....	4	320
Enterprise Boiler Works, Boilers	1	....	6	....	6	....	....	....
Goodrich Transportation Co., Repair Shop	14	....	100	....	100	....	2	160
Hall Bros., Bale Ties	1	....	3	....	3	....	....	....
Hanson Wagon Works, Wagons	1	....	12	....	12	....	1	12
Kunz-Blesser Co., Brewery	5	1	15	....	15	....	1	100
Madson, M. G., Seed Co., Seeds	....	2	5	50	55	....	....	....
Manitowoc Aluminum Novelty Co, Novelties	5	....	78	31	109	22	2	125
Manitowoc Bldg. Sup. Co., Doors, Sash, etc	6	....	27	....	27	....	1	90
Manitowoc Dry Docks Co., Dry Dock	8	....	250	....	250	....	2	160
Manitowoc Gas Light Co., Gas	2	....	4	....	4	....	1	25
Manitowoc Glue Co., Glue	4	....	30	....	30	1	2	160
Manitowoc Machine Co., Engines	3	....	4	....	4	....	1	15
Manitowoc Mattress Co., Mattresses	....	1	8	3	11	1	....	....
Manitowoc Pea Canning Co., Canning	6	1	45	30	75	....	2	140
Manitowoc Post, Printing	1	....	3	1	4	....	....	....
Manitowoc Seed Co., Seeds	....	1	4	30	34	....	....	....
Manitowoc Steam Boiler Works, Boilers	3	....	44	1	45	....	2	200
Manitowoc Water Works, Water	1	....	4	....	4	....	2	150
Merchants & M'f'r's Ptg. Co., Printing	1	....	6	4	10	2	....	....
Northern Grain Co. Elevators	5	6	32	....	32	....	5	575
Oriental Mills, Flour	2	1	7	....	7	....	....	....
Richard Iron Works, Engines	5	....	50	....	50	....	1	50
Richter, A. M. & Sons, Vinegar & Mustard	4	1	6	1	7	....	1	75
Reiss, C., Coal Co., Coal	11	....	90	....	90	....	5	475
Schmoor Bros., Paper Boxes, etc	3	....	5	11	16	2	1	40
Schoch, Christ, Lbr. Co., Sash & Doors	4	....	28	....	28	....	1	40
Schreihart Brewing Co., Brewery	3	1	14	....	14	....	1	150
Smalley Mfg. Co., Agricultural Imp	9	....	67	2	69	1	1	100
Snow Flake Laundry, Laundry	2	....	3	6	9	....	1	25
Stolz Mfg. Co., Ornaments	1	....	3	50	53	4	....	....
The Albert Landreth Canning Co., Canning	4	1	80	80	160	3	3	325
The Citizens' Publishing Co, Printing	1	....	6	2	8	....	....	....
The Palace Steam Laundry, Laundry	1	....	2	6	8	....	1	10
The Pilot Publishing Co., Printing	1	....	6	4	10	....	....	....
The Wm. Rahr Sons Co., Brewing & Malt Food	9	6	95	5	100	2	6	600
Willoth, J., & Sons, Tools	2	....	3	....	3	....	1	25
Wisconsin Knitting Mill Co., Sweaters	3	....	8	7	15	....	1	100
Total	151	23	1450	425	1875	52	58	4612
MARENGO, ASHLAND CO.—								
Marengo Brick Co., Brick	2	....	30	....	30	6	2	50

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age	Number.	Total horse power.
MARINETTE, MARINETTE CO.—								
Hamilton & Merryman Co., Shingle & Planing	7	....	200	....	200	....	12	650
Lehr & Noll Shingle Co., Shingles & Planing...	....	....	10	....	10	....	1	40
Linden & Miller, Sash & Doors	2	....	20	....	20	....	1	70
Ludington, N., Co., Lumber	5	....	75	....	75	....	5	880
Marinette Flour Mill Co., Flour & Feed	....	1	10	....	10	....	....	....
Marinette Lumber Co., Lumber, Boxes, etc.	11	....	175	....	175	15	9	600
Marinette & Menominee Box Co., Boxes	4	....	75	....	75	26	2	180
Marinette & Menom. Paper Co., Paper & Pulp	13	....	301	28	329	....	7	770
Merryman, R. W. & Co., Lumber	3	....	85	....	85	....	6	360
Sawyer, Goodman & Co., Lumber & Planing..	5	....	150	....	150	....	6	677
Whitbeck, H. Co., Lumber & Lath	6	....	175	....	175	1	7	600
Total	56	1	1276	28	1304	42	56	4827
MARSHFIELD, WOOD CO.—								
Bast Bros., Soda Water	1	....	3	....	3	....	....	....
Bille, Hans, Contractor	2	....	18	....	18	....	1	35
Democrat Publishing Co., Printing	1	....	5	....	5	1	....	....
Hafer & Kalsched, Lumber & Planing	2	....	12	....	12	....	1	50
Marshfield Bedding Co., Mattresses & Springs	5	....	29	6	35	2	2	140
Marshfield Boiler Works, Boilers	1	....	3	....	3	....	....	....
Marshfield Brewing Co., Brewery	10	....	20	....	20	1	2	100
Marshfield Elec. Lt. & Pow. Co., Lt. & Power	2	....	4	....	4	....	2	200
Marshfield Iron Works, Foundry & Machines..	2	....	11	....	11	....	....	....
Marshfield Land & Lbr. Co., Lbr. & Planing..	7	....	125	....	125	....	6	400
Marshfield News, Printing	1	....	4	3	7	1	....	....
Marshfield Stave Co., Barrels, Excelsior, etc..	4	....	20	....	20	2	1	125
Marshfield Steam Laundry, Laundry	1	....	2	4	6	....	1	10
Marshfield Times, Printing	1	....	4	2	6	....	....	....
Mattelka Bros., Plumbing, etc.	1	....	6	....	6	....	....	....
Rasmussen, Peter, Flour & Feed	1	1	3	....	3	....	1	60
Roddis Lumber & Veneer Co., Cheese Boxes & Veneer	6	....	139	1	140	16	3	180
Upham Mfg. Co., Furniture	4	....	190	....	190	27	6	500
Upham Mfg. Co., Flour & Feed	....	2	6	....	6	1	....	....
Total	52	3	604	16	620	51	26	1800
MASON, BAYFIELD CO.—								
White River Lumber Co., Lumber	7	....	213	2	215	5	9	900
MAUSTON, JUNEAU CO.—								
City Water Co., Water	1	....	1	....	1	....	1	70
Curran Bros., Elevator	....	1	3	....	3	....	....	....
Juneau Co. Chronicle, Printing	1	....	3	....	3	....	....	....
Mauston Electric & Power Co., Lt. & Power..	1	....	1	....	1	....	1	150
Mauston Milling Co., Flour	....	1	4	1	5	....	....	....
Mauston Star, Printing	1	....	2	1	3	....	....	....
Mauston Steam Laundry, Laundry	1	....	1	1	2	....	1	10
Mauston Woolen Mill, Woolens	1	....	1	2	3	....	1	10
Radell, F. & Co., Wagons & Carriages	1	....	3	....	3	....	1	16
Severance, F, Repair Shop, Repairs	1	....	2	....	2	....	....	....
Stafford & Goldsmith, Pickles	2	....	5	....	5	....	....	....
Underwood, F. A., Cooperage	3	....	4	....	4	....	1	12
Total	13	2	30	5	35	....	6	268
MAYVILLE, DODGE CO.—								
Badger Sewing Co., Overalls	1	....	2	23	25	....	....	....
Boehmer Bros., Machine Shops	5	....	2	....	2	....	1	20
Buerger Malting Co., Malt	5	3	10	....	10	....	2	160
Dodge County Banner, Printing	1	....	6	....	6	....	....	....
Dodge County Pioneer, Printing	1	....	6	....	6	....	....	....
Fire Starter Co., Fire Starter	2	....	4	....	4	....	1	20

ESTABLISHMENTS INSPECTED.

Location, Name Business.	Buildings		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
MAYVILLE—Continued.								
Hollister, John, & Co., Wagons	3	....	8	....	8	....	1	18
Matson & Setel, Machine Shops	1	....	2	....	2	....	1	100
Mayville News, Printing	1	....	2	2	4	....	....	....
Mayville Saw Mill, Lumber	2	....	2	....	2	....	....	....
Mayville Specialty Mfg. Co., Foundry	1	....	6	....	6	....	1	8
Mayville Steam Laundry, Laundry	1	....	1	2	3	....	....	....
Northwestern Iron Co., Iron	9	....	125	....	125	....	9	1500
Paustian, F., Milling Co., Flour	2	1	4	....	4	....	1	15
Rock River Creamery, Creamery	1	....	2	....	2	....	1	45
Steger, J., & Co., Brewery	7	....	5	....	5	....	1	12
Ziegler, M., Brewing Co., Brewery	3	2	4	....	4	....	1	18
Total	46	6	191	27	218	....	20	1916
MEDFORD, TAYLOR CO.—								
Campbell & Anschultz, Machine Shops	4	....	10	....	10	....	....	....
Heinrich, J., Wagons	1	....	5	....	5	....	....	....
Medford Brewing Co., Brewery	6	2	8	....	8	....	1	75
Medford Bldg. Supply Co., Bldg. Supplies	6	....	10	....	10	....	1	80
Medford Elec. Light Plant, Light	1	....	2	....	2	....	1	80
Medford Mfg. Co., Lumber	12	....	75	....	75	....	4	400
Medford Steam Laundry, Laundry	1	....	1	3	4	....	1	6
Perkins, A. J., & Son, Flour	2	1	3	....	3	....	1	80
Portman & Edwards, Baskets	4	....	43	15	58	7	1	80
Schattuck, J. R., Printing	1	....	3	1	4	....	....	....
Star-News, Printing	1	....	3	1	4	....	....	....
U. S. Leather Co., Tannery	13	....	75	....	75	....	6	900
Waldbot—Der, Printing	1	....	3	....	3	....	....	....
Weekly Clarion, Printing	1	....	2	1	3	....	....	....
Wesle Bros., Wagons	4	....	10	....	10	....	1	12
Total	58	3	253	21	274	7	17	1713
MENASHA, WINNEBAGO CO.—								
Fox River Valley Knitting Co., Knitting	2	1	5	35	40	....	....	....
Gilbert Paper Co., Paper	7	4	103	47	150	....	5	1200
Howard, C. W., Co., Paper	14	....	95	15	110	....	7	800
McKenna Excelsior Co., Excelsior	4	....	19	1	20	....	1	100
Menasha Brewing Co., Brewery	7	1	1	....	1	....	1	75
Menasha Woodenware Co., Woodenware	73	3	1000	....	1000	73	7	2000
Menasha W. S. P. Co., Wood Pulley	13	1	25	....	25	....	2	80
Schneider, John, Sash & Doors	4	....	10	....	10	....	....	....
Strange, John, Paper Co., Paper	4	....	30	15	45	....	2	750
Walter Bros., Brewery	7	3	14	....	14	....	2	200
Total	135	13	1302	113	1415	73	27	5205
MENOMONIE, DUNN CO.—								
Anderson, Chas., Foundry	1	....	8	....	8	....	1	20
Burkhart & Son, Brewery	1	....	5	....	5	....	1	50
C., St. P., M. & O. Ry., Round House	1	....	1	....	1	....	1	20
Dunn Co. Iron Works, Shops	2	....	5	....	5	....	1	20
Dunn Co. News, Printing	1	....	6	....	6	....	....	....
Dunn Co. Sash & Door Co., Sash & Doors	3	....	15	....	15	....	1	40
Excelsior Brick Co., Brick	6	....	75	....	75	8	2	190
Hanschel, V. L., Repairs	1	....	2	....	2	....	....	....
Heintz Bros., Wagons	1	....	7	....	7	....	1	10
Herrum, C. L., Sash & Doors	1	....	7	....	7	....	1	35
House, J. K., Feed	1	....	2	....	2	....	1	30
Knapp Stout Co., Flour	1	1	8	....	8	....	....	....
Lutz, J. B., Bottling	1	....	2	....	2	....	....	....
Menomonie Elec. Light Co., Light	2	....	5	....	5	....	2	200
Menomonie Hydraulic Brick Co., Brick	20	....	360	....	360	....	4	420
Menomonie Milling Co., Flour	....	1	4	....	4	....	....	....
Menomonie Steam Laundry, Laundry	1	....	5	....	5	....	1	12

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
MENOMONIE—Continued.								
Menomonie Times, Printing	1	....	5	2	7	....	....	....
Menomonie Water Co., Water	1	....	2	....	2	....	1	80
Schmidt, A. H, Wagons	2	....	8	....	8	....	1	25
Submerged Electric Ry., Power	....	1	50	....	50	....	....	....
Wisconsin Elevator Co., Elevator	....	1	2	....	2	....	....	....
Wisconsin Red Pressed Brick Co., Brick	7	....	80	....	80	10	1	100
Total	55	4	664	2	666	18	20	1252
MERCER, IRON CO.—								
Mercer Lumber Co., Lumber	4	....	30	....	30	....	7	700
MERRILL, LINCOLN CO.—								
American Hide & Leather Co., Tannery	11	....	45	....	45	....	3	300
American Water Works & Guar. Co., Water	3	....	4	....	4	....	2	150
Anson-Hixon Sash & Door Co., S. & Doors	5	1	188	....	188	18	2	350
Barber & Single, Excelsior	2	....	5	....	5	....	....	....
Gilkey & Anson Co., Lumber & Boxes	12	....	174	....	174	8	8	600
Hone, D. A., Laundry	1	....	3	6	9	1	1	25
Leidiger Brewing Co., Brewery	4	....	7	....	7	....	1	50
Merrill Excelsior Co., Excelsior	3	....	9	....	9	....	1	60
Merrill Glove & Mitten Co., Gloves & Mittens	1	....	2	5	7	....	....	....
Merrill Iron Works, Foundry & Machines	3	....	8	1	9	....	....	....
Merrill Lumber Co., Lumber & Planing	11	....	214	....	214	2	7	650
Merrill Ry. & Lighting Co., Light & Power	3	....	9	....	9	....	....	....
Merrill Star, Printing	1	....	2	2	4	....	....	....
Miller, C. P., & Co., Planing Mill	6	....	36	....	36	....	1	70
Stange, A. H., & Co., Sash & Doors	16	2	630	....	630	50	12	800
The Merrill Advocate, Printing	1	....	3	1	4	....	....	....
The Merrill Bottling Works, Sodawater	1	....	3	....	3	....	1	5
Wisconsin Thal., Printing	1	....	3	2	5	....	....	....
Wright, H. W. Lumber Co., Lumber	11	1	130	1	140	....	7	500
Total	96	4	1484	18	1502	79	46	3560
MILWAUKEE, MILWAUKEE CO.—								
Abel & Bach Co., Trunks	2	4	275	86	361	65	2	100
Abeles, F. E. & Co., Pants, Shirts, etc.	....	1	9	35	44	2	....	....
Abresch, Chas., Co., Wagons, etc.	1	4	140	....	140	....	2	150
Ackerman, R. A., Shoes	1	....	40	10	50	2	1	40
Acme Laundry Co., Steam Laundry	....	1	5	19	24	2	....	....
Acme Pattern & Mfg. Co., Patterns, etc.	1	....	6	....	6	....	....	....
Adams, F. F., Tobacco Co., Tobacco stock	....	2	106	44	150	17	2	150
Allis-Chalmers Co., Foundry	6	....	385	....	385	....	2	160
Allis-Chalmers Machine Shops, Machines	9	4	2500	12	2512	....	9	400
Amazeen & Co., Shoes	....	1	52	18	70	4	....	....
Ambrosia Chocolate Co., Chocolate	2	....	2	5	7	....	1	100
American Boiler Works, Boilers	1	....	5	....	5	....	....	....
American Box Toe Co., Box Toes	....	1	12	3	15	1	....	....
American Bridge Co., Bridges	3	....	133	....	133	2	2	320
American Can Co., Tinware	....	1	....	....	....	28	....	....
American Candy Co., Candy	....	1	47	82	129	71	1	80
American Hide & Leather Co., Tannery	13	3	350	....	350	....	4	325
American Malt Co., Malt	....	4	15	....	15	....	....	....
American Malt Co., Malt	3	8	60	....	60	....	7	900
American Monolith Co., Flooring	1	....	10	....	10	....	1	50
American Show Print Co., Printing	....	1	56	6	62	5	....	....
American Steam Laundry, Steam Laundry	....	1	5	20	25	4	....	....
Anchor Line, Transportation	1	....	75	....	75	....	....	....
Andrae, Jule & Sons, Electricians	1	....	7	....	7	....	....	....
Andrae, Jule & Sons, Electricians	1	....	36	5	41	....	....	....
Andrews, Fred, Cut Stone	6	....	50	....	50	....	2	300
Armstrong, W. J., Co., Grain	....	1	3	....	3	....	....	....
Alexson, Theo. M., Patterns	1	....	3	....	3	....	....	....

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
MILWAUKEE—Continued.								
Badger Candy Co., Candy	....	1	14	37	51	....	....	....
Badger Dye Works, Dyeing and Cleaning	3	....	4	12	16	....	1	30
Badger Laundry Co., Steam Laundry	1	....	6	14	20	....	1	40
Badger Mfg. Co., Skirts	1	....	5	....	5	....	....	....
Badger Nail Co., Nails	8	....	20	....	20	3	2	160
Bailey, Wm., & Sons, Foundry	....	1	200	....	200	....	2	60
Banker, C. I., Wire & Iron Works	....	1	12	....	12	1	1	8
Barkow, H., Wagons	1	....	10	....	10	....	....	....
Barth, J. H., Trunks	1	....	3	....	3	....	....	....
Barth Mfg. Co., Elevator	5	1	40	1	41	....	2	160
Baumbach, Reichel Co., Brewery Supplies	....	1	5	....	5	....	....	....
Bay View Steam Laundry, Laundry	1	....	4	8	12	....	....	....
Bay View Steel Casting Co., Castings	1	....	30	....	30	....	1	60
Beach & Tonnsen, Galvanized Iron	1	....	10	....	10	....	....	....
Beals & Torrey Shoe Co., Shoes	....	1	70	30	100	1	2	140
Beck, C. A., & Son, Planing Mill, Boxes	12	....	130	....	130	6	2	300
Bellack, Chas. H., & Co., Clothing	....	1	37	20	57	6	....	....
Benesch Bros., Scrap Iron	5	....	60	10	70	....	1	30
Berger Bedding Co., Bedding	....	2	39	10	49	....	1	75
Berthelet Esch, Sewer Pipe	1	....	20	....	20	....	....	....
Beyer, John, & Son, Wood Works	1	....	1	....	1	....	1	10
Biersack Mfg. Co., Stamp Protectors	1	....	2	....	2	....	....	....
Biersack & Neidermeyer Co., Iron Roofing	1	....	28	....	28	....	....	....
Birkenwald, S., Co., Brewery Supplies	1	....	5	....	5	....	....	....
Blatz, Val., Brewing Co., Brewery	13	7	597	58	655	41	12	1800
Bodden & Bright Co., Spices	1	....	2	....	2	....	1	15
Bodden Packing Co., Packing House	7	....	150	....	150	....	3	180
Boehm, J., Stove Repairs	....	1	16	1	17	2	....	....
Boenstein & Zimmerman, Skirts & Coats	....	1	8	6	14	....	....	....
Boessger & Wittez, Apparatus	1	....	3	....	3	....	....	....
Bogenberger, F., & Bro., Galvanized Iron	1	....	8	....	8	....	....	....
Boston Store, Dry Goods	....	1	....	....	....	29	....	....
Bradley Shoe Co., Shoes	....	1	200	100	300	25	....	....
Brandt, C. B., Mfg. Co., Ammonia, etc.	1	....	....	....	....	3	2	225
Brandt Stove Co., Stoves	4	2	174	1	175	....	....	....
Brazell, Jas G., Printing	1	....	7	1	8	3	....	....
Breithoupt Printing Co., Printing	....	1	12	....	12	1	....	....
Brill, J. P., Co., Plate Glass	1	....	15	....	15	....	....	....
Brown-Bouton Glove Co., Gloves	1	....	33	61	94	4	....	....
Brown-Corliss Engine Co., Machinists	1	....	14	....	14	....	....	....
Brown, I. H., & Co., Wagons & Carriages	....	1	28	....	28	....	....	....
Brown, P. J., Glove Co., Gloves	1	....	17	26	43	3	....	....
Browning Mfg. Co., Castings	1	....	100	8	108	6	....	....
Bueler, Andrew, Printing	....	1	3	....	3	1	....	....
Buestrin, Henry, Contractor	1	....	45	....	45	....	....	....
Bulfen, Ed., Printing	....	1	12	....	12	....	....	....
Burdick & Allen, Printing	....	1	23	1	24	....	....	....
Burnham Bros., Brick	8	....	100	....	100	....	3	300
Burroughs, Geo., & Sons, Trunks	....	1	15	....	15	2	....	....
Campbell Laundry Co., Laundry	1	....	10	58	68	1	2	100
Canar Bros., Laundry	....	1	1	6	7	....	1	35
Cannon Printing Co., Printing	....	1	43	14	57	4	....	....
Carnival Laundry, Laundry	1	....	4	10	14	2	1	60
Carow Stove Polish Co., Stove Polish	2	....	7	3	10	....	....	....
Carpees, P. Co., Trunks	....	1	74	16	90	6	2	120
Carpenter-Skyles Baking Co., Bakery	2	1	49	7	56	1	1	60
Central Wood Works Co., Wood Work	2	1	3	....	3	....	....	....
Chain Belt Co., Chain Belts	1	1	100	....	100	47	....	....
Chi., Mil. & St. P. R. R. Shops, Transportation	51	1	3025	3	3028	5	9	1600
Chi., Mil. & St. P. Freight Depot, Depot for Freight	4	....	313	1	314	....	....	....
Chi., Mil. & St. P. Shops, Transportation	3	....	50	....	50	....	....	....
Christenson, N. A., Pattern	1	....	4	....	4	....	....	....
Citizen Co., Printing	....	1	4	....	4	....	....	....
Clark Engraving Co., Engraving	....	1	28	4	32	....	....	....

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
MILWAUKEE—Continued.								
Cohen Bros., Clothing	....	1	5	....	5	....	....	....
Colnick, C., Mfg. Co., Ornamental Iron	1	....	27	....	27	1	....	....
Columbia Knitting Co., Knitting	....	1	11	13	24	....	....	....
Columbia Publishing Co., Printing	....	1	2	....	2	....	....	....
Commercial Blank-book Co., Blank-books	....	1	9	21	30	5	....	....
Comrie, J., Glove Co., Gloves	....	1	15	....	15	....	....	....
Conrad Bros., Leather	2	1	100	....	100	....	2	150
Conway Cabinet Co., Veneered Doors, etc.	7	....	126	....	126	4	2	120
Cornillie Bros., Wood-work	3	3	25	....	25	....	....	....
Corrigan, Edw. H., Bindery	....	1	2	9	11	1	....	....
Cox, Jos. L., Metal	1	....	4	....	4	....	....	....
Cream City Brewing Co., Brewery	9	4	50	....	50	....	3	250
Cream City Can Works, Cans	1	....	40	6	46	6	....	....
Cream City Casket Co., Caskets	1	....	6	....	6	....	1	40
Cream City Laundry, Laundry	....	1	11	44	55	3	1	100
Cream City Marine Boiler Co., Boilers	1	....	6	....	6	....	....	....
Cream City Mfg. Co., Steel Stamping	1	1	60	6	66	5	....	....
Cream City Sash & Door Co., Sash & Doors	1	1	100	....	100	8	2	500
Cream City Woven Wire Works, Wire	2	1	58	2	60	6	3	240
Crescent Knitting Co., Knitting	1	....	8	35	43	5	....	....
Crucible Steel Casting Co., Steel Foundry	3	....	20	....	20	....	....	....
Crystal Soap Co., Soaps	1	....	10	17	27	5	1	40
Curtis & Yale Co., Sash, Doors, etc.	5	....	12	....	12	....	....	....
Cutts, E. M., Paper Specialty Co., Paper Specialties	....	1	8	20	28	4	1	70
Dahinden & Gallasch, Vinegar	....	1	2	....	2	....	2	48
Daily News, Printing	....	1	56	5	61	1	....	....
Daisy Roller Mills, Flour	1	2	60	5	65	....	3	180
Dauss Bros. Mfg. Co., Boilers	1	....	30	....	30	....	1	35
Davis Bros. Mfg. Co., Boilers	1	....	35	....	35	....	2	150
Davis, H. N., Plating	....	1	10	....	10	....	....	....
Dawe Bros. Printing Co., Printing	....	1	14	1	15	....	....	....
Dedi, G. J., Tailors	1	....	1	1	2	....	....	....
Deguenther Laundry Co., Laundry	....	1	5	23	28	1	1	50
Delaney Oil & Lubricating Co., Grease	1	....	8	2	10	....	1	20
Dever Bros. Paper Co., Paper	....	1	4	....	4	....	....	....
Diamond Ink Co., Inks	2	....	8	17	25	2	1	5
Doctor Bros. & Hornung, Tailors	1	....	6	....	6	....	....	....
Doelger & Kirsten, Machinists	2	....	25	....	25	1	1	40
Domacnost Pub. Co., Printing	....	1	3	1	4	....	....	....
Domestic Laundry Co., Laundry	....	1	2	6	8	....	....	....
Domminick, John, Clothing	1	....	6	20	26	....	....	....
Dorsch, John, & Sons, Repair	1	....	5	....	5	....	....	....
Dreher, Jacob, & Co., Printing	....	1	7	....	7	1	....	....
Duluth Roller Mills, Flour	1	2	15	....	15	....	....	....
Dutcher Foundry Co., Foundry	4	....	100	....	100	....	2	125
Dutcher, J. A. & P. E., Steel Works	5	....	100	....	100	....	2	160
Dyer Saddlery Co., Saddles	....	1	22	....	22	....	....	....
Eagle Lye Works, Lye	....	1	25	15	40	9	1	50
Erie Steamboat Line, Transportation	1	....	16	1	17	....	....	....
Ellsworth & Thayer, Coats & Gloves	....	1	49	57	106	....	1	28
Empire Laundry, Laundry	2	....	4	8	12	....	1	80
Engel, H. F., Tannery	3	....	22	3	25	1	1	60
Enterprise Box & Lumber Co., Boxes	8	....	180	....	180	36	3	400
Eureka Laundry, Laundry	1	....	12	41	53	....	2	80
Everly, J. M., Printing	....	1	12	....	12	2	....	....
Excelsior Publishing Co., Printing	....	1	8	....	8	1	....	....
Fiarbanks, Morse & Co., Repairing Scales	1	....	2	....	2	....	....	....
Faust Mfg. Co., Printing Machinery	....	1	5	1	6	....	....	....
Federal Mfg. Co., Steel Metal Stamping	1	2	481	3	484	23	6	480
Feix & Goethel Co., Tin Shops	....	1	10	....	10	....	....	....
Fernekes, J., Co., Candy	....	1	18	30	48	3	....	....
Figved Bros., Fur Dressing	2	....	10	....	10	....	1	15
Fillmann Bros., General Repairing	1	....	3	....	3	....	....	....
Fillmann Bros., General Repairing	1	....	3	....	3	....	....	....

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MILWAUKEE—Continued.								
Fixter, Jos., Cooperage Co., Cooperage	3	....	44	....	44	....	....	....
Fleischman & Co., Yeast Packing	....	1	8	4	12	....	....	....
Foelske, H. E., Confectionery	....	1	1	....	1	....	....	....
Forest Home Monument Co., Monuments	1	....	4	....	4	....	....	....
Forward Mach. & Tool Co., Tools & Patterns	2	....	30	....	30	....	1	50
Frank, L., & Son Packing Co., Sausage, etc.	....	1	50	2	52	12	2	100
Franzen, Wm., & Son, Glass Works	6	....	225	....	225	57	2	160
Frees, John, Awnings	1	....	....	2	2	....	....	....
French Wax Figure Co., Wax Figures	....	1	6	19	25	....	....	....
Friedlander Knitting Co., Knitting	....	1	3	156	159	24	....	....
Friend & Marks, Clothing	....	1	11	35	46	2	....	....
Friend Bros. Clothing Co., Tailors	....	1	16	24	40	2	....	....
Froedert Bros., Malt	8	4	23	....	23	....	3	280
Galland-Henning Co., Iron Works	1	....	75	....	75	....	1	150
Gallun, A. F., & Son, Tannery	12	7	449	1	450	6	8	600
Gavin Art Glass Works, Glass Works	2	....	15	....	15	1	....	....
Gem Hammock & Fly Net Co., Hammocks, etc.	....	1	300	200	500	65	3	225
Gem Laundry, Laundry	....	1	3	11	14	....	....	....
Gem Milling Co., Flour	1	1	12	....	12	....	3	120
General Construction Co., Stone Works	5	....	35	....	35	....	1	35
General Construction Co., Stone Mill	2	....	35	....	35	....	1	50
Gentz & Schroeder, Carriages	1	....	6	....	6	....	....	....
Gerlach, Wm., & Co., Malt	3	2	43	....	43	....	2	300
Gether, Drebert & Perkins Co., Printers' Sup	....	1	25	1	26	....	....	....
Gettleman, A., Co., Brewery	10	2	80	....	80	1	3	240
Gender & Paeschke Mfg. Co., Tinware	5	2	427	125	552	64	3	425
Gillett & Co., Printing	....	1	14	....	14	3	....	....
Globe Wire & Iron Works, Wire & Iron	2	....	24	1	25	3	1	30
Goerres, Phillip, Cooperage Co., Cooperage	4	....	40	....	40	....	1	85
Goodrich, A. S. & Co., Oil	3	....	20	....	20	....	1	130
Goodrich Transportation Line, Transportation	1	....	23	1	24	....	....	....
Gorenstein Bros., Scrap Iron & Rags	1	....	3	5	8	....	....	....
Graf, John, Soft Drinks	4	....	60	....	60	2	1	35
Grand Chemical Co., Chemicals	1	....	1	1	2	....	....	....
Grand Trunk Ry. System, Transportation	1	....	16	....	16	....	....	....
Grant Marble Co, Monuments	5	....	129	1	130	....	2	200
Graves-Seaman Parlor Tramels, Furniture	1	....	70	....	70	....	1	80
Grasselli Chemical Co., Chemicals	2	....	4	1	5	....	1	10
Great Western Knitting Co., Knitting	....	1	6	58	64	7	....	....
Greene's Stamp & Printing, Printing Stamps	....	1	6	....	6	....	....	....
Greenslade Foundry Co., Foundry	3	....	125	....	125	....	....	....
Gregg & Thomann, Laundry	....	1	4	35	39	....	1	60
Greve Show Printing Co., Printing	....	1	34	....	34	....	....	....
Grocers' Roasting Co., Coffee Roasting	....	1	6	....	6	....	....	....
Gross, J., & Sons, Coal Yards	4	....	75	2	77	....	3	270
Gruhl Sash & Door Co., Sash & Doors	5	....	60	....	60	....	2	150
Gurnz, R., Co., Packing-house	11	2	80	....	80	....	3	300
Habhegger, Theo., Carriages & Wagons	2	....	13	....	13	....	....	....
Hackendahl & Schmidt, Machinists	1	....	5	....	5	....	....	....
Hake, F. D., Printing	....	1	6	....	6	....	....	....
Hammersmith Engravings, Engraving	....	1	12	4	16	....	....	....
Hann-Wangerin Weickhashls, Church Furn	1	....	30	....	30	....	....	....
Hansen's Empire Fur Factory, Furs	....	1	40	60	100	2	....	....
Hansen, O. C., Mfg. Co., Gloves	....	1	70	85	155	5	....	....
Hanser, John & Sons, Soap	1	....	5	....	5	....	1	25
Hasse, Chas. F., Coal Co., Coal Yard	2	....	20	....	20	....	1	80
Hathaway, J. E. & Co., Pile Driving, etc.	2	....	40	....	40	....	....	....
Hays, George, Packing Boxes	1	....	14	....	14	1	1	30
Hebenstreit & Bartelt, Furniture	2	....	24	1	25	1	....	....
Heiman, M., & Co., Millinery	....	1	40	138	178	2	....	....
Heiman Cloak Co., Cloaks	....	1	1	21	22	2	....	....
Heinl, Jos., & Sons, Carriages & Wagons	1	....	20	....	20	....	1	50
Hendee Wire Brush Co., Brushes	....	1	23	1	24	11	....	....
Hennecke, C., Co., Stationery	....	1	52	2	54	18	....	....
Henes & Keller Co., Machinists	....	1	12	....	12	....	....	....

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MILWAUKEE—Continued.								
Henschel, C. B., Mfg. Co., Cigar Boxes	1	1	35	90	125	35	1	66
Henson-Hoff Malt Co., Elevators	....	1	36	....	36	....	3	450
Hepfinger, Louis, Machinists	1	....	2	....	2	....	....	....
Hess, W. A., Linotype Co., Linotype	....	1	4	2	6	....	....	....
Heyer, Geo. & Co., Furniture	....	1	45	1	46	2	....	....
High Service Pumping Station, Pumping Sta.	1	....	14	....	14	....	4	400
Hilbert, A. J., & Co., Perfumes	....	1	16	16	32	1	....	....
Hilty, M., Lumber Co., Lumber & Boxes	5	1	90	....	90	2	3	450
Hirsch Bros., Agricultural Imp.	2	1	25	....	25	....	1	30
Hock, John & Co., Plating	1	....	3	....	3	....	....	....
Hoelzl & Co., Printing	1	....	9	....	9	....	....	....
Hoffman & Billings, Machinery	4	2	275	25	300	30	3	250
Hoffman, B, Mfg. Co., Foundry	7	....	119	....	119	3	2	120
Hoffman & Baur, Sheet Metal	....	1	30	....	30	....	....	....
Hottelet & Co., Malsters	1	2	8	....	8	....	1	90
Hoyer, Edwin P., Printing	....	1	3	....	3	....	....	....
Hoyt Mfg. Co., Ranges, etc.	2	1	40	....	40	1	1	80
Hught Mfg. Co., Foundry	2	....	75	....	75	....	....	....
Hummel & Downing, Paper Boxes	....	1	15	10	25	3	....	....
Husting Co., E. L., Brewery	3	....	25	....	25	....	2	125
Hustler Pattern Works, Patterns	1	....	3	....	3	....	....	....
Hyman, Bauer & Neuman, Shirts, Pants, etc.	....	1	12	53	65	1	....	....
Ideal Steam Laundry, Laundry	2	....	9	33	42	....	1	65
Illinois Leather Co., Tannery	6	....	19	....	19	....	2	200
Illinois Steel Co., Iron & Steel	10	....	1300	1	1300	....	28	3600
Independent Brewing Co., Brewery	2	....	28	....	28	2	2	130
Independent Fuel Co., Coal & Wood	1	....	30	....	30	....	2	80
Interior Wood Work Co., Sash & Doors	1	1	85	....	85	13	2	125
International Harvester Co., Harvesting Machinery	15	7	730	....	730	15	6	700
Jacobs, K. W., Cooperage	7	....	32	1	33	2	1	65
Jalass, H. V., Boxes	1	....	9	....	9	....	1	60
Jenkins, W. F., & Co., Blank Books	....	1	13	40	53	12	....	....
Jenson, H. H., Patterns	1	....	5	....	5	....	....	....
Jewett & Sherman, Coffee & Spices	....	1	35	10	45	1	1	65
Johns, H. W., Manville Co., Magnesia Pipe Covering	5	3	312	33	345	5	10	1220
Johnson, B. J., Soap Co., Soap	1	1	55	34	89	9	3	265
Johnson, Robert J., Confectionery, etc.	....	1	100	240	340	40	2	125
Johnson Service Co., Electric Specialties	1	1	223	2	225	7	....	....
Jones, E. P., & Bro., Corks	3	....	9	....	9	....	1	40
Joys Bros. & Co., Awnings	....	1	14	10	24	....	....	....
Jung Brewing Co., Brewery	7	6	110	10	120	....	3	300
Kaempf, Fred. Coppersmith	1	....	9	....	9	1	....	....
Kaestner, A. J., Carriages & Wagons	1	....	10	....	10	....	....	....
Kalamazoo Knitting Co., Knitting	1	2	60	388	448	63	3	350
Kalt-Zimmer Mfg. Co., Infants' Shoes	....	2	50	75	125	8	....	....
Kempf-Smith Mfg. Co., Machinists	1	....	65	....	65	....	1	60
Ketter, Fred, Cooperage	3	....	40	....	40	....	1	60
Kieckhefer, A., Elevator Co., Elevators	5	....	30	....	30	....	1	50
Kipp, B. A., Co., Furniture	3	....	57	3	60	....	1	60
Klawing, J., & Co., Book-bindery	....	1	1	5	6	2	1	50
Kling, Geo. B., Harness	1	1	3	22	25	6	....	....
Knauber, J., Lithograph Co., Lithographers	....	1	45	7	52	7	....	....
Knebel, H. P., Furniture	1	....	12	....	12	....	....	....
Koeber & Balstone, Shoes	1	....	48	12	60	1	1	50
Kopperud, Andrew, Iron Works	2	....	20	....	20	....	1	150
Kraatz, Chas., Brick Co.	6	....	55	....	55	....	1	100
Kraus Landon Co., Printing	....	1	11	2	13	2	....	....
Kraus Shoe Co., Boots & Shoes	....	1	20	10	30	....	....	....
Krause & Co., Malting	....	2	4	....	4	....	1	75
Krause & Schneck, Machinists	1	....	10	....	10	....	1	12
Kremers-Urban Co., Chemicals	....	1	11	....	11	1	....	....
Krislinger, J. P., Co., Liquor House	....	1	6	....	6	....	....	....
Kropp, E. C., Printing	....	1	4	....	4	....	....	....

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Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
MILWAUKEE—Continued.								
Kruecke Bros. Mfg. Co., Brass Goods	1	....	27	2	29	....	....	....
Krueger & Domann, Printing	....	1	10	....	10	....	....	....
Krueger Mfg. Co., Machinists	1	....	6	....	6	....	....	....
Krus, Frank, Photo. Engraving	....	1	10	....	10	....	....	....
Kuenzli, H., & Co., Salt	1	....	3	....	3	....	....	....
Kundmann, W., Book-bindery	....	1	4	5	9	1	....	....
Kunz, J. L., Machinists	....	1	5	....	5	....	....	....
Kuryer Publishing Co., Printing	....	1	26	2	28	3	....	....
Ladwig, Walter F., Barber Supplies	....	1	3	....	3	....	....	....
Lamp & Miller Mfg. Co., Brass	2	....	25	....	25	....	....	....
Landon Electrotype Co., Electrotyping	....	1	6	3	9	2	....	....
Lange, A., Mfg Co., Saloon Fixtures	2	....	15	....	15	....	1	35
Langenberger, John, Contractors & Builders	1	....	20	....	20	....	1	100
Lauenstein, Gustav, Shoes	1	....	7	....	7	1	....	....
Lawrence, Christian, Wagons, etc.	1	....	4	....	4	....	....	....
Lawrence Bros. Macaroni Co., Macaroni	....	1	12	....	12	4	1	50
Leader Card Works, Stationery	....	1	5	7	12	1	....	....
Lehigh Valley Trans. Co., Warehouse	2	....	30	....	30	....	....	....
Leibenberg, A., & Son, Junk	....	1	4	2	6	....	....	....
Lemke, Aug. F., Broom Co., Brooms	1	....	11	....	11	....	....	....
Levenson, Max, Caps, etc.	....	1	2	1	3	....	....	....
Liedersdorf, B., Co., Tobacco	....	1	75	150	225	....	2	125
Lindeman, A. J., & Hoverson, Sheet Metal	11	2	300	2	302	30	2	250
Lindemann, J. P. & Sons, Sheet Metal, etc.	....	1	20	....	20	4	1	40
Lindsay Bros., Threshers	1	....	15	....	15	....	1	40
Linx, Wm., Hide Curing	1	....	10	....	10	....	....	....
Liquid Carbonic Acid Co., Carbonic Acid	1	....	17	1	18	....	....	....
Loeffelholz & Co., Brass Foundry	3	....	23	....	23	....	1	70
Loewenbach, B., & Son, Printing	....	1	12	8	20	....	1	23
Logeman Bros., Machinists	1	1	30	....	30	....	1	25
Lohr & Weifenbach, Monuments	1	....	10	....	10	....	....	....
Lowe, L., Co., Barber Supplies	....	1	11	....	11	....	....	....
Lull, C. R., Elevator Co., Grain	5	1	9	....	9	....	2	280
Lund, G., Lime	1	....	6	....	6	....	....	....
Lutter & Gies, Machinists	1	....	35	....	35	....	1	35
Maerker, Schulz & Co., Curled Hair	1	....	4	....	4	....	....	....
Mahler, Ahlenberg & Co., Clothing	....	1	40	75	115	4	....	....
Mandel Engraving Co., Engraving	....	1	21	1	22	2	....	....
Manegold Milling Co., Flour	1	2	20	....	20	....	3	300
Manistee, Luddington & Milw., Transportation	1	....	16	1	17	....	....	....
Manthey & Nelson, Machine Shops	1	....	3	....	3	2	....	....
Martin, Frank, Fur Dressing	2	....	13	2	15	....	1	80
Martin, Geo, Leather Co., Tannery	4	1	80	....	80	....	2	150
Mathews Bros., Furniture	4	2	127	3	130	....	2	150
Maxwell & Stillman, Plaster Works	2	....	30	....	30	....	....	....
Mayer, F., Boot & Shoe Co., Boots & Shoes	....	1	315	210	525	75	2	400
Mayer Cap Mfg. Co., Caps	....	1	9	3	12	1	....	....
Mayhew Mfg. Co., Furniture	4	4	260	....	260	43	3	200
McAlpine Engraving Co., Engraving	....	1	14	2	16	1	....	....
McGeogh Building Co., Manufacturing	....	1	6	....	6	....	2	140
Mechanical Appliance Co., Electric Motor Co.	1	....	30	8	38	4	1	80
Meckelberg, A. F., Sash & Doors	4	....	50	....	50	....	3	160
Meinecke & Son, Willow Ware, etc.	....	4	148	12	160	12	1	250
Meisenheimer Printing Co., Printing	1	....	17	....	17	....	....	....
Meissner-Bergwall Co., Extracts	....	1	7	2	9	....	....	....
Mellon, Wm., Brass Foundry	1	....	4	....	4	....	....	....
Metropolitan Mfg. Co., Clothing	....	1	9	86	95	14	....	....
Meyer, A. C., Co., Electrical Goods	....	1	14	1	15	1	....	....
Meyer Rotary Printing Co., Printing	1	....	38	7	45	5	....	....
Middleton Mfg. Co., Hats & Gloves	....	1	39	13	52	....	....	....
Miller Brewing Co., Brewery	17	3	330	20	350	14	6	1200
Miller, H. C. & Co., Stationery	....	1	73	50	123	9	....	....
Miller Mfg. Co., Wood Work	1	1	73	2	75	....	2	160
Millrath Printing Co., Printing	....	1	9	....	9	....	....	....
Milwaukee Automatic Machine Co., Machinery	1	1	80	....	80	....	2	120

ESTABLISHMENTS INSPECTED.

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	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs of age.	Number.	Total horse power.
MILWAUKEE—Continued.								
Milwaukee Bag Co., Bags	2	....	30	110	140	22	....	....
Milwaukee Barrel Co., Cooperage	2	1	70	11	81	....	2	80
Milwaukee Bedding Co., Bedding	....	1	22	8	30	1	....	....
Milwaukee Blank-Book Mfg. Co., Blank Books	....	1	145	....	145	30	....	....
Milwaukee Boiler Co., Boilers	1	....	75	....	75	....	1	75
Milwaukee Brass Mfg. Co., Brass Foundry	....	1	90	....	90	10	1	100
Milwaukee Brewery Co., Brewery	3	1	50	4	54	....	2	140
Milwaukee Bridge & Iron Wks., Bridge Wks.	5	....	80	....	80	5	1	150
Milwaukee Casket Co., Caskets	5	2	50	7	57	....	2	160
Milwaukee Cement Co., Cement Works	7	3	90	....	90	....	6	650
Milwaukee Chair Co., Chairs	9	1	300	....	300	19	3	350
Milwaukee Coffee Roasting Co., Coffee Roast.	1	....	3	....	3	....	....	....
Milwaukee Cold Storge Co., Storage	....	1	12	....	12	....	2	150
Milwaukee Corrugated Iron Co., Iron Foundry	2	....	100	2	102	....	2	120
Milwaukee Dry Dock Co., Vessel Repair	9	....	100	....	100	....	3	200
Milwaukee Dustless Brush Co., Brushes	....	1	48	1	49	6	....	....
Milwaukee Elevator Co., Elevators	3	2	14	....	14	....	4	490
Milwaukee Fire Department, Repair Shops	....	1	13	....	13	....	1	25
Milwaukee Gas Light Co., Gas Plant	....	1	250	....	250	....	9	900
Milwaukee Gas Light Co., Gas	9	....	95	....	95	....	4	800
Milwaukee Gas Light Co., Tar Refining	5	....	8	....	8	....	1	60
Milwaukee Hay Tool Co., Hay Tools	11	....	78	2	80	....	2	200
Milwaukee Journal, Printing	....	1	99	6	105	6	....	....
Milwaukee Lace Paper Co., Lace Paper	....	1	18	38	56	6	....	....
Milwaukee Legal News Pub. Co., Printing	1	....	6	....	6	1	....	....
Milwaukee Machinery Co., Machinery	1	....	8	....	8	....	....	....
Milwaukee Machine Tool Co., Tools	2	....	60	....	60	....	1	80
Milwaukee Malleable & Grey Iron Works, Foundry	2	....	175	....	175	13	1	80
Milwaukee Matting Co., Matting	2	2	15	....	15	....	....	....
Milwaukee Malt & Grain Co., Malt & Grain	....	5	35	3	38	....	....	....
Milwaukee Metal Working Co., Machinery	....	1	14	....	14	....	3	250
Milwaukee Net Co., Fly Nets	....	1	14	40	54	16	....	....
Milwaukee Novelty Dye Works, Dyeing	....	1	15	9	24	....	1	120
Milwaukee Ornamental Carving Co., Station'y	3	....	16	....	16	....	....	....
Milwaukee Ornamental Mfg. Co., Brass F'ndry	1	....	4	....	4	....	....	....
Milwaukee Papier Mache Works, Papier Mache	....	1	6	18	24	....	....	....
Milwaukee Parlor Frame Co., Frames	1	....	20	....	20	....	....	....
Milwaukee Pattern Works, Patterns	1	....	7	....	7	....	....	....
Milwaukee Printing Co., Printing	1	....	10	2	12	....	....	....
Milwaukee Skylight & Galv. Iron, Iron Works	1	....	6	....	6	....	....	....
Milwaukee Stamping Co., Hardware	1	....	6	....	6	....	1	60
Milwaukee Stove Foundry Co., Stoves	3	....	7	....	7	1	1	75
Milwaukee Stove Foundry Co., Foundry	7	1	50	....	50	....	1	50
Milwaukee Suspender Mfg. Co., Suspenders	....	1	1	6	7	....	....	....
Milwaukee Tack Co., Tacks	6	....	32	8	40	3	1	80
Milwaukee Tallow & Grease Co., Tallow, etc.	1	....	7	....	7	....	1	60
Milwaukee Valve Co., Brass Valves	2	....	9	2	11	1	....	....
Milwaukee Vinegar Co., Vinegar & Yeast	....	1	40	4	44	....	4	75
Milwaukee Wagon Iron Works, Wagon Hardware	4	....	35	1	36	1	1	100
Milwaukee–Western Fuel Co., Fuel	8	....	75	....	75	....	3	180
Milwaukee Woodwork Co., Woodwork	7	....	75	1	76	....	1	80
Milw. Worsted Cloth Co., Worsted Cloth	2	....	24	12	36	....	2	160
Milwaukee Worsted Mills, Worsted Cloth	7	....	85	85	170	40	4	450
Milwaukee Woven Wire Works, Woven Wire	3	....	35	....	35	4	1	80
Mitchell & Emerson Laundry, Laundry	....	1	5	24	29	2	....	....
Model Laundry Co., Laundry	2	....	11	63	74	2	1	100
Molltor, M., Pasteboard Boxes	....	1	11	42	53	6	1	40
Montgomery Annex Bldg., Manufacturers	....	1	10	2	12	....	....	....
Mooers, H., Machinery	1	....	53	1	54	....	....	....
Motor Car Power Equipment Co., Gas Engines	1	....	10	....	10	....	....	....
Mueller Furnace Co., Furnaces	....	1	30	....	30	....	....	....
Munich Statuary Co., Statuary	2	....	25	....	25	2	....	....

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	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
MILWAUKEE—Continued.								
Minkwitz, E. H., Machine Shops	2	....	15	....	15	....	....	....
My Laundry Co., Laundry	2	....	7	15	22	2	1	20
Nash, J. N., Machinists	1	....	20	....	20	....	....	....
National Biscuit Co., Confectionery, etc.	....	1	250	150	400	50	2	150
National Blower Works, Machinists	5	....	32	1	33	....	1	80
National Box Co., Boxes	2	....	33	....	33	5	1	70
National Distilling Co., Yeast	5	2	36	....	36	....	6	800
National Distilling Co., Distillers	6	3	45	....	45	....	6	600
National Elastic Nut Co., Elastic Nuts	8	4	486	....	486	2	4	500
National Enameling & Stamping Co., Tinware	8	10	806	275	1081	203	4	1200
National Envelope Co., Envelopes	....	1	30	65	95	8	1	50
National Knitting Co., Knitting	....	1	50	350	400	142	3	375
National Sash & Door Co., Sash & Doors	1	....	20	....	20	3	....	....
Nelson, S., & Co., Fur Dressing	3	....	15	....	15	....	1	60
New Method Laundry, Laundry	1	....	4	22	26	3	1	45
New York Seltzer & Soda Mfg. Co., Soda Water	1	....	9	....	9	....	....	....
Niedecker, H., Co., Bindery	....	1	49	12	61	2	....	....
Niedermeyer, A., Printing	....	1	2	....	2	....	....	....
Nordberg Mfg. Co., Machinists	4	1	400	....	400	....	2	300
Norman-Duffke Foundry Co., Foundry	4	....	75	....	75	....	1	50
North Avenue Fuel Co., Wood & Coal	1	....	10	....	10	....	1	20
North, Jacob, Screens	1	....	2	....	2	....	....	....
Northern Novelty Works, Plating & Polishing	1	....	4	....	4	....	1	20
Northern Wire & Cable Co., Machinists	....	1	3	....	3	....	....	....
North Side Carriage Co., Carriages	2	....	6	....	6	....	....	....
Northwestern Fuel Co., Wood & Coal	1	....	20	....	20	....	2	200
Northwestern Furniture Co., Store Fur., etc.	2	1	77	....	77	1	1	150
Northwestern Lithograph'g Co., Lithographers	1	....	39	1	40	4	....	....
Northwestern Malleable Iron Co., Foundry	14	....	1082	18	1100	46	4	400
Northwestern Pattern Works, Patterns	1	....	4	....	4	1	....	....
Northwestern Pub. Co., Printing	....	1	9	1	10	1	....	....
Northwestern Steam Laundry, Laundry	1	....	3	12	15	....	1	25
Northwestern Straw Works, Straw Hats, etc.	1	3	200	100	300	25	4	400
Northwestern Tile Co., Tile	5	....	60	....	60	....	....	....
Obenberger, J. & G., Co., Forge Works	1	....	30	....	30	....	1	30
Ogden, G. W. & Co., Carriages	....	1	11	1	12	....	....	....
O'Neil Oil & Paint Co., Oils, Paints, etc.	....	1	30	2	32	....	2	120
Ossit Bros., Woodworkers	4	....	22	2	24	....	1	30
Pabst Brewing Co., Brewery	14	16	1297	205	1502	69	24	3000
Pabst Brewing Co., Shipping	2	....	65	....	65	....	....	....
Packages Pub. Co., Printing	....	1	5	1	6	....	....	....
Pahl, E. F. & Co., Baby Carriages	2	....	2	....	2	1	....	....
Painjard Machine & Pattern Co., Patterns	1	....	4	....	4	....	....	....
Painter, B., Ladies' Hats	....	1	2	25	27	1	....	....
Palace Laundry Co., Laundry	1	....	8	25	33	2	1	80
Patton Paint Co., Paint	1	2	125	50	175	....	3	300
Pauding & Harmschfegler, Machinists	5	2	625	....	625	....	5	800
Peez & Hoffman, Carriages & Sleighs	1	....	6	....	6	1	....	....
Peterson, Charles, Clothing	1	....	1	9	10	....	....	....
Peterson, Robert, Paper Ruling	....	1	3	2	5	2	....	....
Pfister & Vogel, Tannery	4	1	320	....	320	....	5	600
Pfister & Vogel, Tannery	4	10	334	99	933	34	12	400
Pflugradt Co., Candy	....	1	30	40	70	34	1	50
Phila. & Reading Coal & Iron Co., Coal Docks	11	....	30	....	30	....	4	320
Phoenix Knitting Co., Knitting	1	....	15	275	290	62	2	120
Phoenix Machine Co., Machines	1	....	4	....	4	....	....	....
Phoenix Printing Co., Printing	....	1	5	....	5	1	....	....
Phoenix Tannery, Tannery	5	7	400	1	401	8	5	700
Pietsch, Otto, Dye Works, Dye Works	....	2	37	62	99	10	2	120
Pietsch, Ferdinand, Patterns	1	....	9	....	9	....	....	....
Plankington Packing Co., Packing House	12	5	300	2	302	2	9	1000
Podlasky, J., Fur dressing	....	1	13	....	13	....	1	30
Polacheck, Chas. & Bro. Co., Elec. Chandeliers	....	2	39	4	43	1	....	....
Pollworth, Frederick & Bro., Printing	....	1	23	3	26	3	....	....

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	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
MILWAUKEE—Continued.								
Pressed Steel Tank Co., Bed Springs	1	....	45	....	45	....	4	350
Pruss, R. J., Co., Bed Springs	....	1	35	....	35	....	....	....
Quinn, James Co., Bindery	1	....	6	....	6	....	....	....
Radtke Bros. & Kortsch Co., Printing	....	1	25	....	25	5	....	....
Rauschenberger, John Co., Cordage	6	....	36	....	36	15	1	75
Reckmeyer, Wm., & Co., Furs	....	1	11	14	25	....	....	....
Reckert & LaLoule, Leaf Tobacco	....	1	4	....	4	....	....	....
Reinart Mitten Co., Gloves	....	1	20	36	56	4	....	....
Reliable Boiler Works, Boilers	....	3	20	....	20	....	1	40
Reliance Electric Co., Motors	1	....	22	5	27	....	....	....
Reliance Gas & Oil Engine Co., Gas Engines	1	....	50	....	50	....	....	....
Rialto Elevator Co., Grain	1	1	25	....	25	....	2	450
Rice & Friedman Co., Shirts & Overalls	1	2	40	70	110	49	1	150
Richardson Printing & Paper Co., Printing	....	1	4	....	4	....	....	....
Rich Shoe Co., Shoes	....	1	125	75	200	11	1	80
Riemer Bros.' Shoe Co., Shoes	....	1	21	9	30	1	....	....
Rilling, J. E., & Co., Chairs	....	1	28	2	30	1	....	....
Ritter, Louis, Bar Fixtures, etc.	1	1	10	....	10	....	....	....
Riverside Printing Co., Printing & Engraving	....	1	70	....	70	5	2	200
Robinson Electro Plating, Electro Plating	1	....	5	....	5	....	....	....
Rock Washer Mfg. Co., Washers	3	....	10	10	20	4	3	310
Rockwell Mfg Co., Interior Furnishing	11	1	375	3	378	37	6	750
Rohn, Geo. F., Electric Contractor	1	....	22	1	23	2	....	....
Romadka Bros., Trunks	1	5	272	27	299	41	2	130
Roth Vinegar & Pickle Co., Pickles	1	....	7	13	20	....	1	20
Rub., Jos. Co., Furniture	....	1	30	1	31	....	....	....
Ruesch, Jacob Co., Machinists	1	....	3	....	3	....	1	20
Rundle Mfg. Co., Enamel Iron Ware	8	....	115	....	115	1	2	160
Rundle-Spence Mfg. Co., Plumbers, etc.	....	1	119	11	130	....	1	80
Rutland Transit Co, Transportation	1	....	5	1	6	....	....	....
Salsbury Laundry, Laundry	1	....	10	26	36	....	1	25
Saxe, J. E., Painting	....	1	5	....	5	....	....	....
Scaboth Co., Scrap Iron	1	....	12	....	12	....	1	25
Schaaf, F., Sausage	1	....	17	1	18	....	1	25
Schaefer & Co., Monuments	3	....	10	....	10	....	....	....
Schamer, Jos., Granite & Marble Co.	3	....	40	....	40	....	1	60
Schielke, H. C., Carriages, etc.	1	....	7	....	7	....	....	....
Schiffer, Geo. & Co., Cooper Tools	1	....	2	....	2	....	....	....
Schilberg, G. W., Bicycles & Machines	1	....	1	....	1	....	....	....
Schmidt, Bros., Printing	1	....	7	....	7	....	....	....
Schmidt, Phillip, Cooperage	1	....	12	....	12	....	....	....
Schmidt, P., & Co., Cut Stone	4	....	35	....	35	....	2	100
Schmitt, F., & Sons Co., Galvanized Iron	1	....	12	....	12	....	....	....
Schoellkoph, Hartford & Hanna Co., Soda Wks	2	....	4	....	4	....	1	24
Schoeneker, V., Boot & Shoe Co., Shoes	1	1	100	50	150	....	2	100
Schoeneker & Walter Co., Traveling Bags	1	....	35	7	42	3	....	....
Schoen Mfg. Co., Cloaks & Skirts	1	....	30	60	90	....	1	36
Schroeder, John, Lumber Co., Lumber	5	....	187	3	190	2	3	500
Schulz, Geo. A., & Co., Paper Boxes	....	1	113	168	281	76	2	180
Schwab, A. J. & Sons Co., Iron & Steel	....	1	90	3	93	....	1	80
Schwab, Phillip, Machines	2	....	15	....	15	....	....	....
Schwalback, M., & Sons, Tower, Auto., etc	1	....	3	....	3	....	....	....
Seaman, W. S., & Co., Furniture	....	1	30	....	30	....	1	80
Seebold, A. G., Scrap Iron, etc.	1	....	10	....	10	....	1	70
Seebote, D. W., Printing	....	1	3	....	3	....	....	....
Seeboth Bros. Co., Scrap Iron, etc.	....	1	50	20	70	....	1	30
Seidenberg & Hays, Cloaks	....	1	35	40	75	....	....	....
Sercomb, C. A., Mfg. Co, Soap	....	1	9	5	14	....	....	....
Sheriffs Mfg. Co., Machines	1	....	35	1	36	....	1	25
Siebers & Pederson, Patterns	1	....	6	....	6	....	....	....
Sight Feed Oil Pump Co., Oil Pumps	1	....	11	....	11	....	....	....
Signalphone Co., Electric Supplies	1	....	12	....	12	....	....	....
Skobis Bros., Steel Structural	2	....	35	....	35	....	1	80
Skubald, Sclauer Car'ge Co., Carriages, etc.	1	....	10	....	10	....	....	....
Slocum Straw Wks., Straw Felt Goods	....	1	55	74	129	....	....	....

ESTABLISHMENTS INSPECTED.

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	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
MILWAUKEE—Continued.								
Smith, C. S., Mfg. Co., Machinery	3		33	1	34	4	1	50
Smith, Geo. H., Steel Casting Co. Castings	1		100		100		1	60
Smith Machine Co., Concrete Machines	1		23		23			
Smith-Midbury Mfg. Co., Machinery	1		10	1	11		1	40
Special Machine Co., Machinery	1		3		3			
Standard Bedding Co., Bedding		1	30	6	36	2		
Standard Brass & Machine Co., Brass Mach.	2		7		7			
Standard Candy Co., Candy		1	12	23	35	14		
Standard Glove Wks., Gloves		1	10	8	18			
Standard Iron & Wire Wks., Iron & W. G'ds	1		8		8			
Standard Knitting Co., Knitting	1		6	16	22	4		
Standard Oil Co., Oil	1		25		25		1	80
Standard Victoria Laundry, Laundry	1		7	21	28		1	30
Starke, D. H., Dredge & Dock Co., Dredging	5		100		100		1	25
Star Tannery, Tannery	5	3	93		93	1	3	225
Stickbauer, Jos., Horseshoes	1		4		4			
Stock, Chas. D., Jr., Coppersmith	1		2		2			
Stolper, Chas., Cooperage Co., Cooperage	11		50	1	51		2	150
Sturder, William, Cases		1	10		10			
Sueltoahn & Seefeld	3		22		22		1	100
Tabor Glove Co., Gloves		1	75	100	175	12		
Tainsh & Co., Printers		1	5		5	1		
Tewels & Grundman & Co., Upholsterers		1	27	1	28	1		
The American Fine Art Co, Fine Arts		1	120	10	130		2	80
The Clinton-Burnham F'dry Co., Foundry	5		16		16		1	75
The Kutler-Hammer Mfg. Co., Elec. Devices	3	1	242	6	248	8	1	80
The Daily Reporter, Printing	1		7		7			
The Edward Keogh Press, Printing		1	41	4	45	4		
The Evening Wisconsin, Printing		1	119	16	135	6	1	25
The Falk Co., Machine Shops	15		331	2	333		4	700
The F. C. Gross Bros. Co., Packing House	6		40		40		2	125
The Filer & Stowell Co., Machinery	4	2	542	4	546		2	400
The Fuller & Warren Co., Stoves	7	1	548	2	550	4	3	250
The Greene Tel. & Elec. Mfg. Co., Telephones		1	10		10			
The Gugler Lithographing Co., Lithographing		1	137	24	161	8	2	120
The Heil Rail Joint Welding Co., Steel Tanks	1		15		15			
The Heinn Specialty Co., Albums		1	71	33	104	5		
The Herold Co., Printing		1	79	11	90	1		
The Kazall Mfg. Co., Bindery		1	12	18	30			
The Layton Co., Packing House	7	1	60		60		2	140
The Merkel Mfg. Co., Motor Cycles	2		20		20			
The Miller & Sons Co., Boxes	9	1	142	33	175	28	3	200
The Milwaukee Blank-bk. Mfg. Co., Bl'k Bks.		1	40	62	102	15		
The Milwaukee Elec. Ry. & Lt. Co., Power	3	5	224	2	226		35	12.-600
The Milwaukee Elec. Ry. & Lt. Co., Power		1	66	29	95	8	5	1900
The Milwaukee Gas Light Co., Repair Meters		1	90		90			
The Milw. Incandescent Lt. Co., Mantles		1	2	2	4			
The Milw. Lithographing Co., Lithographing		1	71	7	78	13	2	160
The Milwaukee Mueller Co., Boilers	1		75		75		1	60
The Milwaukee Sentinel, Printing		1	253	34	287			
The M. & O. Company, Electric Apparatus	1		16		16			
The Model & Specialty Co., Machinery	1		4		4			
The Montgomery Bldg., Offices		2	7	2	9		3	240
The Morawetz Co., Furs		1	10	16	26			
The Mueller & Sons Co., Boxes	3	1	124	30	154	33	3	150
Theobalt & Ehlert, Purses, etc.		1	3	8	11	1		
The Phila. & Reading Coal & Iron Co., Coal	3		5		5		1	100
The Prinz & Rau Mfg. Co., Machinery		1	55	3	58		1	80
The R. J. Preuss Co., S ring Beds, etc.	2	1	30		30	2		
The Schwab Stamp & Seal Co., Metal Wks.		1	29	1	30	4		
The Sentinel Bindery, Book Bindery		1	17	28	45	5		
The Singer Mfg. Co., Repairing		1	20	4	24			
The Specialty Mfg. Co., Machinery		1	4		4			
The Sun Mfg. Co., Ink & Carbon Paper		1	10		10			

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs of age.	Number.	Total horse power.
MILWAUKEE—Continued.								
The Towell Printing Co., Printing	....	1	14	....	14	1	....	....
The Twentieth Century Press, Printing	1	....	19	5	24	3	....	....
The Whitnall Coal Co., Coal	12	....	50	....	50	....	2	200
The Wollager Mfg. Co., Furniture	3	3	126	....	126	....	2	150
Thomas Furnace Co., Furnaces	5	....	160	1	161	....	5	500
Toepfer, W. & Sons, Iron Works	5	....	60	....	60	....	1	60
Trenkamp, F. & Co., Soap	2	....	8	....	8	1	1	30
Trinkner, H., Wagons & Carriages	1	....	5	....	5	....	....	....
Ulrich, Albert, Carpet Cleaning	1	....	4	....	4	....	....	....
Union Refrigerator Transit Co., Refrigerators	5	....	80	....	80	....	1	80
U. S. Envelope Co., Envelopes	....	1	20	75	95	25	2	150
U. S. Gypsum Co., Patent Plaster	....	1	22	....	22	....	2	150
United Web Suspender Co., Suspenders	....	1	3	1	4	2	....	....
Usinger, Fred, Sausage	1	1	20	6	26	....	1	60
Van Dyke Knitting Co., Knitting	....	1	15	150	165	25	2	80
Vaughn Atlantic Laundry Co., Laundry	....	1	4	23	27	1	1	50
Vaughn Machine Co., Machines, etc.	....	1	6	1	7	....	....	....
Vera Chemical Co., Chemicals	4	....	12	....	12	....	1	50
Vilter Mfg. Co., Machinists	5	....	400	....	400	....	4	300
Vizay, Bornstein Co., Cloaks & Suits	....	1	8	7	15	....	....	....
Voss, H., Bindery	....	1	40	73	113	19	....	....
Wadhams Oil & Grease Co., Oil & Grease	....	1	50	4	54	....	2	120
Wagner, A. F., Architectural Iron	1	....	16	....	16	....	1	80
Waldeck, Ed. F. & Co., Jewelry	....	1	4	....	4	1	....	....
Wallace, Smith & Co., Saddlery	....	2	115	61	176	9	....	....
Wallman Mfg. Co., Oil Tanks	1	....	17	4	21	5	....	....
Warnke & Co., Jeweler	....	1	7	....	7	1	....	....
Water Heater Mfg. Co., Water Heaters	....	1	5	....	5	....	1	10
Weaver-Austin Coal Co., Coal	7	....	30	....	30	....	2	250
Weingardt, A., Wool Cards	1	....	2	....	2	....	1	10
Weise, Paul, Upholstering	2	2	17	4	21	....	....	....
Weisel & Co., Sausage	5	2	30	....	30	....	1	80
Weiss & Schmidt, Pottery	2	1	10	....	10	....	1	35
Wellauer & Hoffmann	....	1	4	....	4	....	....	....
Werbach, L., Mineral Water, etc.	1	....	15	30	45	3	1	15
Western Grip & Trunk Co., Trunks, etc.	....	1	136	3	139	3	....	....
Western Hardware Mfg. Co., Iron Beds	3	1	140	15	155	3	2	65
Western Leather Co., Heel Leather	2	1	26	118	144	13	2	250
Western Malleable Iron Wks., Malleable Iron	4	....	125	3	128	4	1	80
Western Mfg. Co., Machine Tools	....	1	8	....	8	....	....	....
Western Overall Co., Overalls & Jackets	1	....	5	20	25	....	....	....
Western Rawhide Belting Co., Tanning, etc.	....	1	20	....	20	....	1	80
Western Soda Fountain Co., Soda Water	1	....	15	....	15	....	....	....
Westfahl, F. & Co., File Works	2	....	40	....	40	3	2	200
Westlake, Hunt, Smith & Co., Printing	....	1	14	....	14	2	....	....
Westphal, C. T. H., Barber Supplies	1	....	2	....	2	2	....	....
West Side Mfg. Co., Sash & Doors	5	....	48	....	48	1	1	100
Wetzel Bros. Printing Co., Printing	....	1	53	1	54	....	....	....
Weinbrenner Shoe Mfg. Co., Shoes	....	1	70	28	98	6	....	....
Weimer, E., Upholstering	....	1	48	2	50	....	....	....
Witnall & Rademaker Sup. Co., Bldg. Mat.	10	....	25	....	25	....	1	80
Wiens, A. R., Brush Co., Brushes	....	1	24	1	25	1	....	....
Wiesen Heel Co., Metal Heels	....	1	15	15	30	....	1	50
Wilbur Seed Meal Co., Seed Meal	....	1	12	29	41	2	....	....
Willer Mfg. Co., Door & Window Screens	3	1	76	2	78	2	2	155
Wilmans Bros. & Co., Lithographing	....	1	50	....	50	10	1	43
Winding & Gazelschap, Tar	2	....	15	....	15	....	....	....
Windsor Mfg. Co., Lead Pipe	1	....	7	....	7	....	1	20
Wisconsin Central Ry. Co., Transportation	1	....	38	....	38	....	....	....
Wisconsin Furniture Co., Furniture	4	1	85	....	85	7	2	150
Wisconsin Iron & Wire Wks., Ornam. Iron	1	....	70	1	71	....	1	125
Wisconsin Knitting Wks., Knitting	....	1	3	18	21	....	....	....
Wisconsin Mach. & Mfg. Co., Mach. Shops	3	....	8	....	8	....	1	60
Wisconsin Mal. Iron Wks., Malleable Iron	7	....	700	....	700	....	4	510
Wis. Overall Mfg. Co., Overalls, Shirts, etc.	....	1	2	12	14	1	....	....
Woods Steam Laundry, Laundry	....	1	6	25	31	....	1	40

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
MILWAUKEE—Continued.								
Wrensch, B. F., Shoe Factory	....	1	40	....	40	12	1	40
Wright & Joys Co., Printing	....	1	34	6	40	1	....	....
Wright, E. & Co., Bed Springs	1	....	20	....	20	....	2	150
Wrought Washer Mfg. Co., Washer Works	8	....	95	15	110	5	3	300
Yewdale, J. H., & Sons Co., Printing	....	1	105	42	147	7	....	....
Young, Benj., Harness	....	1	85	4	89	1	....	....
Young, Churchman Co., Printing	....	1	7	3	10	1	....	....
Young Specialty Co., Savings Banks, etc.	1	....	5	....	5	....	....	....
Zepp, Adam, Brooms	1	....	4	....	4	1	....	....
Ziegler, Geo. Co., Candy	....	1	45	161	206	98	3	240
Zimmerman Bros., Clothing	....	1	10	4	14	3	....	....
Zimmerman & Schilling, Printing	....	1	3	....	3	....	....	....
Zohrlaut, Herman, Leather Co., Tannery	6	4	239	1	240	1	4	700
Zwengel, Henry, Jeweler	....	1	8	....	8	....	....	....
Zwietusch, Otto Co., Soda Water Apparatus.	2	....	39	....	39	....	1	50
Total	1257	527	45,433	8723	54,156	2991	747	80,030
MINERAL POINT, IOWA CO.—								
Graber & Theis, Feed	1	....	2	....	2	....	....	....
Ludden, F. C., Ice	1	....	2	....	2	....	1	45
Martin, J. C., Feed	1	....	3	....	3	....	....	....
Mineral Pt. Elec. Lt. Co., Elec. Lights	1	....	3	....	3	....	2	250
Mineral Point Zinc Co., Zinc & Acid	25	4	198	2	200	....	4	400
Mineral Spring Brewery, Brewery	8	....	5	....	5	....	1	80
Spensley & Hoare, Creamery	1	....	4	....	4	....	1	20
Total	38	4	217	2	219	....	9	795
MONROE, GREEN CO.—								
Aberg, Roy J., Laundry	1	....	2	3	5	....	1	16
Bordens Condensed Milk Co., Cond. Milk	5	....	17	7	24	....	2	250
Fitzgibbons Bros., Carriage Factory	2	2	29	....	29	....	....	....
Green Co. Herald, Printing	1	....	5	....	5	....	....	....
Lang, A. & Son, Carriages	7	....	15	....	15	....	2	120
Maurer, Chas., Gloves	1	....	40	40	80	....	1	30
Monroe Brewery, Brewery	7	4	14	....	14	....	2	250
Monroe Daily Journal, Printing	1	....	3	2	5	....	....	....
Monroe Evening Times, Printing	1	....	6	....	6	....	....	....
Monroe Gas Co., Gas Plant	1	....	4	....	4	....	....	....
Monroe Electric Lt. & Power Co., Lt. & Power	3	....	4	....	4	....	2	30
Monroe Planing Mill Co., Planing	5	....	14	....	14	....	1	50
Monroe Sentinel, Printing	1	....	6	....	6	....	....	....
Swamp Angel Job Printing, Printing	1	....	1	....	1	....	1	1
Total	37	6	160	52	212	....	12	747
NASH, BAYFIELD CO.—								
Ashland, Siskiwit & I. R. Ry. Co., Shops	3	....	60	....	60	....	1	30
NASHVILLE, FOREST CO.—								
Rogers Lumber Co., Lumber	2	....	50	....	50	....	2	100
NEENAH, WINNEBAGO CO.—								
Aylward, W. M. & Son, Foundry	4	....	9	....	9	....	....	....
Bergstrom Paper Co., Paper	10	....	67	23	90	4	5	800
Blair, T. B., Printing	1	....	1	1	2	....	....	....
Fox Riv. Val. Gas & Elec. Co., Gas & Elec.	5	....	3	....	3	....	1	80
Jameson, Robert, Machinery	1	....	2	....	2	....	....	....
Jersild Knitting Co., Sweaters	4	....	6	94	100	....	8	1200
Johnson Bros. Machine Co., Machinery	1	....	5	....	5	....	....	....
Kimberly & Clark Paper Co., Paper	13	5	215	26	241	....	5	650
Kruger & Lackman Milling Co., Flour	3	2	10	....	10	....	1	150

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	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs of age.	Number.	Total horse power.
NEENAH—Continued.								
Neenah Boot & Shoe Co., Boots & Shoes	....	1	35	15	50	1	....	....
Neenah Brass Co., Brass	1	....	3	....	3	....	....	....
Neenah Brewery, Brewery	4	....	1	....	1	....	1	8
Neenah Paper Co., Paper	11	1	63	13	76	....	3	700
Neenah Stove Works, Stoves	6	2	65	....	65	....	1	65
Neenah Times, Printing	1	....	7	1	8	....	....	....
News Publishing Co., Printing	2	....	5	4	9	....	....	....
Wickert, E. T., Sash & Doors	7	....	20	....	20	....	1	65
Total	74	11	517	177	694	5	26	3718
NEILLSVILLE, CLARK CO.—								
Cash, O. R., Steam Laundry, Laundry	1	....	1	2	3	....	1	16
Larson, Pump & Windmill Co., Windmills	1	....	1	....	1	....	1	18
Marsh, A. B., Co., Elevator	1	1	1	....	1	....	....	....
Neillsville Brewing Co., Brewery	3	1	4	....	4	....	1	35
Neillsville Cash Milling Co., Flour	3	1	4	....	4	....	1	50
Neillsville City Water Works, Water	2	....	1	....	1	....	2	100
Neillsville Electric Light Co., Lighting, etc	1	....	1	....	1	....	....	....
Neillsville Novelty Co., Bee Hives	3	....	2	....	2	....	1	30
Neillsville Planing Mill, Lumber	1	....	2	....	2	....	1	20
Neillsville Times, Printing	1	....	2	....	2	....	....	....
Republican & Press, Printing	1	....	2	2	4	....	....	....
The German American, Printing	1	....	4	....	4	....	....	....
Wisconsin Furniture Mfg. Co., Furniture	6	1	75	5	80	7	2	160
Wolff & Korman, Wagons	3	....	4	....	4	....	1	18
Total	28	4	104	9	113	7	11	447
NEKOOSA, WOOD CO.—								
The Nekoosa Paper Co., Paper & Pulp	11	2	354	12	366	2	....	....
NEW LONDON, WAUPACA CO.—								
City Water Co., Water	3	....	1	....	1	....	1	80
Foote, A. D. & Co., Flour	....	1	7	....	7	....	1	75
Freiburger, Geo. & Sons, Wagons, etc	1	....	7	....	7	....	1	10
Hatten Lumber Co., Lumber	3	....	148	2	150	....	5	225
Jensen, A., Milling Co., Flour	1	2	7	....	7	....	1	70
Knapstein, Theo., & Co., Brewery	11	4	9	....	9	....	1	36
Madson, H. P., Machinists	1	....	2	....	2	....	1	10
Model Steam Laundry, Laundry	1	....	1	4	5	....	1	15
New London Bottling Works, Mineral Water	2	....	3	....	3	....	1	15
New London Condensing Co., Condensed Milk	6	....	6	....	6	....	2	80
New London Elec. Lt. Co., Light & Power	1	....	2	....	2	....	2	160
New London Iron Works, Machinists	2	....	3	....	3	....	....	....
New London Press, Printing	1	....	2	2	4	....	....	....
New London Republican, Printing	1	....	3	3	6	....	....	....
Page & Lyon Mfg. Co., Bee Hives	8	....	35	....	35	....	1	75
Wisconsin Chair Co., Chairs	6	2	203	12	215	15	2	225
Total	48	9	439	23	462	15	20	1075
NEW RICHMOND, ST. CROIX CO.—								
Diesen, D. C., Cording	1	....	3	....	3	....	1	15
Duer, C. J., Machinists	1	....	2	....	2	....	....	....
Farmers' Grain Co., Elevator	2	....	3	....	3	....	....	....
Jagger's Novelty Works, Wood Working	1	....	4	....	4	....	....	....
New Richmond Elec. Light & Power Co., Light	1	....	2	....	2	....	2	120
New Richmond Roller Mills Co., Flour, etc	5	....	34	1	35	....	3	130
Plumington's Monument Works, Monuments	1	....	2	....	2	....	....	....
Republican-Voice, Printing	1	....	4	....	4	....	....	....
Richmond Dairy & Cheese Co., Creamery	1	....	2	....	2	....	1	30

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	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
NEW RICHMOND—Continued.								
Superior Creamery Co., Creamery	1	....	2	....	2	....	1	16
Tracer & Barrett, Woodworking	1	....	15	....	15	....	....	....
Willow River Lumber Co., Lumber	4	....	198	2	200	....	5	400
Total	20	....	271	3	274	....	13	711
NORTH CRANDON, FOREST CO.—								
Bailey, G., Lumber	1	....	20	....	20	....	2	100
NORTH MILWAUKEE, MILWAUKEE CO.—								
North Milwaukee Electric Light Co., Lighting	2	....	2	....	2	....	2	14
Poppert, Geo., Mfg. Co., Sash & Doors	4	....	90	....	90	2	3	260
Schneider Furniture Co., Furniture	3	....	40	....	40	2	1	100
Smith & Barns Mfg. Co., Pianos	1	....	3	....	3	....	....	....
Wagner, E. R., Mfg. Co., Hardware, etc.	3	....	75	5	80	....	1	75
Wisconsin Bridge & Iron Co., Bridge Iron	3	1	325	2	327	6	2	200
Total	16	1	535	7	542	10	9	649
OCONTO, OCONTO CO.—								
Alert & McGuire Pickle Co., Pickles	1	....	3	....	3	....	....	....
Citizens Electric Light Co., Lighting	1	....	5	....	5	....	2	200
Gilke-Penalton Co., Lumber	1	....	30	....	30	....	4	200
Holt Lumber Co., Lumber	16	....	405	....	405	16	9	700
Oconto Brewing Co., Brewery	1	....	10	....	10	....	1	75
Oconto Canning Co., Canning	3	....	5	15	20	....	2	80
Oconto Co., Lumber	10	....	140	....	140	....	8	600
Oconto County Reporter, Printing	1	....	3	4	7	1	....	....
Oconto Milling Co., Flour & Feed	....	1	2	....	2	....	1	80
Peoples Land & Manufg. Co., Electric Plant.	1	....	4	....	4	....	2	180
The Enterprise, Printing	1	....	3	2	5	....	....	....
Water Co., Water	1	....	2	....	2	....	3	180
Total	37	1	612	21	633	17	32	2295
OCONTO FALLS, OCONTO CO.—								
Cota, Geo., Elevator	1	....	2	....	2	....	....	....
Falls Mfg. Co., Paper, Pulp, etc.	20	....	192	8	200	10	9	1440
The Herald, Printing	1	....	3	1	4	....	....	....
Union Mfg. Co., Pulp	4	....	45	....	45	4	1	100
Total	26	....	242	9	251	14	10	1540
ODANAH, ASHLAND CO.—								
Stearns, J., Lumber Co., Lumber	9	....	300	....	300	7	6	700
OREGON, DANE CO.—								
Barnard & Wilder, Tobacco Warehouse	1	....	27	13	40	....	....	....
Cramer, Jas., Machine Shop	1	....	3	....	3	....	....	....
Oregon Observer, Printing	1	....	1	2	3	....	....	....
West & Spink, Feed	1	....	2	....	2	....	....	....
Total	4	....	33	15	48	....	....	....
OSHKOSH, WINNEBAGO CO.—								
American Grass Twine Co., Grass Twine	13	....	100	115	215	....	3	225
Arnold Vinegar & Yeast Co., Vinegar, etc.	3	....	1	....	1	....	1	35
Badger Plating Works, Plating	1	....	2	....	2	....	....	....
Baldauf, Louis, Repair Shop	1	....	1	....	1	....	....	....
Ballard, A. W., Sons, Co., Bicycles	1	....	2	....	2	....	....	....
Banderobe-Chase Co., Furniture	9	2	177	1	178	23	2	400
Battis Bros., Boilers	4	....	12	....	12	1	....	....
Brand, Robert & Sons, Bank Fixtures	1	2	24	....	24	....	....	....

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
OSHKOSH—Continued.								
Buckstaff-Edwards Co., Chairs, etc.	5	4	244	66	310	12	4	400
Campbell & Cameron Co., Box Fact'y & Lumber	10	....	95	....	95	4	3	300
Castle-Pierce Printing Co., Printing	1	....	12	3	15	....	....	....
Challoner, Geo., & Co., Machinery	9	....	45	....	45	....	1	75
Clark, J. L., Carriages	10	....	119	6	125	2	....	....
Cook & Brown Lime Co., Lime	5	....	20	....	20	....	....	....
Crystal Laundry, Laundry	1	....	1	5	6	....	1	20
Davis-Hanson Co., Pumps	12	....	31	1	32	....	1	40
Diamond Match Co., Matches	16	....	175	122	297	41	4	320
Diamond Sticky Fly Paper Co., Fly Paper	2	....	10	10	20	....	1	60
Doman, H. C., Gas Engines	3	....	38	....	38	....	....	....
Duggan Printing Co., Printing	1	....	5	....	5	....	....	....
Dunham & Co., Glue	1	....	10	....	10	....	....	....
Edwards-Ihrig Co., Mattresses	....	1	9	4	13	1	....	....
Forewarned Sleeve Protector Co., Sleeve Protectors	1	....	1	3	4	....	....	....
Foster-Lothman Mills, Sash & Doors	9	1	171	....	171	13	3	400
Gillen's Laundry & Dye Works, Laundry, etc.	4	....	5	24	29	2	2	80
Gillingham & Son, Wagons	1	....	5	....	5	....	....	....
Globe Printing Co., Printing	1	....	11	3	14	1	....	....
Gould Mfg. Co., Sash & Doors	7	2	146	5	151	5	2	200
Gunz Bros., Wagons	1	....	5	....	5	....	....	....
Hayes, E. B., Machine Co., Machinery	8	....	41	....	41	....	1	40
Hicks Printing Co., Printing	1	....	29	1	30	1	....	....
Hollister, Amos & Co., Lumber	7	....	149	1	150	....	3	450
Horn & Allen Co., Flour	1	1	4	....	4	....	1	100
Jones & La Borde, Boats, etc.	1	....	10	....	10	....	....	....
Kaufmann, Chas., Repairs	1	....	3	....	3	....	....	....
Kusche, Edward, Lime	2	....	3	....	3	....	....	....
Laus, Jos., Candy	1	....	5	4	9	....	....	....
Mathwig, John, Wagons	1	....	3	....	3	....	....	....
McMillan, R., & Co., Sash & Doors	16	....	188	2	190	8	3	340
Morgan Co., The, Sash & Doors	8	2	418	10	428	13	3	765
Neville, Thos., Carriages	....	1	20	....	20	....	....	....
Novelty Key Tack Co., Novelties	1	....	2	....	2	....	....	....
Oshkosh Bedding Co., Mattresses	....	1	6	3	9	....	....	....
Oshkosh Brewing Co., Brewing & Bottling	16	2	24	....	24	1	4	200
Oshkosh Brush Co., Brushes	1	....	7	9	16	5	....	....
Oshkosh Box Factory, Cigar Boxes	2	....	8	8	16	....	1	25
Oshkosh Clothing Mfg. Co., Clothing	....	1	8	60	68	....	....	....
Oshkosh Electric Light & Power Co., Light	1	....	18	....	18	....	3	970
Oshkosh Furniture Co., Furniture	5	2	101	1	102	4	2	250
Oshkosh Gas Light Co., Gas	5	....	20	....	20	....	2	185
Oshkosh Grass Matting Co., Matting	3	....	15	20	35	....	....	....
Oshkosh Logging Tool Co., Tools	3	....	57	3	60	....	....	....
Oshkosh Machine Co., Machinery	....	1	3	....	3	....	....	....
Oshkosh Muslin Underwear Co., Underwear	1	....	3	47	50	....	....	....
Oshkosh Paint Co., Paints	2	....	4	....	4	....	....	....
Oshkosh Shirt Co., Shirts	1	....	1	3	4	....	....	....
Oshkosh Soap Co., Soaps	2	....	4	....	4	....	1	20
Oshkosh Trunk Co., Trunks	3	2	55	5	60	....	2	240
Oshkosh Water Works, Water	4	....	5	....	5	....	4	400
Paine Lumber Co., Lumber, Sash & Doors	32	1	940	20	960	48	13	1630
Radford Bros. & Co., Lumber, Sash & Doors	10	....	207	1	208	15	4	300
Rahr Brewing Co., Brewery	4	1	5	....	5	....	....	....
Ransom Mfg. Co., Machinery	1	....	6	....	6	....	....	....
Reliance Boiler Works, Boilers	1	....	10	....	10	....	....	....
Reliance Flouring Mills, Flour	1	1	7	....	7	....	1	100
Schmidt, H. P., Co., Flour	1	1	8	....	8	....	1	150
Schmit Bros. Trunk Co., Trunks	2	2	114	60	174	15	1	100
Schneider, Louis, Bottle Covers	3	....	11	29	40	....	1	16
Schram, A. W. & Son, Rockers	5	1	55	5	60	....	....	....
Schulz, Aug., & Co., Cooperage	1	....	2	....	2	....	1	10
Star Foundry & Machine Works, Foundry	5	....	22	....	22	....	1	25
Starkweather, The R. R. Co., Woodworking	7	....	43	1	44	....	1	75

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
OSHKOSH—Continued.								
Streich, A., & Bros., Wagons	3	....	56	2	58	1	1	100
Streich, Gabriel, Wagons	5	1	24	1	25	....	1	75
Termaat & Monahan, Gas Engines	1	....	5	....	5	....	....	....
Times Publishing Co., Printing	1	....	29	1	30	....	....	....
Theilen, John, Distilling Co., Distillery	3	1	3	....	3	....	1	60
Thiemann, A. R., Plating	1	....	1	1	2	....	....	....
Troy Steam Laundry, Laundry	1	....	3	17	20	....	1	30
U. S. Engine Works, Engines	1	....	3	....	3	....	....	....
Walker & Challoner, Machinery	1	....	3	....	3	....	....	....
Warwick & Cole Co., Elevators	....	1	4	....	4	....	....	....
Wenrich, H. F., Monuments	3	....	15	....	15	....	....	....
Williamson & Libby Lbr. Co., Sash & Doors	9	....	200	....	200	5	3	375
Wilson Bros., Wagons	1	....	4	....	4	....	....	....
Winnebago Traction Co., St. Railway	2	....	58	2	60	....	3	800
Wisconsin Art Glass Co., Glass	1	....	12	....	12	....	....	....
Wisconsin Pulp Plaster Co., Pulp Plaster	2	....	7	9	16	5	1	100
Wisconsin Telegraph, Printing	1	....	8	4	12	....	....	....
Ziebell, R. C., Patterns	1	....	2	....	2	....	....	....
Total	340	35	4558	698	5256	221	93	10,-
PARK FALLS, PRICE CO.—								
Flambeau Paper Co., Paper Mill	3	....	79	6	85	3	6	500
Rieben, Christian, Lumber	1	....	8	....	8	1	1	12
Winnebago Realty Co., Shingles	1	....	35	....	35	....	....	....
Total	5	....	122	6	128	4	7	512
PESHTIGO, MARINETTE CO.—								
Parley-Lowe & Co., Lumber & Planing	2	....	170	....	170	....	5	500
Peshtigo Flour Mill Co., Flour	....	1	3	....	3	....	....	....
Peshtigo Times, Printing	1	....	3	1	4	....	....	....
The Peshtigo Lumber Co., Lumber	2	....	18	....	18	....	5	500
The Peshtigo Milling Co., Flour	....	1	2	....	2	....	....	....
Wisconsin & Michigan Ry. Co., Shops	4	....	48	....	48	....	1	10
Total	14	2	244	1	245	....	11	1010
PHILLIPS, PRICE CO.—								
Davis, J. R., Lumber Co., Lumber	13	....	400	....	400	5	9	1130
Miller, Geo. P., Lumber Co., Lumber	3	....	40	....	40	1	1	125
Total	16	....	440	....	440	6	10	1255
PLATTEVILLE, GRANT CO.—								
Boll, W. J., Machine Shop	1	....	1	....	1	....	....	....
Capititola Mining Co., Mining	3	....	19	....	19	....	....	....
Crystal Steam Laundry, Laundry	1	....	3	3	6	....	1	10
Empire Mining Co., Mining	2	1	18	....	18	....	1	60
Grindell Brick Co., Brick	5	....	13	....	13	....	....	....
Hibernia Mining Co., Mining	2	....	10	....	10	....	1	40
Hoppe Brewing Co., Brewery	2	3	7	....	7	....	1	1
Lucky-four Mining Co., Mining	1	1	10	....	10	....	1	60
Plapp, J. D., Butter Tubs	2	....	1	....	1	....	1	20
Platteville Cheese & Produce Co., Creamery	3	....	2	....	2	....	1	20
Platteville Elec. Light & Power Co., Light	3	....	3	....	3	....	3	320
Platteville Foundry & Mach. Co., Mach. Shop	3	....	26	....	26	....	1	80
Platteville Lead & Zinc Co., Mining	8	....	30	....	30	....	1	60
Platteville Water Works, Water	2	....	2	....	2	....	2	200
Schroeder Feed Mill, Feed	2	....	3	....	3	....	....	....
St. Rose Mining Co., Mining	4	....	16	....	16	....	....	....
Total	44	5	164	3	167	....	14	871

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
PLYMOUTH, SHEBOYGAN Co.—								
Thurman, F., & Co., Machine Shops	2	....	10	....	10	....	....	....
Pfifer & Co., Flour	1	....	4	....	4	....	....	....
Plymouth Brewing Co., Brewery	2	....	10	....	10	....	....	....
Plymouth Furniture Co., Furniture	1	2	30	9	39	4	....	....
Schwartz Mfg. Co., Tables	2	....	20	....	20	....	....	....
Total	8	2	74	9	83	4	....	....
PORTAGE, COLUMBIA CO.—								
Buckley & Leisch, Tailors	1	....	13	3	16	....	....	....
C. & H. Steam Laundry, Laundry	1	....	3	7	10	....	1	25
C., M. & St. P. Ry. Co., Shops	2	....	9	....	9	....	2	40
Crystal Bottling Works, Soda Water	1	....	4	....	4	....	....	....
Epstein Bros., Brewery	8	....	6	....	6	....	1	20
Eulberg Bros., Brewery	3	....	10	....	10	....	1	60
Portage Bottling Co., Root Beer, etc.	1	....	3	....	3	....	....	....
Portage City Elec. Lt. & Power Co., Lighting	1	....	3	....	3	....	2	150
Portage City Water Co., Water	1	....	2	....	2	....	2	150
Portage Hosiery Co., Knitting	3	2	49	120	169	25	1	85
Portage Steam Laundry, Laundry	1	....	3	4	7	....	1	20
Portage Underwear Co., Knitting	1	....	1	15	16	....	1	12
The Democrat, Printing	1	....	5	4	9	....	....	....
The Register, Printing	1	....	4	5	9	....	....	....
Wisconsin Rundschau, Printing	1	....	3	....	3	1	....	....
York, I. W., & Co., Flour & Feed	1	1	8	....	8	....	....	....
Total	28	3	126	158	284	26	12	562
PORT EDWARDS, WOOD CO.—								
John Edwards Mfg. Co., Paper & Pulp	5	....	136	4	140	2	6	720
PORT WASHINGTON, OZAUKEE CO.—								
Barth Bros. Mfg. Co., Tables	8	....	33	....	33	....	1	100
Gilson Mfg. Co., Chairs	11	....	110	....	110	....	2	125
Gunther Bros. Brick Co., Brick & Tile	8	....	15	1	16	....	2	80
Martin & Wester, Plows	1	....	3	....	3	....	1	10
Ozaukee County Advertiser, Printing	1	....	2	....	2	....	....	....
Port Washington Brewery, Brewery	6	....	10	....	10	....	2	116
Port Washington Pilot, Printing	1	....	2	....	2	....	....	....
Port Washington Star, Printing	1	....	1	2	3	....	....	....
Port Washington Zeitung, Printing	1	....	1	2	3	2	....	....
Schumacher, Frank, Elevator	1	1	2	....	2	....	....	....
Schunk Brick Co., Brick	3	....	15	....	15	....	1	50
The Port Washington Herald, Printing	1	....	2	....	2	....	....	....
U. S. Laundry, Laundry	1	....	1	2	3	....	1	8
Wisconsin Brass Co., Brass	3	....	42	8	50	6	1	100
Wisconsin Chair Co., Chairs	5	7	560	40	600	33	6	800
Total	52	8	799	55	854	41	17	1389
PRAIRIE DU CHIEN, CRAWFORD CO.—								
Benthin, Chas., Repair Shop	1	....	1	....	1	....	....	....
Cherrier, C. P., Buttons & Shoe Polish	1	....	3	....	3	....	....	....
Fort Crawford Bottling Works, Soda Water	1	....	3	....	3	....	....	....
Fox & Favre, Pearl Buttons	1	....	7	....	7	....	....	....
Hunting Elevator Co., Elevator	1	1	8	....	8	....	1	100
Kalina & Son, Pearl Buttons	1	....	5	....	5	....	....	....
Knops Bros., Pearl Buttons	1	....	2	....	2	....	....	....
Lechner's Pearl Button Co., Pearl Buttons	1	....	6	....	6	....	....	....
Martner, E. T., Pearl Buttons	1	....	17	....	17	....	....	....
Prairie City Electric Co., Lighting	1	....	5	....	5	....	2	260
Prairie City Record, Printing	1	....	3	....	3	....	....	....
Prairie du Chien Button Co., Pearl Buttons	1	1	75	....	75	....	1	50
Prairie du Chien Steam Laundry, Laundry	1	....	2	1	3	....	1	5

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
PRAIRIE DU CHIEN—Continued.								
Prairie du Chien Union, Printing	1	....	2	2	4	....	....	....
Prairie du Chien Woolen Mill Co., Woolen Cl.	3	....	16	42	58	....	1	80
Rienow & Morris, Egg Cases	3	....	6	....	6	....	1	40
Schumann & Menges, Brewery	8	....	7	....	7	....	1	35
The Curier, Printing	1	....	3	....	3	....	....	....
Winger, F. L., Flour & Feed	2	....	2	....	2	....	1	40
Total	31	2	173	45	218	....	9	610
PRATT JCT., ONEIDA CO.—								
Sukey, James, Lumber	1	....	10	....	10	....	1	50
RACINE, RACINE CO.—								
Adams, E. B., & Son, Bolsters	1	....	10	....	10	....	....	....
American School Furniture Co., School Furn.	1	5	176	1	177	....	1	400
Badger Mfg. Co., Skirts & Shirts	1	....	15	110	125	11	1	40
Barker Feeder Co., Feed Cutters	....	1	6	....	6	....	....	....
Bell City Basket Co., Baskets	1	....	24	....	24	2	....	....
Bell City Mfg. Co., Feed Cutters	2	1	100	....	100	....	1	125
Bell City Sash & Door Co., Sash, Doors, etc.	1	....	14	....	14	....	1	100
Bell City Steam Dye Works, Dye Works	1	....	2	1	3	....	....	....
Brown, W. P., Mfg. Co., Saddlery	3	....	18	....	18	....	1	25
Camp Furniture Co., Furniture	1	....	25	12	37	....	1	75
Carroll, J. C., Coal & Wood	1	....	22	....	22	....	2	75
Case, J. I., Threshing Machine Co., Treshing Machines	11	5	1400	....	1400	44	3	275
Case Plow Works, Plows	3	4	600	....	600	....	4	750
Chalmers & Co., Foundry	1	....	11	....	11	....	....	....
Chicago Rubber Clothing Co., Rubber Cloah'g	2	2	20	100	120	....	2	200
Clancey, J. F., & Co., Coal & Wood	1	....	15	....	15	....	2	110
Collier, T. & P., Ironing Machines	1	....	5	....	5	....	....	....
Driver, Thos. & Sons Mfg. Co., Sash & Doors.	1	....	42	....	42	....	1	100
Eisendrath, B. D., Tannery	1	2	100	5	105	....	2	100
Fiebuch, Fox & Hilker, Shoes	2	1	55	45	100	6	1	40
Fish Bros. Wagon Co., Wagons	....	1	245	....	245	4	3	550
Fisher & Schweitzer, Laundry	1	....	1	7	8	....	....	....
Freeman, Geo. B. & Co., Bits	1	....	6	....	6	....	....	....
Freeman, S. & Sons' Mfg. Co., Boilers	9	4	218	3	221	....	2	205
Goehner, Chas., Wire Fence	1	....	5	....	5	....	....	....
Graham, F. W. Mfg. Co., Patterns	1	....	2	....	2	....	1	40
Gunther, F. W., Co., Sauerkraut	6	....	28	12	40	....	2	130
Hartman Trunk Co., Trunks	....	2	165	40	205	33	....	....
Harvey Spring Co., Springs	1	....	16	....	16	....	....	....
Hilker-Wiechers Mfg. Co., Garments	1	....	6	119	125	7	....	....
Hodges, G. & Sons, Machine Shop	1	....	7	....	7	....	....	....
Holbrook-Armstrong Iron Co., Foundry	4	....	85	....	85	....	4	300
Imperial Bit & Snap Co., Bits & Snaps	....	1	20	....	20	....	3	275
Johnson & Son, Floor Wax	2	....	43	....	43	4	....	....
Journal Printing Co., Printing	1	....	17	5	22	....	....	....
Kane, Thos., Co., School Furniture	2	2	40	5	45	....	1	100
Lakeside Malleable Iron Co., Malleable Iron	2	....	165	....	165	4	2	200
Lang Mfg. Co., Hardware	1	....	25	....	25	....	....	....
Manufacturers Ptg. Co., Printing	1	....	12	3	15	1	....	....
Mitchell, Lewis & Co., Wagons	1	8	434	....	434	14	4	500
Model Steam Laundry, Laundry	2	....	6	16	22	....	1	20
Modern Skirt Co., Skirts	1	....	11	40	51	....	....	....
Philbrook Shoe Co., Tanners, Pacs	1	1	14	1	15	1	2	150
Pierce Engine Co., Gasoline Engines	3	....	50	....	50	....	....	....
Piggins Bros., Machinery	1	....	3	....	3	....	1	15
Princess Waist Co., Waists	1	....	....	75	75	....	....	....
Pugh, W. H., Coal & Wood	1	....	18	....	18	....	1	125
Racine Brass & Iron Co., Brass	2	....	12	....	12	....	....	....
Racine Daily Times, Printing	....	1	17	3	20	2	....	....
Racine Furniture Mfg. Co., Desks	....	1	14	....	14	....	1	40

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age	Number.	Total horse power.
RACINE—Continued.								
Racine Gas Light Co., Light	1	....	12	....	12	....	2	60
Racine Hardware Co., Engines	1	....	60	....	60	....	....	....
Racine Hatcher Co., Incubators	1	....	10	....	10	....	....	....
Racine Machine & Tool Co., Candy Machines.	1	....	30	....	30	....	....	....
Racine Malleable Iron Co., Malleable Iron	6	....	313	12	325	19	2	250
Racine Mangle Co., Mangles	1	....	60	....	60	....	....	....
Racine Metal Stamp. Co., Sheet Metal Stamp'g	1	....	6	....	6	....	....	....
Racine Novelty Co., Ironing Boards	....	1	18	....	18	....	1	40
Racine Paper Box Mfg. Co., Paper Boxes	1	....	2	13	15	2	....	....
Racine Paper Goods Co., Paper Goods	1	....	17	22	39	5	....	....
Racine Pole & Spring Co., Bolster Springs	1	....	6	1	7	....	....	....
Racine Refrigerator Co., Refrigerators	2	....	50	1	51	....	2	150
Racine Shoe Mfg. Co., Shoes	3	2	45	30	75	3	1	60
Racine Skirt Co., Skirts	....	1	2	15	17	....	....	....
Racine Steel & Iron Co., Wagon Skeins	5	....	125	....	125	....	2	275
Racine Top, Dash & Cush. Co., B'gy Tops, etc.	1	....	6	2	8	....	....	....
Racine Traveling Bag Co., Traveling Bags	....	1	5	4	9	....	....	....
Racine Trunk Co., Trunks	2	4	42	3	45	4	1	80
Racine Wagon & Carriage Co., Wagons	18	8	725	25	750	6	4	800
Racine Water Co., Water	4	....	4	....	4	....	4	500
Racine Woolen Mills, Shawls	....	1	50	100	150	11	2	375
Roberts & Case, Flour	3	....	8	....	8	....	1	60
Roberts & Co., Stone Works	2	....	9	....	9	....	....	....
Schoen Mfg. Co., Cloaks	1	....	12	50	62	5	1	50
Secor, M. M., Trunks	....	3	118	7	125	6	2	160
Shoop, Dr., Family Med. Co., Medicine	1	1	30	60	90	2	2	150
Stecher-Weber Mfg. Co., Sash & Doors	....	1	40	....	40	....	1	100
Tecktonius, E. C., Tanks, Lugs & Springs	1	....	10	....	10	....	....	....
The Chas. Alshuler Mfg. Co., Overalls	1	....	10	175	185	5	1	60
The Commercial Press Co., Printing	1	....	13	4	17	....	....	....
The Metal Stamping Co., Dies	1	....	8	....	8	....	....	....
The Miller, J., Shoe Co., Shoes	2	....	225	75	300	10	2	150
The Milw. Elec. Ry. Co., Power & Light	5	....	15	....	15	....	6	1500
The Racine News, Printing	1	....	12	2	14	....	....	....
Waber Mfg. Co., Potato Planters	1	....	5	....	5	....	....	....
West Side Laundry Co., Laundry	1	....	6	23	29	....	1	20
Windship Mfg. Co., Pumps	1	....	20	....	20	....	1	60
Wisconsin Wheel Works, Bicycles	3	....	127	5	132	8	2	130
Total	159	63	6601	1232	7833	219	95	10,095
RED CLIFF, BAYFIELD CO.—								
Red Cliff Lumber Co., Lumber	2	....	125	....	125	....	3	300
REEDSBURG, SAUK CO.—								
Appleton Woolen Mills, Woolen Cloth	5	1	22	20	42	....	2	150
Church, W. L., Furniture	2	....	20	....	20	....	1	20
Peas Planing Mill Co., Planing & Feed	3	....	8	....	8	....	1	30
Reedsburg Brewery, Brewery	3	1	5	....	5	....	1	35
Reedsburg Canning Co., Canning	4	....	65	45	110	....	....	....
Reedsburg Clothing Co., Clothing	1	....	9	20	29	1	....	....
Reedsburg Creamery, Creamery	1	....	3	....	3	....	1	20
Reedsburg Elec. Lt. & Water Co., Lt. & Water	2	....	3	....	3	....	2	300
Reedsburg Flouring Mill, Flour	2	1	3	....	3	....	1	75
Reedsburg Marble Works, Monuments	2	....	12	....	12	....	....	....
Sanders, A. M., Wagons	2	....	2	....	2	....	....	....
Strampe, A. E. & Bros., Laundry	1	....	2	3	5	1	1	12
Theodore-Discot Co., Wagons	1	....	2	....	2	....	....	....
The Reedsburg Times, Printing	....	1	3	....	3	....	....	....
Vonwald & Son, Machine Shop	1	....	3	....	3	....	....	....
West Side Bldg. Co., Sash & Doors	4	....	10	....	10	....	....	....
Total	35	4	177	88	265	2	10	642

Location, Name and Business.	Buildings. Under 3 stories.	Buildings. Three or more stories.	Employes. Male.	Employes. Female.	Employes. Total.	Employes. Under 16 yrs. of age.	Boilers. Number.	Boilers. Total horse power.
RHINELANDER, ONEIDA CO.—								
Brown Bros. Lumber Co., Lumber	5	....	150	....	150	2	7	400
Builders' Hardware Co., Hardware	1	....	7	....	7	....	....	....
Christianson, M., Bicycles	1	....	4	....	4	....	1	14
Couro, A. & Son, Lumber	3	....	15	....	15	....	2	100
Heckworthy Construction Co., Builders	6	....	250	....	250	12	7	166
Herald, Printing	1	....	2	1	3	....	....	....
Johnson-Hinman Lumber Co., Lumber	4	....	150	....	150	....	4	350
M., St. P. & Sault Ste M. Ry., Power House	2	....	12	....	12	....	....	....
Model Steam Laundry, Laundry	1	....	3	4	7	....	1	10
New North, Printing	1	....	4	2	6	....	....	....
Oneal, J. H., Planing	3	....	40	....	40	....	1	150
Rhinelander Brewing Co., Brewery	2	....	5	....	5	....	1	25
Rhinelander Iron Co., Iron	3	....	15	....	15	....	1	40
Rhinelander Lighting Co., Light	1	....	6	....	6	....	3	400
Rhinelander Mfg. Co., Refrigerators	6	....	75	....	75	14	2	150
Rhinelander Paper Co., Paper	5	1	150	....	150	2	....	....
Robins Lumber Co., Lumber	5	....	249	1	250	....	5	300
Stevens Lumber Co., Lumber	2	....	150	....	150	....	5	350
Vindicator, Printing	1	....	1	2	3	....	....	....
Water Works, Water	1	....	6	....	6	....	2	200
Total	54	1	1294	10	1304	30	42	2655
RICE LAKE, BARRON CO.—								
Barron County Handle Factory, Handles	1	....	6	....	6	....	....	....
Boortz, F. S. & Co., Repair Shop	1	....	3	....	3	....	....	....
Chronotype, Printing	1	....	3	....	3	....	....	....
Jones & McClench, Machine Shop	1	....	5	....	5	....	1	10
Knapp, Stout & Co., Flour	....	2	5	....	5	....	....	....
Kozel, James, Brewery	1	....	3	....	3	....	1	15
Mercier, C., Lumber	1	....	16	....	16	....	1	70
Nelson, Peterson & Josephson, Planing	1	....	7	....	7	....	1	30
Phoenix Brewery, Brewery	2	....	4	....	4	....	1	8
Rice Lake Creamery & Cheese Co, Creamery	1	....	2	....	2	....	1	10
Rice Lake Leader, Printing	1	....	3	....	3	....	....	....
Rice Lake Lumber Co., Lumber	7	....	200	....	200	....	11	980
Rice Lake Mfg. Co., Woodworking	1	....	12	....	12	....	1	30
Rice Lake Starch & Potato Co., Starch	2	....	10	....	10	....	1	50
Rice Lake Water Works, Water	1	....	5	....	5	....	2	150
Sandahl, J. A., Wagons	1	....	3	....	3	....	....	....
Total	23	2	287	....	287	....	21	1353
RICHLAND CENTER, RICHLAND CO.—								
Durnford, E. W., Contractor	1	....	6	....	6	....	....	....
Hallin, J. B., Monuments	1	....	5	....	5	....	....	....
James, N. L., Lumber	1	....	10	....	10	....	1	60
Krouskop, A. H., Lumber	11	....	36	....	36	....	2	180
Parfery, A. C., Lumber & Excelsior	2	....	7	....	7	....	....	....
Parfery, A. C., Flour & Feed	....	1	1	....	1	....	....	....
Republican & Observer, Printing	1	....	2	1	3	....	....	....
Richland Center Water Wks, Water	1	....	1	....	1	....	2	120
Snow Bros., Barrels, Butter Tubs etc	3	....	12	....	12	....	1	20
Snow White Laundry, Laundry	1	....	2	2	4	....	1	12
Strang, Geo. H., Light	2	....	3	....	3	....	2	160
The Democrat, Printing	1	....	2	1	3	....	....	....
The Rustic, Printing	1	....	2	2	4	1	....	....
Total	26	1	89	6	95	1	9	552
RIPON, FOND DU LAC CO.—								
Bouton & Germain Co., Gloves & Mittens	3	....	10	20	30	....	....	....
Haas, John, Brewery	4	1	5	....	5	....	1	40
Heath & Butzke Carriage Co., Car. & Wagons	1	1	25	....	25	....	....	....
Marshal, B. G., Repair Shop	1	....	1	....	1	....	....	....
Ripon Knitting Works, Hosiery & Gloves	1	1	50	120	170	6	1	50
Ripon Produce Co., Creamery	3	....	5	....	5	....	1	20

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
RIPON—Continued.								
Ripon Roller Mills, Flour	2	1	4	....	4	....	1	80
Ripon Steam Laundry, Laundry	1	....	1	3	4	....	1	24
Schaefer, W. E., Mfg. Co., Foundry	2	....	4	....	4	....	....	....
Timms, C. J., Boxes & Veneer	1	....	10	....	10	1	1	50
Total	19	4	115	143	258	7	6	264
RIVER FALLS, PIERCE CO.—								
Diers Sheet Metal Works, Sheet Metal	1	....	3	....	3	....	....	....
Fortune, Geo., & Co., School Furniture	....	1	2	....	2	....	....	....
Hemenway, J. S. Co., Feed	1	....	4	....	4	....	....	....
Lund, A. W., Wagons	3	....	15	....	15	....	1	25
Prairie Mills, Flour	1	2	5	....	5	....	....	....
Putnam, W. H., Flour	....	1	3	....	3	....	....	....
River Falls Bldg. Mfg. Co., Wood Working	1	....	4	....	4	....	....	....
River Falls Journal, Printing	1	....	3	1	4	....	....	....
Riv. Falls L't. Heat & Power Co., Light, etc.	2	....	3	....	3	....	2	35
Smith, Geo. D., Wagons	1	....	4	....	4	....	1	15
The Times, Printing	1	....	4	....	4	....	....	....
Tubbs Medicine Co., Laboratory	1	....	3	1	4	....	....	....
Ulrich, F. N., Tile	1	....	7	....	7	....	....	....
Wisconsin Elevator Co., Elevator	....	1	2	....	2	....	1	40
Total	14	5	62	2	64	....	5	115
RUSK, DUNN CO.—								
Kristensen, N. K., Tank Works	1	....	3	....	3	....	1	30
Farmers' Co-operative Dairy Ass'n, Creamery	2	....	8	....	8	....	1	30
Wisconsin Elevator Co., Elevator	2	....	2	....	2	....	....	....
Total	5	....	13	....	13	....	2	60
SANBORN, ASHLAND CO.—								
McBride, B., Lumber	1	....	10	....	10	....	1	60
Sanborn Cheese & Creamery Co., Creamery	1	....	2	....	2	....	1	12
Total	2	....	12	....	12	....	2	72
SATUIT, ONEIDA CO.—								
Keyn, Henry, Lumber	2	....	25	....	25	....	3	200
SAWYER, DOOR CO.—								
Door County Canning Co., Canning	6	....	100	50	150	....	3	240
SHAWANO, SHAWANO CO.—								
City Elec. Lt. & Water Wks., Lt. & Water	1	....	3	....	3	....	3	225
Chicago & Northwestern Ry., Shops	1	....	1	....	1	....	1	80
Danzel, Frank, Bottling Works	1	....	3	....	3	....	....	....
Engle, C. F., Flour	3	....	4	....	4	....	1	80
Keller, F. H., Laundry	1	....	1	2	3	....	1	10
Leig & Dillenberg, Elevator	1	....	2	....	2	....	....	....
Raddant, Emil T., Brewing Co.	2	1	12	....	12	....	1	80
Schroeder, G., Wagons	1	....	5	....	5	....	....	....
Shawano County Journal, Printing	1	....	4	2	6	....	....	....
Wochenblatt & Volksblatt, Printing	1	....	3	2	5	....	....	....
Wolf River Paper & Fiber Co., Paper	19	1	144	6	150	3	8	1200
Total	32	2	182	12	194	3	15	1675
SHEBOYGAN, SHEBOYGAN CO.—								
Aladdin Soap Co., Soaps	....	1	7	....	7	....	1	50
American Hide & Leather Co., Leather	2	3	275	....	275	8	7	660
American Mfg. Co., Chairs	....	2	345	5	350	14	2	250

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings, Under 3 stories.	Buildings, Three or more stories.	Employes. Male.	Female.	Total.	Under 16 yrs. of age.	Boilers. Number.	Total horse power.
SHEBOYGAN—Continued.								
Badger State Tanning Co., Tannery	2	2	150	....	150	1	5	445
Balzer, John, Jr., Wagons	1	1	18	....	18	....	1	35
Big Hat Laundry, Laundry	1	....	3	8	11	....	1	20
Chicago Parlor Furn. Co., Furniture	....	1	21	3	24	....	1	125
Columbia Shoe Co., Boots & Shoes	1	....	15	8	23	....	....	....
Crocker Chair Co, Chairs	1	8	420	75	495	78	8	1050
Demokrat Printing Co., Printing	1	....	15	....	15	....	....	....
Dillingham Mfg. Co., Ice Boxes	....	2	200	....	200	25	3	210
Excelsior Steam Laundry, Laundry	1	....	2	4	6	....	1	20
Excelsior Wrapper Co., Excelsior Wrappers	1	....	59	6	65	2	3	600
Freyberg Lumber Co., Lumber	....	1	20	....	20	....	2	100
Frost's Veneer Seating Co., Veneer	....	1	258	2	260	....	3	350
Garton Toy Co., Toys	....	2	240	10	250	30	2	160
Globe Foundry & Machine Co., Machines	2	....	25	2	27	2	....	....
Gutsch Brewing Co., Brewery	1	1	27	10	37	4	2	140
Howe, L. K., Printing	1	....	5	7	12	....	....	....
Jenkins Machine Co., Machines	2	....	40	....	40	....	1	30
Jung Carriage Co., Wagons & Sleighs	1	....	6	....	6	....	....	....
King, Arthur, Pianos	....	1	60	....	60	1	....	....
Mattoon Mfg. Co., Furniture	....	4	650	....	650	56	8	800
McAnsh, Dwyer Co., Storage	....	2	12	....	12	....	....	....
Muller, H. G., Novelties	....	1	20	....	20	....	1	100
Musical Instrument Mfg. Co., Musical Inst.	1	....	6	....	6	....	....	....
Novelty Mfg. Co., Novelties	....	2	75	....	75	....	1	100
Optenberg & Sonnemann, Boilers	1	....	20	....	20	....	1	25
Phoenix Chair Co., Chairs	....	3	420	10	430	28	3	385
Port Huron Salt Co., Salt	2	....	42	....	42	2	....	....
Preussler & Sons, Comb Cases	1	1	38	....	38	....	2	150
Schmid & Co., R. H., Boxes	....	1	10	....	10	....	1	25
Sellinger, Ross Co., Gloves	....	1	60	175	235	32	....	....
Sheboygan Brick & Tile Co., Brick	1	....	16	....	16	....	1	30
Sheboygan Chair Co., Chairs	....	2	415	28	443	22	2	550
Sheboygan Cigar Mold Co., Cigar Molds	1	....	....	46	46	12	1	70
Sheboygan Coal Co., Fuel	1	....	10	....	10	....	1	150
Sheboygan Daily Journal, Printing	....	1	5	6	11	....	....	....
Sheboygan Knitting Co., Knitting	1	....	15	135	150	26	2	200
Sheboygan Lt., Power & Ry. Co., Light	1	....	6	....	6	....	3	375
Sheboygan Mineral Water Co., Bottling	....	1	7	17	24	....	1	75
Sheboygan Parlor Furniture, Parlor Suits	....	1	60	....	60	....	2	160
Sheboygan Steam Laundry, Laundry	1	....	1	10	11	....	1	30
Sheboygan Volksblatt, Printers	1	....	2	2	4	....	....	....
Spratt, Geo. & Co., Chairs	2	....	100	8	108	9	1	150
The Albert Landreth Co., Canning	2	....	60	....	60	....	2	75
The Globe Factory & Machine Co., Foundry	2	....	25	....	25	....	....	....
The K. Schreier Co., Brewery	....	2	48	....	48	....	2	200
The Jacob J. Vollrath Mfg. Co., Foundry	5	1	325	100	425	....	2	220
The Sheboygan Telegram, Printing	1	....	7	5	12	....	....	....
Twig, Otto L., Shoe Co., Boots & Shoes	1	....	12	5	17	....	....	....
Winter Lumber Co., Lumber	1	1	100	....	100	....	2	160
Zimbal & Son, Brick	1	....	23	....	23	....	1	50
Zimmerman, E. F., Printing	1	....	1	4	5	....	....	....
Zurheide & Co., Brick	1	....	15	....	15	....	1	45
Total	47	50	4817	691	5508	352	85	9370
SHEBOYGAN FALLS, SHEBOYGAN CO.—								
Brickner Woolen Mills Co., Woolen Goods	....	1	42	43	85	....	1	125
Falls Machine Co., Machine Shops	2	....	35	....	35	....	1	60
Richardson Bros., Chairs & Cheese Boxes	1	....	57	....	57	3	1	90
Wiesse, Chas. & Co., Tanners	....	1	51	....	51	....	3	300
White Wagon Works, Toy Wagons	....	1	34	....	34	1	1	50
Total	3	3	219	43	262	4	7	625

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
SHELL LAKE, WASHBURN CO.—								
Dionne, J. & Son, Woodworking	1	....	3	....	3	....	1	8
Shell Lake Co-operative Creamery, Creamery	1	....	1	....	1	....	1	8
Shell Lake Lumber Co., Lumber	6	....	70	....	70	....	5	420
Shell Lake Watchman, Printing	1	....	2	....	2	....	1	6
Washington Co. Register, Printing	1	....	7	....	7	....	1	12
Water Works, Water	1	....	2	....	2	....	....	....
Total	11	....	85	....	85	....	9	454
SOLON SPRINGS, DOUGLAS CO.—								
Gander, Frank, Lumber	2	....	8	....	8	....	1	60
SOUTH MILWAUKEE, MILWAUKEE CO.—								
Bucyrus Co., Steam Dredges	14	....	650	....	650	4	4	375
Columbia Mineral Wool Co., Mineral Wool	4	....	20	....	20	....	2	160
Eagle Horse-Shoe Co., Horse Shoes	9	....	350	....	350	....	9	1000
Enterprise Mfg. Co., Boxes	2	....	20	....	20	....	1	60
Milw. Elec. Ry. & Lt. Co., Light & Power	1	....	2	....	2	....	1	200
Moore-Whitmore Co., Baskets	9	1	60	....	60	3	2	120
Northern Wire & Cable Co., Wire & Cable	4	1	11	1	12	....	2	160
Racine Fire Exting. Co., Fire Extinguishers	1	....	16	....	16	....	....	....
Schipkowsky, J., Woodworking	1	....	2	....	2	....	....	....
South Milwaukee Lumber Co., Planing	10	....	5	....	5	....	1	25
South Milwaukee Water Works, Water	1	....	2	....	2	....	1	150
Stowell Mfg. & Foundry Co., Hardware	17	....	396	4	400	7	2	150
Webster Mfg. Co., Chain Belts	1	....	8	....	8	....	....	....
Total	70	2	1542	5	1547	14	25	2400
SOUTH WAYNE, LAFAYETTE CO.—								
Fingleft, C. P., Creamery	1	....	1	....	1	....	1	15
SPARTA, MONROE CO.—								
City Steam Laundry, Laundry	1	....	6	3	9	....	1	12
Eckhart, Fred, Elevator	1	....	2	....	2	....	1	15
Evans, J. W., Sash & Doors	1	....	4	....	4	....	....	....
Herald-Advertiser, Printing	1	....	3	2	5	....	....	....
McEachron Roller Mills, Elevator	1	....	2	....	2	....	....	....
Monroe Co. Democrat, Printing	1	....	3	3	6	....	....	....
Newton, O. I., Sons Co., Lighting	1	....	1	....	1	....	....	....
Sparta Herold, Printing	1	....	3	2	5	....	....	....
Sparta Iron Works Co., Machine Shops	8	....	21	1	22	....	1	20
Sparta Sash & Door Co., Sash & Doors	2	....	2	....	2	....	....	....
Sparta Water Works, Water	1	....	1	....	1	....	2	160
Total	19	....	48	11	59	....	3	207
SPOONER, WASHBURN CO.—								
Spooner Lumber Co., Lumber	1	....	10	....	10	....	1	40
STANLEY, CHIPPEWA CO.—								
City Water Works, Water	1	....	2	....	2	....	....	....
Goshaw & Giauque, Lumber	1	....	20	....	20	....	1	80
Grubb, F. S., Flour	1	....	3	....	3	....	1	30
Northern Lumber Co., Lumber	11	....	300	....	300	4	15	700
Stanley Creamery Co., Creamery	1	....	3	....	3	....	1	25
U. S. Leather Co., Tannery	9	....	100	....	100	....	4	500
Total	24	....	428	....	428	4	22	1335
STAR LAKE, VILAS CO.—								
C., St. P., Minn. & Omaha Ry., Pump House	1	....	1	....	1	....	1	20
Salsich & Wilson, Lumber	9	....	175	....	175	....	7	590
Total	10	....	176	....	176	....	8	610

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Building.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
STETSONVILLE, TAYLOR CO.—								
Ellingson, C. K., Lumber	2	....	30	....	30	....	2	120
STEVENS POINT, PORTAGE CO.—								
Bennet, D., Bakery	1	....	3	1	4	....	1	5
Central City Iron Works, Gas Engines	5	....	35	1	36	....	1	100
Clifford & Fox Lumber Co., Lumber	7	....	66	....	66	....	4	280
Coye Furniture Co., Furniture	8	1	133	2	135	....	2	180
Frost, Miss C. J., Novelties	1	....	3	70	73	15	....	....
Gazette, Printing	1	....	5	2	7	....	....	....
Jackson Milling Co., Flour	2	3	13	....	13	....	....	....
Kashellek, R. F., Gas Engines	1	....	2	....	2	....	....	....
Kuhl, Chas. G., Soda Water	1	....	2	....	2	1	1	8
Mitchell, W. W., Flour & Feed	1	....	2	....	2	....	1	40
Mitchell, W. W., Lumber	2	....	21	....	21	1	1	90
Pfiffner Co., Planing	6	....	21	....	21	4	1	80
Plover Paper Co., Paper	4	1	140	60	200	1	4	360
Racine Knitting Co., Knitting	2	....	42	4	46	1	....	....
Rice, John, & Bro. Co., Foundry	5	....	33	1	34	1	1	50
Rolnik, Printing	1	....	5	1	6	1	....	....
Stevens Point Box Co., Boxes	5	....	22	....	22	4	1	100
Stevens Point Brewing Co., Brewing	6	4	15	....	15	....	2	160
Stevens Point Elec. Light Co., Light	4	....	10	....	10	....	3	240
Stevens Point Journal, Printing	1	....	5	3	8	....	....	....
Stevens Point Water Co., Water	1	....	2	....	2	....	2	200
Week, John, Lumber Co., Lumber	14	....	91	....	91	....	2	300
Western Wall Paper Co., Wall Paper	2	....	29	11	40	1	1	150
Wisconsin Bedding Co., Bedding	2	....	18	2	20	....	1	100
Wisconsin Best Laundry, Laundry	2	....	4	25	29	....	1	40
Wisconsin River Paper & Pulp Co., Paper	6	....	141	10	151	....	4	300
Vetter Mfg. Co., Sash & Doors	7	....	23	....	23	1	1	80
Total	98	9	886	193	1079	31	35	2863
STILES, OCONTO CO.—								
Anson-Eldridge Co., Lumber	24	....	135	....	135	....	8	590
STOUGHTON, DANE CO.—								
American Cigar Co., Tobacco Warehouse	2	....	80	70	150	10	....	....
Ammundson, Peter, Bicycles	1	....	3	....	3	....	....	....
City Water Works, Water	1	....	2	....	2	....	2	160
Cohn, Jacob & Co., Tobacco Warehouse	1	....	10	30	40	5	....	....
Cullman Bros., Tobacco Warehouse	1	....	20	....	20	6	....	....
Diamond Laundry, Laundry	1	....	1	2	3	....	....	....
Green, M. C., Tobacco Warehouse	1	....	20	15	35	2	....	....
Gunderson, Osmund, Tobacco Warehouse	....	1	5	20	25	1	....	....
Halverson & Britters, Tobacco Warehouse	1	....	9	....	9	2	....	....
Hemsing, O. H., Tobacco Warehouse	1	....	32	15	47	....	....	....
Johnson, M. B., Wagons & Repairs	1	....	1	....	1	....	....	....
Lee, O. C., Tobacco Warehouse	1	....	33	12	45	4	....	....
Mandt Wagon Co., Wagons	26	3	340	2	342	....	2	235
Midgard, A., Printing	1	....	1	....	1	....	....	....
Olson, N. F., Wagons	1	....	6	....	6	....	....	....
Peterson, S., Wagons	1	....	5	....	5	....	....	....
Roe, O. K., Tobacco Warehouse	1	....	20	30	50	....	....	....
Stoughton Courier, Printing	1	....	3	....	3	....	....	....
Stoughton Milling Co., Flour	1	1	5	....	5	....	....	....
Stoughton Wagon Co., Wagons	5	1	198	2	200	....	2	230
The Hub, Printing	1	....	3	2	5	....	....	....
Vinjem, L. N., Boxes	2	....	5	....	5	....	....	....
Total	52	6	802	200	1002	30	6	625

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age	Number.	Total horse power.
STURGEON BAY, DOOR CO.—								
Lyon Bros. & Co., Elevator	1	....	2	....	2	....	....	....
Pankrantz Lumber Co., Lumber	4	....	35	....	35	....	2	160
Rebalt & Walters, Ship Yard	4	....	25	....	25	....	1	60
Shaw, A., & Co., Flour	1	1	4	....	4	....	1	40
Sturgeon Bay Wagon Co., Wagons	1	....	5	....	5	....	....	....
The Reynolds Preserving Co., Canning	6	....	150	50	200	40	4	500
Tutis & Brandise, Elevator	1	....	2	....	2	....	....	....
Washburn & Co., Lumber & Planing	4	....	25	....	25	....	1	80
Washburn & Co., Elevator	1	....	2	....	2	....	....	....
Total	23	1	250	50	300	40	9	840
SUPERIOR, DOUGLAS CO.—								
Amenia & Sharm Land Co., Elevator	2	....	8	....	8	....	....	....
American Bedding Co., Bedding	1	....	20	5	25	1	1	60
American Grass Twine Co., Grass Twine	2	....	125	125	250	28	2	200
American Ship Building Co., Ship Building	9	....	1500	....	1500	46	9	950
American Heating Co., Steam Heating	1	....	15	....	15	....	....	....
Baldwin Laundry, Laundry	1	....	4	10	14	....	....	....
Broadway Laundry, Laundry	1	....	10	60	70	....	2	70
Brown Hoisting Co., Hoisting	1	....	22	....	22	....	....	....
Buffalo Oil Co., Oil	1	....	8	....	8	....	....	....
Carlson Bros., Roofing	1	....	5	....	5	....	....	....
Clarion Citizen, Printing	1	....	5	....	5	....	....	....
Cowdin, H. F., Sash & Doors	2	....	25	....	25	....	1	45
Cowie Bros., Sash & Doors	2	....	10	....	10	....	1	60
Daily Leader, Printing	....	1	18	1	19	....	....	....
Downs, D., Patterns	1	....	2	....	2	....	....	....
Duffy, J. A., Carriages	1	....	7	....	7	....	....	....
Duluth-Superior Traction Co., Power	1	....	5	....	5	....	3	500
Enterprise Laundry Co., Laundry	1	....	4	16	20	1	1	45
Evening Telegram, Printing	1	....	33	2	35	....	....	....
Frankman Bros., Pile Drivers	1	....	45	....	45	....	1	20
Geyser Bottling Works, Bottling	1	....	3	....	3	....	....	....
Globe Elevator Co., Elevator	3	3	40	....	40	....	4	700
Great Northern Elevators, Elevators	3	3	75	....	75	1	....	....
Great Northern Ry., Flour Sheds	2	....	250	....	250	....	4	600
Great Northern Ry., Shops	7	....	600	....	600	....	....	....
Hall Elevator Co., Elevator	....	1	6	....	6	....	3	450
Holmes Bros. Co. Roofing	1	....	15	....	15	....	2	160
Hotel Superior, Power House	1	....	3	....	3	....	....	....
Johnson, H., Shop	1	....	2	....	2	....	3	240
Klinkert Brewing & Malt Co., Brewery	1	1	8	1	9	....	....	....
Lake Superior Bag Co., Bags	....	1	30	35	65	3	2	100
Lake Superior Contracting & Dredge Co., Contracting, etc.	3	....	100	....	100	....	1	60
Lake Superior Terminal & Trans. Co., Shop	1	....	12	....	12	....	2	100
Langer Bros., Shingles	1	....	18	....	18	....	1	40
Lehigh Valley Coal Co., Docks	10	....	40	....	40	....	1	45
Martin, L. R., Shingles	3	....	25	....	25	....	2	400
Mast, R. C., Bindery	1	....	6	4	10	1	1	25
Mullen, Wm., Sawing	1	....	10	....	10	....	....	....
National Boiler Works, Boilers	1	....	40	....	40	....	1	40
North American Telegraph Co., Telegraphing	1	....	5	....	5	3	1	50
Northern Brewing Co., Brewery	1	1	20	....	20	....	2	175
Northwestern Fuel Co., Fuel	17	....	293	....	293	2	10	1475
Northwestern Machine & Boiler Works, Mach.	1	....	65	....	65	....	2	65
Pellister, C. D., Co., Woodworking	1	....	5	....	5	....	....	....
Penn, Wm., & Co., Stone	4	....	50	....	50	2	2	65
Rogers & Ruger, Planing	2	....	25	....	25	....	1	65
Ross, J. L., Co., Elevator	....	1	10	....	10	....	....	....
Ross, P., Bicycles	1	....	2	....	2	....	....	....
Schofield, Edw., & Co., Lumber	3	....	225	....	225	2	5	350
Shunn, W. H., Woodworking	1	....	10	....	10	....	....	....
Silver, Tonsberg & Co., Printing	1	....	7	....	7	....	....	....
Skamur, G., Show Cases	1	....	4	....	4	....	....	....

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power
SUPERIOR—Continued.								
Slender & Dittmer, Carriages	1	....	10	....	10	....	1	12
Superior Boiler Works, Boilers	1	....	8	....	8	....	....	....
Superior Broom Works, Brooms	1	....	3	....	3	....	....	....
Superior Creamery Co., Creamery	1	....	5	....	5	....	1	15
Superior Iron Works, Iron	1	....	35	....	35	....	....	....
Superior Mfg. Co., Builders' Supplies	5	....	45	5	50	5	1	40
Superior Rug Mfg. Co., Rugs	1	....	2	3	5	....	1	60
Superior Water, Light & Power Co., Water	2	....	10	....	10	....	4	660
U. S. Gypsum Co., Gypsum	1	....	12	....	12	....	1	75
Webster Mfg. Co., Chairs	8	3	225	25	250	10	4	425
Weditz, H., Brushes	1	....	1	2	3	....	....	....
Western Union Telegraph Co., Telegraph	1	....	9	....	9	4	....	....
West Superior Bedding Co., Bedding	1	....	12	3	15	....	1	40
Whitney Bros., Contractors	1	....	100	....	100	....	2	50
Wilcox, D. B., Woodworking	1	....	6	....	6	....	....	....
Wright Foundry & Machine Works, Foundry	1	....	25	....	25	....	1	25
Total	134	15	4383	297	4680	109	88	8557
SURING, OCONTO CO.—								
Suring Lumber Co., Lumber	4	....	30	....	30	....	1	80
THORP, CLARK CO.—								
Boardman, E. A., & Sons, Lumber	1	....	7	....	7	....	1	75
Cirkle Mfg. Co., Staves	2	....	40	....	40	8	2	120
City Water & Electric Co., Water, etc	1	....	4	....	4	....	2	160
Colby Bros., Feed & Lumber	1	....	6	....	6	....	1	50
Total	5	....	57	....	57	8	6	405
TOMAH, MONROE CO.—								
C., M. & St. P. Ry. Co., Shops	5	....	45	....	45	....	2	120
Clark, W. H., Flour & Feed	2	....	2	....	2	....	1	20
Durant, J. W., & Son, Machine Shop	1	....	4	....	4	....	....	....
Farmers' Co-operative Butter Ass'n, Creamery	2	....	2	....	2	....	1	20
Goodyear, C. A., Lumber	12	....	163	1	164	....	6	340
Hill & Reynolds, Furniture	2	....	3	....	3	....	1	20
Schultz, W. H., Flour & Feed	2	....	5	....	5	....	1	45
Tomah City Elec. Light Works, Light	1	....	4	....	4	....	2	160
Tomah City Water Works, Water	1	....	1	....	1	....	2	120
Tomah Herald, Printing	1	....	2	1	3	....	....	....
Tomah Journal, Printing	1	....	3	....	3	....	....	....
Tomah Monitor, Printing	2	....	3	....	3	....	....	....
Total	32	....	237	2	239	....	16	845
TOMAHAWK, LINCOLN CO.—								
Bay Mill Co., Lumber	6	....	100	....	100	....	4	400
Bradley Lumber Co., Lumber	6	....	220	....	220	....	6	600
E'rn and W'rn Tannery Co., Tannery	2	....	10	....	10	....	1	50
Farmers' Lumber Co., Lumber	2	....	20	....	20	....	1	75
Marinette, Tomahawk & W. Ry., Shops	2	....	6	....	6	....	....	....
Mitchell Hotel, Steam Plant	1	....	2	....	2	....	1	150
The Neal, D. C. & C. A., Wood Co., Kindling	1	....	35	....	35	2	1	50
The Tomahawk, Printing	1	....	4	1	5	....	....	....
The Tomahawk Leader, Printing	1	....	1	1	2	....	....	....
Tomahawk Excelsior Co. Excelsior	3	....	25	....	25	....	2	125
Tomahawk Iron Works, Iron	5	....	16	....	16	....	1	100
Tomahawk Pulp & Paper Co., Pulp & Paper	4	....	25	....	25	....	3	180
Tomahawk Stave & Veneer Co., Staves, etc	3	....	10	....	10	....	1	160
Tomahawk Steam Laundry, Laundry	1	....	1	3	4	....	....	....
Tomahawk Water Works, Water	1	....	2	....	2	....	1	120
Total	39	....	377	5	382	2	22	2010

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
TRAMWAY, DUNN CO.—								
Kirkland Brick Co., Brick	5	....	50	....	50	....	2	120
TWO RIVERS, MANITOWOC CO.—								
Aluminum Mfg. Co., Novelties	1	....	90	45	135	8	1	125
Aluminum Sign Co., Signs	1	....	7	4	11	....	1	20
Eggers, F., Veneer Seat Co., Veneer Seats	....	1	151	9	160	11	2	240
Fuler Hosiery Co., Knitting	....	1	....	30	30	5	....	....
Hamilton Mfg. Co., Printers' Supplies	1	1	428	22	450	43	3	350
Kahlenberg Bros., Gasoline Engines	1	....	22	....	22	....	....	....
Mueller Bros. Brewing Co., Brewery	6	....	5	....	5	1	1	30
Two Rivers Knitting Mill, Knitting	2	....	2	30	32	5	....	....
Two Rivers Mfg. Co., Lumber & Planing	13	3	285	15	300	....	8	900
Two Rivers Mfg. Co., Wooden Ware	....	1	285	15	300	29	3	250
Two Rivers Municipal Water & Light Co., Water, etc.	2	....	3	....	3	....	2	200
Vandernil, E. J., Canning Co., Canning	6	....	85	50	135	22	2	160
Western Steel Gate Co., Gates	1	1	5	....	5	....	....	....
Zulu Hosiery Co., Hosiery	1	1	3	23	26	....	....	....
Total	35	9	1371	243	1614	124	23	2275
WASHBURN, BAYFIELD CO.—								
Akley & Sprague, Lumber	5	....	200	....	200	2	11	1880
Fowler-Jacobs Co, Lumber	1	....	35	....	35	....	2	100
Hines Lumber Co., Lumber	5	....	250	....	250	....	16	1550
Kentfield & Lamoreaux, Boxes	2	....	56	....	56	1	1	55
Northwestern Fuel Co., Fuel	3	....	60	....	60	....	2	400
Nye, Jenks & Co., Elevator	2	....	25	....	25	....	2	700
Standard Steam Laundry, Laundry	1	....	2	1	3	....	1	12
Steinert, A., & Co., Machine Shop	1	....	4	....	4	....	1	12
Thompson Lumber Co., Lumber	1	....	100	....	100	....	8	700
Washburn Electric Light & Power Co., Light	1	....	4	....	4	....	2	150
Washburn Machine Works, Repairs	1	....	2	....	2	....	....	....
Washburn Steam Laundry, Laundry	1	....	2	5	7	....	1	20
Total	24	....	740	6	746	3	47	5579
WATERTOWN, JEFFERSON AND DODGE CO.'S—								
American Malting Co., Malt	2	4	26	....	26	....	3	245
Archie, J. J., & Son, Monuments	1	....	12	....	12	....	....	....
Badger State Bottling Works, Soda Water	1	....	8	....	8	....	1	8
Biefeld, Otto & Co., Machine Shops	2	....	15	....	15	....	1	15
Brandt-Dent Co., Gas Fixtures & Cashiers	1	1	49	1	50	1	....	....
Dornfeld-Kunert Co., Machine Shops	8	....	54	....	54	....	1	50
Hartig, Wm., Brewery	8	2	30	....	30	2	6	310
Henry, Ira L., Co., Paper Boxes	1	1	31	106	137	30	1	40
Jahnke Creamery Co., Creamery	4	....	5	....	5	....	1	30
Kehr & Gevers, Machine Shop	1	....	4	....	4	1	....	....
Koenig, R. P. & Co., Flour & Feed	3	2	8	....	8	....	1	100
Kohl, P., Dyeing	1	....	2	....	2	....	1	5
Lemmerhirt, H. & Co., Cooperage	2	....	6	....	6	....	....	....
Lewis, G. B., & Co., Bee Supplies	3	2	64	5	69	7	2	120
New Method Steam Laundry, Laundry	1	....	2	3	5	....	1	8
Nienow-Bursinger, Machine Shops	1	....	5	....	5	....	....	....
The Gazette, Printing	....	1	3	....	3	....	....	....
The Globe Milling Co., Flour & Feed	4	1	14	....	14	....	2	205
Times Publishing Co., Printing	1	....	6	....	6	....	....	....
Watertown Electric Light Co., Lighting	2	....	7	....	7	....	3	180
Watertown Foundry Co., Foundry	1	....	7	....	7	....	....	....
Watertown Gas Light Co., Gas	2	....	6	....	6	....	1	40
Watertown Grain Co., Elevator	3	....	5	....	5	....	....	....
Watertown Republican, Printing	1	....	3	....	3	....	....	....

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories.	Three or more stories	Male.	Female.	Total.	Under 16 yrs of age.	Number.	Total horse power.
WATERTOWN—Continued.								
Watertown Steam Laundry, Laundry	1	....	3	5	8	....	1	30
Watertown Table Slide Co., Table Slides	4	....	15	1	16	3	1	40
Watertown Water Works, Water	2	....	2	....	2	....	2	160
Watertown Weltbuerger, Printing	1	....	8	1	9	1	....	....
Wells, M. D., Co., Shoes	3	....	35	22	57	2	....	....
Wiens, A. R., Brushes	3	....	13	2	15	2	1	30
Total	68	14	448	146	594	49	30	1616
WAUKESHA, WAUKESHA CO.—								
Blair Bros., Foundry & Machines	3	1	9	....	9	....	....	....
Brimmer, J. J., Elevator	....	1	4	....	4	....	1	35
Heintz Mineral Spring Co., Bottling	1	....	10	....	10	....	....	....
Milwaukee-Waukesha Brewing Co, Brewery	1	1	35	10	45	....	2	280
Modern Steel Structure Co., Steel Structures.	2	....	150	....	150	....	2	200
The Waukesha Arcadian Co., Bottling	1	....	15	....	15	....	1	30
Waukesha Malleable Iron Co., Malleable Iron	3	....	200	....	200	....	3	325
Waukesha Mfg. Co., Boxes	1	....	7	....	7	....	1	20
White Rock Mineral Springs Co., Bottling	3	1	50	1	51	....	1	40
White Rock Mineral Springs, Bottling	3	1	50	1	51	....	1	40
Wilber Lumber Co., Lumber, Sash & Doors	4	....	40	....	40	....	1	85
Total	20	4	525	11	536	....	12	1015
WAUPACA, WAUPACA CO.—								
Central Lumber Co., Lumber	9	....	15	....	15	....	....	....
City Water Works, Water	1	....	1	....	1	....	....	....
Fallgalter Bros. Roller Mills, Flour	3	....	4	....	4	....	....	....
Nelson, A. G., Lumber Co., Lumber	9	....	6	....	6	....	....	....
Nelson, A. G., Co., Feed	....	1	4	....	4	....	....	....
Pioneer Foundry Co., Foundry	4	....	4	....	4	....	1	10
Republican, The, Printing	1	....	2	2	4	....	....	....
Strelow & Trachte Co., rCeamery	3	....	4	....	4	....	1	25
Union Starch Co., Starch	4	....	14	....	14	....	1	80
Waupaca Electric Light & Ry. Co., Light, etc.	3	....	2	....	2	....	2	140
Waupaca Post, Printing	1	....	5	1	6	....	....	....
Waupaca Record, Printing	1	....	2	2	4	....	....	....
Total	39	1	63	5	68	....	5	255
WAUPUN, FOND DU LAC CO.—								
Althouse-Wheeler Co., Agricultural Mach.	7	....	60	....	60	....	1	90
Atwood & Vesper, Creamery	1	....	2	....	2	....	1	20
Breyer Bros., Tanks	2	....	7	....	7	....	1	30
City Water & Light Co., Water, etc.	1	....	4	....	4	....	3	160
Henry, I. L., Co., Boxes	1	....	6	9	15	....	....	....
Kobe, L. P., Elevator	2	....	3	....	3	....	....	....
Morris, J. S., Carriage Co., Carriages, etc.	1	1	25	....	25	....	....	....
Olson, Ole, Plows	2	....	3	....	3	....	1	6
Rexwinkle & Giebrick, Elevator	1	....	4	....	4	....	....	....
Scany, John, Brewery	1	....	5	....	5	....	1	40
Schaler-Hartgerink Co., Umbrellas	1	....	15	35	50	....	....	....
Troy Laundry, Laundry	1	....	4	2	6	....	1	16
Wells, M. D., Co., Shoes	4	....	301	49	350	....	4	520
Zimmerman, F. F., & Son, Carriages	1	....	15	....	15	....	....	....
Total	26	1	454	95	549	....	13	882
WAUSAU, MARATHON CO.—								
Badger Laundry, Laundry	1	....	2	5	7	....	1	30
Barker & Stewart, Lumber	6	....	139	1	140	....	5	400
Central Wisconsin, Printing	1	....	4	1	5	....	....	....
Chicago Excelsior Co., Excelsior	3	....	13	....	13	....	1	100
Covey, Wm., Bottling	1	....	3	....	3	....	....	....
Curtis & Yale, Lumber	6	....	75	....	75	9	2	150

ESTABLISHMENTS INSPECTED.

Location. Name and Business.	Buildings		Employes.				Boilers.	
	Under 3 stories.	Three or more stories	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
WAUSAU—Continued.								
Curtis & Yale Co., Sash & Doors	7	2	388	2	390	23	8	480
Dreyer & Sons, Bottling	1	....	4	....	4	....	....	....
Frepzel, J. A., Machine Shop	2	....	3	....	3	....	1	45
Goodwillie Bros., Boxes	4	....	115	10	125	27	4	300
Herald Printing Co., Printing	1	....	3	1	4	....	....	....
Karas, S., Machine Shops	1	....	2	....	2	....	1	10
Kickbush Roller Mills, Flour	3	1	5	1	6	....	1	150
Marathon Granite Co., Stone	2	....	45	1	46	....	1	60
Mathie Brewing Co., Brewery	3	3	14	1	15	....	1	100
McEachron Roller Mills, Mills	5	2	20	....	20	....	....	....
Mortenson, Jacob, Lumber Co., Lumber	9	....	81	....	81	....	4	285
Murray, J. D., Mfg. Co., Machinery	5	1	43	2	45	....	1	60
Philosopher Press, The, Printing	1	....	3	1	4	....	....	....
Record, The Daily, Printing	1	....	8	1	9	....	....	....
Remmel Bros., Bottling	1	....	2	....	2	....	....	....
Ruder, Geo., Brewing Co., Brewery	2	2	15	....	15	....	2	120
Schwent, Kofski, Aug., Lumber	6	....	15	....	15	....	1	40
Stewart, Alexander, Lumber Co., Lumber	6	....	230	....	230	2	4	400
Stolzer, Paul F., Printing	1	....	7	....	7	2	....	....
Underwood Veneer Co., Veneer	13	....	124	1	125	11	4	300
U. S. Leather Co., Tannery	8	....	45	....	48	....	2	150
Wausau Box & Lumber Co., Boxes	8	....	135	....	135	10	2	180
Wausau Electric Light Co., Light, etc.	2	....	4	....	4	....	4	440
Wausau Excelsior Co., Excelsior	5	....	16	....	16	....	1	80
Wausau Laundry Co., Laundry	1	....	5	18	23	....	1	23
Wausau Novelty Co., Novelties	6	1	70	....	70	11	2	145
Wausau Pilot, Printing	1	....	6	2	8	2	....	....
Wausau Quartz Co., Sand	4	....	6	....	6	....	1	35
Wausau Sand Paper Co., Sand Paper	5	....	25	....	25	....	1	75
Wausau Water Works, Water	1	....	4	....	4	....	....	....
Wausau Wochenblatt, Printing	1	....	3	1	4	1	2	30
Werheim Mfg. Co., Sash & Veneer	5	....	70	....	70	1	2	160
Wisconsin Box Co., Boxes	7	....	58	1	59	....	1	125
Yunke & Weise, Woodworking	3	....	12	....	12	....	1	30
Total	149	12	1825	50	1875	99	62	4503
WAUWATOSA, MILWAUKEE CO.—								
Bark, F. H., Upholstering	....	1	2	....	2	....	....	....
Castalia Bottling Works, Bottling	9	1	5	....	5	....	....	....
Lentz, A., Woodworking	6	....	26	....	26	....	1	60
Manegold, A. F. & L., Stone	9	....	20	....	20	....	2	75
Milwaukee Pickle Co., Pickles	18	....	50	....	50	....	1	10
Monarch Stone Quarry, Stone	8	....	60	....	60	....	2	175
Northwestern Chemical Co., Chemicals	1	....	5	....	5	....	1	60
Wauwatosa Milling, Fuel & Lumber Co., Milling, etc.	1	....	7	....	7	....	1	60
Wauwatosa Weekly News, Printing	1	....	2	....	2	....	....	....
Total	53	2	177	....	177	....	8	440
WEST ALLIS, MILWAUKEE CO.—								
Allis-Chalmers Co., Machinists	12	3	1400	....	1400	5	5	1500
Kearney & Trecker, Machinists	4	....	60	....	60	1	1	65
Prescott Steam Pump Co., Pumps	10	1	188	2	190	....	2	150
Rosenthal Corn Husker Co., Huskers	5	....	18	....	18	....	....	....
The Milwaukee Electric Co., Power	5	....	225	25	250	3	3	400
Tobin, Gerlinger Steel Casting Co., Foundry	2	....	15	....	15	....	1	25
West Allis Malleable Iron & Chain Belt Co.	5	....	125	....	125	12	2	200
Total	43	4	2031	27	2058	21	14	2340
WEST BEND, WASHINGTON CO.—								
Adam, Kuethaer, Roller Mills	1	1	5	....	5	....	....	....
C. & N. W. Ry., Shops	1	....	1	....	1	....	1	60

ESTABLISHMENTS INSPECTED.

Location, Name and Business.	Buildings.		Employes.				Boilers.	
	Under 3 stories	Three or more stories	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.
WEST BEND—Continued.								
Enger-Kress Pocket Book Co , Pocket Books..	1	....	60	30	90	7	....	....
Maxon & Dow, Creamery	1	....	4	....	4	....	....	....
Pick-Fohn Co., Shop	1	....	2	....	2	....	....	....
Schmidt & Stork, Wagon Works	4	....	40	....	40	....	1	40
Silberzahn Bros., Iron	1	....	4	....	4	....	....	....
Silberzahn Mfg. Co., Agricultural Mach.....	4	....	26	....	26	....	1	80
West Bend Brewing Co., Brewery	3	3	35	....	35	....	5	330
West Bend Co-operative Creamery, Creamery	1	....	2	....	2	....	1	12
West Bend Knitting Mills, Knitting	1	....	9	26	35	....	....	....
West Bend Pearl Button Co., Pearl Buttons ..	1	....	12	8	20	....	....	....
West Bend Steam Laundry, Laundry	1	....	1	3	4	....	1	15
Total	21	4	201	67	268	7	10	537
WESTBORO, TAYLOR CO.—								
Frank, Aug. H., Woodworking	1	....	3	....	3	....	....	....
Langenberg Brick Co., Brick	1	....	25	....	25	....	1	40
Westboro Lumber Co., Lumber	4	....	110	....	110	....	7	610
Total	6	....	138	....	138	....	8	650
WEST SALEM, LA CROSSE CO.—								
Nonpariel-Journal, Printing	1	....	2	2	4	....	....	....
Neshonoc Electric Light Co., Lighting	1	....	1	....	1	....	....	....
Total	2	....	3	2	5	....	....	....
WHITEWATER, WALWORTH CO.—								
Empire Milling Co., Flour & Feed	2	1	4	....	4	....	....	....
Juill & Sheppard, Feed	1	....	6	....	6	....	....	....
Klinger Brewery Co., Brewery	6	1	4	....	4	....	1	30
Union Produce Co., Creamery	1	....	2	....	2	....	1	20
Weyher & Sons, Wagons & Carriages.....	6	....	28	....	28	....	1	10
Whitewater Elec. Lt. & Power Co., Lt., etc...	4	....	4	....	4	....	2	275
Whitewater Gazette, Printing	1	....	2	2	4	....	....	....
Whitewater Register, Printing	1	....	3	4	7	....	....	....
Whitewater Robe Tannery Co., Tannery	1	....	3	....	3	....	1	12
Whitewater Steam Laundry, Laundry	1	....	2	2	4	....	1	15
Wisconsin Dairy Supply Co., Dairy Machinery	6	....	10	1	11	....	1	10
Total	30	2	68	9	77	....	8	372
WINDSOR, DANE CO.—								
Bane's Tobacco Warehouse, Tob. Warehouse..	1	....	10	4	14	4	....	....
WOODBORO, ONEIDA CO.—								
Wood, Geo. E., Lumber Co., Lumber	6	....	100	....	100	3	6	600
WOODRUFF, VILAS CO.—								
C. & N. W. Ry., Pump Station	1	....	2	....	2	....	1	10
Winkler, Cash, Lumber	1	....	15	....	15	....	1	75
Total	2	....	17	....	17	....	2	85

ESTABLISHMENTS INSPECTED—SUMMARIES BY CITIES.

Number.	City and County.	No. of establishments.	Buildings.		Employes.				Boilers.		
			Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.	Other or no power.
1	Abbotsford, Clark Co.	2	12	....	44	3	47	....	4	180	....
2	Abrams, Oconto Co.	3	3	....	7	.....	7	....	2	45	1
3	Algoma, Kewaunee Co.	5	21	2	245	70	315	38	7	655	1
4	Antigo, Langlade Co.	5	15	3	203	7	210	8	11	860	....
5	Appleton, Outagamie Co.	50	55	17	1496	572	2068	136	80	9563	22
6	Arbor Vitae, Vilas Co.	2	11	....	233	.....	233	5	5	400	1
7	Ashland, Ashland Co.	35	160	7	1704	32	1736	21	79	8140	12
8	Athens, Marathon Co.	9	15	1	193	1	194	6	9	478	3
9	Bangor, La Crosse Co.	3	3	1	11	1	12	....	2	140	2
10	Baraboo, Sauk Co.	22	48	1	254	86	340	....	15	988	10
11	Barksdale, Bayfield Co.	1	54	....	75	.....	75	....	3	375	....
12	Barron, Barron Co.	6	11	1	116	29	145	15	6	285	2
13	Bayfield, Bayfield Co.	6	16	....	220	.....	220	2	14	1190	2
14	Beaver Dam, Dodge Co.	15	33	3	565	93	658	31	11	897	7
15	Beldenville, Pierce Co.	4	6	....	83	.....	83	1	2	92	2
16	Beloit, Rock Co.	41	66	3	2855	258	3113	37	37	4086	25
17	Benton, La Fayette Co.	3	12	4	117	.....	117	....	7	530	....
18	Blk. Riv. Falls, Jackson Co.	15	27	1	62	.....	62	....	3	110	12
19	Boscobel, Grant Co.	11	17	3	61	78	139	....	7	286	5
20	Breed, Oconto Co.	1	1	....	10	.....	10	....	1	60	....
21	Brodhead, Green Co.	7	7	1	14	6	20	1	1	20	6
22	Brokaw, Marathon Co.	1	11	....	192	8	200	....	....	.....	1
23	Brooklyn, Green Co.	4	5	1	49	12	61	....	2	165	2
24	Bushman	1	1	....	2	.....	2	....	1	14	....
25	Burlington, Racine Co.	11	36	5	135	120	255	2	19	1075	2
26	Cameron, Barron Co.	4	4	....	17	.....	17	....	2	75	2
27	Carrollville, Milwaukee	2	20	3	168	29	197	5	13	2300	....
28	Cedarburg, Ozaukee Co.	4	9	3	155	48	203	32	7	350	....
29	Chilton, Calumet Co.	5	4	4	42	.....	42	....	4	241	2
30	Chip'wa Falls, Chip'wa Co.	27	40	7	909	117	1026	11	20	1054	16
31	Clintonville, Waupaca Co.	5	8	....	40	.....	40	....	5	245	1
32	Colfax, Dunn Co.	5	7	....	83	.....	83	....	3	125	2
33	Columbus, Columbia Co.	9	17	7	70	28	98	....	9	665	4
34	Corliss, Racine Co.	1	8	....	200	.....	200	....	2	300	....
35	Crandon, Forest Co.	6	12	....	465	.....	465	2	10	610	....
36	Cudahy, Milwaukee Co.	4	25	8	1393	22	1415	38	21	3500	1
37	Darlington, Lafayette Co.	5	8	....	31	.....	31	....	3	190	2
38	Delavan, Walworth Co.	11	19	1	49	55	104	1	9	395	4
39	De Pere, Brown Co.	15	34	5	452	315	767	21	8	900	11
40	Dodgeville, Iowa Co.	6	16	1	28	3	31	....	5	250	1
41	Dorchester, Clark Co.	2	3	1	33	.....	33	....	4	195	....
42	Drummond, Bayfield Co.	1	7	1	200	.....	200	....	7	1450	....
43	Eau Claire, Eau Claire Co.	58	135	16	2118	296	2414	103	55	5110	34
44	Edgerton, Rock Co.	28	36	2	618	574	1192	15	1	60	27
45	Elcho, Langlade Co.	1	3	....	35	.....	35	....	3	150	....
46	Elkhorn, Walworth Co.	9	15	2	33	7	40	....	8	281	2
47	Elkmound, Dunn Co.	3	3	....	5	.....	5	....	1	20	2
48	Ellsworth, Pierce Co.	11	13	1	43	2	45	....	4	260	7
49	Evansville, Rock Co.	10	14	....	233	103	336	....	9	680	6
50	Fifield, Price Co.	1	1	....	10	.....	10	....	2	45	....
51	Fond du Lac, F. du Lac Co.	33	57	25	1069	307	1376	50	36	2860	17
52	Fort Atkinson, Jefferson Co.	15	65	10	475	95	570	....	17	911	3
53	Gile, Iron Co.	1	7	....	225	.....	225	10	8	700	....
54	Gillett, Oconto Co.	7	13	....	45	1	46	5	4	137	3
55	Grafton, Ozaukee Co.	2	1	2	18	45	63	6	....	.....	2

ESTABLISHMENTS INSPECTED—SUMMARIES BY CITIES.

Number.	City and County.	No. of establishments.	Buildings		Employes.				Boilers.		
			Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.	Other or no power.
56	Grand Rapids, Wood Co. ...	15	61	3	575	26	601	40	19	1912	7
57	Green Bay, Brown Co.	61	146	16	1988	297	2285	107	83	8714	18
58	Hartford, Washington Co. ..	16	34	6	128	32	160	2	13	609	5
59	Hayward, Sawyer Co.	5	7	....	263	2	265	....	13	1140	2
60	Hazelgreen, Grant Co.	4	7	3	80	.....	80	....	3	100	2
61	Hazelhurst, Oneida Co.	1	9	....	190	.....	190	6	5	700	....
62	Houghton, Bayfield Co.	2	6	....	65	.....	65	....	3	140	....
63	Hudson, St. Croix Co.	18	35	5	573	28	601	1	15	1110	11
64	Hurley, Iron Co.	5	12	....	209	.....	209	1	5	550	3
65	Iron River, Bayfield Co.	4	9	1	231	.....	231	....	9	840	1
66	Irvington, Dunn Co.	1	5	....	75	.....	75	16	3	140	....
67	Janesville, Rock Co.	68	115	27	1878	879	2757	56	46	3604	36
68	Jefferson, Jefferson Co.	26	71	12	368	37	405	3	23	1329	7
69	Jeffris, Oneida Co.	1	5	....	50	.....	50	2	2	250	....
70	Johnson's Creek, Jeff'n Co...	4	8	1	23	.....	23	....	4	100	1
71	Kaukauna, Outagamie Co...	13	60	6	438	141	579	12	17	1930	4
72	Kenosha, Kenosha Co.	33	190	17	3758	914	4672	322	68	6579	13
73	Kewaskum, Washington Co.	5	6	2	34	.....	34	....	4	360	2
74	Kewaunee, Kewaunee Co. ..	12	32	2	171	66	237	50	9	550	4
75	Kilbourn City, Portage Co...	6	6	....	13	6	19	1	2	120	4
76	Lac du Flambeau, Vilas Co.	1	8	....	240	.....	240	....	7	709	....
77	La Crosse, La Crosse Co....	100	242	53	3172	961	4133	112	99	8175	51
78	Lake Geneva, Walworth Co.	6	12	....	26	4	30	....	6	395	2
79	Lake Nebagamon, Doug. Co.	1	8	....	306	.....	306	4	5	400	....
80	Lancaster, Grant Co.	5	10	1	18	.....	18	....	3	280	3
81	Laona, Forest Co.	1	8	....	400	.....	400	11	5	650	....
82	Lena, Oconto Co.	4	5	2	22	.....	22	....	3	195	1
83	Lenox, Forest Co.	1	1	....	10	.....	10	....	1	50	....
84	Madison, Dane Co.	49	146	15	1683	614	2297	66	38	3564	25
85	Manitowoc, Manitowoc Co...	47	151	23	1450	425	1875	52	58	4612	15
86	Marengo, Ashland Co.	1	2	....	30	.....	30	6	2	50	....
87	Marinette, Marinette Co	11	56	1	1276	28	1304	42	56	4827	1
88	Marshfield, Wood Co.	19	52	3	604	16	620	51	26	1800	8
89	Mason, Bayfield Co.	1	7	....	213	2	215	5	9	900	....
90	Mauston, Juneau Co.	12	13	2	30	5	35	....	6	268	6
91	Mayville, Dodge Co.	17	46	6	191	27	218	....	20	1916	6
92	Medford, Taylor Co.	15	58	3	253	21	274	7	17	1713	6
93	Menasha, Winnebago Co.....	10	135	13	1302	113	1415	73	27	5205	2
94	Menomonie, Dunn Co.	23	55	4	664	2	666	18	20	1252	8
95	Mercer, Iron Co.	1	4	....	30	.....	30	....	7	700	....
96	Merrill, Lincoln Co.	19	96	4	1484	18	1502	79	46	3560	7
97	Milwaukee, Milwaukee Co...	685	1257	527	45433	8723	54156	2991	747	80030	359
98	Mineral Point, Iowa Co.....	7	38	4	217	2	219	....	9	795	2
99	Monroe, Green Co.	14	37	6	160	52	212	....	12	747	6
100	Nash, Bayfield Co.	1	3	....	60	.....	60	....	1	30	....
101	Nashville, Forest Co.	1	2	....	50	.....	50	....	2	100	....
102	Neenah, Winnebago Co.	17	74	11	517	177	694	5	26	3718	8
103	Neillsville, Clark Co.	14	28	4	104	9	113	7	11	447	5
104	Nekoosa, Wood Co.	1	11	2	354	12	366	2	....	.....	1
105	New London, Waupaca Co...	16	48	9	439	23	462	15	20	1075	3
106	New Richm'd, St. Croix Co..	12	20	....	271	3	274	....	13	711	6
107	North Crandon, Forest Co...	1	1	....	20	.....	20	....	2	100	....
108	North Milwaukee, Milw. Co.	6	16	1	535	7	542	10	9	649	1
109	Oconto, Oconto Co.	12	37	1	612	21	633	17	32	2295	3
110	Oconto Falls, Oconto Co. ...	4	26	....	242	9	251	14	10	1540	2

ESTABLISHMENTS INSPECTED—SUMMARIES BY CITIES.

Number.	City and County.	No. of establishments.	Buildings.		Employes.				Boilers.		Electric power.
			Under 3 stories.	Three stories.	Male.	Female.	Total.	Under 18 yrs. of age.	Number.	Total horse power.	
111	Odanah, Ashland Co.	1	9	....	300	.....	300	7	6	700	....
112	Oregon, Dane Co.	4	4	....	33	15	48	....	....	.....	4
113	Oshkosh, Winnebago Co.	90	340	30	4550	650	5200	221	95	10480	40
114	Park Falls, Price Co.	5	5	....	122	6	128	4	7	512	1
115	Pesntigo, Marinette Co.	6	14	2	244	1	245	....	11	1010	3
116	Phillips, Price Co.	2	16	....	440	.....	440	6	10	1255	....
117	Platteville, Grant Co.	16	44	5	164	3	167	....	14	871	5
118	Plymouth, Sheboygan Co.	5	8	2	74	9	83	4	....	.....	5
119	Portage, Columbia Co.	16	28	3	126	158	284	26	12	562	7
120	Port Edwards, Wood Co.	1	5	....	136	4	140	2	6	720	....
121	Pt. Washington, Ozaukee Co.	15	52	8	799	55	854	41	17	1389	6
122	Pr. du Chien, Crawford Co.	19	31	2	173	45	218	....	9	610	11
123	Pratt Jct., Oneida Co.	1	1	....	10	.....	10	....	1	50	....
124	Racine, Racine Co.	88	159	63	6601	1232	7833	219	95	10095	39
125	Red Cliff, Bayfield Co.	1	2	....	125	.....	125	....	3	300	....
126	Reedsburg, Sauk Co.	14	35	4	174	88	262	2	10	642	9
127	Rhinelander, Oneida Co.	20	54	1	1294	10	1304	30	42	2655	6
128	Rice Lake, Barron Co.	16	28	2	287	.....	287	....	21	1353	6
129	Richland Center, Richl'd Co	13	26	1	89	6	95	1	9	552	7
130	Ripon, Fond du Lac Co.	10	19	4	115	143	258	7	6	264	4
131	River Falls, Pierce Co.	14	14	5	62	2	64	....	5	115	10
132	Rusk, Dunn Co.	3	5	....	13	.....	13	....	2	60	1
133	Sanborn, Ashland Co.	2	2	....	12	.....	12	....	2	72	....
134	Satuit, Oneida Co.	1	2	....	25	.....	25	....	3	200	....
135	Sawyer, Door Co.	1	6	....	100	50	150	....	3	240	....
136	Shawano, Shawano Co.	11	32	2	182	12	194	3	15	1675	5
137	Sheboygan, Sheboygan Co.	55	47	50	4817	691	5508	352	85	8570	16
138	Sheboygan Falls, Sheb'n Co.	5	3	3	219	43	262	4	7	625	....
139	Shell Lake, Washburn Co.	6	11	....	85	.....	85	....	9	454	1
140	Solon Springs, Douglas Co.	1	2	....	8	.....	8	....	1	60	....
141	So. Milwaukee, Milw. Co.	13	70	2	1542	5	1547	14	25	2400	3
142	So. Wayne, La Fayette Co.	1	1	....	1	.....	1	....	1	15	....
143	Sparta, Monroe Co.	11	19	....	48	11	59	....	3	207	7
144	Spooner, Washburn Co.	1	1	....	10	.....	10	....	1	40	....
145	Stanley, Chippewa Co.	6	24	....	428	.....	428	4	22	1335	1
146	Star Lake, Vilas Co.	2	10	....	176	.....	176	....	8	610	....
147	Stetsonville, Taylor Co.	1	2	....	30	.....	30	....	2	120	....
148	Stevens Point, Portage	27	98	9	886	193	1079	31	35	2863	7
149	Stiles, Oconto Co.	1	24	....	135	.....	135	....	8	590	....
150	Stoughton, Dane Co.	22	52	6	802	200	1002	30	6	625	19
151	Sturgeon Bay, Door Co.	9	23	1	250	50	300	40	9	840	4
152	Superior, Douglas Co.	68	134	15	4383	297	4680	109	88	8557	29
153	Suring, Oconto Co.	1	4	....	30	.....	30	....	1	80	....
154	Thorp, Clark Co.	4	5	....	57	.....	57	8	6	405	....
155	Tomah, Monroe Co.	12	32	....	237	2	239	....	16	845	4
156	Tomahawk, Lincoln Co.	15	39	....	377	5	382	2	22	2010	4
157	Tramway, Dunn Co.	1	5	....	50	.....	50	....	2	120	....
158	Two Rivers, Manitowoc Co.	14	35	9	1371	245	1614	124	23	2275	5
159	Washburn, Bayfield Co.	12	24	....	740	6	746	3	47	5579	1
160	Watertown, Jefferson Co.	30	68	14	448	146	594	49	30	1616	12
161	Waukesha, Waukesha Co.	11	20	4	525	11	536	....	12	1015	3
162	Waupaca, Waupaca Co.	12	39	1	63	5	68	....	5	255	8
163	Waupun, Fond du Lac.	14	26	1	454	95	549	....	13	882	6
164	Wausau, Marathon Co.	40	149	12	1825	50	1875	99	62	4503	11
165	Wauwatosa, Milwaukee Co.	9	53	2	177	.....	177	....	8	440	3

ESTABLISHMENTS INSPECTED—SUMMARIES BY CITIES.

Number.	City and County.	No of establishments.	Buildings.		Employes				Boilers.		Other or no power.
			Under 3 stories.	Three or more stories.	Male.	Female.	Total.	Under 16 yrs. of age.	Number.	Total horse power.	
166	West Allis, Milwaukee Co...	7	43	4	2031	27	2058	21	14	2340	1
167	West Bend, Washington Co..	13	21	4	201	67	268	7	10	537	7
168	Westboro, Taylor Co.....	3	6	....	138	.....	138	....	8	650	1
169	West Salem, La Crosse Co..	2	2	....	3	2	5	....	.....	.....	2
170	Whitewater, Walworth Co...	11	30	2	68	9	77	....	8	372	4
171	Windsor, Dane Co.	1	1	....	10	4	14	4	....	.....	1
172	Woodboro, Oneida Co.	1	6	....	100	.....	100	3	6	600	....
173	Woodruff, Vilas Co.	2	2	....	17	.....	17	....	2	85	....
	Total	3029	6854	1227	130739	21824	152563	6285	3316	307627	1253

In the 3,029 establishments visited by the inspectors and tabulated in the above tables, 158,848 laborers were employed. This is an average of over 51 to the establishment. Out of every 100 of these employes 4 were children under 16 years of age, 14 were females and 82 males over 16 years of age. Classified as to "children" and "adults," there were 6,285 of the former, which is 3.96 per cent. of the total, and 152,563 of the latter, which equals 96.04 per cent. of the whole.

	Number.	Per cent.
Number of male persons over 16 years	130,739	82.30
Number of female persons over 16 years	21,824	13.74
Number of children under 16 years	6,285	3.96
Total	158,848	100.00

	Number.	Per cent.
Number of persons over 16 years	152,563	96.04
Children under 16 years	6,285	3.96
Total	158,848	100.00

There were 8,081 buildings, or an average of 2.67 to each of the 3,029 establishments inspected. The average number of buildings to each establishment is larger outside Milwaukee than in Milwaukee. This is largely due to the fact that in

the larger cities various branches of any industry are commonly placed under a single roof, while the opposite is true in the country districts.

NUMBER OF BUILDINGS INSPECTED AND AVERAGE TO EACH ESTABLISHMENT.

Classification.	Buildings.		
	Average to each establishment.	Number.	Per cent.
Milwaukee	2.60	1,784	22.08
Outside Milwaukee	2.69	6,297	77.92
Total	2.67	8,081	100.00

In the following five tables, the number of "wooden," "brick," "iron or steel," "stone," and the "total" number of buildings occupied by the 3,029 establishments visited by the inspector, both in "Milwaukee" and "outside Milwaukee," are classified as to height. The number of wooden buildings found in Milwaukee varies from 1 seven stories high to 505 one story high, while the number outside Milwaukee varies from 1 six stories high to 2,269 one story high, and the total for the state ranges from 1 seven stories high to 2,774 one story high. The variation in the relative proportion of buildings, whether in "Milwaukee," "outside Milwaukee," or in the state at large, is but slight. That is, 67.42 per cent of the wooden buildings in Milwaukee are one story high, 64.84 per cent outside Milwaukee are one story high and in the state at large 65.3 per cent of the total are 1 story high. Nearly the same relations are maintained throughout the remaining six classes.

There were 967 brick buildings inspected in Milwaukee and 2,434 outside Milwaukee, making a total of 3,413 in the state. Nearly one-half the brick buildings in Milwaukee are three stories or over, while but little more than one-seventh of those outside Milwaukee are three or more stories high, and but one reaches the seven story mark. For the state as a whole, only one brick building out of every four is over two stories high.

The number of iron and steel buildings plus the number built of stone forms a very small per cent of the total number inspected. There are only 243 of the former and 177 of the latter. Nearly four-fifths of the iron or steel buildings are outside Milwaukee and nearly 87 per cent of these are under three stories high. All but 5 of the stone buildings are outside Milwaukee and about 80 per cent of these are two stories or less.

Of the total number of buildings inspected, 70.46 per cent of those in Milwaukee are under three stories high, while about 90 per cent of those outside Milwaukee, and 80 per cent of the total for the state are under three stories.

NUMBER OF WOODEN BUILDINGS.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
One story	505	67.42	2,269	64.84	2,774	65.30
Two stories	204	27.24	982	28.06	1,186	27.92
Three stories	30	4.01	195	5.57	225	5.29
Four stories	6	.80	42	1.20	48	1.13
Five stories	2	.27	10	.03	12	.29
Six stories	1	.13	1	.....	2	.05
Seven stories	1	.13	.....	.....	1	.02
Total	749	100.00	3,499	100.00	4,248	100.00

NUMBER OF BRICK BUILDINGS.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
One story	281	28.70	1,392	57.19	1,673	49.02
Two stories	234	23.90	651	26.75	885	25.93
Three stories	182	18.59	291	11.95	473	13.86
Four stories	137	13.99	78	3.20	215	6.30
Five stories	72	7.36	19	.78	91	2.67
Six stories	44	4.49	2	.09	46	1.35
Seven stories	21	2.15	1	.04	22	.64
Eight stories	7	.72	.....	.....	7	.20
Nine stories	1	.10	.....	.....	1	.03
Total	979	100.00	2,434	100.00	3,413	100.00

NUMBER OF IRON AND STEEL BUILDINGS.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
One story	22	43.14	135	70.31	157	64.61
Two stories	7	13.73	31	16.15	38	15.64
Three stories	5	9.80	9	4.69	14	5.76
Four stories	12	23.53	3	1.56	15	6.17
Five stories	2	3.92	4	2.08	6	2.47
Six stories	2	3.92	4	2.08	6	2.47
Seven stories	1	1.96	1	.52	2	.82
Eight stories	.....	.....	2	1.05	2	.82
Nine stories	.....	.....	3	1.56	3	1.24
Total	51	100.00	192	100.00	243	100.00

NUMBER OF STONE BUILDINGS.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number	Per cent.	Number.	Per cent.	Number.	Per cent.
One story	3	60.00	90	52.32	93	52.54
Two stories	1	20.00	47	27.33	48	27.12
Three stories	1	20.00	26	15.12	27	15.25
Four stories	.....	.....	7	4.07	7	3.96
Five stories	.....	.....	2	1.16	2	1.13
Total	5	100.00	172	100.00	177	100.00

TOTAL NUMBER OF BUILDINGS.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent	Number.	Per cent.	Number.	Per cent.
One story	811	45.46	3,886	61.71	4,697	58.12
Two stories	446	25.00	1,711	27.18	2,157	26.69
Three stories	218	12.22	521	8.27	739	9.14
Four stories	155	8.69	130	2.06	285	3.53
Five stories	76	4.26	35	.56	111	1.38
Six stories	47	2.63	7	.11	54	.67
Seven stories	23	1.29	2	.03	25	.31
Eight stories	7	.39	2	.03	9	.11
Nine stories	1	.06	3	.05	4	.05
Total	1,784	100.00	6,297	100.00	8,081	100.00

In the following table the buildings are classified as to whether they are wood, brick, iron or steel, or stone. 41.98 per cent of the buildings in Milwaukee are frame or wood, 54.88 per cent brick, and but little over 3 per cent are iron or steel, and stone. Of the buildings outside Milwaukee, 55.57 per cent are wood, 38.65 per cent brick, and less than 6 per cent iron or steel, and stone. In the total for the state, over one-half are wood, 42.23 per cent are brick, and but little over 5 per cent are iron or steel, and stone.

CLASSIFICATION AS TO KIND OF BUILDING.

Classification.	Milwaukee.		Outside Milwaukee		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Frame, wood	749	41.98	3,499	55.57	4,248	52.57
Brick	979	54.88	2,434	38.65	3,413	42.23
Iron or steel	51	2.86	192	3.05	243	3.01
Stone	5	.28	172	2.73	177	2.19
Total	1,784	100.00	6,297	100.00	8,081	100.00

The following table exhibits the proportion of the various kinds of buildings in Milwaukee and outside Milwaukee to the total. Only 17.63 per cent of the wood or frame buildings, 28.67 per cent of the brick, 20.99 per cent of iron or steel, 2.82 per cent of the stone, and 22.08 per cent of the total number of buildings are located in Milwaukee. This means that the relative proportion of brick buildings is greater in Milwaukee than any other class, while just the opposite is true with the stone buildings.

RESPECTIVE PROPORTION OF THE DIFFERENT KINDS OF BUILDINGS IN MILWAUKEE AND STATE OUTSIDE.

Classification.	Number of Buildings.			Per Cent.		
	Milwaukee.	Outside.	State.	Milwaukee.	Outside.	State.
Frame, wood	749	3,499	4,248	17.63	83.37	100.00
Brick	979	2,434	3,413	28.67	71.32	100.00
Iron or steel	51	192	243	20.99	79.01	100.00
Stone	5	172	177	2.82	97.18	100.00
Total	1,784	6,297	8,081	22.08	77.92	100.00

RESPECTIVE PROPORTION OF BUILDINGS IN MILWAUKEE AND OUTSIDE THAT CITY WHEN CLASSIFIED AS TO HEIGHT.

Classification.	Number of Buildings.			Per Cent.		
	Milwaukee.	Outside	Total.	Milwaukee.	Outside.	Total.
One story	811	3,886	4,697	17.27	82.73	100.00
Two stories	446	1,711	2,157	20.68	79.32	100.00
Three stories	218	521	739	29.49	70.51	100.00
Four stories	155	130	285	54.39	45.71	100.00
Five stories	76	35	111	68.47	31.53	100.00
Six stories	47	7	54	87.08	12.92	100.00
Seven stories	23	2	25	91.30	8.70	100.00
Eight stories	7	2	9	77.78	22.22	100.00
Nine stories	1	3	4	25.00	75.00	100.00
Total	1,784	6,297	8,081	22.08	77.92	100.00

The above table shows that the greatest portion of the four, five, six, seven and eight story buildings are found in Milwaukee, while the greatest number of one, two, three and nine story buildings are outside Milwaukee, the former ranging from 54.39 per cent to 91.3 per cent, the latter from 70.51 per cent to 82.73 per cent.

The following table shows that out of a total of 130,739 males employed in the 3,029 establishments, 85,306, or 65.25 per cent are employed outside Milwaukee, and out of a total of 21,824 females, 13,101, or 60.03 per cent, are also employed outside Milwaukee. This means that out of a total of 152,563 employes, 98,407 or 64.5 per cent are employed in the establishments outside Milwaukee.

NUMBER OF PERSONS OVER 16 YEARS EMPLOYED.

Classification.	Male.		Female.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number	Per cent.
In Milwaukee	45,433	34.75	8,723	39.97	54,156	35.50
Outside Milwaukee	85,306	65.25	13,101	60.03	98,407	64.50
Total	130,739	100.00	21,824	100.00	152,563	100.00

The following table shows that out of a total of 54,156 employes in Milwaukee, 45,433 or 83.89 per cent are males, and 8,723 or 16.11 per cent are females, and of a total of

98,407 employes working outside Milwaukee, 85,306 or 86.69 per cent are males, and 13,101 or 13.31 per cent are females, while for the state as a whole, 85.7 per cent of the employes are males, and 14.3 per cent are females. Further than this, the table shows that a greater portion of the employes in Milwaukee are females than those outside, or in the state at large.

CLASSIFICATION AS TO SEX OF PERSONS OVER 16 YEARS OF AGE.

Milwaukee.	Per Cent.			Number.		
	Male.	Female	Total.	Male.	Female.	Total.
Milwaukee	45,433	8,723	54,156	83.89	16.11	100.00
Outside Milwaukee	85,306	13,101	98,407	86.69	13.31	100.00
Total	130,739	21,824	152,563	85.70	14.30	100.00

NUMBER OF CHILDREN UNDER 16 YEARS.

Classification.	Between 14-16 Years.		Between 12-14 Years.		Total.	
	Number	Per cent.	Number.	Per cent.	Number.	Per cent.
Milwaukee	2,962	48.40	29	17.58	2,991	47.59
Outside Milwaukee	3,158	51.60	136	82.42	3,294	52.41
Total	6,120	100.00	165	100.00	6,285	100.00

During the past 18 months, the inspectors found 6,285 children under 16 employed in the factories and other mechanical establishments of the state. Of this number, only 165 were under 14 years of age. The number of children employed are nearly equally divided between the city of Milwaukee and the territory outside, 47.59 per cent being employed in Milwaukee and 52.41 per cent outside.

NUMBER OF ESTABLISHMENTS PAYING WAGES WEEKLY, MONTHLY, ETC.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Weekly	519	75.76	1,060	45.22	1,579	52.13
Semi-Monthly	114	16.64	383	16.34	497	16.41
Monthly	41	5.99	654	27.90	695	22.94
Not reporting	11	1.61	247	10.54	258	8.52
Total	685	100.00	2,344	100.00	3,029	100.00

As shown above, 519 establishments or 75.76 per cent of the total number in Milwaukee pay wages weekly, 114 or 16.64 per cent semi-weekly, and 41 or 5.99 per cent, monthly, the remaining 11 not reporting as to time of paying wages. Of the 2,344 establishments outside, 1,060 or 45.22 per cent pay wages weekly, 383 or 16.34 semi-monthly, and 654 or 27.9 per cent, monthly, while the remaining 247 made no report.

NUMBER OF PERSONS RECEIVING THEIR WAGES WEEKLY, MONTHLY, ETC.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Weekly	30,284	55.92	26,843	27.28	57,127	37.44
Semi-monthly	18,362	33.91	31,112	31.62	49,474	32.43
Monthly	4,337	8.01	34,821	35.38	39,158	25.67
Not reporting	1,173	3.16	5,631	5.72	6,804	4.46
Total	54,156	100.00	98,407	100.00	152,563	100.00

The time of paying wages affected the employes found in the various establishments as shown in the above table. Over one-half the employes in Milwaukee are paid weekly, a little over one-third semi-monthly, and less than one-tenth monthly, while outside Milwaukee but little over one- fourth the employes are paid weekly, less than one-third smi-monthly, and but little more than one-third monthly.

NUMBER AND PER CENT. OF ESTABLISHMENTS REPORTING AS TO WHETHER THEY PAID WAGES IN CASH OR CHECKS.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number	Per cent.	Number.	Per cent.	Number.	Per cent.
Cash	501	73.14	1,647	70.26	2,148	70.91
Checks	119	17.37	605	25.81	724	23.91
Both	2	.29	31	1.33	33	1.09
Not reporting	63	9.20	61	2.60	124	4.09
Total	685	100.00	2,344	100.00	3,029	100.00

The above table is an exhibit of the establishments classified as to whether they pay employes in cash, checks, or both. In

Milwaukee 501 establishments or 73.14 per cent pay cash and less than one-fifth pay in checks, while 1,647 or 70.26 per cent of those outside Milwaukee pay cash, and about one-fourth pay in checks.

PERSONS EMPLOYED CLASSIFIED AS TO WHETHER THEY ARE PAID CASH OR CHECKS.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Cash	35,271	65.13	59,144	60.11	94,415	61.89
Checks	17,541	32.39	37,131	37.72	54,672	35.84
Both	106	.20	170	.17	276	.18
Not reporting	1,238	2.28	1,962	2.00	3,200	2.09
Total	54,156	100.00	98,407	100.00	152,563	100.00

The above exhibit classifies the employes as to whether they are paid in cash, checks, or both. The percentage of employes receiving cash is not as large as the percentage of establishments paying cash, either in Milwaukee or outside. This is explained by the fact that the larger establishments pay in checks, and a greater number of employes are affected. Out of a total of 54,156 employes in Milwaukee, 35,271 or 65.13 per cent receive cash, and 17,541 or 32.39 per cent are paid in checks, while out of the 98,407 employes outside Milwaukee, 59,144 or 60.11 per cent are paid in cash, and 37,131 or 37.72 per cent in checks.

CLASSIFICATION OF ESTABLISHMENTS AS TO HOURS OF LABOR DAILY.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
8 hours or less	52	7.58	82	3.50	134	4.42
9 hours	145	21.17	154	6.57	299	9.87
10 hours	436	63.65	1,723	73.51	2,159	71.28
11 hours	3	.44	42	1.79	45	1.49
12 hours	5	.73	104	4.44	109	3.60
Irregular	44	6.43	239	10.19	283	9.34
Total	685	100.00	2,344	100.00	3,029	100.00

Of the 685 establishments in Milwaukee, 436 or 63.65 per cent require 10 hours for a day's work, 145 or 21.17 per cent

require 9 hours, and 52 or 7.58 per cent 8 hours, while out of the 2,344 establishments outside Milwaukee, 1,723 or 73.51 per cent require 10 hours per day, 154 or 6.57 per cent 9 hours per day, etc.

As shown in the following table, over one-fifth of the employes in Milwaukee work eight and nine hours a day, while outside Miwaukee less than 1 employe out of 33 work eight and nine hours. On the other hand, about 90 out of every 100 employes outside Milwaukee work ten and eleven hours per day, while only about 70 out of 100 in Milwaukee work ten and eleven hours. The probable explanation of this is that the skill of employes, the improved machinery, and other facilities, enable the manufacturers of Milwaukee to accomplish more in less time than those outside Milwaukee.

EMPLOYES CLASSIFIED AS TO HOURS OF LABOR PER DAY.

Classification.	Milwaukee		Outside Milwaukee.		Total	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
8 hours	5,223	9.64	415	.42	5,638	3.70
9 hours	5,718	10.56	2,410	2.45	8,128	5.33
10 hours	37,909	70.00	83,428	84.78	121,337	79.53
11 hours	211	.39	4,102	4.17	4,313	2.83
12 hours	5,032	9.29	6,623	6.73	11,655	7.64
Irregular	63	.12	1,429	1.45	1,492	.97
Total	54,156	100.00	98,407	100.00	152,563	100.00

TOTAL NUMBER OF BOILERS, NUMBER INSURED, NUMBER INSPECTED THOUGH NOT INSURED, AND NUMBER NOT INSPECTED.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number	Per cent.	Number	Per cent.	Number.	Per cent.
Insured	545	72.96	1,631	63.49	2,176	65.62
Inspected but not insured	15	2.01	247	9.61	262	7.90
Not inspected	187	25.03	691	26.90	878	26.48
Total	747	100.00	2,569	100.00	3,316	100.00

Of the 747 boilers in Milwaukee, 545 or 72.96 per cent are insured, 15 or 2.01 per cent inspected but not insured, and 187 or 25.03 per cent were not inspected, while of the

2,569 boilers outside Milwaukee, 1,631 or 63.49 per cent are insured, 247 or 9.61 per cent were inspected but not insured, and 26.9 per cent were not inspected.

BOILERS INSPECTED AND NOT INSPECTED.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Inspected	560	74.97	1,878	73.10	2,438	73.52
Not inspected	187	25.03	691	26.90	878	26.48
Total	747	100.00	2,569	100.00	3,316	100.00

HORSE POWER.

Classification.	Number boilers.	Average power to each boiler.	Horse Power.	
			Number.	Per cent.
Milwaukee	747	107.1	80,030	26.02
Outside Milwaukee	2,569	88.6	227,597	73.98
Total	3,316	92.8	307,627	100.00

The total number of boilers in the establishments inspected are 3,316. Of this number, 747 are in Milwaukee, the remainder outside. The average horse power of the boilers in Milwaukee is 107.1, those outside 88.6, while the average for the state is 92.8. The total horse power of the 3,316 boilers is 307,627. Over one-fourth of this amount is in Milwaukee, and nearly three-fourths outside.

NUMBER OF ESTABLISHMENTS USING STEAM FOR POWER AND AVERAGE NUMBER OF BOILERS AND HORSE POWER TO EACH ESTABLISHMENT.

Classification.	Number of establishments using steam power.	Average number of boilers to each establishment.	Average number horse power to each establishment.
Milwaukee	328	2.28	244
Outside Milwaukee	1,448	1.71	157
Total	1,776	1.87	173

A total of 1,776 establishments inspected use steam. 328 of this number are in Milwaukee, the remainder outside. The average number of boilers to the establishment in Milwaukee is 2.28 and the average horse power is 244, while outside Milwaukee the average number of boilers to the establishment is 1.71 and the average horse power 157.

KIND OF POWER USED AND NUMBER OF PERSONS EMPLOYED.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Emp. where steam is used	46,033	85.00	88,566	90.00	134,599	88.22
Emp. where gas is used..	2,498	4.61	2,965	3.01	5,463	3.58
Emp. where electricity is used	2,987	5.52	3,181	3.23	6,168	4.04
Emp. where water is used	.....	.....	1,173	1.19	1,173	.77
Emp. where hand is used	216	.40	991	1.01	1,207	.79
Emp. where no power is used	2,422	4.47	1,531	1.56	3,953	2.60
Total	54,156	100.00	98,407	100.00	152,563	100.00

This table classifies the number of employes in Milwaukee and outside that city as to the kind of power used in the establishments where employed. Of the total number employed in Milwaukee, 85 per cent are employed where steam is used, a little over 10 per cent where other power is used, and less than 5 per cent where no power is used. In the state outside Milwaukee, 90 per cent are employed where steam is used, less than 9 per cent where other power is used, and about 1½ per cent where no power is used.

FIRE ESCAPES AND BALCONIES.

Classification.	Fire Escapes.		Balconies Attached	
	Number.	Per cent.	Number.	Per cent.
Milwaukee	573	57.41	461	58.50
Outside Milwaukee	425	42.59	327	41.50
Total	998	100.00	788	100.00

Of the 998 fire escapes used in the establishments inspected, 57.41 per cent are in Milwaukee, 42.59 per cent outside. Of

the 788 balconies attached, 461 or 58.5 per cent are in Milwaukee, and 327 or 41.5 per cent, outside.

NUMBER OF BUILDINGS HAVING STANDPIPES, HOSE CONNECTIONS, AND AUTOMATIC SPRINKLERS.

Classification.	Outside.		Inside.		Hose Connections.		Automatic Sprinklers.	
	No.	Per ct.	No.	Per ct.	No.	Per ct	No.	Per ct.
Milwaukee	372	54.54	176	14.59	281	21.80	146	25.48
Outside Milwaukee	310	45.46	1,030	85.41	1,008	78.20	427	74.52
Total	682	100.00	1,206	100.00	1,289	100.00	573	100.00

Of the total number of buildings visited by the inspector, 1,888 had standpipes, 682 being outside, the remainder inside. Of the number inside, 372 or 54.54 per cent are in Milwaukee, the remaining 310 outside Milwaukee. Of the 1,206 buildings having inside standpipes, 1,030 or 85.41 per cent are outside Milwaukee. There are 1,289 buildings having hose connections and 573 automatic sprinklers. 78.2 per cent of the former, and 74.52 per cent of the latter, are outside Milwaukee.

In addition to the number of buildings having standpipes, automatic sprinklers, etc., the following table presents the number of such standpipes, hydrants, and sprinklers. In the establishments inspected, there are 935 outside standpipes which are about evenly divided between Milwaukee and the state outside, while 85.54 per cent of the 1,902 inside standpipes, and about the same percentage of the hydrants, are outside Milwaukee.

NUMBER STANDPIPES, HYDRANTS, ETC.

Classification.	Outside		Inside.		Hydrants.		Automatic Sprinklers.	
	No	Per ct.	No.	Per ct.	No.	Per ct.	No.	Per ct.
Milwaukee	474	50.70	275	14.46	12	15.58	7	25.00
Outside Milwaukee	461	49.30	1,627	85.54	65	84.42	21	75.00
Total	935	100.00	1,902	100.00	77	100.00	28	100.00

NUMBER OF STAIRWAYS AND OTHER MEANS OF GETTING DOWN FROM STORIES ABOVE GROUND FLOOR.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Inside stairways	1,371	82.10	2,792	73.63	4,163	76.22
Outside stairways	216	12.93	736	19.41	952	17.43
Tramways	67	4.01	91	2.40	158	2.89
Other means	16	.96	173	4.56	189	3.46
Total	1,670	100.00	3,792	100.00	5,462	100.00

Stairways and tramways as fire escapes come within the inspection laws. The inspectors examined 5,462 of these. Of this number, 1,670 were in Milwaukee and 3,792 outside. Of the number inspected in Milwaukee, over 82 per cent are inside stairways, about 13 per cent outside stairways, 4 per cent tramways, and less than 1 per cent other means of escape. Out of the 3,792 inspected outside Milwaukee, 73.63 per cent were inside stairways, 19.41 per cent outside 2.4 per cent were tramways and 4.56 per cent other means.

NUMBER OF BUILDINGS HAVING ELEVATORS, AND NUMBER OF ELEVATORS USED.

Classification.	Buildings.		Elevators.	
	Number.	Per cent.	Number.	Per cent.
Classification	476	43.79	592	48.05
Outside Milwawukee	611	56.21	640	51.95
Total	1,087	100.00	1,232	100.00

KIND OF DOORS USED ON ELEVATORS.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Automatic doors	107	18.08	165	25.78	272	22.08
Bars	193	32.60	217	33.91	410	33.28
Lift gates	127	21.45	108	16.87	235	19.07
Swing doors	44	7.43	65	10.16	109	8.85
Sliding doors	121	20.44	85	13.28	206	16.72
Total	592	100.00	640	100.00	1,232	100.00

NUMBER OF HOISTS.

Classification.	Hoists.	
	Number.	Per cent.
Milwaukee	361	60.37
Outside Milwaukee	237	39.63
Total	598	100.00

Elevators and hoists also come within the inspection laws. There were 1,087 buildings inspected having 1,232 elevators. Of the number of buildings having elevators, 56.21 per cent are outside Milwaukee, and these buildings contain 51.95 per cent of the elevators. In nearly one-third of the elvators, bars were used as doors, about one-fifth automatic doors, less than one-fifth lift gates, about one-twelfth swing doors, and one-sixth sliding doors.

The inspector found a total of 598 hoists, 60.37 per cent of which are in Milwaukee.

NUMBER OF BUILDINGS HAVING COMMUNICATIONS BETWEEN WORK ROOMS AND ENGINE OR POWER ROOM.

Classification.	Communication.		No Communication.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent
Milwaukee	347	29.60	1,392	32.09	1,739	33.38
Outside Milwaukee	825	70.40	2,946	67.91	3,771	66.62
Total	1,172	100.00	4,338	100.00	5,510	100.00

Of the 5,510 buildings containing steam boilers, 1,172 have communication between work rooms and engine room, while 4,338 have none. 70.40 per cent of the former, and 67.91 per cent of the latter are outside Milwaukee.

KIND OF COMMUNICATION.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Nnmber.	Per cent.	Number.	Per cent.	Number	Per cent.
Electric Bells	228	65.71	301	36.49	529	45.14
'Phones	49	14.12	40	4.85	89	7.59
Speaking Tubes	12	3.46	53	6.42	65	5.55
Whistles	58	16.71	431	52.24	489	41.72
Total	347	100.00	825	100.00	1,172	100.00

The buildings having communications between work room and engineers, classified as to kind, show that 65.71 per cent of those in Milwaukee, and 36.49 per cent of those outside, have electric bells, 14.12 per cent of those in Milwaukee and 4.85 of those outside have 'phones, 3.46 of those in Milwaukee and 6.42 outside, speaking tubes, and the remainder, whistles. This means that less than 25 per cent of the buildings have communications between work rooms and engineer, as required by law.

NUMBER OF EMERY AND POLISHING WHEELS AND NUMBER OF SUCH WHEELS HAVING SUCTION DEVICES AND GUARDS.

Classification.	Total Wheels.		Suction Devices.		Guards.	
	Number	Per cent.	Number.	Per cent.	Number.	Per cent.
Milwaukee	1,087	32.52	218	31.64	146	24.05
Outside Milwaukee	2,256	67.48	471	68.36	461	75.95
Total	3,343	100.00	689	100.00	607	100.00

The law requires that emery and polising wheels must be provided with guards and suction devices. The inspectors found that but little more than 20 per cent of these were provided with suction devices, and less than 20 per cent were provided with guards.

NUMBER OF VATS AND PANS AND NUMBER OF SUCH HAVING GUARDS

Classification.	Vats, Pans, Etc.		Not Guarded.	
	Number.	Per cent.	Number.	Per cent.
Milwaukee	579	7.81	423	15.42
Outside Milwaukee	6,849	92.19	2,321	84.58
Total	7,428	100.00	2,744	100.00

The factory laws also provide that vats and pans containing moulten metal or hot liquid must be guarded for the safety of employes. There were 7,428 of these inspected, 92.19 per cent of which are outside Milwaukee. Of the total

number inspected, 2,744 were not properly guarded. But wherever guards were practicable, the law was enforced by the inspectors.

NUMBER OF DOORS AND EXITS FROM FIRST FLOOR AND BASEMENT.

Classification.	First Floor.		Basement.	
	Number.	Per cent.	Number.	Per cent.
Milwaukee	6,789	21.56	611	31.62
Outside Milwaukee	24,701	78.44	1,321	68.38
Total	31,490	100.00	1,932	100.00

HOW DOORS OPEN OR SWING.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Doors swing in	3,361	45.42	14,312	55.00	17,673	52.88
Doors swing out	1,348	18.22	6,204	23.84	7,552	22.60
Doors swing both ways	48	.65	241	.93	289	.86
Doors sliding	2,235	30.20	5,030	19.33	7,265	21.74
Doors lifting	364	4.92	62	.24	426	1.27
Doors open	44	.59	173	.66	217	.65
Total	7,400	100.00	26,022	100.00	33,422	100.00

The law provides that all doors to exits should be so hung as to swing out, or both in and out, and the factory inspectors have endeavored to enforce this law wherever such enforcement was necessary for the safety of employes.

A total of 33,422 doors and exits were inspected, of which 1,932 were exits from basements and 31,490 from first floors. In Milwaukee, 3,361 or 45.42 per cent, and in the state outside, 14,312 or 55 per cent of the doors inspected, swing in. Taking the state as a whole, 17,673 or 52.88 per cent of the 33,422 doors inspected swing in. The remaining 15,749 or 47.12 per cent, either swing out, both in and out, lift, slide or are left open. Wherever necessary for the safety of employes, orders were issued for doors to swing out.

NUMBER OF BUILDINGS HAVING MECHANICAL VENTILATION, NUMBER AND CONDITION OF WATER CLOSETS.

Classification.	Mechanical Ventilation.		Closets.		Closets in Bad Condition.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Milwaukee	301	29.39	3,284	42.96	194	56.07
Outside Milwaukee	723	70.61	4,361	57.04	152	43.93
Total	1,024	100.00	7,645	100.00	346	100.00

The above table is a summing up of the sanitary conditions of the various establishments inspected, which come within the scope of the law. In the state as a whole, 1,024 buildings had mechanical ventilating systems, and 7,645 had closets of which number 346 were in bad conditions. These closets were ordered to be placed in good condition, and wherever closets and mechanical ventilation were needed for the health and safety of employes, orders were so issued.

NUMBER OF BUILDINGS PROVIDED WITH SEATS FOR FEMALES.

Classification.	Buildings.	
	Number.	Per cent.
Milwaukee	406	30.55
Outside Milwaukee	923	69.45
Total	1,329	100.00

A total of 1,329 buildings were provided with seats for females, according to law. Of this number, 69.45 per cent are outside Milwaukee. Wherever female labor was employed and seats were not properly provided, orders were issued to so provide.

NUMBER OF ESTABLISHMENTS IN WHICH ACCIDENTS RESULTING IN INJURY TO EMPLOYES OCCURRED AND THE NUMBER OF SUCH ACCIDENTS.

Classification.	Establishments.		Accidents.	
	Number.	Per cent.	Number.	Per cent.
Milwaukee	16	8.04	173	13.46
Outside Milwaukee	183	91.96	1,112	86.44
Total	199	100.00	1,285	100.00

CLASSIFICATION OF ACCIDENTS.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number	Per cent.
Fatal	7	3.95	12	1.15	19	1.56
Temporary injury	148	83.62	1,008	96.83	1,156	94.91
Permanent injury	22	1,243	21	2.02	43	3.53
Total	177	100.00	1,041	100.00	1,218	100.00

The number of accidents reported is much less than in the preceding report. Of the 3,029 establishments inspected, accidents were reported in only 199. In this number of establishments, 1,285 accidents occurred. Of the 199 establishments where accidents occurred, 183 or 91.96 per cent are outside Milwaukee, and 86.44 per cent of the accidents also occurred outside Milwaukee. Among the accidents proving fatal, 7 occurred in Milwaukee and 12 outside. Of those resulting in temporary injury, 148 occurred in Milwaukee and 1,008 outside, and of those resulting in permanent injury, 22 occurred in Milwaukee and 21 outside.

NUMBER OF ENGINEERS AND AVERAGE YEARS OF EXPERIENCE AND TIME IN PRESENT SERVICE.

	Number.
Engineers included	1,065
Average number of years' experience	13
Average number of years in present service	6

This table presents the number of engineers employed in establishments where steam is used, the average number of years' experience of each, and the average number of years in the present service.

CIGAR FACTORIES.

There was a total of 408 cigar factories inspected by the factory inspectors. Of this number 16 were located in basements of buildings, 258 occupied first floors, 108, second floors, 18, third floors, 2, fourth floors, and 6 occupied entire buildings. The 16 establishments located in basements were ordered closed by the inspectors. Six establishments worked their employes six hours per day, 319, eight hours, 31, nine hours, and 52, ten hours. The inspectors found a total of 2,778 persons employed in these establishments. Of this number, 1,858 were males over 18 years of age, 551, females over 18, and 269 were persons under 18. Of this latter number, 198 were persons between 16 and 18, 163 between 14 and 16, and 8 were under 14.

PERMITS.

The work of the factory inspectors in granting permits to children to work in factories, workshops, etc., is presented in detail in the following seven tables. The first in the series classifies both male and female children as to whether they received "regular" or "vacation" permits. The regular permits are granted to children between 14 and 16 years of age, and entitled them to be employed in any factory, workshop, bowling alley and the various other places enumerated in the "child labor law," while the vacation permits are given only to children between 12 and 14, and entitles them to work during school vacation in any store, merchantile establishment, laundry, office, hotel, telephone, telegraph or public messenger service in the town or city where such child resides; but in no case shall vacation permits entitle the holder to work in or about any mine, factory, workshop, bowling alley, beer garden or bar room.

The total number of regular permits granted by the inspectors from June 1st, 1903, to August 1st, 1904, was 9,852. Of this number, 5,632 were to males and 4,220 to females. The

total number of vacation permits granted was 1,049, of which 723 were to males and 326 to femlaes, making a total of 10,901 permits granted to children to work. It must not be understood that this number found work. But even if they all found work it does not follow that there are 10,901 children employed at gainful occupations in Wisconsin. It is the policy of the inspectors to grant permits for not to exceed one year to any child and then they must be renewed. Often times they are granted for less than a year and must be renewed if the child continues to work, unless it has in the meantime become 16 years of age. Then, again, all the permits granted for a year in June or July, 1903, would expire before August 1st, 1904, and must be renewed unless the holder in the meantime passed beyond the age of 16. So no importance must be attached to these tables as showing the number of children employed, but only the number of permits issued by the factory inspectors.

The second table shows with whom the children receiving permits reside. Of the total number receiving permits 9,716 or 89.13 per cent reside with "parents," 147 or 1.36 per cent with the "father," 787 or 7.22 per cent with the "mother," 139 or 1.28 per cent with the "guardian," and the remainder elsewhere. This table means that 9 children out of every 10 have both parents living who ought, in most cases, to be able to support them, and the chief support of one out of every 14 is the mother.

The third table is important as showing the number of years children asking for permits have previously attended public school exclusively. About one-third attended school seven years, nearly one-third attended eight years, about 3 out of every 40 attended nine or ten years, while attendance of the remainder varied from one to six years.

The fourth table is important as showing the number of years children asking for permits have attended parochial schools exclusively, and affords comparison between the school period of the parochial and public school children. Less than 20 per cent of the exclusively parochial school children applying for permits have attended school more than seven years, while

37.17 per cent of those having attended public school exclusively have attended more than seven years.

The fifth table below shows the number of children applying for permits who have attended both public and parochial school, and the results obtained do not materially vary from those found in table four. The sixth table is a recapitulation of the preceeding three. The summary following these tables shows in condensed form the number of "regular" and "vacation" permits granted to children who had previously attended "public" or "parochial" school or "both" or "neither." The table shows that a larger percentage of the children asking for permits are parochial school children than any other class. This becomes all the more significant when it is learned from the report of the State Supt. of Public Instruction for 1902–1903 that only about one-fourth the children of school age in Wisconsin are parochial school children.

TABLE SHOWING NUMBER OF MALES AND FEMALES RECEIVING PERMITS CLASSIFIED AS TO WHETHER THEY RECEIVED "REGULAR" OR "VACATION" PERMITS.

Classification.	Males.		Females.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number	Per cent.
Regular permits	5,632	88.62	4,220	92.83	98.52	90.38
Vacation permits	723	11.38	326	7.17	1,049	9.62
Total	6,355	100.00	4,546	100.00	10,901	100.00

TABLE CLASSIFYING CHILDREN RECEIVING "REGULAR" OR "VACATION" PERMITS AS TO WHETHER THEY RESIDE WITH "PARENTS," "FATHER," "MOTHER," "GUARDIAN," ETC.

With Whom Resident.	Regular.		Vacation.		Total.	
	Number.	Per cent.	Number	Per cent.	Number.	Per cent.
Parents	8,832	89.65	884	84.27	9,716	89.13
Father	136	1.38	12	1.14	148	1.36
Mother	652	6.62	135	12.87	787	7.22
Guardian	129	1.31	10	.96	139	1.28
Neither	103	1.04	8	.76	111	1.01
Total	9,852	100.00	1,049	100.00	10,901	100.00

TABLE SHOWING NUMBER OF CHILDREN RECEIVING "REGULAR" OR "VACATION" PERMITS CLASSIFIED AS TO NUMBER OF YEARS PREVIOUS PUBLIC SCHOOL ATTENDANCE.

School Attendance.	Regular.		Vacation.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
One year	11	.26	.....	.....	11	.24
Two years	20	.48	3	.61	23	.49
Three years	55	1.32	10	2.03	65	1.40
Four years	145	3.48	32	6.50	177	3.80
Five years	299	7.18	52	10.57	351	7.54
Six years	623	14.96	108	21.95	731	15.70
Seven years	1,369	32.88	198	40.25	1,567	33.66
Eight years	1,293	31.05	83	16.87	1,376	29.55
Nine years	299	7.18	6	1.22	305	6.55
Ten years	50	1.21	.....	.....	50	1.07
Total	4,164	100.00	492	100.00	4,656	100.00

TABLE SHOWING NUMBER OF CHILDREN RECEIVING "REGULAR" OR "VACATION" PERMITS CLASSIFIED AS TO NUMBER OF YEARS PREVIOUS PAROCHIAL SCHOOL ATTENDANCE.

School Attendance.	Regular.		Vacation.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
One year	9	.20	.....	.....	9	.19
Two years	44	1.00	2	.61	46	.97
Three years	113	2.57	3	.91	116	2.46
Four years	260	5.91	22	6.69	282	5.97
Five years	477	10.85	37	11.25	514	10.88
Six years	959	21.84	83	25.23	1,042	22.06
Seven years	1,640	37.32	135	41.03	1,775	37.57
Eight years	773	17.58	46	13.98	819	17.34
Nine years	112	2.55	1	.30	113	2.39
Ten years	8	.18	.....	.....	8	.17
Total	4,395	100.00	329	100.00	4,724	100.00

TABLE SHOWING NUMBER OF CHILDREN RECEIVING "REGULAR" OR "VACATION" PERMITS CLASSIFIED AS TO NUMBER OF YEARS THEY HAD PREVIOUSLY ATTENDED BOTH PUBLIC AND PAROCHIAL SCHOOLS.

School Attendance.	Regular.		Vacation.		Total.	
	Number.	Per cent	Number.	Per cent	Number.	Per cent.
One year	2	.15	.....	.....	2	.14
Two years	6	.44	.....	.....	6	.41
Three years	16	1.16	1	1.22	17	1.17
Four years	48	3.49	3	3.66	51	3.50
Five years	109	7.92	8	9.76	117	8.02
Six years	232	16.86	15	18.29	247	16.94
Seven years	509	36.99	43	52.44	552	37.86
Eight years	385	27.98	11	13.41	396	27.16
Nine years	63	4.57	1	1.22	64	4.39
Ten years	6	.44	.....	.....	6	.41
Total	1,376	100.00	82	100.00	1,458	100.00

TABLE SHOWING TOTAL NUMBER OF CHILDREN RECEIVING "REGULAR" AND "VACATION" PERMITS CLASSIFIED AS TO THE NUMBER OF YEARS PREVIOUS SCHOOL ATTENDANCE.

School Attendance.	Regular.		Vacation.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
One year	22	.22	.....	.....	22	.20
Two years	70	.70	5	.55	75	.69
Three years	184	1.85	14	1.55	198	1.83
Four years	453	4.56	57	6.32	510	4.70
Five years	885	8.91	97	10.74	9.82	9.06
Six years	1,814	18.26	206	22.81	2,020	18.64
Seven years	3,518	35.41	376	41.64	3,894	35.93
Eight years	2,451	24.68	140	15.50	2,591	23.91
Nine years	474	4.77	8	.89	482	4.45
Ten years	64	.64	.....	.....	64	.59
Total	9,935	100.00	903	100.00	10,838	100.00

SUMMARY.

Number Who Attended.	Regular.		Vacation.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Public school	4,164	41.66	492	54.24	4,656	42.71
Parochial school	4,395	43.98	329	36.28	4,724	43.34
Both public and parochial.	1,376	13.77	82	9.04	1,458	13.37
Neither	59	.59	4	.44	63	.58
Total	9,994	100.00	907	100.00	10,901	100.00

The following tables are complete summaries of the work of the factory inspectors, except that which is not capable of classification. Many of the inspections of factories and workshops are duplicate inspections made necessary by violations of the law. Over 93 per cent of the places inspected were factories and workshops, cigar factories, and garment making shops. The remainder, amounting to less than 7 per cent of the total, were inspections of beer gardens, mercantile establishments, offices, hotels, school houses, etc.

The second table below is a classification of orders issued by inspectors. Of a total of 10,679, 3,276 or 30.68 per cent related to machinery, 1,304 or 12.21 per cent to ventilation and sanitation, 1,059 or 9.88 per cent to children, and the remainder varying from .07 to 2.97 per cent were orders relating to polishing wheels, boilers, hours of labor, fire escapes, etc.

Most of the other acts of the inspector related to permits, prosecutions of violations of the child labor and other factory laws, closing of factories, etc. Of the total number of classified acts of the inspector, 9,976 or 31.27 per cent were inspections, 10,679 or 33.47 per cent orders issued and 11,251 or 35.26 per cent other acts.

Classificatonn of Buildings and Places Inepected	Places Inspected.	
	Number.	Per cent.
Factories and workshops	8,043	80.62
Cigar factories and shops	408	4.09
Garment making shops	876	8.78
Building operations	6	.06
Summer beer gardens	15	.15
Bowling alleys	94	.94
Mercantile establishments	134	1.35
Offices	12	.12
Hotels	65	.65
Boarding houses	44	.44
Lodging, tenement houses	61	.61
School houses	36	.36
Office buildings	12	.12
Opera houses	9	.09
Assembly halls	16	.16
Hospitals	7	.07
Chuhrces	19	.19
Other places	119	1.20
Total	9,976	100.00

Classification of Orders Issued and Suggestions Made.	Orders.	
	Number.	Per cent.
Hours of labor	73	.68
Children under 14 dismissed	600	5.66
Children under 16 dismissed	454	4.22
Boilers, effecting same	7	.07
Buildings, effecting same	188	1.76
Fire escapes, stand-pipes	213	1.99
Stariways	114	1.07
Elevators, hoists	103	.96
Electric, other signals	83	.77
Machinery	3,276	30.68
Polishing and emery wheels	317	2.97
Doors	241	2.26
Vats, pans	17	.16
Ventilation, sanitation	1,304	12.21
Seats for females	215	2.01
Other orders	3,474	32.53
Total	10,679	100.00

Other duties performed by the inspectors.	Number.	Per cent.
Regular permits issued	9,994	88.83
Vacations, permits issued	907	8.06
Licenses granted to sweatshops	49	.43
Licenses revoked	9	.08
Order for employment and number of persons included in same	62	.56
Number of factories closed temporarily	22	.20
Orders to show cause why proceedings should not be instituted	51	.44
Prosecutions	157	1.40
Total	11,251	100.00

Remarks: There has been a great deal of other work performed both in office and otherwise which is too varied to be classified.

SUMMARY OF WORK PERFORMED BY INSPECTORS.

Classification.	Number.	Per cent.
Places inspected	9,976	31.27
Orders issued	10,679	33.47
Other acts	11,251	35.26
Total	31,906	100.00

BAKERY INSPECTION.

The Legislature of 1903, passed a law providing for the sanitary regulation of bakeries and other establishments manufacturing bread and other food products. This law in a general way specifies the kind of plumming to be used in these establishments, the kind of floors and walls of rooms, and how they shall be constructed; it specified where closets, privies, ash pits, and sleeping rooms shall be located with reference to bake and other work rooms; it provides for the clean, sanitary conditon of all delivery wagons, furniture, utensils, and rooms in general; it alsc provides for dressing rooms for workmen and the kind of clothing to be used by them; it provides that ample toilet facilities shall be provided for employes; it places certain restrictions upon the construction of basements of new buildings to be used as bakeries, and upon the use of basements of old buildings not heretofore used for this purpose. The law further provides that no person living, rooming, or boarding in a house where any infectious disease exists shall be employed in any bakery or food establishment.

The law confers the power of enforcing this act upon the bureau of labor, state factory inspector and assistant factory inspectors, local health officers, and a special inspector appointed for this purpose.

The following is the law in full:

BAKERY INSPECTION LAW.

Buildings Used as Bakeries, How Constructed.—Section 1. All buildings occupied for bakeries and confectionery establishments shall be well drained and all plumbing therein shall be constructed in accordance with well established sanitary principles and of good workmanship, and the rooms thereof used for the manufacture or sale of bread,

and other food products shall be light, dry and airy. The room or rooms used for the manufacture of bread and other food products shall have floors and side walls so constructed as to exclude rats, mice and other vermin and said floor and side walls shall at all times be free from moisture and kept in a good state of repair. Said floor shall have a smooth surface and be constructed of wood, cement or tile laid in cement. But no floor shall be constructed in a room used for the manufacture of flour or meal products where the floor of said room is more than eight feet below the level of the street, sidewalk or adjacent ground. The walls and ceilings of such rooms used for the manufacture of bread and other flour and meal products shall be whitewashed at least as often as once in six months and the floors, utensils and furniture of such rooms as are used for the manufacture, storing or sale of said food products and the wagons used for the delivery of said food shall at all times be kept in a sanitary clean condition. The furniture and utensils of such rooms shall also be so arranged so that the same can be easily and perfectly cleaned.

Regulations as to Water-closets, Clothing, etc.—Section 2. No water closet, earth closet, privy or ash pit shall be within or communicate directly with the bake room or any other room used in the manufacture of bread or other flour or meal products. The sleeping places for workmen employed in bakeries shall be separate and distinct from the places used in the manufacture of bread or other food products. While engaged in the manufacture of bread or other flour or meal products the workmen in bakeries shall provide themselves with caps and slippers or shoes and an external suit of coarse linen, used for that purpose only, and these garments shall at all times be kept in a clean condition. All bakeries shall be provided with ample toilet facilities apart from the utensils used in the preparation of said foods to enable the workmen employed therein to keep their persons clean. Said bakeries shall also be provided with a separate dressing room to enable the workmen to change their clothes and keep the same in proper condition.

Regulations as to New Bakeries.—Section 3. After the passage of this act no new bakery shall be established in a room the floor of which is more than five feet below the level of the street, sidewalk or adjacent ground, and no bake shop shall be re-opened in such a room where the same has not been used for a period of over six months.

Regulations as to Infectious Diseases.—Section 4. No person shall work or be employed in or about any bakery or other establishment for the manufacture of food products during the time in which a case of infectious disease exists in the house in which he resides nor thereafter until the local board of health issues a certificate in writing that no danger of public contagion would result from the employment of said person in such establishment.

Duties of Occupants, Owners, etc., of Bakeries.—Section 5. It shall be the duty of every occupant, whether owner or lessee, of every premises used as a bakery or other establishment for the manufacture of food products to carry out the provisions of the act and make all changes and additions necessary therefor. In case such changes or

additions are made upon the order of an officer or employe of the bureau of labor or of a board of health by the lessee of the premises he may at any time within thirty days after the completion thereof bring an action before any justice of the peace, municipal or district court, having competent jurisdiction against any person having an interest in such premises and may recover such proportion of the expense of making such changes and additions as the court adjudges should justly and equitably be borne by such defendant.

Duties of Bureau of Labor and Boards of Health.—Section 6. It shall be the duty of the state bureau of labor and boards of health, both state and local, to see that the provisions of this act are enforced and the commissioner of labor shall appoint a proper and competent person to act as bakery inspector for two years, who shall perform his duties under the direction of the said commissioner. The state factory inspector or any assistant state factory inspector shall have the same power as the bakery inspector. The said bakery inspector shall receive a salary of $1,000 per annum together with necessary traveling expenses, to be paid out of the general fund not otherwise appropriated.

In cities of five thousand inhabitants or over the common councils thereof may for the more perfect enforcement of the provisions of this act, provide by ordinance for the issuing of licenses to the owners or managers of bakeries and other establishments for the manufacture or sale of bread and other food products, provided, however, that the license fee to be required shall not exceed one dollar for any single establishment per annum.

Penalty.—Section 7. Any person who as owner or manager of a bakery or other establishment for the manufacture of food products or as a member of a firm or officer of a corporation owning or operating such establishment, or as an employe in said establishment, violates or fails to comply with any of the foregoing provisions of this act shall be guilty of a misdemeanor and shall be punished by a fine of not less than twenty dollars nor more than fifty dollars or by imprisonment in the county jail for not more than thirty days.

No criminal prosecution shall be made for any violation of the provisions of this act until thirty days after notice, in writing, by an officer or nspector of the bureau of labor or some officer or agent of the board of health, of any change necessary to be made to comply with the provisions of this act, has been served upon the owner, manager or officer operating said establishment, and not then, if in the meantime, such changes have been made in accordance with such notification.

Section 8. All acts or parts of acts inconsistent with the provisions of this act are hereby repealed.

Under this law an inspector was appointed who entered upon his duties June 30, 1903. For the year ending June 30, 1904, 112 cities and villages were visited and 568 establishments inspected. The following exhibits show the work ac-

complished by the inspector, giving name and location of establishments, hours labor required by each, the number of employes classified as to age and sex, stories and kind of buildings occupied, and the number of work-rooms used; the tables also present information concerning wage payments, bakeries and confectioneries using mechanical power, fire escapes, elevators, number of doors and exits, sanitary condition of establishments and utensils, closets, orders issued by the inspector, etc.

The first table is interesting because it forms a fairly complete directory of the bakeries in this state. The second table is a summary of the first by cities and villages, and is chiefly interesting as showing the relative importance of the various cities and villages as to this industry. The first table gives the name of the establishment or proprietor of each bakery or confectionery inspected, by cities and villages. It also gives the number of hours daily labor required by each, and the number of employes in each, classified as to age and sex. The second table gives the number of employes classified as to age and sex, and the number of establishments, in each city or village inspected.

TABLE SHOWING NAME AND LOCATION OF BAKERIES AND CONFECTIONERIES INSPECTED, HOURS OF LABOR REQUIRED IN EACH ESTABLISHMENT, AND THE CLASSIFICATION OF EMPLOYES AS TO AGE AND SEX.

Name of Firm.	Hours of labor.	Employes.			
		Male.	Female	Total.	Under 16 years of age.
ALGOMA, KEWAUNEE CO.—					
Weher, Jos.	8	.....	.....	.....	.....
ALMA, BUFFALO CO.—					
Rubn, M.	10	.....	.....	.....	.....
ANTIGO, LANGLADE CO.—					
Chilcate, E. H.†	4	.....	2	2	.....
Friedeman, H. A.	10	2	.....	2	.....
Keen, Geo.	10	3	.....	3	.....
Schlimer, J.	10	6	1	7	.....
Total	.....	11	3	14	.....
APPLETON, OUTAGAMIE CO.—					
Britter, W. F.	8	.....	.....	.....	.....
Doerfler, J.	10	1	1	2	.....
Holser, Conrad	11	.....	1	1	.....
Huchins Bros.†	6	.....	.....	.....	.....
Kaloedes, A. J.†	4	.....	.....	.....	.....
Kutler, L. F.	10	3	2	5	.....
Luenben, Wm.	9	.....	.....	.....	.....
Pfefferle, L.	9	2	2	4	.....
Roberts, C.	8	2	.....	2	.....
Stengle, A.	10	2	1	3	.....
Total	.....	10	7	17	.....
ASHLAND, ASHLAND CO.—					
Demuth, W. L.	12	1	1	2	.....
Johnson, A.	10	13	1	14	.....
Total	.....	14	2	16	.....
BARABOO, SAUK CO.—					
Arndt, F. M.	12	.....	.....	.....	.....
Burm, J. C.	10	.....	.....	.....	.....
Goldfarb, L.	2	2	.....	2	.....
Hein, Herman	10	1	3	4	.....
Lueth Bros.	10	1	.....	1	.....
Total	.....	4	3	7	.....
BARRON, BARRON CO.—					
Benson, C. J.	12	.....	.....	.....	.....
Hunt & May	8	.....	.....	.....	.....
BEAVER DAM, DODGE CO.—					
Brower, Otto†	8	.....	1	1	.....
Krueger, Gus	12	.....	.....	.....	.....
BELOIT, ROCK CO.—					
Coeredes, C.†	4	1	1	2	.....
Corcoran, B. & Bros.	10	.....	2	2	.....
Geirich, M. G.†	3	.....	2	2	.....
Kansle, W. D., Jr.	10	6	1	7	.....
Smiley, A. L.	10	9	1	10	.....
Sterns, J. W.†	8	.....	2	2	.....
Total	.....	31	10	41	.....

TABLE SHOWING NAME AND LOCATION OF BAKERIES AND CONFECTIONERIES INSPECTED, ETC.—Continued.

Name of Firm.	Hours of labor.	Employes.			
		Male.	Female.	Total	Under 16 years of age.
BERLIN, GREEN LAKE CO.—					
Boettge, C. M.	10	2	.....	2	.....
Ludwig, Otto	12	1	1	2	.....
Total	.....	3	1	4	.....
BLACK RIVER FALLS, JACKSON CO.—					
Kelley, W. H.	10	1	.....	1	.....
BOSCOBEL, GRANT CO.—					
Comstock, W. A.	12	1	1	2	.....
BRILLION, CALUMET CO.—					
Neumann, W.	10	1	1	2	.....
BRODHEAD, GREEN CO.—					
Peschl, B.	10	3	1	4	.....
BURLINGTON, RACINE CO.—					
Habberstadt, C.	8	1	.....	1	.....
Rose, J. G.	10	1	.....	1	.....
Total	.....	2	.....	2	.....
CHILTON, CALUMET CO.—					
Schwartz, Mrs. John	10	1	.....	1	.....
CHIPPEWA FALLS, CHIPPEWA CO.—					
Bigler, A.	10	2	1	3	.....
McDonald, A.	12	1	4	5	.....
Total	.....	3	5	8	.....
CLINTONVILLE, WAUPACA CO.					
Gebhardt, Geo.	10	.....	1	1	.....
Sutherland, S. M.	12	.....	2	2	.....
Total	.....	.....	3	3	.....
COLUMBUS, COLUMBIA CO.—					
Hicks, F. M.	.....	.....	.....	.....	.....
Klate, W. G.	11	2	1	3	.....
CUBA CITY, GRANT CO.—					
Meloy, H. D.	10	2	2	4	.....
CUDAHY, MILWAUKEE CO.—					
Vogel, H.	12	2	.....	2	.....
CUMBERLAND, BARRON CO.—					
Coleman, J. P.	8	1	1	2	.....
Hapslund, Geo.	6	.....	.....	.....	.....
DARLINGTON, LAFAYETTE CO.					
Harvey & Martin	8	1	1	2	.....

TABLE SHOWING NAME AND LOCATION OF BAKERIES AND CONFECTIONERIES INSPECTED, ETC.—Continued.

Name of Firm.	Hours of labor.	Employes.			
		Male.	Female	Total.	Under 16 years of age.
DELAVAN, WALWORTH CO.—					
Bailey, J. M.	10	2	2	4	.....
Schlada, C. F.	10	1	1	2	.....
Total	.....	3	3	6	.....
DE PERE, BROWN CO.—					
De Janghe, C. D.	7	.....	.....	.....	.....
Lampfer, W. H.	10	2	.....	2	.....
Van De Walle, P.	10	1	.....	1	.....
Wassenderg, M.	9	.....	.....	.....	.....
Total	.....	3	.....	3	.....
DODGEVILLE, IOWA CO.—					
Brenner, C. H.	10	.....	.....	.....	.....
EAU CLAIRE, EAU CLAIRE CO.—					
Meums, John	10	.....	.....	.....	.....
Palace of Sweets Co.*	9	3	2	5	.....
Smith's Baking Co.	10	8	.....	8	.....
Steadland, A.	10	5	1	6	1
Steady, M. B.†	7	1	3	4	.....
Total	.....	17	6	23	1
ELKHORN, WALWORTH CO.—					
Schmidt Bros.	10	2	1	3	.....
ELLSWORTH, PIERCE CO.—					
Miller, J. J.	10	2	2	4	.....
EVANSVILLE, ROCK CO.—					
Heffer, W. H.	10	1	1	2	.....
FOND DU LAC, FOND DU LAC CO.—					
Allen, W. H.	12	.....	1	1	.....
Awanthe, J.†	4	.....	1	1	.....
Boex, Holman Co.†	10	21	45	66	13
Gens & Boettchn†	7	.....	.....	.....	.....
Gerhardt, J.	12	4	2	6	.....
Hupe, G.†	10	2	3	5	.....
Kuene, A.	8	.....	.....	.....	.....
Lapidus, M.†	5	1	.....	1	.....
Paulos, J.†	4	.....	.....	.....	.....
Pease, F.	10	1	.....	1	.....
Rick, F. C.	12	2	.....	2	.....
Schultz, A. W.	12	3	1	4	.....
Snow Bros.	12	4	.....	4	.....
Total	.....	38	53	91	13
FORT ATKINSON, JEFFERSON CO.—					
Shiley, H. B.	10	1	1	2	.....
Spooner, F. I.	10	2	1	3	.....
Total	.....	3	2	5	.....

TABLE SHOWING NAME AND LOCATION OF BAKERIES AND CONFECTIONERIES INSPECTED, ETC.—Continued.

Name of Firm.	Hours of labor.	Employes.			
		Male.	Female.	Total	Under 16 years of age.
GRAND RAPIDS, WOOD CO.—					
Herschleh, H. A.	12	1	1	2	.....
Petrick, Aug.	8	2	1	3	.....
Total	.....	3	2	5	.....
GREEN BAY, BROWN CO.—					
Andre, E.	11	2	.....	2	.....
Arneu, C. & B. Co.	10	37	135	172	35
Ayoub & Gorra†	10	2	1	3	.....
Brenner, Gaselle Co.†	10	17	30	47	6
Brex, Wendels Co.†	10	15	23	38	9
Christianson Co.	.....	.....	.....	.....	.....
Leich, F. C. & Co.	4	1	.....	1	.....
Micksch, J. V.	12	2	.....	2	.....
Miller, H. G.	10	3	.....	3	.....
Miller, Henry & Co.	10	3	.....	3	.....
Rockstroth, J. C.	15	.....	.....	.....	.....
Willaert	12	6	.....	6	.....
Total	.....	88	189	277	50
HARTFORD, WASHINGTON CO.					
Baumgartl, A.	10	2	1	3	.....
Thomas, H. J.	10	1	1	2	.....
Total	.....	3	2	5	.....
HUDSON, ST. CROIX Co.—					
Crandell Bros.	10	3	.....	3	.....
Hoffman, D.	10	1	.....	1	.....
Singelman, H. M.	8	2	.....	2	.....
Struter, E. H.†	10	.....	.....	.....	.....
Total	.....	6	.....	6	.....
HURLEY, IRON CO.—					
Reible, E. M.	10	1	.....	1	.....
Vazzetie, Jos.	8	1	.....	1	.....
Total	.....	2	.....	2	.....
JANESVILLE, ROCK CO.—					
Benison & Lane	10	18	.....	18	.....
Calvin Bakery Co.	10	20	1	21	.....
Gerke, Aug.	10	.....	.....	.....	.....
Geub Produce Co.	10	1	.....	1	.....
Janesville Candy Co.†	8	.....	1	1	.....
Razorke, A. J.†	2	2	1	3	.....
Rilley, T. F.	11	1	1	2	.....
Smith, Al.†	4	.....	1	1	.....
Total	.....	42	5	47	.....
JEFFERSON, JEFFERSON CO.—					
Nuernbergu, G.	10	1	1	2	.....
Spangler, A.	11	1	1	2	.....
Total	.....	2	2	4	.....
JUNEAU, DODGE Co.—					
Hartman, A.	8	.....	1	1	.....

TABLE SHOWING NAME AND LOCATION OF BAKERIES AND CONFECTIONERIES INSPECTED, ETC.—Continued.

Name of Firm.	Hours of labor.	Employes			
		Male.	Female.	Total.	Under 16 years of age.
KAUKAUNA, OUTAGAMIE CO.—					
Lenhouts, H. A.	11	2	1	3	.....
Steffen, Jos.	10	1	.....	1	.....
Total	.....	3	1	4	.....
KENOSHA, KENOSHA CO.—					
Faber & Co.	11	1	.....	1	.....
Kennard, J. A.	10	3	.....	3	.....
Kupper Cracker Co.	10	6	.....	6	.....
Papahl, J. H.	10	3	.....	3	.....
Richter, Geo.	10	3	.....	3	.....
Winther, W.	12	2	.....	2	.....
Total	.....	18	.....	18	.....
KEWASKUM, WASHINGTON CO.					
Hellman, A.	7	.....	.....	.....	.....
KEWAUNEE, KEWAUNEE CO.—					
Pazdera, Jos.	10	.....	.....	.....	.....
Zuzanek	.....	.....	.....	.....	.....
KIEL, MANITOWOC CO.—					
Fremy, H.	10	.....	.....	.....	.....
LA CROSSE, LA CROSSE CO.—					
Buchern, R.	12	.....	.....	.....	.....
Erkison, Mart	10	2	.....	2	.....
Funke, J. B. Co.†	10	48	140	188	19
Kratcheville, M.†	10	17	30	47	11
La Crosse Bakery Co.	10	2	.....	2	.....
La Crosse Cracker & Candy Co.*	10	38	40	78	14
Nelson, A. J.	10	.....	1	1	.....
Nustad, N.	12	2	.....	2	.....
Puplin Bakery Co.	10	9	2	11	.....
Scheuerman, Otto	10	.....	.....	.....	.....
Schultz, Robert	10	2	1	3	.....
Stonebreaker, H. A.	10	3	1	4	.....
Total	.....	123	215	338	44
LADYSMITH, GATES CO.—					
Jung, Carl	8	.....	.....	.....	.....
LAKE GENEVA, WALWORTH CO.—					
Buell & Matson	10	4	1	5	.....
Fisher, A. L.	11	3	1	4	.....
Stroupe Bros.	10	3	1	4	.....
Total	.....	10	3	13	.....
LAKE MILLS, JEFFERSON CO.—					
Harrison & Heyn	.....	.....	.....	.....	.....
Steele Bros.	10	1	.....	1	.....
LANCASTER, GRANT CO.—					
Johnson, D. C. & Co.	10	.....	2	2	.....
Lathrop, W. S.	12	2	2	4	.....
Smith, J. P.	8	.....	.....	.....	.....
Total	.....	2	4	6	.....

TABLE SHOWING NAME AND LOCATION OF BAKERIES AND CONFECTIONERIES INSPECTED, ETC.—Continued.

Name of Firm.	Hours of labor.	Employes			
		Male	Female.	Total.	Under 16 years of age.
MADISON, DANE CO.—					
Heilman (estate)	10	10	4	14	.....
Keane & Taylor	10	.....	.....	.....	.....
Keeley M. W.†	10	2	11	13	.....
Lindauer, M.	12	1	.....	1	.....
Madison Candy Co.†	10	16	20	36	6
Morshauser, Jos.	10	.....	.....	.....	.....
Quilty, M. J.	10	2	1	3	.....
Spencer, Geo.	10	1	2	3	.....
Teckemeyer Candy Co.†	10	12	25	37	2
Waltzinger, Chas.†	10	3	7	10	.....
Weber, N. E.	11	2	1	3	.....
Total	.....	49	71	120	8
MANITOWOC, MANITOWOC CO.					
Chapman, D. C.	10	3	.....	3	.....
George Bros.	12	3	2	5	.....
Schroeter, Carl	11	2	1	3	.....
Weinart, John	6	.....	.....	.....	.....
Total	.....	8	3	11	.....
MARINETTE, MARINETTE CO.—					
Johnson, J. F.	10	2	.....	2	.....
Mattson, A.	8	.....	.....	.....	.....
Mueller, G. A.	10	2	.....	2	.....
Schmidt, W. P.	12	2	.....	2	.....
Total	.....	6	.....	6	.....
MARSHFIELD, WOOD CO.—					
Harvey, J. A.	9	1	.....	1	.....
Nick, L.	8	3	.....	3	.....
Wright, L. A.	10	3	1	4	.....
Total	.....	7	1	8	.....
MAUSTON, JUNEAU CO.—					
Blass, John	8	.....	1	1	.....
MAYVILLE, DODGE CO.—					
Achtenhagen, K.	10	.....	.....	.....	.....
Braun, F.	10	1	1	2	.....
MEDFORD, TAYLOR CO.—					
Baurer, H.	9	2	.....	2	.....
MENASHA, WINNEBAGO CO.—					
Kind & Hoheisel	10	2	2	4	.....
MENOMONIE, DUNN CO.—					
Anstett, J.	10	1	2	3	.....
Steendahl, J.	12	2	1	3	.....
Total	.....	3	3	6	.....
MERRILL, LINCOLN CO.—					
Baumann, Otto	10	3	1	4	.....
Denne, L.	10	.....	.....	.....	.....
Haase, R. H.	10	2	.....	2	1
Total	.....	**5**	**1**	**6**	**1**

TABLE SHOWING NAME AND LOCATION OF BAKERIES AND CONFECTIONERIES INSPECTED, ETC.—Continued.

Name of Firm.	Hours of labor.	Employes.			
		Male.	Female.	Total.	Under 16 years of age.
MILTON, ROCK CO.—					
Anderson, J.	10	.....	.....	.....	.....
MILTON JCT., ROCK CO.—					
Daumth, Ned	.....	.....	.....	.....	.....
MILWAUKEE, MILWAUKEE CO.					
Ackerman, Jacob	12	1	1	2	.....
Aknaur, August	11	1	1	2	.....
Altman, M.	10	.....	.....	.....	.....
Ambrosia Chocolate Co.	10	4	5	9	.....
American Candy Co.	10	63	105	168	67
Anderson, E. J.	10	1	1	2	.....
Ascher, F.	10	.....	.....	.....	.....
Atlas Bread Factory	10	51	7	58	2
Badger Candy Co.†	10	20	40	60	21
Bauer, Fred	10	1	.....	1	.....
Bauer, M.	12	1	.....	1	.....
Bender, Frank	11	.....	.....	.....	.....
Benz, W.	10	.....	.....	.....	.....
Berdalsch, F.	10	1	.....	1	.....
Bloomer, Jos.†	8	.....	1	1	.....
Boerth & Boerth Co.	10	8	.....	8	1
Braun, Isadore	10	.....	1	1	.....
Brozowsky, Simon	10	.....	.....	.....	.....
Bucholz, W.	6	.....	.....	.....	.....
Bursk, C.	12	2	1	3	.....
Carpenter & Skiles	10	40	6	46	.....
Chaconies Candy Co.†	9	5	12	17	.....
Conroy, J.*	10	3	2	5	.....
Cream City Candy Co.†	9	4	12	16	.....
Daniel, C.	10	.....	.....	.....	.....
Debus, Mrs. M.	12	3	.....	3	.....
Dietrick, Frank	10	2	.....	2	.....
Diez, M.	10	2	2	4	.....
Dix, Albert	10	2	.....	2	.....
Dretzke, A.	10	2	2	4	.....
Druminski, A.	10	1	1	2	.....
Dryer, F.	8	1	4	5	.....
Ebling, T.	10	2	1	3	.....
Eckers, C.	10	1	.....	1	.....
Egelkraut, John	10	.....	.....	.....	.....
Ehrler, A.	10	4	.....	4	.....
Englehardt, F.	10	.....	.....	.....	.....
Erdmann, B.	10	1	1	2	.....
Ertl, Geo.	10	.....	.....	.....	.....
Eschenbacher, A.	10	1	.....	1	.....
Evert, W.	12	1	.....	1	.....
Farchwin, H.†	10	2	.....	2	.....
Feenekes, J.	10	15	30	45	2
Fecker, H. T.	9	1	.....	1	.....
Felder, J.	10	2	1	3	.....
Fick, C. J.	10	4	.....	4	3
Fleischer, A.	10	2	2	4	.....
Foelski, Chas.	11	1	.....	1	.....
Foelski, W.	11	2	1	3	.....
Forh, H.	9	.....	.....	.....	.....
Forrer, R.	10	2	.....	2	.....
Franke, H.	10	.....	.....	.....	.....
Fuhrmann, A. E.	10	.....	.....	.....	.....
Fuller Candy Co.	10	2	3	5	.....
Furtmann, Henry	10	.....	.....	.....	.....

TABLE SHOWING NAME AND LOCATION OF BAKERIES AND CONFECTIONERIES INSPECTED, ETC.—Continued.

Name of Firm.	Hours of labor.	Employes.			
		Male.	Female	Total	Under 16 years of age.
MILWAUKEE, MILWAUKEE CO.					
Ganhs, Otto	10	1		1	
Gaschn, B.	10	1		1	
Gebhardt, Jos.	10	7	7	14	
Gerhard, N.	10	3	2	5	
George Bros.	10	1	2	3	
Goetz, Aug.	11	1	2	3	
Gorkow, W.	10	2		2	
Graetz, F.	11	2		2	
Graeurn, Louis	11	5	2	7	
Gratlenthalen Geo.	10	3	1	4	1
Griess, Robt.	11	2	1	3	
Guelzow, H.	12	2	1	3	
Guse, G.	10	2	1	3	
Gutemberg, A.	12				
Guzke, W.	10				
Hachls, E.	12				
Hackbarth, C. A.	10	1		1	
Hackbarth, E.	10				
Haesll, H.	10	2		2	
Hagendorf, P.	9	1	1	2	
Halen, N.	11	3	1	4	
Heffinger, S.	12	1	1	2	
Herz, John	12	1	1	2	
Herzberg, E.	10	1	1	2	
Hettner, Jos.	10	2	1	3	
Hille, Jos.	10				
Hiffman, Aug.	10	3		3	
Hill, A.	13	4	2	6	
Holwick, John	12	2	1	3	
Hoyler, Carl	10	2		2	
Ihrig, Geo.	10	1		1	
Jaeger, Bruno	10	14		14	
Jaeger, Oswald	10	24	2	26	
Jahr, E. E.	9				
Jansky, John	10	2		2	
Jessen, H.	10	2	1	3	
John, Albert	11	1		1	
John, Ernest	12	1		1	
Johnston, Robt. A., Co.*	10	127	148	275	40
Kaemmerrs, Geo.	10				
Kaiser, Karl	11	3	1	4	
Kaiser J.	11	3		3	
Kaiser, Otto	11	1	1	2	
Kallmeyer, C.	10	1	1	2	
Kaufer, D.	9	1	1	2	
Keiper, B.	11	1		1	
Kons, M.	10	2	1	3	
Korthals, Gus.	10	1		1	1
Kosecky, J.	9	1		1	
Kraemer, Carl	12				
Kraemer, G.	10	4	2	6	
Krueger, Aug.	12	3		3	
Krumholz, A.	10				
Kurz, John	11	3	1	4	
Lage, C.	8	1	1	2	
Lage, E. M.	11	2	1	3	
Leahrke, Frank	10	1		1	
Lembergar, Jos.	10				
Linderman, J.	12				
Lindner, P.	10				
Loranz Bros.	10	10		10	4
Ludka, B.	10	1		1	
Luick, John	10	4	3	7	
Luick, W. F.*	10	4	3	7	

TABLE SHOWING NAME AND LOCATION OF BAKERIES AND CONFECTIONERIES INSPECTED, ETC.—Continued.

Name of Firm.	Hours of labor.	Employes.			
		Male.	Female.	Total.	Under 16 years of age.
MILWAUKEE, MILWAUKEE CO.					
Malick, I.	10	1	1	2	.....
Marfman, Otto	12	4	1	5	.....
Martin, F.	10	6	5	11	.....
Matt, Edward	10	.....	.....	.....	.....
Matt, John	11	2	.....	2	.....
Matyas, Leopold	12	7	1	8	.....
Mauer, John	10	1	1	2	.....
Mauer, L.	10	10	3	13	.....
Mayer, Frank	7	1	.....	1	.....
Meures, Louis	10	.....	.....	.....	.....
Meyer, Anton	12	3	.....	3	1
Meyer, H.	10	1	.....	1	.....
Meyer, Wm.	10	4	2	6	.....
Michalski, N.	11	.....	.....	.....	.....
Miller, O. H.†	8	.....	1	1	.....
Miller, Robert	11	1	1	2	.....
Milwaukee Bakery Co.	10	1	.....	1	.....
Molt, John	10	2	1	3	.....
Mors, O.	10	2	.....	2	.....
Mosher, C., & Co.	9	16	27	43	1
Muehlbauer, Jos.	9	1	.....	1	.....
Mueller, H.	10	2	1	3	.....
Mugge, Henry	12	1	.....	1	.....
Nagle, Paul	10	.....	1	1	.....
National Biscuit Co.*	10	204	208	412	67
Natkoosky, John	10	.....	.....	.....	.....
Netz, Hugo	10	.....	.....	.....	.....
Nielsen, Fred	10	2	.....	2	.....
Noll, Jos.	11	.....	1	1	.....
Obermeyer, K.	10	1	1	2	.....
Oehme, Louis	11	2	1	3	.....
Oestreiche, Jos.	10	1	.....	1	.....
Oswald, W.	7	1	.....	1	.....
Paney, Karl†	8	1	3	4	.....
Persky, Anna	10	1	.....	1	.....
Peters, F.	10	1	.....	1	.....
Peters, Jas.	10	2	.....	2	.....
Pflugart Co.†	10	23	64	87	36
Pinses, J.	11	2	1	3	.....
Pixley, C. A.	10	4	1	5	.....
Plantz, W. A.	10	.....	.....	.....	.....
Platz, Edwin	10	2	1	3	1
Pleas, J.	10	1	.....	1	.....
Poehlman, J.	10	2	.....	2	.....
Pohl, Aug.	11	1	.....	1	.....
Puhl, R.	12	.....	.....	.....	.....
Puls, John	12	1	.....	1	.....
Recklinghousen, S.	10	.....	.....	.....	.....
Redel, John†	10	.....	2	2	.....
Redieeker, W.	10	1	1	2	.....
Reichelt, R.	11	.....	.....	.....	.....
Reinhardt, Aug.	10	.....	.....	.....	.....
Rittherger, E.	11	2	1	3	.....
Rittherger, E.	10	.....	.....	.....	.....
Rogowski, Anton	10	.....	.....	.....	.....
Rose, G.†	2	.....	.....	.....	.....
Roseckey, Anton, & Co.	11	2	1	3	.....
Rosenbaum, W. F.	10	18	3	21	.....
Rosenkrans, W.	10	1	.....	1	.....
Rossow, F.	13	1	.....	1	.....
Rotter, L. J.	10	2	.....	2	.....
Rudolph, L.	10	1	.....	1	.....
Rupp, Fred	10	2	1	3	.....
Ruppin, Marx	10	1	1	2	.....

TABLE SHOWING NAME AND LOCATION OF BAKERIES AND CONFECTIONERIES INSPECTED, ETC.—Continued.

Name of Firm.	Hours of labor.	Employes.			
		Male.	Female	Total.	Under 16 years of age.
MILWAUKEE, MILWAUKEE CO.					
Salsmann, Mrs. F.	12	1	.....	1	.....
Samer, Geo.	10	.....	.....	.....	.....
Sandek, A.	10	1	2	3	.....
Sandes, Robt.	10	1	1	2	.....
Schafer, Karl	12	2	.....	2	.....
Scheidicker, Jos.	8	.....	.....	.....	.....
Schiffer, F.	12	5	.....	5	.....
Schmidt, A.	11	2	1	3	.....
Schmidt, B.	12	1	.....	1	.....
Schmidt, Jos.	12	1	.....	1	.....
Schmidt, J. L.	10	1	.....	1	.....
Schneider, F.	11	2	.....	2	1
Schneller, Max	9	1	.....	1	.....
Schrabbach, E.	12	3	1	4	.....
Schultz, Frank	11	1	.....	1	.....
Schussur, Oscar	10	1	.....	1	.....
Schuster, W.	11	1	1	2	.....
Scultz, G.	10	2	.....	2	.....
Seeling, A.	12	.....	1	1	1
Sichling, Geo.	10	3	.....	3	.....
Siefert, A.	8	.....	.....	.....	.....
Siegfried, Adam	10	2	.....	2	.....
Singer, F. B.	11	4	1	5	.....
Somers, F.	10	1	.....	1	.....
Standard Candy Co.†	10	17	21	38	8
Steffel, Anton	10	.....	.....	.....	.....
Talsky, Anton	10	.....	.....	.....	.....
Talsky, E.	12	2	.....	2	.....
Talsky, F.	10	1	1	2	.....
Thalman, F.	10	2	1	3	.....
Thauner, Otto	11	1	1	2	.....
Thurring, Geo.	9	4	.....	4	.....
Tillema, Geo.†	9	3	11	14	.....
Topp, Julius	12	1	.....	1	.....
Traeger, Otto	8	.....	.....	.....	.....
Traltin, E.	11	6	2	8	.....
Trittin, F.	12	1	.....	1	.....
Tyborsky, John	12	.....	.....	.....	.....
Tyborsky, Martin	12	3	.....	3	.....
Urech, Jacob	8	1	.....	1	.....
Urmanski, J.	12	.....	.....	.....	.....
Vegelahm, W.	10	1	.....	1	.....
Vogel, Frank	12	1	.....	1	.....
Vogel, J. M.	10	2	1	3	.....
Vohland, Ernest	8	.....	.....	.....	.....
Voss, W.	8	1	.....	1	.....
Wallinger, C.	10	1	.....	1	.....
Weber, A. F.*	9	10	28	38	1
Weickert, G.	10	1	.....	1	.....
Weis, L.	10	1	.....	1	.....
Wellen A.	10	.....	.....	.....	.....
Wendelburg, C.	11	.....	.....	.....	.....
Wendelburg, M.	11	2	.....	2	.....
Wendels, Paul	12	2	.....	2	.....
Wiedner, Albert	11	2	1	3	.....
Wilde, A.	8	.....	.....	.....	.....
Wilhelms, Geo.	10	6	3	9	1
Williams, John	12	5	1	6	.....
Winniger, B.	9	2	.....	2	.....
Wirth, G.	10	1	1	2	.....
Wirthnein, Louis†	2	.....	1	1	.....
Witle, Fred	10	1	1	2	.....
Witle, L.	10	1	1	2	.....
Ziegler, Geo., & Co.	10	104	145	249	124
Total	.....	1,107	1,003	2,110	384

TABLE SHOWING NAME AND LOCATION OF BAKERIES AND CONFECTIONERIES INSPECTED, ETC.—Continued.

Name of Firm.	Hours of labor.	Employes.			
		Male.	Female	Total.	Under 16 years of age.
MINERAL POINT, IOWA CO.—					
Horning, C.	10	2	1	3	.....
MONROE, GREEN CO.—					
Oswald, C.	9	1	.....	1	.....
Pfeffer, Geo.	12	3	2	5	.....
Wagner, J. M.	10	3	2	5	.....
Total	.....	7	4	11	.....
NEENAH, WINNEBAGO CO.—					
Livermore & Son	8	.....	.....	.....	.....
Obhde, Karl	12	1	.....	1	.....
Reynolds, G. J.†	10	.....	1	1	.....
Steele Candy Co.†	6	.....	2	2	.....
Total	.....	1	3	4	.....
NEILLSVILLE, CLARK CO.—					
Kubat & Radek	10	1	1	2	.....
NEW LONDON, WAUPACA CO.—					
Holtzborn, H.	12	.....	.....	.....	.....
Whelden, Geo.	8	.....	1	1	.....
NEW RICHMOND, ST. CROIX Co.—					
Nelson, C. E.	12	1	1	2	.....
NORTH MILWAUKEE, MILWAUKEE CO.—					
Jacob, John	11	1	.....	1	.....
OCONOMOWOC, WAUKESHA Co.					
Harting, Frank	10	1	1	2	.....
Herro & Arbagey†	2	1	.....	1	.....
Paash, H. F.	10	.....	.....	.....	.....
Total	.....	2	1	3	.....
OCONTO, OCONTO CO.—					
Aubery, A.	10	.....	.....	.....	.....
Leppel M.	15	1	.....	1	.....
OSHKOSH, WINNEBAGO CO.—					
Citron, Geo.†	3	2	1	3	.....
Crowell, R. I.	12	5	2	7	.....
Fisher, A.	12	2	.....	2	1
Gust, Emil	10	.....	.....	.....	.....
Heiss, Mrs. F.	11	3	.....	3	.....
Huppi, M.	10	3	1	4	.....
Kamm, H.	9	2	.....	2	.....
Laus, Jos.†	10	3	6	9	.....
Lindner, H.	12	2	1	3	.....
Luebke, F. C.	12	3	1	4	.....
Maluf, James†	2	.....	.....	.....	.....
Oaks, John†	10	1	4	5	.....
Pelton, H. G.	11	8	2	10	.....
Piston, H.	10	.....	.....	.....	.....
Strohschein, R.	11	.....	.....	.....	.....
Wabintz, K.	10	.....	1	1	.....
Wickert, C. A.†	8	1	2	3	.....
Total	.....	35	21	56	1

TABLE SHOWING NAME AND LOCATION OF BAKERIES AND CONFECTIONERIES INSPECTED, ETC.—Continued.

Name of Firm.	Hours of labor.	Employes.			
		Male.	Female.	Total.	Uuder 16 years of age.
PHILLIPS, PRICE CO.—					
Mendle, John	8	.....	1	1	.....
PLATTEVILLE, GRANT CO.—					
Heming, H. L.	10	3	1	4	.....
McClurg & Holt	2	.....	1	1	.....
Schweder, L. J.	8	.....	.....	.....	.....
Total	.....	3	2	5	.....
PLYMOUTH, SHEBOYGAN CO.—					
Mueller, M.	10	1	.....	1	.....
Wagner, R.	10	.....	.....	.....	.....
PORTAGE, COLUMBIA CO.—					
Buglass, D., & Co.	12	4	1	5	.....
Dietrich, G. F.	10	1	1	2	.....
Fink, E.	6	.....	.....	.....	.....
Morthey, R. A.	12	1	1	2	.....
Winder, J. W., & Co.†	2	.....	.....	.....	.....
Total	.....	6	3	9	.....
PORT WASHINGTON, OZAUKEE Co.—					
Johnston, A. J.	10	1	1	2	.....
Schuetter, J.	11	2	.....	2	.....
Total	.....	3	1	4	.....
PRAIRIE DU CHIEN, CRAWFORD CO.—					
Boucher, D. G.	8	1	.....	1	.....
Moronsek, L.	8	1	1	2	.....
Total	.....	2	1	3	.....
PRINCETON, GREEN LAKE CO.					
Henry, John	5	.....	.....	.....	.....
Witlemore, W.	10	.....	.....	.....	.....
RACINE, RACINE CO.—					
Bettry, Mrs. C.	10	3	.....	3	.....
Halberstadt, J.	10	2	.....	2	.....
Jenniches, P., & Sons	10	3	.....	3	.....
Lintner, F.	11	8	2	10	.....
Mazurine, G.†	10	1	2	3	.....
Schnekloth & Johnson	10	3	.....	3	.....
Schultz, O. B.	10	6	2	8	1
Tidyman, B. & C.	9	8	2	10	.....
Total	.....	34	8	42	1
REEDSBURG, SAUK CO.—					
Kerrigan, C. P.	8	3	2	5	.....
RHINELANDER, ONEIDA CO.—					
Kirk, C. D., & Co.	10	1	1	2	.....
Kohanek & Neutauer	10	.....	1	1	.....

TABLE SHOWING NAME AND LOCATION OF BAKERIES AND CONFECTIONERIES INSPECTED, ETC.—Continued.

Name of Firm.	Hours of labor.	Employes.			
		Male.	Female.	Total.	Under 16 years of age.
RICE LAKE, BARRON CO.—					
Boles, A. G.	10	1	1	2	.....
Finsterwalder, M.	7	.....	.....	.....	.....
RICHLAND CENTER, RICHLAND CO.—					
Parry, H.	10	1	4	5	.....
Wertz, A. C.	8	1	1	2	.....
Total	.....	2	5	7	.....
RIPON, FOND DU LAC CO.—					
Leichmath, E. F.	7	1	2	3	.....
Reickert, Urban	12	3	2	5	1
Total	.....	4	4	8	1
RIVER FALLS, PIERCE CO.—					
Tingwald & Youcus	10	3	.....	3	.....
Woehrle, W.	10	3	.....	3	.....
Total	.....	6	.....	6	.....
SHAWANO, SHAWANO CO.—					
Garfield, B. H.	8	2	2	4	.....
Ludolph, G. W.	10	1	1	2	.....
Rohloff, R. P.	8	1	2	3	.....
Total	.....	4	5	9	.....
SHEBOYGAN, SHEBOYGAN CO.—					
Cochiroubas, G.	8	2	.....	2	.....
Faher, John	10	4	.....	4	.....
Hirch, G. A.	10	2	1	3	.....
Calitt, A. H.	8	.....	2	2	.....
Kuster, K.	10	2	.....	2	.....
Mohr, Emil	10	9	2	11	.....
Pfister, Thos.	12	.....	.....	.....	.....
Wagner, G. A.	10	.....	.....	.....	.....
Wickert, Louis	10	2	.....	2	.....
Total	.....	21	5	26	.....
SHEBOYGAN FALLS, SHEBOYGAN CO.—					
Dreagert, F.	9	1	1	2	.....
SHELL LAKE, WASHBURN CO.—					
Gareth, G. J.	6	.....	.....	.....	.....
SOUTH MILWAUKEE, MILWAUKEE CO.—					
Ceszinski, Leo	7	.....	.....	.....	.....
Spies, Jacob	10	2	1	3	.....
SPARTA, MONROE CO.—					
Doxrud, O. E.	7	.....	.....	.....	.....
Toole, W. E.	6	1	1	2	.....
Kuehn, C.	8	1	.....	1	.....
Total	.....	2	1	3	.....

TABLE SHOWING NAME AND LOCATION OF BAKERIES AND CONFECTIONERIES INSPECTED, ETC.—Continued.

Name of Firm.	Hours of labor.	Employes.			
		Male.	Female.	Total.	Under 16 years of age.
SPOONER, WASHBURN CO.—					
Nehlm, Chas.	10	.....	.....	.....	.....
STEVENS POINT, PORTAGE CO.					
Bennett, D.	10	3	1	4	.....
Demkie, A.	10	2	.....	2	.....
Julier, E. H.	10	2	.....	2	.....
Mocogin Bros.	9	1	.....	1	.....
Total	.....	8	1	9	.....
STOUGHTON, DANE CO.—					
Jacobson Bros.	10	1	1	2	.....
Olson, Mrs. E.	10	3	1	4	.....
Total	.....	4	2	6	.....
STURGEON BAY, DOOR CO.—					
Fengler, Frank	8	.....	.....	.....	.....
Fredrickson, J.	12	2	1	3	.....
SUPERIOR, DOUGLAS CO.—					
Crowell, C. W., & Co.	10	3	2	5	.....
Iowa Bakery	10	5	1	6	.....
Leamon, G. W.	10	7	1	8	.....
Nelson, N.	12	6	1	7	.....
Royal Bakery	9	5	3	8	.....
Strauch, John	8	2	.....	2	.....
Total	.....	28	8	36	.....
TOMAH, MONROE CO.—					
McMullen, W. J.	9	1	.....	1	.....
Schmidt, Emil	10	1	.....	1	.....
Total	.....	2	.....	2	.....
TOMAHAWK, LINCOLN CO.—					
Menner, J. M.	10	2	.....	2	.....
TWO RIVERS, MANITOWOC CO.					
Co.—					
Hartung, H.	10	1	1	2	.....
Rubl, Louis	10	.....	.....	.....	.....
VIROQUA, VERNON CO.—					
Lind, W. D.	10	.....	2	2	.....
Nelson, C. A.	10	1	1	2	.....
Total	.....	1	3	4	.....
WASHBURN, BAYFIELD CO.—					
Borgrem, H. M.	12	4	1	5	.....
Olson, Mrs. L.	10	1	1	2	.....
Total	.....	5	2	7	.....

TABLE SHOWING NAME AND LOCATION OF BAKERIES AND CONFECTIONERIES INSPECTED, ETC.—Continued.

Name of Firm.	Hours of labor.	Employes.			
		Male.	Female.	Total.	Under 16 years of age.
WATERTOWN, JEFFERSON CO.—					
Heyms, C. E.	10	2	.....	2	.....
Koser, F. O.	10	2	.....	2	.....
Kramer, W.	10	.....	1	1	.....
Krueger, Mrs. W. H.	10	3	.....	3	.....
Maywood, W.†	10	1	2	3	.....
Mutter, J. A.†	10	.....	1	1	.....
Sheetz, Gus	12	.....	.....	.....	.....
Total	.....	8	4	12	.....
WAUKESHA, WAUKESHA CO.—					
Arnold, W.	9	3	.....	3	.....
Kullman, T., & Sons	10	1	.....	1	.....
Reed, R. W.	10	1	.....	1	.....
Smith, C. E.	10	3	.....	3	.....
Total	.....	8	.....	8	.....
WAUPACA, WAUPACA CO.—					
Dutton, A. O.	11	1	1	2	.....
Hanson, R. P.	10	2	2	4	.....
Total	.....	3	3	6	.....
WAUPUN, FOND DU LAC CO.—					
Enggard, Peter	10	1	.....	1	.....
WAUSAU, MARATHON CO.—					
Hess, Geo.	10	2	1	3	.....
Kischel, Gus.	10	.....	.....	.....	.....
Oswald, H.	10	5	4	9	.....
Oswald, J. F.	10	6	2	8	.....
Total	.....	13	7	20	.....
WAUWATOSA, MILWAUKEE Co.					
Baier, W.	10	2	.....	2	.....
Bauer, H.	10	2	.....	2	.....
Total	.....	4	.....	4	.....
WEST ALLIS, MILWAUKEE Co.—					
Schmidt, Geo.	12	1	.....	1	.....
WEST BEND, WASHINGTON Co.					
Schlegel, G.	10	2	.....	2	.....
Total	.....	28	8	36	.....
WHITEWATER, WALWORTH Co.					
Callahan, J. W.	12	1	.....	1	.....
Sachs, Mrs. A.	10	1	1	2	.....
Total	.....	2	1	3	.....

*Bakery and Confectionery.
†Confectionery.

SUMMARY BY CITIES OR LOCATION OF THE NUMBER OF ESTABLISHMENTS INSPECTED, NUMBER OF EMPLOYES CLASSIFIED AS TO AGE AND SEX.

Place.	Number of establishments.	Employes.			Children under 16 years of age.
		Male.	Female.	Total.	
Algoma, Kewaunee Co.	1	.....	.....	.....	.....
Alma, Buffalo Co.	1	.....	.....	.....	.....
Antigo, Langlade Co.	4	11	3	14	.....
Appleton, Outagamie Co.	10	10	7	17	.....
Ashland, Ashland Co.	2	14	2	16	.....
Baraboo, Sauk Co.	5	4	3	7	.....
Barron, Barron Co.	2	.....	.....	.....	.....
Beaver Dam, Dodge Co.	2	.....	1	1	.....
Beloit, Rock Co.	6	31	10	41	.....
Berlin, Green Lake Co.	2	3	1	4	.....
Black River Falls, Jackson Co.	1	1	.....	1	.....
Boscobel, Grant Co.	1	1	1	2	.....
Brillion, Calumet Co.	1	1	1	2	.....
Brodhead, Green Co.	1	3	1	4	.....
Burlington, Racine Co.	2	2	.....	2	.....
Chilton, Calumet Co.	1	1	.....	1	.....
Chippewa Falls, Chippewa Co.	2	3	5	8	.....
Clintonville, Waupaca Co.	2	.....	3	3	.....
Columbus, Columbia Co.	2	2	1	3	.....
Cuba City, Grant Co.	1	2	2	4	.....
Cudahy, Milwaukee Co.	1	2	.....	2	.....
Cumberland, Barron Co.	2	1	1	2	.....
Darlington, La Fayette Co.	1	1	1	2	.....
Delavan, Walworth Co.	2	3	3	6	.....
De Pere, Brown Co.	4	3	.....	3	.....
Dodgeville, Iowa Co.	1	.....	.....	.....	.....
Eau Claire, Eau Claire Co.	5	17	6	23	1
Elkhorn, Walworth Co.	1	2	1	3	.....
Ellsworth, Pierce Co.	1	2	2	4	.....
Evansville, Rock Co.	1	1	1	2	.....
Fond du Lac, Fond du Lac Co.	13	38	53	91	13
Fort Atkinson, Jefferson Co.	2	3	2	5	.....
Grand Rapids, Wood Co.	2	3	2	5	.....
Green Bay, Brown Co.	12	88	189	277	50
Hartford, Washington Co.	2	3	2	5	.....
Hudson, St. Croix Co.	4	6	.....	6	.....
Hurley, Iron Co.	1	2	.....	2	.....
Janesville, Rock Co.	8	42	5	47	.....
Jefferson, Jefferson Co.	2	2	2	4	.....
Juneau, Dodge Co.	1	.....	1	1	.....
Kaukauna, Outagamie Co.	2	3	1	4	.....
Kenosha, Kenosha Co.	6	18	.....	18	.....
Kewaskum, Washington Co.	1	.....	.....	.....	.....
Kewaunee, Kewaunee Co.	2	.....	.....	.....	.....
Kiel, Manitowoc Co.	1	.....	.....	.....	.....
La Crosse, La Crosse Co.	12	123	215	338	44
Ladysmith, Gates Co.	1	.....	.....	.....	.....
Lake Geneva, Walworth Co.	3	10	3	13	.....
Lake Mills, Jefferson Co.	2	1	.....	1	.....
Lancaster, Grant Co.	3	2	4	6	.....
Madison, Dane Co.	11	49	71	120	8
Manitowoc, Manitowoc Co.	4	8	3	11	.....
Marinette, Marinette Co.	4	6	.....	6	.....
Marshfield, Wood Co.	3	7	1	8	.....
Mauston, Juneau Co.	1	.....	1	1	.....
Mayville, Dodge Co.	2	1	1	2	.....
Medford, Taylor Co.	1	2	.....	2	.....
Menasha, Winnebago Co.	1	2	2	4	.....
Menomonee, Dunn Co.	2	3	3	6	.....
Merrill, Lincoln Co.	3	5	1	6	1
Milton, Rock Co.	1	.....	.....	.....	.....
Milton Jct., Rock Co.	1	.....	.....	.....	.....
Milwaukee, Milwaukee Co.	247	1,107	1,003	2,110	384
Mineral Point, Iowa Co.	1	2	1	3	.....
Monroe, Green Co.	3	7	4	11	.....
Neenah, Winnebago Co.	4	1	3	4	.....
Neillsville, Clark Co.	1	1	1	2	.....
New London, Waupaca Co.	2	.....	1	1	.....
New Richmond, St. Croix Co.	1	1	1	2	.....

BAKERIES INSPECTED—SUMMARY BY CITIES—Continued.

Place.	Number of establishments.	Employes.			Children under 16 years of age.
		Male.	Female.	Total.	
North Milwaukee, Milwaukee Co...	1	1	.....	1	.....
Oconomowoc, Waukesha Co.	3	2	1	3	.....
Oconto, Oconto Co.	2	1	.....	1	.....
Oshkosh, Winnebago Co.	17	35	21	56	1
Phillips, Price Co.	1	.....	1	1	.....
Platteville, Grant Co.	3	3	2	5	.....
Plymouth, Sheboygan Co.	2	1	.....	1	.....
Portage, Columbia Co.	5	6	3	9	1
Port Washington, Ozaukee Co.	2	3	1	4	.....
Prairie du Chien, Crawford Co. ..	2	2	1	3	.....
Princeton, Green Lake Co.	2	.....	.....	.....	.....
Racine, Racine Co.	8	34	8	42	1
Reedsburg, Sauk Co.	1	3	2	5	.....
Rhinelander, Oneida Co.	2	1	2	3	.....
Rice Lake, Barron Co.	2	1	1	2	.....
Richland Center, Richland Co.	2	2	5	7	.....
Ripon, Fond du Lac	2	4	4	8	1
River Falls, Pierce Co.	2	6	.....	6	.....
Shawano, Shawano Co.	3	4	5	9	.....
Sheboygan, Sheboygan Co.	9	21	5	26	.....
Sheboygan Falls, Sheboygan Co....	1	1	1	2	.....
Shell Lake, Washburn Co.	1	.....	.....	.....	.....
South Milwaukee, Milwaukee Co....	2	2	1	3	.....
Sparta, Monroe Co.	3	2	1	3	.....
Spooner, Washburn Co.	1	.....	.....	.....	.....
Stevens Point, Portage Co.	4	8	1	9	.....
Stoughton, Dane Co.	2	4	2	6	.....
Sturgeon Bay, Door Co.	2	2	1	3	.....
Superior, Douglas Co.	6	28	8	36	.....
Tomah, Monroe Co.	2	2	.....	2	.....
Tomahawk, Lincoln Co.	1	2	.....	2	.....
Two Rivers, Manitowoc Co.	2	1	1	2	.....
Viroqua, Vernon Co.	2	1	3	4	.....
Washburn, Bayfield Co.	2	5	2	7	.....
Watertown, Jefferson Co.	7	8	4	12	.....
Waukesha, Waukesha Co.	4	8	.....	8	.....
Waupaca, Waupaca Co.	2	3	3	6	.....
Waupun, Fond du Lac Co.....	1	1	.....	1	.....
Wausau, Marathon Co.	4	13	7	20	.....
Wauwatosa, Milwaukee Co.	2	4	.....	4	.....
West Allis, Milwaukee Co.	1	1	.....	1	.....
West Bend, Washington Co.	1	2	.....	2	.....
Whitewater, Walworth Co.	2	2	1	3	.....
Total	568	1,897	1,730	3,627	505

BAKERY AND CONFECTIONERY EMPLOYES, CLASSIFIED AS TO AGE.

	Number.	Per cent.
Persons 16 years and over	3,627	87.78
Children under 16 years	505	12.22
Total	4,132	100.00

BAKERY AND CONFECTIONERY EMPLOYES OVER 16 YEARS OF AGE, CLASSIFIED AS TO SEX.

	Number.	Per cent.
Number of male persons over 16 years	1,897	52.30
Number of female persons over 16 years	1,730	47.70
Total	3,627	100.00

The two preceding exhibits show the number of employes in the bakery and other food establishments visited by the inspector. Of the 4,132 employes, 505, or 12.22 per cent are children under 16 years of age, and 3,627 or 87.78 per cent are over 16. This means that one employe out of 8 is a child under 16: Of the 3,627 employes over 16, 1,897 or 52.3 per cent are males and 1,730 or 47.7 per cent females.

Many bakeries and confectioneries occupy entire buildings, while others occupy only single stories. The following exhibit shows the stories occupied by these various establishments.

Establishments occupying—	Number.	Per cent.
Basement and first floor	296	52.10
Basement, first and second floors	8	1.41
Basement, first, second and third floors	8	1.41
Basement, first, second, third and fourth floors	3	.53
Basement, first, second, third, fourth and fifth floors	1	.18
Basement and second floor	2	.35
Basement and third floor	1	.18
Basement and fifth floor	2	.35
Basement and sixth floor	1	.18
First floor	241	42.42
First and second floor	2	.36
Second floor	1	.18
Third floor	2	.35
Total	568	100.00

Of the 568 establishments, 296 or 52.1 per cent occupy both basement and first floor, 241 or 42.42 per cent occupy the first floor only, and the remaining 31 or 5.48 per cent occupy various other portions of buildings indicated in the table.

The following exhibit shows the number of "basements," "first floors," "second floors," etc., occupied by the various bakeries and confectioneries:

Floors occupied.	Number.	Per cent.
Basement	322	34.67
First floor	559	60.17
Second floor	25	2.69
Third floor	15	1.62
Fourth floor	4	.42
Fifth floor	3	.32
Sixth floor	1	.11
Total	929	100.00

The 568 establishments occupy 929 floors, an average of one and one-half floors to the establishment. 322 or 34.67 per cent of these are basements, 559 or 60.17 per cent first floors, 25 or 2.69 per cent second floors, 15 or 1.62 per cent third floors, and the remaining 8 or less than 1 per cent are fourth, fifth, and sixth floors.

ESTABLISHMENTS CLASSIFIED AS TO WHETHER LOCATED "IN MILWAUKEE" OR "OUTSIDE MILWAUKEE."

Classification.	Establishment.	
	Number.	Per cent.
Milwaukee	246	43.31
Outside Milwaukee	322	56.69
Total	568	100.00

Over two-fifths of the bakeries inspected are located in Milwaukee, and less than three-fifths outside.

ESTABLISHMENTS CLASSIFIED ACCORDING TO NUMBER OF WORK ROOMS.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent	Number.	Per cent.	Number.	Per cent.
One work room	226	91.50	306	95.32	532	93.66
Two work rooms	10	4.06	4	1.25	14	2.46
Three work rooms	5	2.03	5	1.56	10	1.76
Four work rooms	1	.40	2	.62	3	53
Five work rooms	.....	.....	4	1.25	4	.70
Six work rooms	2	.81	.....	.....	2	.35
Ten work rooms	1	.40	.....	.....	1	.18
Eleven work rooms	1	.40	.....	.....	1	.18
Twelve work rooms	1	.40	.....	.....	1	.18
Total	247	100.00	321	100.00	568	100.00

This table shows that 226 or 91.5 per cent of the bakeries in Milwaukee, and 306 or 95.32 per cent of those outside have but one work room. None of the bakeries outside Milwaukee have over 5 work rooms, while they run as high as 12 work rooms to the establishment in Milwaukee.

The three following exhibits show the number of "frame," "brick," and "total" buildings in which bakeries and confectioneries are located, classified as to height.

NUMBER OF FRAME BUILDINGS.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
One story	49	26.49	46	31.08	95	28.53
Two stories	132	71.35	102	68.92	234	70.27
Three stories	3	1.62	.....	.....	3	.90
Four stories	1	.54	.....	.....	1	.30
Total	185	100.00	148	100.00	333	100.00

NUMBER OF BRICK BUILDINGS.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
One story	1	1.61	13	7.51	14	5.96
Two stories	38	61.30	144	83.24	182	77.45
Three stories	17	27.42	14	8.09	31	13.19
Four stories	1	1.61	2	1.16	3	1.28
Five stories	4	6.45	.....	.....	4	1.70
Six stories	1	1.61	.....	.....	1	.42
Total	62	100.00	173	100.00	235	100.00

BUILDINGS CLASSIFIED AS TO HEIGHT.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
One story	50	20.24	59	18.38	109	19.19
Two stories	170	68.83	246	76.64	4.16	73.24
Three stories	20	8.10	14	4.36	34	5.99
Four stories	2	.81	2	.62	4	.70
Five stories	4	1.62	.....	.....	4	.70
Six stories	1	.40	.....	.....	1	.18
Total	247	100.00	321	100.00	568	100.00

In the three preceding tables the "Frame," "Brick," and "Total" number of buildings used as bakeries, etc., are classified as to height, whether in or outside Milwaukee. There are 185 wooden buildings in Milwaukee and 148 outside that are used as bakeries, confectioneries, etc. Of the former, 49 or 26.49 per cent are one story, 132 or 71.35 per cent two stories, and the remaining 4 are over two stories high. Of the latter, 46 or 31.08 per cent are one story, 102 or 68.92 per cent are two stories high. There are 62 brick buildings in Milwaukee and 173 outside used as bakeries and confectioneries. Of those in Milwaukee, only one is one story in height, 38 or 61.3 per cent are two stories, 17 or 27.42 per cent three stories, and the remainder range from 4 to six stories high. Of the buildings outside Milwaukee, 13 or 7.51 per cent are one story high, 144 or 83.24 per cent two stories high, 14 or 8.09 per cent three stories high, and 2 or 1.16 per cent four stories in height.

The last table is a recapetulation of the two preceding. Over 20 per cent of the bakery buildings in Milwaukee are only one story high, nearly 69 per cent two stories high, and the remainder range from three to six stories in height. Of those outside, nearly one-fifth are only one story high, over three-fifths two stories, and the remainder three and four stories high. For the state, about one-fifth the buildings are one story, three-fourths two story, and the remainder are from three to six story buildings.

BUILDINGS OCCUPIED BY BAKERIES AND CONFECTIONERIES—CLASSIFICATION AS TO KIND OF BUILDINGS.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent	Number.	Per cent.
Frame, wood	185	74.91	148	64.07	333	58.63
Brick	62	25.09	173	35.93	235	41.37
Total	247	100.00	321	100.00	568	100.00

This table is a summing up of the preceding three. About three-fourths of the bakery buildings in Milwaukee, and over three-fifths in the state outside are frame buildings, the remainder brick.

BUILDINGS OCCUPIED BY BAKERIES AND CONFECTIONERIES CLASSIFIED AS TO HEIGHT.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent	Number.	Per cent.
Two stories or less	220	90.28	305	95.02	525	92.43
Three or more stories	27	9.72	16	4.98	43	7.57
Total	247	100.00	321	100.00	568	100.00

Over nine-tenths of the bakery buildings in Milwaukee and nineteen-twentieths of those outside are less than three stories high, the remainder, three or more stories high.

BUILDINGS THREE OR MORE STORIES HIGH HAVING TWENTY-FIVE OR MORE PERSONS EMPLOYED THEREIN CLASSIFIED AS TO FIRE ESCAPES AND OUTSIDE STAIRWAYS.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number	Per cent.	Number.	Per cent.	Number	Per cent.
Having fire escapes	6	54.55	5	62.50	11	57.89
Having outside stairways.	1	9.09	.....	.....	1	5.26
Having both	2	18.18	.....	.....	2	10.53
Having neither	2	18.18	3	37.50	5	26.32
Total	11	100.00	8	100.00	19	100.00

A total of only 14 buildings out of 19 inspected, containing 25 or more employes, have fire escapes or outside stairways, as provided by law.

EXHIBITS SHOWING THE TOTAL NUMBER OF FIRE ESCAPES, OUTSIDE AND INSIDE STAIRWAYS IN BAKERIES AND CONFECTIONERY ESTABLISHMENTS.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Fire escapes	24	3.09	9	1.46	33	2.37
Outside stairways	199	25.61	182	29.55	381	27.35
Inside stairways	554	71.30	425	68.99	979	70.28
Total	777	100.00	616	100.00	1,393	100.00

In Milwaukee there are 777 fire escapes, outside, and inside stairways in the 247 bakeries inspected. Of this number, nearly three-fourths are inside stairways, one-fourth outside stairways and the remaining 24 fire escapes. In the 321 buildings outside Milwaukee there are 9 fire escapes, 182 outside and 425 inside stairways.

NUMBER OF BUILDINGS HAVING ELEVATORS AND NUMBER OF ELEVATORS USED IN BAKERIES AND CONFECTIONERIES.

Classification.	Buildings.		Elevators.	
	Number.	Per cent.	Number.	Per cent.
Milwaukee	13	46.43	20	55.56
Outside Milwaukee	15	53.57	16	44.44
Total	28	100.00	36	100.00

Of the total number of buildings inspected, 28 have elevators, 13 of this number being in Milwaukee and 15 outside. A total of 36 elevators were inspected, 20 of which are in Milwaukee and 16 outside that city.

KIND OF DOORS USED IN ELEVATORS.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number	Per cent.	Number	Per cent.
Automatic	9	45.00	6	37.50	15	41.67
Sliding	11	55.00	5	31.25	16	44.44
Not specified	.....	.....	5	31.25	5	13.89
Total	20	100.00	16	100.00	36	100.00

Nine elevators in Milwaukee and 6 outside have automatic doors, 11 in Milwaukee and 5 outside have sliding doors and 5 outside "not specified."

NUMBER OF DOORS AND EXITS FROM FIRST FLOOR AND BASEMENT OF BAKERIES AND CONFECTIONERIES.

Classification.	First Floor.		Basement.	
	Number.	Per cent.	Number.	Per cent.
Milwaukee	238	42.65	206	63.97
Outside Milwaukee	320	57.35	116	36.03
Total	558	100.00	322	100.00

The inspector found a total of 558 doors and exits from first floors, and 322 from basements. Of the former, 238 or 42.65 per cent, and 206 or 63.97 per cent of the latter, are in Milwaukee.

NUMBER OF BASEMENTS USED IN BAKERIES AND CONFECTIONERIES CLASSIFIED ACCORDING TO NUMBER OF OUTSIDE ENTRANCES.*

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent	Number.	Per cent.	Number.	Per cent.
No outside entrance	29	14.07	25	21.55	54	16.77
One outside entrance	105	50.97	72	62.07	177	54.97
Two outside entrances	72	34.96	17	14.66	89	27.64
Three outside entrances	.....	.....	1	.86	1	.31
Four outside entrances	.....	.....	1	.86	1	.31
Total	206	100.00	116	100.00	322	100.00

*The doors to all but seven outside entrances to basements swing "in." These seven were found in the city of Milwaukee.

Fourteen per cent of the basements in Milwaukee, and 21.55 per cent of those outside have no outside entrance. Over one-half those in Milwaukee and 62 per cent of those outside have each one outside entrance, and the remainder have two or more.

NUMBER OF FIRST FLOORS OCCUPIED BY BAKERIES AND CONFECTIONERIES CLASSIFIED AS TO THE NUMBER OF OUTSIDE DOORS.*

CLASSIFICATION.	MILWAUKEE.		OUTSIDE MILWAUKEE.		TOTAL.	
	Per cent	Number.	Per cent.	Number.	Per cent.	Number.
One outside door	3	1.26	11	3.43	14	2.51
Two outside doors	130	54.62	170	53.13	300	53.76
Three outside doors	69	28.99	80	25.00	149	26.70
Four outside doors	25	10.50	47	14.69	72	12.90
Five outside doors	7	2.94	8	2.50	15	2.69
Six or more outside doors†	4	1.68	4	1.25	8	1.44
Total‡	238	100.00	320	100.00	558	100.00

*All doors "swing in" except two found in one establishment in the city of Racine; these "swing out."
†One establishment in "Milwaukee" had eleven doors, one "outside Milwaukee" had eight doors.
‡In ten establishments the first floors of the buildings are not occupied.

In the above table the first floors used as bakeries, etc., are classified as to number of outside doors and exits. Over one-half of these in both Milwaukee and the state outside have two outside doors each, over one-fourth have three, and one-tenth in Milwaukee and one-seventh outside have four each.

BAKERY AND CONFECTIONERY ESTABLISHMENTS CLASSIFIED AS TO SANITARY CONDITIONS OF ROOMS OCCUPIED.

CLASSIFICATION.	MILWAUKEE.		OUTSIDE MILWAUKEE.		TOTAL.	
	Number.	Per cent.	Number.	Per cent.	Number	Per cent.
In good condition	209	84.62	246	76.64	455	80.11
In bad condition	38	15.38	73	22.74	111	19.54
Not specified	.....	.....	2	.62	2	.35
Total	247	100.00	321	100.00	568	100.00

As shown in the above table, the inspector reported that he found 209 or 84.62 per cent of the 247 bakeries in Milwaukee in fairly good condition and the remainder in bad condition, while of the 321 outside, he found 246 or 76.64 per cent in good condition and 73 or 22.74 per cent in bad condition. This means that about one establishment out of every five was not a fit place for the manufacture of bread and other food products previous to being visited by the inspector.

BAKERY AND CONFECTIONERY ESTABLISHMENTS CLASSIFIED ACCORDING TO FREQUENCY OF PAINTING OR WHITEWASHING INTERIOR.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent	Number.	Per cent.	Number.	Per cent.
Every three months	4	1.62	4	1.25	8	1.41
Every four months	9	3.64	4	1.25	13	2.29
Every six months	105	42.51	92	28.66	197	34.68
Once every year	61	24.70	59	18.38	120	21.13
Once every two years	.....	.....	2	.62	2	.35
Not specified	68	27.53	160	49.84	228	40.14
Total	247	100.00	321	100.00	568	100.00

The law requires that bakeries shall be whitewashed at least once every six months. The above exhibit shows how nearly the bakeries of the state have maintained this standard. Less than two out of every five have fulfilled the requirements of the law. Of those reporting, 122 did not whitewash or paint oftener than once a year. Orders were issued to the proprietors of these establishments to comply with the law.

BAKERY AND CONFECTIONERY ESTABLISHMENTS CLASSIFIED AS TO SANITARY CONDITION OF UTENSILS.

Classfcation.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent	Number.	Per cent.
Good	239	96.76	300	93.46	539	94.89
Bad	8	3.24	19	5.92	27	4.76
Not specified	.....	.....	2	62	2	.35
Total	247	100.00	321	100.00	568	100.00

A much larger percentage of the utensils were in a good sanitary condition than the buildings themselves. Nearly 95 per cent of the establishments used clean utensils.

BAKERY AND CONFECTIONERY ESTABLISHMENTS CLASSIFIED AS TO KIND OF FLOORS, WHETHER WOOD, CEMENT, BRICK, ETC.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent	Number.	Per cent.	Number	Per cent
Wood	218	88.26	285	88.79	503	88.56
Cement	28	11.34	27	8.41	55	9.68
Wood and cement	1	.40	.....	.....	1	.18
Brick	.....	.....	7	2.18	7	1.23
Not specified	.....	.....	2	62	2	.35
Total	247	100.00	321	100.00	568	100.00

An average of 88.56 per cent of the establishments inspected had wood floors, less than 10 per cent cement, and the remainder had either wood and cement, or brick.

BAKERY AND CONFECTIONERY ESTABLISHMENTS HAVING INSIDE CLOSETS CLASSIFIED ACCORDING TO NUMBER USED.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
One closet	69	33.17	83	69.17	152	46.34
Two closets	89	42.79	26	21.67	115	35.06
Three closets	38	18.27	7	5.82	45	13.72
Four closets	7	3.37	2	1.67	9	2.74
Five or more closets*	5	2.40	2	1.67	7	2.14
Total	208	100.00	120	100.00	328	100.00

*One establishment "outside Milwaukee" has six inside closets and one has seven. One establishment in "Milwaukee" has 12, two 13, and one 15 inside closets.

Nearly all the bakery establishments inspected, in Milwaukee, have inside closets, while but little more than one-third those outside are so provided. Of those inside Milwaukee, one-third have one closet each, over two-fifths have two closets each, about one-fifth have three each, and the remainder have from four to fifteen each. Of those establishments having inside closets in the state outside Milwaukee, 69.17 per cent have one each, 21.67 per cent have two each, and the remaining 10 per cent have from three to six each.

BAKERY AND CONFECTIONERY ESTABLISHMENTS HAVING OUTSIDE CLOSETS CLASSIFIED AS TO NUMBER USED.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent	Number.	Per cent.	Number.	Per cent.
One closet*	43	93.48	202	96.55	245	96.08
Two closets	3	6.52	7	3.45	10	3.92
Total	46	100.00	209	100.00	255	100.00

*Seven establishments "in Milwaukee" and seven "outside Milwaukee" have each one outside and one inside closet.

The above is a classification of those establishments having outside closets. About one-sixth of those in Milwaukee and nearly two-thirds of those outside, have outside closets, and less than four per cent the establishments in the state having outside closets have more than one, and none have more than two.

BAKERY AND CONFECTIONERY ESTABLISHMENTS CLASSIFIED AS TO NUMBER OF WATER CLOSETS.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent
One closet	100	40.48	270	84.11	370	65.14
Two closets*	94	38.06	39	12.15	133	23.41
Three closets	40	16.20	9	2.80	49	8.63
Four closets	7	2.83	1	.31	8	1.41
Five or more closets†	6	2.43	2	.63	8	1.41
Total	247	100.00	321	100.00	568	100.00

*Seven establishments "in Milwaukee" and seven "outside Milwaukee" have each an outside and an inside closet.
†One establishment has 12 closets, two establishments have thirteen and one has 15 closets "in Milwaukee;" one establishment has 6, and one 7 closets "outside Milwaukee."

The establishments are here classified as to the total number of closets each has whether inside or outside. Of the 247 bakeries in Milwaukee, 100 or 40.48 per cent have each one closet, 94 or 38.06 per cent have each two, 40 or 16.2 per cent have three, and the remainder four or more each. Outside Milwaukee, 270 or 84.11 per cent of the 321 establishments have each one closet, 39 or 12.15 per cent have two each, and the remainder three or more each.

ESTABLISHMENTS CLASSIFIED AS TO TIME AND KIND OF WAGE PAYMENTS.

Classification.	Number.	Per cent.
Weekly, cash	446	78.52
Semi-monthly, cash	2	.35
Monthly, cash	2	.35
Not specified	1	.18
Not employing wage earners	117	20.60
Total	568	100.00

This table means that about four establishments out of every five pay employes weekly cash wages, and the following table shows that more than 99 out of every 100 employes receive weekly wages in cash.

EMPLOYES, INCLUDING CHILDREN, CLASSIFIED AS TO TIME AND KIND OF WAGE PAYMENTS.

Classification.	Number.	Per cent.
Weekly, cash	4,099	99.20
Semi-monthly, cash	27	.65
Monthly, cash	4	.10
Not specified	2	.05
Total	4,132	100.00

EMPLOYES CLASSIFIED AS TO SEX WITH PERCENTAGES OF MALE, FEMALE AND TOTAL WORKING IN MILWAUKEE AND OUTSIDE MILWAUKEE.

Classification.	Number.			Per Cent.		
	Male.	Female.	Total.	Male	Female	Total.
Milwaukee	1,107	1,003	2,110	58.36	57.98	58.17
Outside Milwaukee	790	727	1,517	41.64	42.02	41.83
Total	1,897	1,730	3,627	100.00	100.00	100.00

This table means that 58.36 per cent of the total number of males, 57.98 per cent of the females, and 58.17 per cent of the total number of employes, are employed in Milwaukee, and the remainder in the establishments outside that city.

CHILDREN UNDER 16 YEARS OF AGE CLASSIFIED ACCORDING TO THE NUMBER OF HOURS LABOR PER DAY.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Nine hours	2	.52	.....	.....	2	.40
Ten hours	379	98.70	118	97.52	497	98.41
Eleven hours	1	.26	.....	.....	1	.20
Twelve hours	2	.52	3	2.48	5	.99
Total	384	100.00	121	100.00	505	100.00

This table shows that nearly all the children employed in these establishments are required to work 10 hours per day. Only two work less, and six are required to work more, which is a violation of the law.

TOTAL NUMBER EMPLOYES CLASSIFIED ACCORDING TO NUMBER OF HOURS LABOR PER DAY.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent	Number.	Per cent	Number.	Per cent.
Seven hours	3	.14	32	2.11	35	.96
Eight hours	15	.71	50	3.30	65	1.79
Nine hours	142	6.73	40	2.64	182	5.02
Ten hours	1,781	84.41	1,225	80.75	3,006	82.88
Eleven hours	89	4.22	55	3.62	144	3.97
Twelve hours or more	80	3.79	114	7.51	194	5.38
Total	2,110	100.00	1,517	100.00	3,627	100.00

In the bakery and confectionery establishments of Milwaukee, 84.41 per cent of the employes are required to work ten hours per day, 4.22 per cent eleven hours, 3.79 per cent twelve or more hours, the remainder nine hours or less.

MALE EMPLOYES CLASSIFIED ACCORDING TO THE NUMBER OF HOURS LABOR PER DAY.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent	Number.	Per cent	Number.	Per cent.
Seven hours or less	2	.18	13	1.67	15	.79
Eight hours	5	.45	28	3.54	33	1.74
Nine hours	50	4.52	30	3.79	80	4.22
Ten hours	919	83.02	595	75.31	1,514	79.81
Eleven hours	64	5.78	42	5.31	106	5.59
Twelve hours or more	67	5.95	82	10.38	148	7.85
Total	1,107	100.00	790	100.00	1,897	100.00

FEMALE EMPLOYES CLASSIFIED ACCORDING TO THE NUMBER OF HOURS LABOR PER DAY.

Classification.	Milwaukee		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Seven hours or more	1	.10	19	1.80	20	1.15
Eight hours	10	1.00	22	3.03	32	1.85
Nine hours	92	9.17	10	1.38	102	5.90
Ten hours	862	85.94	630	86.66	1,492	86.24
Eleven hours	25	2.49	13	1.79	38	2.20
Twelve hours or more	13	1.30	33	4.54	46	2.66
Total	1,003	100.00	727	100.00	1,730	100.00

The above two tables show that about 5 per cent of the male, and 10 per cent of the female employes in the bakeries of Milwaukee are required to work 9 or less hours per day, 83.02 per cent of the male, and 85.94 per cent of the female employes work 10 hours, and 11.73 per cent of the male, and 3.79 per cent of the female work 11 or more hours per day. Outside Milwaukee 6.70 of the male, and 8.90 per cent of the female employes work 9 hours or less per day, 75.31 per cent of the male, and 86.66 per cent of the female work 10 hours, and the remaining 15.69 per cent of the male and 6.33 per cent of the female employes work 11 or more hours per day.

BAKERY AND CONFECTIONERY ESTABLISHMENTS CLASSIFIED ACCORDING TO NUMBER HOURS LABOR REQUIRED OF EMPLOYES.

Classification.	Milwaukee.		Outside Milwaukee.		Total.	
	Number.	Per cent.	Number.	Per cent	Number.	Per cent.
Seven hours or less	5	1.23	32	9.96	37	6.51
Eight hours	12	4.86	36	11.22	48	8.45
Nine hours	15	6.07	14	4.36	29	5.11
Ten hours	140	56.68	171	53.27	311	54.75
Eleven hours	36	14.57	28	8.72	64	11.27
Twelve hours or more	39	15.79	40	12.47	79	13.91
Total	247	100.00	321	100.00	568	100.00

Of the total number of establishments in Milwaukee, 32 or 12.16 per cent require 9 or less hours for a day's work, 140 or 56.68 per cent require 10 hours, and 75 or 30.36 per

cent require 11 or more hours, while of those outside, 82 or 25.54 per cent require 9 or less hours, 171 or 53.27 per cent 10 hours and 68 or 21.19 per cent 11 or more hours per day.

EXHIBIT GIVING NAME AND LOCATION OF BAKERY AND CONFECTIONERY ESTABLISMENTS HAVING STEAM POWER, SHOWING WHETHER BOILERS ARE INSURED AND NUMBER YEARS EXPERIENCE OF ENGINEER.

Name and Location of Firm.	Boilers.			Years experience of engineer.
	Number.	Total horse power.	Insured.	
KENOSHA—				
Kupper Cracker Co.	1	20	no	15
LA CROSSE—				
Funke, J. B., Co.	1	75	yes	10
La Crosse Cracker & Candy Co.	1	40	no	20
MILWAUKEE—				
Ambrosia Chocolate Co.	1	40	yes	9
American Candy Co.	2	150	yes	20
Carpenter & Skiles	1	60	yes	7
Johnston, Robt. A., & Co.	2	100	yes	30
Kraemer, G.	1	10	.....	5
Loranz Bros.	1	75	yes	21
National Biscuit Co.	2	75	yes	20
Pflugart Co.	1	50	yes	10
Ziegler, Geo., & Co.	3	300	yes	20
RACINE—				
Bettry, Mrs. C.	1	12	.....	20
STEVENS POINT—				
Bennett, D.	1	6	yes	20
Total	19	1,013	.....	227
Average	1.36	72.36	.....	16.21

This table gives the name and location of establishments using steam power. Fourteen establishments use steam with a total horse power of 1,013. This is an average of 1.36 boilers or 72.36 horse power to the establishment. Of the 19 boilers used, 15 were insured, two were not and two were not specified as to insurance. The number of years experience of engineers ranges from 5 to 30 years, with an average of 16.21 years each.

NUMBER OF ORDERS ISSUED FROM JUNE 30, 1903, TO JUNE 30, 1904, ALL OF WHICH WERE COMPLIED WITH.

Classification.	Orders Issued.	
	Number.	Per cent.
Whitewashing	138	34.33
Sanitation	109	27.11
Painting	75	18.65
New floor	23	5.72
New ceiling	10	2.49
Papering	7	1.74
Guard machinery	5	1.24
Plastering	4	1.00
Clean furniture	3	.74
New trough	2	.50
Guard on elevator	2	.50
Clean clothes for workmen	2	.50
Toilet facilities	2	.50
New side walls	2	.50
New sink	2	.50
Shop removed from basement	2	.50
Other orders	14	3.48
Total	402	100.00

This table shows in what respects the bakery law was violated. Perhaps it would be more to the point to say that this table reveals the practices of bakers and confectioners which lead to the adoption of the law. The inspector issued a total of 402 orders. Of this number 138 or 34.33 per cent related to whitewashing, 109 or 27.11 per cent to sanitary conditions in general, 75 or 18.65 per cent to painting, 23 or 5.72 per cent to floors, and 10 or 2.49 per cent to ceilings. Others related to plastering, clothing, sinks, walls, papering, etc. All orders were complied with.

SOME ECONOMIC ASPECTS OF FACTORY LEGISLATION.

Factory legislation, like every other form of government control, has met with resistance more or less stubborn, at every step of its progress since 1802. Any interference with the freedom of contract on the part of the government between private individuals, or between a private individual on the one hand, and a corporation on the other, was considered an "intolerable infringement of personal liberty." A law which placed any restrictions upon a laborer willing to sell his work on terms agreeable to himself and his employer was considered as denying him the right to work, and therefore the right to live. Any law which restricted free competition, whether in the sale of labor or of commodities was considered worse than useless. This view was entertained by the highest economic authority of the time. Adam Smith advanced the idea that "the patrimony of the poor man lies in the strength and dexterity of his hands; and to hinder him from employing this strength and dexterity in whatever manner he thinks proper, without injury to his neighbor, is a plain violation of this most sacred property. It is a manifest encroachment upon the just liberty both of the workingman and those who might be disposed to employ him." That is to say, any interference on the part of the government, tending to restrict a man's freedom of action in working, employing labor, buying or selling goods, or any other act, which does not interfere with a fellowman's rights, is an interference with man's "natural liberty." "The right of every man to employ the capital he inherits," or has earned through his "exceptional talent, expensive education, and the fruits of past saving * * * without molestation" constitutes one of the highest

privileges of a constitutional form of government. This was the principal stumbling-block in the way of factory legislation during the closing years of the eighteenth century and the first half of the nineteenth century.

Another influence which ran parallel with the above idea and a corallary to it was the doctrine that the evils incident to factory life were due to "mistaken ideas of civilization;" that the natural development of the human race had become distorted, and twisted out of its natural course; that man should get back to more primitive ways of living, nearer "a state of nature" and start again the true life of the race; that any force or artificial contrivance which turned men's actions into other than natural channels was unwise and should not be tolerated. This doctrine pushed to a successful conclusion meant the destruction of all modern instruments of war, all the great machines of production and transportation heretofore invented, and a return to the dug-out as the abode of man, a return to the club as the only implement of war or of the chase, to the naked hand as the only instrument of production, and the log floating down the stream as the only means of transportation. Such doctrines found lodgement, not only in the minds of the great thinkers of the age, but in the minds of men who earned a livelihood working for wages. Every new "labor saving machine" was looked upon by them as an additional instrument for depriving the laborer of the right to earn his living by the "strength and dexterity of his hands," and hence of "the right to live."

These ideas were given a greater momentum by the rise of a school of economists which continued to promulgate and add to them. The main object of Adam Smith's *Wealth of Nations* was said to be "to demonstrate that the most effectual plan for advancing a people to greatness is to maintain that order of things which nature has pointed out, by allowing every man, as long as he observes the rules of justice, to pursue his own interests in his own way, and to bring both his industry and his capital into the fiercest competition wth those of his fellow citizens." But probably the greatest influence exercised by the writings of that man and his successors was not

so much in pointing out the injustice of controlling men's actions, as in filling the public mind with the belief that there were natural laws which made all such control incapable of reaching the end in view. As an illustration, Ricardo advanced the theory that wages always tended to the amount "necessary to enable the laborer to subsist, and to perpetuate his race without either increase or diminution," and that it was impossible to raise or lower them by artificial means. He claimed, also, to have found a natural law governing rent; that rent arose from a difference in the quality of the land arrived at by comparing the amount the better portions would produce with that produced on the poorest land that just paid for being cultivated; that rent was independent of any human conrol. Another illustration is the law developed by Malthus, that population tends to increase in a geometrical ratio while the means of subsistence, on the other hand, tends to increase only in an arithmetical ratio. Still another was the old wage found theory that wages were determined by using the amount of capital as a dividend, and the number of wage-earners as a divisor, the quotient being the wages. To increase wages, meant to decrease the number of wage earners, or to increase the amount of capital, or both. As a result wage-earners would organize in such a way as to monopolize the labor market and keep the supply as low as possible.

It was during the time that the economic doctrines propounded by these great men had taken almost universal posession of the minds of our statesmen that factory legislation began its struggle for existence. It was during the period of the great industrial revolution when machines run by hand were giving way to those operated by steam and water power; when the power loom replaced the hand loom; the spinning-jenny ushered out the spinning-wheel; the cotton gin relieved the labor of many hands, and factories, rather than homes of workmen became the centers of production. Factories sprang up on every hand. Home laborers no longer able to compete with the factories gave up home production, and masters as well as journeymen, men as well as women, children, old and young, all entered the factories and became common

laborers under worse conditions as to wages, hours of labor and sanitation than can be adequately described in words. As time went on conditions grew worse and it became more and more apparent that some form of regulation was necessary. But how any regulation of wages, sanitary conditions, or hours of labor could be made without encroaching upon the "natural rights" of men was a mystery the statesmen of the day were unable to solve.

Not only this, but there was a rapid decay of all forms of whatever legal regulation had been previously in vogue. The statute of Apprentices was diregarded. The Assize of bread was not enforced. The Combination laws allowing laborers to combine for higher wages were repealed. Import tariffs and all other Navigation laws became either dead letters upon the statute books or were repealed. In fact almost every law which tended to control the commercial actions of private individuals were either taken off the statute books or were no longer enforced by the government. Yet all the while new systems of industry were springing up, and old ones continued to grow and multiply. Manufacturers were at liberty to hire whom they pleased and to discharge their workmen without a moments notice. They could manufacture whatever article of commerce they desired and could ship it to whatever place offering the greatest net returns. Laborers could terminate their engagements with employers whenever they pleased and travel wherever they desired in quest of work. The manufacture and sale of commodities increased day by day and year by year, and prices became lower and lower. England was rapidly growing in wealth and was fast becoming supreme in the world of manufacture and commerce, and in material resources stood first in the column of nations.

Yet the results were unsatisfactory. The period of transition from the old to the new had brought more poverty and misery upon England than was ever known before. Those who were wedded to the old way of hand manufacture had neither the capital, enterprise nor the physical and mental ability to adapt themselves to the new. Fuel being scarce (for coal was not then used as fuel) factories were built up along the streams

in the north of England away from the densely populated districts and laborers were not inclined to follow them away from their established homes. As a result homeless and pauper children, five and six years of age and over, were transferred in vast hordes from London and other large and congested towns to the factories and compelled to work as long as seventeen hours per day and were housed in barracks of almost every description, surrounded by the most filthy conditions imaginable. Appeals were made to Parliament. Commissions were appointed to investigate and report, all telling the same story of "the sad life of these little waifs, overworked, underfed, neglected, abused, in the factories and barracks in the remote glens" of England. Owners of factories themselves began urging some means of arresting the evils surrounding factory life which threatened the very life of the English race. But it was not until Dr. Percival (called "the pioneer of sanitary reform"), at the invitation of the Justice of the Peace of Manchester, made an investigation as to the cause of a serious epidemic raging in factory districts that any legal steps were taken which gave promise of relief. He reported that in his opinion the chief cause contributing to the disease was the "confinement and exhaustion" caused by the long hours of labor and the hard work imposed. Following his investigations county magistrates, one after another, took steps toward prohibiting children from working at night or for more than ten hours per day. Finally Parliament, in 1802, condescended to pass a law placing the age limit at nine years, below which children "bound out" could not work in factories. The reason given for passing this law was that such children were not "free agents" and had no "natural rights." The only importance to be attached to this law is that it may be called the entering wedge of factory legislation. It did not perceptibly check the evils pointed out by Dr. Percival in his report to the Manchester magistrates but it is important as a step taken in the right direction.

Matters went from bad to worse except in a few instances where employers of labor took it upon themselves to rid their factories of existing evils. England, with all her wealth, was

producing a race of degenerates. The ratio of children to adults, and of females to males increased from year to year until in 1838 there were found employed in the worsted mills of England 32,000 people, and out of this number there were only 3,000 adult males, 10,000 adult females, and about 19,000 children. In the flax-spinning industry, only one out of every nine were adult males, while two out of nine were adult females, and six out of nine were children. Exact statistics are not to be had in any of the other numerous industries, yet similar conditions prevailed throughout Great Britain.

Boards of health continued their investigations. They published their findings in pamphlet form and scattered them broadcast. Public sentiment became aroused and Parliament continued to appoint its "commissions to investigate and report their findings." Report after report was made all telling of the horrors of the laboring classes, whether children or adults, yet the doctrine of "non-interference" had so thoroughly taken root in the minds of members of Parliament that they could see no way to legislate against such evils. It was urged in Parliament that evidences drawn from observation may "justify the actions of a practical man," but they might not be scientifically conclusive. It was thought that low wages, long hours, unsanitary conditions, and the unsafe machinery of unregulated factories, might be merely coincidences. Therefor in order to fix the responsibility of existing conditions, the fact must be established that "individual bargaining" brings about the lowering of the price of labor "below the level of efficient citizenship."

But little reflection is necessary to convince one of the great disadvantage the individual laborer is at in bargaining with the capitalist. He can either accept the wages offered or let them alone. If the capitalist experiences any inconvenience, by his terms not being accepted, he has only to speed up his machinery or work longer hours. His income will pour in with the same regularity as before. The income of the laborer on the other hand is entirely cut off while his rent and other expenses continue to accumulate until he is finally forced to come to whatever terms are offered. Over such questions as sanitary conditions and safety of machinery he has no voice in the bar-

gaining at all. He must sell his life (for his labor is his life) to be used under whatever conditions may be imposed upon him and at whatever price may be offered. This will be true under even normal conditions, when there are no more laborers to be had than there is work to do. Imagine what it will be when there are hundreds of workmen crowding around the factory gate where but a single "job" is to be obtained.

It is sometimes argued that it is better to rely on the benevolence of employers to right these wrongs than to impose legal interference. But not all employers have this benevolent disposition, nor are the few that have such inclinations free to carry them into effect any more than the laborer is free to refuse the bad conditions to which he is subjected. Every manufacturer must sell his goods in competition with every other manufacturer, and must therefore keep his expenses down to the lowest level. So whatever may be the practice of one, must also be the practice of all, unless he be protected by some form of monopoly or trust.

It is maintained by others that this problem will be solved by "consumers' leagues" and other allied societies formed to boycott firms manufacturing cheap articles through the payment of low wages and working long hours under unsanitary conditions. The good intentions of these societies are to be commended, but economic authorities maintain that they are impractical looked at from any point of view, and that they utterly fail to cope with the evil. In the first place it is almost impossible to trace an article from the retail counter back to the place where it was produced. Nor is the price of an article any index to the conditions under which it was made. Sometimes the most costly broadcloths are produced in the worst dens of filth and disease, where wages are merely nominal, and the hours of labor long and cruel. But even if cheapness is a criterion to go by, it does not follow that the retailer will pass the extra amount he may receive for his wares on to the manufacturer, and he in turn to his employes. But suppose cheapness indicates the conditions surrounding the manufacture of an article, the customer must often choose between taking the article, and going without it, for the very fact that the article

was produced at a nominal cost, through the cheapness of labor and the length of the hours, may drive all competition out of the field and leave such shops free to place their goods upon the market, while the better factories will have to seek new fields of operation. More than this, these shops produce their wares for export trade, and for a "consumers' league" to be effective it must include consumers of foreign countries, civilized as well as uncivilized, which is not at all practical.

It would seem, then, that the idea of leaving the subject of "sweating" to the benevolence of employers, or to the work of societies whose individual members have neither the time nor, in a measure at least, the inclination to look into the history of articles placed upon the market, some other means must be employed to reduce to a minimum the physical and mental degradation to which a great body of our workers are subjected. There must be enforced upon "all employers a minimum of humane order as the inviolable starting-point of competition."

But the statesman who is entrusted with the power to make laws, and who is capable of taking a broader view of the subject than has thus far been taken, will want additional evidence before proceeding. He will understand that legal regulation from the point of view of the individual is a commendable thing, but he will want it demonstrated from a national point of view. He will ask whether a regulated industry is not less economical than one not regulated, and if so, will not the imposition of any regulations tend to destroy trade between nations. In other words, if the cheapness of labor and the long hours imposed is advantageous to the individual employer, will not the general extension of this system be advantageous to the nation?

It has already been briefly pointed out that the hours of labor in England were so long as to be almost ceaseless; that wages were so low that laborers could barely subsist and perpetuate their race; that the sanitary conditions surrounding them were such as to endanger their health and make them a burden to themselves, their families and their employers, and to the public in general. But this may not concern the employer. All he may care for, perhaps, is that his workmen remain able

to perform their tasks for a few months or, at most, a few years, to be worn out and passed on to becme objects of charity and fill paupers' graves, while their places will be filled with other victims and the process repeated. This may be an immediate gain to the individual employer, but when the public comes back at him for a compulsory contribution to support the race of degenerates and paupers he is helping to produce and perpetuate, his gain is materially lessened and the national wealth which is stored away in labor is being slowly but surely undermined and destroyed.

This will not do. No private individual has any more moral right to enrich himself by drawing upon the national wealth in this way than he has to fill his pockets directly out of the national treasury without giving anything in return. No private individual has any more moral right to exhaust the working energy and working capital of a nation without giving "value received" than he has to take the life of an employe outright. The only difference is that one is a slower criminal process than the other. It is not enough that workmen should obtain barely enough for their labor to enable them to live, but they should receive a competency. They should receive as much energy from their employers in food, clothing, homes and furnishings amid healthful surroundings as they give to their employers in the articles they produce. Not until this is done will labor be able to perpetuate itself and assume that lofty position where it will be recognized as the very foundation of modern civilization. When this is done, one of the greatest barriers in the way of moral and intellectual strength and as a result, material wealth, will be removed. The stronger, healthier and more intelligent a laborer is, the more wealth he represents. The laborers of a nation represent its working capital just as the hands of the farmer, his horse or his ox represent his working capital. And the stronger and healthier either may be, the more capital it represents. The more efficient this capital becomes, the more wealth will be produced. Machinery operators represent the working capital of the manufacturer, and he owes it to the nation which protects him in his business to do everything in his power to increase this working capital and

keep it in the highest possible state of efficiency, just as much as he owes it to himself to increase his own capital by keeping his machinery up-to-date and in good repair. If his own selfish interests so blinds him to this fact, the state should step in and place such restrictions upon him as will compel a just recognition of its rights. A machine that will barely pay for operating, should be discarded. It not only retards progress, but becomes a drain upon the wealth of its owner. What is true of a poor machine is true of a workman whose energies have been exhausted by overwork. More is taken away from him from day to day than is restored to him, and he becomes a parasite upon his fellow laborers. A community of such laborers becomes a parasitic community, and a state built upon this class of laborers, becomes a parasitic state, and degeneracy takes the place of progress.

The same is true with child labor. Take the parent who hires his child out to work for a nominal wage. The child becomes a parasite upon the family, the family upon the community, and the community, in turn, upon the state. But suppose the child receives more than nominal wages. Suppose it receives enough to cover the cost of living. The process is not changed if the child is to be discharged as soon as is becomes an adult and another child is to be engaged in its place. The employment of women is no exception to the rule. Children who are employed to be discharged as soon as they become adults, women who are employed until they become heads of households, all take places which would otherwise be occupied by men who, if it were not for this cheap class of workers and the uncertainties it produces in the field of labor in general, would otherwise take up some particular lines of work and make them their life occupation, enabling them to become more skilled day after day the longer they are permitted to follow their chosen profession. A man thus occupied would be able to lay up more for himself and family for a rainy day, to add more to the wealth of his employer and to the state, than if compelled to divide his work with his children. By such division neither he nor his children will ever attain that high degree of skill so necessary in the field of competition.

It is the man who through long and continued training has acquired great skill that will successfully compete with foreign or other cheap labor, and not the man who will never attain the highest skill so long as he is continually being replaced by others, before he has had time to acquire any skill. Wherever children are most extensively employed, wages of both children and adults do not come anywhere near the mark that is reached where there is the least child labor. An examination of the statistics bearing upon this subject in the United States will show the truth of this statement. The following table is made up from statistics taken from the 12th U. S. Census bearing upon this subject in the twenty states employing the greatest number of children in manufacturing establishments and workshops. In the first column is given the age below which children were not allowed to work in factories and workshops in the year 1900. The second column gives the rank of the state, ranked according to the number of children employed; the third, the average yearly earnings of children under 16 years of age; the fourth, the average yearly earnings of adults over 16; and the last column gives the percentage of children to the total number employed in factories and workshops for the same year.

TABLE I.—ALL INDUSTRIES.

State.	Age required for working in factories and workshops in 1900.	Rank in number of children employed in factories, etc.	Average yearly earnings of children under 16 years of age employed in factories, etc.	Average yearly earnings of persons over 16 years of age employed in factories, etc.	Per cent. of children to total number employed.
Pennsylvania	13 years	1	$160	$466	4.52
New York	14 years during school; 12 years during vacation	2	167	487	1.55
Massachusetts	14 years	3	195	466	2.52
Illinois	14 years	4	181	493	2.63
North Carolina	No limit	5	96	214	14.70
South Carolina	No limit	6	99	218	17.78
New Jersey	12 years for boys; 14 y'rs for girls	7	167	466	3.33
Georgia	No limit	8	109	253	7.60
Maryland	12 years	9	147	378	5.43
Wisconsin *	14 years during school; 12 years during vacation	10	155	422	4.00
Rhode Island	12 years, but between 12-14 years child must attend school 80 days	11	181	429	5.09
Missouri	14 years	12	168	459	3.34
Ohio	14 years, except in sch'l vacation	13	162	449	1.27
Virginia	No limit	14	106	321	5.73
Indiana	14 years	15	166	435	2.36
Connecticut †	14 years, except during school vacation	16	192	474	1.97
Alabama	No limit	17	102	299	6.57
Kentucky	No limit	18	122	367	4.27
Michigan	12 years	19	149	413	1.62
Maine	12 years	20	140	389	2.94

* The law permitted children between 12 and 14 years of age, whose widowed mother needed their support, to work in factories, workshops, etc., at any time. This lead to abuses of the law by persons granting permits for fees.

† Illiterates under 16 must attend public evening school 20 nights per month.

With but slight variations, both children and adults receive the highest annual wages in states having the highest age for children to work in factories, and wherever regulation is the least a greater portion of children to adults are employed and the lowest annual wages paid.

In 1900, North Carolina, South Carolina, Georgia, Virginia, Alabama and Kentucky had no legal age limit under which children could not work in factories. In these states the average yearly earnings for children varied from $96 in North Carolina, to $122 in Kentucky. While in the same states the average yearly earnings of adults varied from $214 in North Carolina, to $367 in Kentucky, and in every state having some restrictions as to child labor in factories the average

yearly earnings of both children and adults were higher than in the states having no restrictions.

In all the states having an age restriction as to factory work twelve years appears to be the minimum. The states having the twelve year limit in 1900 were Michigan, Maryland and Maine. To these may be added Wisconsin,* because the law permitted children of widowed mothers, who needed their support, to work in factories at any time if they were over twelve years of age; and it was almost a universal practice for Justices of the Peace and Notarys Public who had authority to grant these permits and who received twenty-five cents for each permit given, to give them to all who asked for them under the pretext of "needed support." Some of these officials even went so far as to *advertise that they would* grant permits to children between 12 and 14 providing their earnings were necessary for the support of the family. So it may be said that the states requiring children to be twelve years of age before they can work in factories are Michigan, Maryland, Wisconsin and Maine. In each of these states the average yearly earnings of both children and adults were higher than in the six states having no age limit, varying in the case of children from $140 in Maine, to $155 in Wisconsin, and for adults from $378 in Maryland, to $422 in Wisconsin. In every state having an age limit of thirteen or fourteen years for factory work the wages of both children and adults were higher in each instance than in either of the above groups,† varying for children from $160 per year in Pennsylvania, to $195 in Massachusetts, and from $429 in Rhode Island, to $493 in Illinois for adults. Besides this, the table reveals the fact that one adult and three children could earn but a few dollars more where the percentage of child labor is greatest than a single adult can earn in the state of Illinois. Two adults and one child could earn but little more in North Carolina than one adult could earn in Illinois. This is not all. The average

*The objectionable features of the Wisconsin law was amended by the Legislature of 1903, so that no child under 14 yrs. of age can work in factories or workshops, bowling alley, bar room, beer garden, or in or about any mine.

†For convenience in this discussion, the states having no age limit to work in factories will be called "group I;" those having a 12-year limit "group II," and those having 13 and 14-year limit, "group III."

earning power of each laborer in the six states having no regulation as to child labor is about $700 per year. In the four states requiring children who work in factories to be twelve years of age, the average earning power per laborer is $900, while in the remaining ten states where the regulations as to age were still greater the average earning ability of each laborer is about $1,100 per year, a difference in each instance of about $200. This result is obtained by subtracting the total cost of material from the total value of products and dividing the remainder by the total number of wage earners. This gives a quotient which answers the purpose for which it is used, namely, as evidence tending to prove that the employment of cheap labor is of no great economic advantage.

But it may be claimed that industries vary so in different states as widely separated as the above that it is not safe to take all the industries of a state and compare them with all the industries of another state differing so in climate and natural resources and resulting industries, as Maine differs from Alabama. In order to show whether the result would be materially different, the following table is made up showing the average yearly earnings of both children and adults in the cotton goods industry, and comprises all the above twenty states employing seven hundred or more children in this one industry.

In this table the states are divided into groups, as suggested in a foot note on a previous page. In the first group have been placed those states having no regulations as to child labor in 1900; in the second group are placed those states requiring children to be twelve years of age before they can work in factories; while in the third group have been placed those states requiring children to be thirteen or fourteen years of age to work in factories.

TABLE II.—COTTON GOODS.

State.	Average yearly earnings of adults.	Average yearly earnings of children.	Per cent. of children to total number employed.
GROUP I.			
North Carolina	$190	$103	23.5
South Carolina	196	99	26.8
Georgia	224	108	24.5
Alabama	213	94	29.2
Average	$200	$101	25.4
GROUP II.			
Maryland	$282	$149	23.6
Maine	325	161	5.6
Average	$315	$154	10.2
GROUP III.			
Pennsylvania	$360	$151	11.0
New York	310	180	9.3
Massachusetts	362	198	6.4
Rhode Island	351	187	10.3
Connecticut	346	164	7.0
Average	$356	$185	7.6

While the certainty with which wages seem to be affected by child labor regulations does not seem to be so great as in Table I, yet the general results are not materially different. The proportion of children to the total number employed varies from one out of four in the states of group I, to one out of 10 in group II, and to one out of 14 in group III, while the average wages in the corresponding groups are $101, $154 and $185, for children, and $200, $315 and $356 for adults. Wherever the required age is the highest, there the wages for both children and adults are the highest.

In the hosiery and knit goods industry the results are much the same. In the following table all the above twenty states employing ninety-six or more children in this line of work have been taken. The states have been divided into groups the same as in Table II. The percentage of children to the total number employed is 22 in group I, 14.5 in group II, and 10.2 in group III, while the average yearly earning for children in the corresponding groups are $105, $140 and $149, and for adults, $219, $233 and $344 respectively.

TABLE III.—HOSIERY AND KNIT GOODS.

State.	Average yearly earnings of adults.	Average yearly earnings for children.	Per cent. of children to total number employed.
GROUP I.			
North Carolina	$223	$91	25.2
Georgia	188	103	25.7
South Carolina	251	124	35.7
Virginia	229	119	13.9
Average	$219	$105	22.0
GROUP II.			
Maryland	$194	$59	14.1
Wisconsin	240	155	22.9
Michigan	238	121	5.5
Average	$233	$140	14.5
GROUP III.			
Pennsylvania	$301	$142	18.9
New York	344	185	3.5
Illinois	286	146	8.6
New Jersey	245	111	8.3
Rhode Island	304	202	9.0
Indiana	364	77	5.5
Connecticut	444	178	24.2
Average	$344	$149	10.2

In certain fields of industry like the manufacture of cotton goods or hosiery and knit goods we may find the establishments paying the lowest wages, working their employes the longest hours, and under the worst sanitary conditions, temporarily driving out of the field of competition those establishments paying the best wages, working their employes a reasonable length of time surrounded by the best sanitary conditions; but if the process is allowed to continue the nation tolerating it will certainly revert to a state of discontent, poverty and crime, which no agency or force can overcome so well as wise factory legislation strictly and judiciously enforced. The Duke of Argyle once made the declaration that factory legislation is one of the two greatest discoveries that has been made in the science of government, and wrote that "the factory acts, instead of being excused as exceptional, and pleaded for as justified only under extraordinary conditions, ought to be recognized as in truth the first legislative recognition of a great natural law." How different is this sentiment from that expressed by Harriet Martineau after visiting the cotton oper-

atives in England about the year 1830. She said, "The only hope seems to be that the race will die out in two or three generations." But the race did not die. The regulation of factories either by law or by special agreement worked marvelous changes. In the course of half a century the "sweated" laborers of this great country whose course of life seemed almost run, became energetic, self-reliant, intelligent and efficient workers, owning their own homes, amid wholesome surroundings, and working a reasonable number of hours for a day's work.

Not only is factory legislation sound in principle, but wherever put to the test it has been found sound in practice as well. Wherever a wholesome standard of living has been set up in factory legislation below which neither employer nor employe can go, the price of the article manufactured has invariably fallen. Wherever a uniform standard of wages, hours of labor, and wholesome sanitary conditions have been uniformly enforced, the result has been that laborers have been stimulated to render greater services to their employers, and in turn, employers strive to excel in improved machinery and devices for the protection of employes, sanitation, and methods of production in general.

To provide a factory with modern sanitary appliances such as baths, water closets, ventilating systems, etc., incurs a great expense and employers will insist that employes should be neat and clean in their habits. Whenever the piecework rate is fixed either by law or by labor unions, the employer is bound to engage workmen having the greatest skill so as to avoid, as much as possible, damage to machinery and tools, materials and articles produced. This means the employment of men and women whose habits are regular and whose characters are the best. These requirements serve to raise the standard of living of those persons already employed and also as an impetus to the youth seeking employment to so conduct himself as to receive the respect of employers necessary to his obtaining employment.

But it is not enough to merely attain such a standard; it must be maintained. Employers must allow a laborer a sufficient amount of food and clothing for himself and family to live

in accord with the best ideas of the civilization in which he is placed. He must have a sufficient amount of time for recreation and self improvement to enable him to attain the highest citizenship compatible to his station in life. It is then, and not until then, that labor will rise to the dignity of its calling and will return to its employer and the nation which protects it one hundred cents for every dollar it receives in wages. Then, and not until, will the laborer demand that his family shall have as pleasant, or even better surroundings at home than he has in the factory. Then, and not until, will the hovel in the slum give way to the neat little cottage in the suburbs with its school and other intellectual advantages. Then, and not until, will the laborer be welcome home after his day of toil by his family of happy children eager to tell him the incidents of the day at school, instead of greeting him with the cry for bread with no bread to feed them. Then, and not until, will a class of laborers be produced that will enable employers to embark in new industries and to carry through undertakings that would be impossible with a less intelligent class. It is the intelligent laborer which enables the world to make progress.

There is no better standard for measuring the intelligence of a people than the instruments of production and means of transportation used by them. Whenever a manufacturer finds that on account of strictly enforced factory legislation he can no longer overcrowded his factory with workmen, that there is a reasonable number of hours for a day's work beyond which he cannot go, that there is a minimum price for piece-work which he must pay, that he must keep the sanitary conditions of his shop up to a certain standard and his machinery properly guarded for the protection of employes, he will no longer be content to use the same class of machinery decade after decade, but will in his struggle to compete with others, constantly seek the most improved machinery and methods of production. Through a mistaken idea, laborers sometimes resent the introduction of labor-saving machinery, but when they take into consideration the great works of construction, engineering, transportation and hundreds of other branches of industry

capable of being executed only through the invention and introduction of labor-saving machinery, they will understand that instead of such machines narrowing the field of labor, they will constantly make it broader and broader; when they understand that the purchasing power of the wages they receive is constantly being increased by the ever diminishing cost caused by labor-saving machinery; when they understand that the demand for an article increases at even a greater ratio than the decrease in price, resulting in both an increase in the demand for labor and the rate of wages, then they will no longer register a protest against labor-saving machinery, but will welcome every device which tends to increase their portion of the products of their labor and which augments the wealth of the nation in general, for the more that is produced the greater the amount of wealth is accummulated. The evils of foreign immigration are not found in the fact that they take the places of our own native laborers, but in the fact that their standard of living is generally so low and their helplessness so great, that they become a burden upon those who are striving to uplift the standard for all.

When Howe invented his sewing machine in 1846, the tailors looked forward to the "direst consequences" to their trade, but they lived to see that this invention cheapened clothing to such an extent, and the consumption so increased that more work and better wages was the final outcome.

The drivers of the old fashioned horse-car saw in the modern electric street car an invention for further degrading their already wretched condition, but when it finally became installed the efficiency of the service became so great and the patronage so increased that wages in hundreds of instances were marked up more than 100 per cent, and the number of employers doubled and trippled again and again.

That the enforcing of a certain standard in regard to hours of labor, wages, and sanitary conditions, compels employers to continually seek more improved machinery and methods of production is as true in practice as in theory. In 1858, when the laws of England debarred children from the woolen factories, the invention of the piecing machine soon followed.

In 1898, when a slight reduction was made in the hours of labor for women in the Eastbourne Steam Laundry, machinery was at once installed to do the work in less time. In the same year, the Factory Inspector of Victoria reported that when legal minimum wages were enforced for the boot and shoe operatives "a large increase in the amount of labor-saving machinery is taking the place, in anticipation of the coming into operation of the determination (of the minimum wage) of the Boot Board."* This same thing happened a year later when a minimum wage was established for women working in the "slop clothing trade." On the other hand, antedated methods of production and unsanitary conditions of the worst type exist, and the longest hours of labor are imposed upon workmen and a greater number of children are employed, in the unregulated industries than in the regulated ones. Besides this many eminent students of social conditions maintain that in countries when industries have been allowed to run for centuries without any form of regulation, pauperism and crime are more prevalent than in those countries where regulation exists. Also, in countries where regulations have been imposed and withdrawn, misery and want have risen and fallen in almost direct proportion to the imposition and withdrawal of such regulation, and poor relief has ebbed and flowed in almost the same proportion.

Among other forms of factory legislation many states have what is popularly called "Employer's Liability Acts," which fix the responsibility of injury to "life or limb" of employes upon employers, providing such injury is received while in the employ of others and is not the result of carelessness or negligence on the part of laborers themselves. But employers of labor claim that courts, without any regard to justice, have been so universal in their decisions against them, and as a result of this the tax upon industry has been so great that they have been compelled to adopt a system of accident insurance in order to escape the burden imposed by these acts.

The requirement of weekly wage payments is also said by manufacturers to be a tax upon industry because of the extra

*Quoted from the Factory Inspector's report of Victoria. The language is ambiguous.

number of clerks required and because, in order to keep their machinery and employes busy, they must often times sell on credit, and to be compelled to pay weekly wages under such circumstances is often burdensome.

But the struggle between capital and labor does not really begin until the question of "shorter hours" is reached. Manufacturers maintain that by enforcing shorter hours they are unable to compete with those factories which are not hampered in this way. In order to test the truth or falsity of this claim, the Salford Iron Works of Manchester, England, voluntarily reduced the number of hours required for a day's work to eight. After giving the system a fair trial, the management declared that the character of work performed and wages paid remained about the same; that although a depression in trade took place about the same time this experiment was being made, and competition was exceedingly fierce, the output was greater and the receipts larger than under the old system. The Salford Iron Works continue the eight hour system to the present day, and other allied industries and the arsenal works and dock yards are following the example.

But an article appearing in the June number of the "Bulletin of Wool Manufacturers" for 1891 tends to show that the textile industries of Massachusetts were at that time on the decline and endeavors to fix the responsibility upon the factory legislation of a few years previous. But an investigation of the facts in the textile industries of which this bulletin is the mouthpiece reveals a far different condition of affairs. At the time this article was published a wave of financial depression was sweeping over the entire country. Factories were no longer being built and those that had been enjoying a lucrative trade were being closed. Yet, from 1887 to 1896 the number of spindles in Massachusetts increased over 46 per cent, while those of Maine increased only about 11 per cent, New York 13½ per cent, Rhode Island 13⅓ per cent, New Jersey 25¼ per cent, and Pennsylvania 25 per cent, while the number in Connecticut actually decreased 4¼ per cent. Massachusetts is the only state in this group which had taken ad-

vanced ground in factory legislation prior to 1888, and yet the increase in the number of spindles was over 70 per cent greater than in either of the other states.

But the history of subsequent years shows a general decline in the textile industries in Massachusetts. Factories for the manufacture of the poorer classes of cotton goods are leaving that state and are being built up in the South where freight on raw material is practically nothing, where taxes are low, where buildings are constructed at a less cost, where water-power is abundant, where the hours per day are long and where land, labor and fuel are cheap. But what Massachusetts has lost in the manufacture of cheap cotton goods, it has regained, through the intelligence and efficiency of its workmen, by extending its business in the higher grades. Whatever reason may be given for this loss, it cannot well be laid to the door of factory legislation for the iron mills of this state closed their doors and established themselves in the iron and coal fields of Pennsylvania long before any real factory legislation existed in Massachusetts.

Yet all that has been accomplished has not been brought about directly by factory legislation. Labor Unions, when once given the right to exist by statutory law and are protected in this right, have been (and will continue to be) powerful agents in factory reform. In England factory regulation by law and by Trade Unions overlap each other. In one locality the regulation of wages is left solely with Trade Unions while the power of regulating hours of labor is conferred upon the factory inspector. In other places this process is reversed. In the United States questions of wages are almost wholly left for Labor Unions or individual laborers to settle with employers, while hours of labor and sanitary conditions are matters of legislation. In all the states having laws upon the subject of hours of labor, employes are free to receive better terms with employers than even the law grants them. Yet, however commendable Labor Unions are, and however good their intentions may be, it is a question whether the same stability accompanies regulations or agreements arrived at under trade pressure be-

tween Labor Unions and employers that accompany restrictions written into law.

Another factor which enters very largely into the accomplishment of the needed reforms in the world of labor is the great system of public schools. In an address before the National Consumers' League in April, 1903, in New York, Mrs. Kelley complained of the insufficient number of Factory Inspectors, and advocated compulsory education laws as the best means of enforcing child labor legislation. If this be true, among other things, it is to be expected that the smallest percentage of child labor to the total number employed will be found in the states having the most stringent compulsory education laws. It will be expected that children working in the factories in these states will receive the highest annual wage rate and that the percentage of children attending school between the ages covered by the compulsory education law will be the greatest. It will be expected, also, other things being equal, that the amount of illiteracy among children between these ages will be greatest where there is no compulsory education law or where such laws operate the least. That all these are true in the main, there can be no doubt, but whether they vary in proportion to the variations found in the compulsory education laws, with the same regularity with which they vary with the child labor laws, is a question. In the State of Missouri where there is a very stringent and well enforced child labor law, but no compulsory education law, children receive a higher annual wage rate than they do in either New York, New Jersey, Maryland, Wisconsin, Ohio, Indiana, Michigan or Maine where in most instances excellent compulsory education laws exist. A smaller percentage of children to the total number employed are found working in factories of Missouri than in either Pennsylvania, Wisconsin or Rhode Island with compulsory education laws. More than this, about the same percentage of children between 10 and 15 years of age attend school in Missouri that attend in either Pennsylvania, Illinois, New Jersey or Rhode Island; but a greater per cent of illiteracy exists in that state among children between those ages than in either of

the latter, or than any of the states having compulsory education laws.

But the real significance of what compulsory education laws mean in the various states can be more clearly comprehended by examining the summing up of the requirements of school attendance in the various states in Table IV, as in Table V, and comparing the results with other conditions found. New York and Maine require a total of 64 months school attendance, yet the amount of illiteracy in Maine exceeds that of Pennsylvania with only 20 months required school attendance, Illinois with only 28 months, New Jersey with 40 months, Wisconsin with 21 months, Rhode Island with 32 months, Ohio with 28 months, Indiana with 18 months, and is nearly as great as Missouri with no required school attendance. The wages paid children in Missouri where no attendance is required is greater than in Pennsylvania, with 20 months required attendance, New York with 64 months, Wisconsin with 20 months, Indiana with 18 months, Michigan with 45 months, and Maine with 64 months.

TABLE IV.—SHOWING LENGTH OF TIME PER YEAR, AND BETWEEN WHAT AGES, CHILDREN ARE REQUIRED BY LAW TO ATTEND SCHOOL IN 20 STATES HAVING THE LARGEST NUMBER OF CHILDREN WORKING IN FACTORIES AND WORKSHOPS IN THE UNITED STATES IN 1900; ALSO SHOWING THE NUMBER OF CHILDREN ATTENDING SCHOOL, NUMBER OF ILLITERATES BETWEEN 10 AND 15 YEARS OF AGE AND THE PERCENTAGE OF EACH TO THE TOTAL NUMBER, IN 1899-1900.

STATE.	ATTENDANCE REQUIRED BY LAW.		CHILDREN BETWEEN 10 AND 15 YEARS OF AGE.				
				Attending school.		*Illiterates.*	
	Length of time per year.	Between what ages.	Total.	Number.	Per cent of total.	Number.	Per cent of total.
Pennsylvania	4 months	8 and 13	624,241	522,454	83.7	6,326	1.0
New York	Oct. to June	8 and 16	643,787	567,071	88.1	4,740	.7
Massachusetts	Entire time school is in session	7 and 14	229,330	209,081	91.2	1,547	.7
Illinois	4 months	7 and 14	494,880	411,852	83.2	4,040	.8
North Carolina	No requirements.		235,325	148,994	63.3	51,190	21.8
South Carolina	No requirements.		174,363	90,818	52.1	51,536	29.0
New Jersey	All time school is in session	7 and 12	174,347	146,885	84.2	2,069	1.2
Georgia	No requirements.		227,865	161,590	58.2	63,329	22.8
Maryland	No requirements		126,217	96,675	76.6	5,859	4.7
Wisconsin	12 weeks	7 and 14	232,112	205,281	88.4	1,688	.7
Rhode Island	80 days	7 and 15	36,739	30,876	84.0	691	1.9
Missouri	No requirements.		347,275	289,483	83.4	11,660	3.4
Ohio	20 weeks in cities, 16 weeks in country	8 and 14	414,847	379,153	91.4	2,048	.5
Virginia	No requirements.		220,837	151,226	68.5	34,612	15.7
Indiana	12 weeks	8 and 14	264,822	239,536	90.5	1,453	.6
Connecticut	Ent. time school is in session	7 and 16	76,355	68,639	89.9	436	.6
Alabama	No requirements.		228,685	124,727	54.5	66,072	29.0
Kentucky*	8 weeks	6 and 14	251,653	193,326	76.8	21,247	8.4
Michigan	All year in cities, 4 mo. in country.	7 and 15 for cities and 8 & 15 for country					
Maine	During time school is in session	7 and 15	247,617	222,402	89.8	1,744	.7
			60,307	53,975	89.5	1,255	2.1
Total			5,361,604	4,323,044	80.6	333,542	6.2

*The law is so worded that it practically amounts to "no requirements."

TABLE V.

The following table shows the total number of months children were required by law to attend school in 1899–1900. This total is found by multiplying the number of months each state requires children to attend school per year by the number of years of required school attendance.

State.	No. of months children are required by law to attend school.	State.	No of months children are required by law to attend school.
Pennsylvania	20	Rhode Island	32
New York	64	Missouri	none
Massachusetts	56	Ohio	28
Illinois	28	Virginia	none
North Carolina	none	Indiana	18
South Carolina	none	Connecticut	56
New Jersey	40	Alabama	none
Georgia	none	Kentucky	none
Maryland	none	Michigan	45
Wisconsin	21	Maine	64

NOTE.—In the above list there are eight states having no compulsory education law. New York and Maine require an equivalent of eight years of eight months each school attendance of every child before it can enter upon any life occupation. On the same basis Connecticut and Massachusetts require seven years' school attendance, Michigan nearly seven years, New Jersey five years, Rhode Island four years, Illinois and Ohio four and one-half years, and Wisconsin, Pennsylvania and Indiana about two and one-half years.

Of course other elements enter into these conditions than compulsory education and factory laws such as general character of the industries and resources in the various states, and the situation of a state where it is likely to receive a large number of foreign children whose parents immigrate into this country. But an examination of statistics appears to show that compulsory education laws do not have as great effect in enforcing child labor laws as might be attributed to them. Nearly all compulsory education laws provide for local officers to enforce them which is generally a very serious obstacle in the way of executing the law. Local officers are apt to be careless in performing such duties and feel timid about entering the homes of neighbors and interfering with what appears to be the family affairs of others, while a factory inspector whose duty it is to enforce child labor laws will enter a factory, discharge illegally employed children and prosecute employers without fear of interfering with anyone's "family affairs." Besides this, compulsory education laws are often objected to by various church organizations, and in framing such laws various religious denominations have to be taken into consideration and often to the extent of making them ineffective, while such obstacles do not appear in the way of child labor laws to any great extent.

Nevertheless, child labor laws and compulsory school laws should go hand in hand and similar means of enforcing each should be provided. Children can be easily turned out of factories and workshops but it is a very different thing to get them into school. Compulsory education laws can and should be made as effective in getting children into school after once being turned out of the factory as the law which turns them out. When this is done better results will be attained. The streets and alleys of the cities will be less crowded, the pay-rolls of the factories will contain fewer children, and the school enrollment will increase. A more intelligent class of laborers will be produced and the increase in the material wealth of the state will be greatly accelerated. Of course it is not always true that an educated man will perform a piece of work better than an uneducated one, for there are certain kinds of work which do not require any great amount of education, nor is education in the higher branches of learning of any direct advantage to anyone in the field of labor except to employers and foremen and the higher classes of skilled workmen. But the indirect advantages to all classes of laborers are certainly not to be disregarded. In Marshall's "Principles of Economics" the indirect advantage of an education to a laborer is summed up in these words: "It stimulates his mental activity; it fosters in him a habit of wise inquisitiveness; it makes him more intelligent, more ready, more trustworthy in his ordinary work; it raises the tone of his life in working hours and out of working hours; it is thus an important means towards the production of material wealth; at the same time that, regarded as an end in itself, it is inferior to none of those which the production of material wealth can be made to subserve."

More than this, greater progress has been made in countries where the great "leaders of industry" have risen up out of the laboring classes as in the North of England, Scotland, Germany and the United States, than in the South of England where these leaders are the product of cast or where the class spirit so predominates that the natural genius among the laboring class has no chance of rising to a post of command.

In the United States the best schools are generally in those states where teachers receive the highest wages and where the cost per capita of population for maintaining them is greatest. In the twenty states under consideration, fourteen pay $2.47 or more per capita of population for the support of their schools, and the average value per capita of population of all products produced in the same states in 1899 was $195. or over, and in all these states there is a compulsory education law except in Missouri and Maryland, and in all there are child labor laws. In the remaining six, there are neither child labor laws nor compulsory education laws and the expenses for running schools in these range from 50 cents to $1.29 per capita of population and the average per capita value of the products produced in these same states in 1899 ranged from $95 to $129. The following table shows in detail the per capita valuation of all products produced in 1899 and the amount expended per capita of population and of pupils attending school, for the maintenance of schools in the states included in this discussion.

TABLE VI.—SHOWING AVERAGE MONTHLY SALARIES OF MALE AND FEMALE TEACHERS AND THE ANNUAL EXPENDITURES FOR SCHOOL PURPOSES FOR TOTAL POPULATION AND PER PUPIL FOR 1899-1900, EXCEPT AS OTHERWISE NOTED, AND THE AVERAGE PER CAPITA VALUATION OF PRODUCTS PRODUCED IN 1899.

STATE.	AVERAGE MONTHLY SALARIES PAID TEACHERS-		Amount expended for school purposes per capita of population.	Average expenditures per pupil per year.	PER CAPITA VALUATION OF ALL PRODUCTS PRODUCED IN 1899.		
	Males.	Females.			Agriculture	Manufacture.	Total
Pennsylvania	$44 25	$37 74	$3 41	$25 12	$33	$291	$324
New York	.....	.....	4 60	38 97	34	299	333
Massachusetts ..	136 54	52 50	†4 93	37 76	15	369	384
Illinois	60 34	52 45	3 68	24 07	72	261	333
North Corolina	24 64	22 21	* 51	4 34	47	50	97
South Carolina ..	*25 96	*23 20	67	4 44	51	44	95
New Jersey	‡86 21	‡48 12	3 34	30 26	23	325	348
Georgia	....	... .	89	6 64	47	48	95
Maryland	.....	.. ...	‡2 47	21 95	37	204	241
Wisconsin.....	72 93	38 61	2 66	17 73	76	174	250
Rhode Island	‡103 74	‡51 00	3 66	34 09	15	430	445
Missouri	49 50	42 50	2 52	16 99	71	124	195
Ohio	50 00	41 00	3 21	21 63	62	200	262
Virginia.....	‡32 09	‡26 39	‡1 08	9 70	47	71	118
Indiana	48 80	43 55	‡3 30	19 28	81	150	231
Connecticut.....	88 68	44 40	3 51	28 58	31	388	419
Alabama	31 00	27 00	50	3 10	50	44	94
Kentucky	†44 03	†37 18	§1 29	8 58	57	72	129
Michigan	‡44 48	‡35 35	‡2 74	18 68	61	147	208
Maine	39 30	26 59	2 47	17 53	53	183	236

*In 1897-98. †In1895 96. ‡In 1898-99. §In 1889-90.

Corresponding closely with the results found above are those found in Tables VII and VIII following. In the states having neither compulsory education nor child labor laws the number of pupils between 10 and 15 years of age attending school six months or over in the year 1899—1900, varies from 20.2 per cent of the total number enrolled between these ages to 41.5 per cent, while in those states having child labor laws the number varies from 75.6 per cent in Missouri to 98.6 in Connecticut, and in the states having both these laws, the number of pupils between these same ages attending school six months or over varies from 88.3 per cent in Maine to 98.6 per cent in Connecticut.

TABLE VII.—SHOWING NUMBER OF CHILDREN BETWEEN 10 AND 15 YEARS OF AGE WHO ATTENDED SCHOOL IN 1899-1900, CLASSIFIED ACCORDING TO MONTHS OF SCHOOL ATTENDANCE.

State.	One month or less.	Two to three months	Four to five months.	Six months or over.	Total.
Pennsylvania	1,284	7,759	23,774	489,637	522,454
New York	1,112	3,968	10,782	551,209	567,071
Massachusetts	399	1,095	1,680	205,907	209,081
Illinois	1,689	11,168	29,035	369,960	411,852
North Carolina	10,509	66,478	41,901	30,106	148,994
South Carolina	3,750	30,544	24,474	32,050	90,818
New Jersey	250	1,443	3,000	142,192	146,885
Georgia	6,960	44,731	54,352	55,547	161,590
Maryland	329	2,841	5,990	87,515	96,675
Wisconsin	662	5,532	12,997	186,090	205,281
Rhode Island	83	403	624	29,766	30,876
Missouri	3,835	22,488	44,405	218,755	289,483
Ohio	888	6,446	21,418	350,401	379,153
Virginia	2,692	17,946	67,874	62,714	151,226
Indiana	618	4,515	17,162	217,241	239,536
Connecticut	74	305	600	67,660	68,639
Alabama	7,184	52,310	28,370	36,863	124,727
Kentucky	5,092	34,468	90,350	63,416	193,326
Michigan	666	4,785	11,153	205,798	222,402
Maine	83	905	5,332	47,655	53,975
Total	48,159	320,120	495,273	3,450,482	4,314,044

TABLE VIII.—SHOWING PER CENT. OF CHILDREN BETWEEN 10 AND 15 YEARS OF AGE WHO ATTENDED SCHOOL IN 1899-1900, CLASSIFIED ACCORDING TO MONTHS OF SCHOOL ATTENDANCE.

State.	One month or less.	Two to three months.	Four to five months.	Six months or over.	Total.
Pennsylvania	.25	1.49	4.55	93.71	100
New York	.20	.70	1.90	97.20	100
Massachusetts	.19	.52	.80	98.49	100
Illinois	.41	2.71	7.05	89.83	100
North Carolina	7.05	44.62	28.12	20.21	100
South Carolina	4.14	33.63	26.94	35.29	100
New Jersey	.17	.98	2.04	96.81	100
Georgia	4.31	27.68	33.63	34.38	100
Maryland	.34	2.94	6.19	90.53	100
Wisconsin	.32	2.69	6.34	90.65	100
Rhode Island	.27	1.31	2.02	96.40	100
Missouri	1.32	7.84	15.34	75.57	100
Ohio	.23	1.70	5.65	92.42	100
Virginia	1.78	11.87	44.88	41.41	100
Indiana	.26	1.88	7.16	90.70	100
Connecticut	.11	.45	.87	98.57	100
Alabama	5.76	41.94	22.75	29.55	100
Kentucky	2.63	17.83	46.73	32.81	100
Michigan	.30	2.15	5.01	92.54	100
Maine	.15	1.68	9.88	88.29	100
Average	1.12	7.42	11.48	79.98	100

The legislature of Wisconsin for 1903 amended the school laws so that instead of requiring twelve weeks per year school attendance of children between seven and fourteen years of age, those living in towns, villages and country districts are required to attend school regularly twenty weeks per year; and children between these ages living in cities are required to attend school regularly thirty-two weeks per year. Besides this, children between fourteen and sixteen years of age are subjected to the same requirements provided they are not regularly employed at some useful occupation. The law also provides for truant officers to enforce the law. School boards, or other boards having the power of school boards, must appoint these officers in cities having a population of 10,000 or more, and in towns, villages and cities having less than 10,000 population, truant officers may be appointed by the boards of education; but when not appointed the enforcing of the law falls upon "the city superintendent of schools in cities having such officer" and upon the "chairman of the board of education or the district board in all other cities, towns, villages and districts." Factory inspectors have the power of truant officers and must enforce the law whenever its violation comes to their notice. One of the

principal obstacles in the way of local officials enforcing compulsory education laws has already been referred to, and it is a question whether the confering of the powers of truancy officers upon the factory inspectors has greatly strengthened the law in Wisconsin because of the limited number of inspectors who are already overcrowded with work. But it has one advantage at least, i. e., —an inspector finding a child employed in violation of the child labor law can see to it that such child is placed in school.

The child labor law of Wisconsin was also greatly strengthened by the same legislature. No child under fourteen years of age can be employed at any time in any factory or workshop, nor can children between fourteen and sixteen years of age be so employed without first securing a permit from the Bureau of Labor, Factory Inspector, County or Municipal Judge of the county where such child resides. Just what the effect of this law has been upon child labor cannot be stated definitely on account of the short time the law has been in operation and for the lack of complete statistics on the subject. But from what statistics there are given in the factory inspector's report, child labor has materially lessened since the passage of this law. During the biennial period ending in August, 1902, the factory inspectors reached 151,087 employes in the factories and workshops of this state and 6,851 or 4.53 per cent of these were children under 16. For the biennial period ending in August, 1904, the inspectors reached 158,848 employes of which number 6,285 or 3.96 per cent were children under 16. This is a decrease of 12.58 per cent of the number of children employed in the factories and workshops and yet the law was in operation but little over one-half the period covered.

According to a recent report of the factory inspector of the State of New York, where the child labor law is similar in many respects to the Wisconsin law, the sweating of children has been almost wholly abolished, wages have advanced two and three dollars per week and the cost of the factory products in human life has been marked down 50 per cent. While other states report somewhat similar results, yet a great deal remains to be accomplished. In the United States there is a larger

percentage of children to the total number of persons working for wages than in either Germany, England or Italy. This is due in a very large measure, if not wholly, to the extent of child labor in the southern states. To overcome this there must be more uniformity in child labor and other factory legislation as well as enforcement of the law. The age limit below which children cannot work in factories should in all cases be no less than fourteen years, and school laws should be so formulated as to compel children under that age to attend school and not be permitted to drift toward some penal or charitable institution by lounging around the streets and dark alleys of the city. The law should not only include factories and workshops but should be extended to include all trades and processes. The same law that applies to the factory should be extended to include every home or place where work is given out, and heavy penalties should be imposed upon employers to enforce its observance. A maximum number of hours, varying according to the nature of the work, and the character of employes, whether male, female, or children, but always within the bounds of reasonable human endurance, should be imposed. All places coming under the law, where work is performed whether in the factory, workshop or the home, should be required to register so there can be no escape from the eye of the factory inspector. In this age of great industrial organizations and combinations of wealth, some means of preventing a general reduction of wages should be provided. Wage earners are not only producers but they form a large proportion of the great body of consumers so long as the wages received enable them to maintain the proper standard of living; but when sweeping reductions are made, this portion of the consumers is cut off, *and a glut in the market* is the inevitable result; and manufacturers are forced to rely upon foreign markets to work off their surplus products.

The list of needed reforms might be extended almost indefinitely. In order for the victory to be complete, instead of legislators who have only their own selfish interests in mind, or who follow the dictates of great employers of labor, there is need of statesmen who have the interests of the human race at heart.

The army of those who simply look upon and philosophize about the wretched conditions of the laboring poor needs to be disbanded, and there should be enlisted in its stead an army of men and women of action who will go down into the slums and root out the evils of "sweating" from the basement to the garret. There is need for more officers to enforce the law. In England, the complaint is made that one of the greatest obstacles in the way of accomplishing the desired results is the insufficient number of inspectors to enforce the law. Yet England has 100 factory inspectors with an average of but little over 1,000 factories and workshops for each to inspect, while Wisconsin with a greater area by 5,000 square miles to be covered has only eight inspectors with an average of over 2,000 factories and workshops in addition the numerous mercantile establishments, school houses, and other public buildings to inspect. Instead of the office of factory inspector being made the reward of political labor it should be made the reward of rigid and judicial enforcement of the law. This will never be done until it is placed under some form of civil service where it cannot be used to advance the interests of any political party or individual, and where it cannot be made the object of political spoil.

SWEATING IN THE GARMENT-MAKING TRADES.

SWEATING DEFINED.

Both in England and America there seems to be held by students of the subject two quite distinct ideas of the term sweating. One definition lays stress upon the system of contracting and sub-contracting, making the middleman the sweater and chief element, and attributing most of the evil conditions surrounding the work to the system of sub-letting. By this sub-letting the workmen and sweaters sometimes to the third, fourth or fifth division, have to draw their profit. The second definition assigns much less importance to the middle-man and takes as a basis the condition of the laborer. It is a definition that might apply to the poor, helpless and unskilled in any occupation when the condition of the labor market is such as to leave any unscrupulous employer with a great number of people more or less helplessly dependent upon his will. Sweating, it holds, is marked by excessive hours of labor, unsanitary conditions of the buildings in which the work is carried on, and an unduly low rate of wages. At an earlier date the horrors of the task system increased the evil, a system by which the weak and inefficient were worked to the point of exhaustion to keep up with the able-bodied and swift in completing the task. This, however, has been abolished.

Although at different times and places certain of the elements before mentioned may be lacking and additional minor elements may be found as a result, the two definitions taken together, completely define the sweating system.

The term "sweating" is used in various ways according to the element considered most deplorable. Trades unions often apply it to employers who pay less than the union scale of wages, or who work their employees long hours or overtime. Social workers apply it to unsanitary conditions surrounding the workers in sweated industries. Others apply it to all industries carried on in homes for the factories. Still others apply it to all piece work distributed about through contractors. In general it is applied to all overworked, underpaid, ill-housed, oppressed and helpless workers in the congested portions of large cities.

ELEMENTS OF SWEATING SYSTEM.

It is hardly possible to say what is the chief cause of sweating. To produce sweated conditions three elements must exist: first, a public demand for such goods and an industry that lends itself easily and naturally to sweating; second, a class of people who are willing to do this work; and third, an agent, whether wholesaler or contractor, who brings work and workers together.

In the whole complex system of sweating it is generally understood that somewhere there is a "sweater," one who tries to get the greatest possible return for the smallest expenditure of energy or capital. Who this sweater may be is hard to determine.

At a very early date the term sweating was applied to those tailors who took work home from the wholesale houses and returned the finished garments which were paid for by the piece. In order to increase their earnings they worked all day and far into the night, often fourteen or fifteen hours out of every twenty-four, giving themselves no time for improvement or recreation, and barely enough time to eat and sleep. They stopped work only when too exhausted to continue. These people then came to be termed sweaters, workers who sweated themselves by long hours of unceasing toil to increase their meager earnings.

As might naturally happen these tailors often received more work than they could do themselves, and so they began to

gather around them other workers, first, members of their own families, and then outside help, recruited from the surrounding neighborhood. This was the beginning of the "sweat-shop," not a separate establishment by any means, but one of the living rooms, or a room adjoining. Here the same process went on and with the over-crowding of the workers, unsanitary conditions were added to the already existing evils of long hours and low wages.

While these tailors usually worked right along with their employes, cases developed where they became simply contractors and overseers, doing none of the actual work upon the garments but being responsible for all of it. From sweating themselves, they began to sweat others, and so to this middleman or contractor, one who overworked and underpaid his employes, the term sweater came to be generally applied.

The garment making industry seems to be the one which lends itself most naturally to this process of manufacture. Much of the work requires little or no machinery, and can be easily subdivided and carried to the different shops and homes. At most, the only machinery or implements needed are a sewing machine and a flat iron. The process of pressing draws much of this work into kitchens where the irons are heated. Thus it is seen that the garment making industry is one that falls easily into conditions already existing. Not only is this true of the wholesale work where dozens of garments are cut and made up on the same pattern, but much of the most expensive clothing furnished by custom tailors, after being cut in the regular work-rooms, is sent out to tailors working at home. These people in many cases also sew in living rooms and do pressing in kitchens, and as far as work rooms and sanitary conditions are concerned, such work differs very little from that done for the wholesale houses.

The second element, a class of workers willing to do this work, is usually found in the congested portions of large cities. Here in the tenements is found the unfortunate class who through poverty, misfortune, and lack of education and skill are unable to extricate themselves from their miserable surroundings. The newly arrived immigrant to this country forms

an easy recruit for this class. Sometimes he is simply transplanted from the horrible tenements of the crowded cities of Europe and finds again in a tenement his customary surroundings. Sometimes he comes from the country districts, inland hamlets or coast towns of eastern and southern Europe, where the old hand method of industry is still common in shop or home. Neither by training or habit is he suited to the modern factory life of America. Since he must live, and consequently must work, he finds employment either at common labor or at something which is easily learned and can be done at home. Garment making offers these two advantages to him and so the sweatshop and tenement have come to be closely associated.

The third element, the agent who brings work and worker together, may be either the wholesaler or the contractor. In case it is the wholesaler, he gives out the cut garment directly to the person who does the work upon it and who returns the finished garment, receiving from the wholesaler payment by the piece. In this case the person taking the work home hires no outside help and takes no more work than he can do himself with perhaps some aid from members of the family. At any rate he pays no wages, and finds his profit in actual work upon the garment, rather than directing the work of other people.

In case the agent is a contractor, those who furnish the material and those who do the majority of the work upon it never come in contact. The contractor usually bargains with the wholesaler or some other agent to do a certain amount of work for a certain price. This of course includes more work than he can do himself but he depends for the rest upon the help of outside workers employed by him.

The garments contracted for are as usual cut out and marked at the wholesale house. They are then taken by the contractor to his shop or home and there made up or distributed to the workers who take them home and there make them up. Sometimes the contractor acts merely as a distributing agent, parcelling out the garments to the workers, and being responsible for them until returned, finished, to the wholesale house. Again, where he maintains a shop, he usually does a part of the work himself and superintends the whole of it. In the tailoring in-

dustry most of the so-called "finishers" are connected with the contractors' shops, coming there for the garments, contracting for them at a certain price per piece, and finishing them up at home, after which they are returned to the tailor shops. This is the system of subletting often found so vicious when each worker is ground down to the lowest bargain by the one above him, and the profits for all have to come out of the price paid for the finished garment at the wholesale house.

Whether this distribution is carried on by wholesaler, contractor or custom tailor, the sanitary condition of the places into which such work is sent is of the gravest importance to the public. Woolen garments are a medium through which disease is easily carried, and indifference to this fact on the part of many is due to ignorance of the conditions under which such work is done. Those wholesalers or contractors who deliver the goods at the various establishments can, if they choose, keep informed concerning the sanitary condition of such places. But where the workers themselves call at warehouse, factory or shop for the goods, and return the finished garment in the same way, those who furnish the material have little actual knowledge of where or under what conditions the work is done.

SANITARY CONDITIONS.

Home work is at all times open to dangerous conditions seldom found in clean and sanitary factories. Sickness breaking out in a factory would be at once detected and removed; in the home it might remain undetected by the authorities until many garments had become infected and scattered among the buying public.

Where work is done in homes crowded with little children it is in daily danger of contact with contagious or infectious diseases common to childhood. In other places may come in contact with skin diseases due to peculiar diet or lack of cleanliness. If sickness does not exist in the immediate family where the work is done it can be easily brought from some adjacent place through neighborhood communication. And if actual sickness does not exist, the workers are often in undesir-

able contact with unsanitary outbuildings, stables, open drains, decaying vegetables and the like; and in the tenement districts of large cities these conditions are multiplied and aggravated to an extent almost beyond belief.

ARRESTED DEVELOPMENT.

Such then is the complete system of sweating with its attendant evils. Some economists claim that the sweated trades are cases of arrested industrial development, and find the remedy for them in a gradual absorbtion of all backward industries into the main current of industrial progress by having them pass through the necessary stages of machine production and be subject more and more to the pressure of public opinion and social control.

John A. Hobson in his Evolution of Modern Capitalism describes this class of work as "that which machinery is technically competent to perform but which it can not economically undertake so long as large quantities of very cheap labor are available." This he says comprises what is generally called sweat-shop work, the product of cheap, low-skilled, home-shop labor.

From the preceding discussion of sweating in the garment making industry it would seem that the theory of arrested industrial development applies very largely to it. The tendency of modern industrial life is to have the power, formerly supplied by man, replaced in an increasing degree by machinery. This is generally true of all classes of industrial production, but garment making offers an exception to the rule. In the great majority of establishments the machines used are still run by foot power instead of mechanical power. Some general reason must account for this, and wide investigation has shown it to be considerations of economy. In general, the profit gained by the smaller shops in added speed and increased output, if power were furnished, would not cover the cost of installing and maintaining such power, particularly when taking into consideration the dull seasons during which capital invested is bringing little or no return.

Further investigation shows that in those shops using foot-power the workers generally command no higher wages than where power is furnished. Therefore, as long as labor can be procured at a price below the additional cost of furnishing mechanical power, such work will be done by foot-power and that element of arrested industrial activity will continue to exist.

At present a great deal of work upon garments is done by hand which machinery is technically but not practically able to perform. Again, in some instances machinery has been invented to do a part of the work quicker and cheaper, but the public has found such machinery work less desirable both in appearances and durability. Therefore, it is of less value, and trade in the better class of garments demands that such work be done by hand. At the same time a part of the public, regardless of the time and manual labor expended upon it, is unwilling to pay much more than when the work is done by machine. Buttonhole making is a case in point. Such a situation, man competing with a machine, tends to keep wages down, although instances are found where employers are paying a higher price for the hand work on account of the scarcity of such workers.

SWEATING IN WISCONSIN.

A discussion of the sweating system in Wisconsin, as disclosed by the last investigation, will show that while the various elements of the system exist in the State and the number of such establishments is increasing, the last sweat shop law, enacted in 1901, which includes the shops and homes where garment making is carried on, can regulate those already in existence and prevent the addition of others whose sanitary condition would be a menace to the welfare of the workers and of society in general.

Sweating in the garment making trades is limited almost entirely to the city of Milwaukee. In other cities, such as Kenosha, Racine, Watertown, Appliton and Neenah, a limited number of cases were found where women took work from the factories to be finished in the homes; but the number was small,

the conditions surrounding the work sanitary, and the hours not more than five or six a day. It often happened that such work was done only a few months during the year, so it seems hardly worth while to include them in the tables of this report. Suffice it to state, that home work such as finishing women's ready made clothing, ravelling damaged knit goods, crotching, and finishing mittens, socks and sweaters is done to a limited extent in the cities named.

Two reasons are chiefly responsible for the fact that sweating in Wisconsin is limited almost entirely to Milwaukee. First, that city being the largest industrial center, has the greatest amount of those industries in which sweating is commonly found; and second, it contains the largest number of those people who drift easily into the home-shop work.

Milwaukee has a large, varied, and ever increasing foreign population, much of it from those countries of Europe where hand labor and the home shop is common, but as yet its industial and economic life is such as to give the stranger a chance to help himself rather than to sink him into the helplessness and wretchedness found in the congested portions of such cities as Chicago, Philadelphia, Boston or New York. The fact that the city is spread, over so much territory, and that the majority of the poorer people are housed in cottages, each with its surrounding plot of ground rather than in rows of old and dangerous tenements, gives some insight into the general condition surrounding the lives of these people. And the fact that the homes and shops where most of the so-called sweatshop work is done are not located in the heart of the city nor in its most crowded and unattractive quarters, but are scattered through the residence portion and toward the outskirts on the North, South and West proves that such work is not carried on in a district where tenements would be most apt to flourish.

The season of the year in which these places were inspected made some slight difference in the sanitary condition. In the winter and during the colder seasons when windows and doors were kept closed the ventilation in the larger shops was not as good as in the summer, when buildings were more or less open, admitting the sunlight and pure air. But around the

homes and small shops the summer season was not always favorable to good sanitation on account of unhealthful conditions engendered by the heat.

A significant fact which the investigation brought out was that in general those establishments doing tailoring and those making crocheted garments, while by no means always the best, were usually among the neatest and cleanest premises in the neighborhood. And the conviction was often forced home to the inspector that poverty did not necessarily mean dirt, and that while many of the workers are poor, the energy and industry which prompted them to do this work also induced them to be clean. In sharp contrast to these, however, were some of the places where knit goods were finished. Several were dirty in the extreme, not the result of poverty and misfortune, but of natural habit and inclination. The nationality of the workers testified to this as did also the fact that when the four or five hours work for the day was done, no effort was made to clean up; instead, the leisure time was spent in neighborhood gossip over the back yard fence.

The fact that little sickness was found by the inspector was due largely to a comparatively healthy year with few epidemics. In addition to this, local physicians had warned families, seemingly ignorant or careless of the danger against taking in work while having sickness in the house. Some of the employers keep careful watch upon the places to which they send goods to guard against contagion or infection which would be dangerous to all who handle the goods, and decidedly injurious to their business. In order to secure safety to the public, daily or at least weekly inspection of many of these places would be necessary. Such a course is manifestly impracticable when one considers the number and scattered location of these establishments.

FOR WHOM WORK WAS DONE.

The work investigated in Milwaukee was done for ten tailoring establishments and eleven knitting factories of Milwaukee, and one tailoring establishment of Chicago.

The investigation was carried on from September, 1903, until July 1st, 1904, and gave opportunity to note the varying conditions at different seasons of the year.

The places investigated numbered 840. In this number were included all the establishments inspected for the biennial report of 1901–1902, and in addition a new list which was collected in the fall of 1903 and early spring of 1904. It was believed that many on the old list might have gone out of business, but that a thorough investigation of all places on the records of the Labor Bureau would show, in a general way, whether sweating was increasing in Milwaukee or whether the new workers had practically taken the places of those who had stopped. The latter class will be disposed of at once in a general statement based upon an inspection regarding the size, location and condition of buildings in which work rooms had been located, and also upon such information as could be gained by conversation with the former workers.

A comparison of the number actually at work and those who had stopped, would seem to indicate that in the garment making industry, contract and homeshop work was decreasing. Nearly four hundred places were visted in which the occupants were found at work, and four hundred and forty-six where they had stopped. This statement, however correct, is misleading for many had stopped only temporarily, so that if this class were counted with the active workers it would show a slight increase for the knitting industry and a somewhat larger increase for the tailoring industry.

With regard to the term of idleness of those establishments which had stopped work it was impossible to make any detailed classification. It varied in the different cases from ten or twelve months down to three days. Some had stopped permanently; others temporarily for a definite period; and still others did not know whether they would begin the work again or not. The reasons for stopping had been many and various. Among those who had given up the work temporarily, housecleaning, spring gardening and the season for family sewing were the reasons most generally advanced. Others said there was not enough money made to pay for the work, the bother

of getting the material, and the nuisance of having the half finished articles and the litter around the house. Some had had sickness in the family which put a stop to the work temporarily, and they had not cared to begin it again. A few had come upon more prosperous times and for that reason did not take in work. In many cases where the mother was the worker her time had become so occupied with family cares as to leave no part to be devoted to tailoring or knitting. And the remainder had taken up other lines of work such as mending bags or making nets.

These home workers move about a great deal, and so the cases of changed address were manifold and troublesome. Often inquiry around the neighborhood served to locate them or some one who knew of their whereabouts, and the inspector was obliged to follow them sometimes several blocks, sometimes into another quarter of the city, only to find that they had ceased working when they moved, and were uncertain whether they would work again or not.

When inquiry around the neighborhood failed to locate them, it was necessary to resort again to the manufacturer and have him procure the correct address the next time the worker came for material. The tailoring establishments and knitting factories delivering and collecting their own goods gave correct addresses, with few exceptions. Where workers came to the shop or warehouse for goods, the addresses given were not so reliable.

In general, the condition and surroundings of those no longer at work differed very little from those of the active workers. The majority of the buildings occupied were two story frame dwellings. In a few instances work-rooms had occupied tenements or apartments on the second floor of store buildings. Several had occupied separate shops.

The largest number of work rooms had been located on first floor, although some had occupied basements and a considerable number second floor.

Those rooms designated by the ocupants as work rooms were, usually, living rooms or kitchens, while the proportion of rooms used as separate work-rooms was small. Whether used as liv-

ing rooms or simply as work rooms, they were in the large majority of cases connected with living rooms, but having direct entrance from the outside.

The sanitary condition did not vary greatly from that of the establishments at work, which according to the total number in each industry showed a larger proportion of unsatisfactory establishments in the knitting industry.

SYSTEM OF DISTRIBUTION.

The system of distributing the work in Milwaukee is, in general, that which appears in the industry elsewhere. The distributing agent is either the wholesaler or the contractor. Two different methods are employed in which the workers are directly responsible to the wholesaler. One is where the home workers go to the wholesale house for the goods, make the bargain with the dealer to do the work at a certain price per piece or dozen, take the goods home where it is made up, and return the finished garments to the wholesale house. In this transaction the middle-man does not figure at all, and only the profits of the worker have to come out of the price paid by the dealer.

The other method is through the existence of small shops owned by or rented by the wholesaler, and furnished by him with machines and all other things necessary for the complete equipment of a tailor shop. These shops are located in the residence portion of the city and differ only in management from the better class of contractors' shops. A superintendent is placed in charge with much the same authority as that vested in department superintendents in many of the large industrial establishments. He engages his own help, oversees their work, keeps their time, makes out the payroll, and pays them their wages which are sent through him from the wholesale house. He, himself, receives a salary by the week or month, and is held responsible for the sanitary condition and general management of the shop. Each shop is expected to do a certain amount of work each week, and any method of increasing the size and quality of the output without added expense makes the superintendent's position more secure.

The second method of distribution, which makes the contractor the distributing agent, is the one which includes the largest number of workers. Since to this middleman or contractor the name "sweater" was formerly generally applied, and is still in many cases, it is interesting to analyze conditions and see if he is the one responsible for any or all of the elements of sweating which appear in Wisconsin.

KINDS OF ESTABLISHMENTS—CONTRACTING.

Considering first the shop run by the contractor in which he employs outside help and from which he sends out goods to be finished by the home worker, we will be forced to conclude that he is as much the "sweated" as the "sweater." In the first place he is responsible for all work put upon the garments, which, when finished, must be entirely satisfactory to the wholesaler or they are returned to the contractor to be done over. Besides superintending the work of all his helpers he is generally one of the hardest workers in the shop, doing a part of the manual labor upon the garments himself. Often his profits are not much more than the wage of his best workers. It was stated by many contractors that unless they themselves worked the full ten hours a day they could not maintain the shop. An experience familiar to the inspector was to have the contractor measuring, cutting, sewing or pressing while trying courteously to answer questions relating to the business. Any remark about the fact brought forth the answer, "I've got to work, or starve." This answer may have been the fruit of discouragement, and somewhat exaggerated, but his actions showed it was not without foundation.

Besides the pressure brought to bear upon him by the demands of his business, his establishment comes under State inspection and is subject to the strict regulations of all factory laws which apply to workshops, and to the regulations of an efficient sweat-shop law. This latter law requiring him to procure a license for the room or apartment to be used for manufacturing, altering, repairing or finishing of garments, and regulates the number of persons who may be employed therein,

such number to be determind by the air space contained in the room, allowing 250 cubic feet for each person employed during the day, and 400 for each person employed during the night. This permit shall be issued only when such room or apartment has suitable light during the hours when people are employed therein.

The law also regulates the provision of separate toilet rooms where there are ten or more persons employed and three or more are of different sex. It gives authority to the commissioner of labor or any factory inspector to require, when he deems it necessary, that all rooms used for manufacturing, altering, repairing or finishing garments shall be separate from and have no door, window or other opening into any living or sleeping room; and when any such room is above the first floor he may order a separate and distinct stairway leading thereto.

The law requires that all rooms shall be kept in a clean and sanitary condition at all times, and vests the Cimmissioner of Labor and the factory inspectors with power to require such changes in cleaning, painting or whitewashing as they deem necessary. It provides for the proper heating and lighting of rooms, and for the ventilation by ordinary, or if necessary, mechanical appliances. It requires that all garments therein manufactured shall be clean and free from vermin and every matter of contagious or infectious nature. If the Commissioner of Labor or any factory inspector finds that any contagious or infectious disease exists in any shop or house where garments are manufactured or finished, and such garments are infected and unfit for use, he shall report to the local board of health and such board may condemn and destroy all such infectious articles manufactured or in process of manufacture.

The law also requires that any person, firm or corporation, by themselves or by their agents or managers contracting for the manufacturing, altering, repairing or finishing of garments shall keep a register of the names and addresses, plainly written in English, of the persons to whom such work is given. This register shall be subject at all times to the inspection of

the Commissioner of Labor or any factory inspector, and a copy of the same shall be furnished at his request.

No owner, lessee or agent of a tenement or dwelling shall permit its use for purposes of garment working contrary to the requirements of the sweat-shop law. Unless such work is discontinued within thirty days after notice has been served upon the owner, lessee or agent he shall be deemed guilty of a violation of the law as if he himself were engaged in such unlawful manufacture. When the Commissioner of Labor or any factory inspector finds rooms not kept in clean and sanitary condition he may refuse to grant a license, or revoke the license already granted, and no person, firm or corporation shall contract with such worker for the manufacture, altering or repairing of goods.

Thus it is plain that the law covers all persons and places concerned. It prevents the wholesaler from sending out goods, the worker from receiving goods, and the owner of the building where such work is carried on from permitting such use of the building, unless the requirements of the law are met, as enforced by the Commissioner of Labor or any factory inspector. This law, of course, applies to all places where garments of any kind are manufactured or finished which shall afterward be exposed for sale. Its requirements are strictly enforced in those places where work is taken into the home. The danger here arises chiefly from the naturally unclean habits of the family and the possibility of disease springing up, rather than from unsanitary conditions produced by overcrowding of workers.

On the middleman or contractor, who keeps a shop or workrooms and hires outside labor, it applies in all its parts and in all its force. These men, on account of the size of their establishments are far less apt to move about than the single home-worker, and so are under the constant watch of factory inspectors. The number of people who may be employed by them in shops depends upon the size of the work rooms. That these contractors are not overcrowding their employes is proved by the fact that in not one establishment were there as many as allowed by law. Since they have workers of both

sexes they are required by law to provide a proper number of sparate closets and keep them in a clean and sanitary condition.

Working upon woolen garments necessarily causes an accumulation of scraps, thread and lint which strews the floor giving an untidy appearance. But in nearly all cases the floor was swept once a day and in some cases twice. The majority of the regular shops have hard wood floors which are easily kept clean and as the shops are smaller than the ordinary factory the floors are generally scrubbed oftener. It is the custom with most of the contractors to use the dull season, when the shop is idle, as general house-cleaning time.

In none of the shops were the regular hours more than ten a day. Some reported working a half hour over time during the busy season, for which work they were usually paid by the piece.

In all of the shops women and girls were provided with chairs which were very necessary in the work. As it is to the advantage of the employer to have his work done as quickly and as well as possible, nearly all provided sufficient light for the workers. In a few cases it was necessary to order windows cleaned, and additional artificial light for the late hours of winter afternoons.

Along with the original contractor there exists in Milwaukee the sub-contractor, although the number of such agents is small. The largest establishment run by a sub-contractor was a shop making buttonholes on coats, vests and trousers, doing work for many of the contractors, and a few of the wholesale houses. The buttonholes were made by machines run by foot power. The shop gave employment to four men and three women. Another instance of sub-contracting was that of a custom tailor who maintained a small shop and who made buttenholes by hand for a contractor's shop. A third instance was that of a young woman who hired girls to work on backs of vests for a contractor's shop.

Although contractors and sub-contractors exist in Milwaukee the yare not the cause or even a necessary part of the sweating system. Scattered about the city and dwelling in all conditions from comfort down to the most pressing poverty is

the class of home workers before mentioned who never come in contact with a middleman, but deal directly with the wholesale houses, getting the cut garments there or receiving them from the wagons sent out by the wholesale house, making them up, returning them the way in which they came, and receiving from the wholesaler payment by the piece. Whatever the price paid, whatever the hours, and whatever the conditions surrounding these workers the middleman is in no way responsible for them, because in these transactions he does not exist. In the homework of the knitting industry, where wages were uniformly low and where the greatest per cent. of unsanitary establishments were found, the workers dealt directly with the factories and no contractors existed.

The fact that contractors do exist in any industry and are willing to act as middlemen may serve in a measure to keep the sweating-system flourishing for it is a question whether the wholesale houses would be willing to go to the inconvenience of dealing separately with the same number of individuals that now work collectively in the contractors' shops. It is very certain that they could not find a number of skilled tailors who complete a garment, equal to the number who now work upon their goods in the tailor shops, each doing, perhaps, a single operation and few being able to make a complete garment.

The contractor, therefore, acts only as a convenient agent to bring work and worker together. General compliance with the labor laws prove him not the lawless devouring monster which public opinion has so long painted the "sweater," one who seeks out the poor and helpless, herds them in unsanitary old buildings, and works them unreasonably long hours. Whatever the wage paid to his workers it is a safe criterion of his own earnings in an industry in which values are so closely estimated. A comparison of the earnings of workers in contractor's shops, of workers who finish garments at home for contractors, and of workers who deal directly with the wholesale houses without the intervention of the middleman, no great difference is apparent. In fact, in the knitting industry where contractors were not employed, the wages were the

lowest found and the conditions prevailed throughout the industry wherever home work was done.

Therefore, although the contractor and the sub-contractor exist in Milwaukee they can not be held responsible for the sweating system. Since they do not exist in all industries nor in all cases in any particular industry they can be considered only as a part of the system and not the cause.

In general the class of workers in the garment making industries of Milwaukee is of a higher grade than that in many of the larger cities. While making no comparison of the general intelligence of the two classes, it is safe to say that the workers in the tailor shops, with the exception of a few old men at work as pressers, do not differ in physical appearance from those found in factories. The boys and young men employed were able bodied workers, not as is too often the case in the typical sweat-shop, men who are crippled and have lost better work when losing health and hope. The old men were chiefly Bohemians, Poles or Russian Jews, who had worked as tailors in their native country and who clung to it now as the only work they knew. The girls and women were, for the greater part, between sixteen and thirty years of age and did not differ from the factory workers. In fact, they are of the same class, and often change from shop to factory and from factory to shop. The number of workers below the age of sixteen was small. Contractors gave as the reason the statement that they were not as quick and careful about the work as older girls, and while they worked cheaper, employing them was not profitable.

The home workers were of a different class. The proportion of men working alone was small. Most of those who did tailoring had shops of their own or else worked in the shop of a contractor. The women taking work home were for the greater part those with families. Sometimes it was a woman whose husband earned good wages in a factory and did not want his wife to take in work, but she, being of an industrious turn, wished to add to the family income by doing such work while her husband was at the factory and the children were in school. Sometimes it was a widow with several children to

support, who, of necessity, had to resort to work which could be done at home, giving her an opportunity to prepare meals and care for the children when they were out of school.

A few cases were found where young women were doing tailoring or knitting at home in preference to working in a factory or store, but the majority preferred to work in shops. No childen under fourteen were kept from school to work in the tailoring industry and only a few such cases were found in the knitting industry. In several instances children assisted after school hours at threadig needles and sewing on buttons.

The men and women doing work directly for the wholesale tailoring houses were those who had learned the trade and performed all the work upon the completed garment, machine sewing, hand sewing and pressing. Those who worked for tailor shops performed only a few of the processes, no single person making a complete garment. Of the latter class, those who finished trousers were the most numerous. They were generally women between thirty and forty-five years of age.

Only a limited number worked ten hours daily and were the ones who supported themselves entirely by such work. Th majority finished from three to six pairs of trousers daily and worked less than six hours. These women depended for the remainder of their support upon the labor of husband or children or upon an income from house rent.

The women employed by contractors to work at home on vests are few. Their work consisted of sewing on buttons, making buttonholes or making backs. Making backs required no basting, and in the hands of a practical worker occupied about six or seven minutes for each garment. One woman, who worked nine hours daily, said that at first she could make only forty in nine hours, but after two months practice could make ninety.

The finishers of coats divided into two classes, those who did hand work such as felling, and those who did machine work such as putting together outsides and sewing in pockets. Each took about half an hour to a garment. When asked why they chose this work several women said that they had formerly done dress-making, and while tailoring did not pay as

good a price, they preferred it because there was less annoyance about it and the pay was more regular and sure.

Few of the finishers worked in the evening and those who did said it was only when they did not have time to sew during the day. Two establishments were found which delivered work to the finishers. One pair a half cent less for the work on each garment so delivered. In the cases where women called at the shops for the garments much time was often lost waiting for the proper number to be made up and ready for finishing. Some industrious German women carried their knitting along and employed the time that way, while the others waited idly.

Wages paid to finishers in the tailoring industry were determined by the quality of goods and the amount of work upon each garment. Naturally the contractor gave out the finest and highest priced garments to his best workers whose higher wage was due to the better quality and greater amount of work which the garments required.

However, in all cases it was apparent that the bargain driven was close, a slight difference in the amount of work on different garments making a difference of a cent or half cent in the price per piece.

The home work in the knitting industry has several distinct characteristics. In all of the cases investigated the workers dealt directly with the factories, and not through contractors. With the exception of finishing sweaters, all of the work was done by hand. This differs, of course, from the tailoring industry where much of the work is done with sewing machines. And nearly all of the work on knit goods is done in living rooms or kitchens, only four out of one hundred and seventy-seven establishments using work rooms only.

These workers divided naturally into crocheters and finishers. The former are those who crochet entire garments, such as hoods, shawls, jackets, bootees, etc. The latter are those who finish, by hand, garments for the greater part machine knit, such as mittens, stockings, gloves, sweaters, and woolen jackets.

Those women making crocheted garments were, with three exceptions, of German birth or parentage. German skill in

knitting is a well known fact and was made very apparent by this investigation. Many of the women had learned the art in Germany while others had been taught in this country by the preceding generation. Sometimes the worker was an old grandmother, almost blind, sitting in her rocking chair and crocheting throughout the entire day. Often the workers in a neighborhood congregated in one place and the inspector would come upon three or four middle aged women sitting on some back steps visiting voluminously in German and crocheting diligently. In other places the worker was often a young woman who wished to earn a little money but did not care to go away from home to work. Occasionally a little girl was found crocheting for a few hours after school and on Saturdays. In hand knitting and crocheting the ages of workers varied more than in any other line of home-work investigated.

The greater number spoke of it as "pick up" work, something to keep the hands busy during leisure hours, and few had ever tried to see how much they could do in a day. Only a limited number were earning their entire living by it and these were the skillful, rapid workers who after five, six, or even twelve years of practice were able to earn only ten cents an hour. These women had steady work six days in the week throughout the year. They worked regularly ten hours a day making garments of most intricate stitch and pattern, only occasionally glancing at the sample or the work. When asked if the work was tiresome they said that although they did not have to look at it carefully, it was wearing and nervous work, and particularly tiresome to the arms and wrists.

Those places where knit goods were finished seemed, with a few exceptions, to be of a different class. Crocheting was of itself clean work and the delicate colored yarn had to be kept clean, while the people doing the work were naturally neat and industrious. On the other hand, the work of finishing was more or less disorderly on account of the lint, ravellings and clippings constantly accumulating on tables, chairs and floor, while the majority of establishments doing this work indicated that the habits of the occupants were not conducive to cleanliness. The work of crocheting was usually carried on in the

most attractive and comfortable places available. Finishing of knit goods was generally done in some uncarpeted room such as dining room or kitchen where the scraps could be swept up easily from the bare floor. It was sometimes a question with the inspector whether the house was getting the garments dirty or the garments the house.

A description of one of the establishments found unsatisfactory will give a general idea of the worst ones. This particular one was a place where mittens were finished. The house, a two story frame structure, was situated near the city limits in a small yard surrounded by a dilapidated picket fence. The yard was used as a pen for geese and goats. In the first story, or basement, (the floor was about six inches below the level of the ground) was located the workroom. Here the inspector found a healthy looking woman clad in soiled and repulsive clothing, and surrounded by four small children equally dirty and unkempt. On learning the inspector's business, the woman with good natured exclamations of surprise and curiosity offered her a chair from which crumbs and jam were first hastily wiped. A rapid glance served to note the contents of the room. In the rear stood a cook-stove, a sink, a table with the remains of dinner and a pile of unwashed dishes. Near the stove was a pail of garbage. In the front of the room was another table covered with a cloth, at which the woman had been working. On the bare and dirty floor were children's garments and playthings, a basket of kittens, a dog-collar and chain, numerous bread crusts, and five or six dozen woolen mittens upon which the woman had been working. Conversation with the worker elicited the information that the family owned the home in which they lived, that the woman's husband earned forty-two dollars a month, that there were two older children in school, and that the reason the mother did this work was because she "had nothing to do all day." To the inspector it seemed that there was a good deal to do immediately. Inspection of the house showed on the upper floor a comfortable and clean (because unused) sitting room which would serve very well for a work-room and to it the work was ordered removed immediately. On descending

to the lower floor the inspector found that the goats had wandered in through the open door and taken possession of the workroom. They were driven out by the woman with some impatience but no show of surprise; and the incident, while somewhat interrupting the inspection had its value in disclosing the habits of the family.

Two knitting factories delivered and collected goods. The rest required all workers to call for them at the factory. The more work done in a day, the larger and heavier was the bundle to be carried. In cases where the distance was too great to be walked, the worker had to spend in car-fare the entire earning of an hour and a half each day.

The fact that the greater part of the work of finishing knit goods was done by Polish women was due largely to the factories sending out such work being located in or near the territory occupied by that nationality.

IRREGULARITY OF WORK.

Since work in the garment making industries depends largely upon the seasons, the irregularity of work is one of the greatest evils of the sweating system. This irregularity is strongly felt by the garment workers in Milwaukee. Few of the shops or homes have steady work the year around although some reported that they were never laid off. This was only among the single workers and small shops employing a few hands. They were also among those longest in the employ of the firm and doing the finest work. Several women reporting steady work added, concerning the employer, "He knows I need the work and so I get it when many others are laid off." But by far the greater number of workers and those in the larger shops reported from several days to two or three months enforced idleness throughout the year. In some instances the hands were laid off and the shop temporarily closed until business improved. The interim was generally spent by the employer in a sort of general house cleaning, washing windows, floors, and ceilings, and painting, whitewashing and repairing the building.

An effort was made to ascertain what use was made of the time by the workers. The men stated that they simply lay

idle or secured such temporary employment as they could get which was usually manual labor. The women and girls secured places in stores or factories or did housework. Contractors stated that most of the men returned to their old places but that if he shop remained closed too long the girls and younger women secured work in other industries and remained there.

This irregularity seems to be one great reason why the contract system has held its own so long in the garment making trades. The wholesale dealers realize that it favors cheapness and convenience. Large factories can not remain idle even for a short period without serious loss. They have usually a more expensive building and machinery rents are generally higher, so the loss on the investment is greater than in the small shops. Those contractors employing only a few hands and using a part of the house as work-room can stop work and discharge the hands at any time, without incurring any loss in rent or capital invested. Those contractors owning or renting a fair sized shop lighted by electricity, heated by steam or furnace, and using gas or electricity to run machines and brushes, probably according to their financial condition, feel the loss entailed by idleness as much as, if not more than, the owner of a large factory.

The question of irregularity of employment brings out another condition in which the small shop has the advantage, that of securing workers. This often causes great effort and trouble which the wholesaler is glad to escape by employing the contractor or middleman. Since this agent is himself one of the workers, he is usually in communication with such other workers as he needs. And since the small shops are generally scattered about the city among dwelling houses and in the residence portion, rather than in the manufacturing districts, the contractor living near his shop, lives near his workers. Being acquainted with them and having his shop in the neighborhood of their homes, makes it easier for him to find them, and to hold them even through the periods of idleness.

During the periods when work is slack many of the large shops shut down entirely. Others employ less help and work full time. Some work ten hours daily three or four days a

week. Others work from five to seven hours daily, the full week of six days. The conditions varies according to the shop in question.

WAGES.

Aside from the more remote influences that affect wages in any occupation, the two most potent in the garment making industry are the supply of labor, and competition between employers. The careless investigator is apt to adopt the conclusion reached by men in other times and places and hold the contractor responsible for low wages and all other attendant evil conditions, heaping upon him all the odium which has attached itself to the name "sweater." But the responsibility begins farther back than that. Admitting that each should bear his share, one can trace it through contractors, wholesalers and retailers, back to the purchasing public. In every case the bargain driven is close. The majority of the purchasing public goes where it can get an article cheapest. The retailer buys of the wholesaler who gives him the most for his money. The wholesaler in turn goes for his work where the particular grade is made cheapest. And the contractor places the scale of wages at the lowest point at which labor can be secured or at a higher point which will secure more efficient labor and add to his profits in an increased output of finer quality.

Thus it is plainly evident that the three agents, retailer, wholesaler and contractor, who cater to the wants of the purchasing public, are all subject to the grinding force of competition, and each in turn tries to keep the buying price or cost of production as low as possible, in order that he may underbid some competitor and sell at the lowest price. Where this competition is strongest it shoves the cost of production down to the lowest possible point and the wages paid to labor will be the lowest at which that labor can be secured. At this point the laborer himself begins to regulate wages and the scale will depend upon the number and the relative low skill and helplessness of the workers.

Generally, any industry which would exist and grow is forced to adopt the methods of the well established and older firms.

Some employers, wishing to consider the comfort and welfare of their workers may provide sanitary workshops and labor saving machinery, may deliver the goods and may observe reasonable hours, but at the same time be confronted by the low price paid for labor by some other firm and in that one particular be forced to adopt the same standard or find themselves undersold.

Competition is not limited to the struggle between local dealers. Conditions existing in the sweated industries in eastern cities affect conditions in Wisconsin. Wholesalers here have to compete with goods put on the market by eastern houses. If the cost of production here were to rise above the cost of eastern goods and the added cost of transportation, eastern manufacturers could undersell the local dealer, or at any rate bring the margin of profit down so low that capital would be withdrawn altogether. That this is true in the tailoring industry is generally acknowledged. It is also true in the knitting industry, particularly where garments are made entirely by hand. A manufacturer of knit goods in one of the northern cities stated that he contracted with a dealer in Philadelphia for all hand knit or crocheted articles, since the class of women able to do such work did not live in his locality. He also stated that the price paid for the work by the contractor in the East was shockingly low.

Allowing for the usual difference between men's and women's wages, the variation in the scale of wages at a given time in the tailoring industry in Wisconsin represents a variation in the quality and amount of work done upon a single article or in a certain length of time. Investigation showed that both wholesaler and contractor used this basis for a scale of prices. The quality of the goods was an indication of the work. Several people working upon the same quality of goods received the same price per piece. One person working upon two or more qualities of goods received for each a different price depending upon the amount and quality of the work. When wages were paid by the piece it is evident that the amount earned in an hour varied greatly with the skill and rapidity of the worker.

In the knitting industry the average wage was decidedly

lower than in the tailoring industry and the scale was by no means as carefully drawn. While workers in the latter class received different prices for different qualities of garments, nearly all said that the amount to be earned in a given time was practically the same. In the knitting industry nearly every worker stated that while the scale of wages varied with the amount of work on an article it was far from being correctly adjusted. Some workers declared that on some articles they were able to earn only five cents an hour while on others which "went faster" they were able to earn seven or eight. The amount earned by a particular worker in a given length of time varied with the kind of work which she received. When asked why they chose the work which paid the poorest the general answer was, "Well, I did not choose this. I would rather have the other but there was none ready so I took what I could get. I like to have something around for 'pick up' work." And so these women who crochet or knit for diversion and are not obliged to earn their own living, aid in keeping down wages for those who do support themselves. Of course the general low wage of knitters is largely due to competition between man and machinery; but a class of people in a community who are willing to work for the low wage aggravates the evil.

COMPILATION AND ANALYSIS OF STATISTICS.

In this report no tables are furnished showing the number and size of windows. A record of all licenses issued contains this information for reference, but a table would scarcely represent the true condition of lighting which is largely affected by the cleanness of the windows, the color of the interior of the rooms, and the location of the work-rooms with regard to adjacent buildings.

A large proportion of the regular shops are roomy and extremely well lighted. Those buildings built expressly for tailor shops are furnished with windows on four sides almost as closely as window frames can be set in the walls. The shops which occupy store buildings have glass fronts and windows at the side or back. This of course does not furnish as good light but in all cases it was pronounced satisfactory by the work-

ers. The workshops occupying rooms in dwellings have the fewest windows and least light as is natural in an ordinary dwelling house. In these home-shops, however, there are fewer people to a room, so it is possible for them all to work near windows.

The three cases found of insufficient lighting were in a dwelling where one woman worked on vests, a shop where six people worked on vests, and a shop where thirty-one people worked on coats.

In a large proportion of the workshops the entire ventilation is also furnished by the doors and windows. However, the number of windows is by no means always a safe measure of the ventilation, because the most distressing need of ventilation was found in a large shop whose walls were closely set with windows which, during the winter months, were all tightly closed. The air in the shop, besides being exhausted by many workers, was made more unwholesome by the steam and odors arising from pressing garments and tobacco fumes from the pipes of several of the workmen.

With regard to the cubic feet of air space to each worker in the rooms occupied as workshops the investigation showed no violations of the law requiring two hundred and fifty cubic feet during the day and four hundred during the night. In fact, not a single shop had the full number of workers which its air space allowed, and in the work rooms in dwellings the amount of air space to each worker was generally from three to five times the amount required by law.

Few establishments had any ventilation other than that furnished by doors and windows. The cases of mechanical ventilation numbered 6 in all, 3 being in trousers shops, 1 in an overcoat shop and 2 in coat shops.

As previously stated, the total number of places inspected from September, 1903 until July, 1904, was 840, and of these, the number of places where occupants were found at work at the time of inspection was 394. Of this number, the tailoring industry included 217, and the knitting industry, 177.

Only those places where work was being done and where full information was obtainable are treated of in the tables. The

446 remaining are not included because not actively at work and presenting no new conditions.

There is also omitted from the tables one establishment making buttonholes exclusively. The work was done by machine in a shop running 10 hours daily and employing four men and three women.

In the classification and analysis of tables the tailoring and the knitting industries are treated separately. While each includes the home worker and other elements of sweating, they differ in many important respects.

TAILORING INDUSTRY.

TABLE I.

Industries, establishments, employes.

Industries.	Establishments.		Employes.	
	Number.	Per cent.	Number.	Per cent.
Trousers	86	39.7	328	23.1
Coats	62	28.6	630	44.5
Vests	45	20.8	135	9.5
Overcoats	15	6.9	286	20.2
Overalls	3	1.3	3	.2
Jumpers	2	.9	2	.1
Shirts	4	1.8	34	2.4
Total	217	100.0	1,418	100.0

In the preceding table it is seen that the places included were classified as follows: Trousers, coats, vests, overcoats, overalls, jumpers and skirts. This does not strictly conform to the actual situation for in a few places, more than one kind of garment was made. In some places coats and overcoats were made; in others, overalls and jumpers. Shops turning out a mixed product are classified with the one of largest output.

Each place, regardless of size and number of persons employed is regarded as an establishment and so classified. The total number of places included is 217. Of these, 86 or 39.7 per cent turned out trousers, 62 or 28.6 per cent were making coats, 45 or 20.8 per cent were making vests, 15 or 6.9 turned out overcoats, while 3 places making overalls, 2 making jumpers and four making shirts comprised the remaining 3 per cent.

In the 217 establishments 1,418 persons were employed. The largest proportion of these were employed in making coats, although trousers which employed 328 persons or a little over half as many, had a larger number of establishments. Next came overcoats with 286 people employed, and vests with 135. Overalls, jumpers, and shirts employed 39 people or less than 3 per cent of the total number.

A classification of persons employed in each establishment gives the following results:

TABLE II.

Relative number employed in each establishment.

	One person.	2—5 inclusive.	6—10 inclusive.	Over 10.	Total.
Trousers	55	19	3	9	86
Coats	12	17	8	25	62
Vests	28	12	2	3	45
Overcoats	.....	.....	.....	15	15
Overalls	3	.....	.....	.....	3
Jumpers	1	.....	1	1	4
Shirts	2	.....	1	1	4
Total	101	49	14	53	217

Here it appears that of the establishments included, 101 or 46.6 per cent had only one person each; 49 or 22.6 per cent had 2 to 5 persons inclusive each; 14 or 6.4 had 6 to 10 persons inclusive each; and 53 or 24 per cent had over ten persons each. The largest number employed in any establishment at the date of inspection was 51.

Classified with regard to the number of male and female employes in each industry, the following tables are given:

TABLE III.

Number of male and female employes in tailoring industry.

Industries.	Male.	Female.	Total.
Trousers	55	273	328
Coats	192	438	630
Vests	23	112	135
Overcoats	76	210	286
Overalls	.....	3	3
Jumpers	.....	2	2
Shirts	4	30	34
Total	350	1,068	1,418

TABLE IV.

Per cent. of males and females in each class.

Industries.	Per cent males.	Per cent females.	Total.
Trousers	16.8	83.2	100.00
Coats	30.5	69.5	100.00
Vests	14.8	85.2	100.00
Overcoats	17.0	83.0	100.00
Overalls	.....	100.0	100.00
Jumpers	.....	100.0	100.00
Shirts	11.8	88.2	100.00

Considering the total number of employes, 1,418, it is found that 1,068 or 75.3 per cent are females and 350 or 24.7 per cent are males. In these industries the females greatly outnumber the males. The per cent shows that of every 100 employes, one-fourth and men and three-fourths are women. This is the situation when the total number is considered.

Taken separately the different industries show a different proportion. In the class making trousers the proportion of males is less, being 55 or 16.8 per cent, to 273 or 83.2 per cent females. In coats the proportion of males is greater, being 192 or 30.5 per cent, to 438 or 69.5 per cent females. Overcoats rank next with 76 males to 210 females. Vests employ 23 males and 112 females, and shirts employ four males and 30 females.

Those establishments inspected which made overalls and jumpers, employ only women.

The next table deals with the young persons and children employed in tailoring establishments and also shows the number between fourteen and sixteen years who were not provided with proper permits.

TABLE V.

Number of young persons and children in tailoring industry.

Industries.	16–18 years.	14–16 years.	Under 14 years.	Without proper permits.
Trousers	46	17	.....	11
Coats	89	46	.....	22
Vests	17	15	.....	12
Overcoats	39	23	.....	12
Overalls	.....	.....	.....	.....
Jumpers	.....	.....	.....	.....
Shirts	6	2	.....	.....
Total	197	103	.....	57

Out of 1,418, the total number of workers, 197 or 13.6 per cent were between sixteen and eighteen years of age and 103 or 7.3 per cent were between fourteen and sixteen years of age. No children under fourteen years were employed in the tailoring establishments.

Coat making employs the largest number of young persons between sixteen and eighteen years and also between fourteen and sixteen years, in both cases about double the largest number employed in any other line. This, however, is not of particular significance as its total number of employes is about double the largest number employed in any other line. In the number between sixteen and eighteen years, trousers stand next in order to coats, followed in order by overcoats, vests and shirts. In the number between fourteen and sixteen years, overcoats with 23 stand next in order to coats, followed in order by trousers, vests and shirts. In the home workshops inspected, overalls and jumpers employed none under eighteen years of age.

Of 103, the total number between fourteen and sixteen years of age, 57 were not provided with proper permits. Several of these were working on old affidavits previously required, and a few were employed without permits of any kind. The affidavits were collected and the children discharged until proper permits were secured.

The two following tables deal with hours of labor.

TABLE VI.

Classification of hours of labor daily and the number of establishments in each class.

Industries.	8 hours.	9 hours.	10 hours.	Irregular but less than 10.	Total.
Trousers	1	1	16	68	86
Coats	1	1	41	19	62
Vests	1	2	12	30	45
Overcoats	.....	1	14	.....	15
Overalls	.....	.....	2	1	3
Jumpers	.....	.....	.....	2	2
Shirts	1	1	.....	2	4
Total	4	6	85	122	217
Per cent.	1.8	2.8	39.2	56.2	100.0

Of the 217 establishments considered, 4 were working regularly eight hours a day; 6 were working nine hours, 85 were working ten hours and 122 were working irregularly, but less than ten hours. Of this 122 or 56.2 per cent, many were establishments with only one worker. A large number of these stated that their hours were often only five or six a day, but as none were over ten, only the one irregular division is made.

The greater proportion of all the regular shops or places where others besides the proprietor were employed were in operation ten hours daily. None reported more than ten hours as the regular schedule, although some reported working a half hour over time during the rush season. In all such cases investigated the employes were paid by the piece or by the hour for the extra work. The table shows that over half of the total number of establishments have irregular working hours.

Table VII is a classification of the number of hours of labor daily and the number of employes in each class, and by comparison with Table VI gives a more correct idea of the condition with regard to hours of labor and the reason for the irregularity.

TABLE VII.

Classification of hours of labor daily and the number of employes in each class.

Industries	8 hours.	9 hours.	10 hours.	Irregular but less than 10 hrs.	Total.
Trousers	11	6	172	139	328
Coats	7	16	533	74	630
Vests	6	25	60	44	135
Overcoats	.....	14	272	.....	286
Overalls	.....	.....	2	1	3
Jumpers	.....	.....	.....	2	2
Shirts	22	10	.....	2	34
Total	46	71	1,039	262	1,418
Per cent.	3.2	5.0	73.5	18.3	100.0

Of the 1,418 employes, 46 or 3.2 per cent were employed eight hours daily; 71 or 5.0 per cent were employed nine hours daily; 1,039 or 73.5 per cent were employed ten hours daily; and the remaining 262 or 18.3 per cent were working irregularly less than ten hours daily. It appears from these two tables that 39.2 per cent of the total number of establishments

contained 73.5 of the total number of employes and were in operation ten hours daily, while 56.2 per cent of the establishments, working irregularly, contained only 18.3 per cent of the total number of employes. Of those working ten hours, coat and overcoat workers comprised the greater number, because this work is done almost entirely in shops. Next in order are trousers with 172 employes in 16 shops, and vests with 60 employes in 12 shops.

The greatest number of those working irregular hours were employed on trousers. Irregularity of hours is found chiefly among the home workers, and this branch of the tailoring industry lends itself most readily to the demands of the home workers, because these garments are more easily carried about and also require a greater amount of hand work called "finishing." The fact that 68 establishments working irregularly contained but 139 employes with an average of about two for every establishment marks the home workshop. Next in order are coats with 74 employes in 19 establishments, vests with 44 employes in 30 establishments, and overalls, jumpers and shirts with 5 employes in as many establishments.

TABLE VIII.

Kinds of power used.

Industries.	Electricity.	Gas.	Foot.	Hand.	Total.
Trousers	1	4	35	46	86
Coats	2	1	56	3	62
Vests	.....	.....	43	2	45
Overcoats	.....	3	12	.....	15
Overalls	.....	.....	3	.....	3
Jumpers	.....	.....	2	.....	2
Shirts	.....	1	3	.....	4
Total	3	9	154	51	217
Per cent.	1.4	4.5	71.0	23.5	100.0

Table VIII deals with the kind of power used in tailoring establishments. It appears that 3 or 1.4 per cent used electricity; 9 or 4.5 per cent used gas; 154 or 71.0 per cent used foot power and 51 or 23.5 per cent used no machinery, doing all the work by hand. This last class represents finishers exclusively. Of the establishments using gas or electric power, trousers included five, coats and overcoats three each, and shirts one.

TABLE IX.

Kind of building used.

Industries.	Wood—Stories high.					Brick—Stories high.				
	1	1½	2	2½	3	1	1½	2	2½	3
Trousers	24	15	40	4	1	.....	.....	2	.....	.....
Coats	19	6	30	1	2	.....	.....	3	.....	1
Vests	8	6	26	5	.....	.....	.....	.....	.....	.....
Overcoats	7	.....	8	.....	.....	.....	.....	.....	.....	.....
Overalls	1	.....	2	.....	.....	.....	.....	.....	.....	.....
Jumpers	1	.....	1	.....	.....	.....	.....	.....	.....	.....
Shirts	2	.....	2	.....	.....	.....	.....	.....	.....	.....
Total	62	27	109	10	3	.....	.....	5	.....	1

Table IX shows the kinds of buildings used by the establishments in question. Of the 217 buildings, 211 were of wood and 6 of brick. Of the wooden or frame buildings 62 were one story high; 27 one and one-half stories; 109 two stories; 10 two and one-half stories; 3 three stories. Of the brick buildings 5 were two stories and 1 three stories. Practically all of the buildings were separate structures and as none were very high it was possible to have plenty of light and air in all of the work rooms.

TABLE X.

Purpose for which building as a whole was used.

Industries.	Tenement.	Dwelling	Shop.	Dwelling and shop.	Total.
Trousers	1	72	10	3	86
Coats	1	23	31	7	62
Vests	.....	38	5	2	45
Overcoats	.....	.....	12	3	15
Overalls	.....	3	.....	.....	3
Jumpers	.....	1	.....	1	2
Shirts	.....	2	2	.....	4
Total	2	139	60	16	217
Per cent.	.9	64.1	27.3	7.7	100.0

Table X shows the purpose for which the buildings as a whole were used. Of the 217 buildings occupied 2 or .9 per cent were tenements, 139 or 64.1 per cent were dwellings, 60 or 27.3 per cent were separate shops and 16 or 7.7 per cent were chiefly stores or shops with living rooms in the rear or above. The fact that .9 or less than 1 per cent of the garment making is carried on in tenements shows that this industry in Milwau-

kee is practically free from the tenement evil which is such a serious problem in many other cities.

TABLE XI.

Part of building occupied by work rooms.

Industries.	Basement.	1st floor.	2d floor	3d floor.
Trousers	12	67	12	.....
Coats	10	50	6	.....
Vests	4	38	4	.....
Overcoats	.....	12	4	.....
Overalls	.....	2	1	.....
Jumpers	.....	2	.....	.....
Shirts	.....	4	.....	.....
Total	26	175	27	.....

Table XI shows what part of the building was occupied by the work rooms. Wherever the floor of the lower story was at all below the level of the ground it was classed as basement. Of the 217 establishments, 26 used basement rooms, 175 used first floor rooms and 27 used second floor rooms. Two coat shops used the basement for pressing rooms, and first floor for sewing room, while two others occupied both first and second floors. Four trousers shops located on first floor used the basement for pressing room, while one occupied both first and second floor. One vest and one overcoat shop each occupied both first and second floors.

Table XII deals with the kind of rooms used by the various tailoring industries.

TABLE XII.

Kinds of rooms used by various tailoring industries.

Industries.	Work rooms only	Living room.	Bed room	Kitchen.	Total.
Trousers	20	38	1	27	86
Coats	46	16	.....	.....	62
Vests	16	16	.....	13	45
Overcoats	15	.....	.....	.....	15
Overalls	.....	2	.....	1	3
Jumpers	.....	1	.....	1	2
Shirts	2	2	.....	.....	4
Total	99	75	1	42	217
Per cent.	45.5	34.6	.5	19.4	100.0

From this table it will be seen that of the total number, 99 or 45.5 per cent were used simply as work rooms; 75 or 34.6 per cent as living rooms, sitting rooms sitting rooms without bedding or cooking utensils; 1 or .5 per cent as bed-rooms; and 42 or 19.4 per cent as kitchens.

Analysis of the table shows that coats and overcoats were made chiefly in shops, 100 per cent of the overcoat establishments being used as work rooms only. The greatest proportion of trousers and vest establishments were used as living rooms or kitchens. As before stated these are the garments which lend themselves most readily to the capacity of the home worker.

TABLE XIII.

Work rooms connected with and not connected with living rooms.

Industries.	Not connected.	Connected.	Total.
Trousers	20	66	86
Coats	42	20	62
Vests	16	29	45
Overcoats	15	.....	15
Overalls	.....	3	3
Jumpers	2	2	2
Shirts		2	4
Total	95	122	217
Per cent.	43.7	56.3	100.0

The above table shows that, of the total number of establishments, 95 or 43.7 per cent were not connected in any way with living rooms while 122 or 56.3 per cent were. Of those connected, trousers stand first with 66, followed by vests with 29, coats with 20, overalls with 3, and jumpers and shirts with two each.

By comparison with the following table it appears, however, that many of those connected had a direct entrance from the outside so that such rooms could be easily separated from the living rooms.

TABLE XIV.

Rooms entered directly through separate doors or stairways.

Industries.	Through other rooms.	Directly.	Total.
Trousers	18	68	86
Coats	8	54	62
Vests	12	33	45
Overcoats	.....	15	15
Overalls	.....	3	3
Jumpers	.....	2	2
Shirts	.....	4	4
Total	38	179	217
Per cent.	17.5	82.5	100.0

Of the 217 establishments, 179 or 82.5 per cent had direct outside entrances, and 38 or 17.5 were entered through other rooms. This fact throws considerable light upon the situation of work rooms. While many are connected with living rooms, making access to them convenient, it would be possible to separate by far the greater number, and not have to pass through living rooms to reach work rooms.

The following table deals with the sanitary condition of each tailoring establishment as a whole.

TABLE XV.

Sanitary condition of tailoring establishments.

Industries.	Good.	Fair.	Bad.	Total.
Trousers	76	9	1	86
Coats	52	8	2	62
Vests	37	6	2	45
Overcoats	14	.....	1	15
Overalls	1	2	.....	3
Jumpers	1	1	.....	2
Shirts	3	1	.....	4
Total	184	27	6	217
Per cent.	84.8	12.4	2.8	100.0

Of the 217 establishments considered, 184 or 84.8 per cent were found in good condition, 27 or 12.4 per cent were in fair condition, and 6 or 2.8 were in bad condition. Many of those considered fair were kept in a clean and sanitary condition, showing the disposition of the proprietor to keep a satisfactory workshop, but were located in buildings needing repair. Others again were in first class buildings but showed need of

more frequent sweeping; while still others were in excellent condition except for some temporary circumstance such as a frozen and bursted water-pipe or a smoking stove. In such cases repairs were ordered at once. Those cases considered bad were such as were located in unsatisfactory buildings, or where the proprietor showed indifference to the laws of sanitation. In such cases licenses were refused or revoked until the shop was moved or the necessary changes made. Then a second inspection was made and a license issued. Fortunately for the tailoring industry in Milwaukee only a small per cent of such cases existed.

Unsanitary closets are often a menace to the health of a community. For this reason the number, location and condition of all closets belonging to tailoring establishments were ascertained and set forth in the following table.

TABLE XVI.

Number and location of closets.

Industries.	Basement.	1st floor.	2d floor.	Outside.	Total.
Trousers	10	14	5	68	97
Coats	30	12	2	46	90
Vests	11	9	1	29	50
Overcoats	12	4	3	10	29
Overalls	.....	1	.....	2	3
Jumpers	.....	.....	.....	2	2
Shirts	3	.....	.....	3	6
Total	66	40	11	160	277
Per cent.	23.9	14.4	3.9	57.8	100.0

Table XVI gives the number and location of all such closets. Of the total number, 277, the largest proportion are earth closets located outside, at least twenty feet from the building. Of those located inside, 66 or 23.9 per cent are on first floors, and 11 or 3.9 per cent are on second floors.

In the case of unsanitary closets the proprietor of the establishment was ordered to clean, whitewash or disinfect them at once and to make such other changes as were considered necessary by the inspector to place them in a sanitary condition.

WAGES IN THE TAILORING INDUSTRIES.

This section deals with wages in the contractor's shops, wages of the home workers who deal directly with the wholesale houses, and wages of home workers who finish garments for contractors. In the case of wages in shops the data was obtained directly from the time books of the employers at the time the inspection was made and verified by conversation with the workers. The wages of home workers were obtained from the worker at the time of inspection. Complete and accurate data was hard to obtain from the home workers who in many cases keep no complete account of the work done in a year, a month, or even a week. Receiving their pay for the pieces finished and returned, they seem to have no further interest in keeping a record. Such a record, if kept, would be of interest in an industry where work is so irregular.

Table I deals with wages paid in thirty of the regular contractor's shops employing 543 persons. These shops were not in any one locality, but were located in the different quarters of the city. They included all the different branches of the garment making industry. The list includes shops using gas, electric and foot power to run the machines and brushes.

The number of employes in each shop ranges from four to fifty-one. The figures presented give the earnings by the week of the six working days. This unit was selected because it most nearly corresponds to that used for the same purpose in other occupations. Workers were paid in various ways. Some worked by the day, some by the week, and still others by the piece. In some shops week wage was the rule, while others paid all employes by the piece. Still other shops paid piece and week wages at the same time. All wages, however paid, are reduced to the week unit in the following table.

TABLE I.

Weekly wages in shops.

Weekly earnings.	Male.	Female.	Total.
$20.00 per week	2		2
18.00 per week	2		2
15.00 per week	4		4
14.50 per week	1		1
14.00 per week	5		5
13.50 per week	3		3
13.00 per week	6		6
12.75 per week	1		1
12.50 per week	2		2
12.00 per week	29		29
11.00 per week	10		10
10.75 per week	1		1
10.50 per week	1		1
10.00 per week	25		25
9.00 per week	7	1	8
8.50 per week	2	7	9
8.00 per week	6	6	12
7.75 per week		3	3
7.50 per week		10	10
7.00 per week	3	22	25
6.75 per week		9	9
6.50 per week		18	18
6.25 per week		3	3
6.00 per week	6	37	43
5.75 per week		9	9
5.50 per week	3	30	33
5.25 per week		9	9
5.00 per week	1	55	56
4.75 per week		13	13
4.50 per week		51	51
4.25 per week	1	6	7
4.00 per week	1	43	44
3.75 per week		5	5
3.50 per week	3	31	34
3.25 per week		10	10
3.00 per week		24	24
2.75 per week		2	2
2.50 per week		9	9
2.25 per week		2	2
2.00 per week		2	2
1.75 per week		1	1
Total	125	418	543

Of the total number considered, 125 were males and 418 females. Wages for males ran from $20.00, the price paid to foremen, down to $3.50 a week, the price paid to apprentice boys. Wages of apprentice boys ran from this low figure up to $6.00. From $6.00 to $20.00 inclusive was the wage paid to regular workmen. The majority of the cases in which men's wages fell below $10.00 was where wages were paid by the piece. The highest classes of wages were paid to foremen, who, while directing and being responsible for all of the work did a part of the regular work themselves. Those classes receiving $12.00, $11.00 and $10.00 a week include the greatest number of males.

Wages of females ran from $9.00 down to $1.75, the wage paid to girls who pull bastings or go on errands. Among the women the classes most prominent are those receiving $7.00, $6.00, $5.50, $5.00, $4.50, $4.00, $3.50 and $3.00.

The table also shows the market difference between men's and women's wages in the same industry.

TABLE II.

Classified weekly earnings of employes in tailor shops.

Classified Weekly Earnings.	Number of Persons.			Per Cent of Persons.		
	Males.	Females.	Total.	Males.	Females.	Total.
$15.00 and over	8	.....	8	1.5	.....	1.5
10.00 and over	84	.....	84	15.5	.....	15.5
7.00 and over	18	49	67	3.3	9.1	12.4
5.00 and over	10	170	180	1.8	31.3	33.1
3.00 and over	5	183	188	.9	33.7	34.6
Under $3.00	.....	16	16	.....	2.9	2.9
Total	125	418	543	23.0	77.0	100.0

Table II deals with classified weekly earnings in tailor shops. Of the total number considered, 543, those receiving $15.00 and over were males 8 or 1.5 per cent; those receiving $10.00 and over were males 84 or 15.5 per cent; those receiving $7.00 and over were males 18 or 3.3 per cent and females 49 or 9.1 per cent; those receiving $5.00 and over were males 10 or 1.8 per cent and females 170 or 31.3 per cent; those receiving $3.00 and over were males 5 or .9 per cent and females 183 or 33.7 per cent; those receiving under $3.00 were females 16 or 2.9 per cent.

The two following tables deal with wages of the home worker.

TABLE III.

Earnings by hour of home workers in the tailoring industry.

Earnings by hour.	Making complete garments.	Finishing garments.	Total.	Per cent.
15c per hour	1	1	2	1.6
13c per hour	1	.....	1	.8
12½c per hour	1	.....	1	.8
11c per hour	1	.....	1	.8
10c per hour	15	23	38	30.8
9½c per hour	7	.....	7	5.7
9c per hour	6	18	24	19.6
8½c per hour	10	3	13	10.6
8c per hour	12	11	23	18.7
7½c per hour	4	4	8	6.5
7c per hour	.....	5	5	4.1
Total	58	65	123	100.0

Table III deals with earnings by the hour of home workers in the tailoring industry. Since the work is all paid by the piece and the amount done by each one in a day is so irregular, it was found that most accurate results could be obtained by finding the earning of each one by the hour, and from that computing the weekly wage, as is done in Table IV.

Of 123, the total number of home workers considered, 58 made complete garments and worked directly for the wholesale houses and 65 finished garments for contractors. The wage per hour ran from 15 cents, the highest reported, to 7 cents, the lowest. The classes most prominent among those making complete garments were 10 cents, 8½ cents and 8 cents an hour; those most prominent among the finishers were 10 cents, 9 cents and 8 cents an hour. Of the total number, those receiving 10 cents were 38 or 30.8 per cent; 9 cents, 24 or 19.6 per cent; 8½ cents, 13 or 10.6 per cent; and 8 cents, 23 or 18.7 per cent.

TABLE IV.

Possible weekly earnings at given rate per hour for home workers in tailoring industry.

Weekly earnings.	Making complete garments.	Finishing garments.	Total.	Per cent.
$9.00 per week	1	1	2	1.6
7.80 per week	1	.....	1	.8
7.50 per week	1	.....	1	.8
6.60 per week	1	.....	1	.8
6.00 per week	15	23	38	30.8
5.70 per week	7	.....	7	5.7
5.40 per week	6	18	24	19.6
5.10 per week	10	3	13	10.6
4.80 per week	12	11	23	18.7
4.50 per week	4	4	8	6.5
4.20 per week	.....	5	5	4.1
Total	58	65	123	100.0

Taking as a basis the ten hour day, which is the rate for 73.5 per cent of the total number of employes as shown in Table VII, preceding section, Table IV gives the weekly earnings at the given rate per hour for the home workers. This shows 30.8 per cent receiving $6.00 a week, 19.6 per cent receiving $5.40 a week, 10.6 per cent receiving $5.10 a week, and 18.7 per cent receiving $4.80 a week, with none receiving above $9.00 or below $4.20 a week.

Since the home workers were almost entirely women, the few men found were not included in Table IV so that a correct basis could be had for a comparison of wages of women in shops, women working directly for wholesale houses and women finishing garments for contractors. Reference to Table I shows the largest number in any one class to be those receiving $5.00 a week, but considering the total number, the average wage in shops is $5.09 for women workers or $4.98 for females including apprentice and errand girls. Among women dealing with the wholesale houses the largest class was those receiving $6.00 a week, but the average wage falls to $5.51. Among women finishing goods for contractors the largest class was also those receiving $6.00 a week but the average wage falls to $5.40.

In the case of the home workers there seems to be little advantage in dealing directly with the wholesale houses and saving the profits of the middleman. A difference of 11 cents a week can be more than accounted for by the extra skill required in those making an entire garment.

Comparing the wages of the women in shops with the home workers, those of the latter seem slightly higher, but the difference is certainly not great enough to cover the expense saved to the contractor in room rent and machines. Contractors admitted that at the price paid for finishing, it was cheaper to have such work done out of the shop although the saving was slight.

KNITTING INDUSTRY.

TABLE I.

Establishments in knitting industry.

Industries.	Establishments.	Per cent.
Hoods	23	13.0
Shawls	22	12.4
Jackets	12	6.8
Bootees	3	1.7
Mittens	76	43.1
Sweaters	15	8.4
Socks	6	3.4
All kinds of crocheting	20	11.2
Total	177	100.0

Table I deals with the number and per cent of establishments and kinds of garments made or finished which are classified as follows: Hoods, shawls, jackets, bootees, mittens, sweaters, socks. Since those establishments making all kinds of crocheted garments formed a considerable number they are given a separate class.

Each place regardless of the number employed is regarded as an establishment. The total number of places included is 177. Of these 23 or 13 per cent turned out hoods; 22 or 12.4 per cent, shawls; 12 or 6.8 per cent, baby jackets; 3 or 1.7 per cent, bootees; 76 or 43.1 per cent finished mittens; 15 or 8.4 per cent finished sweaters; 6 or 3.4 per cent finished socks; and 20 or 11.2 per cent made all kinds of crocheted garments before mentioned.

TABLE II.

Number of workers in knitting establishments.

Industries.	1 person.	2 people.	3 people.	4 people.	5 people	Total.
Hoods	20	2	1	.....	.....	23
Shawls	18	3	1	.....	.....	22
Jackets	10	2	.....	.....	.....	12
Bootees	3	.....	.....	.....	.....	3
Mittens	48	16	7	2	3	76
Sweaters	12	2	1	.....	.....	15
Socks	2	.....	2	1	1	6
All kinds crocheting	17	3	.....	.....	.....	20
Total	130	28	12	3	4	177
Per cent.	73.5	15.8	6.8	1.7	2.2	100.0

Table II shows the number of workers in each establishment. Of the total number, 177, it appears that 130 or 73.5 per cent had one each; 28 or 15.8 per cent had two each; 12 or 6.8 per cent had three each; 3 or 1.7 per cent had four each; and 4 or 2.2 per cent had five each. While such figures indicate the home work shop in general, they also prove that there is little or no overcrowding.

TABLE III.

Male and female workers in each class.

Industries.	Male.	Female.	Total.
Hoods		27	27
Shawls		27	27
Jackets		14	14
Bootees		3	3
Mittens	18	106	124
Sweaters		19	19
Socks	3	14	17
All kinds crocheting		23	23
Total	21	233	254
Per cent.	8.3	91.7	100.0

Table III shows the number of workers in each branch of the industry. The number of males is small and was made up of old men and boys. Of 254, the total number of employes, those working on hoods included 27 females; on shawls, 27 females; on jackets, 14 females; on bootees, 3 females; on mittens, 18 males and 106 females; on sweaters, 19 females; on socks, 3 males and 14 females; and those making all kinds of crocheted garments included 23 females.

TABLE IV.

Number of young persons and children in home knitting industry.

Industries.	16–18 years.	14–16 years.	Under 14 years.	No. permits.
Hoods		1		1
Shawls	1			
Jackets				
Bootees				
Mittens	4	4	13	4
Sweaters				
Socks	1		3	
All kinds crocheting				
Total	6	5	16	5

The above table shows the number of young persons and children found at work in the knitting industry. Those between 16 and 18 years numbered six; between 14 and 16 years, five; under 14 years, sixteen. The greater number of those at work under 14 years were employed at such work after school hours or on Saturdays. Those between 7 and 14 years who were found at work during school hours were reported to the truant officer who forced them into school.

TABLE V.

Classification of hours of labor daily and number of establishments in each class.

Industries.	Irregular 1-6 hours.	Irregular 7-9 hours.	10 hours.	Total.
Hoods	13	8	2	23
Shawls	9	11	2	22
Jackets	4	8	.....	12
Bootees	.....	2	1	3
Mittens	39	34	3	76
Sweaters	5	8	2	15
Socks	3	3	.....	6
All kinds crocheting	13	7	.....	20
Total	86	81	10	177
Per cent.	48.5	45.8	5.7	100.0

As is usually the case in the home work shop, the hours of labor in the knitting industry are very irregular. Of the 177 establishments considered, only 10 or 5.7 per cent were working regularly ten hours a day. Of the remaining number, 86 or 48.5 per cent worked irregularly from one to six hours inclusive daily, and 81 or 45.8 per cent worked irregularly from seven to nine hours inclusive daily. The number working regularly ten hours daily were divided evenly between the crocheters and finishers, 2 making hoods, 2 making shawls, 1 making bootees, 3 finishing mittens, and 2 finishing sweaters.

TABLE VI.

Classification of hours of labor daily and number of employes in each class.

Industries.	Irregular 1-6 hours.	Irregular 7-9 hours.	10 hours.	Total.
Hoods	15	10	2	27
Shawls	11	14	2	27
Jackets	6	8	.....	14
Bootees	.....	2	1	3
Mittens	66	54	4	124
Sweaters	5	10	4	19
Socks	11	6	.....	17
All kinds crocheting	15	8	.....	23
Total	129	112	13	254
Per cent.	50.8	44.1	5.1	100.0

Of the 254 employes in the knitting industry only 13 or 5.1 per cent were employed regularly ten hours a day, 112 or 44.1 per cent were employed irregularly from 7 to 9 hours inclusive daily, and 129 or 50.8 per cent were employed irregularly from 1 to 6 hours inclusive daily. Thus it appears that over half of the total number work less than seven hours daily, and 94.9 per cent work irregularly.

TABLE VII.

Kind of building occupied in knitting industry.

Industries.	Frame, Stories High.					Brick, Stories High.			Total.
	1.	1½.	2.	2½.	3.	1.	2.	3.	
Hoods	5	5	11	.....	.....	.....	2	.....	23
Shawls	7	4	9	1	.....	.....	.....	1	22
Jackets	3	1	7	.....	.....	.....	.....	1	12
Bootees	.....	.....	3	.....	.....	.....	.....	.....	3
Mittens	13	13	47	2	.....	.....	.....	1	76
Sweaters	5	3	6	.....	1	.....	.....	.....	15
Socks	3	1	2	.....	.....	.....	.....	.....	6
All kinds crocheting	1	1	16	1	1	.....	.....	.....	20
Total	37	28	101	4	2	.....	2	3	177

Table VII deals with kinds of buildings occupied by workrooms in the knitting industry. Of the 177 buildings, 172 were of wood and 5 of brick. Of the wooden or frame buildings 37 were one story high; 28 were one and one-half stories; 101 were two stories; 4 were two and one-half stories; and 2 were three stories. Of the brick buildings, 2 were two stories and 3 were three stories. This shows the majority of the buildings to be two story frame structures.

TABLE VIII.

Use of buildings in knitting industry.

Industries.	Tenement.	Dwelling.	Shop.	Dwelling and shops.	Total.
Hoods	1	20	.....	2	23
Shawls	1	19	1	1	22
Jackets	1	11	.....	.....	12
Bootees	.....	3	.....	.....	3
Mittens	1	72	.....	3	76
Sweaters	.....	14	.....	1	15
Socks	.....	6	.....	.....	6
All kinds crocheting	4	15	.....	1	20
Total	8	160	1	8	177
Per cent.	4.5	90.4	.6	4.5	100

Table VIII shows the purpose for which the establishments in question were used. Of the total number, 8 or 4.5 per cent were tenements; 160 or 90.4 per cent were dwellings; 1 or .6 per cent was a shop; and 8 or 4.5 per cent dwelling and shop combined.

Even in this industry where the home shop prevails the tenement is still a small factor. Although the habits of those dwelling in a cottage may be no cleaner or better than those dwelling in a tenement they are free from the unsanitary conditions too often prevailing where many people are crowded into one building which in itself is old or unsanitary.

TABLE IX.

Showing stories occupied by work room.

Industry.	Basement.	1st floor.	2d floor.	3d floor.	Total.
Hoods	.....	16	7	.....	23
Shawls	4	13	5	.....	22
Jackets	1	11	.....	.....	12
Bootees	.....	1	2	.....	3
Mittens	16	51	9	.....	76
Sweaters	1	12	1	1	15
Socks	.....	4	2	.....	6
All kinds crocheting	1	14	4	1	20
Total	23	122	30	2	177
Per cent.	13	68.9	17	1.1	100

The above table shows what part of the building was occupied by the work rooms. In the knitting industry, as well as in the tailoring industry, whenever the floor of the lower story

was at all below the level of the ground it was classed as basement. Of the 177 establishments 23 used basement rooms, 122 used first floor, 30 used second floor, and 2 used third floor rooms. Of those working in basements the finishers of mittens comprised more than two thirds.

TABLE X.

Kinds of rooms used for work rooms in knitting industry.

Industries.	Work room only.	Living room.	Bed room.	Kitchen.	Total.
Hoods	.....	15	.....	8	23
Shawls	.....	17	.....	5	22
Jackets	.....	8	.....	4	12
Bootees	.....	2	.....	1	3
Mittens	3	42	4	27	76
Sweaters	1	9	1	4	15
Socks	.....	4	1	1	6
All kinds crocheting	.....	14	.....	6	20
Total	4	111	6	56	177
Per cent.	2.3	62.7	3.4	31.6	100

From this table it appears that of 177, the total number considered, 4 or 2.3 per cent were used as work rooms only; 111 or 62.7 per cent were used as sitting rooms; 6 or 3.4 per cent were used as bed rooms; and 56 or 31.6 per cent were used as kitchens. Two thirds of those using bed rooms, and nearly half of those using kitchens were finishers of mittens. This class, however, had the advantage of including three out of the four establishments used as work rooms only.

Tables XI and XII show the relation of work rooms to the other rooms in the buildings in which knitting is carried on.

TABLE XI.

Showing rooms connected and not connected with living rooms in knitting industry.

Industries.	Not connected.	Connected.	Total.
Hoods	.....	23	23
Shawls	.....	22	22
Jackets	.....	12	12
Bootees	.....	3	3
Mittens	.....	76	76
Sweaters	.....	15	15
Socks	.....	6	6
All kinds crocheting	.....	20	20
Total	.....	177	177
Per cent.	.....	100	100

TABLE XII.

Rooms entered directly through separate doors or stairways.

Industries.	Through other rooms.	Directly.	Total.
Hoods	2	21	23
Shawls	1	21	22
Jackets	2	10	12
Bootees	.....	3	3
Mittens	16	60	76
Sweaters	5	10	15
Socks	3	3	6
All kinds crocheting	4	16	20
Total	33	144	177
Per cent.	18.6	81.4	100

Table XI shows all rooms used as work rooms connected with living rooms. This is a significant fact concerning the knitting industry. Table XII shows that out of 177 establishments, 33 or 18.6 per cent were entered through other rooms, while 144 or 81.4 per cent were entered directly from outside. While nearly all of these rooms entered directly were sitting rooms or kitchens, they were usually larger and had the advantage of more light and air than those work rooms entered through other rooms.

TABLE XIII.

Sanitary condition of knitting establishments.

Industries.	Good.	Fair.	Bad.	Total.
Hoods	18	5	.....	23
Shawls	20	1	1	22
Jackets	9	3	.....	12
Bootees	2	1	.....	3
Mittens	39	21	16	76
Sweaters	12	3	.....	15
Socks	2	2	2	6
All kinds crocheting	17	3	.....	20
Total	119	39	19	177
Per cent.	67.2	22.1	10.7	100

Table XIII represents the sanitary condition of the knitting establishments at the time of inspection. Of the total number, 119 were in good condition, 39 fair and 19 bad. In a large majority of those considered good the strictest neatness and cleanness prevailed, and in all, the laws of cleanness and sani-

tation were observed. Those classed as fair showed evidence of regular sweeping and scrubbing, but children's garments scattered on the floor, doors leading into kitchens or bed rooms standing ajar, or other unsatisfactory conditions as easily remedied, prevented the establishments from being classed as good. Those places classed as bad presented unsanitary conditions about the work rooms or adjacent living rooms. Several instances there were of filth and squalor due to poverty and misfortune, but the majority were simply the result of the natural tastes and habits of the people. The entire nineteen need constant watching to keep them in order, without which they present little hope of permanent reform.

TABLE XIV.

Number and location of closets.

Industries.	Basement	1st floor.	2d floor.	3d floor.	Outside	Total.
Hoods	.....	7	.....	.....	16	23
Shawls	2	4	2	.....	14	22
Jackets	.....	2	.....	.....	10	12
Bootees	.....	1	1	.....	1	3
Mittens	3	3	2	.....	68	76
Sweaters	1	2	.....	1	11	15
Socks	.....	.....	1	.....	5	6
All kinds crocheting	1	4	1	1	13	20
Total	7	23	7	2	138	177
Per cent.	4	13	4	1.1	77.9	100

Table XIV gives the number and location of closets belonging to knitting establishments. Of 177, the total number, 7 or 4 per cent were in the basement; 23 or 13 per cent were on first floor; 7 or 4 per cent on second floor; 2 or 1.1 per cent on third floor; and 138 or 77.9 per cent were located outside, at least twenty feet from the building.

All closets found unsanitary were located outside of the building. These were ordered immediately cleaned and disinfected and put in a proper sanitary condition.

WAGES IN THE KNITTING INDUSTRY.

Earnings by hour of home workers in the knitting industry.

Earnings by hour.	Crocheters	Finishers.	Total	Per cent.
10c per hour	7	5	12	4.7
9c per hour	1	1	2	.8
8c per hour	8	7	15	5.9
7c per hour	22	42	64	25.2
6c per hour	30	34	64	25.2
5c per hour	19	61	80	31.5
4c per hour	5	5	10	3.9
3c per hour	2	5	7	2.8
Total	94	160	254	100.0

Table I deals with earnings by the hour of home workers in the knitting industry. As shown in Table VI, 94.9 per cent of the total number work irregular hours. Therefore, as in the case of home workers in the tailoring industry, the only common basis for classification is the hourly earnings.

Of 254, the total number from whom such statistics were gathered, 94 were crocheters and 160, finishers of knit goods. The earnings per hour ran from 10 cents, the highest, down to 3 cents, the lowest. The class most prominent is that receiving 5 cents an hour, including 80 or 31.5 per cent of the total number of workers. Next in order of prominence are those receiving 7 cents and 6 cents, including 64 workers each, or 50.4 per cent of the total number. Those receiving 10 cents an hour comprised 4.7 per cent of the total number; 9 cents, 8 per cent of the total; 8 cents, 5.9 per cent of the total; 4 cents, 3.9 per cent of the total; and 3 cents, 2.8 per cent of the total. This brings the average earning per hour down to a little more than 6 cents. However unskilled the work of finishing knit goods may be, six cents an hour is a deplorably low wage for that class, and is even worse for those doing crocheting, which is really skilled work.

TABLE II.

Possible weekly earnings at given rate per hour for home workers in the knitting industry.

Weekly earnings.	Crocheters.	Finishers.	Total.	Per. cent.
$6 00 per week	7	5	12	4.7
5 40 per week	1	1	2	.8
4 80 per week	8	7	15	5.9
4 20 per week	22	42	64	25.2
3 60 per week	30	34	64	25.2
3 00 per week	19	61	80	31.5
2 40 per week	5	5	10	3.9
1 80 per week	2	5	7	2.8
	94	160	254	100.0

Table II shows the possible weekly earning at given rate per hour for home workers in the knitting industry. Only 4.7 per cent of the total number could possibly earn $6.00 a week with a ten hour day; 25.2 per cent, $4.20; 25.2 per cent, $3.60; and 31.5 per cent, $3.00. The average earning per week would be $3.60. But Table VI shows that 50.8 per cent of the total number work irregularly from 1 to 6 hours daily, and 44.1 per cent from 7 to 9 hours daily. Comparison of Tables VI and II gives a fair estimate of the earnings of this class.

COMPARISON OF TAILORING AND KNITTING INDUSTRIES.

The following tables present the totals found in the tailoring and knitting industries which are thus brought together for purposes of comparison.

The first table deals with the number of establishments in each class.

Industries	Establishments.	Per cent.
Tailoring	217	55.1
Knitting	177	44.9
Total	394	100.0

Of the total number considered in this report, tailoring included 55.1 per cent and knitting 44.9 per cent of the establishments.

Comparing the total number of employes in each industry gives the following result:

Industries	Male	Female.	Total.	Per cent.
Tailoring	350	1,068	1,418	84.6
Knitting	21	233	254	15.4
Total	371	1,301	1,672	100.0

Of 1,672, the total number, those in the tailoring industry comprise 84.6 per cent; in the knitting, 15.4 per cent. The total number of males in both industries is 371; of females is 1,301.

Comparison of the relative number employed in each establishment shows a marked difference between the two industries.

Industries	1 person.	2-5 inclusive.	6-10 inclusive.	Over 10.	Total
Tailoring	101	49	14	53	217
Knitting	130	47	.....	.....	177
Total	231	96	14	53	394

While the knitting industry has the larger number of establishments employing one person, and the two industries have almost an equal number employing from 2 to 5 inclusive, the tailoring industry is the only one showing any establishments employing more than five.

Industries.	16—18 yrs.	14—16 yrs.	Under 14 yrs	No permits.
Tailoring	197	103	.....	57
Knitting	6	5	16	5
Total	203	108	16	62

Of young persons between sixteen and eighteen years, the tailoring industry employed by far the greater number. This was largely due to the existence of regular shops, where all such workers were employed. The same was true regarding those between fourteen and sixteen years. No children under fourteen years were found working in tailoring establishments. This was probably due to two reasons, one being that the work

in general and the class of goods made in Milwaukee did not profit by the labor of young children, and the other being the enforcement of the child labor law at the previous inspection by officers of the State Labor Bureau.

Industries.	8 hours.	9 hours.	10 hours.	Irregular but less than 10.	Total.
Tailoring	4	7	85	121	217
Knitting	.....	.....	10	288	394
Total	4	7	95	288	394

A classification of the hours of labor daily shows all those establishments working regularly eight, nine and ten hours daily, and also the number working irregular hours. Those working irregularly represent home workers entirely as do also the ten in the knitting industry who work ten hours daily.

Industries.	8 hours.	9 hours.	10 hours	Irregular but less than 10.	Total.
Tailoring	46	71	1,039	262	1,418
Knitting	.....	.....	13	241	254
Total	46	71	1,052	503	1,672

The preceeding table shows that of 1,672, the total number employed in both industries, 46 worked 8 hours daily, 71 worked 9 hours, and 1,052 worked 10 hours, while 503 worked irregularly less than 10 hours daily. Thus it appears that the 288 or 73.1 per cent of the total number of establishments, working irregularly, employed only 503 or 30 per cent of the total number of workers.

Industries.	Frame, Stories High.					Brick, Stories High.			Total
	1	1½	2	2½	3	1	2	3	
Tailoring	62	27	109	10	3	.....	5	1	217
Knitting	37	28	101	4	2	.....	2	3	177
Totals	99	55	210	14	5	.....	7	4	394

Comparing the kinds of buildings used by the two industries the same general tendency is apparent throughout, with one ex-

ception. In the case of one story frame structures, the tailoring industry occupies the larger number in proportion to its total number of establishments. This is probably due to the fact that many of the tailor shops are in one story frame buildings designed expressly for that purpose. The majority of establishments in both industries occupied 2 story frame structures.

Industries.	Tenement.	Dwelling.	Shop.	Dwelling and shop.	Total.
Tailoring	2	139	60	16	217
Knitting	8	160	1	8	177
Total	10	299	61	24	394

The above table shows the use of buildings in the two industries. While the knitting industry occupies the larger number of tenements, the total number in both cases is only 2.5 per cent. The most striking feature of this table is the large number of establishments in both industries, located in dwelling houses. However rigidly inspected, these constitute a serious evil in the sweating problem.

Industries.	Basement.	1st floor.	2d. floor	3d floor.
Tailoring	26	175	27	.....
Knitting	23	122	30	2
Total	49	297	57	2

Of the 394 establishments, 49 used basement rooms, 297 first floor, 57 second floor, and 2 third floor. Several of the tailoring establishments used two floors, separating the pressing and sewing rooms. This was an advantage to those in the sewing room as it removed steam, extra heat, and the odor of pressing garments.

Industries.	Work room only	Living room.	Bed room.	Kitchen.	Total.
Tailoring	99	75	1	42	217
Knitting	4	111	6	56	177
Total	103	186	7	98	394

Of the establishments occupying work rooms only, the tailoring industry shows much the larger number which is 45.5 per cent of its total, while that of the knitting industry is 2.3 per cent of its total. In the case of those occupying living rooms the tailoring industry presents the better condition, 34.6 per cent of its establishments being in this class, against 62.7 per cent of the knitting industry. Few bed rooms were used by either industry. Of those using kitchens, 42 were in the tailoring industry and 56 in the knitting. All places containing cook stoves were classed as kitchens, although in many cases the cooking was done in the basement or in a temporary addition.

Industries.	Not connected.	Connected.	Total.
Tailoring	95	122	217
Knitting		177	177
Total	95	299	394

The above table, when read with the two which precede it, throws much light on the location of the various establishments. This represents 24.1 per cent of the places not connected with living rooms, and 75.9 per cent connected. The latter represents the majority of the tailoring and all of the knitting establishments. Fortunately this does not represent the amount of work done in such places, for a large majority of the total number of workers are found in the separate tailor shops.

Industries.	Through other rooms.	Directly.	Total.
Tailoring	38	179	217
Knitting	33	144	177
Total	71	323	394

A comparison of the two industries with regard to the number of establishments entered directly or indirectly shows no marked difference. Among the tailoring establishments 17.5 per cent are entered through other rooms, and 82.5 per cent directly; among the knitting, 18.6 per cent are entered indirectly and 81.4 per cent have direct outside entrance.

The following table represents the sanitary condition of the establishments in the two industries.

Industries.	Good.	Fair.	Bad.	Total
Tailoring	184	27	6	217
Knitting	119	39	19	177
Total	303	66	25	394

Here it appears that the tailoring industry had the larger proportion classed as good and the smaller proportion classed as fair or bad, and stand 184 or 84.8 per cent good; 27 or 12.4 per cent fair; and 6 or 2.8 per cent bad; while the knitting industry included 119 or 67.2 per cent good; 39 or 22.1 per cent fair; and 19 or 10.7 per cent bad.

The following table shows the number and location of closets in the two industries.

Industries.	Basement.	1st floor.	2d floor.	3d floor.	Outside.	Total.
Tailoring	66	40	11	.....	160	277
Knitting	7	23	7	2	138	177
Total	73	63	18	2	298	454

Of the total number of closets, 65.6 per cent were located outside and entirely separate from the work rooms; 16.1 per cent in basements; 13.9 per cent on first floor; 4 per cent on second; and .4 per cent on third.

The table following represents the sanitary condition of such closets.

Industries.	Sanitary.	Unsanitary.	Total.
Tailoring	244	33	277
Knitting	142	35	177
Total	386	68	454

Comparison of the sanitary condition of closets shows that somewhat better conditions prevailed in the tailoring industry, while the total number shows 85 per cent sanitary and 15 per cent unsanitary.

ORDERS ISSUED.

Orders.	Tailors.	Knitters.	Total.
Permits for children	57	5	62
Registers of children	23	.....	23
Registers of finishers	12	.....	12
Ventiltion	12	7	19
Light	3	.....	3
Sanitation	107	108	215
On building	8	.....	8
Total	222	120	342
Per cent.	65	35	100

At the inspection of the 394 establishments in question, 342 more or less serious violations of the laws were discovered. Classified according to industries they stand as follows: Tailoring 22 or 65 per cent; knitting 120 or 35 per cent. Classified according to the nature of the violation they stand as follows: Permits for children 62; registers of children 23; registers of finishers 12; ventilation 19; lights 3; sanitation 215; on building 8.

The proprietors of the establishments affected were ordered to comply with the law and at once remedy the violation.

MANUFACTURING RETURNS--1903.

In past years this department has sought to indicate the trend in certain industrial conditions through comparison of the manufacturing returns from year to year. As is has never been possible to obtain complete returns from enough manufacturers to constitute a census of manufacturing, the value of these comparisons depended largely upon a practice of pairing the schedules of successive years. By this method of compilation, the schedules of each establishment for two successive years were paired and the returns for all establishments reporting were classified by industries. When the data taken from these schedules for the two successive years were compiled by industries the changes, growth, etc., from year to year were correctly presented, at least insofar as concerned the portion of each industry represented. Moreover, since the comparisons in each case were based upon returns for *identical establishments,* and since the establishments included were a large proportion, in most cases a majority, of the several industries, it was reasonably safe to assume that whatever tendencies were exhibited by these comparisons were approximately correct and representative for the industry as a whole.

Owing to the destruction by fire in 1904 of all schedules previously received it was impossible this year to pair the schedules for the two past years. Consequently the data received would be of very little significance, except as relates to wages, hours of labor, etc., and are therefore not presented in this report. Only the facts as to wages, hours of labor, range of employment, etc., are presented. The schedules, however, were carefully compiled and preserved and it is hoped that in the

next report it will be possible to present complete comparative statements covering all important phases of the condition and trend of manufacturing.

In the capitol fire many returns for the last year were also destroyed and it was necessary to request many manufacturers to fill out a second schedule. It is due these concerns to state that the request for extra schedules was in most cases very kindly and promptly complied with.

In formulating the new schedule certain changes regarding wage statistics were made with a view primarily to making the schedule more easy to fill out. Instead of asking the employer to classify the wage-earners, the definite daily wage was asked for in each case. This information could readily be supplied by merely copying a pay roll. The classification could be done in this office. While it entailed much more work in compiling the returns the new form of inquiry had the added merit of enabling the department to compute the exact average wage in each class, occupation, or industry. This advantage is believed to be so great as to warrant the retention of the new form of inquiry in the future. It is also hoped that the greater facility with which the schedule may be filled out will lead to more complete returns from manufacturers.

It so happened that at the time of the change in the form of schedule a large number of the old forms were in the hands of manufacturers. As a result a majority reported this year on the old form. So that the following tables are composed of two parts. The first part (Table A) is taken from the reports on the new forms, and the second part (Table B) is a combination of the returns from all schedules returned.

The facts for each industry, herewith presented, are divided into two parts, "Table A" and "Table B."

"Table A" shows for that portion of the industry which reported wage statistics in detail, 1st., the several kinds of services or occupations employed in the industry; 2nd., the average number of hours work per day for each occupation; 3rd., the number and proportion of persons in each occupation; 4th, the total amount of wages per day paid to all persons in each occupation and the per cent of wages in each occupation to the total

wages in all occupations; 5th, the average wage per day and per hour in each occupation. "Table A" is divided into two parts. The first part presents the statistics affecting wage earners only. The second part presents such returns as were received affecting salaried persons such as bookkeepers, clerks, foremen, etc. The two parts of the table are computed separately so that the average hours, wage, etc., for all occupations in a given industry are shown separately for the strictly wage occupations and salaried occupations.

"Table B" shows, for all establishments reporting, 1st, the classified weekly earnings; 2nd, the average wage per day; 3rd, the range of employment by months. Under classified weekly earnings are shown the number of all persons, male, female, and both male and female, employed in each of ten classes of employes, classified on the basis of weekly earnings, together with the per cent which the total number in each class is of the total number in all classes. Under the average wages per day is shown the average wage for males, females, and both males and females in each class and the average for all classes. This average in each class is based on the exact average wage received in each class by all employes for whom wages were reported in detail. This average when computed is also applied to all persons in each corresponding class reported by classified earnings only. The result should give very nearly the exact average daily wage for all persons receiving wages in each class for all establishments reporting either as to wages in detail or only on the classified basis. Having the number of persons in each class and the average wage in each class, the average wage for all persons in all classes is readily computed. Under the range of employment is shown the total number of persons reported as employed each month. The range of employment for each month through the year is expressed by the per cent which the number of persons employed each month is of the number for the month when the greatest number was employed, which for the purposes of this statement is considered as 100 per cent, or full employment.

In sending out schedules, there were certain establishments which were not questioned as to capital and certain other fac-

tors of their condition as the nature of their business was such that these factors were of relatively little significance. The returns from these establishments were separated from the leading manufacturing industries proper and classified into eight industries and miscellaneous establishments. The statistics of these industries are presented following the "51 leading industries" under the caption "Nine Lesser Industries."

AGRICULTURAL IMPLEMENTS—25 ESTABLISHMENTS.

Table A.—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Total.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Apprentices	10	16	1.57	$11.97	.680	$0.748	$0.074
Assemblers	10	25	2.45	43.17	2.456	1.726	.172
Blacksmiths	10	55	5.39	121.89	6.934	2.216	.221
Carpenters	10	8	.79	14.48	.823	1.810	.181
Core makers	10	13	1.28	17.50	.996	1.346	.134
Cupola tenders	10	2	.20	3.50	.199	1.750	.175
Engineers	10	3	.30	5.75	.326	1.916	.191
Fireman	10	1	.09	1.75	.099	1.750	.175
Grinders and polishers	10	24	2.36	38.49	2.195	1.603	.160
Iron melter	10	1	.09	2.25	.128	2.250	.225
Laborers	10	175	17.17	247.85	14.100	1.416	.141
Machinists	10	226	22.18	466.08	26.515	1.973	.197
Machine tenders	10	9	.89	10.60	.603	1.177	.117
Machine tenders, helpers	10	107	10.50	113.10	6.434	1.057	.105
Moulders	9.06	165	16.19	366.69	20.860	2.221	.245
Moulders, helpers	10	4	.40	6.00	.341	1.500	.150
Painters	10	35	3.44	52.25	2.972	1.493	.149
Pattern makers	10	6	.59	14.14	.804	2.356	.235
Pipe fitter	10	1	.09	1.85	.105	1.850	.185
Plowman	10	1	.09	1.75	.100	1.750	.175
Teamsters	10	5	.49	9.75	.555	1.950	.195
Tinners	10	1	.09	2.25	.128	2.250	.225
Truckers	10	25	2.45	31.50	1.736	1.220	.122
Watchmen	10.50	6	.59	10.00	.569	1.666	.158
Woodworkers	10	73	7.17	116.95	6.653	1.629	.162
Woodworkers, helpers	10	32	3.14	47.28	2.689	1.477	.147
Total and average	9.95	1,019	100.00	$1,757.79	100,000	$1.725	$0.173
Bookkeepers	10	1	2.63	$2.00	$1.967	$2.000	$0.200
Foremen	9.96	28	73.69	81.85	8.521	2.923	.292
Salesmen	10	1	2.63	3.00	2.952	3.000	.300
Shippers	10	8	21.05	14.80	14.560	1.850	.231
Total and average	9.97	38	100.00	$101.65	100.000	$2,675	$0.267

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent.	Average Wages Per Day.			No. Persons Emp by Month.		
Classification.	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00	124	14	138	$2.97	$.672	$.670	$.672	Jan	4,255	96.38
$ 5 00 but under 6 00	70	2	72	1.55	.85	.85	.85	Feb	4,384	99.24
6 00 but under 7 00	178	.....	178	3.82	1.001	.....	1.001	Mar	4,415	100.00
7 00 but under 8 00	388	.....	388	8.34	1.249	.....	1.249	April	4,148	93.95
8 00 but under 9 00	473	.....	473	10.16	1.355	.....	1.355	May	3,970	89.92
9 00 but under 10 00	952	.....	952	20.46	1.515	.....	1.515	June	3,877	87.81
10 00 but under 12 00	754	.....	754	16.20	1.745	.....	1.745	July	3,611	81.79
12 00 but under 15 00	731	.....	731	15.71	2.115	.....	2.115	Aug	3,301	74.77
15 00 but under 20 00	742	.....	742	15.95	2.635	.....	2.636	Sept	2,747	62.20
20 00 and over	225	.....	225	4.84	3.52	.....	3.52	Oct	2,580	58.48
								Nov	2,671	60 49
Total	4,637	16	4,653	100.00	$1.759	$.692	$1.759	Dec	2,801	63.42
								Ave	3,563	80.70

ARTISANS' TOOLS—6 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Cutter	8	1	1.45	$1.66	1.282	$1.66	$0.207
Engineer	10	1	1.45	1.75	1.352	1.75	.175
File cutter	10	1	1.45	1.50	1.159	1.50	.150
Forger	10	1	1.45	3.25	2.510	3.25	.325
Grinders	8.66	9	13.04	22.30	17.225	2.477	.286
Helpers	10	3	4.35	5.25	4.055	1.750	.175
Machine hands	10	47	68.11	81.50	62.954	1.738	.173
Machinist	10	1	1.45	2.50	1.931	2.500	.250
Polishers	10	2	2.90	4.75	3.670	2.375	.237
Steelsmiths	9.50	2	2.90	2.50	1.931	1.250	.131
Temperer	10	1	1.45	2.50	1.931	2.500	.250
Total and average..	9.78	69	100.00	$129.46	100.00	$1.876	$0.191
Salesmen	8	2	100.00	$4.16	100.00	$2.08	$0.260

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent.	Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00..	8	.....	8	7.77	$.75	.....	$.75	Jan...	99	99.00
$ 5 00 but under 6 00..	1	.....	1	.97	.90	.....	.90	Feb ..	99	99.00
6 00 but under 7 00..	6	.....	6	5.82	1.00	.....	1.00	Mar...	99	99.00
7 00 but under 8 00..	2	.....	2	1.94	1.25	.....	1.25	April..	98	98.00
8 00 but under 9 00..	10	.....	10	9.71	1.35	.....	1.35	May ..	99	99.00
9 00 but under 10 00..	3	.....	3	2.91	1.58	.....	1.58	June..	99	99.00
10 00 but under 12 00..	7	.....	7	6.80	1.75	.....	1.75	July..	100	100.00
12 00 but under 15 00..	42	.....	42	40.78	2.048	.....	2.048	Aug ..	100	100.00
15 00 but under 20 00..	22	.....	22	21.36	2.60	.....	2.60	Sept..	99	99.00
20 00 and over.....	2	.....	2	1.94	3.50	.....	3.50	Oct...	99	99.09
								Nov..	96	96.00
Total.....	103	.....	103	100.00	$1.881	.....	$1.881	Dec...	97	97.00
								Ave....	99	99.00

BEEF AND PORK PACKING—11 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
						Average.	
		Number.	Per cent.	Total per day.	Per cent.	Per day.	Per hour.
Boys	10	58	4.14	$60.92	2.407	$1.05	$0.105
Box makers	10	10	.72	22.50	.889	2.25	.225
Butchers	10	262	18.72	537.00	21.221	2.049	.204
Carpenters	10	5	.36	9.05	.358	1.81	.181
Cooks	10	16	1.14	32.56	1.287	2.035	.203
Electrician	10	1	.07	2.15	.085	2.15	.215
Engineers	10	19	1.36	59.00	2.332	3.105	.310
Fishermen	10	16	1.14	26.56	1.050	1.66	.166
Firemen	10	15	1.07	31.94	1.263	2.29	.229
Gut Cleaners	10	4	.29	6.80	.269	1.70	.170
Killers	10	27	1.93	77.50	3.063	2.87	.287
Killers' helpers	10	5	.36	8.30	.328	1.66	.166
Laborers	10	759	54.21	1,276.21	50.443	1.681	.168
Machinists	10	6	.43	14.70	.581	2.45	.245
Net winders	10	8	.57	16.00	.633	2.00	.200
Packers	10	2	.14	3.66	.145	1.83	.183
Sausage makers	10	122	8.71	221.59	8.759	1.816	.181
Sausage makers' helpers.	10	3	.21	4.50	.178	1.50	.150
Teamsters	10	53	3.79	99.76	3.944	1.882	.188
Watchmen	11.77	9	.64	19.32	.764	2.146	.183
Total and average.	10.01	1,400	100.00	$2,530.62	100.00	$1.80	$0.179
Boat captains	10	6	28.57	$23.64	36.937	$3.94	$0.394
Cashiers, female	10	3	14.28	3.66	5.719	1.22	.122
Foremen	10	7	33.34	26.70	41.719	3.814	.381
Salesmen	10	5	23.81	10.00	15.625	2.00	.200
Total and average.	10	21	100.00	$64.00	100.00	3.047	.304
Male	10	18	85.71	60.34	94.281	3.352	.335
Female	10	3	14.29	3.66	5.719	1.22	.122

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.				Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female.	Total	Per cent.	Male.	Female	Total	Month.	No.	Range.
Under $5 00	9	2	11	$.77	$.741	$.83	$.742	Jan...	1,067	72.88
$ 5 00 but under 6 00	....	.....	....	.....	.....	.....	.....	Feb...	889	60.72
6 00 but under 7 00..	28	.....	28	1.97	1.00	.....	1.00	Mar...	729	49.79
7 00 but under 8 00..	29	.....	29	2.04	1.25	.....	1.25	April..	724	49.46
8 00 but under 9 00..	14	...	14	.99	1 361	.....	1.361	May ..	751	51.30
9 00 but under 10 00	405	.....	405	28.50	1.596	.....	1.596	June..	1,110	75.82
10 00 but under 12 00	564	....	564	39.69	1.767	.....	1.767	July..	1,221	83.40
12 00 but under 15 00..	241	1	242	17 03	2.063	2.00	2.063	Aug ..	1,157	72.20
15 00 but under 20 00..	110	.....	110	7.74	2.638	.....	2.638	Sept..	1,226	83.74
20 00 and over.....	18	.....	18	1.27	3.898	.....	3.898	Oct...	1,093	74.66
								Nov...	1,416	96.72
Total	1,418	3	1,421	100.00	$1.827	$1.22	$1.825	Dec ..	1,464	100.00
								Ave...	1,071	73.15

BLANK BOOKS AND BINDING—11 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Apprentices	9.50	2	1.37	$0.93	.527	.465	$0.049
Book binders	9.08	45	30.82	82.47	46.768	1.830	.202
Book binders, female	9	62	42.47	42.85	24.300	.691	.076
Bk. fold. & sew'r, female	9.25	4	2.74	3.35	1.900	.837	.090
Envelope makers	9	2	1.37	5.16	2.926	2.580	.286
Envelope makers, female	9	7	4.80	6.20	3.516	.885	.098
Feeders, female	9	2	1.37	1.33	.754	.665	.073
Helpers, female	9.83	3	2.06	1.56	.884	.520	.053
Holders, female	9	3	2.06	3.09	1.752	1.030	.114
Machine tenders, female.	10	5	3.42	4.20	2.382	.840	.084
Machinists	10	8	5.48	20.95	11.882	2.619	.261
Paper cutter	10	1	.68	1.75	.992	1.750	.175
Porter	10	1	.68	1.75	.992	1.750	.175
Ruler	9	1	.68	.75	.425	.750	.083
Total and average..	9.16	146	100.00	$176.34	100.000	$1.208	$0.131
Male	9.25	60	41.10	113.76	64.568	1.896	.205
Female	9.09	86	58.90	62.58	35.432	.728	.080
Office boy	10	1	25.00	$0.50	9.141	$0.500	$0.050
Shipping clerks	9	3	75.00	4.97	90.859	1.657	.184
Total and average ..	9.25	4	100.00	$5.47	100.000	$1.367	$0.147

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent.	Average Wage Per Day.			No. Persons Emp. by Month.		
Classification.	Male	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00..	30	169	199	49 50	$ 684	$.614	$.624	Jan...	378	97.61
$ 5 00 but under 6 00..	3	26	29	7.21	.910	.913	.913	Feb...	359	92.53
6 00 but under 7 00..	10	14	24	5.97	1.020	1.034	1.033	Mar...	359	92.53
7 00 but under 8 00..	15	10	25	6.22	1.303	1.230	1.261	April.	363	93.56
8 00 but under 9 00	12	2	14	3.48	1.405	1.400	1.405	May ..	347	89.43
9 00 but under 10 00 .	15	4	19	4.73	1.512	1.500	1 512	June .	348	89.69
10 00 but under 12 00	28	4	32	7.96	1 816	1.750	1.816	July...	348	89.69
12 00 but under 15 00..	33	1	34	8.46	2,128	2.250	2.135	Aug...	346	89.20
15 00 but under 20 00	25	....	25	6.22	2.790	.....	2.790	Sept .	362	93.30
20 00 and over	1	....	1	.25	3.500	.....	3.500	Oct .	388	100.00
								Nov	386	99.48
Total	172	230	402	100.00	$1.863	$.728	$1.214	Dec...	387	99.74
								Ave...	364	93.81

BOXES, PACKING—26 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Basket makers	10	12	1.09	$27.00	1.877	$2.25	$0.225
Box packers, female	10	55	5.01	41.25	2.867	.75	.075
Boys	10	76	6.93	62.40	4.338	.821	.082
Box rippers	10	3	.27	5.50	.383	1.833	.183
Carpenters	10	82	7.48	151.10	10.5 5	1.842	.184
Cross cutters	10	12	1.09	17.25	1.200	1.437	.143
Engineers	10.22	9	.82	19.50	1.355	2.166	.211
Filers	10	11	1.00	26.75	1.860	2.432	.243
Firemen	11.20	5	.46	8.45	.518	1.69	.150
Graders	10	1	.09	1.75	.122	1.75	.175
Helpers	10	132	12.03	121.40	8.440	.919	.091
Helpers, female	10	5	.46	3.25	.226	.65	.065
Laborers	9.99	434	39.56	527.85	36.697	1.216	.121
Machinists	10	32	2.92	63.00	4.379	1.969	.196
Machine tenders	9.90	41	3.74	66.63	4.633	1.625	.164
Machine tenders' helpers	10	4	.36	5.40	.375	1.35	.135
Millmen	10	26	2.37	34.25	2.382	1.317	.131
Millwrights	10	2	.18	4.75	.330	2.375	.237
Nailers	10	16	1.46	28.50	1.982	1.781	.178
Nailers, females	10	24	2.20	18.00	1.251	.75	.075
Planers	10	5	.46	8.30	.577	1.66	.166
Pressmen	10	1	.09	3.75	.260	3.75	.375
Sawyers	10	63	5.76	119.15	8.284	1.897	.189
Teamsters	10	18	1.64	30.20	2.170	1.678	.167
Watchmen	11	3	.27	5.50	.382	1.833	.166
Yardmen	10	25	2.28	37.50	2.607	1.50	.150
Total	10.00	1,097	100.00	$1,438.38	100.000	$1.311	$0.131
Male	10	1,013	92.35	$1,375.88	95.65	$1.358	$0.136
Female	10	84	7.65	62.50	4.35	.744	.074
Foremen	10	18	81.82	$47.25	85.93	$2.63	$0.263
Shippers	13	4	18.18	7.75	14.07	1.937	.193
Total and average	10	22	100.00	$55.10	100.00	$2.504	$0.250

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent.	Average Wages per Day.			No Persons Emp. by Month.		
Classification.	Male.	Female.	Total		Male.	Female	Total	Month.	No.	Range.
Under $ 5 00	247	84	331	26.06	$.665	$.744	$.686	Jan.	1,301	85.54
$ 5 00 but under 6 00	39	.....	39	3.07	.875	.....	.875	Feb.	1,311	86.13
6 00 but under 7 00	108	.....	108	8.51	1.038	.....	1.038	Mar	1,415	93.03
7 00 but under 8 00	110	....	110	8.66	1.253	.....	1.253	Apr	1,450	95.33
8 00 but under 9 00	110	.....	110	8.66	1.377	.....	1.377	May	1,461	96.05
9 00 but under 10 00	254	.....	254	20.00	1.524	.....	1.524	June	1,508	99.14
10 00 but under 12 00	148	....	148	11.65	1.765	.....	1.765	July	1,521	100.00
12 00 but under 15 00	110	.....	110	8.66	2.049	.....	2.049	Aug	1,501	98.68
15 00 but under 20 00	57	.....	57	4.49	2.628	.....	2.628	Sept	1,479	97.24
20 00 and over	3	.....	3	.24	4.500	....	4.500	Oct.	1,447	95 13
								Nov.	1,378	90.59
Total	1,186	84	1,270	100.00	$1,382	$.744	$1.334	.	1,334	87.71
								Ave.	1,426	93.75

BOXES, PAPER AND CIGAR—13 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Box makers	9.12	71	9.97	$91.37	12.329	$1.286	$0.141
Box makers, female	9.38	254	35.67	190.16	25.659	.749	.079
Carpenters	10	1	.14	1.12	.151	1.12	.112
Cuttermen	10	18	2.53	22.69	3.062	1.26	.126
Ender	10	1	.14	2.25	.303	2.25	.225
Engineers	10	2	.28	4.17	.563	2.085	.208
Glue worker, female	10	1	.14	.67	.090	.67	.067
Helpers	9.92	103	14.47	114.72	15.479	1.113	.112
Helpers, female	10	19	2.67	13.68	1.846	.72	.072
Laborers	10	15	2.11	25.00	3.373	1.666	.166
Machinists	10	7	.98	17.50	2.361	2.50	.250
Machine tenders	10	50	7.02	98.09	13.235	1.961	.196
Machine girls	10	6	.84	3.00	.405	.50	.050
Nailers	10	2	.28	3.50	.472	1.75	.175
Nailers, female	10	2	.28	1.34	.181	.67	.067
Pattern maker	10	1	.14	2.00	.270	2.00	.200
Painters	10	11	1.55	11.91	1.607	1.08	.108
Painter, female	10	1	.14	1.33	.180	1.33	.133
Piece workers, female	10	82	11.52	74.30	10.025	.906	.090
Press feeders, female	10	2	.28	2.00	.270	1.00	.100
Sander	10	1	.14	1.25	.169	1.25	.125
Sawyers	10	8	1.13	11.17	1.507	1.296	.129
Scorer	10	1	.14	3.00	.405	3.00	.300
Teamsters	9	2	.28	2.58	.348	1.29	.143
Trimmers, female	10	50	7.02	41.02	5.535	.82	.082
Watchman	12	1	.14	1.30	.175	1.30	.108
Total	9.81	712	100.00	$741.12	100.000	$1.041	$0.106
Male	9.76	295	41.43	$427.30	57.656	$1.448	$0.148
Female	9.62	417	58.57	$313.82	42.344	.752	.078
Forewomen	10	2	22.22	$2.00	10.433	$1.00	$0.100
Foremen	9.66	6	66.67	16.00	83.464	2.666	.275
Office girl	10	1	11.11	1.17	6.103	1.17	.117
Total	9.77	9	100.00	$19.17	100.000	$2.13	$0.218
Male	9.66	6	66.67	$16.00	83.464	$2.666	$0.275
Female	10	3	33.33	3.17	16.536	1.057	.105

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings	No. of Persons.			Per cent.	Average Wages Per Day.			No Persons Emp. by Month.		
Classificatian.	Male.	Female	Total		Male	Female	Total	Month.	No.	Range
Under $5 00	91	248	339	43.46	$.689	$ 635	$.648	Jan .	663	84.57
$ 5 00 but under 6 00	3	58	61	7.82	.90	.894	.894	Feb .	672	85.71
6 00 but under 7 00	34	109	143	18.33	1.008	1.001	1.003	Mar .	699	89.16
7 00 but under 8 00	53	12	65	8.33	1.254	1.25	1.252	April .	724	92.35
8 00 but under 9 00	6	....	6	.77	1.34		1.34	May .	727	92.73
9 00 but under 10 00	57	3	60	7.69	1.556	1.50	1.553	June .	749	95 53
10 00 but under 12 00	25	1	26	3.33	1.743	1.75	1.744	July	762	97.19
12 00 but under 15 00	58	.. ..	58	7.44	2.083	....	2.083	Aug.	773	98.58
15 00 but under 20 00	20	.....	20	2.57	2.579	..	2.579	Sept .	780	99.49
20 00 and over	2	.....	2	.26	3.50	.....	3.50	Oct .	784	100.00
Total	349	431	780	100.00	$1.472	$.754	$1.054	Nov .	771	98.31
								Dec .	749	95.53
								Av....	738	94 13

BOILERS AND TANKS—18 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour
Apprentices	10	16	3.66	$10.05	1.247	$0.628	$0.062
Blacksmiths	10	4	.92	9.00	1.117	2.25	.225
Blacksmiths, helpers	10	2	.46	3.00	.373	1.50	.150
Boiler makers	10	129	29.46	295.70	36.697	2.501	.250
Boiler makers, helpers	10	148	33.69	232.70	28.879	1.572	.157
Carpenters	10	1	.23	1.70	.212	1.70	.170
Engineers	10	3	.69	6.35	.789	2.117	.211
Furnace tenders	10	1	.23	2.10	.261	2.10	.210
Handy men	10	10	2.29	17.50	2.173	1.75	.175
Helpers	10	30	6.85	45.25	5.616	1.508	.150
Iron workers	10	1	.23	4.00	.497	4.00	.400
Laborers	10	42	9.59	73.20	9.085	1.743	.174
Machinists	10	18	4.11	41.75	5.182	2.32	.232
Moulders	9.88	9	2.06	21.75	2.699	2.416	.244
Moulders, helpers	10	5	1.16	7.70	.956	1.54	.154
Pattern makers	10	1	.23	2.50	.311	2.50	.250
Picklers	10	1	.23	2.00	.249	2.00	.200
Plumbers	10	2	.46	4.00	.497	2.00	.200
Pressmen	10	3	.69	6.75	.838	2.25	.225
Rivet heaters	10	4	.92	4.00	.497	1.00	.100
Steam fitters	10	2	.46	4.00	.497	2.00	.200
Teamsters	10	2	.46	3.15	.390	1.575	.157
Tinners	10	1	.23	2.35	.292	2.35	.235
Watchmen	10	3	.69	5.20	.646	1.733	.173
Total	9.99	438	100.00	$805.70	100.000	$1.839	$0.184

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent.	Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00	19	.....	19	2.48	$.561	.....	$.561	Jan...	636	100.00
$ 5 00 but under 6 00	4	.....	4	.53	.850	.....	.850	Feb ..	614	96.54
6 00 but under 7 00	21	.....	21	2.74	1.000	.....	1.000	Mar ..	610	95.91
7 00 but under 8 00	24	.....	24	3.13	1.250	.....	1.250	April..	586	92.14
8 00 but under 9 00	33	.....	33	4.31	1.400	.....	1.400	May ..	565	88.84
9 00 but under 10 00	201	.....	201	26.20	1.525	.....	1.525	June ..	573	90.09
10 00 but under 12 00	170	.....	170	22 16	1.773	.....	1.773	July ..	554	87.11
12 00 but under 15 00	158	.....	158	20.59	2.084	.....	2.084	Aug ..	567	89.15
15 00 but under 20 00	133	.....	133	17.33	2.755	.....	2.755	Sept ..	583	91.67
20 00 and over	4	.....	4	.53	3.825	.....	3.825	Oct ...	577	90.72
								Nov ..	529	83.18
Total	767	.....	767	100.00	$1.839	.....	$1.839	Dec ...	522	82.08
								Ave ...	576	90.57

BOOTS AND SHOES—23 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day	Per cent.	Average.	
						Per day.	Per hour.
Beatersout	10	1	.09	$1.05	.069	$1.050	$0.105
Cutters	9.50	24	2.14	50.75	3.302	2.115	.222
Engineers	10	1	.08	2.00	.130	2.000	.200
Finishers	9.78	7	.62	11.35	.732	1.621	.165
Finishers, helpers	10	2	.18	3.00	.195	1.500	.150
Finishers, female	10	7	.62	3.99	.260	.570	.057
Fitters	10	2	.18	3.67	.239	1.835	.183
Fitters, female	10	13	.16	11.56	.752	.889	.088
Hand workers	10	62	5.53	113.56	7.388	1.831	.183
Heelers	10	6	.53	7.53	.490	1.255	.125
Laborers	9.64	14	1.25	16.68	1.085	1.184	.122
Lasters	9.83	30	2.67	60.07	3.907	2.002	.203
Machine workers, female	10	27	2.42	33.50	2.180	1.240	.124
Machine hands	10	32	2.85	64.00	4.163	2.000	.200
Machine operators	9.72	18	1.61	29.10	1.893	1.611	.165
Mach. operators, female	9.70	20	1.78	19.33	1.258	.965	.099
Mach. operators, helpers	9.30	36	3.21	27.14	1.766	.754	.081
Female	9.38	31	2.76	22.84	1.485	.737	.076
Packers	10	2	.18	4.25	.277	2.125	.212
Packers, female	9.50	3	.27	1.05	.068	.350	.036
Polishers	9.50	3	.27	3.75	.245	1.250	.131
Shoemakers	9.23	77	6.68	162.24	10.554	2.107	.228
Shoemakers, female	9	1	.09	3.50	.228	3.500	.338
Shoe workers	10	325	28.97	520.21	33.841	1.600	.160
Shoe workers, female	10	286	25.49	267.25	17.385	.934	.093
Staker	10	1	.08	1.50	.098	1.500	.150
Stitchers	9.08	24	2.14	30.76	2.001	1.281	.141
Stitchers, female	9.35	51	4.55	49.89	3.246	.978	.104
Sweepers	10	1	.09	.75	.049	.750	.075
Sweepers, female	10	2	.18	2.00	.130	1.000	.100
Table girls	10	12	1.07	7.20	.469	.600	.060
Watchmen	12	1	.08	1.75	.114	1.750	.145
Total	9.83	1,122	100.00	$1,537.22	100.000	$1.37	$0.139
Male	9.82	669	59.63	$1,109.70	72.19	$1.659	$0.168
Female	9.84	453	40.37	427.52	27.81	.931	.094
Foremen	9.93	8	36.36	$22.00	52.47	$2.750	$0.276
Forewomen	9.87	4	18.18	5.41	12.90	1.352	.136
Shipping clerk	9.83	6	27.28	7.70	18.36	1.283	.131
Shipping clerk, female	9.87	4	18.18	6.82	16.27	1.705	.172
Total	9.88	22	100.00	$41.93	100.00	$1.906	$0.192
Male	9.89	14	63.53	$29.70	70.83	$2.121	$0.214
Female	9.87	8	36.36	12.23	29.17	1.528	.154

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.				Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female.	Total	Per cent.	Male.	Female.	Total	Month.	No.	Range.
Under $ 5 00	189	284	473	23.38	$.729	$6.92	$.703	Jan..	2,039	97.98
$ 5 00 but under 6 00	44	77	121	5,98	.898	.926	916	Feb .	2,025	97.31
6 00 but under 7 00	94	183	277	13.70	1.034	1.006	1.014	Mar ..	2,017	96.92
7 00 but under 8 00	103	93	196	9.69	1.240	1.243	1.241	April .	1,929	92.70
8 00 but under 9 00	64	33	97	4.80	1.376	...	1.376	May .	1,837	88.27
9 00 but under 10 00	125	31	156	7.71	1.516	1 500	1,514	June .	1,943	93.37
10 00 but under 12 00	216	25	241	11.91	1.696	1.752	1.698	July ..	2.024	92.26
12 00 but under 15 00	225	18	243	12 01	2.039	2.062	2.033	Aug ..	1,992	95.72
15 00 but under 20 00	191	3	194	9 59	2.692	....	2.692	Sept .	1,990	95 63
20 00 and over	24	1	25	1.23	3.500	3.500	3.500	Oct ..	1,962	94.28
								Nov ..	2,042	98.12
Total	1.275	748	2,023	100.00	$1,678	$.942	$1.380	Dec...	2,081	100.00
								Ave...	1,990	95.63

BRASS AND COPPER GOODS—13 ESTABLISHMENTS.

Table A—Showing by occupation classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Apprentices	10	22	3.179	$18.85	1.451	$0.857	$0.085
Assemblers	9	9	1.300	18.00	1.386	2.00	.222
Blacksmiths	10	13	1.878	32.67	2.515	2.513	.251
Brass finishers	9.66	36	5.202	72.48	5.581	2.013	.208
Brass machine hands	10	56	8.092	96.35	7.419	1.720	.172
Buffers	9.41	24	3.468	49.93	3.844	2.080	.210
Carpenters	10	5	.723	9.50	.731	1.900	.190
Coppersmiths	8.88	9	1.300	26.80	2.063	2.987	.336
Core makers	9.68	19	2.745	25.05	1.929	1.318	.136
Core makers, female	10	36	5.202	26.37	2.034	.732	.073
Cupola tenders	10	1	.144	2.42	.186	2.420	.242
Engineers	10	2	.289	5.67	.436	2.835	.283
Firemen	10	1	.144	1.70	.131	1.700	.170
Furnace tenders	10	3	.434	7.25	.558	2.416	.241
Grinders	10	3	.434	4.00	.308	1.333	.133
Helpers	9.87	78	11.281	72.39	5.574	.928	.094
Helpers, female	10	7	1.011	5.60	.431	.800	.080
Laborers	9.88	90	13.005	145.39	11.950	1.615	.163
Lath hands	9	21	3.034	31.50	2.435	1.500	.166
Locksmiths	10	4	.578	8.85	.692	2.212	.221
Machinists	10	56	8.902	147.94	11.391	2.641	.264
Machine tenders	10	30	4.335	40.20	3.095	1.340	.134
Melters	10	1	.144	2.50	.192	2.500	.250
Moulders	9.89	80	11.560	216.68	16.684	2.708	.273
Nickel platers	10	2	.289	4.50	.252	2.250	.225
Oven tenders	10	2	.289	3.25	.160	1.625	.162
Pattern makers	10	26	3.757	61.91	4.677	2.381	.238
Polishers	9.58	17	2.457	43.42	3.253	2.554	.266
Watchmen	11.25	4	.578	6.54	.414	1.635	.145

BRASS AND COPPER GOODS—13 ESTABLISHMENTS—Continued.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Wire drawers	10	3	.434	4.50	.252	1.500	.150
Wire sewers, female	10	9	1.300	6.57	.417	.730	.073
Wire weavers	10	23	3.332	99.50	7.563	4.326	.432
Total and average..	9.85	692	100.00	$1,298.28	100.00	$1.876	$0.190
Male	9.84	640	92.48	$1,259.74	97.03	$1.968	$0.200
Female	10	52	7.52	38.54	2.97	.743	.074
Bookkeeper, female	8	1	16.667	$1.00	7.364	$1.000	$0.125
Foremen	10	2	33.333	5.83	42.930	2.915	.291
Shipping clerks	10	2	33.333	4.25	31.296	2.125	.212
Time keeper	10	1	16.667	2.50	18.410	2.500	.250
Total and average..	9.66	6	100.000	$13.58	100.000	$2.163	$0.223
Male	10	5	83.33	$12.58	92.64	$2.516	$0.251
Female	8	1	16.67	1.00	7.36	1.000	.125

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments, reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.					Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	No. of Persons.			Per cent.						
	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00..	66	31	97	12.678	$.676	$ 665	$.653	Jan ..	733	97.09
$ 5 00 but under 6 00..	13	13	26	3.398	.887	.876	.882	Feb...	728	96.42
6 00 but under 7 00..	28	9	37	4.836	1.021	1.042	1.026	Mar ..	749	99 21
7 00 but under 8 00..	20	.....	20	2 614	1 247	....	1.247	April..	752	99 60
8 00 but under 9 00..	14	.....	14	1.830	1.362	.....	1.362	May ..	755	100.00
9 00 but under 10 00..	158	.....	158	20.654	1.561	.....	1.561	June .	745	98.68
10 00 but under 12 00..	64	.....	64	8.365	1.782	.....	1.782	July .	710	94.04
12 00 but under 15 00..	155	..	155	20.269	2.171	.....	2.171	Aug .	730	96.70
15 00 but under 20 00..	158	.....	158	20.654	2.777	.....	2.777	S pt..	697	92.32
20 00 and over.....	36	.....	36	4.702	4.152	....	4.152	Oct. .	661	87.68
								Nov ..	647	85.70
Total.....	712	53	765	100.00	$1.972	$.746	$1.879	Dec ..	621	82.25
								Ave...	656	87.02

BREWERIES—57 ESTABLISHMENTS.

Table A—Showing by occupation classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
						Average.	
		Number.	Per cent.	Total per day.	Per cent.	Per cent.	Per hour.
Barnmen	9.19	26	1.05	$55.63	1.246	$2.14	$0.232
Blacksmiths	10	3	.12	8.50	.190	2.833	.283
Boiler men	9.53	17	.69	41.34	.926	2.432	.255
Bottlers	9.59	39	1.58	80.06	1.793	2.05	.213
Bottlers, female	8	12	.49	12.00	.269	1.00	.125
Box makers	8	170	6.89	319.60	7.156	1.88	.235
Box packers	8	190	6.70	357.20	7.998	1.88	.235
Brewers	9.04	158	6.40	373.06	8.351	2.36	.261
Canvass men	8	2	.08	5.00	.112	2.50	.312
Car packers	8	23	.93	50.55	1.132	2.197	.274
Carpenters	8.09	53	2.15	134.50	3.012	2.528	.312
Cellar men	8.32	124	5.02	297.94	6.672	2.403	.264
Coopers	8.01	157	6.36	385.34	8.628	2.454	.306
Corkers	8	165	6.68	169.30	3.791	1.026	.128
Electricians	8	3	.12	7.35	.165	2.45	.306
Elevator men	8	2	.08	5.11	.114	2.555	.319
Engineers	9.21	28	1.13	71.36	1.598	2.548	.276
Firemen	9.37	16	.65	34.50	.772	2.156	.230
Harness makers	8	1	.05	2.50	.056	2.50	.312
Helpers	8.71	191	7.74	228.68	5.120	1.197	.137
Helpers, female	9.66	12	.49	9.09	.204	.757	.078
Keg washers	8.08	71	2.88	157.18	3.519	2.213	.273
Kettlemen	8.06	32	1.30	77.83	1.743	2.432	.301
Label girls	8	109	7.25	60.35	1.351	.553	.069
Laborers	9.89	179	5.10	319.35	7.150	1.784	.180
Machine boys	8	126	2.27	163.80	3.668	1.30	.162
Malsters	9.78	56	.69	121.07	2.711	2.162	.221
Masons	8	17	.73	56.53	1.266	3.325	.415
Millwrights	8	18	.89	49.44	1.107	2.746	.343
Machinists	8.54	22	.20	52.97	1.186	2.407	.283
Oilers	8	5	.85	12.50	.280	2.50	.312
Painters	8.09	21	1.26	50.60	1.133	2.41	.297
Peddlers	9.12	31	.32	77.71	1.74	2.506	.274
Steamfitters	8	8	6.12	23.35	.523	2.919	.364
Teamsters	9.54	151	.28	318.11	7.123	2.106	.220
Tinners	8	7	.97	17.73	.397	2.533	.316
Wagon makers	8	24	4.42	54.75	1.226	2.281	.285
Wagon helpers	8	1	.05	.58	.013	.58	.072
Washerhouse, male	10	5	.20	10.56	.236	2.112	.211
Washerhouse, female	8	174	7.05	153.12	3.428	.88	.110
Watchmen	9.64	17	.69	35.38	.792	2.081	.215
Weighers	10	2	.08	4.62	.103	2.31	.231
Total and average..	8.51	2,468	100.00	$4,466.14	100.000	$1.809	$0.212
Male	8.58	2,161	88.46	$4,231.58	94.75	$1.957	$0.228
Female	8.06	307	11.54	234.56	5.25	.763	.094
Barkeepers	8	1	6.25	$2.25	5.872	$2.25	$0.281
Bookkeepers	10	3	18.75	4.66	12.161	1.553	.155
Collectors	8	1	6.25	2.75	7.176	2.75	.343
Foremen	9.26	11	68.75	28.66	74.791	2.605	.281
Total and average..	9.25	16	100.00	$38.32	100.000	$2.395	$0.258

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.				Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female.	Total	Per cent.	Male.	Female.	Total	Month.	No.	Range.
Under $ 5 00	120	186	306	8 87	$.638	$.638	$.638	Jan...	2,772	88.99
$ 5 00 but under 6 00	72	216	288	8.35	.885	.885	.885	Feb .	2,661	85.92
6 00 but under 7 00	133	16	149	4.32	1.084	1.084	1.084	Mar	2,744	88.09
7 00 but under 8 00	219	.....	219	6 35	1.293	.....	1.293	Apri .	2,767	88.83
8 00 but under 9 00	52	.....	52	1.51	1.395	.....	1.395	May	2,887	92.68
9 00 but under 10 00	151	.....	151	4.37	1.552	..	1.552	June..	3,027	97.18
10 00 but under 12 00	560	.....	560	16.23	1.852	.....	1.852	July ..	3,115	100.00
12 00 but under 15 00	1,169	.....	1,169	33.88	2 233	.....	2.233	Aug ..	3,054	98.04
15 00 but under 20 00	514	.....	514	14.90	2.689	.....	2.689	Sept..	2,982	95.73
20 00 and over	42	.....	42	1.22	4.022	..	4.022	Oct ..	2,685	86.19
								Nov ..	2,632	84.49
Total	3,032	418	3.450	100.00	1,813	.....	1.813	Dec	2,621	84.14
								Ave ..	2,829	90 82

BRICK AND TILE—10 ESTABLISHMENTS.

Table A—Showing by occupation classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Boys	10	14	3.444	$10.75	1.635	$0.767	.076
Burners	12	19	2.214	25.30	3.847	2.811	.234
Burners, helpers	12	6	1.476	11.76	1.790	1.96	.163
Carpenters	10	2	.492	3.95	.60	1.975	.197
Catchers	10	7	1.722	11.55	1.775	1.65	.165
Engineers	10	5	1.230	9.46	1.440	1.892	.189
Laborers	10	244	59.922	375.55	57.288	1.539	.153
Loaders	10	23	5.658	37.50	5.700	1.63	.163
Machine men	10	27	6.642	47.47	7.216	1.755	.175
Masons	10	1	.246	2.15	.330	2.15	.215
Setters	10	8	1.958	17.70	2.691	2.212	.221
Sorters	10	7	1.722	14.80	2.251	2.114	.211
Teamsters	10	8	1.958	12.40	1.887	1.55	.155
Truckers	10	23	5.658	37.95	5.770	1.65	.165
Wheelers	10	23	5,658	38.15	5.800	1.658	.165
Total	10.12	407	100.000	$656.44	100.000	$1.367	$0.134
Foremen	10	6	100	$12.97	100	$2.161	$0.216

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.				Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male	Female.	Total	Per cent	Male.	Female.	Total	Month.	No.	Range.
Under $5 00	19	.....	19	3.57	$.668	.....	$.668	Jan...	87	17.61
$ 5 00 but under 6 00	4	.....	4	.75	.900	.....	.900	Feb...	60	12.15
6 00 but under 7 00	18	.....	18	3.38	1.080	....	1.080	Mar..	149	30.16
7 00 but under 8 00	7	.....	7	1.32	1.250	.....	1.250	April..	270	54.66
8 00 but under 9 00	2	....	2	.38	1.350	.....	1.350	May..	347	70.24
9 00 but under 10 00	344	.....	344	64.66	1.585	.....	1.585	June..	405	81.98
10 00 but under 12 00	93	.....	93	17.48	1.813	.....	1.813	July..	473	95.75
12 00 but under 15 00	35	....	35	6.58	2.148	.....	2.148	Aug...	494	100.00
15 00 but under 20 00	8	....	8	1.50	2.650	.....	2,650	Sept..	447	90.49
20 00 and over	2	.....	2	.38	5.000	.....	5.000	Oct...	389	78.74
								Nov...	238	48.18
Total	532	.....	532	100.00	$1.621	.....	$1.621	Dec...	108	21.86
								Ave..	289	5.850

BROOMS AND BRUSHES—8 ESTABLISHMENTS.

Table A—Showing by occupation classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Borers	9.33	3	4.78	$7.00	7.246	$2.333	$0.250
Bristle mixers	9.33	2	3.17	4.00	4.141	2.00	.214
Broom makers	9.85	14	22.22	25.40	26.294	1.814	.184
Carpenter	9.33	1	1.59	2.80	2.899	2.80	.300
Cementer	9.33	1	1.59	2.00	2.070	2.00	.214
Draw hands	9.33	4	6.35	7.00	7.248	1.75	.187
Finishers	9.33	2	3.17	3.25	3.364	1.625	.174
Graders	10	1	1.59	.90	.932	.90	.090
Helpers	9.54	16	25.40	15.10	15.631	.94	.097
Machinists	9.33	2	3.17	5.75	5.952	2.875	.308
Set hands	9.33	4	6.35	8.50	8.799	2.125	.227
Sewers	9.50	2	3.17	2.50	2.588	1.25	.131
Sorters	10	2	3.17	1.40	1.449	.70	.070
Testers	9.33	3	4.78	4.50	4.658	1.50	.160
Trimmers	9.33	2	3.17	2.00	2.070	1.00	.107
Winders	10	2	3.17	4.00	4.141	2.00	.200
Zisers	4	2	3.17	.50	.518	.25	.062
Total	9.39	63	100.00	$96.60	100.00	$1.533	$0.163
Bookkeeper	10	1	20.00	$1.00	10.363	$1.00	$0.100
Manager	10	1	20.00	2.00	20.725	2.00	.200
Salesmen	10	2	40.00	4.00	41.451	2.00	.200
Shipping clerk	9.33	1	20.00	2.65	27.461	2.65	.284
Total	9.86	5	100.00	$9.65	100.00	$1.93	$0.195

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent.	Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00..	62	.....	62	51.23	.615	.....	.615	Jan ..	129	100.00
$ 5 00 but under 6 00..	5	.....	5	4.13	.900	.....	.900	Feb .	123	95.35
6 00 but under 7 00..	6	.....	6	4.96	1.000	..	1 000	Mar ..	126	97.67
7 00 but under 8 00..	5	.....	5	4.13	1.250	.....	1.250	April..	120	93.02
8 00 but under 9 00	.....	.....	.....	.....	.....	.....	.....	May ..	112	86.82
9 00 but under 10 00	9	.....	9	7.44	1.500	.....	1.500	June..	102	79.07
10 00 but under 12 00..	17	.....	17	14.05	1.847	.....	1.847	July ..	104	80.62
12 00 but under 15 00..	10	.....	10	8.27	2.050	.....	2.050	Aug...	110	85.27
15 00 but under 20 00..	7	.....	7	5.79	2.778	.....	2.778	Sept..	106	82.17
20 00 and over	.....	.....	.....	.....	.....	.....	.....	Oct...	103	79 89
Total.....	121	.....	121	100.00	$1.562	.....	$1.562	Nov ..	112	86.82
								Dec ..	116	89.92
								Ave...	114	88.36

CHAIRS—9 ESTABLISHMENTS.

Table A—Showing by occupation classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Bench hands	10	65	6.53	$91.30	7.28	$1.404	$0.140
Bending workers	10	9	.90	11.45	.91	1.272	.127
Borers	10	11	1.11	12.90	1.03	1.172	.117
Dippers	10	9	.90	10.65	.85	1.183	.118
Dowellers	10	3	.30	4.30	.34	1.433	.143
Engineers	10	1	.10	1.88	.15	1.88	.188
Facers	10	4	.40	4.90	.39	1.225	.122
Feeders	10	3	.30	3.30	.26	1.10	.110
Firemen	11	3	.30	4.20	.34	1.40	.127
Grinders	10	4	.40	7.15	.57	1.787	.178
Hand shading	10	12	1.21	13.10	1.04	1.091	.109
Helpers	10	86	8.64	77.20	6.15	.897	.089
Laborers	10	113	11.36	139.60	1.13	1.234	.123
Machine hands	10	87	8.74	128.78	10.26	1.480	.148
Machine helpers	10	11	1.11	13.27	1.06	1.206	.120
Machine sanders	10	48	4.82	62.02	4.94	1.292	.129
Painters	10	117	11.76	162.47	12.95	1.388	.138
Placing pearl, female.....	10	1	.10	1.00	.08	1.000	.100
Planers	10	8	.81	6.25	.50	.781	.078
Polishers	10	28	2.82	33.70	2.69	1.203	.120
Roustabouts	10	5	.50	6.10	.49	1.220	.122
Rubbers	10	35	3.52	36.90	2.94	1.054	.106
Sawyers	10	28	2.81	49.00	3.91	1.750	.175
Scrapers	10	10	1.01	12.65	1.01	1.265	.176
Seat makers	10	2	.20	3.50	.28	3.500	.350
Shapers	10	5	.50	6.90	.55	1.380	.138
Spindel sand'g & makers	10	5	.50	3.31	.26	.662	.066
Sweepers	10	1	.10	.50	.04	.500	.050
Tallymen	10	1	.10	1.50	.12	1.500	.150
Teamsters	11	3	.30	4.98	.40	1.660	.150

CHAIRS—9 ESTABLISHMENTS.—Continued.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Turners	10	48	4.83	81.35	6.47	1.692	.169
Upholsterers	10	8	.81	10.98	.87	1.372	.137
Upholsterers, female	10	1	.10	.50	.04	.500	.050
Varnishers	10	32	3.22	40.20	3.20	1.256	.125
Varnishers, female	10	13	1.31	9.85	.78	.757	.075
Warehouse men	10	5	.50	5.75	.46	1.150	.115
Watchmen	12.25	4	.40	5.67	.45	1.417	.115
Wheelbarrow men	10	2	.20	2.45	.20	1.225	.122
Wipers	10	16	1.61	17.45	1.39	1.090	.109
Wood workers	10	79	7.94	113.10	9.01	1.431	.143
Wrappers, female	10	40	4.02	22.41	1.79	.560	.056
Wrappers, male	10	22	2.21	16.82	1.34	.764	.076
Yard hands	10	7	.70	13.60	1.08	1.942	.194
Total and average..	10.01	995	100.00	$1,254.89	100.00	$1.261	$0.125
Male	10.01	940	94.47	$1,221.13	97.319	$1.299	$0.129
Female	10	55	5.53	33.76	2.681	.614	.061
Foremen	10	36	76.59	$87.41	87.10	$2.428	$0.242
Shipping clerks	10	11	23.41	12.95	12.90	1.177	.117
Total	10	47	100.00	$100.36	100.00	$2.135	.213

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.					Average Wages Per Day.			No Persons Emp. by Month.		
Classification.	No. of Persons.			Per cent.						
	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $ 5 00..	147	102	249	10.43	$.688	$.539	$.635	Jan ..	3,367	98.94
$ 5 00 but under 6 00..	53	41	94	3.94	.896	.900	.897	Feb ..	3,267	96.00
6 00 but under 7 00 ..	285	12	297	12.45	1.089	1.000	1.087	Mar ..	3,334	97.97
7 00 but under 8 00..	712	2	714	29.94	1.244	1.25	1.244	Apr..	3,280	96.38
8 00 but under 9 00 ..	521	..	521	21.85	1 381	....	1.381	May..	3,204	94.15
9 00 but under 10 00..	199	1	200	8.39	1.53	1.50	1.53	June .	3,123	91.77
10 00 but under 12 00..	139	.....	139	5.83	1.797	.....	1.797	July	3,193	93.83
12 00 but under 15 00..	111	.....	111	4.65	2.082	.....	2.082	Aug ..	3,218	94.56
15 00 but under 20 00..	51	.....	51	2.14	2.687	.....	2.687	Sept	3,256	95.68
20 00 and over.....	9	.....	9	.38	4.48	.....	4.48	Oct....	3.341	98.18
								Nov ..	3.403	100.00
Total.....	2,227	158	2,385	100.00	$1.339	$.614	$1.30	Dec ..	3,038	89.27
								Ave ..	3,252	95.57

CIGARS—56 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Apprentices	8.25	35	4.12	$20.01	1.58	$0.575	$0.069
Apprentices, female	8.25	8	.94	4.25	.34	.531	.064
Bunch makers, female	8.42	40	4.71	33.50	2.65	.837	.099
Cigar makers	8.28	465	54.71	998.97	78.97	2.146	.259
Cigar makers, female	8.45	29	3.41	43.87	3.47	1.512	.178
Helpers	8.44	25	2.94	13.05	1.03	.522	.061
Helpers, female	8	7	.82	4.90	.39	.700	.087
Packer	8	1	.12	1.50	.12	1.500	.187
Packers, female	8.31	19	2.23	19.11	1.51	1.006	.121
Rollers	8.06	5	.59	3.25	.26	.650	.080
Rollers, female	8.38	26	3.06	17.45	1.38	.671	.080
Strippers	8.47	67	7.88	39.10	3.10	.583	.068
Strippers, female	8.31	123	14.47	65.75	5.20	.534	.064
Total and average	8.32	850	100.00	$1,263.91	$100.00	1.487	$0.178
Male	8.26	598	70.35	$1,175.08	85.06	$1.798	$0.218
Female	8.34	252	29.65	188.83	14.94	.749	.089
Bookkeeper, female	6	1	16.67	$1.70	5.64	$1.000	$0.165
Clerk	10	1	16.67	2.00	11.27	2.000	.200
Foremen	8.50	4	66.66	14.74	83.09	3.687	.434
Total and average	8.33	6	100.00	$17.74	$100.00	$2.956	$0.354
Male	8.80	5	83.33	$16.74	94.36	$3.348	$0.380
Female	6	1	16.67	1.00	5.64	1.000	.166

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent.	Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male	Female.	Total		Male	Female.	Total	Month.	No.	Range.
Under $5 00	130	158	288	33.65	$.533	$.502	$ 517	Jan.	787	95.28
$ 5 00 but under 6 00	4	14	18	2.10	.883	.902	.899	Feb.	799	96.73
6 00 but under 7 00	20	43	63	7.36	1.051	1.000	1.016	Mar.	815	98.67
7 00 but under 8 00	9	13	22	2.57	1.225	1.231	1.229	April.	811	98.18
8 00 but under 9 00	7	1	8	.93	1.350	1.370	1.352	May.	823	99.64
9 00 but under 10 00	64	20	84	9.81	1.533	1.515	1.526	June.	813	98.43
10 00 but under 12 00	35	3	38	4.44	1.749	1.733	1.748	July	826	100.00
12 00 but under 15 00	173	1	174	20.33	2.109	2.000	2.108	Aug.	825	99.87
15 00 but under 20 00	145	....	145	16.94	2.721	....	2.721	Sept.	822	99.52
20 00 and over	16	...	16	1.87	3.646	...	3.646	Oct.	810	98.06
								Nov.	818	99.03
Total	603	253	856	100.00	$1 810	$.750	$1.497	Dec.	801	96.97
								Ave.	813	98.43

CLOTHING—18 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.		Average.	
		Number.	Per cent.	Total per day.	Per cent.	Per day.	Per hour.
Bushelmen	10	5	.56	$9.85	.962	$1.970	$0.197
Cutters	10	28	3.15	53.07	5.182	1.895	.189
Finishers	10	18	2.02	14.94	1.459	.830	.083
Fitters	10	1	.11	1.67	.163	1.670	.167
Helpers	10	21	2.36	23.36	2.281	1.112	.111
Helpers, female	9.98	327	36.74	305.52	29.835	.934	.093
Machinists	10	10	1.12	26.00	2.539	2.600	.260
Operators	10	57	6.41	80.93	7.903	1.419	.141
Piece workers	10	3	.34	5.40	.527	1.800	.180
Piece workers, female	10	4	.45	4.00	.390	1.000	.1 0
Pressers	10	5	.56	12.50	1.225	2.500	.250
Seamstresses, female	9.50	79	8.88	65.50	6.396	.829	.087
Sewers	9	84	9.44	143.04	13.968	1.702	.188
Sewers, female	9	12	1.35	10.86	1.060	.905	.100
Sewing girls, female	9	81	9.10	47.74	4.662	.589	.065
Stitchers, female	9	86	9.66	125.00	12.216	1.290	.143
Tailors	10	18	2.02	39.18	3.826	2.176	.217
Tailors' helpers	10	28	3.15	30.66	2.994	1.095	.109
Tailors, female	10	19	2.14	18.16	1.763	.955	.095
Teamsters	10	1	.11	2.00	.195	2.000	.200
Trimmers	10	2	.22	2.50	.244	.125	.012
Watchmen	10	1	.11	2.15	.210	2.150	.215
Total and average	9.65	890	100.00	$1,024.03	100.000	$1.151	$0.119
Male	9.70	282	31.69	$447.25	43.675	$1.586	$0.163
Female	9.63	608	68.31	576.78	56.325	.948	.098
Designer	10	1	9.09	$4.00	15.234	$4.000	$0.400
Examiners	10	2	18.18	5.50	20.944	2.750	.275
Examiner, female	9.50	5	45.46	6.17	23.495	1.234	.129
Foremen	10	2	18.18	9.17	34.920	4.585	.458
Forewoman	9.50	1	9.09	1.42	5.407	1.420	.149
Total and average	9.73	11	100.00	$26.26	100.000	$2.387	.245
Male	10	5	45.45	$18.67	71.097	$3.734	$0.373
Female	9.50	6	54.55	7.59	28.903	1.265	.133

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons			Per cent.	Average Wages Per Day			No. Persons Emp. by Month.		
Classification.	Male	Female.	Total		Male	Female.	Total	Month	No.	Range.
Under $5 00	69	488	557	35.64	$.733	$.687	$.695	Jan	1,952	92.46
$ 5 00 but under 6 00	23	80	103	6.59	.920	.918	.918	Feb	1,996	94.55
6 00 but under 7 00	35	257	292	18.68	1.031	1.011	1.013	Mar	1,994	94.46
7 00 but under 8 00	36	62	98	6.27	1.319	1.252	1.284	April	1,986	94.08
8 00 but under 9 00	22	88	110	7.04	1.437	1.420	1.435	May	2,017	95.54
9 00 but under 10 00	47	80	127	8.12	1.543	1.500	1.515	June	2,003	94.88
10 00 but under 12 00	60	27	87	5.57	1.758	1.756	1.757	July	2,111	100.00
12 00 but under 15 00	63	17	80	5.12	2.114	2.000	2.102	Aug	2,052	97.23
15 00 but under 20 00	65	3	68	4.35	2.773	2.500	2.773	Sept	2,074	98.25
20 00 and over	41	.....	41	2.62	4.312	.....	4.312	Oct	2,064	97.77
								Nov	2,038	96.54
Total	461	1,102	1,563	100.00	$1.623	$.952	$1.165	Dec	2,018	95.55
								Ave	2,025	95 92

COOPERAGE—12 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation,	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent	Average.	
						Per day.	Per hour.
Boys	8	13	3.25	$13.00	1.61	$1.00	$0.125
Coopers	8.42	184	46.00	479.59	59.51	2.606	.309
Laborers	9.77	187	46.75	283.35	35.16	1.515	.155
Machinists	10	6	1.50	15.00	1.86	2.50	.250
Yardmen	10	10	2.50	15.00	1.86	1.50	.150
Total male	9.105	400	100.00	$8.5.94	100.00	$2.015	$0.221
Foremen	10	8	100.00	$20.50	100.00	$2.562	$0.256

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.					Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	No. of Persons.			Per cent.						
	Male	Female.	Total		Male	Female,	Total	Month.	No.	Range.
Under $5 00..	8	.....	8	1.96	$.806	.....	$.806	Jan...	321	85.60
$ 5 00 but under 6 00..	12	....	12	2.94	.890	....	.890	Feb .	312	83.20
6 00 but under 7 00..	14	....	14	3.43	1.000	.....	1.000	Mar ..	342	91.20
7 00 but under 8 00..	42	.....	42	10.29	1.260	.....	1.260	April..	372	99.20
8 00 but under 9 00..	6	.....	6	1.47	1.420	.....	1.420	May ..	373	99.47
9 00 but under 10 00 .	54	.....	54	13.24	1.500	.....	1.500	June..	364	97 07
10 00 but under 12 00..	89	.....	89	21.82	1.824	.....	1.824	July ..	364	97.07
12 00 but under 15 00..	40	.....	40	9.80	2.140	.....	2.140	Aug ..	364	97.07
15 00 but under 20 00..	120	....	120	29.41	2.657	.....	2.657	Sept..	375	100.00
20 00 and over	23	....	23	5.64	3.739	.....	3.739	Oct ..	317	84.53
								Nov ..	364	97.07
Total.....	408	.....	408	100.00	$2.025	.....	$2.025	Dec ..	358	95.47
								Ave...	352	93 87

COTTON AND LINEN—10 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Apprentices	10	2	.60	$2.75	$0.788	$1.375	$0.137
Awning hangers	10	8	2.41	15.50	4.444	1.937	.193
Blacksmith	10	1	.30	1.67	.478	1.670	.167
Bleachers, female	10	6	1.82	9.00	2.580	1.500	.150
Carders	10	8	2.41	12.00	3.441	1.500	.150
Cutter	10	1	.30	1.83	.525	1.830	.183
Draymen	10	2	.60	4.00	1.147	2.000	.200
Engineer	10	1	30	2.00	.573	2.000	.200
Fireman	10	1	30	1.50	.430	1.500	.150
Helpers	10	6	1.82	9.00	2.580	1.500	.150
Helpers, female	10	13	3.92	12.01	3.446	.923	.092
Laborers	11	44	13.25	49.77	14.269	1.131	.102
Laborers, female	11	111	33.43	97.30	27.896	.876	.079
Tappers	10	6	1.82	9.00	2.580	1.500	.180
Mach. operators, female.	10	11	3.31	11.16	3.200	1.014	.101
Machine tenders	10	3	90	4.00	1.147	1.333	.133
Mach. tenders, female	10	50	15.06	32.30	9.260	.646	.064
Machinist	10	1	.30	2.50	.717	2.500	.250
Mattress maker, female	10	1	.30	1.25	.358	1.25	.125
Mattress makers, female.	10	1	.30	1.25	.358	1.25	.125
Packer	10	2	.60	2.50	.717	1.25	.125
Sailmakers	10	10	3.01	25.50	7.311	2.55	.255
Sewing girls	10	13	3.92	9.75	2.795	.75	.075
Sluberers, female	10	4	1.20	4.00	1.147	1.00	.100
Speeders, female	10	4	1.20	4.00	1.147	1.00	.100
Spinners, female	10	20	6.02	20.00	5.734	1.00	.100
Watchman	12	1	.30	1.50	.430	1.50	.125
Total	10.45	332	100.00	$348.79	100.000	$1.05	$0.100
Male	10.46	99	29.82	$148.02	42.44	$1.495	$0.142
Female	10.47	233	70.18	$200.77	57.56	.862	.082
Forelady	10	4	44.44	$4.32	25.19	$1.08	$0.108
Foreman	10	4	44.44	11.83	68.98	2.957	.295
Shipping clerk	10	1	11.12	1.00	5.83	1.00	.100
Total	10	9	100.00	$17.15	100.00	$1.905	$0.190
Male	10	5	55.56	$12.83	74.81	$2.566	$0.256
Female	10	4	44.44	4.32	25.19	1.08	.108

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons			Per cent.	Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00	71	337	408	42.50	$.756	$.716	$.721	Jan ..	831	91.22
$ 5 00 but under 6 00	12	81	93	9.69	.900	.900	.900	Feb ..	869	95.39
6 00 but under 7 00	31	150	181	18.85	1.000	1.013	1.011	Mar ..	863	94.73
7 00 but under 8 00	50	52	102	10.63	1.250	1.250	1.250	Apr ..	884	97.04
8 00 but under 9 00	24	9	33	3.44	1.350	1.340	1.347	May .	882	96 82
9 00 but under 10 00	43	24	67	6.98	1.504	1.500	1.503	June .	911	100.00
10 00 but under 12 00	18	4	22	2 29	1.740	1.670	1.727	July ..	802	88.04
12 00 but under 15 00	29	1	30	3.13	2.025	2.000	2 024	Aug ..	711	78.05
15 00 but under 20 00	22	.....	22	2.28	2.658	.....	2.658	Sept ..	687	75.41
20 00 and over	2	.....	2	.21	3.350	.. ..	3.350	Oct ...	709	77.83
								Nov .	869	95.39
Total	302	668	960	100.00	$1.358	$.880	$1.040	Dec ..	885	97.15
								Ave ..	825	90.56

CRACKERS AND CONFECTIONERY—14 ESTABLISHMENTS.

Table A—Showing by occupation classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Bakers	10	97	7.277	$199.91	16.804	$2.060	$0.206
Bakers, helpers	10	60	4.500	69.28	5.821	1.154	.115
Bakers, helpers, female	10	41	3.076	27.78	2.335	.677	.067
Candy makers	10	107	8.026	212.02	17.822	1.981	.198
Candy makers, female	10	293	21.985	173.46	14.580	.591	.059
Candy maker, helpers	10	29	2.176	23.50	1.988	.810	.081
Candy makers, helpers, female	10	33	2.476	22.20	1.866	.672	.067
Candy packers	10	10	.749	6.20	.521	.620	.062
Candy packers, female	10	363	27.232	237.04	19.925	.653	.065
Chocolate dipper	10	1	.075	2.50	.210	2.500	.250
Chocolate dippers, female	10	45	3.376	30.09	2.529	.668	.066
Cleaners, female	10	2	.150	1.66	.139	.830	.083
Cracker packers	10	2	.150	3.50	.294	1.750	.175
Cracker packers, female	10	168	12.602	103.50	8.700	.616	.061
Craterers	10	2	.150	4.00	.336	2.000	.200
Engineer	10	1	.075	2.00	.168	2.000	.200
Helpers	10	23	1.724	19.15	1.608	.832	.083
Helpers, female	10	40	3.001	24.48	2.058	.612	.061
Machinist	10	1	.075	2.50	.210	2.500	.250
Teamsters	10	8	.600	16.75	1.408	2.093	.209
Watchmen	10	2	.150	4.32	.363	2.160	.216
Wrappers, female	6	5	.375	3.68	.309	.736	.122
Total	9.98	1,333	100.000	$1,189.52	100.000	$0.892	$0.089
Male	10	343	25.73	$565.63	47.635	$1.649	$0.164
Female	9.98	990	74.27	623.89	52.365	.630	.063
Foreman	10	1	4.545	$3.33	9.652	$3.33	$0.333
Shippers	10	21	95.455	31.17	90.348	1.480	.148
Total	10	22	100.000	$34.50	100.000	$1.568	$0.156

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.										
Classification.	No. of Persons.			Per cent.	Average Wages per Day.			No. Persons Emp. by Month.		
	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00	52	924	976	72.03	$.649	$.606	$.608	Jan.	1,100	79.65
$ 5 00 but under 6 00	17	28	45	3.32	.901	.882	8.889	Feb	1,128	81.68
6 00 but under 7 00	47	37	84	6.20	1.055	1.015	1.037	Mar	1,105	80.01
7 00 but under 8 00	34	1	35	2 58	1.296	1.330	1.297	April	1,077	77 99
8 00 but under 9 00	6	.....	6	.44	1.420	.....	1.420	May	1,099	79.58
9 00 but under 10 00	32	.....	32	2.36	1 567	.....	1.567	June	1,132	81.96
10 00 but under 12 00	30	.....	30	2.22	1.728	.....	1.728	July	1,145	82.91
12 00 but under 15 00	97	.....	97	7.16	2.096	.....	2.096	Aug	1,164	84.28
15 00 but under 20 00	44	.....	44	3.25	2.721	.....	2.721	Sept	1,224	88.63
20 00 and over	6	.....	6	.44	3.943	.....	3.943	Oct	1,327	96.09
								Nov	1,381	100.00
Total	565	990	1,355	100.00	$1.644	$.63	$.903	Dec	1,280	92.68
								Ave	1,180	85.45

CREAMERIES—37 ESTABLISHMENTS.

Table A—Showing by occupation classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Butter makers	9.50	40	22.22	$77.85	28.093	$1.946	$0.204
Butter makers, helpers	10.33	12	6.67	15.67	5.655	1.305	.126
Cream handlers	10	2	1.11	4.00	1.444	2.00	.200
Laborers	9.96	108	60.00	152.50	55.032	1.412	.141
Skimmers	9.53	17	9.44	25.30	9.130	1.488	.155
Station operator	10	1	.56	1.80	.646	1.80	.180
Total	9.84	180	100.00	$277.12	100.000	$1.539	$0.156
Bookkeepers	10	3	23.08	$3.00	21.083	$1.00	$0.100
Bookkeepers, female	9.79	9	69.23	9.00	63.158	1.00	.102
Manager	10	1	7.69	2.25	15.789	2.25	.225
Total	9.85	13	100.00	$14.25	100.000	$1.096	$0.111
Male	10	4	30.77	$5.25	36.842	$1.312	$0.131
Female	9.79	9	69.23	9.00	63.158	1.00	.102

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.										
Classification.	No. of Persons.			Per cent.	Average Wages Per Day.			No. Persons Emp. by Month.		
	Male.	Female.	Total		Male.	Female	Total	Month.	No.	Range.
Under $5 00	7	.....	7	3.63	$.675	.....	$.675	Jan...	171	83.01
$ 5 00 but under 6 00..	.....	....	.....	.....	.....	....	....	Feb...	172	83.50
6 00 but under 7 00..	9	9	18	9.33	1.017	$1.000	1.008	Mar..	175	84.95
7 00 but under 8 00..	51	.....	51	26.43	1.250	.....	1.250	April.	186	90.29
8 00 but under 9 00..	3	.....	3	1.56	1.343	.....	1.343	May..	198	96 12
9 00 but under 10 00..	55	.....	55	28.48	1.508	.....	1.508	June.	205	99.51
10 00 but under 12 00..	30	.....	30	15.54	1.760	.....	1.760	July..	206	100.00
12 00 but under 15 00 .	21	.....	21	10.88	2.052	.. ...	2.052	Aug ..	205	99.51
15 00 but under 20 00..	7	.....	7	3.63	2.525	.. .	2.525	Sept..	197	95.63
20 00 and over.....	1	....	1	.52	4.160	.....	4 160	Oct...	195	94.66
								Nov	192	93.20
Total.....	184	9	193	100.00	1.507	$1.000	$1.510	Dec ..	188	91.26
								Ave....	192	93.20

DYEING AND CLEANING—6 ESTABLISHMENTS.

Table A—Showing by occupation classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Cleaners	10	6	3.80	$10.50	6.037	$1.75	$0.175
Carpet layers	9.33	3	1.90	6.10	3.507	2.033	.217
Dyers	10	7	4.43	12.62	7.256	1.802	.180
Engineers	10	2	1.26	4.66	2.679	2.33	.233
Errand boys	10	3	1.90	1.74	1.001	.58	.058
Fireman	10	1	.63	1.67	.960	1.67	.167
Helpers	10	14	8.86	21.03	12.092	1.502	.150
Helpers, female	9.23	13	8.23	9.34	5.370	.718	.077
Ironer	8	1	.63	1.50	.862	1.50	.187
Laborers	10	8	5.06	11.36	6.532	1.42	.142
Porter	10	1	.63	1.75	1.006	1.75	.175
Pressers	10	3	1.90	4.67	2.685	1.556	.155
Pressers, female	9.23	77	48.73	63.80	36.684	.829	.089
Seamsters, female	8.8	5	3.17	4.42	2.542	.884	.100
Tailors	10	2	1.27	3.84	2.208	1.92	.192
Teamsters	9.66	12	7.60	14.92	8.579	1.243	.128
Total	9.60	158	100.00	$173.92	100.000	$1.10	$0.114
Male	9.87	63	39.87	$93.36	55.405	$1.482	$0.150
Female	9.31	95	60.13	77.56	44.595	.816	.087
Clerk	10	1	16.67	$1.00	20.00	$1.00	$0.100
Clerks, female	10.20	5	83.33	4.00	80.00	.80	.078
Total	10.16	6	100.00	$5.00	100.00	$0.833	$0.820
Male	10	1	16.667	$1.00	16.667	$1.00	$0.100
Female	10.20	5	83.333	4.00	83.333	.80	.078

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.					Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	No. of Persons.			Per cent.				Month.	No.	Range.
	Male.	Female.	Total		Male.	Female.	Total			
Under $5 00..	7	74	81	42.86	$.678	$.716	$.713	Jan ..	135	73.37
$ 5 00 but under 6 00..	2	22	24	12.70	.920	.913	.913	Feb...	135	73.37
6 00 but under 7 00..	9	10	19	10.06	1.000	1 023	1.012	Mar ..	149	80.98
7 00 but under 8 00..	11	9	20	10 58	1.253	1.245	1.250	April..	166	90.22
8 00 but under 9 00..	2	.....	2	1.06	1.350	.....	1.350	May ..	187	98 37
9 00 but under 10 00..	24	.....	24	12.70	1.560	. ..	1.560	June..	187	98.37
10 00 but under 12 00 .	7	.....	7	3.70	1.718	.....	1.718	July..	166	90.22
12 00 but under 15 00..	7	.....	7	3.70	2.070	.....	2.070	Aug ..	168	91.30
15 00 but under 20 00..	5	.....	5	2.64	2.700	.....	2.700	Sept.	175	95.11
20 00 and over.....	....	.....	...	....	.....	.....	.....	Oct...	184	100.00
								Nov...	183	99.41
Total..	74	115	189	100.00	$1.521	$.815	$1.091	Dec...	173	94.02
								Ave...	166	90.22

ELECTRIC & GAS SUPPLIES—17 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Apprentices	8.41	12	1.858	$10.70	.969	$0.891	$0.105
Boys	9	2	.310	1.50	.136	.75	.083
Brass turners	10	4	.619	9.00	.815	2.25	.225
Carpenters	10	6	.929	12.00	1.114	2.05	.205
Core makers, female	10	18	2.786	15.80	1.431	.877	.087
Drain layers	9	6	.929	12.00	1.087	2.00	.222
Electricians	8	20	3,096	42.82	3.877	2.141	.267
Enamelers	8	13	2.012	22.75	2.060	1.75	.218
Engineers	11.33	3	.464	6.33	.573	2.11	.186
Firemen	11.33	6	.929	11.50	1.041	1.916	.169
Jobber	8	1	.155	2.50	.226	2.50	.312
Laborers	10.73	287	44.427	464.76	42.082	1.619	.150
Laborers, female	10.03	32	4.954	32.3	2.925	1.009	.100
Locksmiths	10	4	.619	9.66	.875	2.415	.241
Machine feeders	10	109	16.873	166.75	15.098	1.529	.152
Machinists	10	27	4.179	57.50	5.206	2.129	.212
Machinist, helpers	9.46	30	4.644	33.00	2.988	1.10	.116
Moulders	10	26	4.025	74.00	6.700	2.846	.284
Pattern makers	10	4	.619	7.25	.656	1.812	.181
Plater	10	1	.155	3.50	.317	3.50	.350
Plumbers	8.63	19	2.941	68.50	6.202	3.605	.417
Shovelers	10	10	1.548	22.50	2.037	2.25	.225
Steam fitters	9.20	5	.774	15.75	1.426	3.15	.341
Steam fitters, helper	10	1	.155	1.75	.159	1.75	.175
Total and average..	10.13	646	100.000	$1,104.42	100.000	$1.709	$0.168
Male	10.14	596	92.26	$1,056.32	95.645	$1.772	$0.174
Female	10.20	50	7.74	48.10	4.355	.962	.094
Bookkeeper, female	9	1	25.00	$1.50	14.634	$1.50	$0.166
Clerk	10	1	25.00	2.75	26.829	2.75	.275
Foremen	10.50	2	50.00	6.00	58.537	3.00	.285
Total and average..	10	4	100.00	$10.25	100.000	$2.562	$0.256
Male	10.33	3	75	$8.75	85.366	$2.917	$0.282
Female	9	1	25	1.50	14.634	1.50	.166

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.					Average Wages Per Day			No Persons Emp. by Month.		
Classification.	No. of Persons.			Per cent.						
	Male.	Female.	Total		Male	Female	Total	Month.	No.	Range.
Under $5 00	84	19	103	9.62	$.711	$.738	$.720	Jan.	953	89.48
$ 5 00 but under 6 00	29	3	32	2.99	.900	.850	.883	Feb.	962	90.33
6 00 but under 7 00	48	17	65	6.07	1.000	1.000	1.000	Mar.	970	91.08
7 00 but under 8 00	85	11	96	8.96	1 275	1.19-	1.260	April.	958	89.95
8 00 but under 9 00	35	.....	35	3.27	1.350	.....	1.350	May	922	86.57
9 00 but under 10 00	276	3	279	26.05	1.534	1.550	1.534	June.	953	89.48
10 00 but under 12 00	146	...	146	13.63	1.780		1.780	July.	1,026	96.34
12 00 but under 15 00	147	1	148	13.82	2.102	2.000	2 001	Aug.	1,034	97.09
15 00 but under 20 00	128	...	128	11.95	2.730	.....	2.730	Sept	1,055	99.06
20 00 and over	39	.....	39	3.64	3.654	.....	3.654	Oct.	1,065	100.00
								Nov.	1,043	97.93
Total	1,017	54	1,071	100.00	$1.778	$.955	$1.714	Dec.	994	93.33
								Ave.	991	93.05

FLOUR AND FEED—73 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
						Average.	
		Number.	Per cent.	Total per day.	Per cent.	Per day.	Per hour.
Bolters	9	2	.24	$5.00	.332	$2.50	$.277
Carpenters	10	14	1.70	34.25	2.271	2.446	.244
Coal passers	10	6	.73	9.50	.629	1.583	.158
Coopers	10	2	.24	4.00	.265	2.00	.200
Electrician	10	1	.12	3.00	.199	3.00	.300
Elevator men	10	37	4.51	63.45	4.208	1.715	.171
Engineers	10.40	27	3.29	56.95	3.776	2.11	.202
Firemen	10.28	14	1.70	24.05	1.595	1.718	.167
Grinders	9.11	9	1.09	19.38	1.285	2.153	.236
Laborers	9.95	117	14.25	183.41	12.161	1.567	.158
Loaders	10	112	13.64	212.57	14.096	1.898	.189
Machine tender	10.75	91	11.09	201.17	13.339	2.21	.205
Millers	10.08	86	10.49	199.85	13.252	2.32	.230
Millers, helpers	10	91	11.09	130.95	8.683	1.44	.144
Millwrights	10	15	1.83	39.25	2.602	2.617	.261
Millwright, helper	10	1	.12	1.67	.111	1.67	.167
Nailers	10	8	.98	7.55	.500	.944	.094
Oilers	10.17	23	2.79	38.73	2.569	1.684	.165
Packers	9.43	89	10.84	153.21	10.159	1.72	.182
Packers, helpers	10	4	.49	5.71	.379	1.43	.143
Purifier tenders	10	4	.49	7.36	.488	1.84	.184
Roller tenders	10	2	.24	5.00	.332	2.50	.250
Sweepers	9.57	19	2.32	27.64	1.833	1.455	.150
Teamsters	10.02	43	5.24	67.42	4.470	1.568	.156
Watchmen	11.32	3	.36	5.05	.333	1.683	.148
Weigher	10	1	.12	2.00	.133	2.00	.200
Total and average	10.14	821	100.00	$1,508.12	100.00	$1.836	$0.181
Bookkeeper	11	5	20.83	$11.00	19.58	$2.20	$0.200
Foremen	10	11	45.83	28.43	50.605	2.584	.258
Salesmen	10	1	4.17	2.50	4.450	2.50	.250
Shippers	10	7	29.17	14.25	25.365	2.036	.203
Total and average	10.20	24	100.00	$56.18	100.00	$2.34	$0.229

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.								No. Persons Emp. by Month.		
Classification.	No. of Persons.			Per cent.	Average Wages Per Day			Month.	No.	Range
	Male	Female.	Total		Male.	Female.	Total			
Under $5 00..	10	.....	10	1.09	$.669	.....	$.669	Jan ..	714	80.41
$ 5 00 but under 6 00	3	....	33	.33	.85	.....	.85	Feb...	711	80.07
6 00 but under 7 00..	11	.....	11	1.19	1.00	.....	1.00	Mar...	743	83.67
7 00 but under 8 00..	53	.....	53	5.75	1.25	....	1.25	April..	747	84.12
8 00 but under 9 00..	42	.....	42	4.56	1.36	.....	1.36	May..	735	82.77
9 00 but under 10 00	245	.....	245	26.60	1.53	....	1.53	June..	720	81.08
10 00 but under 12 00..	201	....	201	21.82	1.744	...	1.744	July..	689	77.59
12 00 but under 15 00	273	.....	273	29.64	2.102	.....	2.102	Aug .	677	76.24
15 00 but under 20 00	73	.....	73	7.93	2.64	.....	2.64	Sept..	737	82.99
20 00 and over	10	.....	10	1.09	4.446	.....	4.446	Oct .	888	100.00
								Nov...	884	99.55
Total.....	921	.....	921	100.00	$1.851	.....	$1.851	Dec...	759	85.47
								Ave...	750	84.46

FOOD PREPARATIONS—17 ESTABLIHSMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.		Average.	
		Number.	Per cent.	Total per day.	Per cent.	Per day.	Per hour.
Blanchers	10	3	.12	$4.50	.157	$1.50	$0.150
Blacksmiths	10	2	.08	3.75	.131	1.875	.187
Box men	10	4	.16	7.00	.243	1.75	.175
Box men, helpers	10	90	3.58	131.25	4.566	1.458	.145
Canners	10	2	.08	3.00	.104	1.50	.150
Carpenters	10	4	.16	10.00	.344	2.50	.250
Cappers	10	3	.12	3.00	.104	1.00	.100
Cappers, female	10	4	.16	4.00	.139	1.00	.100
Cookers	10	5	.20	7.50	.261	1.50	.150
Engineers	10	11	.44	28.75	1.000	2.614	.261
Field men	10	25	1.00	40.00	1.392	1.60	.160
Fillers	10	4	.16	6.00	.209	1.50	.150
Firemen	10	6	.24	10.75	.374	1.791	.179
Graders	10	2	.08	3.00	.104	1.50	.150
Helpers	10.44	339	13.52	520.50	18.105	1.535	.147
Helpers, female	10.17	274	10.93	215.00	7.479	.784	.768
Laborers	10	817	32.58	1,073.22	37.330	1.314	.131
Laborers, female	10	393	15.66	330.96	11.513	.842	.084
Machinists	10.60	10	.40	21.83	.759	2.183	.205
Machine tenders	10	10	.40	17.50	.609	1.75	.175
Millwrights	10	4	.16	9.25	.322	2.312	.231
Pickers	9	8	.32	8.00	.278	1.00	.111
Pickers, female	10	443	17.66	331.20	11.520	.747	.074
Press feeder	10	1	.04	1.50	.052	1.5	.150
Teamsters	10	12	.47	34.25	1.191	2.854	.285
Tippers	10	4	.16	7.00	.244	1.75	.175
Viners	10	18	.72	27.00	.939	1.50	.150
Watchmen	11.60	10	.40	15.25	.531	1.525	.131
Total and average..	10.09	2,508	100.00	$2,874.96	100.000	$1.146	$0.113
Male	10.12	1,394	55.58	$1,993.80	63.505	$1.43	$0.141
Female	10.03	1,114	44.42	881.16	36.495	.791	.078
Bookkeeper	9	1	5.00	$2.00	4.95	$2.00	$0.222
Foremen	9.31	19	95.00	38.42	95.05	2.022	.217
Total and average..	9.3	20	100.00	$40.42	100.00	$2.021	$0.217

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.					Average Wages Per Day.			No Persons Emp. by Month.		
Classification.	No. of Persons.			Per cent						
	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00..	156	906	1,062	42.01	$.726	$.732	$.731	Jan...	479	19.84
$ 5 00 but under 6 00	.....	.....	.....	.....	.....	.....	.....	Feb ..	355	14.71
6 00 but under 7 00..	101	175	276	10.92	1.015	1.000	1.005	Mar ..	374	15 49
7 00 but under 8 00	147	23	170	6.72	1 253	1.198	1 246	April .	445	18.43
8 00 but under 9 00..	.....	.....	.....	.....	.....	.....	.....	May .	492	20.38
9 00 but under 10 00..	684	10	694	27.45	1 500	1.500	1.500	June..	728	30.12
10 00 but under 12 00..	265	.....	265	10.48	1.740	.....	1.740	July ..	2,414	100.00
12 00 but under 15 00..	33	.....	33	1.31	2.060	.....	2.060	Aug ..	2,097	86.87
15 00 but under 20 00..	27	.....	27	1.07	2.796	.....	2.796	Sept.	1.006	41.47
20 00 and over.	1	.....	1	.04	3.500	....	3.500	Oct...	663	27.46
								Nov ..	482	19.97
Total	1,414	1,114	2,528	100.00	$1.437	$.791	$1.201	Dec ..	413	17.11
								Ave...	829	34.34

FURNITURE—35 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Bed makers	10	24	1.0753	$41.20	1.2554	$1.716	$0.171
Bed makers, helpers	10	15	.6720	11.85	.3613	.79	.079
Blacksmiths	10	2	.0896	3.26	.0994	1.63	.163
Band sawyer	10	1	.0448	2.00	.0610	2.00	.200
Carvers	10	16	.7169	42.80	1.3048	2.675	.267
Carvers, helpers	10	12	.5381	14.91	.4548	1.262	.126
Cabinet makers	10	239	10.7079	488.89	14.9046	2.045	.204
Cabinet makers, apprentices	10	37	1.6577	41.40	1.2622	1.118	.111
Cutters	10	2	.0896	4.85	.1473	2.415	.241
Engineers	10	11	.4928	26.40	.8049	2.4	.240
Firemen	10	6	.2688	10.70	.3262	1.783	.178
Fillers	10	17	.7616	21.13	.6442	1.242	.124
Fillers' Helper	10	1	.0448	.85	.0229	.85	.085
Finishers	10	251	11.2455	416.27	12.6917	1.658	.165
Finishers' helpers	10	95	4.3011	77.90	2.3749	.82	.082
Finishers' helper, female.	10	1	.0448	.75	.0229	.75	.075
Gluers	10	18	.8064	24.85	.7576	1.38	.138
Helpers, female	10	3	.1344	3.58	.1092	1.193	.119
Laborers	10	390	17.4288	508.61	15.5068	1.304	.130
Laborers, female	10	20	.8961	10.45	.3186	.522	.052
Laborers, boys	10	43	1.9265	26.95	.8218	.626	.062
Lumber scaler	10	1	.0448	1.60	.0488	1.60	.160
Mattress makers	10	4	.1792	6.50	.1982	1.625	1.62
Machine hands	10	438	19.6232	697.13	21.2542	1.591	.159
Machine helpers	10	184	8.2437	188.23	5.7385	1.012	.101
Machine tenders	10	37	1.6577	42.81	1.3051	1.157	.115
Machinists	10	30	1.3441	58.94	1.7968	1.964	.196
Packers	10	68	3.0465	88.38	2.6944	1.299	.129
Painter boys	10	5	.2240	4.00	.1219	.80	.080
Polishers	10	13	.5824	18.25	.5564	1.403	.140
Saw filer	10	1	.0448	2.00	.0610	2.00	.200

FURNITURE—35 ESTABLISHMENTS—Continued.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day	Per cent.	Average. Per day.	Per hour.
Seamstresses	9.75	33	1.4785	33.97	1.0356	1.029	.105
Spring maker	10	1	.0448	1.66	.0506	1.66	.166
Sanders	10	6	.2688	7.20	.2194	1.2[illegible]	.120
Teamsters	10	8	.3583	14.25	.4344	1.781	.178
Tinsmith	10	1	.0448	1.75	.0533	1.75	.175
Upholsterers	10	103	4.6147	201.46	6.1418	1.955	.195
Upholsterers' helper	10	5	.2240	4.25	.1299	.85	.085
Upholst's' helper, female	10	1	.0448	.83	.0253	.83	.083
Varnishers	10	22	.9856	35.30	1.0762	1.604	.160
Veneerers	10	35	1.5681	43.50	1.3262	1.242	.124
Watchmen	11.10	20	.8961	29.03	.8850	1.451	.130
Wood workers	10	10	.4480	17.50	.5335	1.75	.175
Weaving helpers, female.	10	2	.0896	2.00	.0610	1.00	.100
Total and average..	10.006	2,232	100.00	$3,280.12	100.00	$1.47	$0.146
Male	10.01	2,172	97.311	$3,228.54	98.943	$1.493	.149
Female	9.86	60	2.689	51.58	1.057	.860	.087
Foremen	10	23	53.488	$62.20	66.432	$27.04	$0.270
Forelady	10	1	2.326	1.50	1.602	1.50	.150
Shipping clerks	10	18	41.860	27.68	29.563	1.537	.153
Timekeeper	10	1	2.326	2.25	2.403	2.25	.225
Total and average..	10	43	100.00	$93.63	100.00	$2.177	$ .217
Male	10	42	97.67	$92.13	98.398	$2.193	$0.219
Female	10	1	2.33	1.50	1.602	1.50	.150

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent.	Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female	Total		Male.	Female	Total	Month.	No.	Range.
Under $5 00..	237	23	260	11.43	$.651	$.552	$.643	Jan....	2,336	91.10
$ 5 00 but under 6 00	69	8	77	3.39	.882	.85	.878	Feb ..	2,434	94.93
6 00 but under 7 00	156	20	176	7.73	1.061	1.015	1.056	Mar .	2,533	98.79
7 00 but under 8 00..	415	8	423	18.60	1.253	1.218	1.253	April .	2,569	100.00
8 00 but under 9 00	266	.....	266	11.69	1.379		1.379	May ..	2,510	97.89
9 00 but under 10 00..	379	1	380	16.70	1.53	1.50	1.53	June..	2,476	96 56
10 00 but under 12 00..	214	.....	214	9.41	1.762	.....	1.762	July	2,493	97.22
12 00 but under 15 00..	334	1	335	14.72	2.093	2.00	2.093	Aug .	2,532	98.74
15 00 but under 20 00..	135	....	135	5.93	2.694	...	2.694	Sept..	2,455	95.74
20 00 and over.	9	.....	9	.40	3.537	.....	3.537	Oct .	2,508	97.81
Total.....	2,214	61	2,275	100.00	$1.50	$.87	$1.483	Nov .	2,475	96.52
								Dec...	2,488	97.07
								Ave...	2,484	96.87

FURS, GLOVES AND MITTENS—16 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Beamster	10	1	.170	$1.25	.150	$1.25	$0.125
Boys	10	2	.330	1.17	.139	.585	.058
Cutters	9.90	103	17.640	182.72	24.848	1.691	.171
Dyer	10	1	.170	1.50	.184	1.50	.150
Engineer	10	1	.170	2.00	.249	2.00	.200
Glove makers, female	8	18	2.940	13.50	1.717	.75	.093
Hand workers, female	10	6	.980	4.18	.548	.696	.069
Helpers	9.93	40	6.530	32.95	4.464	.823	.082
Helpers, female	8	8	1.310	6.40	.849	.80	.100
Laborers	9.64	7	1.140	10.25	1.680	1.464	.151
Laborers, female	9.63	11	1.800	10.25	1.680	.931	.096
Layers off	10	21	3.430	27.35	2.682	1.304	.130
Machinists	9.88	9	1.470	16.25	2.201	1.805	.183
Machine operators	9.18	8	1.310	19.67	2.647	2.458	.268
Mach. operators, female	8.54	190	31.030	208.09	28.281	1.952	.228
Packers	9.87	4	.660	7.91	1.046	1.977	.200
Servers, female	9.79	139	22.700	146.44	19.910	1.053	.107
Shaver	10	1	.170	3.00	.388	3.00	.300
Sorters, female	10	23	.170	23.00	3.110	1.00	.100
Tanners	10	3	.490	6.25	.831	2.083	.208
Trimmers, female	9.50	6	.980	4.05	.531	.675	.071
Trimmers	10	5	.820	6.50	.865	1.30	.130
Total and average	9.36	612	100.00	$734.68	100.000	$1.20	$0.128
Male	9.89	211	34.46	$318.77	43.39	$1.51	$0.152
Female	9.09	401	65.54	415.91	56.61	1.037	.114
Clerks	9.66	3	.30	$6.50	32.09	$2.166	$0.225
Forelady	8	1	.10	1.00	29.63	1.00	.125
Foremen	8.5	2	.20	6.00	4.95	3.00	.352
Inspector	10	1	.10	3.00	14.82	3.00	.300
Stenographers, female	8	3	.30	3.75	18.51	1.25	.156
Total and average	8.80	10	100.00	$20.75	100.00	$2.075	$0.235
Male	9.33	6	.60	$15.50	76.54	$2.583	$0.276
Female	8	4	.40	4.75	23.46	1.187	.148

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.				Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female.	Total	Per cent.	Male.	Female.	Total	Month	No.	Range.
Under $5 00	54	256	310	33.9	$.74	$.705	$.712	Jan	778	80.37
$ 5 00 but under 6 00	5	37	42	4.7	.89	.890	.89	Feb	772	79.75
6 00 but under 7 00	30	106	136	14.9	1.00	1.020	1.016	Mar	826	85.33
7 00 but under 8 00	51	41	92	10 1	1.25	1.283	1.264	April	886	91.53
8 00 but under 9 00	8	19	27	3.1	1.40	1.400	1.400	May	968	100.00
9 00 but under 10 00	26	62	88	8.6	1.50	1.500	1.54	June	919	94.94
10 00 but under 12 00	45	27	72	7.9	1.73	1.710	1.72	July	918	94.83
12 00 but under 15 00	79	16	95	10.5	2.06	2.000	2.043	Aug	957	97.83
15 00 but under 20 00	33	4	37	4.2	2.53	2.500	2.522	Sept	887	91.63
20 and over	18	.....	18	2.1	3.18	.....	3.184	Oct	889	91.84
								Nov	840	86.78
Total	249	568	917	100.0	$1.54	$1.038	$1.213	Dec	753	77.79
								Ave	866	89.46

IRON—31 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
						Average.	
		Number.	Per cent.	Total per day.	Per cent.	Per day	Per hour.
Ashmen	12	8	.158	$15.20	.152	$1.90	$0.158
Assorter	10	1	.019	2.00	.020	2.00	.200
Assorters, female	10	5	.099	6.65	.067	1.33	.133
Bindermen	10	30	.594	52.50	.525	1.75	.175
Blacksmiths	10.03	67	1.322	159.50	1.593	2.38	.237
Blacksmith helpers	10.10	20	.396	35.55	.355	1.777	.175
Boiler makers	10	3	.059	8.70	.087	2.90	.290
Boiler maker helpers	10	7	.138	12.60	.126	1.80	.180
Boltmen	10	6	.118	12.00	.120	2.00	.200
Boiler washers	11	2	.039	3.96	.040	1.966	.178
Boys	10.06	315	6.243	272.74	2.725	.868	.086
Cagers	12	4	.079	8.00	.080	2.00	.166
Cartmen	10	5	.099	9.75	.098	1.95	.195
Carpenters	10	22	.436	51.75	.517	2.352	.235
Carpenters' helpers	10	4	.079	6.75	.068	1.687	.168
Catchers	10	2	.039	4.50	.045	2.25	.225
Chippers	11.50	8	.158	20.10	.201	2.512	.218
Chargers	12	2	.039	4.20	.042	2.10	.175
Cinder snappers	12	14	.277	28.20	.282	2.014	.167
Cleaner	10	1	.019	1.60	.016	1.60	.160
Coal handlers	11.43	64	1.268	119.61	1.194	1.869	.163
Core makers	10	90	1.783	124.15	1.240	1.379	.137
Counters	11	13	.257	24.31	.243	1.87	.170
Cranemen	12	4	.079	9.36	.094	2.34	.195
Crushermen	11.66	6	.118	11.35	.114	1.891	.162
Cupola tenders	10	4	.079	7.90	.079	1.975	.197
Driller	10	1	.019	1.87	.019	1.87	.187
Dryman	10	1	.019	1.60	.016	1.60	.160
Electricians	10.33	6	.118	12.70	.127	2.117	.204
Electrician, helpers	10	4	.079	6.80	.068	1.70	.170
Engineers	11.08	59	1.169	141.92	1.417	2.405	.217
Fillers	11.53	52	1.030	107.20	1.070	2.061	.179
Firemen	11.81	63	1.248	130.30	1.302	2.068	.175
Flask carrier	10	1	.019	1.65	.017	1.65	.165
Gas producers	12	26	.515	51.96	.519	1.998	.166
Grinders	11	11	.218	19.80	.198	1.80	.163
Handymen	10	65	1.288	113.65	1.135	1.748	.174
Heaters	11.40	22	.436	127.46	1.273	5.794	.508
Heaters, helpers	12	12	.237	25.80	.258	2.60	.216
Helpers	10.47	46	.911	73.54	.735	1.599	.152
Hoisters	10.50	8	.158	22.32	.223	2.79	.265
Hookers	10	2	.039	4.50	.045	2.25	.225
Hot sawmen	8	3	.059	10.26	.102	3.42	.427
Hot straighteners	10.77	49	.971	120.83	1.207	2.466	.228
Inspectors	10	3	.059	5.25	.053	1.75	.175
Iron carriers	10.56	39	.773	88.75	.886	2.275	.215
Japaners	10	7	.138	10.50	.105	1.50	.150
Keepers	12	8	.158	20.30	.203	2.537	.211
Keepers' helpers	12	22	.436	46.20	.462	2.10	.175
Knife changers	12	2	.039	4.40	.044	2.20	.183
Laborers	10.05	1,662	32.943	2,560.87	25.563	1.541	.153
Landers	10	14	.277	24.50	.245	1.75	.175
Loader	11	1	.019	2.70	.027	2.70	.245
Machinists	10	62	1.228	173.15	1.729	2.792	.279
Machinists' helpers	10	82	1.625	117.90	1.177	1.437	.143
Machine tenders	10	110	2.180	164.15	1.639	1.492	.149
Mason	10	1	.019	3.00	.030	3.00	.300
Metal polishers	10	15	.297	36.75	.367	2.45	.245
Millwrights	10	4	.079	11.46	.115	2.865	.286
Miners	10	114	2.259	245.10	2.447	2.15	.215
Monkey	10	1	.019	1.15	.012	1.15	.115
Morgan Train men	12	2	.039	6.20	.062	3.10	.253

IRON—Continued.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Motormen	12	2	.039	3.90	.039	1.95	.162
Moulders	9.96	1,015	20.118	2,380.27	23.760	2.345	.235
Mounters	10	9	.178	20.45	.204	2.272	.227
Oilers	12	19	.376	39.55	.395	2.081	.173
Packers	10	7	.138	8.30	.083	1.185	.185
Packers, female	10	7	.138	7.00	.070	1.00	.100
Painters	10	7	.138	13.65	.137	1.95	.195
Pattern makers	10	37	.733	97.76	.976	2.642	.264
Pilers	11.20	68	1.347	134.60	1.344	1.979	.176
Platers	10	22	.436	40.15	.401	1.825	.182
Press hands	10	14	.277	21.17	.212	1.512	.151
Pump and pipemen	10.25	16	.317	31.48	.315	1.967	.181
Punchers	10.80	10	.198	17.70	.177	1.77	.163
Punch setters	12	2	.039	4.80	.048	2.40	.200
Rail breakers	10	6	.118	20.16	.202	3.36	.336
Range makers	10	2	.039	6.05	.061	3.205	.320
Roller hands	8.71	180	3.567	865.74	8.643	4.809	.552
Roll turners	10	23	.455	61.45	.614	2.672	.267
Roughers	10	16	.317	60.00	.600	3.75	.375
Sampler	10	1	.019	1.90	.019	1.90	.190
Sand cutters	10	2	.039	3.50	.035	1.75	.175
Scrappers	11	2	.039	3.70	.037	1.85	.168
Shearmen	11.44	25	.495	60.05	.600	2.402	.209
Shovelers	10	36	.713	172.80	1.725	4.80	.480
Skip tenders	10	8	.158	11.60	.116	1.45	.145
Spellers	10	2	.039	5.50	.055	2.75	.275
Spike machine tenders	10	7	.138	15.00	.150	2.143	.214
Stockmen	10	20	.396	35.00	.350	1.75	.175
Stove tenders	12	4	.079	8.30	.083	2.075	.172
Supply men	10	2	.039	3.00	.030	1.50	.150
Switchmen	11.20	5	.099	10.74	.108	2.148	.102
Teamsters	10.41	29	.713	54.16	.541	1.867	.179
Timbermen	10	20	.396	38.20	.382	1.91	.191
Trackman	10	1	.019	2.10	.021	2.10	.210
Trainmen	10	21	.416	39.32	.393	1.872	.187
Truckmen	10	6	.118	9.90	.099	1.650	.165
Turner	10	1	.019	2.10	.021	2.10	.210
Turners' helper	10	1	.019	1.25	.013	1.25	.125
Watchmen	11.60	25	.495	45.41	.454	1.816	.156
Water tenders	12	4	.079	10.05	.101	2.512	.209
Weighers	9.60	10	.198	20.10	.201	2.01	.209
White washers	12	2	.039	3.70	.037	1.85	.164
Wipers	12	4	.079	7.50	.075	1.875	.155
Wire workers	10	5	.099	10.05	.101	2.01	.201
Wire workers' helpers	10	3	.059	3.75	.038	1.25	.125
Yardmen	10.50	50	.991	91.50	.914	1.83	.174
Total and average	10.16	5,045	100.00	$10018.25	100.000	$1.986	$0.195
Male	10.16	5,033	99.77	$10004.60	99.864	$1.988	$0.195
Female	10	12	.23	13.65	.136	1.137	.113
Bookkeeper	10	1	1.52	03.25	2.05	$3.25	$0.325
Captains	10	2	3.03	7.50	4.72	3.75	.375
Foremen	10.25	31	46.97	75.39	47.40	2.432	.237
Office men	10	2	3.03	5.00	3.15	2.50	.250
Shipping clerks	10.20	20	30.30	35.45	22.25	1.522	.149
Telegraphers	10	10	15.15	32.50	20.43	3.250	.325
Total and average	10.18	66	100.00	$159.09	100.00	$2.41	$0.236

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.									
Classification.	No. of Persons,			Per cent	Average Wages Per Day.			No. Persons Emp. by Month.		
	Male	Female.	Total		Male	Female.	Total	Month	No.	Range.
Under $5 00	197	.....	197	3.37	$.712	.....	$.712	Jan..	5,901	100.00
$ 5 00 but under 6 00	268	....	268	4.59	.907	.....	.907	Feb...	5,793	98.19
6 00 but under 7 00	143	7	150	2.57	1.063	$1.00	1.059	Mar	5,867	99.44
7 00 but under 8 00	145	5	150	2.57	1.257	1.33	1.258	April.	5,889	99.81
8 00 but under 9 00	75	.....	75	1.29	1.387	.....	1.387	May..	5,647	95.71
9 00 but under 10 00	1,731	.....	1,731	29.62	1.553	.....	1.553	June..	5,471	92.73
10 00 but under 12 00	869	.....	869	14.85	1.805	.....	1.805	July.	5,286	89.59
12 00 but under 15 00	1,413	.....	1.413	24.18	2.256	.....	2.256	Aug ..	5,515	93.47
15 00 but under 20 00	721	.....	721	12.34	2.772	.....	2.772	Sept	5,571	94.42
20 00 and over	270	.....	270	4 62	5.168	....	5.168	Oct...	5,620	95.25
								Nov ..	5,299	89.81
Total	5,832	12	5,844	100.00	$1.993	$1.137	$1.991	Dec...	4,850	82.20
								Ave...	5,559	94.39

KNIT GOODS—15 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day, and per hour in each occupation, for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Boarders	10	3	.173	$4.75	.297	$1.583	$0.158
Carders	10	5	.288	3.35	.209	.67	.067
Cutters	10	3	.173	7.50	.468	2.50	.250
Dyers	10	52	2.995	74.13	4.626	1.425	.142
Engineers	10	3	.173	5.50	.343	1.833	.183
Finishers, female	9.96	55	3.169	56.95	3.564	1.035	.103
Helpers	10	32	18.43	31.85	1.988	.995	.099
Helpers, female	9.81	142	8.179	110.21	6.879	.776	.079
Knitters	9.46	15	.865	37.57	2.354	2.504	.263
Knitters, female	10	993	57.197	846.00	52.791	.852	.085
Laborers	10	21	1.209	37.75	2.356	1.797	.179
Machinist	10	1	.058	3.00	.787	3.00	.3 0
Machine operators	10	22	1.267	52.04	3.247	2.363	.236
Machine operators, female	10	20	1.153	30.00	1.872	1.50	.150
Picker man	10	1	.058	1.75	.119	1.75	.175
Packers, female	10	126	7.258	94.95	5.925	.753	.075
Seamers, female	10	3	.173	2.70	.188	.90	.090
Sewers, female	10	120	6.913	98.02	6.116	.816	.081
Spinners	10	27	1.555	44.59	2.783	1.651	.165
Spinners, female	10	50	2.881	28.60	1.775	.572	.057
Spoolers	10	4	.231	4.00	.250	1.00	.100
Sorters, female	10	8	.461	5.52	.345	.69	.069
Tufters	10	8	.461	6.14	.383	.792	.079
Twisters, female	10	3	.173	1.80	.112	.60	.060
Washers	10	2	.115	2.76	.172	1.38	.138
Watchmen	12	2	.115	2.70	.168	1.35	.112

KNIT GOODS—Continued.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Winder	10	1	.058	.50	.031	.50	.050
Winders, female	10	14	.806	7.60	.474	.542	.054
Total and average..	9.77	1,736	100.000	$1,602.23	100.000	$0.923	$0.094
Male	9.98	194	88.82	$331.24	20.674	$1.707	$0.171
Female	9.74	1,542	11.18	1,270.99	79.326	.824	.084
Forceladies	9.71	7	36.84	$9.50	26.. 34	$1.357	$0.139
Foremen	10	10	52.62	22.00	60.261	2.20	.220
Shipping clerks	10	2	10.54	5.00	13.705	.250	.250
Total and average..	9.89	19	100.00	$36.50	100.000	$1.921	$0.193
Male	10	12	63.16	$27.00	73.972	$2.25	$0.225
Female	9.71	7	36.84	9.50	26.028	1.357	.139

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.					Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	No. of Persons.			Per cent						
	Male.	Female.	Total		Male	Female.	Total	Month	No.	Range.
Under $5 00..	61	970	1,031	47.93	$.621	$.691	$.689	Jan...	1,794	86.11
$ 5 00 but under 6 00..	4	521	525	24.41	.863	.846	846	Feb ...	1,860	89.28
6 00 but under 7 00 ..	32	284	316	14.69	1.000	1.019	1.017	Mar ..	1,953	93.74
7 00 but under 8 00..	5	61	66	3.07	1.253	1.247	1.248	Apr...	2,042	98.01
8 00 but under 9 00 .	3	6	9	.42	1.403	1.365	1.381	May ..	2,043	98.06
9 00 but under 10 00 .	20	33	53	2.46	1.500	1.503	1.502	June .	2,002	96.09
10 00 but under 12 00	77	24	101	4.70	1.739	1.750	1.742	July ..	2,059	98.83
12 00 but under 15 00..	26	.....	26	1.21	2.281	.....	2.281	Aug ..	2 070	99.36
15 00 but under 20 00..	22	.....	22	1.02	2.818	.....	2.818	Sept .	2,045	98.16
20 00 and over	2	.....	2	.09	3.500	....	3.500	Oct ...	2,086	100.00
								Nov ..	1,986	95.32
Total	252	1,899	2,151	100.0	$1.654	$.838	$.934	Dec...	1,879	90.19
								Ave...	1,985	95.28

LEATHER—26 ESTABLISHMENTS.

Table A.—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.. Per day.	Per hour
Bark mill operator	10	1	.06	$1.75	.07	$1.75	$0.175
Beam handlers	10	22	1.37	40.31	1.54	1.832	.183
Blackers	10	2	.12	3.30	.13	1.65	.165
Blacksmiths	10	2	.12	3.74	.14	1.87	.187
Buffers	10	2	.12	5.00	.19	2.50	.250
Carpenters	10	9	.56	18.46	.71	2.051	.205
Cover cutters, female	9	6	.37	5.16	.19	.86	.095
Curriers	10	390	24.25	746.05	28.54	1.863	.186
Curriers' helpers	10	368	22.84	535.61	20.49	1.458	.145
Dampers and rollers	9	4	.25	6.68	.25	1.67	.185
Dyer	10	1	.06	2.33	.09	2.33	.233
Engineers	9.91	12	.75	31.16	1.19	2.601	.262
Extractor	10	1	.06	1.60	.06	1.60	.160
Firemen	10.07	13	.81	23.17	.89	1.782	.176
Finishers	10	214	13.29	388.14	14.85	1.813	.181
Finishers, helpers	10	19	1.18	20.68	.79	1.083	.108
Flesher	10	1	.06	2.00	.08	2.00	.200
Fur sewer, female	9	1	.06	1.50	.06	1.50	.166
Fur sewer's helper, female	9	1	.06	.75	.02	.75	.083
Furrier	10	1	.06	2.50	.09	2.50	.250
Hand shavers	9.57	14	.87	39.49	1.51	2.731	.284
Hide trimmer	10	1	.06	1.85	.07	1.85	.185
Laborers	10	203	12.60	311.19	11.90	1.531	.153
Loader	10	1	.06	1.13	.04	1.13	.113
Machinists	10	5	.31	13.00	.50	2.60	.260
Machine hands	9.80	5	.31	8.53	.33	1.706	.174
Machine hand, helper	10	1	.06	1.40	.05	1.40	.140
Oiler	10	1	.06	1.83	.07	1.83	.183
Piece workers, female	9	47	2.91	50.76	1.94	1.08	.120
Press girls	9	6	.37	5.76	.22	.96	.106
Press men	10	2	.13	2.84	.11	1.42	.142
Sewing machine, female	8	1	.06	1.00	.04	1.00	.125
Setters	10	33	2.04	61.26	2.34	1.856	.185
Scourers	10	2	.13	3.00	.11	1.50	.150
Solemakers, female	9	96	5.96	77.04	2.94	.802	.089
Sorters	9.50	4	.25	8.50	.32	2.125	.223
Sorters, female	9	2	.13	1.50	.06	.75	.083
Staker	10	1	.06	1.83	.07	1.83	.183
Steam fitter	10	1	.06	2.25	.08	2.25	.225
Stuffers	10	4	.25	7.46	.28	1.865	.186
Splitters	9.50	4	.25	12.68	.48	3.17	.332
Splitters' helpers	9	13	.81	17.32	.66	1.332	.148
Splitters, female	9	9	.56	5.40	.20	.60	.066
Tanners	10	11	.68	28.37	1.08	2.67	.267
Tanners' helpers	10	21	1.31	24.10	.92	1.147	.114
Teamsters	10	24	1.49	41.10	1.64	1.712	.171
Veneer girls	9	12	.75	11.04	.42	.92	.102
Washers	9	2	.13	3.60	.14	1.80	.200
Watchmen	11	7	.44	10.79	.41	1.541	.140
Wheelmen	10	4	.25	11.83	.45	2.956	.295
Yardman	10	1	.06	2.00	.08	2.00	.200
Whiteners	9	4	.25	11.83	.45	2.956	.328
Total and average..	9.87	1,611	100.00	$2,614.24	100.00	$1,623	$0.164
Male	9.98	1,430	88.76	$2,454.26	93.883	$1,716	$0.171
Female	8.09	181	11.24	159.98	6.117	.833	.098
Bookkeeper	10	1	5.88	$1.50	3.85	$1.50	$0.150
Foremen	9.75	12	70.59	31.41	80.55	2.614	.268
Foreladies	9	3	17.65	4.08	10.47	1.36	.117
Shipping clerk	10	1	5.88	2.00	5.13	2.00	.200
Total and average..	9.05	17	100.00	$38.99	100.00	$2.293	$0.253
Male	9.78	14	82.35	$34.91	89.54	$2.493	$0.254
Female	9	3	17.65	4.08	10.46	1.36	.151

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.										
Classification.	No. of Persons.			Per cent.	Average Wages Per Day.			No. Persons Emp. by Month.		
	Male	Female.	Total		Male	Female.	Total	Month.	No.	Range.
Under $5 00..	82	79	161	3.31	$.81	$.729	$.74	Jan ..	4,644	98.91
$ 5 00 but under 6 00..	28	72	100	2.06	.90	.886	.886	Feb .	4,695	100.00
6 00 but under 7 00 .	110	51	161	3.32	1.023	1.078	1.047	Mar	4,647	98.98
7 00 but under 8 00..	279	8	287	5.91	1.289	1.210	1.287	April..	4,590	97 77
8 00 but under 9 00 .	321	2	323	6.65	1.375	1.350	1.375	May ..	4.558	97.08
9 00 but under 10 00..	1,789	6	1,795	36.96	1.565	1.580	1.565	June .	3,40	72.61
10 00 but under 12 00 .	1,008	....	1,008	20.76	1.790	.....	1.790	July..	4,090	87.11
12 00 but under 15 00..	756	.....	756	15.57	2.082	..	2.082	Aug ..	4,367	93.01
15 00 but under 20 00	254	.....	254	5.23	2.613	.....	2.613	Sept .	4,375	93.18
20 00 and over.....	11	.....	11	.23	3.891	.....	3.891	Oct .	4,490	95.63
								Nov...	4,447	94.72
Total.....	4,638	218	4,856	100.00	$1.724	$.891	1.630	Dec...	4,521	96.29
								Ave .	4,403	93.78

LIME AND CEMENT—10 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
lacksmiths	10	2	.405	$4.00	.455	$2.000	$0.200
Carpenter	10	1	.203	1.80	.122	1.800	.180
Cooper	10	1	.203	1.75	.199	1.750	.175
Engineer	10	1	.203	3.00	.340	3.000	.300
Firemen	12	38	7.725	92.70	10.717	2.439	.203
Helpers	10	6	1.219	6.00	.682	1.000	.100
Kiln hands	10	18	3.655	30.52	3.469	1.695	.169
Laborers	10	28	5.685	42.51	4.835	1.518	.151
Menders (sacks)	10	15	3.045	3.00	.340	.200	.020
Millers	10	3	.609	6.60	.750	2.200	.220
Mill hands	10	30	6.100	48.64	5.522	1.621	.162
Quarry hands	10	335	68.105	613.21	69.805	1.830	.183
Teamsters	10	14	2.843	24.43	2.764	1.745	.174
Total and average..	10.15	492	100.000	$878.16	100.000	$1.785	$0.175
Foremen	10	8	100.000	$24.68	100.000	$3.085	$0.308

Table B.—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.								No. Persons Emp. by Month.		
Classification.	No. of Persons.			Per cent.	Average Wages Per Day.			Month.	No.	Range.
	Male.	Female.	Total		Male.	Female.	Total			
Under $5 00	15	.....	15	2.87	$.200	....	$ 200	Jan...	209	41.80
$ 5 00 but under 6 00	....	.....	.....	.....	....	....	....	Feb ..	281	56.20
6 00 but under 7 00	6	.. ...	6	1.15	1.000	.....	1.000	Mar ..	416	83.20
7 00 but under 8 00	....	.....	.....	.....	....	.....	....	April.	478	95.60
8 00 but under 9 00	5	.....	5	.96	1.380	...	1.380	May..	500	100.00
9 00 but under 10 00	178	.....	178	34.10	1.528	..	1.528	June .	468	93.60
10 00 but under 12 00	54	.. ...	54	10.34	1.755	.....	1.755	July.	435	87.00
12 00 but under 15 00	220	.....	220	42.15	2.000	.....	2.000	Aug ..	435	87.00
15 00 but under 20 00	44	.....	44	8.43	2.631	.....	2 631	Sept.	457	91.40
20 00 and over	.....	.....	.....	.....	.....	...	....	Oct...	457	91.40
								Nov ..	324	64.80
Total	522	..	522	100.00	$1.805	...	$1.805	Dec .	251	50.20
								Ave ..	392	78.40

LUMBER—78 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Barnmen	10.60	15	.19	$25.10	.177	$1.673	$0.157
Blacksmiths	10.18	16	.20	38.60	.272	2.412	.236
Blacksmiths' helpers	10.08	8	.1[illegible]	14.85	.105	1.856	.185
Boiler	10	1	.01	2.15	.015	2.15	.215
Bolters	10.35	2[illegible]	.25	41.10	.290	2.055	.198
Boom men	10	57	.73	104.60	.738	1.835	.183
Boys	10	40	.51	40.49	.286	1.012	.101
Brakemen	10	11	.14	22.10	.156	2.[illegible]09	.200
Car builders	10	4	.05	9.35	.066	2.357	.233
Carpenters	9.53	260	3.33	509.50	3.595	1.959	.205
Chairmen	10	29	.37	51.75	.365	1.784	.178
Clippers	10	5	.06	9.25	.065	1.85	.185
Cooks	10.55	9	.11	2[illegible].50	.145	2.277	.215
Edgemen	10.09	103	1.32	245.31	1.731	2.381	.235
Edgemen, helpers	10	5	.06	9.49	.067	1.898	.189
Edgemen, catchers	10	12	.15	22.05	.156	1.837	.183
Electricians	10.28	7	.09	18.42	.130	2.631	.255
Engineers	10.28	81	1.04	215.21	1.518	2.657	.258
Engineers' helpers	10	12	.15	22.10	.156	1.841	.184
Feeders	10	18	.23	35.00	.247	1.944	.194
Filers	10.12	81	1.04	377.89	2.666	4.665	.460
Filers, helpers	10.17	17	.22	42.80	.302	2.517	.247
Firemen	10.43	48	.62	89.97	.635	1.874	.179
Graders	10.12	94	1.20	188.27	1.329	2.004	.198
Grabbers	10.82	23	.29	42.84	.302	1.862	.172
Laborers	10.13	3,772	48.41	6,161.63	43.481	1.633	.161
Lath mill men	10.05	37	.47	66.64	.470	1.801	.179
Lath shovers	10	18	.23	25.80	.181	1.433	.143
Lath stack men	10	9	.12	14.05	.099	1.561	.156
Lath tiermen	10.37	8	.10	13.25	.093	1.656	.159

LUMBER—Continued.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour
Loaders	10.20	145	1.86	239.40	1.690	1.651	.161
Lumber jackers	10	18	.23	29.10	.205	1.616	.161
Lumber markers	10	4	.05	8.18	.058	2.045	.204
Lumber wheelers	10	38	.48	67.50	.476	1.776	.177
Machinists	10.03	27	.34	76.24	.538	2.824	.281
Machinists' helpers	10	31	.40	40.44	.286	1.304	.130
Machine tenders	10.04	165	2.40	312.62	2.206	1.894	.188
Masons	9	7	.09	26.10	.184	3.728	.413
Mill hands	10	409	5.25	723.67	5.107	1.769	.176
Millwrights	10.30	26	.33	69.79	.493	2.684	.260
Millwrights' helpers	10.03	32	.41	56.50	.399	1.765	.175
Oilers	10.31	16	.20	31.26	.221	1.953	.189
Packers	10	12	.15	31.50	.222	2.625	.262
Painters	9.28	7	.09	15.10	.107	2.157	.232
Planers	10	10	.13	15.90	.112	1.59	.159
Pilers	10.14	275	3.53	563.48	3.976	2.049	.202
Riders	10.38	54	.69	111.93	.790	2.072	.199
Sawyers	10.14	221	2.83	713.12	5.032	3.226	.318
Sealers	10.06	15	.18	29.01	.205	1.933	.192
Setters	10.08	100	1.28	251.61	1.776	2.516	.249
Shingle men	10	8	.10	16.80	.119	2.10	.210
Shingle packers	10	9	.12	19.04	.134	2.115	.211
Shingle weavers	10	6	.07	12.36	.087	2.06	.206
Slashermen	10	19	.24	32.60	.230	1.715	.171
Sorters	10.42	73	.93	142.64	1.006	1.954	.187
Tallymen	9.96	63	.80	122.38	.864	1.942	.194
Teamsters	10.19	295	3.78	483.79	3.414	1.64	.160
Train men	10	2	.02	3.90	.028	1.95	.195
Trimmer men	10.06	65	.83	127.42	.899	1.96	.194
Turners	10	6	.07	10.90	.077	1.816	.181
Wagon worker	10	1	.01	2.30	.016	2.30	.230
Watchmen	10.80	45	.57	77.14	.544	1.714	.158
Woodsmen	10.43	695	8.92	1,101.25	7.772	1.584	.151
Yardmen	10	73	.93	125.70	.887	1.722	.172
Total and average..	10.12	7,792	100.00	$14170.83	100.0 0	$1.819	$0.179
Clerks, female	10	2	1.41	$2.00	.509	$1.00	$0.100
Conductors	11	3	2.11	8.50	2.161	2.833	.257
Estimator	10	1	.71	2.00	.509	2.00	.200
Foremen	10.40	121	85.21	347.50	88.348	2.872	.276
Inspector	10	1	.71	1.90	.483	1.90	.190
Salesmen	10	2	1.41	4.41	1.121	2.205	.220
Shipping clerks	10.13	8	563	22.43	5.702	2.803	.276
Time keeper	10	1	.70	2.62	.666	2.62	.262
Waiter	10	1	.70	.67	.171	.67	.067
Waiters, female	10	2	1.41	1.30	.330	.65	.065
Total and average..	10.37	142	100.00	$393.33	100.000	$2.77	$0.267
Male	10.38	138	97.18	$390.03	991.66	$2.826	$0.272
Female	10	4	2.82	3.30	.834	.825	.082

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.				Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female.	Total	Per cent.	Male.	Female.	Total	Month.	No.	Range.
Under $5 00	55	3	58	.45	$.737	$.65	$7.33	Jan ..	7,875	74.31
$ 5 00 but under 6 00	31	....	31	.24	.91		.91	Feb..	8,095	76.39
6 00 but under 7 00	207	18	225	1.73	1.05	1.00	1.049	Mar	7,591	71.63
7 00 but under 8 00	481	.....	481	3.70	1.254		1.254	April..	9,505	89.69
8 00 but under 9 00	797	7	804	6.19	1.38	1.38	1.38	May ..	10,429	98.41
9 00 but under 10 00	4,610	.....	4,610	35.47	1.55	.....	1.55	June .	10,597	100.00
10 00 but under 12 00	3,774	.....	3,774	29.04	1.763	.....	1.763	July...	10,387	98.02
12 00 but under 15 00	1,902	.....	1,902	14.63	2.078	.....	2.078	Aug	10,278	96.99
15 00 but under 20 00	785	.....	785	6.04	2.75	.....	2.75	Sept	9,836	92.82
20 00 and over	326	.....	326	2.51	5.003	....	5.003	Oct...	10,227	96.51
								Nov ..	8,927	84.24
Total	12,968	28	12,996	100.00	$1.836	$1.13	$1.835	Dec .	7,391	69.74
								Ave...	9,262	87.40

MACHINERY—69 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent	Average.	
						Per day.	Per hour.
Assemblers	10	51	.93	$86.75	.756	$1.701	$0.170
Annealers	10	3	.06	5.35	.047	1.783	.178
Apprentices	9.71	228	4.15	220.76	1.924	.966	.099
Belt lacer	10	1	.02	1.75	.015	1.75	.175
Boiler makers	10	7	.13	15.75	.137	2.25	.225
Boiler makers' helpers	10	6	.10	10.25	.089	1.708	.170
Blacksmiths	9.95	85	1.55	224.96	1.960	2.646	.265
Blacksmiths' helpers	9.99	56	1.01	98.43	.858	1.757	.175
Boys	10	14	.25	11.93	.103	.852	.085
Brazers	10	5	.09	12.85	.111	2.57	.257
Brass workers	9.75	8	.15	16.00	.139	2.00	.205
Cupola tenders	10	5	.09	11.10	.097	2.22	.222
Core makers	9.94	122	2.22	279.25	2.433	2.288	.230
Cornice makers	8	7	.13	21.84	.199	3.114	.389
Carpenters	9.87	146	2.66	314.01	2.736	2.164	.219
Crane men	10	12	.22	24.00	.209	2.00	.200
Case hardeners	10	3	.06	7.00	.06	2.333	.233
Chippers and grinders	10	8	.15	14.10	.123	1.762	.176
Electricians	9.79	51	.92	110.80	.965	2.172	.221
Engineers	10.68	16	.29	38.46	.335	2.403	.225
Firemen	11.16	6	.10	11.26	.098	1.876	.168
Galvanizers	10	4	.07	6.25	.054	1.562	.156
Laborers	9.64	510	9.28	819.35	7.14	1.606	.166
Machinists	9.88	1,561	28.41	3,971.87	34.609	2.544	.257
Machinists' helpers	9.87	1,099	18.37	1,637.28	14.267	1.692	.164
Machine tenders	10	206	3.75	341.27	2.102	1.656	.165
Mason	10	1	.02	2.62	.023	2.62	.262
Motorman	10	1	.02	1.50	.013	1.50	.150
Moulders	9.91	610	11.10	1,610.64	14,035	2.64	.266
Moulders' helpers	10	40	.73	62.25	.542	1.568	.155
Millwrights	9.88	42	.76	108.30	.944	2.578	.260
Oilers	10	2	.04	3.60	.031	1.80	.180
Pickers	10	2	.04	3.20	.028	1.60	.160
Painters	10	28	.51	57.88	.504	2.067	.206

MACHINERY—Continued.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Pattern makers	9.56	116	2.11	328.53	2.88	2.832	.296
Pipe fitters	10	16	.29	28.87	.252	1.804	.180
Platers	10	2	.04	5.35	.047	2.675	.267
Polishers	10	27	.49	72.20	.629	2.674	.267
Press hands	10	48	.87	77.70	.677	1.618	.161
Sand paperers	10	52	.95	93.44	.814	1.796	.179
Sewing girls	10	2	.04	1.90	.017	.95	.095
Slaters	8	5	.09	13.20	.011	2.64	.330
Steam fitter	10	1	.02	2.00	.017	2.00	.200
Strappers	10	5	.09	10.50	.091	2.10	.210
Structural workers	10	176	3.20	297.80	2.594	1.696	.169
Sweepers	10	10	.18	16.27	.142	1.627	.162
Teamsters	10	15	.26	30.64	.267	2.042	.204
Testers	10	43	.78	88.45	.771	2.056	.205
Tinners	10	60	1.09	136.35	1.188	2.722	.272
Tinners' helpers	10	9	.16	9.00	.078	1.00	.100
Tool dressers	10	3	.06	9.70	.085	3.233	.323
Watchmen	11.9	22	.40	38.21	.332	1.736	.145
Weavers	10	2	.04	3.00	.026	1.50	.150
Wood workers	10	24	.44	50.45	.439	2.102	.210
Total and average..	9.87	5,494	100.00	$11476.13	100.000	$2.089	$0.211
Male	9.87	5,492	99.96	$11474.23	99.983	$2.089	$0.211
Female	10	2	.04	1.90	.017	.95	.096
Bookkeepers, female	10	2	.78	$3.34	.523	$1.67	$0.167
Chemist	10	1	.39	1.50	.234	1.50	.150
Clerks	10	100	39.22	201.52	31.561	2.015	.201
Clerks, female	10	10	3.92	9.75	1.527	.975	.097
Draughters	7.94	51	20.00	151.89	23.788	2.978	.375
Foremen	9.96	70	27.45	233.24	36.531	3.332	.334
Inspectors	10	7	2.75	11.75	1.841	1.678	.167
Shippers	10	7	2.75	12.42	1.946	1.774	.177
Stenographer	10	1	.39	2.00	.313	2.00	.200
Stenographers, female	10	6	2.35	11.08	1.736	1.846	.184
Total and average..	9.58	255	100.00	$638.49	100.000	$2.504	$0.261
Male	9.54	237	92.94	$614.32	96.219	$2.592	$0.271
Female	10	18	7.06	24.14	3.781	1.341	.134

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent	Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male	Female.	Total		Male	Female.	Total	Month	No.	Range
Under $5 00	346	18	364	4.68	$.691	$.750	$.693	Jan	7,155	95.06
$ 5 00 but under 6 00	141	11	151	1.96	.923	.950	.923	Feb	7,271	96.60
6 00 but under 7 00	337	3	340	4.37	1.025	1.000	1.025	Mar	7,527	100.00
7 00 but under 8 00	239	4	243	3.13	1.249	1.250	1.249	April.	7,515	99.84
8 00 but under 9 00	357	1	358	4.60	1.386	1.340	1.386	May	7,261	96.46
9 00 but under 10 00	1,432	1	1,433	18.43	1.583	1.500	1.583	June	7,151	95.00
10 00 but under 12 00	1,309	.....	1,309	16.83	1.775	.....	1.775	July	6,820	90.61
12 00 but under 15 00	1,191	5	1,196	15.38	2.152	2.066	2.151	Aug	7,079	94.05
15 00 but under 20 00	2,066	.....	2,066	26.57	2.753	.....	2.753	Sept	7,367	97.87
20 00 and over	315	....	313	4.05	3.725	.....	3.725	Oct	8,184	95.44
								Nov	6,930	92.07
Total	7,733	43	7,776	100.00	$2.110	$1.303	$2.109	Dec	6,587	87.51
								Ave	7,154	95.04

MALT—10 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
						Average.	
		Number	Per cent.	Total per day.	Per cent.	Per day.	Per hour.
Barnmen	10	2	1.03	$4.00	1.069	$2.00	$0.200
Blacksmith	10	1	.52	2.00	.534	2.00	.200
Bottlers	10	5	2.57	5.00	1.333	1.00	.100
Boys	10	2	1.03	2.00	.534	1.00	.100
Brewers	10	6	3.09	11.64	3.108	1.94	.194
Carpenter	10	1	.52	2.00	.534	2.00	.200
Elevator men	10	8	4.13	18.40	4.915	2.30	.230
Engineers	10.15	13	6.70	32.82	8.766	2.524	.248
Firemen	11.45	11	5.67	19.80	5.288	1.80	.157
Helpers	10	6	3.09	12.00	3.206	2.00	.200
Laborers	10	52	26.80	87.15	23.024	1.676	.167
Machinists	10	2	1.03	5.65	1.570	2.325	.232
Machinists' helpers	10	2	1.03	2.75	.735	1.375	.137
Malt house men	10	7	3.61	21.00	5.610	3.00	.300
Malsters	10.13	46	23.71	88.24	23.570	1.918	.189
Millwright	10	1	.52	2.75	.735	2.75	.275
Roasters	12	5	2.57	10.41	2.783	2.082	.173
Teamsters	10.47	21	10.83	42.00	11.218	2.00	.191
Tinsmith	10	1	.52	2.00	.534	2.00	.200
Watchmen	10	2	1.03	3.72	.994	1.86	.186
Total and average	10.22	194	100.00	$375.33	100.000	$1.935	$0.189
Foremen	10	2	100.00	$4.85	100.00	$2.425	$0.242

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent.	Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00	4	2	6	$1.29	$.75	$.70	$.733	Jan	427	93.03
$ 5 00 but under 6 00	.....	3	3	.65	.....	.85	.85	Feb	429	93.46
6 00 but under 7 00	9	6	15	3.24	1.00	1.00	1.00	Mar	335	94.77
7 00 but under 8 00	3	.....	3	.65	1.25	.....	1.25	April	437	95.21
8 00 but under 9 00	8	.....	8	1.73	1.34	.....	1.34	May	436	94.99
9 00 but under 10 00	22	1	23	4.97	1.50	1.50	1.50	June	423	92.16
10 00 but under 12 00	95	.....	95	20.5	1.766	.....	1.766	July	425	90.41
12 00 but under 15 00	246	.....	246	53.13	2.022	.....	2.022	Aug	361	78.65
15 00 but under 20 00	62	.....	62	13.39	2.825	.....	2.825	Sept	402	87.58
20 00 and over	2	.....	2	.43	3.50	.....	3.50	Oct	434	96.73
								Nov	436	94.99
Total	451	12	463	100.00	$1.94	$1.204	$2.912	Dec	459	100.00
								Ave	425	92.59

MIRRORS AND GLASS—5 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Blacksmiths	10	2	.55	$4.40	.402	$2.200	$0.220
Bevelers	9	15	4.10	28.09	2.573	1.872	.208
Cutters	9	6	1.63	15.91	1.458	2.651	.294
Edgers	9	2	.55	3.50	.321	1.750	.194
Engineers	9.87	4	1.10	7.90	.723	1.975	.200
Glaziers	9.00	5	1.36	11.43	1.046	2.286	.254
Glass blowers	8.50	90	24.59	688.50	63.059	7.650	.900
Glass painters	8.00	2	.55	7.33	.672	3.665	.458
Glass workers	9.00	17	4.64	37.17	3.405	2.186	.242
Helpers	8.59	145	39.61	139.88	12.812	.964	.112
Laborers	10.00	52	14.21	96.00	8.792	1.846	.184
Machinists	10.00	2	.55	8.16	.748	4.080	.408
Masons	9.33	3	.82	4.80	.439	1.600	.171
Mounter	9.00	1	.27	2.50	.229	2.500	.277
Packers	9.00	2	.55	3.83	.351	1.915	.212
Polishers	9.00	3	.82	6.50	.596	2.166	.240
Silverers	9.00	2	.55	4.00	.366	2.000	.222
Teamsters	9.92	13	3.55	21.92	2.008	1.686	.169
Total and average..	8.90	366	100.00	$1,091.82	100.000	$2.983	$0.334
Designer	9	1	100.00	$4.00	100.000	$4.00	$0.444

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent.	Average Wages Per Day.			No. Persons Emp. by Month.		
	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Uuder $5 00	58	.....	58	15.83	$ 737	.....	$.737	Jan...	370	99.46
$ 5 00 but under 6 00	.....	.....	.....	.....	.....	.....	.....	Feb...	367	98.66
6 00 but under 7 00..	57	.....	57	15.53	1.000	.....	1.000	Mar..	368	98.92
7 00 but under 8 00..	26	.....	26	7.08	1.293	.....	1.293	April.	367	98.66
8 00 but under 9 00..	.....	.....	.....	.....	.....	.....	.....	May..	362	97.31
9 00 but under 10 00 .	37	.....	37	10.08	1.544	.....	1.544	June..	361	97.04
10 00 but under 12 00..	22	.....	22	5.98	1.755	.....	1.755	July..	120	32.26
12 00 but under 15 00..	55	.....	55	14.98	2.049	.....	2.049	Aug ..	125	33.60
15 00 but under 20 00..	19	.....	19	5.18	2.753	.....	3.753	Sept..	352	96.62
20 00 and over.....	93	....	93	25.34	7.543	.....	7.543	Oct...	362	97.31
Total.....	367	.....	367	100.00	2.986	.....	2.986	Nov ..	366	98.34
								Dec...	372	100.00
								Ave...	324	86.83

OFFICE AND STORE FURNITURE—17 ESTABLISHMENTS.

Table A.—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Apprentices	10	2	.17	$2.00	.094	$1.00	$0.100
Blacksmith	10	1	.09	1.60	.076	1.60	.160
Cabinet makers	9.67	263	22.43	535.82	25.316	2.037	.210
Carpenters	9.97	84	7.16	172.18	8.135	2.05	.205
Carpenters' helpers	10	2	.17	3.50	.165	1.75	.175
Carvers	9.89	29	2.47	75.36	3.560	2.598	.762
Casting setters	10	11	.94	15.30	.723	1.39	.139
Cupola tenders	10	7	.60	10.50	.496	1.50	.150
Drill pressmen	10	7	.60	4.65	.230	.657	.065
Drillers	10	8	.68	14.00	.661	1.75	.175
Engineers	10.50	8	.68	20.35	.961	2.543	.241
Finishers	9.68	95	8.10	181.63	8.581	1.911	.197
Finishers' helpers	10	6	.51	3.60	.17	.60	.060
Firemen	10	6	.51	9.84	.464	1.64	.164
Grinders	10	5	.43	7.50	.354	1.50	.150
Glue hands	10	9	.77	12.60	.595	1.40	.140
Glue hands' helpers	10	2	.17	1.10	.052	.55	.055
Helpers	9.97	155	13.22	183.30	8.660	1.182	.118
Laborers	9.86	65	5.54	96.71	4.570	1.503	.153
Lumbermen	10	13	1.11	18.80	.888	1.446	.144
Machinists	10	17	1.43	37.05	1.751	2.179	.217
Machine carvers	10	3	.26	5.00	.236	1.666	.166
Machine hands	10	151	12.87	261.98	12.378	1.735	.173
Machine hands' helpers	10	24	2.04	14.41	.681	.604	.060
Metal workers	10	7	.60	14.00	.661	2.00	.200
Mill hands	10	4	.34	6.00	.283	1.50	.150
Millwright	10	1	.09	2.25	.106	2.25	.225
Moulders	10	65	5.46	181.20	8.561	2.787	.278
Nickel platers	10	3	.26	5.25	.248	1.75	.175
Packers	10	15	1.28	23.50	1.110	1.566	.156
Packers' helper	10	1	.08	.60	.028	.60	.060
Painters	10	28	2.38	55.45	2.619	1.98	.198
Pattern maker	10	1	.08	3.00	.142	3.00	.300
Polishers	10	7	.60	16.25	.767	2.321	.232
Polishers' helpers	10	4	.34	4.35	.205	1.087	.108
Saw filers	10	2	.17	5.00	.236	2.50	.250
Sawyers	10	3	.26	6.50	.307	2.166	.216
Stone cutters	10	3	.26	7.50	.354	2.50	.250
Sweeper	10	1	.17	1.50	.072	1.50	.150
Teamsters	10	9	.77	13.90	.656	1.544	.154
Tinners	10	10	.85	15.00	.708	1.50	.156
Upholsterers	10	6	.51	13.50	.637	2.25	.225
Watchmen	11	10	1.70	16.00	.755	1.60	.145
Wood workers	10	20	.85	37.00	1.748	1.85	.185
Total and average..	9.90	1,173	100.00	$2,116.53	100.000	$1.804	$0.182
Bookkeeper	10	1	3.85	$2.00	2.865	$2.00	$0.200
Foremen	10	20	76.92	52.55	75.287	2.627	.262
Inspector	10	1	3.85	2.25	3.223	2.25	.225
Organ experts	10	2	7.68	7.50	10.746	3.75	.375
Stock keeper	10	1	3.85	2.00	2.865	2.00	.200
Superintendent	10	1	3.85	3.50	5.014	3.50	.350
Total and average..	10	26	100.00	$69.80	100.000	$2.684	$0.268

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by month and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.					Average Wages Per Day.			No Persons Emp by Month.		
Classification.	No. of Persons.			Per cent.						
	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00..	71	.....	71	5.75	$.649	.....	$.649	Jan .	1,245	99.60
$ 5 00 but under 6 00	8	.....	8	.65	.869	.....	.869	Feb.	1,246	99.68
6 00 but under 7 00 .	29	.....	29	2.35	1.003	.....	1.003	Mar ..	1,251	100.00
7 00 but under 8 00..	120	....	120	9.71	1.25	....	1.25	April..	1,229	98.32
8 00 but under 9 00	88	.....	88	7.13	1.364	.....	1.364	May..	1,236	98.88
9 00 but under 10 00 .	239	.....	239	19.33	1.518	.. ..	1.518	June..	1,232	98.56
10 00 but under 12 00 .	139	.....	139	11 24	1.765	...	1.765	July..	1,076	86.08
12 00 but under 15 00 .	337	...	337	27.26	2.152	...	2.152	Aug..	994	79.52
15 00 but under 20 00	196	.....	196	15.85	2.718	....	2 718	Sept.	1,121	89.68
20 00 and over	9	....	9	.73	3.786	....	3.786	Oct...	1,130	90.70
								Nov	1,155	92.40
Total.....	1,236	.....	1,236	100.00	1.823	.....	1.823	Dec...	1,207	96.56
								Ave .	1,177	94.16

PAPER AND PULP—27 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation, for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Acid men	10	2	.0691	$3.60	.08	$1.80	$0.180
Acid men's helpers	10	2	.0691	2.80	.07	1.40	.140
Back tenders	11.63	35	1.2098	51.76	.121	1.478	.127
Balers	10	2	.0691	3.00	.07	1.50	.150
Barker men	10	17	.5876	25.50	.69	1.50	.150
Beater men	10.82	34	1.1752	59.40	1.39	1.747	.161
Beater men's helpers ..	11	28	.9678	42.00	.98	1.50	.136
Blacksmiths	10	2	.0691	3.55	.08	1.775	.177
Calendermen	10	16	.5530	27.43	.64	1.714	.171
Calender men's helpers..	10	6	.2074	8.01	.19	1.335	.133
Case makers	10	4	.1382	6.85	.16	1.712	.171
Carpenters	10	56	1.9357	129.90	3.03	2.319	.231
Chip picker	10	1	.0346	.50	.01	.50	.050
Chippermen	10	2	.0691	2.40	.06	1.20	.120
Cooks	12	7	.2420	14.32	.33	2.045	.170
Counters, female	9.56	16	.5530	16.80	.39	1.05	.109
Cutters	10	5	.1730	7.45	.17	1.49	.149
Cutter boys	10	4	.1383	3.00	.07	.75	.075
Cutter girls	10.15	53	1.8320	45.52	1.08	.858	.084
Drayman	10	1	.0346	1.50	.03	1.50	.150
Engineers	10.33	60	2.0740	127.95	2.99	2.132	.206
Engineers' helpers	11	14	.4839	23.04	.53	1.645	.148
Finishers	9.32	87	3.0072	130.63	3.05	1.501	.161
Finishers, female	9.85	67	2.3159	56.35	1.31	.841	.085
Firemen	9.86	96	3.3183	166.24	3.89	1.731	.175
Grindermen	10.84	19	.6567	29.28	.68	1.541	.142
Harkers	10	19	.6567	28.50	.66	1.50	.150
Laborers	10.52	1,240	42.8621	1,832.67	42.81	1.477	.140
Laborers, female	10	52	1.7974	41.90	.98	.805	.080

PAPER AND PULP—Continued.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Label boys	10	2	.0691	2.00	.05	1.00	.100
Loft boys	8	25	.8641	18.75	.44	.75	.093
Machine girls	10	33	1.1407	26.40	.62	.80	.080
Machine tenders	10.92	104	3.5949	280.06	6.55	2.692	.246
Mach. tenders' helpers	10.51	120	4.1479	173.06	4.05	1.442	.137
Machinists	11.02	39	1.3481	101.60	2.37	2.605	.236
Machinists' helpers	11.26	142	4.9084	228.50	5.34	1.609	.142
Masons	10	2	.0691	4.50	.10	2.25	.225
Millwrights	10.02	38	1.3135	88.52	2.07	2.329	.232
Oilers	11	4	.1382	6.00	.14	1.50	.136
Packers	9.23	13	.4494	19.67	.46	1.513	.163
Packers' helpers	10	9	.3111	9.41	.22	1.045	.104
Press feeders	10	5	.1730	3.75	.10	.75	.075
Paster girl	10	1	.0346	.50	.01	.50	.050
Plumber	10	1	.0346	2.50	.06	2.500	.250
Rag cutters	10	14	.4839	20.37	.48	1.455	.145
Rag feeder, female	8.00	1	.0346	1.05	.02	1.05	.131
Rag pickers, female	9.50	33	1.1407	24.75	.58	.75	.078
Rag room girls	8	17	.5876	13.60	.32	.80	.100
Rag room men	9	3	.1037	5.55	.13	1.850	.205
Rag sorters	10	17	.5876	24.60	.57	1.447	.144
Rag sorters, female	9.36	187	6.4639	168.80	3.95	.902	.095
Ruler	9	1	.0346	3.00	.07	3.00	.339
Rulers' helpers	9	2	.0691	3.00	.07	1.50	.166
Sawyers	10	3	.1037	4.80	.11	1.60	.160
Scalers	9	6	.2074	8.25	.19	1.375	.152
Screen boys	10.30	33	1.1407	31.25	.73	.947	.091
Size makers	9.60	5	.1730	8.25	.19	1.65	.171
Size makers' helper	9	1	.0346	1.00	.02	1.00	.111
Skinners	10.76	43	1.4863	43.21	1.01	1.004	.093
Splittermen	10	3	.1037	4.30	.10	1.433	.143
Sweeper	9	1	.0346	1.40	.03	1.40	.155
Teamsters	10.33	3	.1037	7.65	.18	2.55	.246
Trimmers	9	5	.1730	9.65	.23	1.93	.214
Truckers	10	6	.2074	10.00	.23	1.666	.166
Watchmen	10.57	7	.2420	13.35	.31	1.907	.180
Weighers	10	2	.0691	3.00	.07	1.50	.150
Wood carriers	10.50	4	.1383	2.66	.06	.665	.063
Yardmen	10	7	.2420	10.02	.23	1.431	.143
Total and average..	10.31	2,889	100.0000	$4,283.58	100.00	$1.481	$0.143
Male	10.46	2,429	84.08	$3,884.91	90.60	$1.599	$0.152
Female	9.61	460	15.92	395.67	9.40	.860	.089
Foremen	11.25	24	68.57	$60.50	78.65	$2.52	$0.224
Inspectors, female	10	4	11.43	3.80	4.94	.95	.095
Shippers	10	4	11.43	8.25	10.73	2.062	.206
Shippers' helper	10	3	8.57	4.37	5.68	1.456	.145
Total and average..	10.85	35	100.00	$76.92	100.00	$2.359	$0.217
Male	10.96	31	88.57	$73.12	95.06	$2.012	$0.182
Female	10.00	4	11.43	3.80	4.94	.95	.095

Table B--Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.					Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	No. of Persons.			Per cent.						
	Male	Female.	Total		Male.	Female	Total	Month.	No.	Range.
Under $5 00..	68	256	324	9.09	$.743	$.758	$.755	Jan..	3,497	99.21
$ 5 00 but under 6 00 .	33	111	144	4.04	.89	.865	.871	Feb	3,417	96.94
6 00 but under 7 00..	190	100	290	8.14	1.037	1.012	1.027	Mar ..	3.525	100.00
7 00 but under 8 00	206	8	214	6.01	1.25	1.233	1.249	April..	3,473	98.52
8 00 but under 9 00 .	212	6	218	6.12	1.388	1.40	1.389	May ..	3,493	99 09
9 00 but under 10 00..	1,539	4	1.543	43.31	1.523	1.55	1.524	June .	3,510	99.57
10 00 but under 12 00 .	363	1	364	10.22	1.765	1.75	1.765	Ju'y	3,514	99.69
12 00 but under 15 00..	222	3	225	6.31	2.105	2.10	2.105	Aug.	3,517	99.77
15 00 but under 20 00	202	.....	202	5.67	2.709	.....	2.709	Sept	3,481	98.75
20 00 and over	39	...	39	1.09	3.766	...	3.766	Oct.	3,443	97.67
								Nov	3,478	98.67
Total.....	3,074	489	3,563	100.00	$1.609	$.861	$1.49	Dec .	3,5?2	99.38
								Ave .	3,488	98.95

PEARL BUTTONS—6 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Button cutters	10	116	47.16	$165.43	6.028	$1.427	$0.142
Carder girls	10	64	26.02	47.81	17.424	.747	.074
Machine operators	10	66	26.82	61.16	22.288	.921	.092
Total and average..	10	246	100.00	$274.40	100.00	$1.115	$0.111
Male	10	182	73.98	$226.59	82.577	$1.245	$0.124
Female	10	64	26.02	47.81	17.423	.747	.074
Foreman	10	1	100.00	$3.00	100.00	$3.00	$0.3 0

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent.	Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00	41	46	87	35.22	$.63	$.648	$.637	Jan...	255	100.00
$ 5 00 but under 6 00	20	13	33	13.36	.973	.848	.923	Feb ..	254	99.61
6 00 but under 7 00	18	2	20	8.10	1.055	1.06	1.056	Mar ..	249	97.65
7 00 but under 8 00	11	1	12	4 86	1.283	1.20	1.276	Apr.	243	95.29
8 00 but under 9 00	17	1	18	7.29	1.413	1.37	1.411	May ..	238	93.33
9 00 but under 10 00	53	1	54	21.86	1.515	1.61	1.518	June .	229	89.80
10 00 but under 12 00	11	.....	11	4.45	1.781	.....	1.781	July ..	223	87.45
12 00 but under 15 00	8	.....	8	3.24	2.093	.....	2.093	Aug ..	228	89 41
15 00 but under 20 00	4	.....	4	1.62	2.805	.....	2.805	Sept ..	208	81.57
20 00 and over	.....	.....	.....	.....	.....	.....	.....	Oct. .	208	81.57
								Nov .	208	81.57
Total	183	64	247	100.00	$1.254	$ 747	$1.123	Dec ..	208	81.57
								Ave ..	229	89.80

SADDLERY—8 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Boat maker	10	1	1.03	$1.50	1.133	$1.50	$0.150
Collar maker	10	1	1.03	2.34	1.766	2.34	.234
Cutters	10	2	2.06	4.67	3.528	2.335	.233
Harness makers	10	31	31.96	67.07	50.672	2.163	.216
Helpers	10	11	11.34	11.74	8.869	1.067	.106
Helper, female	10	1	1.03	1.00	.755	1.00	.100
Net maker	10	1	1.03	2.33	1.760	2.33	.233
Pad makers, female	10	5	5.15	4.15	3.135	.83	.083
Piece workers	10	7	7.22	11.70	8.839	1.671	.167
Piece workers, female	10	36	37.12	24.04	18.162	.667	.066
Pressman	10	1	1.03	1.83	1.381	1.83	.183
Total and average	10	97	100.00	$132.36	100.000	$1.364	$0.136
Male	10	55	56.70	$103.17	77.947	$1.875	$0.187
Female	10	42	43.30	29.19	22.053	.695	.069
Foremen	10	2	100.00	$6.92	100.00	$3.46	$0.346

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.					Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	No. of Persons.			Per cent.						
	Male.	Female.	Total		Male.	Female	Total	Month.	No.	Range.
Under $5 00..	11	52	63	20.12	$.83	$.647	$.662	Jan ..	332	95.95
$ 5 00 but under 6 00..	8	30	38	12 13	.88	.881	.881	Feb...	329	95.09
6 00 but under 7 00..	11	19	30	9.61	1.00	1.00	1.00	Mar..	346	100.00
7 00 but under 8 00..	12	8	20	6.39	1.27	1.25	1.262	April..	319	92 19
8 00 but under 9 00..	17	4	21	6.71	1.386	1.35	1.38	May...	332	95.95
9 00 but under 10 00..	25	2	27	8.63	1.50	1.50	1.50	June..	297	85.84
10 00 but under 12 00..	33	1	34	10 86	1.796	.....	1.796	July..	266	76.84
12 00 but under 15 00..	43	.....	43	13.74	2.161	.....	2.161	Aug...	250	72.25
15 00 but under 20 00..	31	.....	31	9.90	2.968	.....	2.968	Sept..	273	78.90
20 00 and over.....	6	.....	6	1.91	3.92	.....	3.92	Oct ...	264	76.30
								Nov. .	273	78.90
Total.....	197	116	313	100.00	$1.931	$.695	$1.407	Dec...	304	87.86
								Ave...	299	86.41

SASH, DOORS, ETC.—45 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Bricklayers	9	3	.14	$13.50	.380	$4.50	$.500
Bricklayers' helper	9	1	.05	2.25	.060	2.25	.250
Bundler	10	1	.05	1.00	.028	1.00	.100
Cabinet makers	9	2	.09	4.50	.126	2.25	.250
Cabinet makers' helper..	10	1	.05	1.10	.030	1.10	.110
Carpenters	9.80	352	15.84	730.19	20.591	2.074	.211
Carvers	10	2	.09	5.25	.148	2.625	.262
Door makers	10	5	.23	10.25	.289	2.05	.205
Engineers	10	13	.59	30.93	.875	2.379	.287
Filers	10	3	14	6.70	.188	2.333	.233
Finishers	10	5	.23	10.50	.298	2.10	.210
Firemen	9.85	7	.31	10.93	.308	1.561	.158
Firemen's helpers	9.50	2	.09	3.38	.095	1.69	.177
Framemakers	10	2	.09	5.00	.141	2.50	.250
Glaziers	9.86	15	.68	29.10	.820	1.94	.196
Glaziers' helpers	10	2	.09	2.66	.075	1.33	.133
Helpers	9.97	342	15.39	302.02	8.516	.883	.088
Laborers	9.96	483	21.74	696.57	19.643	1.442	.144
Machinists	9.90	116	5.22	226.86	6.397	1.955	.197
Machinists' helpers	10	13	.59	19.75	.557	1.519	.151
Machine tenders	9.99	612	27.59	1,046.01	29.498	1.709	.171
Machine tenders, female.	10	5	.23	4.10	.115	.82	.82
Mach. tenders' helpers..	9.93	63	2.84	76.34	2.153	1.211	.121
Millwright	10	1	.05	3.00	.084	3.00	.300
Packer	10	1	.05	1.75	.049	1.75	.175
Painters	9.87	40	1.80	64.34	1.815	1.608	.162
Piece workers	10	2	.09	3.00	.084	1.50	.150
Pilers	10	4	.18	6.00	.168	1.50	.150

SASH, DOORS, ETC.—Continued.

Occupation.	Average hours per day	Persons.		Wages.			
		Total.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Sash cutter	10	1	.05	2.50	.070	2.50	.250
Sash makers	10	2	.09	4.50	.126	2.25	.225
Sash primer	10	1	.05	1.00	.028	1.00	.100
Sawyers	10	8	35	15.80	.445	1.975	.197
Scaler	10	1	.05	1.75	.049	1.75	.175
Shopmen	10	2	.09	4.50	.126	2.25	.225
Slasher	10	1	.05	2.75	.080	2.75	.275
Stitchers, hand	10	3	.14	5.25	.148	1.75	.175
Stone masons	9	5	.23	18.00	.507	3.60	.400
Stone masons' helpers	10	13	.58	26.00	.733	2.00	.200
Sweeper	10	1	.05	1.00	.028	1.00	.100
Teamsters	10	31	1.40	49.87	1.407	1.608	.160
Turners	9.88	17	.77	33.85	.954	1.991	.201
Watchmen	11.15	24	1.08	38.52	1.086	1.605	.143
Yardmen	10	13	.59	23.77	.670	1.828	.182
Total and average..	9.05	2,21	100.00	$3,546.04	100.00	$1.597	$0.160
Male	9.95	2,216	99.77	$3,541.94	99.885	$1.598	$0.160
Female	10	5	.23	4.10	.115	.82	.082
Bookkeeper	8	1	2.22	$1.00	.880	$1.00	$0.125
Bookkeeper, female	10	1	2.22	1.50	1.320	1.50	.150
Designer	10	1	2.22	2.58	2.270	2.58	.258
Draughtsman	9	1	2.22	2.00	1.760	2.00	.222
Foremen	10	33	73.34	90.26	79.460	2.735	.273
Shipping clerks, helper	10	1	2.22	1.50	1.320	1.50	.150
Tallyman	10	1	2.22	2.00	1.760	2.00	.200
Total and average..	9.93	45	100.00	$113.59	100.000	$2.524	$0.254
Male	9.93	44	97.78	$112.09	98.68	$2.547	$0.256
Female	10	1	2.22	1.50	1.32	1.50	.150

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent	Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00	311	5	316	9.14	$.635	$.75	$.638	Jan.	2.830	84.61
$ 5 00 but under 6 00	119	...	140	4.31	.872	.....	.872	Feb.	3,114	93.10
6 00 but under 7 00	225	1	226	6.54	1.023	1.10	1.023	Mar.	3,211	96.00
7 00 but under 8 00	219	.....	219	6.34	1.252	.....	1.252	April.	3,276	97.95
8 00 but under 9 00	267	.....	267	7.73	1.368	.....	1.368	May.	3.349	100.00
9 00 but under 10 00	907	1	908	26.27	1.513	1.50	1.513	June.	3,332	96.61
10 00 but under 12 00	587	.....	587	16.95	1.775	....	1.775	July.	3,341	99.89
12 00 but under 15 00	566	.....	566	16.38	2.118	....	2.118	Aug.	3.325	99.41
15 00 but under 20 00	193	.....	193	5.59	2.693	.....	2.693	Sept.	3,343	99.95
20 00 and over.	26	.....	26	.75	3.888	....	3.888	Oct.	3,323	99.35
Total	3,450	7	3,457	100.00	$1.617	$.933	$1.615	Nov.	3,228	99.50
								Dec.	3,271	97.80
								Ave.	3,254	97.29

SHEET METAL—18 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Boys	9.33	6	.530	$4.53	.287	$0.755	$0.080
Buffers	10	3	.265	6.00	.381	2.000	.200
Carpenters	10	4	.353	7.85	.435	1.962	.196
Cornice makers	8	12	1.060	35.56	2.259	2.963	.370
Electrician	10	1	.088	2.50	.158	2.500	.250
Enamelers	10	80	7.067	132.10	8.393	1.651	.165
Enamelers' helpers	10	6	.530	7.50	.412	1.250	.125
Enameler's helpers, female	10	126	11.130	87.15	5.537	.691	.069
Engineers	10	3	.265	7.60	.419	2.533	.253
Firemen	10	2	.176	4.00	.254	2.000	.200
Finishers	10	4	.353	6.00	.381	1.500	.150
Finishers, female	10	50	4.416	37.50	2.382	.750	.075
Galvanizers	10	25	2.207	38.50	2.446	1.540	.154
Helpers	9.94	76	6.713	113.71	7.224	1.496	.150
Jacket makers	10	5	.441	5.00	.317	1.000	.100
Japanners	10	7	.618	12.25	.778	1.750	.175
Japanners, female	10	11	.971	11.00	.698	1.000	.100
Laborers	10	189	16.696	245.35	15.588	1.298	.129
Laborers, female	10	17	1.501	9.15	.581	.538	.053
Machinists	10	51	4.505	140.35	8.917	2.751	.275
Machinists, helpers	10	12	1.060	12.17	.773	1.014	.101
Machine tenders	10	110	9.717	133.50	8.418	1.213	.121
Moulders	10	30	2.650	64.75	4.113	2.158	.215
Packers	10	2	.176	1.75	.111	.875	.087
Pressmen	10	6	.530	5.78	.367	.963	.096
Roofers	8	6	.530	15.60	.991	2.600	.325
Retinners	10	25	2.207	38.50	2.446	1.540	.154
Retinners' helpers, female	10	15	1.325	11.25	.714	.750	.075
Sheet metal workers	10	41	3.621	92.00	5.845	2.243	.224
Slater	8	1	.088	3.34	.212	3.340	.417
Solderers, female	10	51	4.505	42.06	2.672	.824	.082
Teamsters	12	2	.176	3.50	.222	1.750	.145
Tester	10	1	.088	1.25	.079	1.250	.125
Tinners	9.75	99	8.745	183.35	11.649	1.852	.189
Tinners' helpers	9.92	50	4.416	45.50	2.890	.910	.091
Watchmen	10	3	.265	6.00	.381	2.000	.200
Total and average..	9.93	1.132	100.000	$1,573.90	100.000	$1.302	$0.131
Male	9.92	862	76.15	$1,375.79	87.413	$1.596	60.160
Female	10	270	23.85	198.11	12.587	.734	.073
Foremen	10	24	96.00	$62.50	97.277	$2.604	$0.260
Shipper	10	1	4.00	1.75	2.723	1.750	.175
Total and average..	10	25	100.00	$64.25	100.000	$2.570	$0.257

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No of Persons.			Per cent.	Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00	599	241	840	35.88	$.723	$ 702	$.708	Jan...	2,159	91.5
$ 5 00 but under 6 00	204	1	205	8.76	.877	.90	.880	Feb ..	2,257	95.6
6 00 but under 7 00	178	28	206	8.80	1.049	1.00	1.03	Mar ..	2,28[illegible]	97.0
7 00 but under 8 00	232	.....	232	9.91	1.19	.....	1.19	Apr...	2,286	96.9
8 00 but under 9 00	153	.....	153	6.54	1.371	.....	1.371	May ..	2,333	98.9
9 00 but under 10 00	271	.. ..	271	11.58	1.530	.....	1.530	June..	2,346	99.4
10 00 but under 12 00	170	.....	170	7.26	1.757	.....	1.757	July ..	2,355	100.00
12 00 but under 15 00	109	.....	109	4.65	2,053	.. ..	2.053	Aug ..	2,342	99.3
15 00 but under 20 00	144	..	144	6.15	2.706	.....	2.706	Sept..	2,289	97.1
20 and over	11	.....	11	.47	3.871	.....	3.871	Oct...	2,254	93.3
								Nov ..	2,042	86.6
Total	2,071	270	2,341	100.00	$1.623	$.733	$1.415	Dec .	1,924	83.5
								Ave...	2,240	94 9

SHIPS AND BOATS—6 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day	Per cent.	Average.	
						Per day.	Per hour.
Blacksmiths	10	3	.64	$9.50	.902	$3.167	$0.316
Carpenters	10	172	36.77	484.25	45.982	2.815	.281
Craneman	12	1	.21	3.50	.332	3.500	.291
Deck hands	12	8	1.70	18.65	1.770	2.331	.194
Engineers	10.40	10	2.14	37.[illegible]7	3.520	3.707	.356
Firemen	10.33	6	1.28	11.25	1.068	1.875	.181
Helpers	10	14	2.99	24.00	2.278	1.714	.171
Laborers	10	158	33.76	293.90	27.907	1.861	.186
Leaders	10	5	1.07	11.25	1.068	2.250	.225
Linemen	10	5	1.[illegible]7	11.25	1.068	2.25	.225
Machinists	10	4	.85	11.50	1.091	2.875	.287
Painters	10	43	9.19	77.25	7.335	1.796	.179
Plumber	10	1	.21	3.00	.293	3.00	.300
Scrubbers	10	32	6.84	44.[illegible]0	4.177	1.375	.137
Watchmen	10.66	3	.64	6.00	.569	2.00	.187
Wood workers	10	3	.64	6.75	.640	2.25	.225
Total and average..	10.05	468	100.00	$1,053.12	100.000	$2.25	$0.223
Captain	12	1	4.76	$4.50	7.23	$4.50	$0.375
Foremen	10	13	61.91	46.75	75.10	3.596	.359
Stewards	10	7	33.33	11.00	17.67	1.571	.157
Total and average..	10.60	21	100.00	$62.25	100.00	$2.964	$0.279

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.				Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female.	Total	Per cent.	Male	Female.	Total	Month.	No.	Range.
Under $5 00	....	.....	.....	.....	.....	.....	.....	Jan...	1,176	63.33
$ 5 00 but under 6 00	18	.....	18	.89	$.896	.....	$.896	Feb...	1,494	80.45
6 00 but under 7 00	68	.....	68	3.37	1.000	.....	1.000	Mar.	1,813	97.60
7 00 but under 8 00	59	.....	59	2.92	1.250	.....	1.250	April.	1,712	92.19
8 00 but under 9 00	....	.....	....	.....	.....	....	....	May..	1,751	92.29
9 00 but under 10 00	187	.....	187	9.28	1.500	...	1.500	June..	1,857	100.00
10 00 but under 12 00	671	.....	671	33.31	1.754	.....	1.754	July..	988	53.20
12 00 but under 15 00	394	.....	394	19.56	2.142	.....	2.142	Aug...	983	52.93
15 00 but under 20 00	474	....	474	23.57	2.848	.....	2.848	Sept..	890	47.93
20 00 and over	143	.. ..	143	7.10	4.095	.....	4.095	Oct...	840	45.23
								Nov.	908	48.89
Total	2,014	.....	2,014	100.00	$2.280	.....	$2 280	Dec...	942	50.73
								Ave...	1,280	68.93

SOAP—9 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average. Per day.	Per hour.
Cake packers	10	5	3.73	$7.50	3.330	$1.500	$0.150
Cake stoppers	10	3	2.25	4.80	2.131	1.600	.160
Coopers	9.57	7	5.22	13.85	6.149	1.978	.206
Drivers	10	2	1.50	6.00	2.664	3.000	.300
Engineers	10.12	4	2.98	8.30	3.684	2.075	.205
Fireman	10	1	.74	1.50	.666	1.500	.150
Helpers	9.33	6	4.48	8.51	3.778	1.418	.151
Helpers, female	10	17	12.68	10.49	4.634	.614	.061
Laborers	9.47	70	52.24	122.83	54.531	1.743	.184
Machinists	9.83	3	2.24	9.92	4.404	3.306	.336
Moulders	10	5	3.73	7.50	3.330	1.500	.150
Pressmen	10	4	2.98	7.40	3.285	1.850	.150
Soap makers	9.33	3	2.25	9.16	4.066	3.053	.327
Soap wrapper	10	1	.74	2.00	.888	2.000	.20
Teamsters	9.25	2	1.50	3.04	1.350	1.520	.164
Warehouse man	9.50	1	74	2.50	1.100	2.500	.263
Total and average.	9.64	134	100.00	$225.25	100.000	$1.681	$0.174
Male	9.59	117	87.32	$214.81	95.365	$1.836	$0.191
Female	10	17	12.68	10.44	4.635	.614	.061
Bookkeepers, female	8.25	2	25.00	$2.25	13.433	$1.125	$0.138
Foreman	10	1	12.50	3.50	20.894	3.500	.350
Manager	8.50	1	12.50	3.25	19.403	3.250	.382
Salesmen	8.50	3	37.50	6.75	40.299	2.250	.264
Stenographer, female	8.50	1	12.50	1.00	5.971	1.000	.117
Total and average.	8.625	8	100.00	$16.75	100.000	$2.094	$0.242
Male	8.80	5	62.50	$13.50	80.597	$2.70	$0.306
Female	8.33	3	37.50	3.25	19.403	1.083	.130

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.				Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female.	Total	Per cent.	Male.	Female.	Total	Month.	No.	Range.
Under $5 00..	3	42	45	25.57	$.79	$.614	$.632	Jan.	142	92.21
$ 5 00 but under 6 00	..	.....	.....	.. ...	.....	.....	.....	Feb ..	142	92.21
6 00 but under 7 00..	1	2	3	1 71	1.00	1.00	1 00	Mar...	138	89.61
7 00 but under 8 00..	4	1	5	2.84	1.19	1.25	1.205	April .	144	93.51
8 00 but under 9 00 .	.....	.....	.....	.....	.....	.....	.....	May..	135	87.66
9 00 but under 10 00..	32	.....	32	18.18	1.52	.....	1.52	June .	137	88.96
10 00 but under 12 00..	37	.....	37	21.02	1.411	.....	1.411	July..	136	88.31
12 00 bus under 15 00..	40	.....	40	22.73	2.027	... ..	2.027	Aug .	134	87.01
15 00 but under 20 00..	11	.....	11	6.25	2.81	.....	2.81	Sept..	132	85.71
20 00 and over....	3	.....	3	1.70	3.64	.....	3.64	Oct...	146	94.81
								Nov ..	153	99.33
Total.....	131	45	176	100.00	$1.871	$.684	$1.704	Dec ..	154	100.00
								Ave...	141	91.55

STAVES AND HEADING—5 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Bolter	9	1	.67	$2.50	1.104	$2.50	$0.277
Cutter	9	1	.67	3.50	1.546	3.50	.388
Engineer	10	1	.67	3.00	1.325	3.00	.300
Filers	9.50	2	1.35	6.50	2.872	3.25	.342
Finishers	10	3	2.02	5.25	2.320	1.75	.175
Firemen	11.25	8	5.36	14.50	6.409	1.812	.161
Helpers	12	13	8.72	13.40	5.921	1.03	.085
Laborers	9.70	75	50.34	104.35	46.113	1.391	.143
Machine hands	10	43	28.85	69.80	30.844	1.623	.162
Sawyers	10	2	1.35	3.50	1.546	1.75	.175
Total and average..	10.07	149	100.00	$266.30	100.000	$1.519	$0.150

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.					Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	No. of Persons.			Per cent.						
	Male	Female.	Total		Male.	Female	Total	Month.	No.	Range.
Under $5 00..	4	.....	4	2.68	$.75	.....	.75	Jan .	146	90.68
$ 5 00 but under 6 00..	2	.....	2	1.35	.85	.....	.85	Feb...	161	100.00
6 00 but under 7 00 .	11	.....	11	7.39	1.00	.....	1.00	Mar ..	161	100.00
7 0 but under 8 00..	4	....	4	2.68	1.25	.....	1.25	April.	133	82.67
8 00 but under 9 00..	27	.....	27	18.12	1.35	.....	1.35	May. .	140	86.96
9 00 but under 10 00..	72	.....	72	48.32	1.52	.....	1.52	June .	146	90.68
10 00 but under 12 00..	19	....	19	12.75	1.75	.....	1.75	July ..	126	78.26
12 00 but under 15 00..	4	... ..	4	2.68	2.00	.....	2.00	Aug...	84	52.17
15 00 but under 20 00..	4	.....	4	2.68	2.85	.....	2.85	Sept ..	73	45.34
20 00 and over...	2	.....	2	1.35	3.50	....	3.50	Oct'..	75	46.58
								Nov...	95	52.80
Total	149	.....	149	100.00	$1.519	.....	$1.519	Dec ..	115	71 43
								Ave...	121	75.16

STONE—19 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent	Average.	
						Per day.	Per hour.
Blacksmiths	9	9	2.400	$25.75	2.871	$2.161	$0.317
Carpenters	8	20	5.333	52.00	5.797	2.600	.325
Electrician	9	1	.267	2.00	.223	2.000	.222
Engineers	9.50	8	2.133	19.88	2.216	2.485	.261
Laborers	9.75	70	18.667	122.49	13.656	1.749	.179
Letterers	10	3	.800	8.25	.920	2.750	.275
Machine hands	8.65	49	13.067	117.50	13.100	2.397	.277
Machine helpers	9.50	10	2.667	18.25	2.035	1.825	.192
Masons	8	20	5.333	60.00	6.689	3.000	.375
Polishers	9.11	17	4.534	28.75	3.205	1.691	.185
Quarrymen	9.27	62	16.534	120.25	13.406	1.939	.209
Roofers	10	10	2.666	24.75	2.759	2.475	.247
Roofers' helpers	10	7	1.867	14.00	1.561	2.000	.200
Sawyer	10	1	.266	2.10	.234	2.100	.210
Seiners	8	4	1.067	12.00	1.338	3.000	.375
Stone cutters	8.73	76	20.267	250.50	27.927	3.296	.366
Teamsters	9	4	1.066	7.50	.836	1.875	.208
Trimmers and fitters	10	4	1.066	11.00	1.227	2.750	.275
Total and average..	9.06	375	100.000	$896.97	100.000	$2.392	$0.264
Foremen	10	2	100.000	$4.33	100.000	$2.165	$0.216

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.				Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male	Female.	Total	Per cent	Male.	Female.	Total	Month.	No.	Range.
Under $5 00..	2	.....	2	.27	$.75	.....	$.75	Jan .	485	65.6
$ 5 00 but under 6 00 .	2	.....	2	.27	.90	.....	.90	Feb ..	485	65.6
6 00 but under 7 00	12	.....	12	1.62	1.00	.....	1 00	Mar...	541	73.2
7 00 but under 8 00	3	.....	3	.41	1.25	.....	1.25	April .	634	85.9
8 00 but under 9 00..	2	.....	2	.27	1.45	.....	1.45	May...	700	94.8
9 00 but under 10 00	105	.....	105	14.21	1.551	.....	2.551	June..	702	95.0
10 00 but under 12 00	153	.....	153	20.70	1.751	.....	1.751	July ..	710	96.1
12 00 but under 15 00	187	.....	187	25 31	2.157	.....	2.157	Aug ..	710	96.1
15 00 but under 20 00 .	220	....	220	29.77	2.845	.....	2 845	Sept	715	97.4
20 00 and over	53	.....	53	717	3.757	.....	3.757	Oct...	737	100.0
								Nov.	662	89.7
Total	739	.....	739	100.00	$2.391	.....	$2.391	Dec .	482	65.2
								Ave...	630	85.3

STRUCTURAL IRON—7 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average	
						Per day.	Per hour.
Apprentice	10	1	.18	$1.25	.122	$1.250	$0.125
Blacksmiths	10	6	1.05	18.75	1.838	3.125	.312
Blacksmiths' helpers	10	5	.88	9.50	.932	1.900	.190
Boys	10	18	3.17	30.90	3.031	1.716	.171
Carpenters	10	2	.35	4.50	.442	2.250	.225
Engineers	10	2	.35	5.50	.539	2.75	.275
Erectors	8	2	.35	7.20	.706	3.60	.450
Finishers	10	22	3.88	41.00	4.022	1.863	.186
Fireman	10.50	1	.18	1.75	.172	1.75	.166
Fitters	10	56	9.87	104.05	10.205	1.857	.185
Fitters' helpers	10	30	5.29	40.35	3.957	1.343	.134
Iron workers	10	8	1.41	19.55	1.918	2.443	.244
Laborers	10	158	27.87	271.75	26.652	1.719	.171
Machine hands	10	23	4.06	46.45	4.556	2.02	.202
Machinists	10	26	4.59	59.60	5.845	2.253	.225
Oiler	10	1	.18	1.40	.138	1.40	.140
Packer	10	1	.18	2.00	.196	2.00	.200
Packers, female	10	5	.88	2.50	.245	.50	.050
Packers' helpers	10	2	.35	3.40	.334	1.70	.17
Painters	10	22	3.88	42.95	4.213	1.952	.195
Press hands	10	20	3.53	28.70	2.814	1.435	.143
Press hands, female	10	9	1.59	6.39	.626	.71	.071
Punchers	10	26	4.59	51.20	5.022	1.969	.196
Punchers' helpers	10	25	4.41	42.80	4.198	1.712	.171
Rivetors	10	56	9.88	93.75	9.194	1.674	.167
Rolling mill hands	10	9	1.59	17.10	1.677	1.90	.190

STRUCTURAL IRON—Continued.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average. Per day.	Average. Per hour.
Sorters, female	10	2	.35	1.50	.148	.75	.075
Teamsters	10	3	.53	5.15	.506	1.717	.171
Templaters	10	12	2.12	28.70	2.814	2.392	.239
Tool setter	10	1	.18	1.70	.167	1.70	.170
Turners	11	3	.53	7.10	.697	2.367	.215
Unloaders	10	8	1.41	17.70	1.736	2.212	.221
Watchmen	12	2	.35	3.45	.338	1.725	.143
Total and average..	10.06	567	100.00	$1,019.59	100.000	$1.798	$0.178
Male	10.06	551	97.18	$1,009.20	98.981	$1.832	$0.182
Female	10	16	2.82	10.39	1.019	.649	.064
Draughtsman	10	1	100.00	$3.00	100.00	$3.00	$0.300

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.					Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	No. of Persons.			Per cent.				Month.	No.	Range.
	Male.	Female	Total		Male	Female.	Total			
Under $5 00	14	17	31	3.47	$ .686	$.649	$.665	Jan ..	975	100.00
$ 5 00 but under 6 00..	22	.....	22	2.46	.875	.....	.875	Feb.	895	92.82
6 00 but under 7 00..	28	.....	28	3.13	1.036	.....	1.036	Mar..	886	91.79
7 00 but under 8 00..	30	.....	30	3.36	1.250	.....	1.250	April..	882	90.47
8 00 but under 9 00..	156	.....	156	17.45	1.375	.....	1.375	May..	917	94.10
9 00 but under 10 00..	158	.....	158	17.67	1.670	.....	1.670	June..	872	89.45
10 00 but under 12 00	256	.....	256	28.63	1.970	.....	1.970	July ..	837	85.85
12 00 but under 15 00..	136	.....	136	15.21	2.125	.....	2.125	Aug...	841	86.26
15 00 but under 20 00 .	60	.....	60	6.72	2.742	....	2.742	Sept ..	859	88.10
20 00 and over.	17	.....	17	1.90	3.700	.....	3 700	Oct ...	900	92.31
								Nov ..	866	88.82
Total.....	877	17	894	100.00	1 831	$.649	$1.800	Dec ..	840	86,15
								Ave...	881	91.38

TOBACCO WAREHOUSES—5 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Engineers	8	4	1.18	$7.51	1.749	$1.877	$0.234
Handlers	10	6	1.77	5.50	1.281	.916	.091
Helpers	8	7	2.06	8.74	2.036	1.248	.156
Laborers	8	39	11.50	77.67	18.092	1.991	.249
Machinist	8	1	.30	3.33	.776	3.33	.416
Packers	10	8	2.36	16.00	3.727	2.00	.200
Packers, female	8	86	25.37	75.81	17.659	.881	.110
Printers	8	5	1.48	9.49	2.211	1.898	.237
Sorters	9.34	61	17.99	87.05	20.277	1.427	.152
Sorters, female	9.19	87	25.66	100.40	25.483	1.257	.136
Stemmers, female	9.50	25	7.38	16.30	3.797	.652	.068
Strippers	8	8	2.36	8.00	1.864	1.00	.125
Teamsters	8	2	.59	4.50	1.048	2.25	.281
Total and average..	8.74	339	100.00	$420.30	100.000	$1.240	$0.141
Male	8.78	141	41.59	$227.79	53.06	$1.615	$0.181.
Female	8.71	198	58.41	192.51	46.94	.972	.111
Foremen	9	4	66.67	$12.66	82.637	$3.165	$0.351
Foreladies	8	2	33.33	2.66	17.363	1.330	.166
Total and average..	8.7	6	100.00	$15.32	100.000	$2.553	$0.293
Male	9	4	66.67	$12.66	82.637	$3.165	$0.351
Female	8	2	33.33	2.66	17.363	1.33	.166

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent.	Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male	Female.	Total		Male.	Female.	Total	Month	No.	Range.
Under $5 00..	2	77	79	22.90	$.75	$.725	$.726	Jan...	368	99.73
$ 5 00 but under 6 00	1	2	3	.87	.90	.90	.90	Feb..	369	100.00
6 00 but under 7 00..	21	46	67	19.42	1.019	1.002	1.007	Mar..	335	90.79
7 00 but under 8 00 .	12	74	86	24.93	1.27	1.252	1.254	April..	250	67.75
8 00 but under 9 00..	....	.....	.....		.....	.....	.....	May..	213	57.72
9 00 but under 10 00 .	44	...	44	12.75	1.50	.....	1.50	June..	187	50.68
10 00 but under 12 00..	21	1	22	6.37	1.75	1.75	1.75	July..	191	51.76
12 00 but under 15 00	37	.....	37	10.73	2.071	.....	2.071	Aug...	195	52.85
15 00 but under 20 00..	6	.....	6	1.74	2.86	....	2.86	Sept	201	54.47
20 00 and over	1	.....	1	.29	4.83	.....	4.83	Oct..	187	50 68
								Nov..	186	50.41
Total....	145	200	345	100.00	$1.658	$.976	$1.262	Dec..	168	42.82
								Ave ..	238	64.50

TRUNKS AND VALISES—6 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Apprentices	10	6	2.598	$5.75	1.687	$0.958	$0.095
Box nailers	10	4	1.732	8.25	2.422	2.062	.2 6
Cutters	10	2	.865	4.75	1.394	2.375	.237
Engineer	10	1	.433	2.25	.659	2.25	.225
Finishers	10	15	6.493	30.26	8.877	2.017	.201
Framer	10	1	.433	2.00	.587	2.00	.200
Helpers	10	2	.865	2.50	.733	1.25	.125
Liners, female	10	8	3.464	8.25	2.421	1.031	.109
Piece workers	10	3	1.299	4.50	1.319	1.50	.150
Sawyers	10	2	.865	5.00	1.466	2.50	.250
Stitcher	10	1	.433	2.50	.733	2.50	.250
Teamsters	10	3	1.299	4.75	1.394	1.583	.158
Telescope makers, female	10	2	.865	1.80	.528	.90	.090
Trunk and bag workers..	10	129	55.844	209.40	61.421	1.623	.162
Trunk and bag workers, female	10	45	19.481	36.70	10.766	.815	.081
Trunk packer	10	1	.433	2.00	.587	2.00	.200
Wood workers	10	6	2.598	10.25	3.007	1.708	.170
Total and average..	10	231	100.000	$340.91	100.000	$1.475	$0.147
Male	10	176	76.19	$294.16	86.287	$1.671	$0.167
Female	10	55	23.81	46.75	13.713	.85	.085

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Wages.	No. of Persons.			Per cent.	Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female.	Total		Male	Female.	Total	Month.	No.	Range.
Under $5 00	24	64	88	22 39	$.75	$.751	$.751	Jan...	376	93.25
$ 5 00 but under 6 00	9	14	23	5.85	.90	.900	.900	Feb..	369	91.51
6 00 but under 7 00..	40	26	66	16.79	1.078	1.000	1.048	Mar..	362	89.78
7 00 but under 8 00	29	4	33	8.40	1.250	1.250	1.250	Apr..	355	88.04
8 00 but under 9 00	21	.....	21	5.34	1.400	.....	1.400	May..	347	82.06
9 00 but under 10 00..	47	.....	47	11.96	1.581	.....	1.581	June.	234	58.03
10 00 but under 12 00	46	.....	46	11.71	1.758	.....	1.758	July	267	66.21
12 00 but under 15 00	52	.....	52	13.23	2.131	.....	2.131	Aug..	366	90.77
15 00 but under 20 00	17	.....	17	4.33	2.733	.....	2 733	Sept.	371	92,01
20 00 and over	.....	.....	.....	.....	.....	.....	.....	Oct...	379	93.99
								Nov..	402	100.00
Total	285	108	393	100.00	1.671	.85	1.475	Dec..	399	98.95
								Ave...	352	87.30

VENEER—5 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hour per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Engineers	10	2	2.99	$4.00	3.988	$2.00	$0.200
Firemen	10	2	2.99	3.50	3.489	1.75	.175
Laborers	10	53	79.10	75.30	75.075	1.42	.142
Machine tenders	10	10	14.92	17.50	17.448	1.75	.175
Total and average..	10	67	100.00	$100.30	100.0 0	$1.497	$0.149
Foreman	10	1	100.00	$2.75	100.00	$2.75	$).275

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No of Persons.			Per cent.	Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male	Female.	Total		Male.	Female	Total	Month.	No.	Range.
Under $5 00..	30	.....	30	6.28	$.75	.....	$.75	Jan...	347	71.84
$ 5 00 but under 6 00..	11	.....	11	2.30	.85	.....	.85	Feb ..	354	73.29
6 00 but under 7 00..	53	.....	53	11.09	1.00	...	1.00	Mar ..	382	79.07
7 00 but under 8 00..	21	.....	21	4.39	1.25	.....	1.25	April..	431	89.21
8 00 but under 9 00..	69	.....	69	14.44	1.40	.....	1.40	May..	462	95.44
9 00 but under 10 00 .	180	.....	180	37.66	1.518	.....	1.518	June .	470	97.10
10 00 but under 12 00..	73	.....	73	15.27	1.75	.....	1.75	July .	483	100 00
12 00 but under 15 00	32	.....	32	6.69	2.00	.....	2.00	Aug .	448	92.55
15 00 but under 20 00.	8	.....	8	1.67	2.75	.....	2.75	Sept.	429	88.82
20 00 and over.....	1	.....	1	.21	3.50	.....	3.50	Oct..	402	83 23
								Nov...	374	77.43
Total	478	.....	478	1 0.00	$1.358	.....	$1.358	Dec...	344	71.22
								Ave ..	411	85.09

WAGONS AND CARRIAGES—43 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Blacksmiths	9.90	209	13.10	$466.94	14.634	$2.234	$0.225
Blacksmiths' helpers	10	157	9.84	230.77	7.727	1.469	.146
Boys	9.87	16	1.00	12.87	.431	.804	.081
Box makers	10	18	1.13	37.16	1.244	2.064	.206
Carpenters	10	23	1.44	47.16	1.579	2.05	.205
Engineers	10	5	.31	12.00	.402	2.40	.240
Filer	10	1	.06	2.00	.067	2.00	.200
Finishers	10	7	.43	13.25	.444	1.892	.189
Firemen	10	11	.69	18.76	.628	1.705	.170
Laborers	9.94	189	11.84	280.41	9.389	1.483	.149
Machine tenders	10	124	7.77	231.67	7.757	1.868	.186
Machine helpers	10	27	1.69	26.44	.885	.978	.097
Machinists	9.95	46	2.88	86.20	2.886	1.873	.188
Millwright	10	1	.06	3.83	.128	3.83	.383
Moulders	10	4	.25	9.00	.301	2.25	.225
Painters	9.95	283	17.73	637.13	21.332	2.251	.226
Painters, helpers	9.93	15	.94	15.27	.511	1.018	.102
Spring makers	10	11	.69	42.75	1.431	3.613	.361
Spring makers, helpers	10	35	2.20	67.90	2.277	1.94	.194
Steam fitters	10	15	.94	27.30	.911	1.82	.182
Teamsters	10	18	1.13	28.40	.954	1.577	.157
Trimmers	10	76	4.77	130.20	4.360	1.713	.171
Trimmers, female	10	20	1.25	24.50	.820	1.225	.122
Upholsterer	10	1	.06	2.00	.067	2.00	.200
Wagon assemblers	10	20	1.25	35.19	1.178	1.759	.175
Watchmen	10.57	7	.43	12.34	.413	1.762	.166
Wheelwrights	10	37	2.32	77.70	2.601	2.10	.210
Wheelwright's helpers	10	14	.88	18.48	.619	1.22	.122
Wheel makers	10	13	.82	27.30	.911	2.10	.210
Wood workers	9.93	148	9.28	307.10	10.282	2.075	.208
Wood workers, helpers	10	45	2.83	54.70	1.831	1.215	.121
Total and average	9.96	1,596	100.00	$2,986.72	100.000	$1.871	$0.187
Male	9.96	1,576	98.75	$2,962.22	99.176	$1.879	$0.187
Female	10	20	1.25	24.50	.824	1.225	.122
Shipping clerks	10	87	90.63	$143.72	87.490	$1.651	$0.165
Superintendents	10	2	2.08	7.40	4.505	3.70	.370
Time keepers	10	7	7.29	13.15	8.005	1.878	.187
Total and average	10.004	417	100.00	$436.07	100.00	$1.045	$0.104

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.					Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	No. of Persons.			Per cent.						
	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00..	57	14	71	3.25	$.731	$.775	$.732	Jan...	2,057	98.61
$ 5 00 but under 6 00..	29	2	31	1.42	.90	.90	.90	Feb...	2,032	97.40
6 00 but under 7 00..	97	7	104	4.77	1.013	1.066	1.018	Mar	2.086	100.00
7 00 but under 8 00	145	4	149	6.83	1.244	1.237	1.244	April..	2,063	98.90
8 00 but under 9 00	150	4	154	7.06	1.394	1.40	1.395	May..	2,059	98.71
9 00 but under 10 00..	519	4	523	23.97	1.506	1.50	1.506	June..	2,003	96.02
10 00 but under 12 00..	320	....	320	14 66	1.758	....	1.758	July..	1,974	94.15
12 00 but under 15 00..	523	....	523	23.97	2.142	.....	2.142	Aug...	1,914	91.75
15 00 but under 20 00..	279	.....	279	12.79	2.66	.....	2.66	Sept..	1,916	91.85
20 00 and over.	28	.....	28	1.28	3.999	.....	3 999	Oct...	1,915	91.80
								Nov...	1,957	93.86
Total....	2,147	35	2,182	100.00	$1.870	$1.225	$1.862	Dec...	1,832	87.82
								Ave...	1,984	95.11

WOODENWARE—10 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Carpenters	10	2	4.256	$3.50	3.977	$1.75	$0.175
Engineer	10	1	2.127	1.75	1.989	1.75	.175
Helpers	10	4	8.519	4.00	4.545	1.00	.100
Helper, female	8	1	2.127	.70	.796	.70	.087
Laborers	10	7	14.89	10.00	11.360	1.425	.142
Laborers, female	10	2	4.256	2.00	2.273	1.00	.100
Lathman	10	1	2.127	1.50	1.705	1.50	.150
Pattern makers	9.68	16	34.033	50.12	56.937	3.132	.324
Pattern helpers	9.59	6	12.763	4.45	5.056	.741	.078
Sand belt men	10	2	4.256	3.00	3.409	1.50	.150
Sawyers	10	2	4.256	3.25	3.693	1.625	.162
Tenders	10	3	6.381	3.75	4.260	1.25	.125
Total and average..	9.78	47	100.000	$88.02	100.000	$1.872	$0.191
Male	9.82	44	93.62	$85.25	68.53	$1.937	$0.197
Female	9.33	3	6.38	2.77	31.47	.90	.166

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.										
Classification.	No. of Persons.			Per cent.	Average Wages Per Day.			No. Persons Emp. by Month.		
	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00..	8	1	9	.783	$.625	$.70	$.64	Jan ..	1,130	99.04
$ 5 00 but under 6 00..	51	....	51	4.537	.95	....	.95	Feb ..	1,141	100.00
6 00 but under 7 00..	12	2	14	1.228	1.00	1.00	1.00	Mar...	1,136	99.56
7 00 but under 8 00..	101	.....	101	8.887	1.25	.....	1.25	April..	1,057	92.63
8 00 but under 9 00 .	294	.....	294	25.680	1.40	.....	1.40	May ..	1,073	94.04
9 00 but under 10 00..	320	.....	320	27.950	1.50	.....	1.50	June..	1,066	93.43
10 00 but under 12 00..	171	.....	171	14.977	1.75	.....	1.75	July ..	1,040	91.15
12 00 but under 15 00..	109	.....	109	9.584	2.10	....	2.10	Aug'..	1,032	90.45
15 00 but under 20 00..	61	.....	61	5.407	2.587	.....	2.587	Sept..	1,017	89.13
20 00 and over.	11	.....	11	.967	3.479	.....	3.479	Oct ...	995	87.20
								Nov ..	980	85.89
Total.....	1,138	3	1,141	100.00	$1.939	$.90	$1.935	Dec...	957	83.98
								Ave...	1,052	92.20

WOOLEN GOODS—8 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total, per day.		Average.	
						Per day.	Per hour.
Apprentice	10	1	.24	$1.38	.317	$1.38	$0.138
Bobbin carriers, female..	10	2	.48	1.04	.238	.52	.052
Burlers, female	10	3	.72	1.82	.417	.606	.060
Carders	10	2	.48	1.32	.303	.66	.066
Carders, female	10	2	.48	1.32	.303	.66	.066
Carpenter	10	1	.24	2.75	.630	2.75	.275
Caulers	10	3	.72	3.75	.860	1.250	.125
Comber	10	1	.24	.80	.184	.800	.080
Combers, female	10	9	2.15	6.22	1.426	.691	.069
Dresser, female	10	1	.24	1.00	.229	1.00	.100
Drawers, female	10	32	7.67	22.98	5.270	.718	.071
Dyer	10	1	.24	1.50	.344	1.50	.150
Dyer tenders, female	10	2	.48	1.00	.229	.50	.050
Engineers	10	3	.72	5.83	1.337	1.943	.194
Firemen	10	2	.48	3.83	.878	1.915	.191
Helpers	10	10	2.40	13.75	3.153	1.375	.137
Helpers, female	10	22	5.28	14.20	3.256	.645	.064
Laborers	10	56	13.43	71.38	16.369	1.274	.127
Laborers, female	10	13	3.12	13.39	3.071	1.030	.103
Machinists	10	3	72	6.51	1.493	2.17	.217
Machine tenders	10	20	4.79	25.23	5.789	1.261	.126
Machine tenders, female.	10	13	3.12	12.80	2.935	.984	.098
Mill hands	10	5	1.20	4.24	.972	.848	.084
Mill hands, female.....	10	4	.96	3.35	.768	.837	.083
Packers	10	3	.72	2.90	.665	.966	.096
Packers, female	10	3	.72	2.55	.585	.850	.085
Shear tender	10	1	.24	1.75	.401	1.750	.175

WOOLEN GOODS—Continued.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Sorters	10	9	2.16	16.99	3.896	1.887	.188
Spinners, female	10	47	11.27	25.63	5.878	.545	.054
Spoolers, female	10	12	2.88	7.83	1.681	.610	.061
Twister	10	1	.24	.75	.172	.750	.075
Twisters, female	10	40	9.59	29.14	6.683	.728	.072
Washers and pickers	10	4	.96	6.03	1.385	1.507	.150
Watchmen	10.50	4	.96	5.32	12.20	1.330	.126
Weavers	10	23	5.51	32.19	7.380	1.399	.139
Weavers, female	10	55	13.19	78.72	18.051	1.434	.143
Winders, female	10	2	.48	1.00	.229	.500	.050
Total and average..	10.004	417	100.00	$436.07	100.00	$1.045	$0.104
Male	10.01	155	37.17	$212.58	48.749	$1.371	$0.136
Female	10	262	62.83	223.49	51.251	.853	.058
Clerks	10	2	10.00	$3.83	5.757	$1.915	$0.191
Foremen	10	18	90.00	54.94	94.243	3.052	.305
Total, male	10	20	100.00	$58.77	100.000	$2.938	$0.298

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent.	Average Wages per Day.			No. Persons Emp. by Month.		
Classification	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00..	22	199	221	41.54	$.741	$.646	$.651	Jan...	519	97.19
$ 5 00 but under 6 00..	6	8	14	2.63	.875	.915	.895	Feb ..	509	95 29
6 00 but under 7 00..	33	31	64	12.03	1.032	1.047	1.039	Mar..	516	96.63
7 00 but under 8 00..	31	9	40	7.52	1.224	1.170	1.212	April..	505	94.57
8 00 but under 9 00..	11	15	26	4.89	1.381	1.380	1.380	May..	494	92.51
9 00 but under 10 00..	71	39	110	20.68	1.506	1.500	1.504	June..	509	95.29
10 00 but under 12 00..	20	2	22	4.13	1.782	1.783	1.782	July ..	522	97.75
12 00 but under 15 00..	9	2	11	2.07	2.092	2.092	2.092	Aug ..	523	97.94
15 00 but under 20 00..	19	.....	19	3.57	2.741	.....	2.741	Sept..	533	99.81
20 00 and over.....	5	.....	5	.94	4.540	.....	4.590	Oct..	528	98.88
Total.....	227	305	532	100.00	$1.550	$.853	$1.132	Nov ..	534	100.00
								Dec...	524	98.13
								Ave...	518	97.00

MISCELLANEOUS—50 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the miscellaneous industries reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Assemblers	10	9	.45	$15.50	.495	$1.722	$0.172
Bleachers	10	2	.10	2.90	.093	1.450	.145
Box makers	10	7	.35	10.50	.335	1.500	.150
Blockers	10	14	.69	40.25	1.284	2.875	.287
Bottler	10	1	.05	.92	.029	.920	.092
Bottlers, female	10	29	1.44	17.33	.553	.597	.059
Buffers	10	20	1.00	45.00	1.436	2.250	.225
Coffee roasters	10	2	.10	5.50	.176	2.750	.275
Casters	10	5	.25	11.25	.359	2.250	.225
Carpenters	10	14	.69	28.50	.909	2.035	.203
Cupola liner	10	1	.05	2.00	.064	2.000	.200
Charge blowers	10	7	.31	11.20	.357	1.600	.160
Coopers	10	13	.64	23.84	.761	1.834	.183
Carder	10	1	.05	2.50	.080	2.500	.250
Chocolate dippers, female	10	11	.54	8.19	.261	.744	.074
Candy makers	10	9	.45	16.50	.526	1.833	.183
Clay grinder	10	1	.05	1.84	.059	1.840	.184
Dyers	10	3	.15	5.75	.184	1.916	.191
Distillers	10	3	.15	7.51	.240	2.503	.250
Edgers	10	3	.15	7.00	.223	2.333	.233
Enamelers	10	6	.30	15.00	.479	2.500	.250
Elevator men	10	2	.10	2.73	.087	1.365	.136
Drivers	8	4	.20	9.36	.299	2.340	.282
Engineers	9.7	27	1.34	65.15	2.078	2.413	.248
Folders, female	8	21	1.05	21.00	.670	1.000	.125
Felt man	10	1	.05	1.10	.035	1.100	.110
Finishers	10	2	.10	3.50	.112	1.750	.175
Filers	10	4	.20	15.75	.503	3.937	.393
Firemen	10.23	26	1.30	51.92	1.656	1.997	.195
Grinders	10	3	.15	5.13	.164	1.710	.171
Hop collector	10	1	.05	1.35	.042	1.350	.135
Helpers	10	70	3.47	67.88	2.165	.970	.097
Helpers, female	9.75	49	2.43	30.17	.963	.616	.063
Iron workers	10	8	.40	11.35	.362	1.419	.141
Jewelers	10	5	.25	9.50	.303	1.900	.190
Janitor	10	1	.05	1.75	.056	1.750	.175
Janitor, female	10	1	.05	1.00	.032	1.000	.100
Laborers	10	915	45.32	1,493.95	47.657	1.632	.162
Laborers, female	10	35	1.73	33.50	1.069	.957	.095
Millers	10	11	.54	26.37	.841	2.397	.239
Machinists	10	20	1.00	56.90	1.815	2.845	.284
Machinists' helper	10	1	.05	1.80	.058	1.800	.180
Machinists' tenders	10	53	2.63	78.44	2.502	1.480	.148
Machinists' hands	10	30	1.49	54.50	1.739	1.816	.181
Mechanics	10	6	.30	9.45	.301	1.575	.157
Mashers	10	3	.15	6.24	.199	2.080	.208
Moulders	10	2	.10	4.00	.128	2.000	.200
Millwright	10	1	.05	3.25	.104	3.250	.325
Organ builders	10	6	.30	11.00	.351	1.833	.183
Potters	10	4	.20	8.00	.255	2.000	.200
Printer	8	1	.05	2.00	.064	2.000	.250
Purse makers	10	3	.15	5.25	.167	1.750	.175
Purse makers, female	10	7	.35	4.16	.133	.594	.059
Papier mache, female	9	15	.74	11.25	.359	.750	.083
Polishers	10	6	.30	14.00	.447	2.333	.233
Pressers	10	3	.15	7.15	.228	2.383	.238
Painters	10	12	.60	11.46	.366	.955	.096
Platers	10	8	.40	18.25	.582	2.281	.228
Packers	10	45	2.23	48.22	1.538	1.071	.107
Packers, female	10	39	1.93	22.57	.720	.578	.057
Pressmen	10	19	.94	37.87	1.208	1.993	.199
Rulers, female	10	11	.54	8.00	.255	.727	.072
Rubberman	10	1	.05	2.50	.080	2.500	.250
Repair men	10	6	.30	10.75	.343	1.790	.179

MISCELLANEOUS—Continued.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average. Per day.	Average. Per hour.
Setters	10	2	.10	5.50	.175	2.750	.275
Spirits runner	10	1	.05	3.17	.101	3.170	.317
Sewers, female	10	10	.50	7.99	.255	.799	.079
Sawyers	10	8	.40	29.51	.941	3.688	.368
Scalers	10	2	.10	4.50	.144	2.250	.225
Slashers	10	4	.20	7.60	.242	1.900	.190
Straw sizers	10	5	.25	9.25	.295	1.850	.185
Skimmers	10	2	.10	4.11	.131	2.055	.205
Steam fitters	10	3	.15	6.75	.215	2.250	.225
Straw mill oprs., female.	10	72	3.57	125.75	4.011	1.746	.174
Spinners	10	6	.30	10.55	.337	1.758	.175
Trimmers, female	10	98	4.85	134.50	4.291	1.372	.137
Type makers	10	11	.54	17.50	.558	1.590	.159
Tub washer	10	1	.05	1.73	.055	1.73	.173
Teamsters	9.71	7	.35	13.24	.422	1.89	.194
Upholsterers	10	4	.20	5.02	.160	1.255	.125
Upholsterers, female	10	14	.69	7.76	.247	.555	.055
Vinegar men	10	4	.20	6.72	.214	1.680	.168
Watchmen	10.44	9	.45	15.25	.487	1.694	.162
Whittlers	10	3	.15	8.30	.265	2.766	.276
Wire framer, female	10	1	.05	1.00	.032	1.000	.100
Wool sizers	10	7	.35	11.75	.375	1.678	.167
Wagon maker	10	1	.05	1.50	.048	1.500	.150
Willow workers	10	41	2.03	48.21	1.538	1.176	.117
Wood workers	10	45	2.23	64.08	2.044	1.424	.142
Yardmen	10	3	.15	4.69	.150	1.563	.156
Yeastmen	10	5	.25	8.89	.284	1.778	.177
Yeast wrapper	10	1	.05	.75	.024	.750	.075
Total and average..	9.95	2,019	100.00	$3,134.02	100.000	$1.552	$0.155
Male	9.99	1,606	79.52	$2,699.85	86.136	$1.681	$0.168
Female	9.82	413	20.48	434.17	13.864	1.051	.107
Artsist	9	1	1.20	$3.00	1.737	$3.000	$0.333
Bookkeepers	10	2	2.41	4.17	2.415	2.085	.208
Captain (boot)	8	1	1.21	3.50	2.027	3.500	.457
Foremen	9.84	32	38.55	77.33	44.778	2.417	.245
Foreladies	10	4	4.82	3.69	2.137	.923	.092
Inspectors	10	12	14.46	28.00	16.214	2.333	.233
Superintendent	10	1	1.21	7.00	4.054	7.000	.700
Stenographers	9	3	3.61	3.75	2.172	1.250	.138
Stenographers, female	8	18	21.69	22.75	13.172	1.263	.157
Shipping clerks	10	3	3.61	6.00	3.474	2.000	.200
Stock keepers	10	4	4.82	6.50	3.766	1.625	.162
Sculptor	8	1	1.21	3.50	2.027	3.500	.437
Total and average..	9.41	83	100.00	$172.69	100.000	$2.080	$0.221
Male	9.78	61	73.50	$146.25	84.689	$2.400	$0.245
Female	8.36	22	26.50	26.44	15.311	1.201	.143

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.								No. Persons Emp. by Month,		
Classification.	No. of Persons.			Per cent	Average Wages per Day.					
	Male.	Female.	Total		Male.	Female.	Total	Month	No.	Range.
Under $5 00..	115	256	371	14.00	$.65	$.608	$.623	Jan...	2,199	79.50
$ 5 00 but under 6 00 .	22	33	55	2.08	.937	.879	.92	Feb ...	2,201	79.57
6 00 but under 7 00 .	65	101	166	6.26	1.031	1.000	1.001	Mar ..	2,280	82.43
7 00 but under 8 00..	112	49	161	6.07	1.322	1.25	1.250	Apr...	2,323	83.95
8 00 but under 9 00..	66	.....	66	2.49	1.359	.....	1.359	May ..	2,448	84.89
9 00 but under 10 00..	355	73	428	16.14	1.525	1.50	1.523	June .	2,392	86.48
10 00 but under 12 00..	790	50	840	31.69	1.748	1.75	1.748	July..	2,454	88.58
12 00 but under 15 00..	321	56	377	14.22	2.102	2.103	2.102	Aug ..	2,724	98.48
15 00 but under 20 00..	130	22	152	5.73	2.733	2.733	2.733	Sept..	2,766	100.00
20 00 and over	33	2	35	1.32	4.194	3.75	4.178	Oct...	2,352	85.03
								Nov ..	2,237	80.87
Total.....	2,009	642	2,651	100.00	$1.707	$1.058	$1.573	Dec ..	2,304	83.26
								Ave ..	2,382	86.11

NINE LESSER INDUSTRIES.

BEVERAGES—16 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Bottlers	10	25	15.625	$47.83	18.869	$1.912	$0.191
Brewer	10	1	.625	1.67	.659	1.670	.169
Bottle workers	10	31	19.375	49.73	19.619	1.604	.160
Drivers	10	10	6.250	17.59	6.940	1.760	.175
Engineers	10	4	2.500	11.00	4.340	2.750	.275
Fireman	10	1	.625	1.83	.721	1.830	.183
Helpers	10	12	7.500	15.82	6.241	1.318	.131
Labelers	10	23	14.375	28.80	11.362	1.252	.125
Laborers	10	16	10.000	22.35	8.817	1.396	.139
Machine tenders	10	3	1.875	3.30	1.302	1.100	.110
Packers	10	34	21.250	53.56	21.130	1.569	.156
Total and average..	10	160	100.000	$253.48	100.000	$1.584	$0.158
Clerk, female	8	1	16.667	$0.75	4.610	$0.750	$0.093
Foremen	10	4	66.666	14.00	86.160	3.500	.350
Stenographer	7	1	16.667	1.50	9.230	1.500	.214
Total and average..	9.16	6	100.000	$16.25	100.000	$2.708	$0.295
Male	9.4	5	80.00	$15.50	95.38	$3.10	$0.329
Female	8	1	20.00	.75	4.62	.75	.093

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting, either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.					Average Wages Per Day.			No Persons Emp. by Month.		
Classification.	No. of Persons.			Per cent.						
	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00..	8	1	9	5.422	$.805	$.75	$.798	Jan...	123	70.69
$ 5 00 but under 6 00..	.....	.....	.....	.....	.....	.....	.....	Feb ..	136	78.16
6 00 but under 7 00..	21	.....	21	12.651	1.061	.....	1.061	Mar ..	145	83.33
7 00 but under 8 00..	14	.....	14	8.433	1.257	.....	1.257	April..	152	87.36
8 00 but under 9 00 .	15	.....	15	9.036	1.367	.....	1.367	May ..	161	92.53
9 00 but under 10 00..	29	.....	29	17.469	1.500	.....	1.500	June..	170	97.70
10 00 but under 12 00..	42	.....	42	25.301	1.729	.....	1.729	July..	174	100.00
12 00 but under 15 00..	22	.....	22	13.254	2.024	.....	2.024	Aug...	167	95.98
15 00 but under 20 00..	13	.....	13	7.831	2.807	.....	2.807	Sept..	161	92.53
20 00 and over	1	.....	1	.603	5.000	.....	5.000	Oct...	149	85.63
								Nov ..	151	86.78
Total.....	165	1	166	100.00	$1.063	$ 75	$1.057	Dec...	136	78.16
								Ave...	154	88.51

CHEMICALS—9 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent	Total per day.	Per cent	Average.	
						Per day.	Per hour.
Bottlers	9	2	1.96	$3.00	2.110	$1.50	$0.166
Cooper	10	1	.98	2.00	1.407	2.00	.200
Engineers	10	6	5.88	14.00	9.847	2.333	.233
Firemen	10	2	1.96	4.00	2.814	2.00	.200
Helpers	9.77	18	17.65	26.11	18.365	1.45	.148
Helpers, female	10	16	15.69	13.22	9.298	.826	.082
Labelers, female	9	15	14.71	18.75	13.188	1.25	.138
Laborers	10	26	25.49	41.60	29.259	1.638	.163
Laborers, female	10	2	1.96	1.70	1.189	.85	.085
Machine tenders	10	8	7.84	10.65	7.491	1.331	.133
Machinist	10	1	.98	1.75	1.232	1.75	.175
Watchmen	11	2	1.96	2.10	1.478	1.05	.095
Wrappers, female	10	3	2.94	3.30	2.322	1.10	.11)
Total and average.	9.81	102	100.00	$142.18	100.000	$1.393	$0.142
Male	9.93	66	64.71	$105.21	73.998	$1.594	$0.160
Female	9.58	36	35.29	36.97	26.002	1.027	.107
Foremen	9.5	2	100.00	$4.25	100.00	$2.125	$0.223

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.					Average Wages Per Day.			No. Persons Emp by Month.		
Classification.	No. of Persons.			Per cent.						
	Male.	Female.	Total		Male	Female	Total	Month.	No.	Range.
Under $5 00	4	8	12	11.54	$.687	$.71	$.702	Jan ..	88	80.73
$ 5 00 but under 6 00	1	9	10	9.62	.84	.868	.866	Feb...	92	84.40
6 00 but under 7 00	2	3	5	4.81	1.05	1.10	1.08	Mar ..	96	88.07
7 00 but under 8 00..	7	15	22	21.15	1.239	1.25	1.248	April..	99	90.83
8 00 but under 9 00..	1	1	2	1.92	1.40	1.42	1.41	May ..	95	87.16
9 00 but under 10 00..	24	.....	24	23.07	1.516	.....	1.516	June..	104	95.41
10 00 but under 12 00..	11	.....	11	10.58	1.686	.....	1.686	July...	104	95.41
12 00 but under 15 00..	13	.....	13	12.50	2.019	.....	2.019	Aug...	109	100.00
20 00 but under 20 00..	5	.....	5	4.81	2.50	.....	2.50	Sept..	103	94.49
20 00 and over.....	.....	.....	.....	.....	.....	.....	...	Oct...	99	90.83
Total.....	68	36	104	100.00	$1.61	$1.027	$1.408	Nov...	94	86.24
								Dec...	89	81.65
								Ave...	98	89.91

COAL AND WOOD—24 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
						Average.	
		Number.	Per cent.	Total per day.	Per cent.	Per day.	Per hour.
Blacksmiths	10	5	.56	$12.50	.7 3	$2.50	$0.2 0
Carpenters	10	9	1.02	25.25	1.420	2.805	.280
Conveyor operators	10	6	.68	12.50	.703	2.083	.20 3
Engineers	9.94	18	2.04	45.95	2.585	2.552	.25 3
Firemen	9.75	8	.90	16.71	.940	2.088	.214
Harnessmaker	10	1	.11	2.00	.112	2.00	.200
Hoisters	9.87	85	9.61	206.75	11.630	2.432	.2 6
Hostlers	10	6	.68	12.50	.703	2.083	.20 3
Laborers	9.86	241	27.23	433.75	24.398	1.80	.182
Machinist	10	1	.11	3.00	.169	3.00	.300
Oilers	10	6	.68	14.00	.788	2.333	.2 3
Painters	10	2	.22	5.00	.281	2.30	.23
Sawmen	10	2	.22	4.00	.225	2.00	.200
Stevedores	10	24	2.73	144.00	8.099	6.00	.600
Teamsters	10.05	119	13.45	231.05	12.996	1.941	.193
Watchmen	10	9	1.02	15.81	.889	1.756	.175
Weighers	10	2	.22	4.82	.271	2.41	.241
Wood pilers	10	16	1.80	20.50	1.152	1.281	.128
Yardmen	10	325	36.72	567.75	31.935	1.747	.174
Total and average..	9.96	885	100.00	$1,777.84	100.000	$2.00	$0.200
Foremen	9.98	52	94.54	$134.69	95.343	$2.59	$0.259
Manager	10	1	1.82	3.00	2.123	3.00	.300
Timekeepers	10	2	3.64	3.58	2.534	1.79	.179
Total and average..	9.98	55	100.00	$141.27	100.000	$2.568	$0.257

Table B.—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.				Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	No. of Persons.			Per cent.					
	Male.	Female	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00..	10	.....	10	.50	$.75	.....	$.75	Jan...	1,442	71.81
$ 5 00 but under 6 00	.....	.....	.....	.....	.....	.....	.....	Feb ..	1,270	63.25
6 00 but under 7 00 .	19	.....	19	.96	1.00	.....	1.00	Mar ..	1,253	62.40
7 00 but under 8 00..	22	.....	22	1.11	1.25	.....	1.25	April .	1,621	80 73
8 00 but under 9 00 .	5	.....	5	.25	1.375	.....	1 375	May	1,969	98.06
9 00 but under 10 00..	103	.....	103	5.16	1.500	.....	1.500	June .	2,008	100.00
10 00 but under 12 00..	785	.....	785	39.45	1.755	.....	1.755	July..	1,946	96.91
12 00 but under 15 00..	580	.....	580	29.15	2 082	.....	2.082	Aug ..	1,880	93 59
15 00 but under 20 00..	302	.....	302	15.18	2.595	.....	2.595	Sept..	1,849	92.07
20 00 and over.....	164	.....	164	8.24	5.558	.....	5.558	Oct ..	1,842	91.73
								Nov ..	1,783	88.79
Total.....	1,990	.....	1,990	100.00	$2.042	.....	$2.042	Dec ..	1,656	82.47
								Ave ..	1,710	85.61

ELEVATORS AND WAREHOUSES—22 ESTABLISHMENTS.

Table A.—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Carpenters	10	3	1.40	$4.15	.964	$2.075	$0.2 7
Delivery boy	10	1	.46	1.00	.232	1.00	.100
Electrician	10	1	.46	3.00	.696	3.00	.300
Elevator man	8	1	.46	2.35	.545	2.35	.29
Engineers	10	5	2.33	15.89	3.688	3.178	.317
Firemen	10	6	2.79	12.16	2.822	2.027	.202
Helpers	10	5	2.33	5.50	1.276	1.10	.110
Laborers	10	148	68.84	291.97	67.760	1.972	.197
Machine tenders	10	2	.93	3.50	.812	1.75	.175
Millwrights	10	7	3.26	18.11	4.203	2.587	.258
Oilers	10	14	6.51	27.93	6.482	1.995	.199
Teamsters	10	3	1.40	4.86	1.128	1.62	.162
Watchmen	11.07	13	6.04	24.57	5.702	1.89	.170
Weighers	10.66	6	2.79	15.90	3.690	2.65	.243
Total and average..	10.07	215	100.00	$430.89	100.000	$2.004	$0.193
Agents	10	3	23.08	$5.81	19.775	$1.937	$0.193
Bartenders	10	2	15.38	4.00	13.615	2.00	.200
Clerk	10	1	7.69	1.92	6.535	1.92	.192
Foremen	10	7	53.85	17.65	60.075	2.521	.252
Total and average..	10	13	100.00	$29.38	100.000	$2.26	$0.233

Table B.—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.					Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	No. of Persons.			Per cent.						
	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00..	.....	.....	.....	.....	....	.....	.....	Jan...	180	51.72
$ 5 00 but under 6 00..	.....	.....	.....	.....	....	.....	.....	Feb ..	184	52.87
6 00 but under 7 00..	7	.....	7	2.36	$1.00	.....	$1.00	Mar ..	169	48.56
7 00 but under 8 00..	5	.....	5	1.68	1.25	.....	1.25	April.,	164	47.13
8 00 but under 9 00..	2	.....	2	.67	1.47	.....	1.47	May ..	137	39.37
9 00 but under 10 00..	27	.....	27	9.09	1.50	.....	1.50	June..	139	39.94
10 00 but under 12 00..	23	.....	23	7.75	1.746	.....	1.746	July..	126	36.21
12 00 but under 15 00..	209	.....	209	70.37	2.014	.....	2.014	Aug ..	154	44.25
15 00 but under 20 00..	22	.....	22	7.41	2.75	.....	2.75	Sept .	235	67.53
20 00 and over.....	2	.....	2	.67	3.92	.....	3.92	Oct...	348	100.00
								Nov ..	345	99 14
Total..... ...	297	.....	297	100.00	$2.018	.....	$2.018	Dec...	238	68.39
								Ave...	202	58.05

LAUNDRIES—44 ESTABLISHMENTS.

Table A.—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per hour.
Drivers	9.95	65	9.75	$124.96	16.788	$1.907	$0.191
Engineers	9.94	17	2.55	37.79	5.077	2.222	.223
Finishers, female	9.14	4	.60	4.14	.556	1.035	.113
Fireman	10	1	.15	1.50	.202	1.50	.150
Helpers	10	6	.90	7.43	.998	1.236	.123
Helpers, female	9.86	111	16.64	99.79	13.406	.899	.091
Hostler	10	1	.15	2.00	.269	2.00	.200
Ironers, female	9.92	308	46.18	279.66	37.571	.907	.091
Laborers	10	3	.45	4.32	.580	1.44	.144
Machine oprs., female	10	28	4.20	31.70	4.259	1.132	.113
Mangle girls	10	12	1.80	9.20	1.236	.766	.076
Markers & sorters, fem.	10	7	1.05	9.42	1.265	1.345	.134
Polisher	10	1	.15	2.50	.336	2.50	.250
Starchers, female	9.84	33	4.95	32.23	4.330	.976	.099
Washers	10	26	3.88	50.41	6.772	1.938	.193
Washers, female	9.79	43	6.45	45.97	6.176	1.069	.109
Watchman	10	1	.15	1.33	.179	1.33	.133
Total and average..	9.91	667	100.00	$744.35	100.000	$1.116	$0.112
Male	9.96	121	18.14	$232.24	31.200	$1.919	$0.192
Female	9.89	546	81.86	512.11	68.800	.938	.094
Bookkeepers, female	9.40	10	62.50	$13.99	51.757	$1.399	$0.148
Foremen	10	2	12.50	6.11	22.605	3.055	.305
Forewomen	10	2	12.50	3.83	14.169	1.915	.191
Manager	8.33	1	6.25	2.00	7.399	2.00	.240
Stenographer, female	10	1	6.25	1.10	4.070	1.10	.110
Total and average..	9.52	16	100.00	$27.03	100.000	$1.689	$0.177
Male	9.44	3	18.75	$8.11	30.004	$2.703	$0.152
Female	9.53	13	81.25	18.92	69.996	1.455	.152

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent.	Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female.	Total		Male	Female.	Total	Month.	No.	Range.
Under $5 00	.....	201	201	25.06	.....	$.665	$.665	Jan...	716	89.95
$ 5 00 but under 6 00	2	56	58	7.23	$.850	.868	.868	Feb ..	707	88.82
6 00 but under 7 00	8	282	290	36.16	1.000	1.036	1.035	Mar ..	714	89.69
7 00 but under 8 00	10	67	77	9.60	1.232	1.235	1.235	April..	738	92.71
8 00 but under 9 00	5	14	19	2.37	1.376	1.376	1.376	May ..	760	94.22
9 00 but under 10 00	20	13	33	4.12	1.555	1.516	1.541	June..	788	98.99
10 00 but under 12 00	25	4	29	3.62	1.701	1.670	1.698	July ..	796	100.00
12 00 but under 15 00	46	8	54	6.73	2.088	2.000	2.082	Aug ..	793	99.62
15 00 but under 20 00	36	3	39	4.86	2.642	2.500	2.637	Sept..	778	97.74
20 00 and over	2	.....	2	.25	4.110	.....	4.110	Oct...	749	94.09
								Nov,..	730	91.71
Total	154	648	802	100.00	$1.938	$.950	$1.129	Dec...	719	90.32
								Ave...	749	94.09

LIGHT, WATER AND POWER—8 ESTABLISHMENTS.

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.					Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	No. of Persons.			Per cent						
	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00..	4	3	7	.63	.. ..	.....	.....	Jan...	625	48.15
$ 5 00 but under 6 00..	3	.....	3	.27	.....	.....	.....	Feb ..	581	44.76
6 00 but under 7 00..	1	1	2	.18	.....	.....	.....	Mar...	648	49.92
7 00 but under 8 00	31	....	31	2.81	.....	.....	.....	April..	1,002	77.19
8 00 but under 9 00	22	.....	22	2.00	.....	.....	.... .	May...	1,179	90.83
9 00 but under 10 00	114	.....	114	10.33	.....	.....	.. ...	June..	1,298	100.00
10 00 but under 12 00..	483	.....	483	43.75	.....	.....	.....	July ..	1,108	85.36
12 00 but under 15 00..	225	....	225	20.38	.....	... ..	.....	Aug...	1,099	84.68
15 00 but under 20 00..	173	.....	173	15.67	.....	.....	.....	Sept..	991	76.35
20 00 and over	44	.....	44	3.98	.....	.....	.....	Oct ...	937	72.19
								Nov...	921	70.95
Total.....	1,100	4	1,104	100.00	.....	.....	.....	Dec...	772	59.48
								Ave...	938	72.26

LITHOGRAPHING AND ENGRAVING—9 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent	Average.	
						Per day.	Per hour.
Artists	8	13	3.27	$54.56	$7.065	$4.196	$0.524
Artists' apprentices	8	2	.50	.93	.124	.465	.581
Artists, photo engraving	8	3	.75	9.00	1.166	3.00	.375
Binders, female	9	31	7.79	23.50	3.043	.758	.842
Book binders	9	3	.75	7.00	.907	2.333	.259
Boys	8.42	7	1.76	5.90	.764	.842	.100
Check binder	9	1	.25	1.75	.226	1.75	.194
Check bindes' appr'tices	9.33	3	.75	1.75	.226	.583	.062
Compositors	9	3	.75	6.75	.874	2.25	.250
Compositors' apprentice..	9.50	1	.25	.75	.096	.75	.078
Cutters	9.12	4	1.01	8.25	1.069	2.062	.223
Designers' apprentices ..	8	3	.75	1.42	.183	.473	.059
Die cutters, female	9	5	1.26	3.17	.410	.634	.070
Engineers	9	2	.50	5.99	.776	2.995	.332
Elevatorman	9.50	1	.25	1.50	.194	.150	.17
Engravers	8.26	28	7.04	102.64	13.291	3.665	.443
Engravers' apprentices...	8.41	6	1.51	3.75	.485	.625	.074
Enamel boys	9.50	4	1.01	2.00	.258	.50	.052
Feeders	9	22	5.53	34.93	4.524	1.586	.176
Feeders' apprentices	9.39	14	3.52	12.74	1.649	.91	.096
Fireman	10	1	.25	2.00	.258	2.00	.200
Helpers	9	12	3.01	7.77	1.006	.647	.071
Janitor	10	1	.25	1.33	.172	1.33	.133
Laborers	9	2	.50	4.00	.518	2.00	.222
Lithographers	8	5	1.26	16.50	2.136	3.30	.412
Lithographers' apprentice	8	1	.25	.75	.097	.75	.093
Lithographers' printers..	8	14	3.53	53.91	6.981	3.85	.481

LITHOGRAPHING & ENGRAVING—9 ESTABLISHMENTS—Con.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total per day.	Per cent.	Average.	
						Per day.	Per. hour
Numberers and stitchers	9.50	6	1.51	4.50	.582	.75	.078
Packer	9.50	1	.25	2.00	.258	2.00	.210
Packer dampner	9.50	1	.25	2.00	.258	2.00	.210
Paper dampner	9.50	1	25	.92	.119	.92	.095
Paper cutters	9	8	2.01	15.51	2.008	1.938	.215
Paper handlers	9	4	1.01	5.67	.734	1.417	.157
Paper joggers	9	2	.50	3.00	.388	1.50	.166
Photo engravers	9	2	.50	7.84	1.015	3.92	.435
Photo engravers' ap'tices	9	7	1.76	5.18	.671	.74	.082
Photo artists, wood	9	8	2.01	31.69	4.103	3.961	.440
Press boys	9	39	9.80	24.84	3.216	.636	.070
Press feeders	9	11	2.77	17.20	2.227	1.563	.173
Pressmen	9.04	47	11.81	131.07	16.972	2.788	.308
Pressmen, apprentices	9	16	4.02	10.25	1.327	.64	.071
Proofer	9	1	.25	2.50	.323	2.50	.277
Rulers	9.50	2	.50	4.66	.603	2.33	.245
Stenceler	9	1	.25	1.17	.152	1.17	.130
Stencelers, female	9	2	.50	1.50	.194	.75	.0 3
Stone grinders	8.70	10	2.51	19.74	2.556	1.974	.226
Transferrers	9.08	29	7.28	97.65	12.644	3.37	.371
Transferrers' apprentices	9.16	6	1.51	4.25	.550	.708	.076
Watchman	10	1	.25	1.66	.214	.116	.116
Wood engraver	9	1	.25	3.00	.388	3.00	.333
Total and average..	8.88	398	100.00	$772.29	100.000	$1.94	$0.218
Male	8.86	354	88.94	$739.67	95.776	$2.089	$0.235
Female	9.06	44	11.06	32.62	4.224	.741	.0 1
Foreman	9.50	1	5.27	3.00	6.18	3.00	.315
Shippers	9	3	15.78	4.00	8.24	1.333	.148
Shipping clerks	9	2	10.53	4.75	9.77	2.375	.263
Stenographers, female	9.50	3	15.78	2.75	5.66	.90	.094
Total and average..	8.84	19	100.00	$48.58	100.00	$2.557	$0.289
Male	8.60	14	73.68	$41.58	85.59	$2.97	$0.345
Female	9.50	5	26.32	7.00	14.41	1.40	.147

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent.	Average Wages Per Day.			No. Persons Employed by Month.		
Classification.	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00	121	46	167	34.37	$.628	$.662	$.637	Jan	487	97.79
$ 5 00 but under 6 00	6	3	9	1.85	.92	.873	.892	Feb	498	100.00
6 00 but under 7 00	25	1	26	5.35	1.004	1.000	1.004	Mar	477	95.78
7 00 but under 8 00	18	1	19	3.90	1.22	1.250	1.222	April	487	97.79
8 00 but under 9 00	2	.....	2	.42	1.38	...	1.38	May	483	96,99
9 00 but under 10 00	21	1	22	4.52	1.512	1.500	1.511	June	494	99.20
10 00 but under 12 00	34	.....	34	6.99	1.723	....	1.723	July	486	97.59
12 00 but under 15 00	44	2	46	9.46	2.073	2.000	2.069	Aug	487	97.79
15 00 but under 20	73	1	74	15.23	3.007	2.750	3.003	Sept	488	97.99
20 00 and over	87	.....	87	17.91	4.346	...	4.346	Oct	492	98.79
								Nov	488	97.99
Total	431	55	486	100 00	$2.122	$.809	$1.968	Dec	482	96.79
								Ave	487	97.79

PRINTING AND PUBLISHING—17 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons		Wages.			
		Number.	Per cent.	Total per day.	Per cent	Average.	
						Per day	Per hour.
Apprentices	9	2	1.47	$0.83	.322	$0.415	$0.461
Bindery worker	9	1	.74	.41	.159	.410	.455
Bindery workers, female.	9	11	8.09	7.71	2.987	.700	.777
Compositors	8.54	42	30.88	111.92	43.373	2.664	.311
Compositors, female	9	2	1.47	2.00	.775	1.00	.111
Designer	9	1	.74	2.00	.775	2.00	.222
Engineer	10	1	.74	1.50	.583	1.50	.150
Editors' clerks	9	12	8.82	36.08	13.983	3.006	.334
Editors' clerks, female..	9	4	2.94	7.25	2.81	1.812	.201
Engravers	9	4	2.94	10.75	4.166	2.687	.298
Helpers	9.14	7	5.14	5.25	2.035	.75	.082
Linotypist	9	1	.74	3.00	1.163	3.00	.333
Makers-up	9	9	6.62	8.67	3.36	.963	.107
Paper cutters	9	4	2.94	7.82	3.031	1.955	.217
Pressmen	9	12	8.82	25.19	9.758	2.099	.233
Press feeders	9	18	13.23	18.99	7.36	1.055	.117
Printers	10	4	2.94	7.00	2.713	1.75	.175
Teamster	9	1	.74	1.67	6.47	1.67	.183
Total and average..	8.90	136	100.00	$258.04	100.00	$1.879	$0.211
Male	8.89	119	87.50	$241.08	93.427	$2.025	$0.227
Female	9	17	12.50	16.96	6.573	.997	.110

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent.	Average Wages Per Day.			No Persons Emp. by Month.		
Classification.	Male.	Female.	Total		Male	Female	Total	Month.	No	Range.
Under $5 00	52	30	82	23.63	$.57	$.57	$.57	Jan.	314	95.44
$ 5 00 but under 6 00..	11	6	17	4.90	.87	.91	.885	Feb..	316	96.05
6 00 but under 7 00..	14	4	18	5.19	1.016	1.02	1.018	Mar	321	97.51
7 00 but under 8 00..	9	2	11	3.17	1.236	1.17	1.225	April.	318	96.66
8 00 but under 9 00..	7	1	8	2.31	1.40	1.35	1 393	May..	325	98.78
9 00 but under 10 00	22	....	22	6.34	1.513	.....	1.513	June..	309	93.92
10 00 but under 12 00..	31	5	36	10.37	1.725	1.72	1.725	July..	310	94.23
12 00 but under 15 00..	26	1	27	7.78	2.045	2.00	2.02	Aug...	318	96.66
15 00 but under 20 00..	81	3	84	24.21	2.838	3.00	2.844	Sept..	329	100.00
20 00 and over.....	42	....	42	12.10	3.73	.....	3.73	Oct.	327	99 39
								Nov .	322	97.87
Total.....	295	52	347	100.00	$2.025	$.997	$1.879	Dec...	323	98.18
								Ave...	319.3	97.05

MISCELLANEOUS—17 ESTABLISHMENTS.

Table A—Showing by occupation, classes, hours of work per day, number and proportion of persons employed, total wages and proportion of wages paid and average wages per day and per hour in each occupation for that portion of the industry reporting employes in detail.

Occupation.	Average hours per day.	Persons.		Wages.			
		Number.	Per cent.	Total. per day.	Per cent	Average.	
						Per day.	Per hour.
Coopers	10	5	1.21	$15.00	1.184	$3.00	$0.300
Gardeners	10	5	1.21	8.84	.698	1.768	.176
Laborers	11.52	388	93.72	1,213.38	95.738	3.127	.271
Machinist	10	1	.24	2.50	.197	2.50	.2 0
Plater	10	1	.24	1.25	.099	1.25	.125
Polishers	9.50	6	1.45	12.25	.966	2.061	.216
Repair men	10	4	.97	8.00	.631	2.00	.20
Teamsters	10	3	.72	5.01	.395	1.67	.167
Utility man	10	1	.24	1.17	.092	1.17	.117
Total and average..	11.39	414	100.00	$1,267.40	100.00	$2.23	$0.195
Bookkeeper, female	9	1	.61	$1.10	$0.849	$1.10	$0.122
Clerks, female	10	148	90.80	101.32	18.197	.657	.068
Foremen	10	9	5.52	20.10	15.513	2.233	.223
Stenographers, female ..	10	5	3.07	7.05	5.481	1.41	.141
Total and average..	9.99	163	100.00	$129.57	100.00	$0.795	$0.079
Male	10	9	5.52	$20.10	15.513	$2.233	$0.223
Female	9.99	154	94.48	109.47	84.487	71	.071

Table B—Showing number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment for *all* establishments reporting either as to wages and employes, in detail, or classified weekly earnings.

Classification of Weekly Earnings.	No. of Persons.			Per cent.	Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female.	Total		Male	Female.	Total	Month.	No.	Range.
Under $5 00..	35	159	194	14.50	$.75	$.646	$.647	Jan...	886	63.79
$ 5 00 but under 6 00..	13	3	16	1.19	.90	.90	.90	Feb ..	877	63.14
6 00 but under 7 00..	126	21	147	10.99	1 900	1.011	1.010	Mar ..	988	71.13
7 00 but under 8 00..	109	7	116	8.64	1.238	1.283	1.245	April..	1,309	94 24
8 00 but under 9 00..	69	4	60	4.79	1.353	1.34	1.352	May...	1,272	91.58
9 00 but under 10 00..	233	2	235	17.5	1.510	1.50	1.51	June .	1,318	94.89
10 00 but under 12 00..	94	1	95	7.10	1.693	1.70	1.694	July ..	1,269	91 36
12 00 but under 15 00..	101	.....	101	7.55	2.025	....	2.025	Aug	1,244	89.56
15 00 but under 20 00..	55	.....	55	4.12	2.83	.....	2.83	Sept..	1,291	92.94
20 00 and over.....	315	.....	315	23.55	3 60	.....	3.60	Oct..	1,389	100.00
								Nov .	1,352	97.34
Total	1,141	197	1,338	100.00	$3.043	$.71	$2.421	Dec ..	1,248	89.85
								Ave...	1,204	86.69

SUMMARY TABLE.

Showing for 59,743 employes in all industries and occupations number of persons, male and male, employed in each occupation class, the hours of work per day and average wages day and per hour.

SUMMARY OF 57 OCCUPATIONS.

Occupation.	Total Persons.		Total Hours.		Total Wages Per Day.		Average Hours Per Day.		Average Wage Per			
									Day.		Hour	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	F
Blacksmiths	485	.....	4,823.50	.....	$1,144 03	.....	9.94	...	2.358	.....	.237	..
Boiler makers	156	.....	1,552.00	.....	361 49	.....	9.94	...	2.317	.....	.233	..
Book keepers	20	17	202.00	157.50	35 58	$19 59	10.10	9 26	1.779	1.150	.176	.
Box makers	284	254	2,438.00	2,383.00	494 98	190 16	8.58	9.38	1.743	.749	.203	.
Butter makers	40	.....	280.00	.....	77 85	.....	9.50	.....	1.946	.....	.204	..
Candy makers	117	349	1,170.00	3.490.00	231 02	211 74	10.00	10.00	1.974	.606	.197	.
Carders	16	66	160.00	660.00	19 17	49 13	10.00	10.00	1.199	.744	.120	.
Carpenters	1,351	.....	13,158.33	.....	2,945 05	.....	9.73	.....	2.179	.....	.223	..
Cigar makers	465	29	3,854.00	245.00	998 07	43 87	8.28	8.45	2.146	1.512	.259	.
Clerks	108	17	1,079.09	171.00	217 60	15 75	9.99	10.05	2.015	.926	.201	.
Core makers	244	54	2,426.75	540.00	445 95	42 17	9.94	10.00	1.827	.781	.183	.
Cutters	402	59	3,903.00	592.00	791 78	59 68	9.70	10.03	1.969	.859	.203	.
Electricians	92	.....	866.50	.....	205 24	.....	9.41	.....	2.231	.....	.237	..
Engineers	472	.....	4,805.00	.....	1,151 02	.....	10.18	.....	2.439	.....	.239	..
Finishers	732	180	7,247.16	1,783.00	1,255 97	155 54	9.90	9.90	1.715	.863	.173	.
Firemen	422	.....	4,470.50	.....	807 93	.....	10.59	.....	1.914	.....	.180	..
Foremen	627	29	6,310.00	278.00	1,746 45	35 58	10.06	9.58	2.785	1.226	.276	.
Helpers	5,789	1,214	57,714.66	12,077.00	7,691 87	956 66	9.97	9.94	1.326	.788	.133	.
Knitters	15	993	142.00	9,561.00	37 57	846 00	9.46	10.0	2.504	.852	.233	.
Laborers	14,097	686	142,019.83	6,968.00	21,796 69	581 20	10.07	10.15	1.546	.848	.153	.
Lumbermen	13	.....	130.00	.....	18 80	.....	10.00	.....	1.446	.....	.144	..
Machine tenders	3,254	384	32,448 50	3,555.00	9,015 91	387 47	9.96	9.25	2.777	1.008	.278	.
Machinists	2,458	.....	24,393.41	.....	6,024 55	.....	9.92	.....	2.451	.....	.247	..
Malsters	102	.....	1,014.00	.....	2 9 31	.....	9.04	.....	2.052	.....	.206	..
Masons	52	.....	437.00	.....	159 70	.....	8.40	.....	3.071	.....	.365	..
Millers	126	.....	1,267.00	.....	267 07	.....	10.05	.....	2.119	.....	.210	..
Millwrights	154	.....	1,509.00	.....	395 84	.....	9.79	.....	2.570	.....	.262	..
Moulders	2,011	.....	19,956.50	.....	4,933 48	.....	9.92	.....	2.454	.....	.247	..
Packers	282	288	2,755.50	2 674.50	428 33	225 54	9.77	9.28	1.518	.783	.155	.
Painters	654	1	6,476.00	10.00	1,252 44	1 33	9.90	10.00	1.915	1.330	.193	.
Piece workers	15	169	150.00	1,643.00	24 60	153 10	10.00	9.72	1.640	.905	.164	.
Plumbers	23	.....	204.00	.....	78 00	.....	8.87	.....	3.391	.....	.382	..
Printers	6	.....	48.00	.....	11 49	.....	8 00	.....	1.915	.....	.239	..
Quarry hands	397	.....	3,925.00	.....	733 46	.....	9.88	.....	1.847	.....	.186	..
Salesmen	16	.....	151.50	.....	34 82	.....	9.46	.....	2.176	.....	.230	..
Sash makers	2	.....	20.00	.....	4 50	.....	10.00	.....	2.250	.....	.225	..
Sausage makers	122	.....	1,220.00	.....	221 59	.....	10 00	.....	1 816	.....	.181	..
Sawyers	361	.....	3,641.00	.....	980 15	.....	10.08	.....	2.715	.....	.269	..
Seamsters	111	611	1,003.00	6,111.00	178 80	609 05	9.03	9.53	1.610	.950	.178	.
Shipping clerks	221	7	2,210.33	69.50	378 94	11 19	10.00	9.93	1.714	1.598	.171	.
Sorters	156	122	1,549.00	1,148.00	271 33	131 92	9.92	9.40	1.739	1.081	.175	.
Stenographers	4	28	37.00	236.50	5 75	38 58	9.25	8 44	1.437	1.377	.155	.
Strippers	75	123	632.00	1,023.00	47 10	65 75	8.42	8.31	.628	.534	.075	.
Structural workers	176	.....	1,760.00	.....	297 80	.....	10.00	.....	1.692	.....	.169	..
Tailors	20	19	200.00	190.00	43 02	18 16	10 00	10.00	2.151	.955	.215	.
Teamsters	821	.....	8,202.50	.....	1,470 06	.....	9.99	.....	1.790	.....	.179	..
Trimmers	155	174	1,547.66	1,737.00	278 27	204 07	9.98	9.98	1.794	1.172	.179	.
Upholsterers	122	16	1,220.00	160.00	232 96	9 09	10.00	10.00	1.939	.568	.191	.
Wagon workers	26	.....	212.00	.....	58 55	.....	8.15	...	5.251	.....	.276	..
Waiters	1	2	10.00	20.00	67	1 30	10.00	10.00	.670	.650	.067	.
Watchmen	257	.....	2,836.00	.....	442 16	.....	11.01	....	1.720	.....	.156	..
Weavers	48	55	480.00	550.00	134 69	78 72	10.00	10.00	2.806	1.434	.280	.
Wheelwrights	37	.....	370.00	.....	77 70	.....	10.00	.....	2.100	.....	.210	..
Woodsmen	695	.....	7,250.00	.....	1,101 25	.....	10.43	.....	1.584	.....	.151	..
Woodworkers	408	.....	4,070.00	.....	723 18	.....	9.97	.....	1.772	.....	.177	..
Wrappers	24	45	240.00	430.00	19 57	26 09	10.00	9.55	.815	.579	.081	.
Yardmen	181	....	1,915·00	.....	323 78	.....	10 13	.....	1.713	.....	.169	..
Total	39,528	6,021	394,213 13	58,463.00	73,337 98	5,159 43	9.97	9.70	1.855	.856	.186	.

SUMMARY OF 324 OCCUPATIONS.

Other occupations	11,286	2,908	110,083.31	27,825.50	18,709_00	2,302 90	9.75	9.56	1.657	.791	.169	.

SUMMARY TABLE.

Showing for the 51 leading industries and 1,079 establishments, amount and form of capital invested, value of raw material and supplies consumed, wages and salaries paid and value of products.

Capital Invested.			Value of Product and Expenses.		
Classification.	Total amount.	Per cent.	Classification.	Total amount.	Per cent.
Land	$21,730,718 89	.....	Raw material used	$114,977,290 99	.....
Buildings	19,790,357 02	.....	Other supplies	14,793,963 72	.....
Machinery, etc	23,449,729 41	.....	Wages	36,569,188 64	.....
Material on hand, cash and other capital	72,895,037 02	.....	Salaries	8,283,171 00	.....
			Other items	48,831,857 36	.....
Total	$137,865,842 34	.....	Value of product	$223,455,471 71	.....

SUMMARY TABLE.

Showing for 51 leading industries and 1,079 establishments, number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months, and the range of employment in leading industries.

Classification of Weekly Earnings.	No. of Persons.				Average Wages Per Day.			No. Persons Emp. by Month.		
Classification.	Male.	Female	Total	Per cent.	Male.	Female.	Total	Month.	No.	Range.
Under $5 00	4,216	6,647	10,863	12.10	$.678	$.671	$.673	Jan	76,695	94.55
$ 5 00 but under 6 00	1,554	1,527	3,081	3.43	.899	.868	.881	Feb	77,397	95.41
6 00 but under 7 00	3,453	1,901	5,354	5.96	1.037	1.011	1.027	Mar	78,644	96.95
7 00 but under 8 00	5,200	573	5,773	6.43	1.255	1.245	1.254	April	80,436	99.16
8 00 but under 9 00	4,848	198	5,046	5.62	1.379	1.382	1.379	May	81,118	100.00
9 00 but under 10 00	19,745	404	20,149	22.50	1.543	1.512	1.542	June	80,417	99.15
10 00 but under 12 00	15,013	170	15,183	16.92	1.771	1.741	1.771	July	81,011	99.87
12 00 but under 15 00	13,312	123	13,435	14.96	2.136	2.062	2.135	Aug	80,969	99.81
15 00 but under 20 00	8,874	32	8,906	9.92	2.731	2.684	2.731	Sept	79,470	97.97
20 00 and over	1,941	3	1,944	2.16	4.550	3.625	4.549	Oct	78,676	96.99
								Nov	76,443	94.24
Total	78,156	11,578	89,734	100.00	$1.811	$.835	$1.665	Dec	72,837	89.79
								Ave	78,676	96.98

SUMMARY TABLE.

Showing for all industries reported, and 1,245 establishments, number of persons, male and female, and total number and proportion in each class of employes, classified by weekly earnings received, together with the average wage per day received in each class and the total number of persons employed by months and the range of employment in all industries and all establishments reported.

CLASSIFICATION OF WEEKLY EARNINGS.					AVERAGE WAGES PER DAY.			NO. PERSONS EMP. BY MONTH.		
Classification.	No. of Persons.			Per cent.						
	Male.	Female.	Total		Male.	Female.	Total	Month.	No.	Range.
Under $5 00	4,450	7,095	11,545	11.97	$.676	$.669	$.671	Jan ..	81,556	93.27
$ 5 00 but under 6 00	1,590	1,604	3,194	3.31	898	.868	.880	Feb...	82,058	93.78
6 00 but under 7 00	3,676	2,213	5,889	6.20	1.037	1.015	1.027	Mar...	83,455	95.37
7 00 but under 8 00	5,425	665	6,090	6.32	1.255	1.243	1.253	April .	86,326	98.65
8 00 but under 9 00	4,967	218	5,185	5.37	1.379	1.378	1.379	May. ,	87,499	100.00
9 00 but under 10 00	20,338	420	20,758	21.52	1.542	1.512	1.542	June..	87,045	99.47
10 00 but under 12 00	16,541	180	16,721	17.34	1.770	1.737	1.769	July ..	87,330	99.79
12 00 but under 15 00	14,578	134	14,712	15.25	2.131	2.057	2.131	Aug...	87,220	99.67
15 00 but under 20 00	9,634	39	9,673	10.03	2.732	2.693	2 732	Sept...	85,695	97.93
20 00 and over	2, 98	3	2,601	2.69	4.375	3.625	4.374	Oct. .	85,008	97.15
								Nov. .	82,629	94.43
Total	83,797	2,571	96,368	100.00	$1.828	$.841	$1.676	Dec...	78,500	89.71
								Ave.	84,527	96.60

SUMMARY.

Hours of Labor per Day.—The exact average number of hours of labor per day in the manufacturing industries is obtainable only for those establishments reporting in detail. The number of employes for which detailed returns were received amounted to 59,743 persons, or a little over 62 per cent. of the total number of all employes reported, both as to wages in detail and as to classified weekly earnings. Of the 59,743 employes reported in detail, 50,814 were male and 8,929 female persons. There were represented in all 381 occupations. Of these, 57 occupations embraced 45,549 persons, or about 76 per cent of all persons reported in detail. For 39,528 male persons in the 57 leading occupations the average number of hours labor per day was 9.97. For 6,021 female employes in 28 leading occupations the average was 9.7 hours per day. For all male employes in all occupations the average number of hours work per day was 9.91 hours. For all female employes in all occupations the average was 9.64 hours. For all persons, male and female, in all occupations the average was 9.87 hours work per day. For male workmen in manufacturing the 10-hour day is almost the universal rule. Notable exceptions in favor of shorter hours are: box makers, cigar makers, masons, plumbers, printers, and wagon makers, while longer hours are reported on the average for engineers, firemen, woodsmen and yardmen. Among female employes, hours of labor average about 16 minutes or 3 per cent less than among male employes. While the hours of labor for female employes are somewhat shorter than for males, the 10-hour day is almost as nearly universal for the former as for the latter.

Number of Persons Employed.—The total number of persons employed by all establishments reporting as to wages in detail or classified weekly earnings in the 51 leading industries was 78,156 male and 11,578 female, or 89,734 both male and female. The total number for which wages were reported in detail or in classified earnings for all industries was 83,797

males and 12,571 females, or 96,368 including both male and female employes. The total number of establishments reporting in the 51 leading industries was 1,079, and in the 9 lesser industries 166 establishments, making the total number of establishments reporting in all industries 1,245.

Rate of Wages.—The average wage per day for male persons in 57 leading occupations reported in detail was $1.855, and for female persons in 28 leading occupations reported in detail was $0.856. For all male employes reported in detail the average wage per day was $1.808, and per hour 18.16 cents. For all female employes reported in detail the average wage per day was $0.834 and 8.6 cents per hour. For all persons both male and female as reported in detail the average was $1.66 per day, and 16.75 cents per hour.

For all male employes reported as to wages in detail or classified weekly earnings the estimated average daily wage was $1.828, and for all female employes $0.841. For all employes, both male and female, reported as to wages in detail or as to classified weekly earnings the estimated average wage per day was $1.676.

By occupations, the highest average wage reported in detail among leading occupations for male employes was for plumbers at $3.391 per day and 38.2 cents per hour; the lowest, for strippers at $0.628 per day and 7.5 cents per hour. The highest average rate for any leading occupation for female employes was $1.598 per day and 16.0 cents per hour, received by shipping clerks; the lowest $0.534 per day and 6.4 cents per hour, received by strippers.

Classified Weekly Earnings.—Of the 96,368 employes reported in all weekly earnings classes, 83,797 or about 84 per cent were male employes. Of all male employes the largest number in any single class was found in the class receiving $9.00 but under $10.00 per week. The number in this class was 20,338 or about 24 per cent of all male employes. Of the female employes the largest number in any single class was found in the class receiving less than $5.00 per week. The number of female employes receiving weekly earnings of less than $5.00 per week was 7,095 or over 56 per cent of all female employes reported.

Of all employes, both male and female, the largest class was 20,758, or 21.5 per cent of the total, receiving weekly earnings of $9.00 but less than $10.00 per week. The second largest class was 16,721, receiving $10.00 but less than $12.00 per week. The third class in size embraced 14,712 employes, receiving $12.00 but less than $15.00 per week. These three classes receiving wages between $9.00 and $15.00 per week embraced in all 52,191 employes or about 54 per cent of all employes reported. The largest number of employes in any remaining class was 11,545 or nearly 12 per cent of all classes, in the class receiving less than $5.00 per week.

Range of Employment.—The returns for 1,245 manufacturing establishments for the year 1903 show a fairly constant condition of employment for that year. The highest number employed at any one time was 87,499 persons, which was the average number employed in the month of May. The smallest average number employed for any month was 78,500 in December. The average for the year was 84,527 persons or 96.6 per cent. of the number employed in May. If the number employed in May be considered to represent the condition of full employment, or 100, it is found that the lowest range of employment, i. e., December, is 89.71, representing the maximum range of unemployment as only 10.29. For all other months the range of employment is over 93. For eight months the range of employment stood above 95. For seven months it stood above 97. For five months it stood above 98, and for four months, May, June, July and August, the range of employment was from 99.47 to 100, or a condition of practically full employment prevailing through four months. During the seven months from April 1st to November 1st the average range of employment was 98.95, or nearly 99 per cent full employment.

DISTRIBUTION AND GROWTH OF MANUFACTURING INDUSTRIES.

Manufacturing in Wisconsin has in recent years been marked by very rapid and substantial growth. This progress has been in all respects such as henceforth to remove most branches of our manufactures from the category of experiment. That Wisconsin is even now the home of a vast manufacturing industry and that the development of the possibilities is still in its first beginnings are facts equally obvious to the student of industry. The lack of more general appreciation of these facts is due not so much to a want of figures and information as to lack of *availability* of the information. In the first place, facts necessary to a view of the situation in its proper perspective have not been brought together for that purpose. They are scattered and must be sought out in various sources such as census reports, labor and industrial reports and industrial journals, etc. The labor of bringing together and compiling such facts and statistics requires some special ability and often more time than is at the disposal of all persons who may have use for the information. Moreover, our study is one requiring statistical methods at almost every step and there is supposed to be a somewhat generous popular distaste for figures and statistics. These considerations contribute the principal causes why there is not manifest in our public press, in our public schools, in our legislatures and municipal councils and among the public generally in Wisconsin and the investing public everywhere a more general and better appreciation of the nature and importance of our manufacturing present and future—the solid magnitude of the beginnings already achieved and almost infinite possibilities yet to be developed. It is with this situation in mind and the purpose to ameliorate it in a slight degree that the following pages are

prepared. It is hoped that the facts and statistics here brought together with deductions therefrom and conclusions offered may, in a general way at least, afford a basis for intelligent investigation and judgment of the industrial situations relating to manufactures in Wisconsin.

Statements of fact which follow in this relation, as well as the tables and statistics, are gathered from reliable sources and generally accepted authorities. Chief among these are the federal census, which furnishes figures for the main groundwork of this study, and the reports of the Bureau of Labor and Industrial Statistics of this state. With reference particularly to the lumber industry, the American Lumberman which, as an industrial journal, stands in a class by itself in point of gathering statistics, has furnished valuable statistical data. The matter of arrangement and relationship of the various facts and figures to bring out their true significance is, of course, a part of the task of compilation and it is believed it has been accomplished in a manner such as to give reasonably correct proportions and values in all important instances. Such conclusions or deductions as are offered in the textual part of the statement are only a part of the significance of the tables translated from figures to script. They do not attempt to exhaust the information in the tables which follow, but rather to serve as illustrations or examples of the manner in which that information may be read from the figures themselves.

Inasmuch as the federal census must afford the principal statistical data for our study, the time period particularly considered is properly the last census decade. In studying the importance, distribution, etc., of manufactures the measure generally here used is the gross value of products as reported in the federal census. While it is realized that the product basis is far from what might be desired, it is accepted as offering fewer objections than others that might be adopted. Net products would be much better than gross products, but the eleventh census does not give figures from which it can be computed. Caution must particularly be exercised in the comparison of different industries on this basis. The natural tendency will be to give undue importance to those industries

engaged in the more elaborative or finishing process and which receive their materials in more or less advanced stage of manufacturing, such as sash and door manufacturers, etc., and also to those industries in which the cost of raw materials constitute a relatively large proportion of the value of the product, such as meat packing, flour milling, etc. Dr. Frederick S. Hall of the census department in a special report on the 'Localization of Industries" used the product or output basis for his article, and makes the following passing comment: "Caution is needed at several points in interpreting these tables. In the first place, practically all of the statistics given relate solely to the value of products, since this is in most cases the best single index of the relative importance of an industry in several localities. It will be readily seen, however, that even this is a defective unit of measure in so far as the materials used in an industry in one section are more expensive than those used in the same industry in another section." Within the limits of a single state this objection would hardly be valid. Provided the classification of the industry at two points was identical the materials used would be of about like kind and quantity, and the difference in the cost would hardly be more than a question of transportation between the two points. In a general way, the value of products will measure the distribution of the manufacturing industries in the state and indicate their importance and rate of growth. It is when we come to comparisons between different industries that the danger of misinterpretation becomes real. Even here it will probably be found that value of products form a basis sufficiently accurate for our purposes except in extreme types of industries of the two classes above named.

The important divisions into which the subject matter of this relation is self-divided and the order in which they are considered is as follows:

First. Manufacturing generally in Wisconsin and its distribution by counties at censuses of 1890 and 1900. Some special reference to the lumber industry is necessary at this point owing to its dominant importance in some localities and its migratory condition.

Second. Study of manufacturing in the state as a whole

by specific industries with reference to relative importance and growth in the last census decade.

Third. Manufacturing industries in cities of La Crosse, Milwaukee, Oshkosh and Racine, 1890 and 1900, and in cities of Sheboygan and Superior at census of 1900, with some reference to localization.

Fourth. Urban manufactures in Wisconsin towns and cities of less than 20,000 population and manufactures outside of the towns and cities reported in the census under "Urban Manufactures."

Fifth. General resume of facts and conclusions and some more recent estimates.

MANUFACTURING GENERALLY AND DISTRIBUTION BY COUNTIES.

In the last census bulletin on manufactures in Wisconsin, Mr. North makes the following statement. "The remarkable growth of manufactures in Wisconsin is to be attributed to an abundant supply of materials and excellent market facilities. Manufacturing is not concentrated in a few localities but is distributed throughout the state. Six large rivers—the Menomonee, St. Croix, Chippewa, Wisconsin, Fox and Wolf—with many smaller streams, and nearly two thousand fresh water lakes in the northern part of the state, afford enormous water power as yet only partially developed. On the western boundary of the state are 250 miles of navigable river, while the Great Lakes extend for more than 400 miles along the northern and eastern borders. On the shores of Lake Michigan and Green Bay are 11 important manufacturing cities all accessible to lake going vessels; and the cities of Ashland and Superior, on Lake Superior, are large and growing manufacturing centers. In 1900 Wisconsin had 6,351 miles of railroads, which have contributed to the development of agriculture and manufactures."

For Wisconsin manufactures these two factors, raw materials and market facilities, have been far more important than all others combined. By far the most important of the materials with which the state is by nature endowed is its for-

ests. The magnificent forests of Wisconsin have given her the father of her manufactures, the lumber industry. This industry, at some time or other, carried on over an area comprising easily two-thirds of the state has everywhere, in passing left behind young industries of more varied and permanent character. The most important of this natural material in the manufacturing history of Wisconsin is better appreciated when one realizes that in 1890 the sawed lumber product alone constituted 20.97 per cent of the total output of our manufactures and 15.97 per cent in 1900. Then recall that this product is merely rough lumber, raw material for dozens more of our most important industries, planing mills, sash and door manufactures, box and veneer factories, carpenter shops, car shops, cooperage, furniture and refrigerator factories, agricultural implements and wagon stock manufactures, etc., etc. These same forests furnish the pulp wood which has given us our great paper and pulp industry and the bark for our tanneries. The demand for machinery and appliances to be used in all the stages of manufacture from the forest to the finished article was a powerful impetus in the establishment of foundries and machine shops and the growth of manufacturing towns throughout the state wherever materials were available or could be easily brought or when market facilities were good, was instituted and fostered. With the growth of manufacturing centers comes diversity of manufacturing industries and with diversity comes solidity and permanence.

Market facilities for Wisconsin products is primarily a question of transportation. Transportation also enters in a most vital way into the conduct of manufacturing. The great burden bearers of our lumber industry in the past, and to a less degree at present, have been the streams and lakes and ponds on whose banks the timber grew. Our forest streams brought the logs to the mill and then drove the machinery that cut it into lumber. Modern developments have changed conditions. Steam is principally used now and the trees have been cut away from the waters' edge so far that logging railroads are indispensable to logging operations. But the importance of the log-drive and the mill stream can never be overestimated in the history of Wisconsin lumbering. With-

out them the industry and industrial development which depended upon it would be many years behind what they are today.

The Great Lakes and navigable rivers furnish cheap transportation facilities in Wisconsin. Especially is lake transportation important in connection with bulky, heavy commodities such as lumber, coal and iron. The value of river transportation is not so much what they carry as what they might carry. While not a great proportion of our freight is carried on these streams, they are still of much value as rate regulators, making it impossible for carriers to charge more than water rates between points connected by water. The railroad transportation facilities of Wisconsin are nowhere excelled. Even the almost unsettled districts in remote parts of the state have been penetrated by lines of railroad in search of lumber traffic. Most of the innumerable undeveloped water powers of the northern part of the state are accessible by railroad for manufacturing purposes. Extensions are made whenever business demands warrant. With the transportation problem minimized, the raw material at hand, and water power unlimited, who can say where the manufacturing greatness of Wisconsin will stop.

In 1890 the gross output of manufacturers in Wisconsin amounted to $248,456,164, and in 1900 to $360,818,942, an increase for the ten years of 45.2 per cent. In the same time the capital invested increased from $246,515,404 to $330,568,779, or 34.1 per cent; materials used, from $145,437,016 to $208,838,167, or 43.6 per cent; average number of wage earners employed, from 120,006 to 142,076 or 18.4 per cent and wages paid, from $42,958,267 to $58,407,597 or about 36 per cent. The greatest number of persons employed in manufactures in the last census year was nearly ten (9.4) per cent of the total population.

Milwaukee county produced 39.67 per cent of the state's manufactures in 1890 and 38.87 in 1900. The rate of increase in the census decade in Milwaukee county was about 45 per cent, or a small fraction less than for the state as a whole.

No other county produced as high as five per cent of the state's total. Racine stood next with 4.33 per cent in 1900 as compared with 3.61 per cent in 1890. The increase, 74 per cent, being much greater than for the state as a whole.

Winnebago county had an output of 3.84 per cent of the total in 1900. In 1890 this county produced 5.15 per cent of the state's output but although there was absolute increase of 7 per cent in the manufacturing products of Winnebago county in the census period the county lost rank because of the more rapid growth of the rest of the state.

The counties each producing two to three per cent of the state's manufactures in 1900 were Douglas, Kenosha, La Crosse, Marathon, Outagamie, Rock and Sheboygan. With the exception of La Crosse and Marathon all of these counties show increases more rapid than the state as a whole. La Crosse had practically no increase while Marathon had only an increase of 27 per cent.

The remaining counties in this class all had large percentages of increase and corresponding advances in rank. For Douglas county the per cent of increase was 217 per cent, Kenosha 195 per cent, Outagamie 60 per cent, Rock 95 per cent, and Sheboygan 290 per cent, which is the highest increase shown by any county in the state producing over .41 per cent of the state's output. Sheboygan county produced .99 per cent of the total in 1890 and 2.67 per cent in 1900.

Thirteen counties in the state produce between one and two per cent of the total product of manufactures for the state. Thirteen more produce .50 to 1 per cent. The remaining 34 counties produce less than .50 per cent each.

Ashland, one of the thirteen counties each producing 1 to 2 per cent of the total product of the state, was divided during the census period by the creation of Iron county out of its territory. If by addition of Iron county in 1900 Ashland county be reconstructed as it was in 1890 there will be an increase of 97 per cent or over twice as high a rate as for the state as a whole. Another county in this list shows a high rate of increase, Manitowoc, with 116 per cent increase. Of the remaining eleven, four show increases higher than that of

the state as a whole. Five show increases less than the average and two show absolute decreases of 35 and 4 per cent respectively.

Of the counties producing less than 1 per cent each of the total product of the state in 1900, nineteen more than doubled their manufacturing output in the census decade. Eleven others show an increase higher than the state as a whole and eight show less increases. While for the remaining nine counties in this class there were decreases in the product of 1900 as compared with 1890.

The twenty-two counties, exclusive of Milwaukee county, which in 1900 produced over 1 per cent each of the state's manufactured products, produced in the aggregate 44.04 per cent of the total. This added to the output of Milwaukee county gives 82.91 per cent of the total produce of the state produced in twenty-three of the seventy counties in the state. The remaining forty-seven counties produce, therefore, only a small fraction over 17 per cent of the product of the state's manufactures.

Of the twenty-three counties producing 82.91 per cent of the state's manufactured products, ten are on the shores of the Great Lakes and Green Bay. These ten counties contribute 58.25 per cent of the total output. Three more of the counties in this list are located in the Fox River valley and contribute 8.31 per cent of the total. Two more are in the Chippewa valley and contribute 2.8 per cent of the product of the state. One, La Crosse county, is on the Mississippi river and produces 2.72 per cent of the total. The seven counties remaining are in the interior of the state and form two decided and compact groups. The first group, composed of Dane, Dodge, Jefferson and Rock, are all contiguous for a considerable portion of their boundaries and form the central section of the southern three tiers of counties in the state. This group of counties produced 6.4 per cent of the total manufacturing output of the state. The other group of interior manufacturing counties form a compact north and south section in the middle of the upper Wisconsin valley and produce 4.43 per cent of the state's total output.

It appears from this that, while, as Mr. North says, our manufacturing is distributed through the state," the distribution is not by any means even. The foregoing paragraph studying the location and relationship of the leading manufacturing counties brings out most forcibly the fact that there are parts of the state much more intensely manufacturing than others and suggests a more careful examination of those sections which appear to have somewhat the same industrial conditions or some important common industrial factor.

The Great Lakes (including Green Bay), with their cheap transportation facilities, are common factors in the industrial growth of fifteen counties. By examination it appears that these fifteen counties in 1890 produced manufactures to the value of $138,627,987 or 55.77 per cent of the total product of the state. In 1900 their produce was valued at $217,963,265, or 60.41 per cent of the total for the entire state. The increase for these counties as a group was 57 per cent for the period, as compared with an increase of 29 per cent for the rest of the state.

Four of the fifteen lake shore counties are on Lake Superior. Together these counties produced, in 1890, 3.66 per cent of the state's output; while in 1900 they produced 5.67 per cent. They show an increase for the census decade of 125 per cent.

If to the fifteen lake shore counties we add the four counties in the Fox River valley having direct water communication with Green Bay we will bring together the influence of lake transportation as a factor in locating industries in Wisconsin. While water power was more important in establishing industries in the Fox valley, the river as a potential carrier exerts a powerful influence in favor of manufacturing in this locality. Making this addition, we find that 68.96 per cent of the total product of manufactures in the state for 1900 were produced in the lake shore counties and those bordering on Green Bay or lying in the Fox River valley tributary to lake transportation.

In the middle of the southern part of the state there is a group of ten counties, embracing the westward bend of the Wis-

consin river and extending south to the state line, north to the Fox River valley and eastward to the tier of counties on the shore of Lake Michigan in which a very considerable and diversified manufacturing industry is carried on. This group of counties produced in 1890, 8.32 per cent of the state's manufactured products. In 1900 their output was 9.5 per cent, showing a very marked increase for this group exceeding that of the state as a whole. All the counties in this group show high increases, falling below the average for the state in only two instances.

Another group of counties of importance from a manufacturing standpoint, lies in the upper basin of the Wisconsin river. This group may be said to embrace seven counties, though one of them lies partly in the Chippewa valley and is also partly drained by the Black river. However, its manufacturing is principally tributary to the Wisconsin valley. In 1890 these seven counties produced 7.77 per cent of our total product, and in 1900, 7.04 per cent. Thus, while there was considerable growth of manufacturing in this group during the census decade, the average increase was less than for the state as a whole. In two of the counties it was greater, but in one county there was an absolute decrease of 4 per cent in the output of the manufactures.

On the Mississippi river there are two counties of manufacturing importance. One, La Crosse, has already been considered separately. The other, St. Croix, produced in 1890, 1.28 per cent of our manufactured products and in 1900, .84 per cent. Thus, St. Croix county shows a decrease for the census period of 4 per cent in its output of manufactures.

The remaining counties of manufacturing importance are three in the Chippewa valley. In 1890 the product of these three counties amounted to 5.82 per cent of the total for the state. In 1900 it was 3.39 per cent, only one of the three counties showing a small increase for the ten years. For the group as a whole there was an absolute decrease of output amounting to 14 per cent.

For convenience of statement the distribution of manufac-

tures on the basis of the foregoing paragraphs may be tabulated by groups as follows:

Group 1—Lake Shore and Fox valley, 19 counties, 68.96 per cent.

Group 2—Central Southern Wisconsin, 10 counties, 9.50 per cent.

Group 3—Upper Wisconsin River valley, 7 counties, 7.04 per cent.

Group 4—Mississippi River, St. Croix county; 1 county, .84 per cent.

Group 5—Mississippi River, La Crosse county, 1 county, 2.72 per cent.

Group 6—Chippewa valley, 3 counties, 3.39 per cent.

All groups—41 counties, 92.45 per cent.

Thus it appears that the remaining 29 counties, principally in the western and central portions of the state, produced but 7.55 per cent of the state's total of manufactured products.

The facts relative to the rate of growth of manufactures in these several groups may be summarized as follows:

Group 1—Per cent of increase, 53 per cent.

(12 counties show a higher increase than the state as a whole, 1 county practically the same as the state, four, less, and 2 show decreases.)

Group 2—Per cent of increase, 67 per cent.

(8 counties show a higher increase than the state as a whole, 2 counties less increases.)

Group 3—Per cent of increase, 30 per cent.

(3 counties show a higher increase than the state as a whole, 3 counties less, and 1 shows decrease.)

Group 4—Per cent decrease, 4 per cent.

Group 5—Per cent increase, none.

Group 6—Per cent decrease, 14 per cent.

(1 county shows increase less than average for the state, and 2 show decreases.)

Eleven counties in the state show decreases in the output of 1900 as compared with 1890. Six of these are found in the above groups. The remaining five decrease counties are scattered throughout the western and central parts of the state. A

list of these eleven counties is as follows: Barron, Buffalo, Chippewa, Crawford, Door, Dunn, Jackson, Juneau, Lincoln, Oconto, St. Croix. The manufacturing of these counties has been principally the manufacture of lumber and the decrease in their output is unquestionably due, not to undesirability or unfitness for manufacturing generally, but to the exhaustion of the timber stands.

Insomuch as it appears that the same condition is primarily the cause for the failure of groups 3, 5 and 6, above described, to keep up with the rest of the state in industrial growth, it becomes very desirable to have some definite information as to the migration of the lumbering industry in Wisconsin. The American Lumberman, industrial and trade journal, compiles and publishes each year detailed statements of the lumber cut of the white pine district, the figures for white pine going back several years. Of late years statistics of other kinds of lumber are also gathered and compiled, but as these do not go back to the eleventh census year it is impossible to make the comparison include anything but the white pine cut. This, however, is by far the most important and will afford in a general way an index of the movement of the lumber industry as affecting the manufactures of the localities to be considered. Some difficulty is found in constructing a comparative statement by counties from the Lumberman's tables since the only divisions or districts recognized in its compilation are such as are natural and peculiar to the lumber industry only. The output of the large producing points is, however, given separately throughout each of the natural divisions or districts. This enables the construction of a table showing the output of political divisions by attributing to each county the sum of the product of all points designated and located within the respective counties. The difficulty arises when we come to the output of the small scattered mills. While the individual product of such mills is usually small, their aggregate output often amounts to a considerable sum. In the Lumberman's tables the product of such mills is lumped together for each district under the heading, "Other points," and as each such district embraces several counties it is impossible to say what proportion of the output

of these "other points" should be attributed to each county in the respective years considered. In many instances, however, it seems safe to assume that the product from "other points" i. e. not designated, was a relatively small part of the output of the county and would probably bear a nearly constant ratio to the output at points designated, or the rest of the county, for the two census years.

On this basis the following table, embracing twenty-one of the lumber producing counties, about which information along this line is most to be desired, has been constructed. It is believed to be a safe basis for conclusions of a general character on the migration of the lumbering industry as affecting manufacturing generally in these parts of the state. For reasons already stated and because it leaves out of count the cut of hemlocks and hardwoods, this statement should not be considered or understood in any other connection.

CUT OF WHITE PINE LUMBER AND SHINGLES, 1889 AND 1899.

Cut at Points in Following Counties.	1889.		1899.		Per Cent. of Increase or Decrease.	
	Lumber, ft.	Shingles, M.	Lumber, ft.	Shingles, M.	Lumber, ft.	Shingles, M.
La Crosse	208,035	112,752	85,067	56,794	— 59	— 49
Crawford	15,150	6,133	.....	.....	—100	—100
Brown	40,500	27,500	43,489	10,260	7	— 63
Oconto	55,060	18,000	39,500	7,600	— 28	— 57
Marinette	249,300	56,951	192,117	110,980	— 23	95
Winnebago	98,163	55,190	54,944	37,267	— 44	— 34
Fond du Lac	11,300	1,500	2,502	.....	— 78	—100
Eau Claire	183,211	99,044	87,557	59,921	— 52	— 39
Chippewa	55,004	16,485	60,618	15,180	— 10	— 7
Dunn	87,500	68,750	89,557	54,024	1	— 27
Barron	54,600	56,180	34,750	23,096	— 36	— 51
Juneau	35,000	19,350	.....	.....	—100	—100
Wood	69,300	49,500	30,080	1,450	— 56	— 97
Portage	49,150	19,700	7,035	3,280	— 85	— 83
Marathon	145,747	53,585	156,612	16,725	7	— 68
Taylor	15,000	10,500	400	.....	— 97	—100
Lincoln	130,059	92,023	150,084	34,107	15	— 63
Ashland, Iron & Bayfield..	74,347	35,119	354,211	16,224	376	— 53
Douglas	33,750	16,000	80,690	12,085	139	— 24

—000 omitted.

In group 1, the lake shore and Fox valley counties, there are ten counties requiring examination in regard to the movement of the lumbering industry. It will be remembered that Winnebago county, in the Fox valley, while it lost rank in manufactures in the last census decade, showed an absolute increase in its manufactured product of 7 per cent. This increase was achieved in spite of a very heavy loss in lumbering, its most important industry. As shown by the table there was a decrease in this county of 44 per cent and 34 per cent in its output of pine lumber and shingles respectively. This means for manufactures generally exclusive of lumber and timber products a very much higher rate of increase than would at first appear.

The same statement holds good for Fond du Lac county which suffered the loss of almost its entire lumber manufacturing during the census period and still made a gain in its total manufactures of 38 per cent.

Brown county, also in group 1, and a heavy lumbering county shows a gain of 72 per cent in the manufactures. From the lumber cut it appears that this remarkable increase is due entirely, or nearly so, to its diversified manufactures and not to its most important or lumber industry.

In Marinette county again the increase of 32 per cent in manufactures is due primarily to the growth of new and diversified industries. It is accompanied by a loss of 23 per cent in its cut of white pine lumber and a gain of 95 per cent in shingles.

Oconto county is one of the two counties in group 1 showing a loss of manufactures in the census decade. This loss in the case of Oconto county amounted to 13 per cent. In 1890, it may be safely estimated, that lumbering was more important than all other manufactures in Oconto county. Its loss of manufactures, it is almost safe to assume, is due entirely to the exodus of the lumber industry consequent upon the exhaustion of standing saw timber in this district. The decrease in the cut of white pine amounted to 28 and 57 per cent for lumber and shingles respectively.

The other decrease county in group 1 is Door county, on the

peninsula between Lake Michigan and Green Bay. Door county shows a decrease of 10.7 per cent. While statistical evidence is lacking as to the relationship of the lumber exodus and this decrease, the general situation points to the probability of a condition similar to that in Oconto county.

The remaining lumber counties in group 1 are found on the Superior shore. Here the story is somewhat different. It will be recalled that these counties as a group show the enormous increase in manufactures of 125 per cent. Probably the most potent single impetus in this remarkable growth was the migration of the lumber industry. It comes naturally that these south shore counties as well as the north boundary counties further east, should be the last to be exploited of their timber stands. For the south shore counties this exploitation comes at a time most opportune for the upbuilding of a future most intensely industrial. While the bulk of the lumber industry is bound soon to pass, here, as it has elsewhere, these counties like Brown, Winnebago, La Crosse and other counties in the state, will come out of the transition period with industries newer, more diversified and therefore more substantial and permanent. The lumbering industry will not be missed in the volume of the output. Indeed, this region, lying, as it does at the very threshold of the richest deposits of iron ore in the known world and at the head of lake transportation has, it would appear, far better equipment for meeting with this loss than any other lumbering region in the state.

All the counties of group 2 are outside the lumbering section of the state and therefore do not come up for consideration in this connection.

Group 3 of manufacturing counties it will be remembered, lies in the upper Wisconsin valley. This is the very heart of the lumbering section of Wisconsin and all of these counties are engaged principally in the manufacture of lumber. The growth of manufacturing, however, in other lines, is in some counties apparently very marked.

Marathon county is central in this group, and from a manufacturing standpoint the most important. Its increase of 27 per cent in manufactures can hardly be attributed to lumber-

ing, since in the cut of white pine the county barely holds up its record of the eleventh census year.

In Portage, Wood and Taylor counties the growth in manufactures is accompanied by substantial decreases in lumbering and in Lincoln county, which shows a decrease, the slight decrease is accompanied by a very questionable increase in the white pine cut.

For St. Croix county the figures are not sufficiently complete to warrant any detailed statement. In a general way the same conditions appear to hold good here, except that there is probably very little or no increase in manufactures generally outside of lumbering, and the decrease in lumbering would probably about account for that in manufactures in general. As the decrease amounts to only 4 per cent, it can hardly be considered significant of anything except lack of increase.

La Crosse county is a remarkable example of the wonderful adaptability of industrial Wisconsin. La Crosse was, at the eleventh census, a very heavy producer of lumber. The bulk of the timber stand of the Black River basin was driven down to La Crosse county to be cut into lumber. Cutting away of the timber on Black River brought the white pine cut of La Crosse county down from 208 million feet of timber and 112 million shingles to 85 million feet of lumber and 56 million shingles in a single census decade. At the end of the census period, La Crosse county appears with new, larger and more diversified industries and, in spite of the transition, without a loss in output. Such a transition is unquestionably an improvement and should enable the locality in the present census period to divest itself entirely of the lumbering business and report a substantial increase in productive power.

The remaining group of our manufacturing counties presents a somewhat mixed situation. Group 6, Dunn, Eau Claire and Chippewa counties, show as a group, a decrease of 14 per cent in manufactures, and at the same time a very marked decrease in the cut of white pine lumber, the principal industry. Eau Claire county presents the anomaly of reporting all the increase for the group in manufactures generally and, at the same time, the bulk of the decrease in lumber manufacturing.

It seems more than likely that Chippewa county has suffered a much greater loss of lumber output than is here shown, if not enough to cover the heavy loss in her total manufactured product. Dunn county's loss is less and is at least partly accounted for by the falling off in the lumber industry.

It was previously noted that eleven counties report a decrease in manufacturing output at the twelfth census. All of these counties were more or less engaged in lumbering at the eleventh census. From a study of the migration of the lumber industry it is seen that in at least six of these counties, Crawford, Oconto, Dunn, Barron, Juneau and Lincoln the decrease is due almost, if not quite, entirely to the exodus of the saw mill—to the exhaustion of timber supply—and not on account of any failure or demonstrated unfitness of the several localities for manufacturing generally. In Chippewa county there is no question that to a very considerable extent the same combination of circumstances prevails. While figures are wanting for specific demonstration of the proposition, the case of the remaining four counties follows very nearly by analogy. St. Croix, Buffalo and Jackson counties are adjacent respectively to Barron county, where the situation is so clear, and the Chippewa and Wisconsin valley counties reporting heavy falling off in the lumber cut. They are, or were, primarily lumbering counties and subject to the same exhaustive exploitation as the neighboring territory and with the same results for the time being. To what extent they will retrieve their productive capacity, of course, remains to be seen. In some instances, however, there can be no question, there has already been much done. As regards the remaining decrease county, Door, the analogy has already been drawn and no further mention is here necessary.

It might be well, before taking up the consideration of specified industries, to bring together in brief summary the gist of the preceding paragraphs which constitute part first of this study.

In the first place, the remarkable growth of our manufactures is in the main due to special advantages in raw materials, transportation and water power facilities. The forests

constitute by far the greatest natural resource in the way of materials, giving us our pre-eminence in the lumber industry. The lumber industry still furnishes nearly 16 per cent of our manufactured products and part of this manufactured product in turn constitutes the source of raw material which gives us many more of our most important industries. To the timber supply are due also our paper and leather industries. Lumbering moreover, opens up the manufacturing future of the state on a broad basis and by creating local demand for machinery in the manufacture of lumber and the other lines of industry dependent on the timber products, and upbuilding manufacturing centers, fosters general industrial development tending towards diversity of industries with permanence and solidity in the industrial organization.

The state is rich in inland water powers and the navigable rivers and Great Lakes, constituting nearly two-thirds of its boundary, afford abundance of cheap transportation facilities and corresponding proximity to markets, while some interior streams are of value as regulators of transportation rates. A comparatively level topography with abundant materials for ties and road-bed make railroad building easy and the state is penetrated in all directions with over six thousand miles of the best railroad facilities.

The past census decade has witnessed enormous increases in all factors of production resulting, in 1900, in manufactured products valued at over 360 millions of dollars, an increase over the previous census of over 45 per cent. Over 38 per cent of the output comes from Milwaukee county, whose rate of increase was about the same as that of the state as a whole. The bulk of the rest of the output is distributed in 22 counties ranging in output from 1.10 to 4.33 per cent each of the total for the state and in the aggregate producing 44.04 per cent of the total. This, added to Milwaukee county, gives a total of 82.91 per cent of the state's product coming from 23 counties. Thus while a large part of our manufactures may be said to center in Milwaukee county, it is nearer correct to say that outside of this county the bulk of the manufacturing industry is distributed over about one-third of the state, in counties rang-

ing in output from about four million to fifteen million dollars each annually.

An examination of the map location of the heavy producing counties shows that they are for most part arranged in well defined groups, each, in a way, enjoying some important common industrial factor or condition. If such counties be considered in groups it is seen that the most important group is on the lake shores. These counties number 15, producing, in 1890, 55.77 per cent of the state's total product, and 60.41 per cent in 1900, and showing an increase of 57 per cent as against 29 per cent for the rest of the state. The Fox River valley counties are properly tributary to the lake shores, being connected by water transportation and belonging in this group, making a total of 19 counties producing 68.96 per cent of the manufactured products of the state. Ten important manufacturing counties form a compact group in central southern Wisconsin. Their rapidly growing manufactures have a capacity of 9.5 per cent of that of the entire state. A third group forms the heart of the lumbering industry in the upper Wisconsin valley, where seven contiguous counties yield 7.04 per cent of the product of the state with moderate increase of output. La Crosse and St. Croix are important manufacturing counties on the Mississippi River. While in the Chippewa valley is found a group of three counties with a considerable manufacturing output but showing a slight decrease. Under these heads are brought into count forty of the seventy counties in the state, and an aggregate of 92.45 per cent of the total product of manufactures of the state, leaving 29 counties with a fraction over 7 per cent representing some scattered lumbering and small scale manufactures, chiefly custom work and repairing incident to demands of agricultural communities.

Growth of manufacturing is seen to be especially marked in groups 1 and 2; moderate in group 3; while for the remaining groups, embracing five counties, there is no increase or decrease of output. The counties reporting moderate increases or decreases are all in the lumbering district of the state, and an examination of lumber statistics shows the condition to be due to the migration of this industry consequent upon the depletion

of the available saw timber, that manufacturing in these districts is passing through a transition period and that in some cases the industrial reorganization has involved a temporary loss of productive capacity. In many districts, however, the growth of manufactures generally has more than offset the loss in lumbering output and in a few instances, notably, La Crosse and Eau Claire counties where lumbering was the most important industry and where the loss was very heavy, it was met without a loss of output and with substantial gains in the diversity and character of manufacturing industries. Since this is a form of improvement in our manufactures, no less real because it cannot be measured, that is being experienced particularly throughout the lumbering section, it follows that the growth and prosperity of our manufactures is greater and more widely distributed than at first appears. In fact, it embraces practically the entire manufacturing field. The passing of the lumber industry in no sense signifies a less desirable or less fit locality for manufactures in general but rather leaves a soil fruitful in many conditions and in many respects promising of continued industrial prosperity.

Counties.	1890 product.	Per cent. of all.	1900 product.	Per cent. of all.	Per cent. of increase.
Adams	$64,436	.03	$87,303	.02	35.00
Ashland*	3,859,702	1.55	6,426,259	1.78	†
Barron	1,731,530	.69	1,480,220	.41	— 14.00
Bayfield*	2,429,142	.98	3,970,916	1.10	63.00
Brown*	3,303,688	1.33	5,686,186	1.58	72.00
Buffalo	570,127	.23	464,025	.13	— 18.00
Burnette	37,524	.02	173,954	.05	363.00
Calumet	614,850	.25	910,218	.25	48.00
Chippewa	7,005,236	2.82	4,537,176	1.23	— 35.00
Clark	774,261	.31	1,297,458	.36	67.00
Columbia	1,099,686	.44	1,278,616	.35	16.00
Crawford	646,128	.26	604,703	.17	— 6.00
Dane	3,885,498	1.56	5,892,362	1.63	52.00
Dodge	2,243,263	.90	4,012,429	1.11	78.00
Door*	1,084,155	.44	974,741	.27	— 10.00
Douglas*	2,815,820	1.13	8,933,218	2.47	217.00
Dunn	2,527,029	1.02	2,123,056	.59	— 15.00
Eau Claire	4,915,862	1.98	5,661,415	1.57	15.00
Florence	8,090	.....	41,835	.01	404.00
Fond du Lac	5,029,758	2.02	6,993,880	1.94	38.00
Forest	176,990	.07	76,164	.04	‡
Grant	693,612	.28	1,307,495	.36	88.00
Green	801,808	.32	1,715,624	.22	114.00
Green Lake	729,896	.32	1,110,360	.31	52.00
Iowa	264,893	.11	1,469,227	.41	454.00
Iron*	.....	.....	1,185,581	.33	†
Jackson	2,183,080	.88	510,083	.14	— 76.00
Jefferson	4,073,393	1.64	5,129,707	1.42	26.00
Juneau	946,405	.38	785,687	.22	— 17.00
Kenosha*	2,691,218	1.08	7,944,813	2.20	195.00
Kewaunee*	435,777	.18	956,974	.26	119.00

Counties.	1890 product.	Per cent. of all.	1900 product.	Per cent. of all.	Per cent. of increase.
La Crosse	9,767,181	3.93	9,807,887	2.72	.....
Lafayette	341,745	.14	822,153	.23	140.00
Langlade	980,387	.39	1,289,081	.36	31.00
Lincoln	4,749,768	1.91	4,554,192	1.31	— 4.00
Manitowoc*	2,271,473	.91	4,785,576	1.32	116.00
Marathon	5,844,949	2.35	7,463,116	2.07	27.00
Marinette	5,281,660	2.12	6,972,616	1.93	32.00
Marquette	218,927	.09	441,743	.12	101.00
Milwaukee*	98,598,451	39.67	140,252,383	38.87	45.00
Monroe	585,589	.24	1,594,664	.44	172.00
Oconto*	3,005,772	1.21	2,597,916	.72	— 13.00
Oneida	1,433,096	.58	3,139,307	.87	‡
Outagamie	5,688,586	2.29	9,127,604	2.53	60.00
Ozaukee	1,405,532	.57	1,980,197	.55	41.00
Pepin	129,630	.05	261,823	.07	102.00
Pierce	944,175	.38	1,118,421	.31	18.00
Polk	330,736	.13	1,221,507	.34	269.00
Portage	1,927,875	.77	2,819,263	.78	46.00
Price	1,129,473	.45	1,682,131	.46	49.00
Racine*	8,973,663	3.61	15,643,783	4.33	74.00
Richland	451,384	.18	795,448	.22	76.00
Rock	4,147,975	1.67	8,090,447	2.24	95.00
St. Croix	3,175,977	1.28	3,028,821	.84	— 4.00
Sauk	915,600	.37	1,876,650	.52	105.00
Sawyer	830,148	.33	984,198	.27	18.00
Shawano	1,119,002	.45	1,770,751	.49	58.00
Sheboygan*	2,471,871	.99	9,652,106	2.67	290.00
Taylor	835,438	.34	2,152,671	.60	157.00
Trempealeau	607,466	.24	1,111,882	.31	83.00
Vernon	410,377	.16	709,669	.19	72.00
Vilas	.....	.....	1,875,130	.52	‡
Walworth	2,105,046	.89	2,515,872	.69	19.00
Washburn	262,817	.11	818,018	.23	211.00
Washington	850,918	.34	1,808,599	.50	112.00
Waukesha	993,766	.40	2,292,786	.63	131.00
Waupaca	1,452,117	.58	1,936,737	.54	33.00
Waushara	204,124	.08	447,050	.12	119.00
Winnebago	12,913,825	5.15	13,848,239	3.84	7.00
Wood	3,546,725	1.43	3,787,275	1.05	7.00
Total for state	$248,546,164	100.00	$360,818,942	100.00	45.00
Lake shore counties	$138,627,987	55.77	$217,963,265	60.41	57.00
All other counties	109,918,177	44.23	142,855,677	39.59	29.00

*Lake shore counties.
†Ashland and Iron; per cent. increase 1890-1900, 97 per cent.
‡Forest, Oneida and Vilas; per cent. increase 1890-1900, 215 per cent.
—Decrease.

CUT OF WHITE PINE LUMBER AND SHINGLES IN WISCONSIN.

(,000 omitted.)

Locality.	1889		1899.	
	Lumber, ft.	Shingles, M.	Lumber, ft.	Shingles, M.
Mississippi River:				
La Crosse	172,100	94,366	67,817	49,375
Onalaska	25,935	18,386	17,250	7,419
Prairie du Chien	15,150	6,133	.....	.....
Total	213,185	118,885	85,067	56,794
Omaha Line:				
Fairchild	20,300	12,000	20,000	3,000
Warren Mills	10,000	.....	500	.....
Cumberland	19,300	26,000	7,750	4,489
Baronette	13,000	13,180	.....	.....
Shell Lake	25,000	12,000	28,850	6,350
Rice Lake	22,300	17,000	27,000	18,607
Hayward	35,547	13,498	43,807	5,499
Drummond	27,705	15,342	21,005	1,548
Mason	28,699	8,081	39,583	5,133
Other points	49,610	25,031	25,001	5,839
Total	251,462	142,133	213,496	50,465
Green Bay Shore:				
Green Bay	40,500	27,500	43,489	10,260
Oconto	55,060	18,000	39,500	7,600
Peshtigo	57,308	6,340	17,965	9,475
Marinette	191,992	50,611	174,152	101,515
Other points	14,033	6,000	1,035	12,300
Total	358,893	108,451	276,141	141,150
Miscellaneous:				
Bayfield	14,991	346	35,843	.....
Big Wausaukee	19,000	3,000	17,000	10,000
Dunbar	10,000	.....	.....	.....
Mannville	12,030	4,800	.....	.....
Necedah	35,000	19,350	.....	.....
Washburn	80,456	16,355	123,793	28,692
Other points	77,794	79,035	10,082	31,750
Total	249,272	122,886	186,718	70,442
Chippewa Valley:				
Chippewa Falls	55,004	16,485	60,618	15,180
Eau Claire and vicinity	162,911	87,044	67,557	56,921
Stanley	.....	.....	34,000	6,000
Badger Mills	12,000	6,500	.....	.....
Menomonie and vicinity	75,500	68,750	89,557	54,024
Total	305,415	178,779	251,732	132,125
C., M. & St. P.-Wis. Val. Div.				
Tomahawk	18,500	17,000	34,856	3,400
Merrill	111,559	75,023	115,234	30,967
Wausau and vicinity	103,229	36,450	112,700	12,259
Schofield	24,893	8,135	20,000	3,000
Mosinee	17,625	9,000	23,912	1,466
Vesper	17,500	12,000	.....	.....
Port Edwards	11,000	12,500	.....	.....
Goodyear	17,000	12,000	28,000	.....
Other points	50,740	18,300	80,644	17,218
Total	372,047	200,408	214,340	68,050

Locality.	1889.		1899.	
	Lumber, ft.	Shingles, M.	Lumber, ft.	Shingles, M.
Chicago & Northwestern:				
Kelley	15,703	6,500	.....	.....
Antigo	41,865	11,500	3,000	6,700
Parrish	17,000	12,500	.....	.....
Harrison	19,573	13,750	.....	.....
Rhinelander	44,079	21,137	96,002	6,175
Watersmeet	15,000	20,000	.....	.....
Hurley and vicinity	21,000	27,000	.....	.....
Other points	80,586	133,962	16,691	91,038
Total	254,807	246,350	115,693	103,913
Wolf River:				
Oshkosh	88,763	46,190	54,794	36,692
Fond du Lac	11,300	1,500	2,502	.....
Omro	3,000	.....	150	575
Winneconne	6,400	4,000	.....	.....
Total	109,463	56,690	57,446	37,267
Wis. Central R. R.:				
Stevens Point	49,450	19,700	7,035	3,280
Sherry	11,000	5,000	.....	.....
Marshfield	12,800	8,000	2,080	1,450
Rib Lake	15,000	10,500	400	.....
Prentice	16,000	11,000	.....	.....
Phillips	30,000	12,000	.....	.....
Coolidge	10,000	7,000	.....	.....
Bad River	18,000	.....	.....	.....
Ashland and vicinity	63,347	8,119	354,211	16,224
Other points	67,062	51,023	24,989	64,419
Total	292,359	132,343	388,715	85,373
Duluth Dist.:				
West Superior	.....	.....	76,690	12,085
Other points	33,750	16,000	4,000	.....
Total	33,750	16,000	80,690	12,085

SUMMARY.

Localities and Districts.	Cut 1889, —,000 omitted.		Cut 1899, —. 000 omitted.		Per Cent. of Increase or (—) Decrease.	
	Lumber, bd. ft.	Shingles, M.	Lumber, bd. ft.	Shingles, M.	Lumber.	Shingles.
Green Bay	358,893	108,451	276,141	141,150	—23.00	30.00
Wolf River Dist.	109,463	56,690	57,446	37,267	—47.00	—34.00
C. & N. W. R. R. Antigo to Hurley, inc.	254,807	246,350	115,693	103,913	—54.00	—57.00
C., M. & St. P.—Wis. Val. Div.	372,047	200,408	415,340	68,050	12.00	—66.00
Wis. Central R. R.	292,359	132,343	388,715	85,373	33.00	—35.00
Omaha Line	251,462	142,133	213,496	50,465	—14.00	—64.00
Chippewa Valley	305,415	178,779	251,732	132,125	—17.00	—26.00
Mississippi River	213,185	118,885	85,067	56,794	—60.00	—51.00
Superior and vicinity	33,750	16,000	80,690	12,085	130.00	—24.00
Miscellaneous	249,272	122,886	186,718	70,442	—25.00	—42.00
Total	2,440,653	1,322,925	2,071,038	757,664	—15.00	—42.00

SPECIFIED INDUSTRIES.

Under this heading it is purposed to review in a brief way the condition and progress of some of our leading industries as shown at the last two censuses. The census bulletin on manufactures for Wisconsin reports 154 specified industries. Since space is wanting for a detailed statement of each of these, this consideration will be limited to separate statements of about one-third the number, embracing the more important. Some of the less important industries will be considered in groups in less detail. The ranking of different industries on the product or output basis it must be remembered, can be accepted only in a most general way. As regards growth, scale of production, and other considerations of interest in this connection, however, this basis is as satisfactory as any that might be adopted.

AGRICULTURAL IMPLEMENTS.

This industry has practically come into existence in the United States in a little over half a century. The use of improved machinery in agricultural pursuits is a step in industrial development due to American conditions and American genius. In 1850 the output of Agricultural Implements in this country was valued at $6,842,611, and in 1900 at $101,207,428. The farm machinery of the United States has, through its superior quality and general excellence, become the standard for the entire civilized world. The state of Wisconsin is well supplied with one of the most important materials for the manufacture of agricultural implements, namely first class hardwood timber. The other important materials are iron, steel and coal. Our lake transportation places us in a very favorable position with regard to supplies of these materials, and an excellent railroad system, radiating throughout the prosperous agricultural section of the Mississippi basin, gives us unexcelled market facilities.

In 1890, Wisconsin was ranked fifth among the states in product of agricultural implements, and by 1900 she had ad-

vanced to fourth place. Our output amounted in 1900 to 7.8 per cent of the product of the entire United States. Of all the cities in the country of 20,000 population, or over, in 1900, Racine ranked third, and Milwaukee seventh in the output of agricultural implements. The agricultural implement output of Wisconsin is of a very diversified character. An important branch of the industry is the manufacture of grain threshers and separators, of which Wisconsin produces about one-half the product of the United States. According to census, Wisconsin ranks "second in horse hay-forks, fourth in cultivators, harrows, planters and drills, harvesters and combined harvesters and binders, and mowers, and seventh in plows and horse hay-rakes."

In 1890, there were 51 establishments in Wisconsin with a product of over five million dollars, or 2.02 per cent of all industries. In 1900, the number of establishments was the same but with a product over 57 per cent greater and equal to 2.18 per cent of all industries. This would indicate three very important conditions,—first, a very marked growth in the industry; second, some increase in its relative importance; and third, a very marked tendency towards large-scale production if not centralization; all of which promises much for the future of the industry. The timber supply is plentiful, coal and iron are readily available and with an increasing home demand and constantly improving facilities for reaching the western market there is no apparent reason why our agricultural implement business should not continue in its present condition of growth and general prosperity.

BLACKSMITHING AND WHEELWRIGHTING.

This industry is principally auxiliary to teaming and farming. Its growth during the past census decade is incident, somewhat, to the rapid spread and growth of agricultural occupation throughout the state. In 1890 there were 798 establishments with an output of $1,256,076, or .50 per cent of all industries. In 1900 there were nearly twice as many establishments with an output of $2,442,141, or .67 per cent of all industries. Thus it appears that this industry increased in prod-

uct very rapidly and made a substantial gain in rank. Moreover, it appears that this growth comes from the large increase in the number of concerns or establishments. Since it is probable that a large number of these new establishments located in the newer and less wealthy communities, it comes naturally that there should be no increase or a decrease in the average product per establishment.

BOOKBINDING AND BLANK-BOOK MAKING.

This industry is one depending largely on the growth of the general reading public and commercial development. In 1890 we had 23 establishments with a product of $205,938, and in 1900, 27 establishments with output valued at $593,365. The industry just doubled its relative importance. There was an increase of about 150 per cent in the average output per establishment.

BOOTS AND SHOES, FACTORY PRODUCT.

The manufacture of boots and shoes is fast becoming one of Wisconsin's most important industries. Its growth in the past census decade has been something enormous. In 1900, Wisconsin ranked tenth among the states in value of boot and shoe products and among cities of the United States of 20,000, or over, population, Milwaukee ranked twenty ninth. Outside of the fact that a large quantity of leather is tanned here, Wisconsin offers to this industry one important advantage not offered to manufacturers generally. The introduction of high-grade machinery and development of specialization and piecework has brought about the employment in this industry of an increasingly large proportion of labor by females and young persons. The industry has become, in a slight degree at least, a parasite industry. Mr. E. A. Ross in an instructive article on location of industries in the Quarterly Journal of Economics puts this idea in the following words, "Sometimes a trade takes up its home where, as supplement to some other branch, it can fill up an industrial chink." At Milwaukee, for instance, we have employed a large amount of adult male labor in the manufacture of agri-

cultural implements, in foundries, machine shops, rolling mills, furniture factories, etc., and in this respect Milwaukee is only a prototype of many smaller cities in Wisconsin. This would mean a great many families and many women and children offering a supply of cheap labor to any form of industry capable of using it. Says Marshall in his "Principles of Economics," "Where metallic and engineering works naturally congregate, industry offering some work of lighter character, whether hand work or machine tending, suitable to busy women and children, will be apt to appear." This principle is, of course, not limited in its application merely to communities where "metallic and engineering works naturally congregate" but is equally true of any industrial group brought together for some length of time by employment of adult male labor. Says Hobson, in "The Evolution of Capitalism," "As textile work passes more and more into the hands of women, this tendency to make it a parasite trade, thriving upon the low wages for which women's labor can be gotten where strong and well-paid male work is established will probably be more strongly operative." To quote Mr. Ross' article again, "This is true also of ship-building towns and mining and agricultural centers near textile districts. In all these cases the industry strikes root wherever there is unused labor power in some members of the family." It is not necessary that an industry employ *only* this class of labor to be acted on in the selection of its location by this principle. Of course, the force of this consideration in such selection will vary with the proportion of such labor employed. In the shoe industry in Wisconsin only about five-twelfths of all persons employed are women and children. But, other things being equal, the availability *of* this supply of labor would determine the location of the industry. The boot and shoe industry finds in Wisconsin its raw materials and excellent distributing facilities. It has become established here in many places where there is suitable available labor supply and its growth and future prosperity, it would seem, depends merely on that of the industrial community. In 1890 we had 32 establishments with a gross output of $2,972,233, or 1.19 per cent of all industries. In 1900 there were 40 establish-

ments with a product of $4,791,684, or 1.33 per cent of all industries. The growth of this industry has, therefore, been very rapid in this period. It has also advanced in relative importance. The average output per establishment indicates a very considerable progress towards production on a large scale.

BOXES, WOODEN PACKING.

The extensive manufacture of wooden packing boxes, crates, etc., is a direct outgrowth of our lumber industry. To a certain degree it represents utilization of by-products and waste materials of saw and planing mills. The growth in the past census decade has been incident largely to the growth in these industries and increased commercial activity creating a larger demand. In 1890 we had 24 establishments with a product of $781,105 or .31 per cent of all industries, and in 1900, 38 establishments with output valued at $1,989,663, or .55 per cent of the total. This, therefore is another industry showing a large absolute increase and rapid growth in relative importance, while the product per establishment shows that the new enterprises have entered the field with larger scale equipment than was common previously.

BRASS CASTINGS AND FINISHINGS.

These industries and brassware are another evidence of the adaptability and diversity of manufacturing opportunities in Wisconsin. In 1890 there were reported 5 establishments engaged in the manufacture of brass castings and finishings, the total product amounting to $370,451, or less than $75,000 per establishment. In 1900 there were 10 such enterprises reported with a gross product of $888,755 or nearly $90,000 product each. In 1890 there were no manufactures in brassware reported, and in 1900 we had 3 establishments with an average output of over $200,000 each.

BREAD AND OTHER BAKERY PRODUCTS.

The number of bakery establishments reported for 1890 was 256, with a product valued at $2,064,288. In 1900

there were reported 430 establishments with a product of $3,619,288. The industry shows an increase greater than the average for all industries, being in 1900 a little over 1 per cent of the total of manufactures. There is also a slight increase in the average output per establishment.

BRICK AND TILE.

Wisconsin abounds in deposits of available brick clays of a generally high degree of excellence. Clay suitable for the manufacture of tile is a natural deposit also found in many localities. The brick and tile industry has undoubtedly seen its worst days in Wisconsin. In the past, it has had to compete with cheap lumber and other building materials. The high price of strong male labor, which represents the principal element in cost of production, especially on a small scale, had prevented the industry from developing its full capabilities. Remoteness of some of the best clay deposits from the markets and inadequate transportation facilities have also been drawbacks in the past. The chief factor in overcoming these disadvantages has, in the main, been the high quality of some of the clay deposits, which has enabled the industry to grow in spite of them. In 1890 there were 137 establishments reporting a product of $1,642,465, and in 1900, 168 establishments with a product of $1,795,993. It would seem that the increasing scarcity of lumber for building purposes and the demand for fire-proof structures in our cities would improve our markets and prices. This together with our improved transportation facilities, if accompanied with reasonable rates, and the adoption of improved labor-saving machinery and production on a larger scale, ought to offer many opportunities for profitable undertakings in this industry.

CARPENTERING.

The number of carpenter shops reported in 1890 was 367 with a product valued at $5,798,939, or 2.33 per cent of all industries. In 1900 we had 665 establishments with a total output of $7,115,245, or 1.97 per cent of all industries. While there was a considerable increase in the total gross product

there was also a falling off in rank or relative importance, and a decrease of about 30 per cent in the average output per establishment.

CARRIAGE AND WAGON MATERIALS.

For most part, the manufacture of wagon and implement stock from sawed lumber is carried on by the manufacturers of the wagons and implements themselves. The industry, however, shows a considerable increase in output and some gain in rank. The increase in product is due to increased size of some enterprises as there is a decrease from 13 to 10 in the number of establishments reporting at the last two censuses.

CARRIAGES AND WAGONS.

This industry is directly an outgrowth of the available supply of first class hardwood timber and a good market. The kind of vehicle produced in largest numbers is probably the heavy farm wagon. In 1900, Wisconsin ranked seventh among the states in the value of output of carriages and wagons, producing 5.7 per cent of the total product of the United States. There has been an increase, during the census period, in the state's product from $5,947,499 to $6,956,341, a good, substantial increase, though less than the average for all industries. There is apparently a considerable change in the character of the industry as regards the scale of production. There has been a decrease from 500, in 1890, to 436, in 1900, in the number of establishments, and an increase in the product per establishment from $11,895, to $15,955, showing a decrease in that branch of the industry represented by the small shop making only a few vehicles at a time for custom trade.

CARS AND GENERAL SHOP CONSTRUCTION BY R. R. COMPANIES.

This industry is largely an incident of the general growth and industrial prosperity of the state and particularly of the railroad development. In 1890, there were 22 railroad car repair and construction shops in the state. The value of the

products was reported as $2,221,152, or a little over $100,000 each. In 1900 the number of establishments had increased to 46, and the product $6,306,823, or $137,105 per establishment. Thus the number of establishments increased over 100 per cent, the products nearly 200 per cent, and the products per establishment over 35 per cent.

CHEESE AND BUTTER.

In 1900, Wisconsin ranked second in the United States as a dairy state. The great dairy interests of Wisconsin are so often and thoroughly discussed publically as not to need any special mention here. In 1890 there were 966 creameries and cheese factories in Wisconisn, and in 1900, 2,018. In 1890 the product was valued at $6,960,711, and in 1900, $20,120,147. In 1890 it was 2.81 per cent of the value of all our manufactured products, and in 1900, 5.57 per cent. The average product per establishment increased from $7,206 to $9,970.

CHEMICALS.

The manufacture of chemicals in Wisconsin is one more instance of the diversity of our industries. In 1890 there were 6 establishments with a total product of $184,807 or $30,801 each, and in 1900, 4 establishments with an output valued at $254,196, or $63,549 each, showing a considerable tendency towards large scale productions.

CLOTHING, MEN'S—FACTORY PRODUCT.

This is another one of those industries which is affected in a marked degree by the parasite principle, over three-fourths of the persons employed being women or children. There is noticeable a very marked increase in this industry in the number of small establishments. The total number of establishments in 1890 was 27 with a product of $3,909,726, or an average of $144,804 each. In 1900 the number of establishments was 89 and product $4,393,092, or on the average about $49,361 each. While the industry shows an absolute increase in product, it lost considerable in relative importance.

CLOTHING, WOMEN'S—FACTORY PRODUCT.

An industry of the same general characteristics as the above is the factory manufacture of women's clothing. During the past decade it has exhibited practically the same tendencies as those noted above for the manufacture of men's clothing, except that it has not only suffered a loss in rank and in average output per establishment, but in the total value of products as well.

CONFECTIONERY.

This industry is to a very marked degree parasite in character. About two-thirds or more of the persons employed are women and children. The industry locates generally wherever there is a supply of cheap labor and good market facilities. The census shows an increase in the past census decade from 38 to 56 in the number of establishments and from $1,195,375 to $1,570,445 in the total value of products. There is a slight decrease in the relative importance and the average size of establishments.

COOPERAGE.

This is one of the industries which is a product of our timber supplies. For most part the manufacture of cooperage and cooperage materials in Wisconsin is conducted on a small scale. But the aggregate value of products of the several establishments amounts each year to over a million and a half of dollars. In 1890 the number of establishments was 140, with total gross product of $1,527,008, or .61 per cent of all industries. In 1900 the number of establishments had decreased to 126, but the value of products was $1,683,180. This was, therefore, a substantial increase in the average product per establishment.

COTTON GOODS.

The manufacture of cotton goods seems to be on a decline in Wisconsin during late years. In 1890 there were 4 establishments reported with a product of $620,190, while in 1900

only 3 mills reported with a total product of $316,061. Thus it appears that the loss of one in the number of establishments has involved a loss of nearly one-half of the total productive capacity and a decrease from $155,049, to $105,354 in the average output per establishment. The industry is one which locates in Wisconsin primarily for the sake of cheap labor and power, and good markets. It would hardly appear likely, however, that any intelligent judgment as to the adaptability of this state for a given industry could be rendered on the basis of the experience of so few enterprises.

ELECTRICAL APPARATUS.

The adaption of electricity to every-day utilities is a very modern invention. The spread of its application has been something phenomenal. The demand for special machinery and electrical appliances has given birth to a new industry. A part, as yet small, of this industry has been attracted to Wisconsin by market facilities and general advantages here offered for manufacturing for the western and northwestern markets. In 1890 there were 3 establishments reported under this head. The total value of products amounted to $38,870, or about $12,956 per establishment. In 1900 the number of establishments had increased to 7, and the value of products to $923,587, and the average output per establishment to $131,941.

FLOURING AND GRIST MILL PRODUCTS.

Flour and grist milling is one of the most important of Wisconsin's industries. The principal factors in its location here are water power, material and markets and also as auxiliary to agriculture and stock raising. Especially of recent years has there been a very marked increase in the number of smaller mills engaged chiefly in custom feed grinding in farming communities. Flour milling on a large scale is also becoming more important, in many places growing up to utilize capital and power sites left idle by the departure of the lumber industry. In 1900, Wisconsin ranked eighth among

the states in the production of flour, with a product of 4,750,253 barrels annually. In 1890 there were reported 497 flour and grist milling establishments with a total gross product of $24,252,297, or 9.76 per cent of all manufactures. In 1900 there were 717 mills with a total output of $26,327,942, or 7.30 per cent of all industries. The decrease in the average product per establishment is probably due to the increased number of small enterprises in the newer agricultural sections of the northern part of the state.

FOUNDERY AND MACHINE SHOP PRODUCTS.

The remarkable growth attendant upon this important industry in Wisconsin in the past census period is one of the most encouraging things about the industrial outlook. The industry is one whose very existence betokens a settled and established manufacturing community. When the demand for manufacturing appliances has become so well settled that a community takes to making its own machinery, the manufacturing of that community is no longer a matter of experiment. In no small degree is the success of this industry in Wisconsin due to the immigration of skilled mechanics from north Europe, particularly from Germany. Iron and steel, the raw materials, are produced in Wisconsin in considerable quantities, while fuel is brought cheaply by the lakes or only a short distance overland from the coal fields of Illinois. Wisconsin is sought by this industry also because of our excellent distributing facilities both by water and rail. The industry does not depend upon the home demand but makes machinery for the United States and foreign markets as well. Many important instances are known of Wisconsin having made machinery exported for use in the oldest manufacturing centers of industrial Europe. In 1890 there were 155 establishments reported under this head. The product was valued at $8,467,290, or 3.41 per cent of all industries in the state. The average output per establishment was $54.627. In 1900 there was an increase to 272 establishments with a total product valued at $22,252,730, or 6.17 per cent of all industries. The

average output per establishment increased to $81,811, or about 50 per cent, showing a considerable increase in the scale of production in the additional enterprises.

FURNITURE.

The great furniture industry of Wisconsin is one of those for which we are primarily indebted to our bountiful supply of hardwood timbers. In many places also water power furnishes a cheap source of motive energy for the conduct of this branch of our manufactures. Of great importance also to this industry are our excellent distributing facilities particularly to the west and southwest. In 1890 there were reported in this industry 46 furniture and chair factories with a gross annual product of $3,616,517, or 1.46 per cent of all industries. The average product per establishment was $78,620. In 1900 the number of establishments was 78, with a gross product of 8,721,823 or 2.42 per cent of the total for all industries. The average output per establishment amounted to $111,818. Thus, there was an increase of nearly 70 per cent in the number of establishments, 141 per cent in total product, and 4.2 per cent in the average capacity of the establishments. The industry, moreover, advanced in relative importance from 1.46 per cent in 1890, to 2.42 per cent of the total of all industries in 1900.

GLOVES AND MITTENS, HOSIERY AND KNIT GOODS.

These two industries are largely parasitic in character. They are located in Wisconsin chiefly in communities having founderies, machine-shops and metallic and lumbering or woodenware industries or on a smaller scale in agricultural centers. The glove and mitten industry reported in 1890, 13 establishments with a total product of $162,123, and in 1900, 19 establishments with a total product of $507,495. Thus, this industry doubled its relative importance and its average product per establishments. In hosiery and knit goods there were reported in 1890, 23 establishments with a gross output valued at $1,635,641, and in 1900, 27 establishments with

a product of $2,486,813, showing an increase of 4 in the numbes of establishments and of 32 per cent in the total output, and nearly 30 per cent in the average product per establishment. The industry more than maintained its relative importance.

IRON AND STEEL.

Although Wisconsin has neither iron nor coal mines, the location of this industry within her borders is to a very considerable degree due to rational economic causes. In the first place, the Superior ore deposits are very near our boundaries. Some of the large industrial centers nearest them are within our territory. Our most important manufacturing centers are placed in easy and cheap communication with them through lake transportation and effcient railroad service with transportation rates controlled by the water carriers. The distance from the Illinois coal fields is comparatively short and the Wisconsin manufactories are directly between these two important sources of materials, the iron on the north, and the coal on the south, with only a short haul to either. On the other hand, coal is laid down at our lake ports from the Pennsylvania mines at a low cost of transportation as return cargoes of our carrying ships. Another important item of tonnage in the materials used in the manufacture of iron is limestone for fluxing material. Suitable fluxing material is plentiful in Wisconsin. This, together with the ore, which is mined on our borders so to speak, constitutes about two-thirds of the tonnage of materials used in the manufacture of pig iron. Their ready availability, the nearness of Illinois coal mines, on the one hand, and water communication with the great coal docks of Pennsylvania, on the other, taken in connection with our advantages of suitable climate and unsurpassed market facilities, should give Wisconsin importance in this industry. It is believed that were the industry in a competitive condition such would be the case. But under the present conditions older vested interests elsewhere afford an artificial check to the natural development of this industry in Wisconsin. In 1900, Wisconsin ranked tenth of the states in iron and steel industry

and of the cities in the United States of 20,000, or over, population, Milwaukee ranked twenty-second in the output of iron and steel. In output of iron alone, Wisconsin ranked ninth with a product of 217,451 gross tons, pig iron constituting about 70 per cent of the total tonnage of our iron and steel output. In 1880 the total gross tonnage of Wisconsin's iron and steel industry was 114,556, in 1890 it was 155,963, and in 1900, 309,724 gross tons. Thus there was a much more rapid increase in tonnage in the last census decade. The industry reported a very marked concentration in the blast furnace business during the past census decade. The number of blast furnaces was reduced from 10 in 1890 to 6 in 1900. The principal products of the iron and steel mills are bar and rod iron and steel and steel rails. In 1890 the industry reported 9 establishments with a total product of $6,501,761, or 2.61 per cent of the total manufactured products of all industries. The average product per establishment was $722,418. In 1900 the number of establishments reported was 12 with a total product of 8,905,226, or 2.46 per cent of all industries. The average product per establishment was $742,102. Thus there was an increase of 3 establishments, and 37 per cent in the total product. The industry did not quite hold its rank in relative importance. There was a slight increase in the average output per establishment.

ARCHITECTURAL IRONWORK.

The delevopment of this industry in Wisconsin is partly an outgrowth of the iron and steel industry here, partly due to the growth of our cities and demand for fireproof structures and high business blocks, and in part established by the facilities for manufacture here and transportation to western markets. In 1890 we had 10 establishments reporting a gross product of $604,532, or an average of $60,453 each. In 1900 the number of establishments had grown to 12 and the product to $1,865,075, while the average capacity per establishment was about two and one-half times as great as in 1890.

LEATHER.

The tannery industry is one of the most important in Wisconsin. Tan bark, which constitutes an important and bulky material is used in this industry. It is practically necessary that the tannery be located as near as possible to the supply of bark and this is one important consideration which causes the industry to locate on a large scale in Wisconsin. Our transportation lines, moreover, reach all the important packing and slaughtering points in the west and northwest affording plenty of facilities for collecting supplies of raw hides. The number of hides taken in Wisconsin also affords a considerable quantity of raw materials for tanning purposes. In this industry Wisconsin showed the highest proportionate increase of any of the states in the past census decade, ranking fourth in 1890, and third in 1900. In 1900, Wisconsin produced the largest quantity of rough leather, the second largest quantity of sole leather, and also of calf and kid skins, and the largest value in harness leather. In 1890 the number of establishments in Wisconsin was 38, and the value of products $11,161,850, or 4.49 per cent of the total of manufactured products of all our industries. The average output per establishment amounted to $293,733. In 1900 the number of establishments was 42, and the total product was $20,074,373, or 5.56 per cent of all industries, while the average output per establishment was $477,975. Thus there was an average of nearly 80 per cent in the total product, and the average output per establishment considerably more than doubled, and the industry gained very much in relative importance.

LUMBER AND TIMBER PRODUCTS.

The importance of this industry has elsewhere been dealt with at some length so less need be said in this connection. During the past census decade Wisconsin has advanced to first position in lumbering, producing about 10 per cent of the total product of the United States. This position was achieved

by Wisconsin partly through an increase in value of products, but principally through the failure of Michigan to keep up its output because of exhaustion of timber stands, though in the quantity of sawed timber Michigan still led in 1900. Wisconsin furnished more white pine timber than any other state, the cut of white pine being about two-thirds of our total output. Most of the counties of the state furnishing timber have seen their years of maximum cut. The industry, has, generally speaking, been constantly moving northward, and now the greatest activity is seen in the very northern tier of counties along Lake Superior and the Wisconsin–Michigan boundary line. The bulk of the industry is found in the upper Wisconsin River Valley, with important manufacturing, also, around the Wolf River and Lake Winnebago, the Green Bay s[illegible] the Chippewa Valley and the Lake Superior shore. With the past exhaustive methods of exploitation it would seem that the industry must soon entirely consume its raw materials and come to an end in Wisconsin. Some efforts at reforestation may prove of worth in making the industry more permanent and be, therefore, valuable. But the desirability of unnatural restriction of the industry in order to prolong its existence is questionable from the public standpoint, whatever may be the concern of vested private interests. The industry has served and continues to serve a valuable purpose in the industrial development of the state. This it does best when going at its fullest capacity. At no time in the future can the establishment of manufacturing or the creation of new industrial centers be more needed or bring greater or more valuable returns than at present. The sooner these improvements are brought about the better for the community, and the more rapid will be the accumulation of our industrial wealth. We cannot eat our apple and have it. But when it seems that we are less likely to be hungry for the apple later than now, it is just as well to eat it, since it is finally to be eaten anyway. There would seem to be no occasion for the alarm commonly exhibited in public writ[illegible]ags at the prospect of our loss of the lumber industry any more than an equal volume of other manufacturing. In the major-

ity of instances, so far as our experience has gone in this respect, the lumber industry in passing leaves in its wake not an industrial void but a community of industries of more permanent and diversified and therefore more desirable character. Just when the end will come is idle to conjecture. Whether the owners of the timber stands will exploit them in the future as in the past or adopt some other policy is something which is known to them only, and which would go a great way in determining the longevity of the industry in Wisconsin. That the rate of cut must henceforth decrease, from year to year, seems accepted, yet no one is prepared to say how rapid the decrease is likely to prove. The length of time for which lumbering can continue, of course, depends very materially on this condition. With a view in part to placing a period to our lumbering industry several estimates of the timber stand in Wisconsin have been made. In 1880, Sargent estimated 41 billion feet of saw timber standing in Wisconsin, and in 1897 Roth estimated 17 billion. In the meantime over 50 billion feet had been cut. With the average annual cut in the neighborhood of 2 to 3 billion feet the supply ought to be nearly exhausted by this time. Yet it is not so nearly gone as might be reasoned from the figures presented as evidenced by the continuance of enormous lumbering enterprises throughout our northern counties. The irregularity and unevenness of the stand, together with the haphazard manner of earlier logging operations make the stand a very uncertain thing at best. Moreover, under the existing conditions it is well nigh impossible to estimate the possible growth in a given period or the loss by forest fires. Another thing which is adding a very considerable though indefinite and incalculable amount to the available saw timber in the woods is the constant downward tendency of the standards of the mills and deterioration of grades. As a consequence much lumber is cut and put on the market each year that a year or two previously would not have been considered in any lumberman's estimate of saw timber. The ownership of timber is passing more and more into the hands of a few large concerns. The smaller operators are cutting themselves out and either quitting the timber business entirely or emigrating. The es-

tablishments owning considerable tracts of timber are aiming generally to keep their mills running just as long as possible anticipating the prospects of a constantly growing scarcity of timber and increased demand on the part of the sash and door and millwork manufactories and consequent high prices. Nearly all these tendencies and many more are towards a conservation of the supply and the continuance of the lumbering industry in Wisconsin as an important industry for some years to come. Just, or even approximately, how long, no one is competent to say. In 1890 there were reported 853 establishments with a total gross product valued at $52,115,739, or 20.97 per cent of the total of all industries in the state, or more than the total of the three next largest industries combined. The average product per establishment was $61,097. In 1900 the number of establishments reported was 1,066, and the total product $57,634,816, or 15.97 per cent of all industries, or only about three per cent less than the total output of the three next greatest industries combined. The average output per establishment in 1900 was $54,066. Thus there was an increase of 26% in the number of establishments, and 10% in the total product with a decrease in the relative importance and in the average output of establishments.

LUMBER—PLANING MILL PRODUCTS.

The raw materials for this industry are furnished by the saw mill industry just above considered. To an important degree also the water power and transportation facilities of the state have been important factors in its growth. The manufacture of planed lumber, sash, doors and mill work has grown up in many places to afford profitable investments for the accumulated profits of lumbering under the direct care of the owner, the two industries being largely carried on together. This industry is one of the most important directly resulting from the lumber manufacturing in Wisconsin. In 1890, the number of establishments reported was 88, and the total product $6,295,810, or 2.53 per cent of all industries. The average product per establishment was $71,543. In 1900, there were reported 123

establishments with a total output of $8,400,695, or 2.33 per cent of all industries, the average product per establishment was $68,298.

MALT LIQUORS.

The growth of the brewing and malting industry in Wisconsin, in so far as it is traceable to rational economic causes, is due to market facilities and climatic and soil conditions conducive to grain raising. In 1890 there were reported 107 brewing establishments with a total product of $14,193,057, or 5.71 per cent of the total for all industries. In 1900 there were 147 establishments with a product of $19,394,709, or 5.37 per cent of all industries. There was a slight decreaese therefore in both relative importance and the average product per establishment. The malting industry is to a considerable extent carried on in connection with brewing. There were reported, however, in 1890, 15 separate establishments with a total product of $2,472,018, or a little less than 1 per cent of all industries. In 1900, the number of establishments was 17 with a product of $4,089,715, or 1.13 per cent of all industries. The average output per establishment increased from $164,801 in 1890 to $240,571 in 1900.

MARBLE AND STONEWORK.—MONUMENTS AND TOMBSTONES.

Among the natural deposits of industrial value in Wisconsin are found the best of granites, rhyolites, sandstones and limestones. The quarrying and dressing of these stones offer a profitable and valuable industry to the community. In 1890 there were reported 25 marble and stone-work establishments with a gross value of products of $467,422, and in 1900, 54 establishments with product of $754,456. The manufacturing of monuments and tombstones reported 56 establishments in 1890 and a total product of $752,905, and in 1900, 105 establishments with a total product of $1,169,897. Both of these industries, therefore, show very marked increases in the past decade exceeding the average for all industries in both cases. In this connection it is well to mention the manufacture of pav-

ing materials, chiefly stone blocks, which is a considerable industry in some of the granite producing parts of the state. Some of our granites being practically indestructible, are of a very high degree of excellence for this purpose. A notable example of these is the rhyolite, quarried in Berlin and vicinity, Green Lake county, which has the highest crushing test of any known rock.

PAPER AND WOOD PULP.

The paper and pulp industry is located in Wisconsin largely because of the water power and supply of suitable pulp wood and water for mixing pulp. The factor of market facilities has also been of great importance in its growth and prosperity. In 1900, Wisconsin ranked fifth among the states in this industry. In 1890 we produced a little less than 6 per cent of the total product of the country, while in 1900 the Wisconsin output amounted to 8.3 per cent. The leading kind of paper manufactured here is news print, being over one-third of the total. Wrapping paper is next important, being nearly one-fourth of the total. Book paper and fine writing papers amount together to about one-third of the total of all kinds. In respect to raw materials, Wisconsin is principally a wood using state. A partial list of the materials used by the paper and pulp industry of Wisconsin in the last census year is as follows:

Material Used.	Quantity, cords.	Value.
Domestic spruce	124,955	$748,939
Canadian spruce	24,754	164,481
Domestic poplar	1,367	12,388
Other pulp wood	59,978	210,243
Rags	29,049	717,409
Waste paper	7,725	165,777
Manila stock	3,339	58,892
Straw	6,307	21,107

Thus it appears that, of the woods, far the most important is the domestic spruce and that the bulk of the wood supply is of domestic origin, the "other pulp woods" being practically all domestic and probably nearly all cut in Wisconsin. The re-

maining material of greatest importance is rags. In 1890, the industry reported 27 establishments with a total gross output valued at $4,475,368, or 1.8 per cent of all industries. The average product per establishment amounted to $165,754.

PRINTING AND PUBLISHING, NEWSPAPERS, ETC.

The printing and publishing of newspapers and periodicals is one of those industries that come with increased population. The demand for newspapers is one that, to a certain extent, must be supplied locally, while educational and cultural advantages and encouragement in Wisconsin has given birth to some writing of a literary character. These two considerations are the principal ones explaining the growth in this industry. In addition it is well to remember that our distributing facilities particularly to the western public is of importance here also. In 1890 there were 379 establishments in this industry with a gross output of $3,256,897, or 1.31 per cent of all industries, and in 1900 there were 495 establishments with a total product of $4,103,415, or 1.14 per cent of the total for all industries.

SADDLERY AND HARNESS.

It will be remembered that Wisconsin produces more harness leather than any other state. This fact together with our market facilities and available labor should cause the location here of large harness manufacturing industries. That part of the industry, moreover, which is represented by the small shop engaged in getting out custom work and repairing in rural districts finds a constantly and rapidly growing market due to the rapid spread and development of our agricultural industries. In 1890, there were 332 establishments reported with a total product valued at $1,093,787, or .44 per cent of all manufactured products of the state. The average output per establishment amounted to $3,294. In 1900, there were 525 establishments with a total product of $1,906,632, or .53 per cent of all industries. The industry therefore shows an increase a little more rapid than the average for all industries, and in the increase the small shops maintained their relative importance.

SLAUGHTERING AND MEAT PACKING, WHOLESALE.

This industry has grown to a considerable importance in Wisconsin largely because of shipping facilities, suitable climatic conditions and the extensive stock raising industry of the state. With modern packing facilities and abundance of natural ice cheaply harvested, the shorter the distance stock must be shipped on foot to a good packing and distributing center the cheaper the meat can be placed on the market and the larger the margin of profit. In 1890, we had 22 wholesale slaughtering and meat packing establishments, the total output of which was valued at $10,346,398, or 4.17 per cent of our total products of manufactories. The average output per establishment was $470,290. In 1900, the number of establishments was only 11, while the product was $13,601,125, or 3.77 per cent of the total of all industries. The average output per establishment was $1,236,466, or nearly three times as great as in 1890. While the industry decreased in relative importance there was an absolute increase of over 30 per cent in the product. Probably the most striking tendency noticeable is the tremendous concentration which took place during the census decade.

SHEET METAL WORKING.

Coppersmithing, tinsmithing and sheet-iron working are conducted mostly on a small scale for custom trade and the importance of the small shops in this industry seems to have increased. The number of establishments in 1890 was 237 with a total product valued at $2,128,389, and in 1900 there were 497 establishments with a total output valued at $2,675,548. The average product per establishment decreased from $8,980 in 1890 to $5,383 in 1900.

TOBACCO.

There are two distinct branches of tobacco manufacturing in Wisconsin. One embraces the manufacture of smoking and chewing tobacco and snuff, and the other the making of cigars and cigarettes. The former is represented by a small

nuuber of enterprises doing business on a large scale, due to and depending principally upon Wisconsin's tobacco crop, which is reported to yield a tobacco of a high quality and is constantly and rapidly increasing in importance. The manufacture of cigars, while much the more important branch of the industry as a whole, is represented largely by a great number of small establishments scattered throughout the state. So long as the general impression prevails that first class smokers can only be produced by hand rolling, the advantages of large scale production will continue to be less than in many other industries and a large proportion of it will continue to be represented by the small and scattered establishments supplying the bulk of the local trade. In 1890 the number of establishments engaged in the manufacture of chewing and smoking tobacco and snuff was 4, with a product valued at $1,212,668, or $303,167 each, and in 1900 there were 6 establishments with a total product of $1,632,354, or $272,059 each. There was a decrease in the average output and a slight loss of relative importance in this branch of the industry. In 1890, 355 cigar making establishments were reported with a total product valued at $2,524,949, or 1.05 per cent of all industries. The average product per establishment was $7,112. In 1900 there were 622 establishments with a total product of $3,255,676, or .90 per cent of all industries. The average product per establishment was nearly 30 per cent less than in 1890, being $5,234. The two branches of tobacco manufacture in 1900 constituted 1.35 per cent of all of tobacco manufacturing in 1900 constituted 1.35 per cent of all industries of the state.

TRUNKS AND VALISES.

The manufacture of trunks and valises is an important industry in the state and again illustrates the diversity and adaptability of Wisconsin's industrial conditions. Two important materials used in the manufacture of trunks and valises are produced in large quantities, namely, lumber and leather. Here is also a fine illustration of the value of the lumber industry in the industrial organization of Wisconsin, for it was when lumber was a far more important element in the manufacture

of trunks than in the present day of trunks almost all iron, that the industry became established and took firm root in Wisconsin soil. It has since continued and improved on a large and substantial scale because Wisconsin furnished it an important part of its materials and excellent market facilities. In 1890, we had 13 establishments with a product of $1,193,812, or an average of $91,831 each, and in 1900, 16 establishments were reported with a total product of $1,560,006, or $97,500 each. The industry shows a substantial increase in the number of enterprises and almost kept pace with the high average growth of manufactures generally in the state, and shows a considerable increase in the average product per establishment.

WOODENWARE.

The woodenware industry of Wisconsin is due largely to our supply of hardwood timbers, available water power and shipping facilities. In 1890 we had 9 establishments with a total product of $144,951, or $16,109 each, while in 1900 there were only 3 establishments reported, but the product had increased to $1,226,671, or over $400,000 per establishment. Thus the industry has sprung into real improtance in a very short time, the rise being accompanied by a very striking concentration.

WOOLEN GOODS.

Woolen manufactories in Wisconsin became early established when, before the extensive development of dairying and more intensive agriculture, there was a very considerable sheep raising industry located in this state. The availability of excellent water power was also a factor in its location here. In 1890, there were reported 32 establishments with a total product valued at $1,669,944. In this year the product amounted to .67 per cent of all industries. In 1900 there were the same number of establishments reporting that the output had decreased to $1,435,368, or .40 per cent of all industries. The decrease in this industry is due principally to the necessity of importing raw wool from long distances for the purpose of manufacture.

The foregoing 44 industries represented 80 per cent of the total products of all the manufacturing in Wisconsin. The remaining 20 per cent is distributed among 110 industries none of which produce 1 per cent of the total product of all manufactories.

Of this number 15 are such that rational economic causes can be assigned for their location in Wisconsin. This list embraces cigar boxes, fancy and paper boxes, buttons, food preparations, fruit and vegetable canning, kaolin and other earth grinding, lime and cement, paving and paving materials, pickles and preserves, pottery, terra-cotta and fire-clay, refrigerators, wooden ship and boat building, sugar and molasses refining, vinegar and cider, and wood turning and carving. The principal factor in the location of these industries is that the raw material is either found, extracted, gathered or grown in Wisconsin. For most part the industrial industries in this list are not of great relative importance. A few show retrogression in the past census decade but the most of them are showing rapid development and contribute a very considerable volume to our manufacturing output.

Another group, and a very important one, embraces 13 industries. This group embraces those industrial pursuits of a quasi-personal service character represented by the several lines of custom and repairing work. The location or distribution of these industries is purely a question of population. In this list are bicycle repairing, boots and shoe custom work and repairing, rag carpet weaving, men's clothing, custom work and repairing, women's dressmaking, dyeing and cleaning, furniture repairing, upholstering and cabinet making, hairwork, lock and gun smithing, custom millinery, photography, sewing machine repairing, and watch, clock and jewelry repairing. The entire group represented about 2.5 per cent of all industries in 1900. Seven of these industries show increases in product while six reported decreases. The growing popularity, diversity and cheapness of factory made goods, particularly clothing, is largely responsible for this decrease. The value of women's clothing, for instance, made in dress-making establishments decreased from over $2,000,000 in 1890, to $567,843 in 1900,

due primarily to this cause. This condition does not seem, however, to affect the custom millinery business which presents an increase from $964,073 in 1890, to $2,047,312 in 1900.

Another group of industries subject to about the same influence as the above group is represented by the building pursuits of which 7 were included in the census of manufactories. Of these carpentering has already been considered. The remaining six mechanical pursuits are brick and stone masonry, electrical construction and repairs, house and sign painting, paper hanging, plastering and stucco work, and plumbing, gas and steam fitting, with a single exception a very generally high rate of increase. The group as a whole represents about 2.38 per cent of all industries.

The bulk of the remaining industries are individually of small relative importance. In nature the majority are what has been termed neighborhood industries. They are the kind of industries, such as awnings, tents, bottling, brooms and brushes, coffee and spice milling, fur goods, glass cutting, lithographing and engraving, mineral and soda waters, patent medicines, and a miscellaneous list of others, which are likely to spring up in almost any industrial center where industrial conditions generally are favorable and a surrounding neighborhood offers a market for the product. The conditions of these industries appear, with a few exceptions, to be uniformly progressive and prosperous.

1890

Classification of Industries.	No. of establishments.	Value of products.	Per cent. of all manufactures.	Product per establishment.
Agricultural implements	51	$5,015,512	2.02	$98,343
Awnings, tents, sails	13	69,094	.03	5,315
Baking and yeast powders	3	295,482	.12	98,494
Baskets, rattan ware	8	87,915	.03	10,989
Blacksmithing and wheelwrighting	798	1,256,076	.50	1,574
Book binding and blank books	23	205,938	.08	8,954
Boot and shoe uppers	5	20,960	.01	4,192
Boots and shoes, custom and repair	508	694,605	.28	1,367
Boots and shoes, factory	32	2,972,233	1.19	92,882
Bottling	12	42,347	.02	3,529
Boxes, cigar	7	203,455	.08	29,065
Boxes, fancy and paper	7	132,100	.05	18,871
Boxes, wooden and packing	24	781,105	.31	32,542
Brass castings and finishings	5	370,451	.15	74,090
Bread and bakery products	256	2,064,288	.83	8,063
Brick and tile	137	1,642,465	.66	11,989

1890

Classification of Industries.	No. of establishments.	Value of products.	Per cent. of all manufactures.	Product per establishment.
Bridges	4	437,659	.18	109,415
Brooms and brushes	41	150,880	.06	3,680
Carpentering	367	5,798,939	2.33	15,801
Carpets, rag	30	40,196	.02	1,339
Carriage and wagon materials	13	96,739	.04	7,441
Carriages and sleds, children's	3	187,423	.07	62,474
Carriages and wagons	500	5,947,499	2.39	11,895
Cars and general R. R. shop construction	22	2,221,152	.89	100,961
Cheese and butter	966	6,960,711	2.81	7,206
Chemicals	6	184,807	.07	30,801
China decorating	3	112,863	.05	37,688
Clay and pottery products	16	142,977	.06	8,936
Clothing, house	4	183,690	.07	45,922
Clothing, men's custom repair	342	3,178,081	1.28	9,292
Clothing, men's factory prod.	27	3,909,726	1.57	144,804
Clothing, women's dressmaking	567	2,000,294	.80	3,528
Clothing, women's factory products	4	410,630	.16	102,658
Coffee and spice, milling	7	936,025	.38	133,718
Coffins and burial cases, trimming	14	66,254	.03	4,732
Coffins, burial cases and undertakers' supplies	4	99,494	.04	24,873
Confectionery	38	1,195,375	.48	31,457
Cooperage	140	1,527,008	.61	10,907
Cordage and twine	4	32,015	.01	8,004
Cotton goods	4	620,196	.25	155,049
Cutlery and edge tools	6	30,780	.01	5,130
Dentistry, mechanical	75	140,474	.06	1,873
Druggists' preparations	18	63,564	.03	3,531
Dyeing and cleaning	22	77,180	.03	3,508
Electrical apparatus and supplies	3	38,870	.01	12,955
Electroplating	4	6,800	.00	1,700
Fancy articles, N. O. S.	11	26,000	.01	2,363
Titles	3	54,082	.02	18,027
Flavoring extracts	4	73,850	.03	18,462
Flour and feed	497	24,252,297	9.76	48,797
Food preparations	8	159,898	.06	19,987
Foundry and machine shops	155	8,467,290	3.41	54,627
Fur goods	11	764,399	.30	69,491
Furnishing goods, men's	6	360,205	.15	60,034
Furniture, cabinet making and upholstering	95	599,209	.24	6,307
Furniture	11	662,501	.27	60,227
Furniture, factory product	35	2,954,016	1.19	84,400
Gas and lamp fixtures	3	37,800	.01	12,600
Gas, illuminating and heating	18	819,596	.33	45,533
Glass cutting and ornamenting	3	53,875	.02	17,958
Gloves and mittens	13	162,123	.07	12,471
Grease and tallow	9	66,986	.03	7,443
Hairwork	16	47,350	.02	2,959
Hand stamps	5	66,300	.03	13,260
Hardware	3	187,202	.07	62,401
Hats and caps, except wool	9	363,496	.15	40,388
Hay and straw baling	7	137,475	.05	19,639
Hosiery and knit goods	23	1,635,641	.66	71,115
Iron and steel	9	6,501,761	2.61	722,418
Iron and steel, nails and spikes	3	56,231	.02	18,743
Ironwork, agricultural	10	604,532	.24	60,453
Jewelry	4	94,500	.04	23,625
Leather, tanned and curried	38	11,161,850	4.49	293,733
Lime and cement	45	706,815	.28	15,707
Liquors, malt	107	14,193,057	5.71	132,645
Liquors, vinous	3	5,720	.00	1,907
Lithographing and engraving	4	409,866	.17	102,466
Lock and gun smithing	16	25,441	.01	1,590
Looking glass and picture frames	25	161,057	.07	6,442
Lumber and other mill products from logs	853	52,115,739	20.97	61,097
Lumber and planing mill, sash, etc.	88	6,295,810	2.53	71,543
Malt	15	2,472,018	.99	164,801
Marble and stonework	25	467,422	.19	18,697

1890

Classification of Industries.	No. of establishments.	Value of products.	Per cent. of all manufactures.	Product per establishment.
Masonry, brick and stone	144	3,682,473	1.48	25,570
Mattresses and spring beds	16	867,738	.35	54,234
Millinery, custom	204	864,073	.35	4,235
Mineral and soda waters	55	452,148	.18	8,221
Models and patterns	8	36,638	.01	4,579
Monuments and tombstones	56	752,905	.30	13,444
Musical instruments and materials	.....	8,080	.00	1,616
Musical instruments, organs	3	24,600	.01	8,200
Oil, linseed	3	624,228	.25	208,076
Oil, lubricating	5	230,625	.09	46,125
Optical goods	3	9,750	.00	3,250
Painting and papering	210	1,310,972	.53	6,242
Paints	9	235,495	.10	26,166
Paper	19	4,216,593	1.70	221,926
Patent medicines	22	213,194	.08	9,696
Paving and paving materials	22	1,272,499	.51	57,841
Photography	89	346,928	.14	3,898
Photo-lithographing and engraving	3	21,315	.01	7,105
Pickles, preserves and sauces	10	188,734	.08	18,873
Plastering and stucco work	15	132,069	.05	8,804
Plumbing and gas fitting	67	1,471,786	.59	21,967
Printing and publishing, book, job and periodical	68	771,744	.31	11,349
Printing and publishing, newspaper and periodical	379	3,256,897	1.31	8,593
Pulp, wood	8	258,775	.10	32,347
Pumps except steam	31	178,228	.07	5,749
Refrigerators	3	109,845	.04	36,615
Roofing and roofing materials	25	260,911	.11	1,436
Rubber and elastic goods	3	157,400	.06	52,466
Saddlery and harness	332	1,093,787	.44	3,294
Sausage	6	311,513	.13	51,917
Shipbuilding	16	463,120	.19	28,945
Shirts	6	24,633	.01	4,105
Slaughtering and meat packing, wholesale	15	8,393,754	3.38	559,584
Slaughtering, wholesale (not packing)	7	1,952,644	.79	278,949
Soap and candles	17	647,904	.26	38,112
Soda water apparatus	3	155,850	.06	51,950
Stationery goods, N. O. S.	3	7,000	.00	2,333
Steam-fitting and heating apparatus	7	770,459	.31	110,065
Stencils and brands	3	5,863	.00	1,954
Sugar and molasses, refining	25	22,188	.01	887
Surgical appliances	5	36,300	.01	7,260
Timber products (not manufactured at mill)	266	8,850,705	3.56	33,273
Tinsmithing, copper and sheet iron work	237	2,128,389	.86	8,980
Tobacco, chewing, smoking and snuff	4	1,212,668	.49	303,167
Tobacco, cigars and cigarettes	355	2,524,949	1.05	7,112
Tools, not elsewhere specified	7	79,651	.03	11,379
Toys and games	3	167,660	.07	55,886
Trunks and valises	13	1,193,812	.48	91,831
Umbrellas and canes	4	22,027	.01	5,507
Vinegar and cider	11	323,661	.13	29,424
Washing machines and clothes wringers	4	3,675	.00	918
Watch, clock and jewelry repairing	87	220,931	.09	2,539
Windmills	7	586,452	.24	83,779
Wire work	9	170,450	.07	18,939
Wood turning and carving	13	161,130	.06	12,394
Woodenware, N. O. S.	9	144,951	.06	16,109
Woolen goods	32	1,669,944	.67	52,185
All other industries	93	3,367,724	1.35	36,212
Total	10,417	$248,546,164	100.00	$23,859

1900

Classification of Industries.	No. of establishments.	Value of products.	Per cent. of all manufactures.	Product per establishment.
Agricultural implements	51	$7,886,363	2.18	$154,634
Artificial feathers	3	10,146	.00	3,382
Artificial limbs	4	94,870	.02	23,717
Awnings, etc.	26	126,036	.03	4,848
Baking powders	4	30,285	.01	7,571
Baskets, rattan	9	91,695	.02	10,177
Bicycles, etc., repairing	179	392,761	.11	2,194
Bicycles and tricycles	23	2,795,236	.77	121,532
Blacking	3	49,7 5	.01	16,568
Blacksmithing	1,581	2,442,141	.67	1,545
Bookbinding, etc.	27	593,365	.16	21,976
Boot and shoe repairing	612	637,531	.17	1,041
Bottling	18	76,942	.02	4,274
Boxes, cigar	8	242,436	.06	30,304
Boxes, fancy, etc.	8	240,926	.06	30,116
Boxes, wooden	38	1,989,663	.55	52,359
Brass castings	10	888,755	24	88,875
Brass ware	3	612,950	.17	204,317
Bread and bakery products	430	3,619,288	1.00	8,417
Brick and tile	168	1,795,993	.50	10,630
Bridges	4	28,984	.01	7,246
Brooms and brushes	41	291,599	.08	7,112
Buttons	9	63,125	.02	7,014
Carpentering	665	7,115,245	1.97	10,700
Carpets, rag	51	51,427	.01	1,008
Carriage and wagon materials	10	193,982	.05	19,398
Carriages and sleds, children's	3	272,125	.08	90,708
Carriages and wagons	436	6,956,341	1.93	15,955
Cars and general shop con. R. R.	46	6,306,823	1.75	137,105
Charcoal	3	7,555	.00	2,158
Cheese, butter and condensed milk	2,018	20,120,147	5.57	9,970
Chemicals	4	254,196	.07	63,549
Clothing, horse	3	311,079	.09	103,693
Clothing, men's, custom repairing	661	3,310,047	.92	5,007
Clothing, men's, factory	89	4,393,092	1.21	49,361
Clothing, women's, dressmaking	224	567,843	.16	2,535
Clothing, women's factory	9	271,991	.07	30,221
Coffee and spice, milling	6	456,876	.13	76,146
Coffins, burial cases, etc.	3	172,251	.05	57,417
Confectionery	56	1,570,445	.43	28,0 4
Cooperage	126	1,683,180	.47	13,358
Cordage and twine	3	74,166	.02	24,722
Cotton goods	3	316,061	.09	105,354
Cutlery and edge tools	5	46,528	.01	9,305
Druggists' preparations	4	44,262	.01	11,065
Dyeing and cleaning	29	140,233	.04	4,835
Electrical apparatus	7	923,587	.25	131,941
Electrical construction and repairing	20	323,278	.09	16,164
Electroplating	8	23,377	.01	2,922
Enameling and enameled goods	4	1,954,345	.54	488,586
Engraving, steel, including plate printing	5	24,050	.01	4,810
Fancy articles	4	25,679	.01	6,419
Fish, canning, etc.	6	35,792	.01	5,965
Flavoring extracts	6	103,071	.03	17,178
Flour and feed mill	717	26,327,942	7.30	36,719
Food preparations	15	1,332,588	.37	88,839
Foundry and machine shops	272	22,252,730	6.17	81,811
Fruits and vegetables, etc. canning	16	1,007,765	.28	62,985
Fur goods	33	913,754	.25	27 689
Furnishings, men's	3	19,500	.00	6,500
Furniture, cabinet making	142	539,328	.15	3,798
Furniture, factory products	78	8,721,823	2.42	111,818
Furs, dressed	8	56,959	.02	7,119
Gas, illuminating and heating	25	1,396,535	.38	55,861
Gas machines and meters	3	22,628	.01	7,542
Glass cutting, staining, etc.	6	112,787	.03	18,798
Gloves and mittens	19	507,495	.14	26,710
Grease and tallow	8	102,505	.03	12,813

1900

Classification of Industries.	No. of e tab-lish-ments,	Value of products.	Per cent. of all manufac-tures.	Product per estab-lishment.
Hairwork	16	37,661	.01	2,354
Hammocks	3	311,319	.09	103,773
Hand knit goods	12	21,635	.01	1,803
Hand stamps	4	53,382	.01	13,345
Hardware	11	313,045	.09	28,459
Hardware, saddlery	4	248,365	.07	62,091
Hats and caps, except fur and wool	6	602,820	.16	100,470
Hosiery and knit goods	27	2,486,813	.69	92,104
House furnishings, N. O. S.	7	320,756	.09	45,822
Iron and steel	12	8,905,226	2 46	742,102
Iron and steel, nails and spikes	3	113,600	.03	37,866
Ironwork, agricultural	12	1,865,075	.52	155,423
Jewelry	5	76,372	.02	15,274
Kaolin and other earth grinding	4	42,064	.01	10,513
Leather goods	4	178,895	.05	44,724
Leather, tanned, curried and finished	42	20,074,373	5.56	477,975
Lime and cement	53	960,004	.26	18,113
Lithographing and engraving	7	715,862	.20	102,266
Liquors, distilled	5	2,698,984	.74	539,997
Liquors, malt	147	19,394,709	5.37	131,936
Lock and gun smithing	44	71,237	.02	1,619
Looking glass and picture frames	42	160,983	.04	3,833
Lumber and timber products	1,066	57,634,816	15.97	54,066
Lumber and planing mill products, sash, etc.	123	8,400,695	2.33	68,298
Malt	17	4,089,715	1.13	240,571
Marble and stone work	54	754,456	.21	13,971
Masonry, brick and stone	223	3,506,175	.97	15,722
Mattresses and spring beds	19	1,838,841	.51	96,781
Millinery and lace goods	6	529,185	.14	88,197
Millinery, custom	611	2,047,312	.57	3,351
Mineral and soda waters	132	1,151,747	.32	8,725
Models and patterns	7	144,583	.04	20,655
Monuments and tombstones	105	1,169,897	.32	11,141
Musical instruments and materials, N. O. S.	4	9,740	.00	2,435
Musical instruments, organs and materials	3	18,488	.00	6,162
Optical goods	3	31,065	.01	10,355
Painting, house and sign, etc.	379	1,791,013	.49	4,725
Paints	5	881,767	.24	176,353
Paper and wood pulp	47	10,895,576	3.02	231,821
Paper goods, N. O. S.	3	134,160	.04	44,720
Paper hanging	23	169,895	.04	7,386
Patent medicines and compounds	40	576,454	.16	14,411
Paving and paving materials	47	847,786	.23	18,038
Perfumery and cosmetics	3	64,935	.02	21,645
Photography	311	705,872	.19	2,269
Photo lithographing and photo engraving	4	50,724	.01	12,681
Pickles, preserves and sauces	15	316,657	.09	21,110
Plastering and stucco work	54	350,464	.09	6,490
Plumbers' supplies	5	156,219	.04	31,244
Plumbing, gas and steam fitting	248	2,797,258	.77	11,279
Pottery, terra cotta and fire-clay	4	14,213	.00	3,553
Printing and publishing, book and job	103	972,203	.27	9,439
Printing and publishing, newspaper and periodical	495	4,173,415	1.14	8,350
Pumps (except steam)	6	13,224	.00	2,204
Refrigerators	7	749,412	.21	107,059
Regalia and society banners, etc.	4	35,414	.01	8,853
Roofing and roofing materials	21	127,053	.04	6,050
Rubber and plaster goods	3	735,570	.24	245,190
Saddlery and harness	525	1,906,632	.53	3,631
Sausage	8	540,806	.15	67,601
Sewing machine repairs	9	11,817	.00	1,313
Ship and boat building, wooden	29	707,955	.19	24,412
Shirts	9	247,870	.07	27,541
Slaughtering and meat pack'g, wholesale	11	13,601,125	3.77	1,236,466

1900

Classification of Industries.	No. of establishments.	Value of products.	Per cent. of all manufactures.	Product per establishment.
Soap and candles	15	1,096,092	.30	73,073
Soda water apparatus	3	152,300	.04	50,766
Springs, steel car and carriage	5	340,823	.09	68,164
Starch	6	154,030	.04	25,671
Steam fitting and heating apparatus	8	1,124,731	.31	140,466
Sugar and molasses refining	18	15,450	.00	858
Surgical appliances	5	49,420	.01	9,884
Taxidermy	4	4,910	.00	1,227
Tinsmithing, coppersmithing and steel and iron working	497	2,675,548	.74	5,383
Tobacco, chewing, smoking and snuff	6	1,632,354	.45	272,059
Tobacco, cigars and cigarettes	622	3,255,676	.90	5,234
Tools, N. O. S.	8	107,172	.03	13,396
Trunks and valises	16	1,560,006	.43	97,500
Upholstering materials	11	301,895	.08	27,445
Vinegar and cider	5	163,330	.04	32,666
Watch, clock and jewelry repairing	366	529,606	.15	1,447
Windmills	9	444,787	.12	49,421
Wirework, including rope and cable	12	638,797	.18	53,233
Wood turning and carving	11	70,302	.02	6,391
Woodenware, N. O. S.	3	1,226,671	.34	408,890
Woolen goods	32	1,435,368	.40	44,855
All other industries	103	8,163,378	2.26	79,256
Total	16,187	$360,818,942	100.00	$22,289

WISCONSIN MANUFACTURING CENTERS OF OVER 20,000 POPULATION.

In order that we better appreciate the economic conditions which have contributed to the past upbuilding of our industrial centers and estimate the forces which are likely to prove helpful in our future industrial development, it is deemed most befitting to open up this part of our study with some ideas, in quotation or brief synopsis, applicable to Wisconsin conditions from an article originallly written by Mr. Edward A. Ross from Leland Stanford Junior University, and published in the Quarterly Journal of Economics for April, 1896. Much has been said elsewhere in books and papers on economics upon this subject but the above article is so succinct and full of substance as to be peculiarly adaptable for this purpose.

The article begins, "In the nature of things there must be causes that explain why an industrial enterprise—mill, factory, foundry, dairy, refinery—is located at just this or that place and not somewhere else. Some of these causes are non-rational, such as accident and caprice. Others are rational, but personal. The enterprise is started in order to boom the town, to give work to the unemployed, to utilize some plot or site otherwise unusable, to confer value on adjoining real estate or to give safe employment to capital under the watchful eye of the owner. The remaining causes are rational and economic; that is, the selected locality is deemed to offer certain advantages in production or marketing over any other equally available point." In considering the several industries which are important in the industrial centers of Wisconsin it is not possible or desirable to determine the "non-rational" or "personal" forces which contributed to their growth. Since we are to consider each industry as a unit—a group of enterprises—to a considerable extent "the non-rational and personal causes are eliminated."

The rational economic causes as enumerated by Mr. Ross are as follows: First, the location of natural deposits determines

the location of our extractive industries such as mining, quarrying, lumbering, etc., and also to a degree the location of industries engaged in refining or otherwise manufacturing or preparing the product of purely elaborative industries. Thus much of our lumber is sawed near the seat of logging operations as near as practicable because of the greater facility of handling and hauling sawed lumber especially where logs cannot be carried to the mill by water. The manufacture of lime stone into lime near the place where the stone is quarried is the almost universal practice.

Soil, climate and situation are decisive in the location of agricultural and allied industries. While we are interested here in manufacturing rather than agricultural or other industries, this consideration is nevertheless important in so much as agriculture in Wisconsin has an important bearing and influence upon our manufacturing industries. An illustration of this fact and of the principle cited above of place association between extractive and elaborative industries is found in the location of flour and grist mills and breweries in the grain and corn raising sections and starch factories in sandy sections raising chiefly potatoes and tobacco factories in the tobacco sections and beet sugar and canning factories in the neighborhood of the farms on which the raw materials are grown.

Climate is also of importance in locating some manufactories because of the nature of the materials and processes involved. Climatic conditions play an important part in our tobacco handling and manufacture in Wisconsin. The meat packing, dairying and brewing industries are favored here by our cold winters producing a cheap supply of natural ice. Metallic industries find the low average temperature of Wisconsin inviting.

Besides the location of the natural deposits of materials which go into the finished product, the location of raw materials is of great importance. Particularly is this consideration of great force when "the materials are bulky and heavy relatively to their value," or "when the finished product embodies but a small part of the materials employed" or when transportation in the raw state is attended by exceptional cost and difficulty. This principle applies in the melting of iron ore at Ashland

and Superior near the iron mines of the Superior region. The agricultural implement, wagon, and furniture manufactories are influenced in locating in Wisconsin by availability of hardwood lumber sawed at Wisconsin mills, while sash and door planing mills follow the pine saw-mills as well.

Another important cause of the location of industries is the supply of auxiliary materials, which, while in many cases they do not enter as a part of the different product, are necessary to the process of manufacture and may exceed in bulk or other difficulties of transportation the raw materials which actually go into the finished product. Thus a supply of tan bark is a necessity to the tanning industry and in Wisconsin is probably the most potent force in the location here of this important branch of our manufactures. Fluxing materials and coal are important to the iron melting industry and the availability of moulding sand is a force in locating foundries.

Often a decisive consideration is the availability of power supply. Since steam power is practically available almost anywhere this point has application primarily to water power. Especially is this consideration of weight in the location of those of our industries employing heavy machinery requiring very great power supply. Illustrations in Wisconsin are found in the saw mills, flour and grist mills, planing mills, and sash and door factories, etc. The importance of water power has tended to concentrate manufacturing in several industries in small areas about the source of power, thus building up industrial centers. The development of economical electrical transmission of this power will tend to counteract this force. In Wisconsin it will also make available a great deal more power, the value of which is now diminished by considerations of place.

The availability of a supply of cheap labor is the important consideration in determining the location of many industries. This applies to industries which offer employment for those persons in the community, generally women and children, who, because of the nature of the work to be done or other cause, do not find employment in those industries which for natural and economic considerations are located in the place. This

principle of the parasitic industries has already been explained in connection with the industries themselves and the most notable examples pointed out.

Many industries are located primarily with reference to the residence of the consumer. The industries engaged in custom manufacture, repairing and cleaning of clothing, as already pointed out, are of this class. Besides this, many other industries having more or less of a quasi-personal service character such as photography, local newspapers, etc., are subject to this principle.

Since the price of labor varies with localities, the availability of cheap labor is often a force in locating some industries. The parasitic industries as examples of this class have already been discussed. The other industries most free to seek out favorable locations with regard to labor are those which complete the finishing process in the manufacture and put the product in shape for its final use. Labor cost determines the location of such manufactures as "clothing, linen, underwear, gloves, boots and shoes, millinery, cigars, patent medicines and cutlery."

Low cost of living tends to cheap labor, and high cost of living precludes it. "Living will be cheap in small places, supplied from surrounding country." And we, therefore, find these industries located in small agricultural centers if distributing facilities are not too backward. The cost of living is also low in "large cities that, on account of superior transportation facilities, are able to draw their supplies from a wide area. Apart, therefore, from the cost of moving materials or products, industries will tend to congregate in commercial centers."

Legal restrictions and regulations on the part of the state or a tendency to strikes and disorder on the part of the workmen in any locality or section tend to repel manufactures in general. On the other hand, special deference to the protection, welfare and interests of the capitalists tend to induce them to invest their money in a given place. Where aid is given, not temporarily in order to root an industry in a naturally favorable location, but permanently in order to keep it

where it is unsuited, the industry becomes a parasite, sapping the profits out of the unfavored industries.

A few industries develop to greater importance in a locality because of inventive talent or technical skill. These forces have contributed much to the pre-eminence of Wisconsin in some lines of manufacture of machinery and agricultural implements.

The foregoing enumeration of the forces of location covers fairly well the rational economic causes which give rise to manufacturing centers and manufacturing generally in Wisconsin. With the other industrial phenomenon which Mr. Ross discusses in the same article, namely, the concentration or localization of a given industry in one place, we have less to do. Strictly speaking there is no instance of any important industry localized in any one place in Wisconsin. This is a development that belongs to older and more intense industrial conditions than here prevail. In some cases we find something that on first sight looks like the specialization of localities or places, in a given industry. But in nearly, if not quite, all such cases on closer examination shows that the given industry predominates either because it is located in an agricultural center and so fully utilizes the available labor supply as to preclude the establishment of considerable enterprises in other lines, or because manufacturing in the given place is new and has not yet had time to develop a diversity of industries, and not because the place is adaptable to only the one industry to the exclusion of all others. The localization of any industry in any one place or the specialization of any one place in a single industry are not common enough in Wisconsin to require a great deal of attention. On the other hand, a tendency towards localization may be noted in the growing pre-eminence along some lines of manufacture in a number of places in Wisconsin. This tendency no doubt plays a considerable part in the upbuilding of our manufacturing centers. There will be opportunity to note instances of this in the remaining parts of this study.

Some of the forces of concentration or localization play an active part in this tendency towards localization in Wisconsin.

Some of these forces, as named by Mr. Ross, are as follows: "A large number of workpeople living in a single community can improve faster in skill than if scattered in small separate groups. Methods are rapidly leveled up to the best known, so that it is easier for a new process or type of skill to become a standard. The prompter appreciation of and adoption of an improvement stimulates latent inventive talent. Inventions make it possible to maintain special trade schools, museums and laboratories, for promoting efficiency. Moreover, when the aggregate output is large, certain specializations appear between the establishments, and the most expensive machinery can be used. * * * In connection with the center there grows up an organization for exchange, able to develop a market for raw material and for product that may economize the use of middlemen."

In addition to all these, there are advantages which accrue to an entire industry at a given place because the success of the earlier enterprise becomes known. A city becomes advertised, so to speak, for its product in some particular line of manufacture. Especially is this important in these days of extensive and scientific advertising. The fame of a town for some product is an advertising advantage which causes many enterprises in the same line to flock thither. Probably the most notable illustration of this is the colony of cereal manufacturing enterprises which in a few years has gathered in and about the city of Battle Creek, Michigan. In Milwaukee there are nine brewing establishments all enjoying considerable advantages over manufacturers in outlying towns because they make "Milwaukee beer," that product having been made famous by the extensive operation and advertising of two or three of the larger establishments.

All these forces are at work upon our industrial development. But those of localization and specialization have as yet to bring forth their important results. The chief reasons for this are found in the admirable adaptability of Wisconsin soil for varied and diversified manufactures and the newness of our industrial organization. In upbuilding of industrial centers in this state, the forces which we will have to hold most

potent are the purely economic advantages of location as previouslv enumerated. In most cases these advantages are common to several industries giving rise to a diversity which adds security to the industrial future.

LA CROSSE.

The city of La Crosse is situated on the Mississippi River a few miles below where the Black River empties into it. It is surrounded by a wide area of fertile agricultural territory with scattered growths of hardwood timber. It was among the early settlements in Wisconsin. In transportation facilities it has the advantage of the navigable waters of the Mississippi River system. It also has three railroads connecting by most direct routes with all commercial and industrial centers of the Northwest and radiating throughout the rich agricultural sections of the west and Northwest. The lumbering industry early attained importance at this point and fostered here the development of a manufacturing center, remaining even in 1900 the leading manufacturing industry. The logs were cut about the upper Mississippi tributaries particularly the Black River and brought down to La Crosse in "drives" or towed to the mills in "booms." While lumbering continued the leading canufacturing industry, there had been a constantly increasing diversification and rapidly growing manufacturing outside of the lumbering industry. This fortunate development stood the city well in hand when, owing to the failure of timber supply, the lumber industry began its rapid decline. In 1890 the output of manufactures was valued at $9,157,501, and in 1900 had decreased to $8,281,749, or 9.6 per cent. More than twice the amount of this decrease was the falling off in the lumbering industry alone. So that for the manufacturing of the city exclusive of lumber and timber products, there was really an increase of over 13 per cent. This increase is partly represented in new industries and by a very marked increase of new establishments—from 200 in 1890 to 255 in 1900, or 27.5 per cent. Two of the new industries assumed considerable importance during the decade. Agricult-

ural implements and furniture, factory product, which were not reported in 1890, reported in 1900, a gross output of $368,012, and $119,641, or 4.6 per cent, and 1.3 per cent respectively of the totals for each of those industries for the entire state.

In 1900 there were 13 industries in the city of La Crosse reporting an output of over $100,000. With the exception of the two largest, lumbering and flour and grist milling, all reported increases ranging from 2 per cent up. Two of these industries, as already pointed out, were established during the decade. One industry, confectionery, shows an increase in product from $50,608 to $308,802, or 512 per cent. The next highest increase is 76 per cent reported for foundry and machine shop products. In 1900 the industry reported a total gross output valued at $192,150. The brewing industry at La Crosse is the only industry with a product of over $1,000,000, showing an increase. In this case, however, the increase is very high, offsetting much of the loss in the milling industry. In 1890 the industry reported $651,137, and in 1900, $1,133,090, or an increase of 74 per cent. The next highest increase is 70 per cent reported for printing and publishing of newspapers and periodicals. Bread and other bakery products show an increase of 53 per cent. Plumbing, gas and steam fitting shows an increase of 35 per cent. Tobacco, cigars and cigarettes increased 22 per cent. Lumber, planing mill products increased 20 per cent, and carriages and wagons 2 per cent. The industries with a product of less than $100,000 in 1900 reported a total output of $1,855,918 in 1890, and $2,282,013, in 1900 showing collectively an increase of 23 per cent. The milling and lumber industries reported decreases in products of 42 per cent, and 56 per cent respectively.

The greatest degree of localization at La Crosse is the confectionery industry, 19.6 per cent of the product of the state coming from that city. Of malt liquors, La Crosse supplies 5.8 per cent of the state's product, and 5.9 per cent of the cigars and cigarettes. Of our flour and grist mill products, 4.5 per cent is manufactured at La Crosse, and of the planing mill products, 4.3 per cent.

MILWAUKEE.

The manufacturing of the city of Milwaukee shows substantial growth during the past census decade. That city's favored location with reference to commerce and manufactures is too well known to require any attention here. The distributing facilities in all directions from this center are unexcelled. A rich agricultural state gives it a substantial source of supplies and renders a large population and low cost of living possible. The raw materials of the most important of its manufacturing industries are produced largely within the state or in territory adjacent to the Great Lakes and are therefore readily available.

In the past census decade there have been many new industries added to Milwaukee's already very diversified manufactures. Seven of these industries reported, for the first time, in 1900, each showing products in excess of $100,000, and therefore appear as specified industries in table V following. Of these, one industry, namely iron and steel, reports an output of $7,410,213, and two others have products of $1,223,549, and $1,708,171, respectively.

Besides important gains in new lines of manufacturing the table shows substantial increases in nearly all of the older industries. Manufactures as a whole in Milwaukee reported a total gross product in 1890, of $97,503,951, and in 1900, of $130,852,088, or an increase of 34.2 per cent. It will be remembered that the increase in products of Milwaukee county for the census decade was 45 per cent, thus showing a more rapid growth for the suburban manufactories and showing the recent tendency in manufacturing to spread to the outskirts and suburbs of the largest cities rather than add to the congestion of their crowded manufacturing districts. The manufacturing of Milwaukee county exclusive of the city of Milwaukee,—presumably the corporate limits—was $1,094,500 in 1890. By 1900, it amounted to $9,400,295, an amount exceeded by the manufactured product of Racine, Winnebago, La Crosse and Sheboygan counties

only. Since from an industrial point of view much of this suburban manufacturing properly belongs to industrial Milwaukee and is indebted and amendable to the same economic causes and conditions, the importance of this growth is properly pointed out in this connection.

In 1900, there were in Milwaukee 71 industries each reporting a total output in excess of $100,000. Of this number, as already noted, seven were reported for the first time in 1900. Five more of these industries more than thribbled in output, and five more than doubled. Four showed increases between 75 per cent and 100 per cent, six between 50 per cent and 75 per cent, ten between 25 per cent and 50 per cent, 14 less than 25 per cent. While 20 industries reported decreases in product. Five of these 20 industries reporting decreased output in 1900 are repairing and custom working industries in which the highest decrease is 80 per cent for dressmaking, the decrease not exceeding 23 per cent in any of the other four cases. Of the decrease industries, seven report products in excess of $1,000,000 each. For these important industries, however, the rate of decrease is low, being less than 10 per cent in all but two instances. In a general way this rule seems to hold good for all the decrease industries. The decrease is, generally, high only for some industries of less importance, though there are a few very desirable industries showing a loss of 50 per cent or over. They include brick and tile, cars and general shop construction by railroad companies, carriages and wagons and paving materials. In many instances this loss reappears as a gain in the returns for Milwaukee county exclusive of the city because of the recent tendency already cited to seek the outskirts of the city rather than the center. Properly, therefore, the loss is to some extent merely apparent, being due to a movement which has not removed the industries beyond the sphere of Milwaukee's industrial conditions and advantages.

The largest product of a single industry is $14,495,362 reported for foundries and machine shops, an amount equalled by the total manufacturing of only one county in the state outside of Milwaukee county. In the census period the rate

of increase for this industry was 163 per cent. In 1900 Milwaukee produced 65.1 per cent of the total foundry and machine shop products of the state.

Next in rank of output, and only a little behind, is the brewing industry of Milwaukee. In 1890 this industry reported an output of $10,810,695, and in 1900, $13,899,390, or an increase of 28 per cent. In 1900 Milwaukee produced 71.6 per cent of the malt liquor product of the state.

The slaughtering and meat packing industry of Milwaukee, including Cudahy, comes next in value of products with a product in 1900, valued at $13,045,979. The rate of increase for the census decade was 34 per cent. The product of Milwaukee and Cudahy in 1900 represented 94.2 per cent of this industry for the entire state. It should, however, be remembered, in ranking this industry on the product basis, that the tendency is to give it undue importance.

The tannery industry, on almost any basis other than gross output, would rank ahead of the packing industry. In 1890, the tanning industry of Milwaukee reported a total product of $8,429,814, and in 1900 the output was $10,267,835, the increase being 22 per cent. In this industry Milwaukee represents 5.1 per cent of the entire state.

In point of product, the next great industry of Milwaukee, reported for the first time in 1900, is iron and steel, with a total product of $7,410,213 representing 83 per cent of this industry for the whole state.

Flour and grist milling shows the next largest output. In 1890 the value of flour and grist milled in Milwaukee was $4,438,983. In 1900 the output was valued at $6,357,983. The increase was therefore 43 per cent and the output of Milwaukee 24.1 per cent of the state's product in this industry. This is another industry which, on product basis, ranks high because of the large proportion of the product which is represented by cost of raw materials.

The foregoing six industries comprise a group of leading industries for Milwaukee, there being a very considerable drop from the value of products in the last-named industry to the value of products in the next largest—a drop of nearly one-

half. In the aggregate these six industries show an output in 1900 of $65,476,762, or over 50 per cent of the total manufactures of the city of Milwaukee.

The industries with an annual output of between 3 and 4 million dollars are men's clothing, factory product and carpentering, the products for 1900 being $3,593,736, and $3,324,734 each respectively. While the former shows a slight increase for the census period, the latter shows a decrease in products of 7 per cent. The factory manufacture of men's clothing in Milwaukee is 81.8 per cent of the total of the state, and the carpentering industry shows 46.7 per cent of the state's product at Milwaukee.

The industries with outputs between 2 and 3 million dollars are agricultural implements; boots and shoes, factory product; bread and other bakery products; lumber, planing mill products; and malt. Agricultural implements manufacture shows an increase of 208 per cent with 29 per cent of the Wisconsin industry at Milwaukee. The boot and shoe industry shows an increase of 35 per cent, and Milwaukee furnishes 45.8 per cent of the state's output. Bread and bakery products have increased 36 per cent, and Milwaukee produced 59.6 per cent of the total product of the state.

The planing mill industry begins to show effects of falling off in the lumber supply. The industry shows a decrease in output of 9 per cent. The proportion of the planing mill industry of the state located at Milwaukee is 25.6 per cent. The malting industry is properly an adjunct of brewing and much of it is conducted as a part of that industry. That part of the malting industry of Milwaukee reported as such shows an increase of 7 per cent and represents 56.6 per cent of the malting industry of the state.

The 14 industries in Milwaukee reporting products between 1 and 2 million dollars in 1900 are: bicycles and tricycles; men's clothing; custom work and repairing; confectionery; enameling and enameled goods; furniture, factory product; hosiery and knit goods; architectural iron work; masonry; plumbing; gas and steam fitting; printing and publishing newspapers and periodicals; steam fittings and heating apparatus; sheet

metal work; tobacco, chewing, smoking and snuff, and tobacco, cigars and cigarettes. Bicycle and enameling and enameled goods are two of those industries reported in 1900 for the first time and the product of Milwaukee is 43.7 per cent and 87.4 per cent respectively of the total for these industries in the state. The highest increase for the rest of this group is 81 per cent shown for architectural ironwork, the Milwaukee product being 58.5 per cent of the state's total. The manufacture of steam fittings and heating apparatus shows an increase of 48 per cent representing the entire industry in this state. Chewing and smoking tobacco and snuff shows an increase of 34 per cent and embraces 99.4 per cent of this industry in Wisconsin. Plumbing, gas and steam fitting shows an increase of 43 per cent, and the proportion of the state's product in Milwaukee is 47.6 per cent. The confectionery industry shows an increase of 37 per cent, and Milwaukee reports 66.2 per cent of the state's total output. Newspaper and periodical printing and publishing shows an increase of 17 per cent representing 40.9 per cent of this industry in the state. Hosiery and knit goods shows an increase of 9 per cent and the product of Milwaukee at 49.2 per cent of the total Wisconsin product in this industry. The remaining five industries in this group show decreases ranging from a fraction of 1 per cent to 38 per cent, the intermediate decreases being 1, 6 and 13 per cent respectively. The relative importance of the Milwaukee product in each of these industries is 41.9, 17.1, 38.9, 54.1 and 33.5 per cent of the state's output in men's custom clothing; furniture, factory product; masonery; sheet metal; and cigars and cigarettes respectively. So that these decreases, though small, affect a considerable portion, in each case, of the entire industry in Wisconsin.

Among the industries reporting products less than $1,000,000 in 1900, there are some very notable increases. Book binding and blankbook making reported a product of $160,588 in 1890, and $524,961 in 1900, or an increase for 1900 of 211 per cent. Milwaukee's proportion of this industry in the state was 88.4 per cent in 1900. Brass castings and finishings shows a growth from $370,451 in 1890 to $884,050 in

1900, or 138 per cent and the proportion in Milwaukee was 99.5 per cent. The manufacture of chemicals increased from $112,157 in 1890 to $254,196 in 1900, or 126 per cent, the entire industry in Wisconsin being located in Milwaukee. The manufacture of electrical apparatus and supplies reported $38,870 in 1890 and $502,332 in 1900, thus showing an increase of 1140 per cent with 54.4 per cent of the Wisconsin product coming from Milwaukee. The increase in food preparations from $35,450 in 1890 to $203,909 in 1900 was 475 per cent. Milwaukee's proportion being 15.3 per cent of the entire industry in this state. The manufacture of gloves and mittens grew from $108,819 in 1890 to $252,182 in 1900, or 131 per cent, representing 49.6 per cent of that industry in Wisconsin. The manufacture of hats and caps, except fur and wool, at Milwaukee embraces the entire industry in Wisconsin and increased in output from $363,496 in 1890 to $602,820 in 1900, or 66 per cent. The manufacture of millinery and lace goods is reported for the first time in 1900, and 99 per cent of this industry in Wisconsin is located at Milwaukee. The output in 1900 was $524,185. The plastering and stucco work industry at Milwaukee shows an increase from $90,400 in 1890 to $317,268 in 1900, or 250 per cent. Book and job printing reported products valued at $750,896 in 1900, and shows an increase for the census period of 9 per cent. The proportion of the state's product reported from Milwaukee in 1900 was 77.2 per cent. Saddlery and harness manufacture also shows a large increase. In 1890 the output at Milwaukee was $275,702, and in 1900, $548,841, thus showing an increase of 99 per cent and 28.7 per cent of the total of these products for the state. Sausage making reported products valued at $311,513 in 1890 and $532,806 in 1900, or an increase of 71 per cent for the census period. The proportion of this industry in Milwaukee in 1900 was 98.5 per cent of the total for the state. The manufacture of soap and candles at Milwaukee also shows a high rate of increase in the census period. In 1890 the product reported was $510,966, while in 1900 it had increased to $967,767, or 89 per cent, and represented 88.2 per cent of

the soap and candle industry in the state. The trunk and valise industry at Milwaukee reported a product of $614,054 in 1890, and $969,022 in 1900, thus showing an increase of 5.7 per cent, and in 1900 producing 62.1 per cent of the output of trunks and valises manufactured in this state.

The remaining 30 industries in Milwaukee reporting over $100,000 and less than $1,000,000 of products in 1900 are of less relative importance. This group embraces 13 of the 20 industries reporting decreases. With the exception of 3 or 4 of these industries reporting decreases in output only a few of the 30 produced over 200,000 in 1890. With very few exceptions the proportion of each of these industries located in Milwaukee is not a large part of the total of the respective industries in Wisconsin.

OSHKOSH.

The city of Oshkosh, like the city of La Crosse, is situated near the mouth of an important lumbering stream. The Wolf river became early one of the most important of Wisconsin logging ways. The bulk of the timber stand of an extensive and heavily wooded area was brought to Oshkosh and gave rise to the important lumbering industry which was the beginning of a manufacturing center.

In 1890 the total products of manufactories at Oshkosh was $8,620,626 and in 1900, $9,781,248. The rate of increase was 1.9 per cent, and the total product in 1900, 2.5 per cent of the manufactures of the state. While there was only a slight increase in manufactures as a whole there was considerable improvement in the general industrial condition and growth in newer lines of industry. The manufacturing of the city more than maintained its output in the face of a loss of 37 per cent in its principal industry which, in 1890, constituted about 45 per cent of its manufactures.

The industries reporting output exceeding $100,000 in 1900 were carpentering; carriages and wagons; flour and grist milling; foundry and machine shop products; furniture, factory product; lumber and timber products; lumber, planing mill

products; cigars and cigarettes. Of these by far the most important was the sawmill industry. In 1890 this industry reported manufactured products to the value of $3,904,550 and in 1900 to the value of $244,430. Owing to the failure of timber supply the industry suffered a loss during the census period of 37 per cent, and in 1900 only 4.3 per cent of the state's lumber product was sawed at Oshkosh.

Next in importance and separately reported for the first time in 1900 is the planing mill industry. The output of the planing mills and sash and door factories of Oshkosh was reported as $1,619,836, and represented 19.2 per cent of all this industry in the state.

Carpentering and flour and grist milling show decreases of 49 and 56 per cent respectively.

Carriage and wagon manufacturing at Oshkosh shows an increase from $394,512 in 1890, to $547,936 in 1900, or 39 per cent, and represents 7.8 per cent of that industry in Wisconsin.

Foundry and machine shop product shows a considerable gain. In 1890 the output was valued at $223,825, and in 1900 at $294,963, thus showing an increase of 31 per cent.

The furniture factories of Oshkosh also show a rapid growth in imoprtance, reporting products to the value of $552,525, in 1890, and $720,826 in 1900. The increase amounts to 30 per cent and the output, in 1900, to 8.2 per cent of the furniture manufactured in Wisconsin.

Cigar and cigarette making is the remaining industry at Oshkosh reporting a product of $100,000, in 1900. This industry little more than kept up its output of 1890, and produced 35 per cent of the cigars and cigarettes manufactured in Wisconsin.

RACINE.

The city of Racine located on the shore of Lake Michigan within a few miles of Milwaukee and Chicago, having direct railroad connection with both points and with a line of railway extending into the rich agricultural west, is a rapidly growing manufacturing center. In 1890 the total

products of its manufactures was $8,462,359. By 1900 it had increased to $12,502,796, or an increase of 47.7 per cent. In 1900 the product of Racine manufactures was 3.4 per cent of the state's output. Among its most important industries are found many which have grown up during the census period. Not only has the manufacturing of the city grown in volume, but in general solidity and diversity as well.

The leading industry at Racine is the manufacture of agricultural implements. In 1890 the product was reported at $1,979,613, and in 1900 at $3,001,009, thus showing an increase of 51 per cent, and in 1900 representing 38 per cent of the agricultural implement industry of Wisconsin.

The second largest industry at Racine in 1900 was the manufacture of carriages and wagons. In 1890 this industry reported products valued at $1,902,536. In 1900 the output had increased to $2,749,653, or an increase of 44 per cent. At the last census, therefore, Racine had 39.5 per cent of this industry in Wisconsin.

An industry very rapidly growing in importance at Racine is that of the foundry and machine shop. In 1890 the output was valued at $307,701 and in 1900 at $849,455, showing an increase of 176 per cent. The proportion of this industry in Wisconsin located at Racine was 3.8 per cent.

The next important industry at Racine is boot and shoe manufacturing. This is one of the industries reported for the first time in 1900 when the product was $849,215 and represented 17.7 per cent of this whole industry in Wisconsin.

The tannery industry holds a very important place in Racine manufactures although showing decrease in output during the census period. In 1890 the tannery product at Racine was $706,000, and in 1900, $576,236, thus showing a decrease of 18 per cent. In 1900, 2.8 per cent of the state's product in this industry came from Racine.

The manufacture of trunks and valises at Racine is an old and long established industry. The output at the two censuses was practically the same, about $372,000, and in 1900 was 23.9 per cent of the state's total product in this industry.

The manufacture of saddlery, hardware and steel car and

carriage springs are two new industries in Wisconsin, both being reported for the first time in 1900, and both being located wholly at Racine. The product in saddlery hardware was $284,365, and in steel car and carriage springs, $340,823.

The planing mill industry also is reported from Racine for the first time in 1900. The gross product was $123,957, or 1.4 per cent of that industry in Wisconsin.

The remaining industry at Racine reporting products to the amount of $100,000 in 1900, was newspaper and periodical publishing and printing. In 1890 the product was $113,341, and in 1900, $120,418. The increase was 6 per cent, and the proportion to the industry for the whole state was 2.9 per cent.

The smaller manufactories of Racine, including besides the smallest industries not separately reported, about 20 specified industries in 1900 as a whole report good progress. The product of the cities' manufactures in 1890 outside of the ten industries considered above was $3,081,861, and in 1900, $5,935,706. Thus the minor industries together show an increase of over 90 per cent, or much higher than the average for the cities manufacturing as a whole.

SHEBOYGAN.

The city of Sheboygan had not until the last census, attained a population of 20,000 and its manufactures were never before reported separately. While no mathematical comparisons are therefore possible it is known in a general way that the manufacturing of this city has in the past census period experienced a very rapid growth. Especially is this true of the furniture manufacturing which is the principal industry. This city is on the lake shore and nearer than Milwaukee to the hardwood mills and connected with them by direct rail routes and water transportation. When given the same distributing facilities as Milwaukee in the western and southern markets its advantages as a manufacturing center are reinforced.

As already noted the leading industry at Sheboygan is the manufacture of furniture. The output in 1900 amounted to

$3,189,045, and was 36.7 per cent of the total output of the state. It is not unlikely that there is some relation between the rapid growth of this industry at Sheboygan and the slight falling off in the output at Milwaukee.

Sheboygan reported in 1900 one other industry with a product of over $100,000, namely, carpentering. This industry reported a product of $171,025, and was 2.4 per cent of the total for the state.

Foundry and machine shop products come very near the $100,000 mark with a product of $99,278, or 4 per cent of this industry in the state.

SUPERIOR.

Like Sheboygan, Superior is first reported separately by the census of 1900. In this year the manufactures of Superior were valued at $7,527,703, and constituted 2.8 per cent of the manufactures of the state. Superior presents more developed and diversified manufacturing than Sheboygan. In 1900 Superior showed five industries with products exceeding $100,000 in value.

A rapidly growing industry and the most important in 1900 at Superior is the saw mill industry. The product reported was $559,781 and constituted 9 per cent of this industry for the entire state.

Foundry and machine shop products rank next with an output of $218,296, or .9 per cent of the total of this industry in Wisconsin.

Malt liquor reported a product valued at $112,840, and represented .6 per cent of the total for the state.

Plumbing, gas and steam fitting had products valued at $160,925, or 5.7 per cent of the state's total production.

Printing and publishing of newspapers and periodicals is the remaining industry with a product of over $100,000. The output reported in 1900 in this industry was $153,454. This constituted 3.7 per cent of the newspaper and periodical business in Wisconsin.

LA CROSSE.

Industries.	Value of Products.		Per cent. of increase.	Per cent of total for state.
	1890.	1900.		
Agricultural implements	.....	$368,012	.....	4.6
Bread and bakery products	$82,557	127,022	53.0	3.5
Carriages and wagons	147,700	150,876	2.0	2.1
Confectionery	50,608	308,802	512.0	19.6
Flouring and grist mill products	2,093,570	1,208,877	—42.0	4.5
Foundry and machine shop products	109,097	192,150	76.0	.8
Furniture, factory product	.....	119,641	.....	1.3
Liquors, malt	651,137	1,133,090	74.0	5.8
Lumber and timber products	3,510,236	1,544,410	—56.0	2.7
Lumber and planing mill products	333,812	401,962	20.0	4.3
Plumbing and gas and steam fitting	85,339	115,814	35.0	4.1
Printing and publishing, newspapers, etc.	80,616	137,215	70.0	3.3
Tobacco, cigars and cigarettes	156,511	191,865	22.0	5.9
All other industries	1,855,918	2,282,013	23.0	.....
Total	$9,157,501	$8,281,749	—9.6	2.3

MILWAUKEE.

Industries.	Value of Products.		Per cent. of increase.	Per cent. of total for state.
	1890.	1900.		
Agricultural implements	$596,873	$2,296,888	208.0	29.1
Bicycle and tricycle repairing	.....	139,474	.....	35.5
Bicycles and tricycles	.....	1,223,549	.....	43.7
Blacksmithing and wheelwrighting	289,384	372,638	28.0	11.1
Bookbinding and blank books	168,588	524,961	211.0	88.4
Boots and shoes, custom work	264,057	201,422	—23.0	31.6
Boots and shoes, factory product	1,617,534	2,195,928	35.0	45.8
Boxes, wooden packing	441,186	762,281	72.0	38.3
Brass castings and finishings	370,451	884,050	138.0	99.5
Bread and other bakery products	1,576,127	2,157,802	36.0	59.6
Brick and tile	396,154	163,500	—58.0	9.1
Brooms and brushes	98,903	178,689	80.0	61.2
Carpentering	3,581,904	3,324,734	—7.0	46.7
Carriages and wagons	794,563	385,330	—51.0	5.5
Cars and construction, R. R. shops	917,289	300,093	—67.0	4.7
Cheese, butter and condensed milk	.....	169,225	.....	.8
Chemicals	112,157	254,196	126.0	100.0
Clothing, men's custom work	1,390,754	1,387,133	—00.0	41.9
Clothing, men's, factory products	3,541,369	3,593,736	1.0	81.8
Clothing, women's, dressmaking	1,591,632	313,806	—80.0	55.2
Clothing, women's, factory products	235,630	188,991	—19.0	69.4
Coffee and spice, roasting and grinding	906,025	364,477	—59.0	79.7
Confectionery	770,341	1,040,400	37.0	66.2
Cooperage	828,578	716,867	—13.0	42.6
Dyeing and cleaning	56,505	113,795	101.0	81.1
Electrical apparatus and supplies	38,870	502,332	1140.0	54.4
Electrical construction and repairs	.....	240,407	.....	74.3
Enameling and enameled goods	.....	1,708,171	.....	87.4
Flouring and grist mill products	4,438,983	6,357,983	43.0	24.1
Food preparations	35,450	203,909	475.0	15.3
Foundry and machine shop products	5,568,445	14,495,362	163.0	65.1
Fur goods	752,511	795,872	5.0	87.1
Furniture, cabinet making and repairs	386,301	348,376	—9.0	64.6
Furniture, factory product	1,508,569	1,485,503	—1.0	17.1
Gloves and mittens	108,819	252,182	131.0	49.6
Hats and caps, except fur and wool	363,496	602,820	66.0	100.0
Hosiery and knit goods	1,114,025	1,223,203	9.0	49.2
Iron and steel	.....	7,410,213	.....	83.2
Iron work, agricultural, etc.	601,482	1,092,659	81.0	58.5

MILWAUKEE—CONTINUED.

Industries.	Value of Products.		Per cent. of increase.	Per cent. of total for state.
	1890.	1900.		
Leather, tanned, curried and finished....	8,429,814	10,267,835	22.0	51.1
Liquors, malt	10,810,695	13,899,390	28.0	71.6
Lithographing and engraving	409,866	715,862	74.0	100.0
Lumber and planing mill products.....	2,360,659	2,152,994	—9.0	25.6
Malt	2,174,830	2,317,870	7.0	56.6
Marble and stone work	243,681	288,057	18.0	38.1
Masonry, brick and stone	2,216,357	1,364,039	—38.0	38.9
Mattresses and spring beds	541,002	575,701	6.0	3.13
Millinery and lace goods	.....	524,185	.....	99.0
Millinery, custom work	334,469	532,641	59.0	26.1
Mineral and soda waters	129,295	148,849	15.0	12.9
Monuments and tombstones	388,480	386,355	.....	33.0
Painting, house, sign, etc.....	945,973	984,586	18.0	54.8
Paper hanging	.....	133,431	.....	78.4
Paving and paving materials	1,070,248	500,573	—56.0	59.0
Photography	170,950	204,936	19.0	29.0
Plastering and stuccowork	90,400	317,268	250.0	90.5
Plumbing and gas and steam fitting	927,024	1,333,745	43.0	47.6
Printing and publishing, book and job...	687,181	750,896	9.0	77.2
Printing and publishing, newspapers, etc.	1,436,184	1,680,003	17.0	40.9
Saddlery and harness	275,702	548,841	99.0	28.7
Sausage	311,513	532,806	71.0	98.5
Slaughtering & meat packing, wholesale	9,704,966	*13,045,979	34.0	94.2
Soap and candles	510,966	967,767	89.0	88.2
Soda water apparatus	155,850	152,300	—2.0	100.0
Steam fitting and heating apparatus.....	757,959	1,123,731	48.0	100.0
Tin and coppersmithing and sheet iron works	1,547,321	1,447,838	—6.0	54.1
Tobacco, chewing and smoking, and snuff	1,212,668	1,624,801	34.0	99.4
Tobacco, cigars and cigarettes	1,258,938	1,091,449	—13.0	33.5
Trunks and valises	614,054	969,022	57.0	62.1
Watch, clock and jewelry repairs.....	149,707	134,305	—10.0	25.3
Wirework, including rope and cable.....	116,525	105,619	—8.0	16.5
All other industries	12,057,709	10,055,457	.....	.....
Total	$97,503,951	$130,852,088	34.2	26.3

*Includes slaughtering and meat packing of Cudahy, Wis.

OSHKOSH.

Industries.	Value of Products		Per cent. of increase	Per cent. of total for state.
	1890.	1900.		
Carpentering	$398,619	$200,215	—49.0	2.8
Carriages and wagons	394,512	547,936	39.0	7.8
Flouring and grist mill products.....	266,100	116,224	—56.0	.4
Foundry and machine shop products.....	223,825	294,963	31.0	1.3
Furniture, factory product	552,525	720,826	30.0	8.2
Lumber and timber products	3,904,550	2,449,430	—37.0	4.3
Lumber and planing mill products	.....	1,619,836	.....	19.2
Tobacco, cigars and cigarettes	111,450	112,887	1.0	3.5
All other industries	2,769,045	1,718,931	.....	.....
Total	$8,620,626	$8,781,248	1.9	2.5

RACINE.

Industries.	Value of Products.		Per cent. of increase.	Per cent of total for state
	1890.	1900		
Agricultural implements	$1,979,613	$3,001,009	51.0	38.0
Boots and shoes, factory products	.....	948,215	.....	17.7
Carriages and wagons	1,902,536	2,749,653	44.0	39.5
Foundry and machine shop products	307,701	849,455	176.0	3.8
Hardware, saddlery	.....	284,365	.....	100.0
Leather, tanned, curried and finished	706,000	576,236	—18.0	2.8
Lumber, planing mill products	.....	123,957	.....	1.4
Printing and publishing, newspapers, &c.	113,341	120,418	6.0	2.9
Springs, steel, car and carriage	.....	340,823	.....	100.0
Trunks and valises	371,301	372,859	.....	23.9
All other industries	3,081,861	5,935,706	.....	.....
Total	$8,462,359	$12,502,796	47.7	3.4

SHEBOYGAN.

Industries.	Value of products.	Per cent. of total for state.
Carpentering	$171,025	2.4
Furniture, factory product	3,189,045	36.7
All other industries	4,109,132	.....
Total	$7,469,202	2.1

SUPERIOR.

Industries.	Value of products.	Per cent. of total for state.
Foundry and machine shop product	$218,296	.9
Liquors, malt	112,840	.6
Lumber and timber products	559,781	.9
Plumbing and gas and steam fitting	160,925	5.7
Printing and publishing, newspapers, etc.	153,454	3.7
All other industries	6,322,407	.....
Total	$7,527,703	2.8

MANUFACTURES OUTSIDE OF CITIES OF 20,000 POPULATION.

When we have examined the census statistics of the state as a whole and of our six cities of over 20,000 population, we have exhausted all information as to the *kind* of manufactures in Wisconsin available in the published census. We have seen from the census statistics of *quantity* of manufactures of the several counties that there are important manufacturing districts in this state. Two of these districts, or groups of counties as we have considered them, contain all our cities of over 20,000 population. For the other manufacturing districts, and even for these two districts outside the six large cities, there is nothing in the census tables to show whether the manufacturing of any given place is diversified or given over to one or two industries; whether the leading industries are the manufacture of lumber, agricultural implements, flour and feed, butter and cheese, or what not.

The distribution of manufactures with reference to this particular consideration is shown in the following table:

DISTRIBUTION OF MANUFACTURES IN WISCONSIN IN LARGE CITIES, SMALL CITIES AND OUTSIDE OF CITIES—CENSUS OF 1900.

Location.	Total gross products of manufactures.	Per cent. of total for the state.
Milwaukee (inclnudes $2,971,480 from North Milwaukee and South Milwaukee)	$126,757,929	35.1
Five remaining cities of over 20,000 population	44,562,698	12.4
All other urban manufactures (45 cities)	91,030,394	25.2
Entire state, exclusive of urban manufactures	98,467,921	27.3
Total for state	$360,818,942	100.0

From the foregoing table it is seen that the census statistics of the manufacturing industries in localities in Wisconsin covers less than half of the manufactures of the state. The remaining 53 per cent of our manufactures, 25.2 per cent com-

ing from 45 cities and 27.3 per cent from the rest of the state, is without any qualifications or designation as to the kind or character in any city or locality. Some of these cities are surely of sufficient manufacturing importance to give rise to some curiosity as regards their industries. The city of Kenosha, for instance, shows a larger manufactured product than Sheboygan and 60 per cent more wage-earners than Superior. The cities of Appleton and Marinette together are credited with an annual manufactured product of $10,000,000 and there is nothing in the census to show its character. It seems impossible that any intelligent estimate of the industrial situation in this state can be had without some idea of the character and location of more than one half of our manufactures—the half, moreover, of the greater interest from the standpoint of future possibilities.

With the purpose of adding some information, though indefinite and incomplete, the following tables have been prepared. They are presented here, albeit, with some hesitancy and much misgiving, with the hope that they will throw some helpful light, incomplete and uncertain though it may be, upon an important phase of our industrial situation left by the census in obscure darkness. It is realized that from a scientific or statistical standpoint, more can probably be said against these figures than can be said for them. But it is believed that some information of a useful character will be found in the tables and some is better than none.

An explanation of the source and nature of the tables should make it possible for any careful student to avoid serious errors through dependence upon them. And an exposition of their principal shortcomings should enable any one to be safely conservative in their interpretation.

In the first place, it must be remembered that these figures are not based upon a census of manufactures. They are founded on two sets of basic data from two sources:

1st. The number of employes reported for each manufacturing establishment inspected by the Wisconsin Factory Inspection of 1901–02.

2nd. The average gross product per wage-earner in the sev-

eral industries for the state as a whole, as shown by the Federal Census of 1900.

There are several considerations which must be taken into account in any estimate of the manufacturing of any locality or industry on such figures as these. With reference to the factory inspection as a basis, the following points of criticism should be borne in mind:

First, the factory inspection does not cover all of our manufactories. Its purpose is not a census. For the purposes of enforcing factory legislation, that inspectors should visit every establishment in the state, as the census enumerator aims to do would be both impossible and undesirable. Exclusive of the six largest cities (north and south Milwaukee included) the census reports 11,643 establishments employing on the average 70,532 wage-earners. Exclusive of the same cities, Wisconsin Factory Inspection for 1901–02 reports 1775 establishments inspected with 61,389 employes. Thus the factory inspection reaches only a small proportion of the establishments and not over 87 per cent of the employes. Because of other considerations, hereinafter to be enumerated, the real proportion of our manufactures covered by the Factory Inspection is probably not over 80 per cent. The bulk of the uninspected industries is represented by the small establishment engaged in repairs, milling, butter or cheese making, etc., and employing only two or three hands with small danger or possibility of violating our factory laws and, therefore, not requiring regular inspection. Taken collectively, however, these uninspected, small establishments represent a very considerable portion of our manufacturing industries. They produce about $17,000,000 of our butter and cheese factory products besides the larger part of the products of the many lines of repairing, custom work, etc. The relative importance of the uninspected manufactures in any given locality cannot be determined with even approximate accuracy because it may vary widely and is subject to no rule. But it can and should be borne in mind that in any given instance it *may* be *very* important. It may, in some instances, even include the whole of some important industry, especially

if the industry in the particular place be represented by a single establishment.

Next to this incompleteness of the Factory Inspection figures is their lack of scientific accuracy in reporting the establishments that are inspected. The matter of noting the number of employes by the inspector is often the merest incident of his work. He makes his visit to examine the sanitary and other conditions under which the establishment operates, violations of the child labor laws, etc., and the inquiry as to the number of employes is calculated chiefly to determine how many persons are required to work under the conditions which he finds. The inspector has learned from his experience the time of the year when each line of industry in each section is most likely to be most fully employed. He times his inspection, in a general way, so as to make his visit when the leading industries of a community are in this condition, for it is under this condition that violations of the factory laws are most likely to be found. As a result, the tendency in factory inspection returns, particularly in the leading industries, is to report more than a representative number of employes. This in any locality might tend to give undue relative importance in these tables to any industry reported, particularly the more important industries. But since this tendency is not constant, bears no uniform ratio to the true representative number of employes, it cannot be corrected in any instance except by keeping in mind that it always exists as a possible element of error in the figures of each industry and in each locality.

These two considerations may affect the accuracy of any statement of the number of employes in the following tables. This inaccuracy may also be reflected in any estimate of product based upon the number of employes reported by factory inspection and the product per wage-earner in the census.

With reference to the use of this average product per wage-earner to determine output in any specific instance there are several criticisms which should be made. Some of these objections hold good independently and in addition to the liability of error in the number of employes reported. They would hold

even if the number of employes was correctly representative. Others are the result of combining the two sets of figures.

In the first place this average product per wage-earner is in each case the average for many enterprises in several parts of the state, often of very far from identical character, and is exact only for an average establishment. An average establishment, in this sense, would have to be one in which all lines and conditions of the industry maintain in exactly the same proportions and relationships as in the industry as a whole in the state. Owing partly to the census classification of the several industries of the state it is almost impossible to have an actual average establishment or enterprise. The reasons for this are obvious. Industries over-lap. It becomes necessary to group industries of like character or industries frequently carried on in conjunction, under a single name as a single industry, as; "Brick and tile," "Paper and wood pulp," etc. Now, the average product per wage earner in the "Brick and tile" industry of the state might not be likely to be the average per wage-earner in an enterprise manufacturing brick, or an enterprise manufacturing tile, or an enterprise manufacturing both brick and tile unless the two products were manufactured in the same proportion as in the state as a whole, and even not then unless other things were equal. And likewise the "Paper and wood pulp" industries, generally carried on in conjunction and inseparable in the statistical reports. The census returns however include many paper mills making no wood pulp and many pulp mills making no paper. And we are obliged to take the same average figures for the pulp mill, the paper mill, and the paper and pulp mill, while there is reason to believe that there is a vast difference between the real averages in each case. This objection will be found to affect practically all industries in some degree. How much cannot of course be determined definitely in any case.

One more important element of error enters the estimates of product. It grows out of combination of the figures representing the number of *employes* as reported by Factory Inspection with the average product per wage-earner in each industry according to census. The former figures include in most cases,

some employes who would not be classed as "wage-earners" in the census, being salaried employes, etc. Thus the average product per wage-earner based on the census would be in many cases too high for a representative average product per employe in the same manufacturing.

While these and other factors of uncertainty may enter with varying force in any or all the statements in the following tables, there is no way of knowing which statements they do affect or how seriously. Accordingly no effort has been made to correct the estimates to make allowances for the possible elements of error. At the head of each table for urban manufactures the census totals for all industries for the city is given showing the number of establishments, value of products, average number of wage-earners and the importance of the city's manufacturing in the state's total. While there is some discrepancy of time between the census date and the date of inspection, these figures should serve in a measure to help avoid unwarranted dependence upon incorrect estimates. One general correction will apply in nearly all of these figures. The result of leaving out many establishments in factory inspection and combining the number of *employes* reported (and frequently the highest number) with the average product per *wage-earner* to estimate the value of products would be generally to over emphasize the importance of the industries reported, particularly the larger ones, while other industries, appearing in the "miscellaneous," or not all, are given less than their relative importance.

There are many inaccuracies and short-comings in these tables. But they contain some information and therefore have some value, possibly a great deal. They show a wide spread diversity of manufacturing industry throughout most of the 45 cities as well as something of the character of our industries outside of urban manufactures.

URBAN MANUFACTURES OF WISCONSIN IN 45 CITIES OF LESS THAN 20,000 POPULATION, U. S. CENSUS 1900, AND WISCONSIN STATE FACTORY INSPECTION 1901-2.

Cities.	U. S. Census, 1900.			Inspection, 1901-2.	
	No. of establishments.	Value of products.	Average No. of wage earners	No of establishments.	No. of employes.
Antigo	65	$728,755	373	16	262
Appleton	240	5,350,669	2,226	49	1,770
Ashland	129	4,157,718	1,830	36	1,794
Baraboo	75	695,731	405	21	425
Beaver Dam	57	1,002,255	707	18	814
Beloit	103	3,185,080	2,055	40	2,089
Berlin	65	736,247	376	32	745
Chippewa Falls	72	2,131 067	555	16	627
De Pere	48	980,800	360	10	366
Eau Claire	148	4,366,230	1,858	42	2,191
Fond du Lac	188	3,386,822	1,834	46	1,674
Ft. Atkinson	67	781,299	392	11	528
Grand Rapids	66	1,129,078	503	15	426
Green Bay	191	3,469,160	1,719	39	1,944
Hudson	41	1,261,569	422	19	462
Janesville	184	3,670,820	1,710	63	1,651
Jefferson	66	828,924	370	20	301
Kaukauna	71	1,424,047	667	15	718
Kenosha	71	7,488,366	3,149	24	3,478
Madison	195	3,508,808	1,805	44	1,562
Manitowoc	135	2,268,348	1,146	46	1,441
Marinette	103	4,659,712	1,833	37	2,147
Marshfield	63	709,144	372	19	457
Menasha	57	2,751,270	1,575	13	1,548
Menomonie	50	1,533,139	697	18	766
Merrill	69	4,150,272	1,694	19	1,727
Monroe	62	455,899	217	15	151
Neenah	74	1,642,414	616	16	508
Oconto	44	1,732,887	440	12	801
Portage	72	502,234	324	14	262
Port Washington	65	1,037,318	811	8	872
Reedsburg	45	430,550	207	12	292
Rhinelander	62	1,855,433	781	18	929
Ripon	73	807,087	360	12	262
Sparta	56	343,759	147	8	594
Stevens Point	107	2,171,265	979	27	871
Stoughton	14	505,715	263	21	422
Tomah	47	743,615	212	6	386
Tomahawk	33	218,838	180	11	270
Two Rivers	45	1,177,621	971	6	550
Washburn	35	1,165,861	501	14	640
Watertown	85	1,381,393	606	25	605
Waupun	42	1,200,844	267	14	254
Wausau	137	3,658,439	1,643	34	1,644
Wauwatosa	37	3,663,892	2,312	12	576
Total	3,754	$91,030,394	42,471	1,012	42,792

NUMBER OF WAGE EARNERS, PRODUCTS AND AVERAGE PRODUCT PER WAGE EARNER, WISCONSIN, CENSUS 1900.

	Industries.	Average No. wage earners.	Value of products.	Average product per wage earner.
1.	Agricultural implements	3,289	$7,886,363	$2,397
2.	Awnings, tents and sails	81	126,036	1,555
3.	Boots and shoes, factory product	2,507	4,791,684	1,911
4.	Boxes, paper	328	240,926	730
5.	Boxes, wooden packing	1,290	1,989,663	1,542
6.	Brick and tile	1,469	1,795,993	1,222
7.	Bridges	23	28,984	1,260
8.	Brooms and brushes	165	291,599	1,767
9.	Buttons	106	63,125	595
10.	Carriage and wagon materials	117	193,982	1,658
11.	Carriages and sleds, children's	295	272,125	922
12.	Carriages and wagons	3,402	6,956,341	2,044
13.	Cars, repair and general shop construction by R. R. companies	4,502	6,306,823	1,401
14.	Clothing, men's, factory product	2,327	4,393,092	1,888
15.	Clothing, women's, factory product	253	271,991	1,075
16.	Confectionery	749	1,570,445	2,096
17.	Cooperage	1,047	1,683,180	1,607
18.	Cotton goods	347	316,061	910
19.	Coffee and spices, roasting and grinding	41	456,876	11,143
20.	Flouring and grist mill products	1,412	26,327,942	18,645
21.	Foundry and machine shop products	12,670	22,252,730	1,773
22.	Fruits and vegetables, canning, etc.	676	1,007,765	1,490
23.	Fur goods	449	913,754	2,035
24.	Furniture, factory product	7,775	8,721,823	1,096
25.	Gloves and mittens	319	507,495	1,590
26.	Hosiery and knit goods	2,722	2,486,813	913
27.	Iron and steel	1,921	8,905,226	4,635
28.	Leather, tanned, curried and finished	5,262	20,074,373	3,815
29.	Liquors, malt	3,904	19,394,709	4,967
30.	Lumber and timber products	21,701	57,634,816	2,656
31.	Lumber, planing mill, sash, doors, etc.	4,377	8,400,695	1,919
32.	Malt	366	4,089,715	11,174
33.	Marble and stone work	506	754,456	1,491
34.	Mattresses and spring beds	1,045	1,838,841	1,754
35.	Monuments and tombstones	542	1,169,897	2,158
36.	Paper and wood pulp	4,240	10,895,576	2,569
37.	Pickles, preserves and sauces	92	316,657	3,442
38.	Printing and publishing, book and job	716	972,263	1,357
39.	Printing and publishing, newspapers and periodicals	2,679	4,103,415	1,531
40.	Brass castings and finishings	426	888,755	2,086
41.	Refrigerators	576	749,412	1,322
42.	Saddlery and harness	678	1,906,652	2,812
43.	Ship and boat building	562	707,955	1,259
44.	Shirts	256	247,870	968
45.	Slaughtering and meat packing	1,361	13,601,125	9,993
46.	Starch	34	154,030	4,503
47.	Tinsmithing, copper and sheet iron wk.	1,453	2,675,548	1,841
48.	Tools, not elsewhere specified	67	107,172	1,600
49.	Trunks and valises	1,083	1,560,006	1,440
50.	Windmills	198	444,787	2,246
51.	Wirework and wire rope cable	199	638,797	6,243
52.	Woodenware	1,047	1,226,671	1,171
53.	Woolen goods	861	1,435,388	1,667
54.	Electrical apparatus	527	923,587	1,752
55.	Tobacco, chewing and smoking	300	1,632,354	5,441
56.	All industries	142,076	360,818,942	2,539
57.	All industries, except milling, brewing, malting and packing	135,033	297,405,451	2,202

ANTIGO, LANGLADE CO.

U. S. Census, 1900—Establishments, 65; products, $728,755; average number of wage earners, 373; per cent. of product to total for the state, 0.2 per cent.

Wis. Factory Inspection, 1901-1902—16 establishments, 262 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Sash, doors, veneers and planing mill products	131	$251,389	34.7
Furniture, chairs	45	49,320	6.6
Lumber, sawmill products	15	39,840	5.3
Brewing	15	74,505	11.8
Flour and feed	12	225,740	31.4
Staves	12	19,284	2.4
Printing and publishing	15	21,660	2.8
Miscellaneous	17	37,400	5.0
Total	262	$719,138	100.0

APPLETON, ANTIGO CO.

U. S. Census, 1900—Establishments, 240; products, $5,330,669; average number of wage earners, 2,226; per cent. of product to total for the state, 1.5 per cent.

Wis. Factory Inspection, 1901-2—49 establishments, 1,770 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Paper and wood pulp	965	$2,479,085	55.1
Machinery	202	358,146	8.0
Furniture	86	94,256	2.2
Canning	77	38,740	0.9
Knit goods	67	61,171	1.4
Textiles	69	88,872	2.0
Toys, etc.	46	78,412	1.8
Printing and publishing	44	63,536	1.5
Flour and feed	30	559,350	12.3
Sash, doors and planing mill products	23	44,137	1.0
Agricultural implements	16	38,352	0.9
Brewing	26	129,143	2.8
Malting	25	279,350	6.3
Clothing	18	23,580	0.5
Hubs and spokes	15	24,870	0.6
Paper boxes	9	6,570	0.0
Monuments	7	15,106	0.3
Miscellaneous	45	99,000	2.3
Total	1,770	$4,481,676	100.0

ASHLAND, ASHLAND CO.

U. S. Census 1905—Establishments, 129; products, $4,157,718; average number of wage earners, 1,830; per cent. of products to total for the state, 1.2 per cent.

Wis. Factory Inspection, 1901-2—36 establishments, 1,794 employes.

Industries.	No of employes reported.	Estimated gross value of products.	Per cent. of total for city
Lumber saw mill products	1,311	$3,482,016	73.0
Pig iron	150	695,250	14.0
Machinery	69	122,337	2.5
R. R. shops	100	140,100	2.6
Wood pulp	49	125,941	2.5
Printing and publishing	36	51,984	7.2
Brewing	16	79,472	1.5
Miscellaneous	63	138,600	2.7
Total	1,794	$4,835,700	100.0

BARABOO, SAUK CO.

U. S. Census 1900—Establishments, 75; products, $695,731; average number of wage earners, 405; per cent. of products to total for the state, 0.2 per cent.

Wis. Factory Inspection, 1901-2—20 establishments, 425 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
R. R. shops	148	$207,348	30.8
Textiles	121	201,707	30.1
Canning	71	35,760	5.3
Wagons	10	20,440	3.6
Woodworking	10	19,190	2.7
Brewing	17	84,439	12.3
Machine shop and foundry	7	12,411	2.0
Miscellaneous	41	90,200	13.2
Total	425	$671,495	100.0

BEAVER DAM, DODGE CO.

U. S. Census, 1900—Establishments, 57; products, $1,002,255; average number wage earners, 707; per cent. of products to total for the state, 0.3 per cent.

Wis. Factory Inspection, 1901-2—18 establishments, 814 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Iron	300	$1,390,560	62.2
Textiles	232	298,816	13.2
Machinery	147	260,631	11.7
Stoves	80	141,840	6.4
Brewing	8	39,736	1.8
Monuments	7	15,106	0.7
Miscellaneous	40	88,000	40
Total	814	$2,234,629	100.0

BELOIT, ROCK CO.

U. S. Census, 1900—Establishments, 103; products, $3,185,080; average number wage earners, 2,055; per cent. of products to total for the state, 0.9 per cent.

Wis. Factory Inspection, 1901-2—40 establishments, 2,089 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Machinery and pumps	1,478	$2,620,494	68.7
Shoes	175	334,425	8.8
Clothing	150	196,500	5.2
Tools	54	86,400	2.3
Sash, doors and planing mill products	52	99,788	2.6
Paper	33	84,777	2.3
Wagons and carriages	26	43,108	1.2
Printing and publishing	22	31,768	0.8
Gloves	15	23,850	0.6
Sheet metal	15	27,615	0.7
Boxes	8	12,336	0.3
Flour and feed	7	130,515	3.4
Miscellaneous	54	118,800	3.1
Total	2,089	$3,810,376	100.0

BERLIN, GREEN LAKE CO.

U. S. Census, 1900—Establishments, 65; products, $736,247; average number of wage earners, 376; per cent. of products to total for state, 0.2 per cent.

Wis. Factory Inspection, 1901-2—32 establishments, 745 employes.

Industries.	No. of employes reported.	Estimated gross value of products	Per cent. of total for city.
Gloves	245	$389,550	16.2
Stone, building and paving	195	290,745	11.9
Flour and feed	66	1,230,570	50.5
Tanning	45	171,675	7.0
Furs	33	67,155	2.7
Brooms	30	53,010	2.2
Shoes	26	49,686	2.0
Brick	17	20,774	0.8
Machinery	15	26,595	1.1
Cooperage, tubs and boxes	16	25,712	1.1
Knit goods	11	10,043	0.4
Miscellaneous	46	101,200	4.1
Total	745	$2,436,715	100.0

CHIPPEWA FALLS, CHIPPEWA CO.

U. S. Census, 1900—Establishments, 72; products, $2,131,067; average number of wage earners, 555; per cent. of products to total for state, 0.6 per cent.

Wis. Factory Inspection, 1901-2—16 establishments, 627 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Lumber, saw mill products	406	$1,078,338	62.6
Sash, doors and planing mill products	73	140,087	7.7
Brick	26	31,772	1.9
Brewing	21	104,367	6.1
Flour and feed	10	186,450	10.9
Printing and publishing	14	20,216	1.2
Wagons and carriages	12	24,528	1.5
Textiles	15	19,275	1.1
Miscellaneous	50	121,000	7.0
Total	627	$1,725,971	100.0

DE PERE, BROWN CO.

U. S. Census, 1900—Establishments, 48; products, $980,800; average number of wage earners, 360; per cent. of products to total for state, 0.3 per cent.

Wis. Factory Inspection, 1901-2—10 establishments, 366 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Paper	280	$719,320	67.1
Machinery	32	56,736	5.3
Printing and publishing	15	21,660	2.0
Flour	16	238,320	22.3
Knit goods	12	10,944	1.1
Miscellaneous	11	24,200	2.2
Total	366	$1,071,180	100.0

EAU CLAIRE, EAU CLAIRE CO.

U. S. Census, 1900—Establishments, 148; products, $4,366,230; average number of wage earners, 1,858; per cent. of products to total for state, 1.27 per cent.

Wis. Factory Inspection, 1901-2—42 establishments; 2,191 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Lumber, saw mill products	755	$2,005,280	41.0
Paper and pulp	325	834,935	17.1
Furniture	163	178,648	3.7
Canning	100	49,170	1.0
Refrigerators	80	105,760	2.2
Machinery	82	145,386	3.0
Boxes, wooden	97	149,574	3.1
Mill supplies	81	143,813	3.0
Shoes	80	152,880	3.2
Sash, doors and planing mill products	59	113,221	2.3
Printing and publishing	72	103,968	2.1
Textiles	56	71,528	1.5
Meat packing	35	349,755	7.1
Brewing	23	114,241	2.3
Flour and feed	12	223,740	4.6
Wagons and carriages	19	38,836	0.8
Trunks	18	25,920	0.5
Miscellaneous	34	74,800	1.5
Total	2,191	$4,881,455	100.0

FOND DU LAC, FOND DU LAC CO.

U. S. Census, 1900—Establishments, 188; products, $3,386,822; average number of wage earners, 1,834; per cent. of products to total for state, 0.9 per cent.

Wis. Factory Inspection, 1901-2—46 establishments, 1,674 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent of total for city.
Furniture	313	$342,048	9.8
Refrigerators	230	304,060	8.7
Clothing	201	263,310	7.4
Lumber, saw mill products	164	435,584	12.2
Tanning	250	953,750	27.2
Canning	100	49,170	1.4
Carriages and wagons	75	83,300	2.4
Machinery	50	88,650	2.6
Sash doors, and planing mill products	35	67,165	1.9
Agricultural implements	22	52,734	1.5
Awnings	35	54,425	1.6
Brewing and malting	27	134,109	3.6
Flour and feed	18	335,610	9.7
Miscellaneous	154	338,800	9.8
Total	1,674	$3,502,715	100.0

FORT ATKINSON, JEFFERSON CO.

U. S. Census, 1900—Establishments, 67; products, $781,299; average number of wage earners, 392; per cent. of products to total for state, 0.2 per cent.

Wis. Factory Inspection, 1901-2—11 establishments, 528 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Chairs	225	$246,600	33.7
Canning	150	74,500	10.2
Machinery	100	177,300	24.3
Creamery	12	139,680	19.3
Miscellaneous	41	90,200	12.5
Total	528	$728,280	100.0

GRAND RAPIDS, WOOD CO.

U. S. Census, 1900—Establishments, 66; products, $1,129,078; average number of wage earners, 503; per cent. of product to total for state, 0.3 per cent.

Wis. Factory Inspection, 1901-2—15 establishments, 426 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Furniture	114	$124,944	12.3
Paper and pulp	97	249,193	24.2
Lumber, saw mill products	91	241,696	23.8
Wagon stock	66	109,428	10.7
Machinery	24	43,552	4.3
Flour and feed	11	205,095	19.7
Miscellaneous	23	50,600	5.0
Total	426	$1,024,508	100.0

GREEN BAY, BROWN CO.

U. S. Census, 1900—Establishments, 191; products, $3,469,160; average number of wage earners, 1,719; per cent. of products to total for state, 1.0 per cent.

Wis. Factory Inspection, 1901-2—39 establishments, 1,944 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Lumber, saw mill products	425	$1,128,800	23.0
Sash, doors and planing mill products	184	353,496	7.2
Canning	298	445,519	9.1
Confectionery	215	550,640	11.2
Furniture	150	164,400	3.4
Machinery	120	212,760	4.2
Cooperage	85	136,595	2.8
Boxes, wood	72	41,024	0.8
Spices and coffee, milled	56	624,008	12.7
Brewing	68	337,756	6.9
Paper	49	125,881	2.6
Flour and feed	12	223,740	4.6
Carriages and wagons	14	28,616	0.6
Miscellaneous	196	531,200	10.8
Total	1,944	$4,904,026	100.0

HUDSON, ST. CROIX CO.

U. S. Census, 1900—Establishments, 41; products, $1,261,569; average number of wage earners, 422; per cent. of product to total for state, 0.3 per cent.

Wis. Factory Inspection, 1901-2—19 establishments, 462 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
R. R. shops	261	$365,661	42.6
Lumber, saw mill products	120	318,720	37.2
Boxes	38	58,596	6.9
Brewing	7	34,769	4.0
Miscellaneous	36	79,200	9.3
Total	462	$856,946	100.0

JANESVILLE, ROCK CO.

U. S. Census, 1900—Establishments, 184; products, $3,670,820; average number of wage earners, 1,710; per cent. of product to total for state, 1.0 per cent.

Wis. Factory Inspection, 1901-2—63 establishments, 1,651 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Agricultural implements	254	$608,838	16.3
Textiles	231	297,528	8.0
Furniture	127	139,192	3.7
Shoes	110	210,210	5.6
Barbed wire	95	593,185	15.9
Carriages and wagons	77	157,388	4.2
Sash, doors, and planing mill products	65	124,735	3.3
R. R. Shops	79	110,679	3.0
Clothing	74	96,940	2.6
Knit goods	75	67,550	1.8
Machinery	54	95,742	2.6
Tobacco	65	119,702	3.2
Boxes	59	90,978	2.4
Printing and publishing	35	50,540	1.4
Flour and feed	25	466,125	12.5
Buttons	35	20,825	0.6
Brewing	19	94,373	2.5
Saddlery and harness	16	44,992	1.2
Miscellaneous	156	343,200	9.2
Total	1,651	$3,732,722	100.0

JEFFERSON, JEFFERSON CO.

U. S. Census, 1900—Establishments, 66; products, $828,924; average number of wage earners, 370; per cent. of products to total for the state, 0.2 per cent.

Wis. Factory Inspection, 1901-2—20 establishments, 301 employes.

Industries.	No. of employes reported	Estimated gross value of products.	Per cent. of total for city.
Shoes	120	$229,320	23.8
Brewing and malting	41	204,647	21.2
Meat packing	30	299,790	31.2
Wagons	27	55,188	5.7
Furniture	23	25,208	2.6
Sash, doors, and planing mill products	20	38,380	4.0
Tanning	15	57,225	6.0
Machinery	6	10,638	1.1
Miscellaneous	19	41,800	4.4
Total	301	$962,196	100.0

KAUKAUNA, OUTAGAMIE CO.

U. S. Census, 1900—Establishments, 71; products, $1,424,047; average number of wage earners, 667; per cent. of product to total for the state, 0.4 per cent.

Wis. Factory Inspection, 1901-2—15 establishments, 718 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Paper and pulp	457	$1,175,033	75.1
R. R. shops	220	308,220	19.7
Machinery	17	30,141	1.9
Miscellaneous	24	52,800	3.3
Total	718	$1,566,194	100.0

KENOSHA, KENOSHA CO.

U. S. Census, 1900—Establishments, 71; products, $7,488,366; average number of wage earners, 3,149; per cent. of products to total for the state, 2.1 per cent.

Wis. Factory Inspection, 1901-2—24 establishments, 3,478 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Tanning	750	$2,861,250	43.0
Furniture, beds	1,061	1,162,856	17.4
Knit goods	800	730,400	10.9
Brass, etc.	240	500,640	7.5
Brass goods, lamps, etc.	88	372,086	5.6
Carriages and wagons	285	582,540	8.7
Spring beds	65	114,010	1.7
Machinery	36	63,828	1.0
Toys	37	34,114	0.5
Sash, doors, and planing mill products	24	46,056	0.7
Miscellaneous	92	202,400	3.0
Total	3,478	$6,670,180	100.0

MADISON, DANE CO.

U. S. Census, 1900—Establishments, 195; products, $3,508,808; average number of wage earners, 1,805; per cent. of products to total for the state, 1.0 per cent.

Wis. Factory Inspection, 1901-2—44 establishments, 1,562 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Machinery	243	$430,839	13.2
Agricultural implements	381	914,019	27.8
Electrical apparatus	242	423,984	12.9
Printing and publishing	260	375,440	11.4
Sash, doors and planing mill products	94	183,386	5.5
R. R. shops and round house	59	82,659	2.5
Brewing	58	288,086	8.8
Confectionery	52	108,992	3.3
Shoes	41	78,351	2.4
Saddlery and harness	19	53,428	1.7
Carriages and wagons	16	32,704	1.0
Flour and feed	6	111,870	3.4
Miscellaneous	91	200,200	6.1
Total	1,562	$3,280,958	100.0

MANITOWOC, MANITOWOC CO.

U. S. Census, 1900—Establishments, 135; products, $2,268,348; average number of wage earners, 1,146; per cent. of product to total for the state, 0.6 per cent.

Wis. Factory Inspection, 1901-2—46 establishments, 1,411 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent of. total for city.
Shipbuilding	406	$511,154	18.7
Machinery	170	301,410	11.1
Brewing	141	697,347	25.3
Furniture	166	181,936	6.7
Canning	141	70,030	2.6
Agricultural implements	87	208,339	7.7
Sash, doors and planing mill products	43	82,517	3.0
Printing and publishing	31	44,764	1.7
Carriages and wagons	19	38,836	1.4
Brewing	12	59,604	2.2
Clothing	14	18,340	0.7
Flour and feed	7	130,515	4.8
Miscellaneous	174	382,800	14.1
Total	1,411	$2,727,592	100.0

MARINETTE, MARINETTE CO.

U. S. Census, 1900—Establishments, 103; products, $4,659,712; average number of wage earners, 1,833; per cent. of product to total for the state, 1.3 per cent.

Wis. Factory Inspection, 1901-2—37 establishments, 2,147 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Lumber, saw mill products	1,360	$3,612,160	68.5
Machinery	263	466,299	8.8
Paper	174	447,006	8.5
Boxes, wooden	175	259,850	4.9
Sash, doors and planing mill products	65	124,735	2.4
Printing and publishing	42	60,648	1.2
Flour and feed	9	167,705	3.2
Miscellaneous	59	129,800	2.5
Total	2,147	$5,268,203	100.0

MARSHFIELD, WOOD CO.

U. S. Census, 1900—Establishments, 63; products, $709,144; average number of wage earners, 372; per cent. of product to total for the state, 0.2 per cent.

Wis. Factory Inspection, 1901-2—19 establishments, 457 employes.

Industries.	No of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Veneers and planing mill products	144	$276,336	26.0
Staves	47	75,529	7.1
Mattresses	35	61,390	5.7
Machinery	15	26,595	2.5
Printing and publishing	17	24,548	2.3
Brewing	10	49,670	4.7
Flour and feed	8	149,160	14.1
Miscellaneous	181	398,200	37.6
Total	457	$1,061,428	100.0

MENASHA, WINNEBAGO CO.

U. S. Census, 1900—Establishments, 57; products, $2,751,270; average number of wage earners, 1,575; per cent. of product to total for the state, 0.8 per cent.

Wis. Factory Inspection, 1901-2—13 establishments, 1,548 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Woodenware	1,020	$1,206,130	48.3
Paper	353	906,857	36.4
Woolens	61	103,687	4.2
Shingles	40	106,240	4.2
Foundry	24	43,532	1.7
Brewing	16	79,472	3.2
Planing mill products	10	19,190	.8
Miscellaneous	14	30,800	1.2
Total	1,548	$2,495,908	100.0

MENOMONIE, DUNN CO.

U. S. Census, 1900—Establishments, 50; products, $1,533,139; average number of wage earners, 697; per cent. of product to total for the state, 0.4 per cent.

Wis. Factory Inspection, 1901-2—18 establishments, 766 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total of city.
Lumber, saw mill products	375	$896,000	65.1
Brick	302	369,044	34.1
Machinery	32	56,736	3.7
Printing and publishing	17	24,448	1.6
Sash, doors and planing mill products	15	28,785	1.9
Miscellaneous	25	55,000	3.6
Total	766	$1,530,013	100.0

MERRILL, LINCOLN CO.

U. S. Census, 1900—Establishments, 69; products, $4,150,272; average number of wage earners, 1,694; per cent. of product to total for the state, 1.2 per cent.

Wis. Factory Inspection, 1901-2—19 establishments, 1,727 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Sash, door and planing mill products	1,161	$2,227,959	61.7
Lumber, saw mill products	284	754,304	20.9
Tanning	20	76,300	2.1
Machinery	15	26,595	.7
Printing and publishing	17	24,548	.6
Miscellaneous	230	506,000	14.0
Total	1,727	$3,615,706	100.0

MONROE, GREEN CO.

U. S. Census, 1900—Establishments, 62; products, $455,899; average number of wage earners, 217; per cent. of product to total for the state, 0.1 per cent.

Wis. Factory Inspection, 1899-1900—15 establishments, 151 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Carriages and wagons	65	$132,860	42.8
Printing and publishing	22	31,768	10.2
Brick	21	25,662	8.2
Sash, doors and planing mill products	15	28,785	9.3
Brewing	11	54,637	17.5
Miscellaneous	17	37,400	12.0
Total	151	$311,112	100.0

NEENAH, WINNEBAGO CO.

U. S. Census, 1900—Establishments, 74; products, $1,642,414; average number of wage earners, 616; per cent. of product to total for the state, 0.5 per cent.

Wis. Factory Inspection, 1901-2—16 establishments, 508 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Paper	268	$698,492	57.7
Stoves	67	118,791	9.8
Canning	40	20,860	1.7
Shoes	40	76,440	6.3
Knit goods	38	34,694	2.9
Sash, doors and planing mill products	21	40,299	3.3
Printing and publishing	12	17,328	1.4
Flour and feed	10	180,645	15.0
Machinery	8	14,184	1.2
Miscellaneous	4	8,800	0.7
Total	508	$1,210,533	100.0

OCONTO, OCONTO CO.

U. S. Census, 1900—Establishments, 44; products, $1,732,887; average number of wage earners, 440; per cent. of product to total for the state, 0.5 per cent.

Wis. Factory Inspection, 1901-2—12 establishments, 801 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Sash, doors and planing mill products	354	$675,326	32.3
Lumber, saw mill products	242	908,352	43.5
Paper	150	385,350	18.3
Canning	23	34,270	1.6
Brewing	10	49,670	2.4
Printing and publishing	10	14,440	0.7
Miscellaneous	12	26,400	1.2
Total	801	$2,093,808	100.0

PORTAGE, COLUMBIA CO.

U. S. Census, 1900—Establishments, 72; products, $502,234; average number of wage earners, 324; per cent. of product to total for the state, 0.1 per cent.

Wis. Factory Inspection, 1901-2—14 establishments, 262 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Knit goods	164	$149,732	31.8
Clothing	32	41,920	8.7
Publishing and printing	24	34,656	7.3
Brewing	11	54,637	11.5
Flour	8	149,160	31.6
R. R. shops and round house	9	12,609	2.6
Miscellaneous	14	30,800	6.5
Total	262	$473,514	100.0

PORT WASHINGTON, OZAUKEE CO.

U. S. Census, 1900—Establishments, 65; products, $1,037,318; average number of wage earners, 811; per cent. of products to total for the state, 0.3 per cent.

Wis. Factory Inspection, 1901-2—8 establishments, 872 employes.

Industries.	No. for employes reported.	Estimated gross value of products.	Per cent. of to al for city.
Furniture and chairs	681	$746,776	64.8
Foundry and machine shop	150	265,950	23.1
Tanning	30	114,450	10.0
Miscellaneous	11	24,200	2.1
Total	872	$1,151,376	100.0

REEDSBURG, SAUK CO.

U. S. Census, 1900—Establishments, 45; products, $430,550; average number of wage earners, 207; per cent. of products to total for state, 0.1 per cent.

Wis. Factory Inspection, 1901-2—12 establishments, 292 employes

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Woolens	118	$196,706	50.6
Canning	100	49,170	12.6
Clothing	22	28,820	7.4
Miscellaneous	52	114,400	29.4
Total	292	$389,096	100.0

RHINELANDER, ONEIDA CO.

U. S. Census, 1900—Establishments, 62; products, $1,855,453; average number of wage earners, 781; per cent. of products to total for state, 0.5 per cent.

Wis. Factory Inspection, 1901-2—18 establishments, 929 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent of. total for city.
Sash, doors and planing mill products	401	$769,519	36.6
Lumber, sawmill products	205	544,480	25.6
Printing and publishing	82	228,408	10.9
Machinery	14	24,822	1.2
Brewing	13	64,571	3.1
Miscellaneous	214	470,800	22.6
Total	929	$2,102,600	100.0

RIPON, FOND DU LAC CO.

U. S. Census, 1900—Establishments, 73; products, $807,087; average number of wage earners, 360; per cent. of products to total for state, 0.2 per cent.

Wis. Factory Inspection, 1901-2—12 establishments, 262 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Knit goods	112	$102,256	28.0
Gloves	69	109,710	30.1
Carriages	25	51,100	14.0
Canning	11	5,960	1.6
Veneers	12	23,028	6.3
Miscellaneous	33	72,600	20.0
Total	262	$364,654	100.0

SPARTA, MONROE CO.

U. S. Census, 1900—Establishments, 56; products, $343,759; average number of wage earners, 147; per cent. of product to total for the state, 0.1 per cent.

Wis. Factory Inspection, 1901-2—8 establishments, 594 employes.

Industries.	No. of employes. reported.	Estimated gross value of products.	Per cent. of total for city.
Cigars and tobacco	550	$995,520	92.7
Machinery	18	31,914	3.0
Printing and publishing	11	15,884	1.5
Sash, doors and planing mill products	7	13,433	1.2
Miscellaneous	8	17,600	1.6
Total	594	$1,074,351	100.0

STEVENS POINT, PORTAGE CO.

U. S. Census, 1900—Establishments, 107; products, $2,171,265; average number of wage earners, 979; per cent. of product to total for the state, 0.6 per cent.

Wis. Factory Inspection, 1901-2—27 establishments, 871 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Paper	320	$822,080	38.3
Lumber, sawmill products	170	451,520	21.0
Furniture	161	176,456	8.2
Sash, doors and planing mill products	38	72,922	3.4
Boxes	30	46,260	2.2
Machinery	28	49,644	2.3
Mattresses	20	35,080	1.6
Flour and feed	15	279,675	13.1
Printing and publishing	13	18,772	.9
Starch	11	49,533	2.3
Miscellaneous	65	143,000	6.7
Total	871	$2,144,942	100.0

STOUGHTON, DANE CO.

U. S. Census, 1900—Establishments, 14; products, $505,715; average number of wage earners, 263; per cent. of product to total for the state, 0.1 per cent.

Wis. Factory Inspection, 1901-2—21 establishments, 422 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Carriages and wagons	342	$838,843	85.0
Tobacco	46	81,615	8.2
Printing	11	15,884	1.6
Miscellaneous	23	50,600	5.2
Total	422	$986,947	100.0

TOMAH, MONROE CO.

U. S. Census, 1900—Establishments, 47; products, $743,615; average number of wage earners, 212; per cent. of product to total for the state, 0.2 per cent.

Wis. Factory Inspection, 1901-2—6 establishments, 386 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent of total for city.
Bridge building	70	$88,200	12.7
Sash, doors and planing mill products	301	577,617	83.4
Printing and publishing	7	10,108	1.4
Miscellaneous	8	17,600	2.5
Total	386	$693,525	100.0

TOMAHAWK, LINCOLN CO.

U. S. Census, 1900—Establishments, 33; products, $218,838; average number of wage earners, 180; per cent. of product to total for the state, 0.1 per cent.

Wis. Factory Inspection, 1901-2—11 establishments, 270 employes.

Indurtries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Lumber, sawmill products	228	$605,568	83.2
Iron	15	69,525	9.5
Printing and publishing	9	12,996	1.8
Miscellaneous	18	39,600	5.5
Total	270	$727,689	100.0

TWO RIVERS, MANITOWOC CO.

U. S. Census, 1900—Establishments, 45; products, $1,177,621; average number of wage earners, 971; per cent. of product to total for the state, 0.3 per cent.

Wis. Factory Inspection, 1901-2—6 establishments, 550 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Lumber, sawmill products	149	$395,744	34.0
Veneers	60	115,140	9.9
Printers' supplies	229	406,017	35.0
Miscellaneous	112	246,400	21.1
Total	550	$1,163,301	100.0

WASHBURN, BAYFIELD CO.

U. S. Census, 1900—Establishments, 35; products, $1,165,884; average number of wage earners, 501; per cent. of products to total for the state, 0.3 per cent.

Wis. Factory Inspection, 1901-2—14 establishments, 640 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Lumber, sawmill products	557	$1,479,392	91.5
Crates and reels	55	84,810	5.2
Printing and publishing	8	11,552	.7
Miscellaneous	20	44,000	2.6
Total	640	$1,619,754	100.0

WATERTOWN, JEFFERSON CO.

U. S. Census, 1900—Establishments, 85; products, $1,381,393; average number of wage earners, 606; per cent. of products to total for the state, 0.4 per cent.

Wis. Factory Inspection, 1901-2—25 establishments, 605 employes.

Industries.	No of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Confectionery	109	$228,464	12.5
Brewing	31	153,977	8.4
Boxes and bee hives	84	129,528	7.1
Boxes, paper	95	69,350	3.8
Shoes	48	91,728	5.0
Malting	25	279,350	15.2
Flour and feed	26	484,770	26.5
Table slides	22	24,112	1.3
Plumbing	40	88,440	4.6
Machinery	16	28,368	2.1
Monuments	13	28,054	2.0
Miscellaneous	96	211,200	11.5
Total	605	$1,817,341	100.0

WAUPUN, FOND DU LAC AND DODGE COUNTIES.

U. S. Census, 1900—Establishments, 42; products, $1,200,844; average number of wage earners, 267; per cent. of products to total for the state, 0.3 per cent.

Wis. Factory Inspection, 1901-2—14 establishments, 254 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Windmills	60	$134,760	25.3
Carriages and wagons	48	98,112	18.4
Shoes	48	91,728	17.3
Boxes	13	20,046	3.8
Miscellaneous	85	187,000	35.2
Total	254	$531,646	100.0

WAUSAU, MARATHON CO.

U. S. Census, 1900—Establishments, 137; products, $3,658,439; average number of wage earners, 1,643; per cent. of product to total for stock, 1.0 per cent.

Wis. Factory Inspection, 1901-2—34 establishments, 1,644 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of total for city.
Sash, doors and planing mill products	6 3	$1,157,157	28.7
Boxes	305	470,310	11.6
Lumber, sawmill products	400	1,062,400	26.7
Machinery	69	122,337	3.0
Flour and feed	35	652,575	16.2
Printing and publishing	32	46,208	1.1
Brewing	29	144,043	3.6
Miscellaneous	171	378,409	9.1
Total	1,644	$4,033,439	100.0

WAUWATOSA, MILWAUKEE CO.

U. S. Census, 1900—Establishments, 37; products, $3,663,892; average number of wage earners, 2,312; per cent. of product to total for state, 1.0 per cent.

Wis. Factory Inspection, 1901-2—12 establishments; 576 employes.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent of. total for city.
Brewing	296	$1,470,232	77.6
Brick	143	174,746	9.2
Stone	59	87,969	4.3
Sash, doors and planing mill products	15	28,785	1.6
Miscellaneous	63	138,600	7.3
Total	576	$1,900,332	100.0

MANUFACTURING OUTSIDE OF CITIES.

Showing persons employed in various manufacturing industries, as reported by Wisconsin factory inspecton, 1901-2, for the state, outside of cities, reported in U. S. census, under "Urban Manufactures," together with estimated gross value of products of establishments inspected.

Industries.	No of employes reported.	Estimated gross value of products.	Per cent. of all industries.
Lumber, sawmill products	6,960	$18,485,760	38.3
Paper and pulp	1,522	3,907,449	8.0
Iron and steel	445	2,062,575	4.2
Flour and feed	374	6,973,230	14.3
Foundry and machine shops	465	824,445	1.7
Sash, doors and planing mill products	538	1,032,422	2.1
Leather, tanned, etc.	506	1,930,390	4.0
Canning	755	372,500	.8
Furniture	421	459,316	.9
Brewing	185	918,895	1.9
Creamery products	275	3,108,325	6.4
Printing and publishing	331	477,964	1.0
Woodenware	90	105,390	.2
Electrical apparatus	140	245,280	.5
Woolens	207	345,069	.7
Lime and cement	231	318,780	.6
Mineral water	94	294,972	.6
R. R. shop products	98	137,298	.3
Stone	214	307,785	.6
Bottling	30	105,000	.2
Cooperage	339	544,773	1.1
Wagons	228	466,032	1.0
Agricultural implements	284	680,748	1.4
Malting	29	324,046	.7
Tobacco	782	1,414,660	2.9
Gloves	40	63,600	.1
Coffins	14	31,726	.1
Wagon stock	66	109,428	.2
Harness, etc.	11	30,932	.1
Brick	126	153,972	.3
Starch	58	261,174	.5
Buttons	137	81,515	.1
Boats	8	10,072	.....
Miscellaneous	816	2,072,620	4.2
Total	16,819	$48,658,153	100.0
U. S. Census, 1900	28,061	98,467,921	.....

GROUP 1.

Number of employes in non-urban manufactures as reported by Wisconsin factory inspection, 1901-2, for 15 counties, on the shores of Lake Michigan, Lake Superior and Green Bay' together with the estimated gross products of these manufactures.

Industries.	No. of employes.	Estimated gross value of products.	Per cent. of all industries.
Lumber, sawmill product	1,926	$4,915,456	40.6
Iron and steel	445	2,062,575	17.0
Foundry and machine shops	311	551,403	4.6
Sash, doors and planing mill products	182	349,258	2.9
Canning	605	300,980	2.5
Leather, tanned, etc.	100	381,500	3.1
Electrical apparatus	140	245,280	2.0
Woolens	112	186,704	1.5
Cement	180	248,400	2.0
Mineral water	94	294,972	2.4
R. R. shop products	68	95,200	.8
Woodenware	65	76,115	.6
Furniture	75	82,200	.7
Condensed milk, etc.	84	949,452	7.8
Brewing	51	253,317	2.1
Printing and publishing	34	49,096	.4
Stone	42	62,622	.5
Flour and feed	17	316,965	2.7
Bottling	12	42,000	.3
Cooperage	10	16,070	.1
Miscellaneous	256	649,984	5.4
Total	4,809	$12,129,549	100.0

GROUP 1-A.

Number of employes in non-urban manufactures as reported by Wisconsin factory inspection, 1901-2, for four counties in the Fox River Valley, together with the estimated gross value of products of these manufactures.

Industries.	No. of employes.	Estimated gross value of products	Per cent of all industries.
Paper and pulp	505	$1,297,345	60.2
Furniture	45	49,320	2.3
Sash, doors and planing mill products	43	82,517	3.8
Lime	51	70,380	3.3
Woodenware	25	29,275	1.3
Foundry and machine shops	26	46,098	2.1
Brewing	19	94,373	4.4
Canning	100	49,600	2.3
Flour and feed	17	316,965	14.7
Wagons, etc.	10	20,440	.9
Miscellaneous	4	101,560	4.7
Total	845	$2,157,873	100.0

GROUP 2.

Number of employes in non-urban manufactures as reported by Wisconsin factory inspection, 1901-2, for 10 counties in central southern Wisconsin, together with the estimated gross value of these manufactures.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of all industries.
Agricultural implements	274	$656,778	24.0
Printing and publishing	78	112,632	4.1
Wagons	53	108,332	3.8
Malting	29	324,046	11.6
Foundry and machine shops	43	76,239	2.8
Tobacco	277	500,572	17.8
Gloves	40	63,600	2.3
Furniture	32	35,072	.1
Brewing	22	109,274	4.0
Creamery products	20	226,060	8.1
Sash, doors and planing mill products	17	32,623	1.2
Flour and feed	15	279,675	10.0
Tanning	16	61,040	2.2
Coffins, etc.	14	31,726	1.1
Miscellaneous	76	192,964	6.9
Total	1,006	$2,810,634	100.0

GROUP 3.

Number of employes in non-urban manufactures as reported by Wisconsin factory inspection, 1901-2, for seven counties in the upper Wisconsin River Valley, together with the estimated gross value of products of these manufactures.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent of all industries.
Lumber, sawmill products	816	$2,167,296	36.7
Paper and pulp	809	2,078,321	35.3
Tanning	185	705,775	12.9
Furniture	114	124,944	2.0
Wagon stock	66	109,428	1.8
Flour and feed	22	410,190	6.9
Wagons	23	47,012	.8
Foundry and machine shops	39	69,147	1.1
Printing and publishing	22	31,768	.5
Brewing	10	49,670	.8
Sash, doors and planing mill products	8	15,352	.3
Miscellaneous	25	63,475	1.0
Total	2,139	$5,872,378	100.0

GROUP 4.

Number of employes in non-urban manufactures as reported by Wisconsin factory inspection, 1901-2, for St. Croix county, together with the estimated gross value of products of these manufactures.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of all industries.
Flour and feed	52	$969,540	56.5
Lumber, sawmill products	90	241,040	14.1
Sash, doors and planing mill products	35	67,165	3.9
Cooperage	50	80,350	4.7
Creamery products	20	226,060	13.5
Wagons, etc.	16	32,704	1.9
Printing and publishing	14	20,216	1.2
Harness, etc.	4	11,248	.6
Machinery	3	5,319	.3
Miscellaneous	22	55,858	3.3
Total	306	$1,709,500	100.0

GROUP 6.

Number of employes in non-urban manufactures as reported by Wisconsin factory inspection, 1901-2, for three counties in the Chippewa River Valley, together with the estimated gross value of products of these manufactures.

Industries.	No of employes reported.	Estimated gross value of products.	Per cent. of all industries.
Lumber, sawmill products	1,066	$2,831,296	66.3
Leather, tanned, etc.	80	305,200	7.1
Brick	50	61,100	1.4
Stone	39	58,149	1.4
Paper and pulp	30	77,070	1.8
Flour and feed	22	410,190	9.6
Starch	25	112,525	2.6
Creamery products	28	316,484	7.4
Printing and publishing	22	31,768	.7
Furniture	10	10,960	.3
Sash, doors and planing mill products	9	17,271	.4
Brewing	5	24,835	.6
Machinery	5	8,865	.2
Wagons	5	10,220	.2
Total	1,396	$4,275,933	100.0

GROUP 7.

Number of employes in non-urban manufactures as reported by Wisconsin factory inspection for the state, exclusive of the counties in the preceding 6 groups, together with the estimated gross value of products of these manufactures.

Industries.	No. of employes reported.	Estimated gross value of products.	Per cent. of all industries.
Lumber, saw mill products	3,062	$8,132,672	41.5
Flour and feed	229	4,269,705	21.9
Cooperage	279	448,323	2.3
Sash, doors and planing mill products	244	468,236	2.4
Printing and publishing	161	232,484	1.2
Tobacco	505	914,088	4.6
Paper and pulp	178	457,282	2.3
Furniture	145	158,920	0.8
Monuments	133	287,014	1.5
Leather, tanned, etc.	125	476,875	1.9
Creamery products	123	1,390,269	7.1
Wagons and carriages	121	247,324	1.3
Buttons	137	81,515	0.4
Brick	76	92,872	0.5
Woolens	95	158,365	0.8
Brewing	78	387,426	2.0
Machinery	38	67,374	0.3
Starch	33	148,599	0.7
R. R. shops	30	42,030	0.2
Canning	50	24,800	0.1
Agricultural implements	10	23,970	0.1
Bottling	18	63,000	0.3
Harness, etc.	7	19,684	0.1
Boats	8	10,072	0.1
Miscellaneous	433	1,099,387	5.6
Total	6,318	$19,702,286	100.0

MANUFACTURING, WISCONSIN, 1904.*

Industries.	Capital.	Wage Earners.		Value of products, including custom work and repairing.
		Average number.	Total wages.	
Agricultural implements	$17,163,701	3,529	$1,796,994	$9,034,703
Boots and shoes, factory products	‡3,116,769	2,695	840,299	5,519,464
Carriages and wagons	9,027,589	3,462	1,681,350	7,359,877
Car, etc., R. R. shops	5,216,297	5,442	2,870,348	7,941,091
Cheese, butter and condensed milk	6,151,521	1,943	1,088,808	25,383,521
Clothing, men's, factory products	‡2,905,897	‡2,792	‡667,535	‡5,052,056
Flouring and grist mill products	9,534,565	1,269	684,433	†26,327,942
Foundry and machine shop products	27,756,083	15,743	7,932,486	27,766,906
Furniture, factory products	12,985,693	9,721	3,134,415	10,763,945
Iron and steel	†5,564,379	1,933	1,310,875	9,866,612
Leather, tanned, curried and finished	23,058,702	6,372	2,629,850	23,639,382
Liquors, malt	42,723,800	4,322	2,112,498	21,475,369
Lumber and timber products	66,636,104	13,861	8,986,837	56,302,165
Lumber, planing mill products	7,091,682	4,736	1,749,942	9,242,649
Malt	4,128,273	377	219,724	4,736,794
Paper and wood pulp	21,071,946	5,224	2,032,017	13,463,659
Printing, newspapers and periodicals	5,089,011	2,863	1,277,104	4,442,022
Slaughtering and meat packing, wholesale	4,389,957	1,610	649,822	15,684,073
Textiles	4,971,852	4,044	1,003,841	4,363,226
Tobacco	2,447,652	2,418	961,798	5,348,211
All other industries	84,816,908	57,175	21,006,090	111,649,341
Total	$365,848,374	151,531	$64,637,066	$405,663,408

*Estimated on basis of censuses of 1890 and 1900.
†Figures for 1900.
‡Estimate based on census, 1900, with rate of increase as shown by manufacturers' returns to bureau of labor and industrial statistics, Wis.

MANUFACTURING, WISCONSIN, 1890.

Industries.	Capital.	Wage Earners.		Value of products, including custom work and repairing.
		Average number.	Total wages.	
Agricultural implements	$10,611,185	2,765	$1,197,693	$5,015,512
Boots and shoes, factory products	2,621,606	2,036	774,163	2,972,233
Carriages and wagons	7,046,491	3,251	1,469,051	5,947,499
Cars, etc., R. R. shops	1,681,255	2,148	1,217,632	2,221,152
Cheese, butter and condensed milk	1,833,988	1,373	405,227	6,960,711
Clothing, men's, factory products	3,200,775	2,662	582,992	3,909,726
Flouring and grist mill products	9,804,761	1,770	799,058	24,252,297
Foundry and machine shop products	8,965,377	4,987	2,484,924	8,467,290
Furniture, factory products	3,270,421	2,909	1,101,542	3,616,517
Iron and steel	6,164,973	1,890	981,787	6,501,761
Leather, tanned, curried and finished	6,345,812	2,487	1,271,887	11,161,850
Liquors, malt	16,803,323	2,859	1,457,308	14,193,057
Lumber and timber products	105,191,521	41,305	10,712,947	60,966,444
Lumber, planing mill products	5,339,694	3,480	1,411,763	6,295,810
Malt	2,447,823	339	187,530	2,472,018
Paper and wood pulp	5,360,624	1,779	691,492	4,475,368
Printing, newspapers and periodicals	2,645,930	2,218	916,085	3,256,897
Slaughtering and meat packing, wholesale	2,269,880	737	338,273	8,393,754
Textiles	4,440,936	3,645	781,516	3,925,781
Tobacco	1,985,630	1,896	756,841	3,737,577
All other industries	38,483,399	33,470	13,418,556	59,802,910
Total	$246,515,404	120,006	$42,958,267	$248,546,164

CONCLUSION.

The most important factors in the manufacturing history in Wisconsin are raw materials and market facilities. Our one, almost all-important, souce of raw materials has been the hard and soft wood forests. The great problem of market facilities is transportation. In this, too, Wisconsin is most favored by Nature. The vast manufacturing possibilities and the traffic-yielding fertility of the soil have operated to give us a superb system of railroad accommodation to the best markets in the West. The great success of the manufacturing enterprises along their lines have helped to place these roads among the most profitable in the country.

The superior agricultural opportunities in some parts of our state, the timber supply in the rest, and excellent water powers and water and rail transportation facilities in nearly all of it, have constituted the chief physical conditions which have given rise to our rapid growth in manufacturing enterprises nearly everywhere over the state. While our manufactures are very generally distributed the distribution naturally varies with the potency of these advantages. Accordingly we find marked manufacturing districts in the state. In these districts we also find predominating those industries naturally attracted by the peculiar advantages of each district. More industries are powerfully influenced by the question of cheap transportation facilities than any other consideration. Therefore we find nearly 70 per cent of our manufactured product coming from counties on the shores of the Great Lakes or immediately tributary thereto. It would seem, moreover, that the potency of this influence is rather increasing than decreasing, for these counties show a growth in manufactures of 57 per cent during the past census decade as compared with an increase of 29 per cent for the rest of the state.

There are at least two important developments in the industrial history, which we are making here in Wisconsin, that are of a striking character. They are: first, the migration of

our leading manufacturing industry, lumbering; and second, the supersedence of that industry by diversified manufactures. Investigation discloses a most startling loss in this industry in many localities, a loss not made up by the gain in others. Not only is our lumbering moving away from many of its old strongholds, notably our lower Mississippi towns, the Wolf river valley and the Fox river and Green Bay shores, to far north counties, but much is moving from localities farther north and not a little of this industry is leaving the state entirely. The extractive character of the industry of necessity must put a period to its existence in Wisconsin on any such large scale as formerly. The loss in this direction is however not without a gain. The industrial centers fostered by lumbering have become permanent. While the old industry has been moving out gradually, as its mission was fulfilled, in most instances new industries of a more permanent character have been put in its place and a substantial and permanent organization of industry attained.

It is therefore natural to expect that among all our industries the last census period marks a high degree of progress in the development of character and diversity in our manufacturing. Increase in size and number of many very important industries represented in many parts of the state makes strongly for future prosperity and solidity of manufacturing in Wisconsin.

Since the bulk of our manufacturing is found along the lake shores it is natural that most of our large manufacturing cities be found there also. The manufactures of Milwaukee are a third of the manufactures of Wisconsin. Its industries represent nearly every line in the state. Many of our other cities also have quite varied industries and nearly all show the same remarkable growth. While leading industries vary with localities, nearly all manufacturing centers have several industries well represented. While the statistics and estimates of manufacturies in cities of less than 20,000 population are in no way reliable in the way that a census is supposed to be, they do now, beyond a doubt, in many places a very surprising degree of diversity of manufactures and a very

gratifying development of large enterprises and promising industries.

Repeated requests for estimates of various industries in Wisconsin at the present time makes it seem desirable to offer the following table. An effort has been made to estimate roughly the principal industrial factors in twenty of our leading manufacturing industries for 1904. These estimates are based on the rate of increase of the past census decade supplemented in one or two instances by additional data. For purposes of comparison in a general way an abstract is also given of the corresponding census returns for the census of 1890.

WORKMEN'S COMPENSATION FOR INDUSTRIAL ACCIDENTS.

WILLIAM BUNTON KERR.

CHAPTER I.

EMPLOYERS' LIABILITY IN ENGLAND AND THE UNITED STATES.

The past one hundred and fifty years has witnessed a progress in all lines of human activity and human interest entirely unprecedented in the history of the world. Never before has society felt the impetus of a power so great, so far-reaching, and so persistent as that which has sprung up since the birth of the so-called industrial era. Old landmarks have been swept away to be replaced by a civilization as different from the old as black is from white. Nor has this change been accomplished without a struggle; the ideas, the customs, and the traditions of the eighteenth and earlier centuries, which long usage had established firmly in the minds and actions of our fore-fathers of but a few generations ago, resisted zealously the conscious and unconscious efforts to supplant them. The nineteenth century was the battle ground of the old and the new, and it is to the victory of the new that we owe the civilization which is the pride of the modern man. But the battle is not yet over; the vanquished foeman is struggling to the last, and today we are confronted with many and serious problems, the

solution of which is necessary to the acquirement of that social happiness and justice which is the goal of all civilizations. Nor is the multiplicity of the problems, to which the industrial era has given birth, in any way subordinate to their difficulty and intensity. The growing complicity of human life, and the ever increasing integration of society, with its accompanying inter dependence of man upon man, present to every thoughtful and intelligent person conditions with which it is extremely difficult to deal. Entire communities, entire states, and entire nations are so intimately connected and so closely inter-related, that no longer can the interests of individuals or of classes within the groups be considered without the closest regard for the mutual ties which bind them to the remaining individuals or classes. The "trust" problem is of importance not alone to the capitalist captains of industry; the injustice of monopoly, if there be any, casts its influence throughout the many grades of society from its greatest heights to its lowest depths. Consequently the greatest care must be exercised in dealing with any of the present industrial and social problems that all interests are given the greatest possible consideration and weight. But a progressive society must not only meet but must also solve the many problems which confront it, however many difficulties they may present, and its success or failure depends alone on the degree of justice which permeates its activities. In the following pages is presented to view a social and economic problem, which though it has not yet attracted the widespread attention and interest of the American people is none the less of the greatest importance.

The United States is surprisingly ignorant of the conditions fostered by this era of large scale industrial development in respect to the safety of life and limb accorded those who by their daily, weekly, and yearly exertions make this civilization what it is. That modern industrial methods are accompanied by grave and sometimes unavoidable dangers is known even to the most unreasoning mind; no person, who is at all acquainted with industry today or who peruses ever so seldom the modern disseminators of knowledge and intelligence, can be unaware of the fact that men are losing their hands, arms and legs, the use

of their entire body, or their life itself while in the pursuit of their livelihood. But to the thoughtful man, who observes and is astonished at the industrial accidents which occur within the range of his visage, the question naturally occurs: What is the extent of the injuries inflicted upon labor throughout the vast expanse of industry? It is apparent to everyone that such a question can not be adequately answered save by the results of long continued and careful investigations, and by the compilation of complete statistics of accidents. In such investigations and in such compilations the United States is seriously, and it may be said negligently, lacking. Except in a very few branches of industry, absolutely no attempt has been made to record the occurrence of industrial accidents, either in respect to their number or to their intensity. A number of states have laws on their statute books compelling that notice be given the proper officials of all injuries and fatalties resulting from accident, but in most states these laws are entirely disregarded or successfully evaded. In a field long since entered and occupied by practically all Europeon nations the United States has made as yet almost no advance, except in the one or two industries recognized the world over as most dangerous to life and limb.

The dangers attached to railroad occupations are apparent to all who are acquainted with the nature of the modern system of rapid and long distance transportation, and early in the history of American railways different state legislatures endeavored to minimize them by the enforcement of strict preventive regulations. In 1887, Congress vested in the Inter-State Commerce Commission the supervision of all transportation lines engaged in inter-state traffic. The work of this commission in the collection of statistics and in its demands for strict preventive measures has become an invaluable aid to the welfare of the many thousands engaged in the maintenance and operation of railroads. Its work represents, also, practically the only systematic effort to obtain statistical evidence of the physical and mortal injuries inflicted by accidents upon any class of workingmen in the United States. The following tables compiled from the published statistics of the Inter-State

Commerce Commision illustrate clearly the extent to which railway labor is liable to injury and death.[1] The division of the entire number of employes into three classes is the one commonly used in relation to the working forces of a railroad, though in its last three reports it has been dropped by the commission. Under the heading "Other Eployes" are included not only such as are employed in or about the actual means of transportation but all office forces as well.

TABLE I.—TOTAL RAILWAY EMPLOYES AND NUMBER KILLED AND INJURED IN THE UNITED STATES—YEARS ENDING JUNE 30, 1889, TO 1902.

Year ending June 30.	Total railway employes	Employes Killed or Injured.							
		Trainmen.		Switchmen, Flagmen and Watchmen.		Other Employes.		Total.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1889	704,743	1,179	11,501	229	2,155	564	6,512	1,972	20,028
1890	749,301	1,459	13,172	234	2,307	758	6,917	2,541	22,396
1891	784,285	1,553	15,421	301	3,019	826	7,700	2,660	26,140
1892	821,415	1,503	16,521	294	3,254	757	8,492	2,559	28,267
1893	873,602	1,567	18,877	307	3,304	857	9,548	2,727	31,729
1894	779,608	1,029	13,102	216	3,321	578	7,999	1,823	23,422
1895	785,034	1,017	14,748	248	2,933	546	8,015	1,811	25,696
1896	826,620	1,073	15,936	210	2,751	578	11,282	1,861	29,969
1897	823,476	976	13,995	201	2,423	516	11,442	1,693	27,637
1898	874,558	1,141	15,645	242	2,177	575	13,439	1,958	31,761
1899	928,924	1,155	16,663	273	2,992	782	15,268	2,210	34,923
1900	1,017,623	1,396	17,571	272	3,060	889	19,012	2,550	39,643
1901	1,071,169	1,537	16,715	175	1,190	963	23,237	2,675	41.142
1902	1,189,315	1,674	21,503	200	1,143	1,095	27,878	2,969	50,524

This table serves well to show the magnitude of the problem of accident prevention. The following table is more valuable for purposes of comparison not only with conditions on railways in other countries but also with conditions in other industries.

[1] See W. F. Willoughby in Bulletin of the Department of Labor, No. 8, p. 8, from whom the arrangement of the tables is borrowed.

TABLE II.—NUMBER OF EMPLOYES FOR EACH ONE KILLED OR INJURED BY RAILWAY ACCIDENTS IN THE UNITED STATES—YEARS ENDING JUNE 30, 1899, TO 1902.

Year ending June 30.	Trainmen.		Switchmen, Flagmen, and Watchmen		Other Employes.		All Employes.	
	Killed.	Injured.	Killed	Injured.	Killed.	Injured.	Killed	Injured.
1889	117	12	144	15	946	81	557	35
1890	105	12	161	16	737	81	306	33
1891	104	10	134	13	707	76	295	30
1892	113	10	146	14	805	72	322	29
1893	115	10	150	19	960	68	32)	28
1894	156	12	200	15	997	72	420	33
1895	155	11	174	16	1,070	73	433	31
1896	152	10	211	18	1,072	55	444	28
1897	165	12	218	18	1,198	54	486	30
1898	150	11	195	18	1,142	49	447	28
1899	155	11	178	16	897	46	420	27
19 0	137	11	183	16	872	40	399	26
1901	136	13	260	38	848	35	400	26
1902	135	10	252	44	832	32	401	24

It is easily seen from the figures here given to what an extent danger of death and injury from accidental causes confronts the employes of our great transportation systems. Of one million and more employed on railways in the United States in 1902, one out of every four hundred and one received injuries which resulted in his death, while out of every twenty-four one was more or less seriously hurt. And railroad labor, as a class, is of the highest skill and intelligence. But these figures are not sufficient to portray the suffering and hardships which those who are deprived of the earnings of the injured and killed are obliged to endure. Such a loss, while it can not be represented adequately in dollars and cents, nevertheless exists, and is not to be disregarded in the consideration of such a problem as that of the prevention of and compensation for accidents. If it were known, the actual or average number of days' employment lost by each workman as a result of his injuries, it would be possible to compute with approximate exactitude the actual financial loss occasioned to railway labor by causes over which it can exercise but little control. Unfortunately, however, such detailed statistics are lacking, though it is easy to imagine what results they might afford were they attainable.

Agitation for reform in the methods of the coal-mining industry has led to a systematic study in some states of the accident risks involved in the ordinary employment of coal miners. Laws requiring that the state mine inspector be notified of all accidents within a limited time of their occurrence are generally disregarded, and as little effort has been expended in their enforcement the resulting data are very meager as far as the entire coal industry of the country is concerned. Pennsylvania, Ohio and Illinois, the three largest coal producing states of the Union, have detailed information covering a long period of years that is extremely interesting and may be taken as an evidence of conditions throughout the industry. The following table is compiled from the twenty-third annual coal report of the Illinois Bureau of Labor Statistics, for the year 1903.

FATAL AND NON-FATAL ACCIDENTS IN COAL MINING INDUSTRY OF ILLINOIS, 1894-1903.

Year.	Total No. of employes.	Total tons coal mined.	Total number.		No. of employes to each		Rate per 1,000.		No. Tons Coal Mined to Each Employe	
			Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1894	32,635	17,113,576	72	521	453	63	2.2	16.0	237,688	32,848
1895	31,962	17,735,864	75	605	426	53	2.3	18.9	236,478	29,315
1896	33,054	19,786,626	77	672	429	49	2.3	20.3	256,969	29,444
1897	33,788	20,072,758	69	518	489	65	2.0	15.3	290,610	38,751
1898	35,026	18,599,299	75	438	467	80	2.1	12.5	247,991	42,464
1899	36,991	23,434,445	84	597	440	62	2.3	16.1	278,982	39,254
1900	39,384	25,153,929	94	611	419	65	2.4	15.5	267,595	41,168
1901	44,143	26,635,319	99	422	445	104	2.2	9.6	269,044	63,117
1902	46,005	30,021,300	99	406	464	127	2.2	8.8	303,245	73,944
1903	49,814	34,955,400	156	410	319	121	3.1	8.2	224,073	85,257
Av. for 10 years ..	38,280	23,350,851	90.0	520	424.2	90.2	2.3	11.0	259,455	44,405

It is the comparative rather than the absolute figures which are significant in this case as in the last. In the first place, it it to be noticed particularly that the relative number of non-fatal accidents has tended to decrease materially during the decade observed, while of the fatal, with the exception of the last year the relative number has more closely approximated uniformity. This condition is due to the fact that accidents

that result fatally to miners are in the majority of cases practically beyond the province of human prudence and foresight to prevent, while the non-fatal accidents are caused primarily by carelessness and the lack of suitable precautions. In the marked decrease in the relative number of the latter class of accidents the work of the state mine inspectors is clearly evident, as well as that of labor unions, which by doing away with the task, or rushing, system, have made possible the exercise of greater care by all miners.

Again, it is well to dwell a little more at length on the meanings of the figures, in regard to the actual loss occasioned to those sustaining accidental injuries. In 1903, one out of every 319 coal miners in the state of Illinois lost his life, and one out of every 121 sustained injuries of a less severe nature. What was the resulting effect upon the communities which claimed as members the unfortunate victims? The following table affords an answer to this question in as concise a form as it may be given.

CONJUGAL RELATIONS OF THE KILLED AND INJURED IN THE COAL MINING INDUSTRY OF ILLINOIS, 1903, AND TIME LOST BY INJURED.[1]

	Killed.		Injured.	
Conjugal state, total		156		410
Married	97		221	
Single	59		189	
Dependents, total		705		1,428
Widows	93		221	
Children	280		499	
Others	342		708	
Number recovered and losing time				358
Total days' labor lost			20,746	
Average per man			58.0	

[1] Illinois Coal Report, 1903, pp. 72-80.

From the foregoing it is evident that industrial accidents are of vastly more far-reaching consequence than is commonly and at first sight supposed. Every accident in which one man received injuries brought on the average hardship upon more than three other persons, in no wise responsible for the accident. The extent of their suffering cannot be accurately de-

picted in general terms, though it readily lends itself to the powers of the imagination. Fifty-eight days' pay were lost on the average by the 358 injured men who recovered, representing at a reasonable estimate $116.00, aside from the permanent decrease in earning capacity which may have been occasioned.

No statistics have ever been collected showing the number or rate of accidents in the factories and workshops of the United States. The New York Bureau of Labor Statistics during the three months ending June 30, 1899, conducted an investigation of industrial accidents in New York, which though incomplete as an indication of conditions in industry as a whole, serves to exhibit to some extent the severity of modern industry. The cases covered by the following table are from 452,425 employes, or less than one-half of the entire number of employes in mechanical pursuits in the entire state.

RATIO OF INJURIES TO PERSONS EMPLOYED.[1]

Industries	Number of injuries in three months.	Proportionate number in one year.	Number employed.	Number injured to each 1,000 employed.
1. Stove and clay products	75	300	19,764	15.18
2. Metals, machinery, apparatus	820	3,280	123,467	26.57
3. Wood	145	580	31,482	18.42
4 Leather, rubber, pearl, etc.	25	100	31,169	3.21
5. Chemicals, oils, explosives	145	780	31,164	44.06
6. Pulp, paper and cardboard	85	340	8,201	41.45
7. Printing and allied trades	88	342	38,293	9.19
8. Textiles	133	532	59,709	8.91
9. Clothing, millinering, laundering	22	88	65,220	1.35
10. Wood, tobacco, liquors	154	606	45,600	13.51
11. Public utilities	69	276	7,403	37.28
12. Building industry	61	244	9,313	26.20
Totals	1,822	7,288	452,425	16.11

[1] Seventeenth Annual Report of the New York Bureau of Labor Statistics, 1899.

Formidable as these figures appear, they can by no means be taken as typical. The small number of establishments reporting and the short duration of the investigation forbid this. Compared with similar European statistics the average number of injured per 1,000 is extremely low, and in the absence of conflicting proof it cannot but be believed that the results of this investigation under, rather than over, state the true facts of the case. It is sufficient for present purposes, however, that

of a total of 452,425 employes in a variety of industries 1,822 were reported the victims of accidents in the short space of three months. The investigation continued to learn that the average amount of time lost by the injured was 15 days; in all, 19,587 days of work were lost.

No distinct attempt has been made to collect similar figures for the building trades and for agricultural pursuits. Suffice it to say, however, that dangers exist today in every line of occupation to a greater extent than ever. One has but to glance through the pages of a large newspaper to learn of the destruction of life and limb that is constantly being enacted about him. The United States loses more men annually on her railroads than she lost from all causes in the Spanish American War.

The man who depends upon his daily wage for the support of himself and his family has his only source of income stopped by an accident which leaves him, perhaps, only temporarily disabled. The result is temporary privation, and often starvation, for his family, unless charity intervenes. Should his disability be permanent, or should death result, the matter is only so much the worse. Further, the social effect of an industrial system which maims and destroys the natural provider of sustenance for a family is to throw into the ranks of labor at an immature age the many dependents of the unfortunate victim.

It has become the effort of all state and national authorities in the industrial world to minimize the risks of accident and the economic loss resulting from their occurrence by compelling the safe-guarding of dangerous machinery and by systematically enforcing better conditions of employment. "Nowhere has the modern state assumed that its help is not needed by the working people in dealing with the problem of accidents." [1] An evidence of this tendency on the part of every civilized state to protect its citizens is found in the numerous factory acts which abound on all sides. The results of these preventive measures have been very gratifying, though they have failed to accomplish all the good expected of them. In spite of the many safety devices constantly employed in and about machinery, on

[1] See Report of Industrial Commission, Vol. VII, p. 215 seq., for comprehensive statement of the existing problem.

the railroads, and in all dangerous trades, the increase in the number of accidents seems to keep pace with the growth of industry, though many grave dangers have been for the most part overcome. In some European countries[1] the prevention of accidents has become almost a science, for the furtherance of which vast sums of money are annually expended.

But the effort to prevent accidents is not alone sufficient to relieve the situation. Along with the increase in the number of accidents and the corresponding efforts at prevention has arisen a problem, which, though not of primary importance as far as the two are concerned, is nevertheless demanding the attention of thoughtful economists and students of social problems. In an age when one out of every few score of men receives bodily injuries due to accident met with in the course of his ordinary employment, the question naturally arises as to whether industry is worth while, and if so, who is going to stand the expense incurred by the steady loss of life and limb. The problem of compensation for industrial accidents is an important one from both the social and the economic point of view, though it must at all times be considered as subordinate to the larger problem of accident prevention.

In its historical treatment, the problem of workmen's compensation for industrial accidents is best considered from two standpoints. The first is that of the common, or judge-made, law, which in the rules defining the liability of employers to injured employes has up to the last generation governed practically all legislative and private action. The second is that which disregards entirely the question of negligence involved, and judges that compensation for all accidents met with in the course of employment is due injured workmen. Whichever point of view one chooses to take he is immediately confronted with numerous difficulties, which require removal before satisfaction is complete. Both have their zealous adherents, and especially by Americans must both be most carefully considered. As the one is essentially the outgrowth of the inability of the other to afford an equitable foundation for relief, I shall consider them in their natural order and shall turn now to a re-

[1] Germany in particular. See chap. III, below.

view of the history and present status of employers' liability in the United States and England.

Under the common law of employers' liability, a master has always borne a certain responsibility to his servants for accidents met with by them during the ordinary course of their employment. Hence the source of the present law in this country must be sought in the common law and the precedents established by English and American courts.[1] The common law is the law as laid down by the decisions, not governed by statute, of the courts of last appeal in this country and in England. The growth of the principles which govern the common law rules has been, therefore, in the minds of the many judges upon whom the duty has devolved of settling cases of dispute; no strong and central shaping hand is felt in the creation of these principles of justice and equity. Accordingly the law of employers' liability has been invested with a maze of subtleties and devices which to the lay mind is actually bewildering, and which has given rise to a distinct class of lawyers, who make a specialty of cases in which is involved personal injury due to negligence.

The cardinal principles of the common law of employers' liability are in reality simple and easy to understand. These are ably summed up in and deducible from the two maxims, at once perfectly intelligible and common to all branches of law: (1) A person is liable to all others for his acts, or omissions to act, and for his own breaches of contract; (2) A principal is liable to a third person for the wrong doing of a subordinate in his employ. The rule *Respondeat Superior*—let the master answer—holds a master responsible for the acts of his servants while in the performance of their duties and under his orders. Unless he be a child, in the eyes of the law every person is accountable for his own actions, and is liable for any personal and pecuniary loss which another may sustain thereby. By accepting the protection which society affords him in the prosecution of his own interests, an employer assumes certain responsibilities in respect as well to his servants as to the general public, and enters into an implied contract with both.

[1] See Report of Industrial Commission, Vol. VIII, p. 815.

But in relation to his servants a further duty rests upon a master, based on the implied or expressed contract of employment. In return for the services of the employe the employer stipulates certain conditions under which the employment shall be pursued. The master guarantees the ways and means of his establishment to be in *reasonably* good condition. He agrees[1] to furnish *reasonably* safe and suitable places in which to work, a sufficiency of tools and appliances and *reasonably* safe machinery to do the work required; to keep and maintain his works, machinery and plant in the same safe condition; to provide competent workmen; and to instruct and warn the servant of any hidden defects, dangers, etc., which the latter may not be supposed to know. In short, the employer agrees to use all *reasonable* care to protect his servant from injury. In no case does he agree to furnish the latest and most perfect appliances, nor to employ only the most skilled and most competent workmen. He merely agrees to use that care in the choice and selection of men and tools and in the maintenance of his establishment as to a *reasonably* careful and prudent man would seem sufficient. These duties, moreover, are personal to the employer, and in no case can he escape liability for breach of such contract by delegating them to another. And the employe, on the other hand, is required to exercise in his employment that degree of care, prudence, and caution which a reasonably cautious man would assume.

Upon first thought it may seem that the duties of the employer and of the employe as above defined are thoroughly just and satisfactory to all concerned. But a brief consideration will serve to point out the uncertainties with which a just interpretation of these rules in individual cases must contend. The question naturally arises: Has, or has not, the individual been guilty of a breach of contract? "The authorities are all agreed that the degree (of caution) required to be exercised is that of ordinary care; yet as to what measure of diligence will constitute ordinary care in relation to particular facts and circumstances and what comparisons or tests may be, or ought

[1] See Dresser, F. F.: "The Employers' Liability Acts and the Assumption of Risks," p. 6.

to be, applied as a basis for determining whether the act or omission was the exercise of such degree of care, there is an apparent conflict." [1] "Ordinary care" and "reasonable prudence" are not terms which admit of close and arbitrary definition; their significance is relative rather than absolute. The question to be decided is, what, under the same circumstances, would the majority of men of common intelligence in the exercise of reasonable prudence have done. And on account of the difficulty of determining this fact, uncertainties occur, which as will later appear operate to the harm of both master and servant.

I have spoken thus far only of the general duties which the contract of employment impose upon master and servant; it is necessary now to consider the specific principles which determine the liability of an employer to his injured employe. First among these, and resting entirely upon the contractual relationship of the two parties, is the doctrine of assumption of risk, or acquiescence, described in the phrase *Volenti non fit injuria*—whoever willingly incurs danger deserves no reward for injuries sustained thereby. The servant in accepting employment is supposed to be aware of the dangers connected therewith, and by the mere act of entering into his duties agrees to assume all its risks. Likewise, the servant is able at any time during the course of his employment to discern any unusual or unexpected dangers of his work and is at perfect liberty to discontinue his employment; if he remains after such discovery he tacitly agrees to assume the extra hazards, unless he has been assured that remedies will be instituted to do away with the same. If he be willing to risk his personal well-being, he must be content to stand by the consequences of his willingness. The employer is at liberty to conduct his business in his own way, provided only that he keeps within the bounds of reasonable care and prudence, even though his methods be more than ordinarily hazardous. Knowledge of actual conditions is presumed, however, on the part of the employee, and the employer may rest upon the assumption that the former does know what is generally to be seen.

[1] Bailey, W. F.: "The Law of the Master's Liability for Injuries to His Servant," p. 4.

Two questions arise preeminently in regard to the doctrine of acquiescence, the one concerning its justice on abstract principles, and the other concerning its practical operation. The first I shall not discuss at this point; the second needs but a word in reply. The risks and dangers of modern industrial operations are many, some of which are of a nature to be readily foreseen, others of a character defying the ingenuity of man as well to discern in advance as to prevent. What, then, are the exact and precise risks which in a particular instance a servant assumes? No definite rule can be laid down to cover uncertainties occasioned by this question, and until authoritative opinion has been obtained, doubt must always exist as to the assumption of the particular risk involved in any matter of dispute.

It is perfetly obvious that no man is deserving of the assistance of his fellow men, who wantonly and maliciously damages himself. And the modification of this belief embodied in the judge-made doctrine of contributory negligence constitutes for a master in cases involving his liability to his injured servant a defense to be broken only with the greatest difficulty. Be the breach or omission of the former what it may, if he has in any measure, however slight, contributed to the causes of his injuries, the latter is without legal basis for compensation. The employer may be guilty of the grossest negligence, but if the employe be ever so slightly remiss in his actions, recovery is denied him. Some states of the Union have endeavored to modify the rigor of this rule by the substitution of the doctrine of comparative negligence, which considers the relative degree of departure from the standard of ordinary or reasonable care and prudence. Thus a slight degree of negligence on the part of the servant would be counteracted and nullified by the gross negligence of the master. Illinois[1] has recently discovered the fallacy of this rule, which through its indeterminateness but adds to the uncertainties incident to the principle which it seeks to substitute. The difficulties involved in determining in any particular instance not only the degree of negligence concurring

[1] Cicero & Proviso St. Ry. Co. v. Frank Meixner, 160 Ill., 320. The doctrine of comparative negligence is no longer the law in Illinois.

to cause an accident but even the presence of contributory negligence is readily apparent. It is manifestly impossible to formulate any rule which shall apply in all or in a majority of cases; every emergency must be met with a special opinion based entirely an the facts of the one instance.

The doctrines of contributory negligence and assumption of risk are separated by a clearly defined distinction. Whereas the former depends entirely upon conduct pursued after employment has been entered, the latter is based upon the contract which commences that service. It is through a corollary of the latter that the greatest source of uncertainty in, and dissatisfaction with, the common law has arisen. The greatest defense open to masters against liability for injuries received by their servants is found in this doctrine of fellow-servants, or co-employes. So important is this doctrine in the common law of employers' liability and such a mass of disputes, decisions, and legislation has it given rise to, that it is worth while to investigate somewhat more closely its formulation.

English and American courts enunciated the doctrine of common employment independently of each other and at about the same time. The earliest American decision is that of a South Carolina court, but the foremost one is that in the case of Farwell vs. Boston and Worcester Railroad Company.[1] The leading English case is that of Priestly vs. Fowler, decided in 1837. Priestly was employed by a butcher named Fowler to deliver goods. Upon the occasion in question the delivery wagon was heavily overloaded and broke down, thus inflicting severe injuries on Priestly. Judge Abington in deciding the suit brought by the injured man for recovery gave utterance to the now famous doctrine of fellow servants, declaring that a master is not liable to one servant for injuries sustained through the negligent act of another, or fellow servant. The decision held, in substance, that it is not just to make one man responsible for negligent acts over which he has no direct and personal control, and that what risk, if any, was involved in the co-laboring of a number of men must be assumed and borne by those most intimately acquainted with conditions and most liable to be af-

[1] Decided by Chief Justice Shaw, of Massachusetts, in 1842. (4 Met., 49.)

fected. It was held that a rule which made a master responsible to his servant for the negligence of his carriage-maker; for the cold contracted by an employe on account of damp sheets placed upon his bed by another employe—that such a rule, involving as it was intended to the most intimate relations of a servant with his fellow servants and his master, was unjust to the latter, and one which, if strictly applied, would render impossible the further relation of master and servant in large industries.

The effect of this principle is to abrogate the common law doctrine of *respondeat superior* in the case when the person sustaining the loss is also a servant in the employ of the same master. A distinction is thus created between those who are servants of a particular master and those outside of his employment, by which the former are at an extreme disadvantage. A perfect stranger is entitled to recover from the employer for damages sustained through the negligent act of an employe; not so another servant. Some justification there is for this doctrine under certain conditions. It implies the assumption of a class of risks which are due to the acts or omissions of fellow employes, whose interests are mutual and whose relations are friendly. Fellow workmen in a small establishment, where each man is personally and often intimately asquainted with the others, have these common interests, which insure the maximum care on the part of each in such operations as are likely to prove dangerous. The personal element in the relations of each servant with his fellow and with his master is sufficient guarantee of more than reasonable precautions. But modern industry is otherwise organized; today thousands of men are continually working for a common employer, and a system of minute division of labor has divided them into numerous departments. It is not, then, folly to assume that an engineer in a shoe factory is so intimately connected with a distantly located stitcher as to insure the greatest care on his part that through no act of his the stitcher may be injured? Nor does this community of interest any longer exist between men employed in the same departments. The switchman on a railroad may never have seen the engineer whose safety depends on his proper actions; still

the engineer may not complain if the negligence of the switchman results in his injury. His relations with the switchman may be no closer than those with the passenger on his train, who received injuries at the same time as himself, but who not only is entitled to recover damages from the railroad company but is not permitted by law to relieve the company from responsibility for his safety.

No more difficult problem has arisen, in connection with the common law of employers' liability than that of determining who are and who are not fellow-servants. Different courts have promulgated different definitions; different statutes have attempted satisfactory statements: none of these has had the effect, other than in a general way, of settling the ever-recurring dispute. A common device is to exclude from the category of fellow-servants employes in different distinct departments; another classification of the widest adpotion excludes those delegated with particular authority, or those to whose orders the injured man was subject at the time of his injury. Both distinctions serve, however, to increase the uncertainty of the general question, the one by making necessary the defining of distinct departments, the other by opening a new discussion as to who are vice-principals. The federal courts hold that specific delegation of authority in particular cases and management of distinct departments is necessary to determine vice-principals, but the federal courts have not laid down any rule as to what shall constitute specific delegation and distinct departments.

In England, the application of the principles of employers' liability led to a great amount of discontent and dissatisfaction. On account of the difficulty met with in fixing the blame for accidents, an uncertainty arose, which, coupled with the extreme expenses of all legal procedure, drove all but the most clear and worthy claims away from the courts. In a simple agricultural community, or under the old system of domestic economy, the attachment of blame was an easy matter and the fellowship which naturally existed between the master and his few employes was sufficient to guarantee the utmost of care on the part of each in his relations with the others. Nor was the inherent risk of industry of so grave a nature as under the present sys-

tem of complicated and extended machine production. But as the factory system grew, it was found more and more that accidents occurred which could be traced to the negligence neither of the employer, of the employe, nor of any one person. A class of accidents arose which in the true sense of the word were accidents—happenings absolutely unaccountable as far as human influence or explicable circumstances were concerned. A German investigation,[1] in 1887, of 15,970 accidents shows this clearly. Of the total number of accidents there were due to the

	Per cent.
Fault of employer	19.76
Fault of third person, particularly to employer	3.28
Fault of injured persons	25.64
No fault which can be assigned	3.47
Fault of both	4.45
Inevitable risk when at work	43.40
	100.00

It is evident that of the accidents here investigated only 20% were deserving of compensation under the doctrine of common employment, and even that many only when full legal proof was obtainable. Of the remainder, over 50% were caused neither by the employer nor by the employe, cases in which the law allows absolutely no reparation.

As the unfairness of the law became more and more impressed upon the people agitation for reform began, which led to the passage in 1880 of the Employers' Liability Act. In as much as the burden of dissatisfaction with the common law had been borne by the doctrine of common employment, it was the purpose of this act to abolish entirely the obnoxious principle. The act was looked upon by labor sympathizers as a great legislative victory, while by employers it was thought that a death blow had been inflicted upon all industries which it affected. In its application, the new law extended to all types of service with the exception of seamen, sea apprentices and menial or domestic servants. Subject to certain limitations, the law de-

[1] Industrial Commission, Vol. VII, p. 816.

clared that every man injured in the course of his employment, or his representatives after death, was entitled to compensation from his employer. The liability of the employer was extended to five special cases in which workmen may receive personal injury:[1] "(1) by reason of any defect in the condition of the ways, works, machinery, or plant connected with or used in the business of the employer; (2) by reason of the negligence of any person in the service of the employer, who has any superintendence entrusted to him, whilst in the exercise of such superintendence; (3) by reason of the negligence of any person in the service of the employer to whose orders or directions the workman at the time of the injury was bound to conform, where such injury resulted from having so conformed; (4) by reason of the act or omission of any person in the service of the employer done or made in obedience to particular instructions given by any person delegated with the authority of the employer in that behalf; (5) by reason of the negligence of any person in the service of the employer who has charge or control of any signal, points, locomotive engine, or train upon a railway."

The relief afforded by this law was more fancied than real, as subsequent developments proved. In the first place, though the range of liability of the employer was extended a little, the burden of proof was left upon the plaintiff with no diminishment of the expenses and uncertainties of litigation. In the second place by extending the liability of the master to cover the acts of his superintendent, or vice-principal as he is often called, the law introduced another item of uncertainty. To the already open and ever changing question as to who were co-employes the question as to who were vice-principals was now added. "It" (speaking of the act)[2] "has only very partially, more by apprehensions aroused, which may subside, than by direct efforts likely to endure, reduced the number of accidents, only very partially, irregularly and insufficiently provided compensation for injured workmen."

The need of employers' liability legislation began to be felt in the United States with the introduction and expansion of rail-

[1] Willoughby: Workingmen's Insurance, p. 269.
[2] Wolff, Employers' Liability, p. 58.

road transportation, and succeeding years have added many and various statutes relating to the subject to our laws. Georgia was the first state to enact legislation bearing on the liability of employers for injuries sustained by their employes in the course of their employment. Sections 2297 and 2323 of the revised code of Georgia, enacted in 1856, are interesting not only as the earliest but also in many respects as the most advanced piece of legislation ever passed in this country, doing away as they do entirely with the doctrine of common employment and with that of contributory negligence, when the act contributed to is of the employer. This applies only, however, to railroad companies and their employes.

Legislation in the United States has pursued the following general lines: (1) Statutes declaratory of the common law doctrine, defining the duty of the master, and stating the rules of the contributory negligence and common employment doctrines; (2) Statutes modifying the doctrine of common employment by defining and limiting the relation of fellow-servants; (3) Statutes removing entirely the defense of common employment and making the employer liable for the acts of his one servant to his other servants as to the public, thus establishing again the rule of *Respondeat superior;* (4) Statutes declaring the liability of employer for accidents resulting from their failure to comply with preventive regulations; (5) Statutes extending the right of action to the legal representatives of injured employes after death; (6) Statutes regulating the use and proper conduct of insurance and mutual relief funds, mainly designed to nullify contracts entered into between employers and employes for the protection of the former against civil process; (7) Statutes relating to the notification by employers of the proper state officials of the occurrence of accidents.[1]

No uniformity between the actions of various states has been attempted or obtained. The legislation of particular states has been influenced to a greater or less degree by the industrial conditions prevalent therein, though some of the distinctly agricul-

[1] See short article by G. A. Weber in Bulletin of the Bureau of Labor No. 54, page 1469 seq. For text of Employers' Liability Laws of the United States see Appendix A.

tural states have taken action on the subject. Alabama, Colorado, Indiana, Massachusetts and New York enacted laws based entirely on the English act of 1880. Many laws apply only to particular industries, as especially to railroading and mining on account of their dangerous nature. Maryland, in 1902, made a wide departure from the established custom by compelling the insurance of employes in some of the more dangerous pursuits with the state commissioner of insurance, one-half of the amount of premiums to be deducted from wages at the discretion of the employer. The constitutionality of this law has not yet been finally passed upon, and it is open to question as to the attitude the higher courts take to it. Porto Rico, in a recently enacted law designates the maximum of compensation in case of injury as $2,000, and in case of death, $3,000. The attempt is made to simplify procedure and remove many of the existing uncertainties.

As a result of the Employers' Liability Act of 1880 a practice grew up among employers of compelling as a necessary condition of employment the signing of a contract relieving the employer from his liability in case of accident. It was often made to appear of advantage to employes to do this, but in many cases the only reward for the waiving of legal rights was the employment. The practice has had no small growth in this country, where it is found in connection with collective insurance and mutual schemes contributed to and managed by employers. The injustice of such contracts is readily apparent and they are no longer held valid by the courts. The Supreme Court of the United States has thus expressed itself on the question of contracting out: "As a general proposition, it is unquestionably true that an employer can not relieve himself from responsibility to an employe for an injury resulting from his own negligence by any contract entered into for that purpose before the happening of the injury." It is evident that continued pursuance of this custom would controvert the ends of justice to the detriment of the public welfare, and that it is for this reason contrary to public policy. The British Workmen's Compensation Act forbids contracting out, except in such special cases as meet with the approval of the Registrar of Friendly Societies.

CHAPTER II.

THE OPERATION OF EMPLOYERS' LIABILITY LAWS.

In the last chapter it was discovered that a system of compensation based on negligence is unsatisfactory, first, because of the impossibility of ascribing every accident to the negligence of any certain person or persons; it was found that of the total number of accidents in a variety of industries upwards of 50% are caused by no ascertainable act or omission, but are due to the nature of the employment. Under a system of employers' liability no relief is afforded in the case of such accidents. But as regards the remainder of the accidents: Are the rules regulating the liability of employers sufficiently definite to admit of no uncertainty and to guarantee an injured man just compensation when he clearly deserves it? There can be no doubt that there exists a second cause for the dissatisfaction both of employers and of employes in a system such as prevails today in the United States. The extremes to which has been carried the division of labor, and the employment of large numbers of men in individual enterprises have made the matter of *proving* negligence a most difficult task in every case. The uncertainty thus created acts with different effects on the parties interested; to the employer the measure of risk in his business is raised above the normal by the probability of incurring heavy liability; to the employe is raised a barrier to recovery, formed by the uncertainties and heavy expenses of legal procedure. In any one year, the employer is unable to foretell the number of accident suits which he will be forced to defend; much less can he determine in advance the amount of liability which adverse decisions of the courts and hostile juries may impose upon him. The average employe is totally without funds to instigate legal proceedings against his employer, even though his cause be most worthy, and

the uncertainty of decision renders him extremely loath to venture in such a case what accumulations he may possess. Both parties, then, suffer from the workings of a system of compensation based on the civil liability of the employer to his servants, and in consequence schemes have been evolved and put into operation which propose for the one to remove the risk of liability, and for the other to substitute a certain means of compensation for the indefinite system to which it now looks for relief. Reliability, stability, and uniformity are the conditions desired by master and servant alike. This chapter proposes to notice the efforts expended to release employers from their liabilities and from the payment of compensation; it then turns to some of the counter-influences brought to bear in behalf of labor.

With the large increase in the number of personal accidents there has developed a class of men who, claiming the dignity of the legal profession, are recognized neither by the profession nor by the general public as pursuing a legitimate occupation. These gentlemen from the manner in which they obtain their business and from their unprofessional methods are called by their more respectable legal brethren, "Ambulance Chasers." It is their business to follow up a man injured in any sort of accident and secure his case on contingent fees. Watching the daily papers and having other means of securing information in regard to accidents, they lose no time in gaining an audience with injured men. The work of the ambulance chaser is entirely unprofessional. He has no interest in the injured man beyond the fee he may receive from him. Knowing nothing of the case, he leaves in the hands of the injured the difficult matter of obtaining evidence and testimony, and if he is unable to do this the case is dropped. Having no resources the lawyer is unable to carry a case beyond the lower courts, and seldom cares to, though he be in a condition so to do. The ambulance chaser is, as it were, a human bird of prey, who swoops down on the innocent victims of accidents and makes his sustenance from their helplessness. Knowing little of the law they care not whether their clients deserve indemnification or not. A worthless claim pushed to trial is an expense to the defendant and a bother which it is often worth quite a little money to avoid.

Settlements are sought before or after trial and on any foundation which will yield some financial gain; needless to say, the needy and suffering injured man sees but a small portion of the amount thus recovered. As a result of such conditions workingmen in their ignorance of the law and of legal methods are deprived in great measure of what opportunities they have under the law of recovering damages, employers are forced to undergo a constant menace and harassment bordering on blackmail, and the general public is inconvenienced by the overcrowding of court calendars with personal injury suits, which delays the process of all other civil litigation.[1]

The great increase in the number of accidents and the growing number of claims for indemnification have induced large establishments to maintain claim departments, or an office known as that of claim agent. Presided over by skilled attorneys with numerous clerks at their disposal, these departments have as their object the fighting to as low a settlement as possible all claims for damages. Extreme methods were early adopted to limit the liability loss of their establishments. Having at their command large financial resources they were able to follow cases from court to court as long as the patience, or pocket-book, of the original plaintiff held out. The method employed by the claim agent of a large corporation is to obtain at the earliest possible time after the occurence of an accident evidence, which, if presented to a jury, will exonorate the employer. The means by which such evidence is obtained are not alwavs above reproach. In the first place, the greatest secrecy concerning accidents is maintained after their occurence, and every trace of them is removed as soon as possible. Investigation by outside parties is practically impossible. Then, all investigations are aided to the utmost by the officials of the company, whose desire

[1] Seventy-five per cent of the time of trial courts in Cook county, Illinois, is taken up with personal injury cases. In his report for the year 1903, Mr. John F. Smulski, city attorney of the city of Chicago, says: "Another cause for this great increase in personal injury suits during the past ten years may be found in the increased activity of certain lawyers and physicians, who make it a special business to stir up litigation of this nature, and who have in very many cases entered into a practical partnership arrangement with each other. . . . There exists in this city today not only a large number of lawyers who make a specialty of this class of cases, but a number of corporations and adjusting agencies organized for the sole purpose of prosecuting claims of this kind."

it always is to hold the liability loss to a minimum. But, thirdly, in the selection and preparation of witnesses the claim agent is able, on account of his own superior knowledge of the subject of accidents and of the liability laws, to so direct the views of those who were present at the occurrence of the accident as to make them favorable to the defense. Here is brought into opposition with the untrained intellect and limited intelligence of the average employe, the acute brain of the man trained especially for the performance of just such duties. By intimidation, by continuing legal opposition, and by the employment of the best brains obtainable the claim department is made a weapon formidable indeed against the ignorance and poverty of labor, and one which aims not to perform justice, but to evade the force of law.

Effective as is the claim department, the age of combination and of scientific methods has brought into being an organization which unites the work of many such organizations into one large company or corporation. The idea is an English one, which arose as a result of the Employers' Liability Act of 1880. So much was this act feared by employers that determined and organized resistance along legally qualified lines seemed absolutely necessary to the further maintenance of industry. Developing rapidly in England, employers' liability insurance was introduced into the United States in 1886 by the Employers' Liability Assurance Corporation (Limited). In the year 1903 fourteen such companies were licensed to write employers' liability insurance in the state of Wisconsin, whose business aggregated as follows: Total premiums received, $336,288; total losses incurred, $118,298, or 35.2 per cent of the former. The wide spread of liability insurance throughout the United States, and the relation of receipts to expenditures for losses incurred is exhibited in the following table:

EMPLOYERS' LIABILITY INSURANCE IN THE UNITED STATES, 1899-1903. RETURNS FROM FOURTEEN LARGEST COMPANIES.[1]

Year.	Premiums received.	Losses paid.	Ratio of losses paid to premiums.	Insurance in force.
1903	$13,571,733	$5,607,637	41.3	*$1,488,772,000
1901	9,092,852	3,971,449	44.1	1,136,546,000
1899	6,412,737	2,595,628	40.4	771,326,000

*Estimated from detailed figures for 1903 and 1901.

It is desired merely to call attention to the large aggregates in the three columns of totals and the great increase in each three year period. Comparison with similar life insurance figures for the same year throw these into comparative insignificance, but taken alone they represent an enormous amount of business in liability insurance transacted in a year.[2]

Employers' liability insurance is primarily and altogether a measure for the protection of the employer against his common law or statutory liability. It is as far from being a means of protection to the laboring man as anything can be which by depriving him by any means whatsoever of his just compensation proposes to pay dividends to stock-holders. For it must be remembered, first and last, that employers' liability insurance companies are modern money-making stock-companies, whose sole maintenance, as at present organized, lies in their ability to withhold from, if not to defraud, the employers of their insured the just measure of compensation which is their due in case of accident. For and in consideration of the stated premium, which varies in accordance with the size of the establishment of the insured and with the number of men therein and the nature of their employment, the insurance company guarantees to assume all the liability of the employer, incurred as a result of one or all of the particular occurrences specified in the contract and covering practically the entire range of accidents. At first sight this may appear to be as well a guarantee to the injured man. Two particular causes arise preeminently to forbid this: In

[1] Compiled from Insurance Year Book, 1904.

[2] Life insurance statistics: Total premium receipts, $447,543,822; total payments to policy holders, $225,842,072; ratio of latter to former, 50.4 per cent.

the first place, the insurance company is merely performing for a remuneration the service which the employer previously attended to through the medium of his claim department or claim agent, and only in so far as the expense of the former is less to him than that of the latter does he partake of the advantages offered by the former. Consequently by as much as it was the duty of the claim department to minimize the expense of personal injuries, by so much, and more, is it necessary for the liability company to reduce the actual paid liability. In the second place, whatever might have been the philanthropic motives that brought the first liability company into existence with a possible guarantee not only of protection for the employer but as well of compensation for the employe, the increase in the number of such companies with the attendant competition for business has brought about a lowering of premium rates which more than ever makes it necessary to deny indemnification wherever possible. As a business proposition, every indemnity paid means so much less in the pockets of stock-holders at the end of the year.

The policy of the liability insurance company is precisely that of its antecedent, the claim department. Every accident that results in the injury of an employe must be reported at once to the insurance company, in whose hands the entire conduct and management of the case thereafter rests. The entire care and personal responsibility of the employer is thus removed from his shoulders. Men of the greatest experience and skill in the management of personal injury and damage cases, trained for this specific purpose, are employed by the company. A professional and skilled investigation of the accident reveals either the liability or lack of liability of the employer. In the latter case, when the facts are established absolutely no amount of persuasion can obtain the smallest amount of compensation not allowed by law. The personal feeling of the employer towards the welfare of his servants is not present to compel a generous treatment of an unfortunate sufferer. From the heartless liability company the latter can look for nothing more than the least the law might allow him.

When the liability of the employer is discovered, the policy of the insurance company is always and unreservedly to take imme-

diate advantage of the ignorance of the injured man and of his helplessness and want immediately after a disabling accident. The mass of American workmen are totally ignorant of their rights under the laws which they follow and respect. The very existence of the liability company in its present form depends in part, if not entirely, on the ignorance of the injured man, which allows him though he may be entitled to a fortune to reach out greedily for the smallest amount of relief. Ten, twenty or fifty dollars looks like a large sum to a man who is on his back with no prospect of working for an indefinite period, and with a family crying for the necessities of which the cutting off of their source of income deprives them. Though the courts sustain to a less degree today than formerly the release which is given in return for such payments, this fact is not ordinarily known to the injured man and such payment consequently is final. In dealing with an employers' liability insurance company an injured employe is a victim of circumstances. Without knowledge of his rights; unable often to pay for the legal advice which may mean so much to him; confronted by a smooth-tongued man of business, who styles himself a messenger of mercy; it is strange, and the exception rather than the rule, for him to refuse until he has obtained competent advice the offer made him. Ignorance of the meaning and value of legally prepared and executed documents, which to his eye and ear may seem insignificant enough, often leads him to sign away all his rights without any compensation whatsoever, or so to represent the facts of an accident as to render his testimony before a jury practically worthless. The concealment of the facts regarding accidents and the destruction of adverse evidence are other of the means employed by these companies.[1]

One or two instances will serve to show the methods of the liability companies. A young man, married, and employed in

[1] "DONT'S" OF THE AETNA LIFE INSURANCE COMPANY.

"Don't tell injured employes that you are insured, and don't refer them to the Aetna.

Don't omit to at once label any tool or small appliance connected with an accident, so that it can be produced and identified later on.

Don't give any information about an accident to any one, or admit any person to the premises to enable him to obtain information. (The police and the Aetna's representatives excepted.)

Don't let witnesses in an important accident leave your employ without leav-

the construction of a railroad bridge receives injuries of a disfiguring and exceedingly painful nature. Since his employer carries liability insurance, an agent of the company is sent several hundred miles to make an investigation. What to the inexperienced witnesses of the accident, and to the injured man himself, appeared to be an unexplainable occurrence, is readily solved by the insurance representative who straightway sees the possible liability of his company mounting into the thousands of dollars. Hoping to make a settlement for a few hundred dollars he approaches the injured man, who after consultation with his wife decides that $65.00 will fully cover the loss sustained. Again, a colored man employed in excavating for the Chicago drainage canal has a hip permanently dislocated by a premature explosion unquestionably due to the negligence of the employing company. Visited by a representative of a liability company as he is about to leave the hospital, even after he is made to understand that accepting anything then will be a barrier to further recovery, he decides that a suit of clothes and a ticket to Virginia will compensate him for the loss sustained and will make him happy again. Perhaps it is not well to do more than mention the case of the liability adjustor whose conscience forbade him to make a ridiculously low settlement with the wife and two children of a deceased workman, and who lost his position accordingly. It is to be hoped that this is an exceptional case rather than one of common occurrence.

Enough has been said of employers' liability insurance companies to indicate the field they are purposed to cover and the means employed by them in the pursuance of their business. It is, of course, necessary that many claims are continually settled by them while many find their way into the courts. It is practically impossible to ascertain the average sums awarded as indemnification in either class of cases. Insurance reports tabulate the total disbursements of individual companies for

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ing a record of their addresses—the loss of a valuable witness may imperil the success of your defense.

Don't forget that you pay the Aetna for protection against loss, that their interests are yours, and yours theirs, and that the economical disposition of claims means reasonable rates."

the settlement and payment of claims, but have in no case endeavored to obtain statistical evidence of the number of claims recorded. Manifestly it is to the advantage of the companies to conceal these facts, as much of their success depend upon their ability to reach low settlements.[1]

As an institution, the employers' liability insurance company, though conducting a legitimate business in supplying a social for an individual guarantee, exercises an influence on the unprotected working man which is positively brutal and inhuman. It may be said that in any given case the injured workman, because of his ignorance, is responsible for his own "fleecing," and that hence no socieal injustice is done; but men, who are interested in the problems which beset the progress of the human race, have answered that if the mere fact of man's relationship with man is not sufficient to safeguard and protect the weaker in his dealings with the stronger then surely a great want is felt by modern society, which though it cost the very foundations of our social system must and shall be eradicated. Sooner or later an aroused public opinion will demand for the economically dependent workman recognition not only of his rights but of what is more essential, of his right to the enjoyment of those rights.

The work of the casualty companies has lately been opposed by a new form of organization which is spreading slowly in the great industrial centers. Organized ostensibly for the protection of workingmen's interest its aim is to supply to injured laborers the same kind and degree of service that the liability company gives employers. For a small annual sum, usually amounting to a dollar, these concerns agree to investigate thoroughly all accidents in which their clients are injured and upon the basis of a just and reasonable interpretation of the law delivering to them at their request such evidence as has been collected together with an opinion as to the liability involved. Entire labor unions are enrolled, and fees are payable through these organizations, to whom in addition is af-

[1] A former attorney of a large liability company states that whereas the average payment of accident insurance companies for deaths and injuries is $200, the liability company with which he was connected has paid on the average $57.00.

forded the privilege of seeking any legal advice at no expense. One of these concerns has enrolled the members of no less than fifty unions, and the idea seems to be growing in favor among the union laboring body. Tags are distributed bearing the individual number of the wearer with instructions to notify the office when accident occurs. When such notification is received, a representative is sent to investigate and collect evidence. These concerns do not solicit the handling of cases that are urged for settlement, but it is needless to say that few pass beyond their offices.

It is apparent that such organizations as these possess the qualifications to perform at a reasonable remuneration a service of the highest public utility. At an expense of eight cents a month any workingman may be practically assured of obtaining his just deserts under the law if he but follow the advice always given to guard all evidence. The guarantee to the individual client is that he will be given the best obtainable legal advice, and under the present system of compensation this alone is a great boon to the working man. It effects a positive influence in the cause of advancing labor to a position of greater self-respect and in this way is of educational benefit. The practical effect of enjoying the protection of one of these concerns is the same as that experienced by every business man who has his personal attorney from whom to seek advice.

But is it possible for such an institution, organized as it appears, to protect the working population against a great injustice, to accomplish its purposes and at the same time satisfy its greater purpose of enriching itself? As long as they go no farther than they assert it to be their purpose to do, these concerns perform a highly useful and highly commendable purpose, but the temptations to go beyond this, and the same ignorance and illogical methods of labor itself, seem to be great obstacles with which to contend in such work. In the first place, by obtaining a large clientage such as it aims to do, the security company is in a position to receive the earliest information in regard to accidents, and as its influence widens more and more cases of injury will naturally come to its doors. If it is strong, the company will turn aside such cases as clearly

involve no negligence on the part of the employer and in which no liability can be found. In the second place, if it does this it loses standing with the unions, who are only too ready to suspect discrimination and collusion, and in every case where liability is not declared its hold immediately weakens. For the workman after being told that liability sometimes exists decides that when he is injured it must exist; and whoever opposes him runs the risk of gaining his emnity. Thus it seems that the plan of security envolved by these concerns is lacking in practicability for the very reason that they can not stop where they set the limit to their purpose but are pushed on into the illegitimate, often, by the desire to hold their clientage. Such a work undertaken by a philanthropic or municipal organization would not meet with these obstacles and in some countries, as in Switzerland, such work is actually carried on under public direction.

The ultimate effect of such an institution would be to raise the plane of liability insurance. The concerns that have already taken up the business have been bitterly opposed by employers and by liability companies. Naturally, the cost of insurance becomes greater to employers, and their hostility is easily accounted for. But the work and field of the casualty company will in no wise be impaired, the same need of a social instead of an individual guarantee existing then as now. But the fact that a concern operating for the purpose of holding out to workingmen a valid guarantee of obtaining justice under the law shows again the weakness of what may now be termed the American system of compensating labor for industrial accidents.

The liability laws of the United States are far behind the times; they are, in fact no more than a remnant of the earlier days when the large-scale industrial methods and organization of society of today were totally undreamed of. The spirit and the letter of the law demand the payment of indemnification to employes injured through the negligence of their masters, and the mere existence of the law is sufficient proof of the necessity as a social obligation of such payments. It is not required to consider at this point the vast number of accidents for which

the law makes no provision; that is another matter entirely. For what would the extension of the liability of employers to cover the entire range of accidents avail if that liability were not enforced? By increasing the number of injuries for which indemnification is due the business of the ambulance chaser and of the liability company would grow, while the laborer would profit but little. Legislation and the enforcement of proper observation of legislation are totally different matters. A system of employers' liability which declares that compensation shall be paid in certain cases in which certain conditions are encountered, but which provides no machinery adequate for the enforcement of such payment, can result in nothing but confusion, dissatisfaction and injustice among an enterprising people. Compelled by the press of competition every employer must guard well the exits to his cash drawer; an expense avoided is money saved. The congestion of the courts with personal injury cases, the presence in society of the ambulance chaser, and the prosperity of the casualty companies, are all evidences of the rottenness of the entire system, which works to the disadvantage not alone of the laboring man but of employer and of the general public as well. Mr. Eugene E. Prussing, in describing the condition of the trial courts of Cook county, Illinois, during a recent winter, says:[1] "The disregard for life and limb under corporate management, especially railroad management, the multiform accidents resulting from the increased use of machinery in recent years, the pernicious activity of legal and extra-legal 'ambulance chasers' have become a distinct social and legal evil, the effect of which is manifested in the congested condition of courts throughout the country..... A permanent remedy will not be found in increasing the facilities or personnel of the courts of justice, but rather in a reform of the business methods in the corporate and other employers, whose stockholders are finally the chief sufferers from the evil. The use of accident insurance companies and the consequent division of responsibility between corporate officials and treasuries on the one side and those of these companies on the other, have increased the evil and de-

[1] Nation, March 10, 1904.

layed the remedy. The incidental suffering and the practical denial of justice to all others in the community which have resulted may bring about the necessary reform in the revival of the employers' conscience, who will be made to feel by the complaints of his fellow men and the inroad on his pocketbook that 'Thou shalt not kill' or maim is the law of corporations as well as of men." [1]

TOTAL OF CASES IN BOTH CIRCUIT AND SUPERIOR COURTS.

	1899.	1900.	1901.	1902.	1903, to April 23.	1903, April 22 on.
No. of cases.	350	599	472	543	214	281
Total damages asked.	$4,821,335.35	$8,436,150.00	$6,884,650.00	$8,855,800.00	$2,936,900.00	$3,366,600.00
Total judgments.....	506,702.35	600,170.13	546,968.05	816,700.75	303,965.00	192,348.00
Average demand	13,775.24	14,183.74	14,158.12	16,309.02	13,723.83	12,941.64
Av.judgment	1,447.72	1.001.95	1,158.83	1,504.05	1,420.39	684.51
Percentage of judgm'ts to damages asked for...	10.5	7.12	7.95	9.22	10.35	5.29

The general dissatisfaction caused by a system of employers' liability in its practical operation is not to be denied. The inevitable result of such a system is to arouse distinct animosities between the two essential factors of industrial production, which condition is much to be avoided. It is doubtful whether a practical solution of the difficulty lies in amending in any particular the existing employers' liability laws. It is held by some that the reversal of the burden of proof will bring order out of chaos and guarantee compensation to the workman if he deserves it. Without considering the difficulties with which such a proposal would meet, raised by our legal and social traditions which refuse to hold a man guilty until proved so, it is probable that the reversal of the burden of

[1] The following table compiled by the city attorney of the city of Chicago and found on page 99 of his report for the year 1903, shows the trend of personal injury cases in Cook county. Though having no direct bearing on the question of employers' liability, the figures here represented give a good idea of the success of claims made under the latter laws. The great difference between the amounts claimed and those awarded indicate the effectiveness of combating through the courts the claims made by unprofessional and greedy lawyers; but it indicates as well the unsatisfactoriness of a system so surrounded with uncertainties.

proof would be accompanied merely by a reversal of methods on the part of employers and casualty companies with the end in view of manufacturing favorable evidence rather than of destroying all evidence. As long as the basis of a system is unstable, the structure erected upon it is necessarily weak; a system of employers' liability based on the law of negligence, is unsatisfactory because it is founded not on a question of fact, such as the actual occurrence of an accident, but upon one of mere opinion, such as the source of negligence. Questions such as the reasonableness of the care exercised by employers in particular cases; such as the fact of the assumption of particular risks; such as the presence of contributory negligence either as a remote or a proximate cause of an accident: all these are questions of opinion rather than of fact, and as such are sure to vary in the minds of different men. "It is absolutely inevitable, when contraverted questions of social and economic justice come before the courts that they should be decided according to the preconceived beliefs of the individual judge upon these social and economic questions." [1]

[1] Winston, E. M.: "Social Influence as a Factor in Judicial Decision." Arena, Sept., 1903.

CHAPTER III.

STATE COMPULSORY AND VOLUNTARY COMPENSATION.

The European attitude towards the problem of compensation for industrial accidents has differed materially from that manifested in the United States today. Up to the year 1871 no state had attempted to remove by legislation the evil which was felt to exist under the operation of the civil laws of employers' liability. The rules established by the Napoleonic code were observed throughout those parts of Europe which had fallen early in the century under the sway of the first empire. Although the doctrine of common employment was foreign to the Napoleonic code, the dissatisfaction occasioned by the difficulties attendant upon litigation was supreme, and in Germany, immediately after the formation of the empire the first employers' liability law was passed.

Although in its operation the German act of 1871 proved most unsatisfactory, in one or two respects it is not devoid of interest. In the first place, it antedates by some nine years the first English legislation on the same subjct, and is but an evidence of the progressiveness of the German people as a nation. In the second place, it contains one provision which commends itself to the student of the subject as the first piece of negligence legislation which wholly or in part removes the burden of proof from the plaintiff to the defendant. The act provides that in case of suit brought to recover for injuries sustained by an employe of a railroad company it is necessary for the company to prove its lack of negligence. Applying as it did only to railway employes and on account of the limited liability of the companies themselves, the act could effect no permanent relief to workmen as a whole, as the existing feeling demanded, and efforts were immediately directed at the

very root of the matter, with the hope of discovering an effectual means of bringing about relief. And led by Germany, the industrial nations of Europe have one and all taken their stand on the theory of compensation which disregards the law of employers' liability based on negligence and looks to higher and nobler principles as foundations on which to build.

In the United States the question of compensation for industrial accidents is rarely looked upon as other than a legal one; the key-note of the theories maintained and operated not only on the continent but also in England at the present time is that the social and not the legal view-point is foremost. This position was not attained without a struggle; Germany, it has been noted, first tried to amend satisfactorily the civil law, and England made the same unsuccessful effort. But in both cases the end reached was the same, and Europe has adopted almost as a unit the definite principle (1) that the operation of employers' liability laws are unjust and should therefore be abolished and (2) that all accidents, irrespective of the parties contributing thereto should be compensable.

In the present chapter it is proposed to review briefly the actions of the leading industrial nations of Europe and of such other states as have recognized, by specific legislative enactment, the inefficiency of any system of employers' liability to accomplish the required benefit to society and the proper status of the problem of workmen's compensation for industrial accidents as one of social rather than legal importance. Chronologically it might be considered better to commence this review by turning attention to Germany, but on account of the closer ties of friendship and of blood which unite us with England, as well as the greater probability of her example being followed in this country than that of Germany or of any other nation, I shall consider first the status of the problem of workmen's compensation for industrial accidents in England.

ENGLAND.

The many defects of the act of 1880 served only to increase the interest already aroused in the question of compensation. The operation of the insurance schemes of the German nation

was watched with the keenest eagerness to learn of a successful method of treating this problem, and whereas the direst disasters were pictured for German industries after the passage of the laws of 1884, the English observers soon learned that they, and not their cousins across the channel, were mistaken as to the fact. But the English people are thoroughly conservative, and whereas the Germans recognized officially the duty of the state to insure compensation for every accident, they could do no more than admit the right of labor to certain compensation in every case irrespective of any but the grossest negligence on the part of the injured man. During the dozen years following the passage of the German law, several attempts were made to bring the matter to a crisis in England, but not until 1897 were they successful. The British Workmen's Compensation Act[1] of that year is proof of the supremacy in England of the principle "that where a person, on his own responsibility and for his own profit, sets in motion agencies which create risks for others, he ought to be civilly responsible for the consequences of what he does."[2]

The general tenor of the act of 1897 is expressed in its opening section. "If in any employment to which this act applies personal injury by accident arising out of and in the course of employment is caused to a workman, his employer shall, subject as hereinafter mentioned, be liable to pay compensation in accordance with the first schedule of this act." Nothing in the act is to be taken as affecting the civil liability of employers, but the injured man is left free to choose under which law he will proceed to recover damages.[3] No compensation is allowed for accidents due to the serious and wilful misconduct of the injured party. No accidents are to be compensated which extend over a period of less than two full weeks, during which the injured man has been unable to earn full wages at his usual employment. Disputes as to the fact or amount of compensation are settled by boards of arbitration, if not by agreement. The second schedule of the act declares

[1] For text see Appendix C.

[2] Colder—The Prevention of Factory Accidents, p. 57.

[3] Common Law, Employers' Liability list of 1880, and Workmen's Compensation list of 1897.

that any arbitration board, existing at the time the claim for compensation is made, for the purpose of adjusting disputes between employers and employes shall have power to act as arbitrator of all disputes arising under the act. If there be no such board, any person agreed upon by both parties may settle the matter, and in the event of the failure to reach a settlement within three months of the date of claim, the matter shall be entrusted to the decision of the county court judge. The costs incident to arbitration shall be in the discretion of the arbitrator.

No claim for compensation will be considered valid unless made as soon as practicable after the occurrence of the accident, or at least six months thereafter in the case of injury and six months after death. Contracting out is expressly forbidden in Article 3, which, however, permits the adoption by employers and by employes of any system of compensation, benefits or insurance, which upon examination appears not less favorable to the Registrar of Friendly Societies than the provisions of the act. The act applies to undertakers "on, or in, or about a railway, factory, mine, quarry, or engineering work, and to employment by the undertakers as hereinafter defined on, in, or about any building which exceeds 30 feet in height, and is either being constructed or repaired by means of scaffolding, or being demolished, or on which machinery driven by steam, water or other mechanical power, is being used for the purpose of the construction, repair, or demolition thereof."[1] By the special act of July 30, 1900, the benefits of the act were extended to agricultural workmen.

The first schedule of the act deals with the "scale and conditions of compensation." "The amount of compensation shall be"—where death results from the injury, if the workman leaves any dependents wholly dependent upon his earnings, an amount equal to the total of the wages received from the same employers during the last three years, provided the amount is not less than 150 pounds ($729.98) nor greater than 300 pounds ($1,459.45). If the workman leaves dependents not wholly dependent upon his wages, that amount shall be paid which shall

[1] Article 7, Sec. 1.

be determined by agreement or by arbitration. If he leaves no dependents, funeral expenses to an amount not exceeding 10 pounds ($48.67) shall be paid. Where total or partial incapacity results, a weekly amount shall be paid not to exceed 50 per cent of the average weekly payments received during the past twelve months, or during a lesser period if he has not been so long in the service of the one employer. Such weekly payments shall not exceed 1 pound ($4.87). Any person receiving weekly compensation under this act, or otherwise benefitting, must submit to medical examination by a duly authorized and competent practitioner, the expenses of which submittal must be met by the employer.

Unfortunately the act of 1899 made no provisions for a thorough statistical investigation of the working of its various provisions. This was unfortunate, because at the present stage of the question of compensation for industrial accidents it is above all desired to have on hand full and complete records of all attempted remedies. Though opinion as to the effectiveness of the act must, therefore, be more or less general, many defects have been found, most of which became apparent immediately after the act went into operation. In the first place, the desire of the enactors of the law to reduce to a minimum the amount of litigation has not been fulfilled. The principal cause of such litigation has been the question of definition and interpretation. It is, of course, not to be supposed that any act of Parliament can be so worded as to admit of none but a single interpretation, but the results in this case fell far below all expectations. Questions as to the meaning of the word "accident" and as to the actual occurrence of such an event as indicated thereby have caused by no means the smallest amount of litigated disputes. Other questions as to the jurisdiction of the act in particular cases, have been raised, all of which demand authoritative decision apart from arbitration. The alternative allowed by the act of choosing either the common law or the law of employers' liability, under which to obtain damages, has also given rise to no small amount of litigation. If suit brought under either of the other laws prove unsuccessful, it lies within the power of the court to grant such com-

pensation as is provided by the terms of the compensation act. which provision has led to some unscrupulous lawyers to thus institute litigation in the hope of blackmailing employers. The act further provides that all decisions of arbitrators shall be entered on the record books of the county courts, whereby they shall have the same standing as decrees of court, but no provision is made for the enforcement of this rule. "On the whole we come to the conclusion that the amount of litigation produced by the Workmen's Compensation Acts of 1897 and 1900 has been very small when compared with the great number of cases settled by agreement without any recourse whatever to legal aid, or to proceedings in court. On the other hand, we think that that proportion may, and ought to be, still further reduced by amendment of some of those provisions of the acts which have been found to be most productive of actual or threatened litigation, and by the provision of more effective machinery for expeditious and inexpensive settlement of doubtful questions of fact, especially by amendments tending to increase the importance of the functions of Medical Referees." [1]

Another great cause of dissatisfaction with the act is found in the fact that it makes no guarantee of compensation even in those cases wherein no doubt exists as to the facts of the accident or of the jurisdiction involved. The act in no case endeavors to prescribe rules whereby employers shall hold forth to their workmen a guarantee for the payment of compensation within the terms of the act. The obvious method to be followed by employers thus to make a substantial guarantee is to be found in liability insurance, and it is true that the greater number of employers have adopted this method of securing not only their employes but themselves as well. But the minority, who through lack of compulsion have avoided this expense, are for the most part the smaller and less financially responsible employers, who, in as much as they are not sufficiently impressed with their duties to society and to their

[1] Consult Report of the Departmental Committee appointed to inquire into the law relating to Compensation for Injuries to Workmen. Vol. I, Report and Appendices, 1904.

workmen to take the necessary precautions in advance, may hardly be expected to comply, without resistance, to the demands of the compensation act when they are particularly affected. The lack of protection in this particular afforded the employes of bankrupting employers is most apparent. It is to be noted, however, in this regard that employers' liability insurance affords an effective protection to the working population whose employers carry such insurance; for, contrary to the common law, the compensation act prescribes specific amounts of compensation which must be paid in specific cases.

Certain other serious imperfections have been found in the acts of 1897 and 1900, some of which have tended to disappear, but the most of which remain to decrease materially its efficiency. As originally interpreted, the act afforded no relief to casual labor, which rarely remains in one establishment for more than a few days at a time. Dock labor was particularly affected by this rule, which seemed to base the amounts of compensation on the weekly wage, but this view was pronounced erroneous by the House of Lords in 1901. The man who is injured in his first day of employment is now entitled to compensation on the basis of his working wage percisely as is the employe of long standing.

The British Workmen's Compensation Act of 1897 and its amendment of 1900 are not looked upon as finalties either by the employing or the employed classes. The Royal investigation of 1904 is but an evidence of the realization that the present legislation is unsatisfactory and that a change may be expected at any time. The basic idea of the English system is sound, and if not entirely satisfactory to the employing public is not so greatly feared now that the effect of the burden thrown upon industry in consequence of the act is not found to prejudice British interests in foreign markets. Adopted on a rising market, the scheme has not yet felt the effects of industrial depression, ability to withstand which is one of the great tests of economic and social experiments.

Perhaps the greatest drawback to the whole system is the failure to provide other means of settlement than by arbitration, which tends to delay the payment of compensation be-

yond the time when it is most needed. Arbitration is necessarily slow, but it is thoroughly in accord with the English, and, in fact, with the modern civilization sense of justice and of equity. The framers of the act undoubtedly desire to allow the greatest possible freedom of individual initiative, while insisting upon the right of injured labor to compensation. That the operations of the act are not unduly harsh to employers is signified by the small number of "contracting out" arrangements submitted to and approved by the Registrar of Friendly Societies. In his annual report for the year ending December 31, 1898, that official stated: "It may be said without hesitation that the result of the first six months' working of the contracting out section has been to show on the part of the employers, who have applied for certificates for schemes, a desire to meet their workmen in the most handsome manner, and on the part of the workmen, an excellent feeling of fairness and good will."[1]

As to the future of the British Workmen's Compensation Acts, it can only be said that the tendencies point in two general directions: first, to the extension of the act to other and various lines of employment, such as domestic servants, marine workers, etc.; and second, to the initiation by the government of some scheme of national insurance whereby the individual employer will be relieved of all personal responsibility aside from providing the necessary funds. It is to Germany that England is now looking for suggestions, and as the principle of her present legislation is borrowed from the Fatherland, so too, in all probability will those which are to govern her future actions.

GERMANY.

The spirit that prompted legislation in Germany went a step farther than that embodied in the later British acts in providing for the raising and administration of funds to be devoted to compensation. Whereas the English law states that compensation shall be paid by empolyers for all accidents, the German act of 1884 declares that compensation shall be paid by

[1] Bulletin of Labor, No. 32, p. 8, "The British Workmen's Compensation Act."

employers for all accidents and *in a certain particular manner.* While opinion may vary as to the philosophy and wisdom of thus extending the sphere of the state it is certain that the Germans have succeeded by invoking state aid in putting into operation the best and most effective scheme yet devised of dealing with the problem of compensation. By the means of compulsory insurance, compensation has been placed on a plane of reliability unsurpassed.

Insurance is a true science. Granting a rational and well advised organization, the success of any scheme of insurance depends upon the proper observance of, and emphasis placed upon, the relations of cause to effect and of effect to cause. As the basis of fire insurance is the probability of the breaking out of a fire coupled with the estimated amount of loss thereby; as the basis of life insurance is the ratio of deaths to the entire population, accompanied by the probability of death at certain ages; so the true basis of accident insurance is the probability of accidents in conjunction with the estimated severity of injuries. Insurance is a science based on the observations of the past and is successful or the reverse as events tend to repeat themselves. Reliability and security—the principal requisites of a successful scheme of compensation—are the guarantees of a well organized and well administered system of inurance. For her application of the principles of insurance to the problem of providing compensation for industrial accidents for her entire body of workmen, and for her success in erecting a suitable structure of administration, Germany deserves great credit.

"We consider it Our Imperial duty to impress upon the Reichstag the necessity of furthering the welfare of the working people. We should review with increased satisfaction the manifold success, with which The Lord has blessed Our reign, could We carry with us to the grave the consciousness of having given Our country an additional and lasting assurance of internal peace, and the conviction that We have rendered the needy that assistance to which they are *justly entitled.* Our efforts in this direction are certain of the approval of all the federate Governments, and We confidently rely upon the sup-

port of the Reichstag, without distinction of parties. In order to realize these views a Bill for the Insurance of Workmen against *Industrial Accidents* will first of all be laid before you, after which a supplementary measure will be submitted providing for a general organization of industrial *Sick Relief Insurance*. But likewise those who are disabled in consequence of *Old Age* or *Invalidity* possess a well founded claim to a more ample relief on the part of the state than they have hitherto enjoyed. To devise the fittest ways and means for making such provision, however difficult, is one of the highest obligations of every community based on the moral foundations of Christianity. A more intimate connection with the actual capabilities of the people, and a mode of turning these to account in *Corporate associations,* under the patronage and with the aid of the state, will, We trust, develop a scheme to solve which the state alone would prove unequal." Such was the message of Emporer William I delivered on November 17, 1881, to the Reichstag, which commenced the work of reform embodied in the German Workmen's Compensation Acts. The increasing dissatisfaction with the Employers' Liability Act of 1871 coupled with the rise of that political philosophy which accords the state the highest attributes for the improvement of social conditions, and the growth of the Social Democratic party, led the Government to attempt a solution of this most difficult problem.

Of the social-political acts recommended by the Emporer, the Sick Insurance law of 1883 was the first to be passed. It was succeeded in the next year by the act which it was designed to supplement— the Accident Insurance law of July 6, 1884. The object of the law is to provide compensation for all coming within its scope for all accidents occurring during the performance of their duties, and does not apply to accidents happening outside of their employment. The two laws supplement each other in that the injured man is aided during the first thirteen weeks of his disablement by the sick insurance. In the original act of 1884, insurance was made compulsory for all employes in mechanical industries receiving an-

nual wages of 2,000 marks ($476.00)[1] or less, but by subsequent amendment the scope of the law has been so extended as to include all industrial, agricultural and forestry pursuits, as well as men employed in the government and state service, whose salaries do not exceed 3,000 marks ($750.00). The Agricultural Accident Insurance Law allows the extension of compulsory insurance to all employers and to domestic service connected with agriculture and forestry. Unlike the Industrial Accident Insurance Law, the Marine Accident Insurance Law is limited in its scope, not by the actual amount of income but by an amount up to 3,000 marks ($750.00) ascertained on the basis of average rates of wages. For the insurance of small enterprises this law further provides that employers are subject to compulsory insurance if they form part of the crew and do not employ as a rule more than two wage-earners. Out of a total population in 1902 of 58,000,000 people, 19,083,000, or approximately 32%, were enjoying the benefits of accident insurance. With the further extension of this insurance to persons employed in commerce, handicrafts and the petty trades this proportion will be considerably increased.

The law of 1884 provided that all persons coming within its scope shall receive compensation for all accidents, and further lays the entire responsibility of providing for and administering this compensation upon employers. In general, employers' associations are formed embracing all the employers in the same industry in the country or district. On account of the decentralization of agriculture, employers here are organized entirely on a territorial basis. Through executive boards and private agents, these associations provide for the relief of every person injured by accident in the industries which they represent. The police, to whom all accidents must be reported within two days of their occurrence, institute investigations into their nature and severity, the results of which are handed to the executive boards of the industries in which the accidents happen. On this and such other information as is presented to it the board makes its award of compensation. In case of dissatisfaction, appeal is possible to arbitration boards of the

[1] One mark = $0.25. Purchasing value is practically $0.50.

districts in which the accidents occur, composed of two members, a president and a vice-president, appointed directly by the government from the number of public officials in the district, and of two members each from the employers' associations and the laboring population. Appeal from the decision of this tribunal may be made directly, and at no expense, to the Imperial Board of Arbitration, which sits in Berlin and which exercises a general supervision over the accident insurance associations of the entire country. Of the members of this board, three are appointed by the throne for life, eight for temporary service.

Funds for the compensation of accidents are raised by the associations by an annual levy of assessments based on the expenses of the previous year, and varying with the individual employer with the extent of his business (total amount of wages paid and number of men employed) and the probability of accident in his establishment. Payment is made on the order of the association through the free delivery service of the post office department, by which the necessary funds are advanced until the end of the year. Relief is afforded all those entering upon their fourteenth week of disablement, though in extreme cases arrangements are made with the Sick Insurance Associations by which the injured man remains under their care until recovery is complete. In such cases, however, all expenses incurred after the thirteenth week are defrayed by the Accident Association. For bodily injuries of a temporary character (1) free medical attendance and aid is afforded, (2) as well as an allowance up to 66⅔% of the yearly earnings of the injured man, or free hospital treatment until cured and an allowance for his family as in the case of death. Compensation for fatal injuries are (1) funeral expenses up to twenty times the average daily wage at the time of the accident and not less than $7.50, and (2) an annuity to survivors beginning from the day of death amounting to 60% for the widow and children (under 16 years of age) and to 20% for parents, should they chance to be needy.

For the funds of the agricultural employers' association assessments are based on the land tax and on the standard of a

fair wage scale determined by local authorities. For the management of insurance for state and government employes boards of control are organized, which are empowered to disburse the funds provided for in the annual budget of the department. In 1902 the number of accident associations was divided as follows: Industrial, or the so-called dangerous trades, 66; agricultural associations, 48; and offices for state works, 481.

So complete is the organization of the entire accident insurance scheme that the collection of reliable statistics of the operation of the laws has been made possible.

The total receipts of the accident associations up to and including the year 1901 were $257,313,578, composed of contributions of employers to the amount of $227,230,582, and of interest on accumulated funds, $30,082,996. Contributions for the year 1902 were $31,415,828, and interest $3,932,705, making an aggregate of $35,348,533. Of the total expenditures for the period 1885--1895, 80.4% was for the payment of indemnities and 19.6% represented the cost of administration. The latter item in the earlier years was extremely high, but has gradually tended to decrease until in 1898 it was only 14.3%, or 5.3% less than the average for twelve years. For the year 1902, expenditures aggregated $32,149,250, of which $27,033,275, or 86.6%, was devoted to indemnities, and the remaining $4,165,950, or 13.4%, to costs of administration. Of the total expenditures of the three branches of workmen's insurance (sick, accident, and old age and invalidity) the benefits paid amounted to 89.08% in 1891, 91.41% in 1901, while the percentage of the cost of administration was 10.92% in 1891 and 8.59% in 1901. It is interesting to note carefully the relation existing between these two items of expenditure because it offers one of the strongest arguments in favor of the German system.

For the purpose of accumulating a surplus fund, contributions for the first year were assessed at the rate of 300% of the actual needs, and have decreased at the rate of 33⅓%, 50% and 10% for three years, and for the next ten at the rate of 10%. In 1902, this fund aggregated no less than $49,798,565. Attention will be called later to the use made of this fund. Dur-

ing the year 1902, 711,330 accidents were compensated, being at the rate of one to every 26.8 persons insured. It must be remembered, too, that only those cases are compensated by the accident insurance which last over to the fourteenth week. In 1891, 94% of the total number of accidents were cared for by the Sick Insurance Association, only 6% lasting beyond the thirteenth week, and passing thus into the hands of the accident insurance.[1] The average amount of compensation paid in 1902 was $38.00 per case.

Opinions as to the moral, social, and political effect of compulsory insurance vary. By most English and American economists the entire theory is deprecated on the ground of political subserviency, social degredation and moral degeneration. True, it is not in accord with Anglo-Saxon, and particularly with the American spirit of individuality and private initiative, which most openly and strongly abhors compulsion. The Workmen's Insurance laws were in the first instance conceived to stem the uprising current of socialistic opposition to the government, but so far as accident insurance is concerned socialism is present to a greater extent in fancy than in fact. Wolff, while arguing for the adaptation of the German Accident Insurance System to English needs, says: "It is absolute nonsense to brand it as socialistic and to put it on the same level with Old Age Insurance, which is an entirely different affair."[2] And there is a great deal of truth to his words. For the state does not enter into the insurance business, but merely prescribes the means of insurance and makes it obligatory upon employers to use them. The Employers' Associations are entirely self-administering, democratic bodies, enjoying all the rights of private initiative common to individuals. The state has created them by creating a work for them to perform. Save to insist on the faithful performance of this duty, the state does not interfere with them. The fundamental principles of the German workmen's insurance are, on the one hand, compulsion, and, on the other, far-going freedom of action.

[1] See John Graham Brooks' article on "Compulsory Insurance in Germany," to which is devoted the 4th special report of the Department of Labor. p. 91.

[2] Wolff, H. W., in an article on "Accident Insurance" in the Economic Review of July, 1895, p. 313.

Paternalism it is, of a kind; but of that kind which recognizes the duty of the strong towards the weak, of the whole towards its component and essential parts, and does not hesitate to act accordingly. Whatever imperfections or flaws may be found with the external and detailed application of the laws, the kernel is sound, and in so much as the Germans themselves look upon them with such undisguised favor and gratification, it scarcely behooves others to condemn the system unreservedly.[1]

The workmen's insurance laws have been a benefit not alone to the laboring population, but to employers as well. By the imposition of a burden approximating uniformity when averaged year by year, the risk of industry has been reduced. By the operation of compulsory accident insurance the uncertainties of employers' liability, the burdens imposed by which never being calculable in advance, have been removed. Under the common law method of compensation, the task of equalizing the employer's risk from accidents was left to insurance companies. And it has been demonstrated in Germany that the expense under the new system is actually less than under the old. The German law recognizes the rights of the laboring man and guarantees them to him. Thus his legal status is raised to a higher plane, which makes of him a better and more patriotic citizen. By the certainty of relief in case of distress without the degrading influence of receiving gratuitous gifts, his social position is as well advanced. Physically, also, the workingman has fared better since 1884. On account of the heavy burdens attached to the compensation of sickness and injury employers throughout the empire, individually and collectively through their associations, are expending large sums to counteract the influences which tend to undermine and

[1] For the World's Exhibit in Brussels, 1897, the Imperial Insurance Department prepared a pamphlet entitled "Guide to the Workmen's Insurance of the German Empire." A similar one was compiled for the Paris World's Exhibition of 1900 in explanation of a picture 15 feet high and 9 feet wide, of an oak tree emblematic of the German workmen's insurance. This pamphlet is entitled "The Results of Workingmen's Insurance of the German Empire." At the St. Louis Universal Exposition of 1904 were distributed in connection with the German exhibit a series of five pamphlets on "The German Workmen's Insurance as a Social Institution," one entitled "Guide to the Workmen's Insurance of the German Empire, 1904," as well as a guide to the German Workmen's Insurance Exhibit. The writer found these several pamphlets an unending source of material in the preparation of this article.

cripple the human body. The principal tasks of the accident insurance associations, after satisfying demands made upon them for compensation, is the prevention of accidents. As a result of the system of assessing contributions, it is manifestly to the interest of individual employers to do away in every possible and consistent manner with the causes of accidents; in addition, the associations are empowered to make and enforce rules and regulations for the prevention of accidents, which are directed equally against employers and employes. The prevention of accidents has become to these associations a science, interest in which is kept alive as much by the aroused social and humanitarian instincts as by the element of personal and financial returns. It is not possible to arrive at an adequate appreciation of the effects of this tendency by statistical investigation of the operation of the accident insurance laws, because a uniform basis of comparison cannot even be approximated year by year. Not only has the scope of the act been greatly enlarged since the beginning of its operation, but the facilities for making claims and obtaining compensation have been improved. Therefore, whereas a comparison of the ratios between the number of persons compensated and the number insured for the two years, 1895 and 1902, shows a decided advantage for the former year, it can not be said with justice that accidents are proportionately on the increase. The ratios, 1.7% and 3.7% respectively for the two years, merely serve to indicate the growing efficiency of the law as far as its ability to compensate all accidents is concerned.

There exists, in addition, a close relationship between the figures last given and the sick insurance associations. By the establishment of relief stations and hospitals in centers of activity, by the education of workmen in matters pertaining to first aid to the injured and by the thorough organization of their service, these organizations have exerted a positive influence in decreasing the nation's mortality rate. Consequently, a greater proportion of the serious injuries last through the thirteenth week and are turned over to the accident associations. Again it is possible to denote merely tendencies, but that these beneficent influences are constantly exerting themselves upon the community there can be no doubt.

Compulsory insurance imposes a direct tax upon industry, and one which, though it existed prior to the passage of the insurance laws, was not clearly defined and determined—one that was subject to variations from year to year. As is readily seen, this tax, though practically constant throughout a given industry, must vary in different industries in accordance with the dangers involved therein. In 1894, this tax averaged for all the industries coming within the scope of the accident insurance law 1% of wages paid. On mine and quarry owners it approximated 2% and in the building trades 4%. In many of the less dangerous trades, however, the burden is but a fraction of 1%. And Germany, which is a world competing nation, has suffered as a result of this burden on industry neither at home nor in her international trade. On the contrary, the years 1884–1904 have witnessed an expansion in trade and commerce and in domestic welfare never before experienced by the empire. Taken as a whole, industry in all its branches, remote and near at hand, bears a healthier aspect. A friendly relation such as has never before been experienced exists today between the employing and laboring elements of the population, and marks a community of interest embracing the entire nation which is adding much to the solidarity of the German race.

AUSTRIA.

Next to Germany, the greatest exponent of the principle of compulsory state insurance against accidents is Austria.[1] As in Germany, the movement towards this form of protection has been gradual, having started as far back as 1834 when the state enacted regulations to govern mutual aid and guild benefit societies then in existence. Later legislation provided for the formation in every industrial establishment of benefit funds to be administered by employers in behalf of sick or injured employes. All such legislation was of the nature of compulsion, but the results attained were scattered and very superficial. In 1886, less than 200 corporations out of 35,000 had created these funds, and the existing laws were generally disregarded.

[1] Consult Willoughby: Workingmen's Insurance, Chap. III.

Up to this time no specific action had been taken in regard to compensation for industrial accidents. As in England and the United States the law of employers' liability provided but little protection. Except in the case of railway employes, workingmen had no legal claim for indemnities from their employers unless their injuries were due to the direct act of the latter. The unsatisfactoriness of the system and the need of reform were clearly felt. Instead, however, of endeavoring to extend the civil liability of employers, it was decided to institute a system of insurance, and as the success of Germany's experiment was at that time before the eyes of all Austria, the German system in the law of 1887 was bodily adopted, with a few minor modifications in detail.

By its extension in 1894, the Austrian Accident Insurance law makes insurance obligatory on all employes in the mechanical and dangerous industries, the building trades, and in agricultural and forestry works, as well as on transportation and theatre employes and firemen. The general purpose is to extend the law to all pursuits wherein the risk of accident is great. For the administration of insurance eight territorial divisions are formed, each governed by an administrative board whose members are appointed, one-third by the government, one-third by the employers of the particular district and one-third by the employes whose insurance is undertaken by the board. In this matter of division for administrative purposes the Austrian system differs from the German. It is difficult to determine which is the more efficacious and the more economical. The Austrian system tends to the betterment of conditions in an entire district; the German, to that in single industries, without regard to the number of men who are not constantly associated with one particular industry. The latter is scattered and decentralized, owing to the large number of associations formed but the scientific study of the conditions attaching to the prevention of accidents is open to greater possibilities in an association controliing a single industry.

The basis for compensation is in Austria, as in Germany, the amount of the earning capacity of the injured man during the years preceding his injuries. Death and total disability pen-

sions and annuities are paid, ranging from 20% to 60% of the previous year's wages. Compensation based on the daily or weekly wage is allowed in the case of accidents which result in temporary disability.

Funds for the maintenance of the system are raised by contributions, nine-tenths of the total being subscribed by employers and one-tenth deducted from the wages of the insured. As in different industries the risk of accidents varies, it was found necessary to devise some scheme of equitable division of assessments among the establishments in the different industries. A danger scale, with coefficients ranging from 1 to 100, is divided into twelve classes, each of which has attached to it certain index numbers, as, for instance, Class XII, 81–100 inclusive. Industries are assigned to particular classes, and each establishment is given its particular coefficient, depending upon the number and seriousness of the accidents which occurred in it during the year previous. The effect of such an arrangement is to increase the diligence of employers in avoiding accidents in their establishments, in order that by obtaining lower coefficients of danger their contributions may be lessened.

In one other important respect the Austrian differs from the German system. Under the latter, contributions are so assessed as to defray each year only the expenses of that year with no regard for the future liabilities which the payment of pensions involves. In Austria, however, these future liabilities are capitalized as encountered, the amounts raised each year being sufficient to cover all liability for the future incurred during that year. Such sums are determined from mortality tables, the idea differing not at all from that of an ordinary annuity arrangement, whereby a specific sum is laid aside which shall yield a certain amount of income during the estimated life of the beneficiary. The superiority of the one system over the other is largely a matter of opinion. The German system, however, is applicable only to such associations as are assured a long life; the deep-sea building association was compelled to adopt the capitalizing scheme on account of the fluctuating character of the industry, which may employ large numbers of men this year and none the next. As yearly more per-

sons through disability, or the death of one on whom they depend, are thrown on the resources of the insurance funds, the contributions under the German system must increase correspondingly until the level is reached at which the number of dependents is approximately the same year after year. It is estimated that this point will be reached in Germany in the year 1940.[1] In Austria a reserve fund is created which from the outset is sufficient to meet all coming expenses incurred to date. A saving is thus effected in administration, and the entire system of insurance is vested with a greater air of security and of reliability, and though the actual yearly cost to the insurers in the beginning is greater, it will average less over an extended period owing to the gain from interest on the reserve fund.

COMPULSORY COMPENSATION IN OTHER STATES.

Austria has not been the only country to adopt the principle of compulsory state insurance against accidents and follow in the lead established by Germany. Several states of Europe have discovered the advisability of solving the troublesome problem of compensation for industrial accidents in this manner, and one state in America has adopted the principle of compensation for all accidents, applicable to but a small group of industries, however. It is not necessary for the purposes of this paper to investigate these several schemes in any considerable detail, in as much as the description of the German and Austrian systems suffice to indicate their essential features. For the purpose of conveying an impression, however, of the extent to which this idea has seized upon society in various parts brief mention will be made of them.

Switzerland found the same difficulty as did Germany and Austria in her attempt to so extend and modify the civil code as to afford the needed protection to her workingmen. In 1887 the National Assembly instituted an investigation into the

[1] The time when the entire number of the insured have enjoyed the benefits since they entered the industrial world. Consider the respective age limits, 16 and 70, the difference between them added to the time of the commencement of the insurance scheme, 1884, gives this time approximately.

cause and effect of accidents in the Republic, which lasted three years. This investigation was extremely thorough and complete, and resulted in the introduction in 1892 of compulsory sick and accident insurance bills, after an overwhelming majority had declared by referendum its belief in compulsory state insurance. The law of October 5, 1899, extends compulsory insurance to working people of all callings, whose annual wage receipts are below $450, and voluntary insurance to employers. Administration of funds is undertaken by a federal bureau connected with which is a federal insurance court for the settlement of disputes. Contributions are levied upon employers and employed at the rate of three to one, and the state grants a subsidy of one-fifth of the amount thus raised. Compensation is not paid when injuries are due to the negligence, willful or otherwise, of the injured. The relief afforded is free medical treatment and disability pay from the sixth week; pensions up to 60% of the annual wage for permanent disability; and pensions up to 40% for dependents in case of death.

Norway, 1894, and Finland, 1898, have both passed compulsory accident insurance legislation. Owing to the small extent of industry in these countries their move is relatively unimportant, save as indicating the spread of the principle. Norway excludes from the benefits of her legislation fishermen and seamen. Administration is by an imperial bureau, which has its locally appointed representatives in all industrial centers. Compensation is paid in Norway after the fifth week; in Finland, after the seventh day. Funds are raised in both cases entirely by employers.

Italy has tried various experiments to afford relief to her workmen against accidents, the earlier of which will be mentioned under another heading.[1] The law of March 17, 1898, obliges employers to insure all their workmen engaged in trade and receiving wages up to $425 per year. Employers, however, are given the choice of insuring with the regularly and specially appointed state institution or under any one of four alternative arrangements. They may take out their insurance

[1] State voluntary insurance.

with any regular insurance companies authorized to conduct business in Italy; railroad companies may institute private funds for the insurance of their employes; other private funds may be established, provided only that they insure at least 500 men, confer the benefits set by law, and deposit a guarantee with the state; or, finally, employers and employes of establishments embracing 4,000 men may establish mutual associations. Contracting out is forbidden. All accidents are compensated, but the rather unusual provision exists that after payment for injuries the insuring company or association may institute legal proceedings for the recovery of the amount paid on the ground of gross or intentional negligence on the part of the injured and compensated party.

France has established by law of April 21, 1898, compulsory insurance for seamen in a state institution. Premiums are paid, one-half by employers and one-half by employes. Belgium has, since 1868, compelled her mining population to be insured against accident in relief clubs, the support of which is contributed to by employers, employes and the state and province.

The Maryland Workmen's Compensation Act,[1] of 1902, is the only legislation of its kind enacted in the United States. All employers in the coal and clay mining, quarrying, and railroading (street or steam) industries are made liable for the deaths of their employes due to accident. Employers are offered the opportunity of insuring their employes with the state insurance commissioner at rates ranging from $.60 to $3.00 per annum per man, one-half of which sum may be deducted from wages. Though a great gain, the act is considered satisfactory neither by employers nor by employes.

VOLUNTARY STATE COMPENSATION.

Another form of state activity in relation to workingmen's compensation for accidental injuries is found in the various voluntary state insurance schemes employed in some European nations, and in the numerous insurance organizations estab-

[1] Burnett, G. E., in the American Journal of Economics, Vol. XVI, p 591.

lished by private individuals and corporations and aided or regulated by the state. In all these schemes, it seems to be the endeavor of the state merely to lend its moral and financial support to the undertakings. In the several forms of insurance schemes enjoying the benefits of state control and direction participation is by no means compulsory, but is voluntary for employers and employed alike. But the presence of the state lends to the system a guarantee and aspect of solidarity which serve to invite the general availment by both parties of the benefits offered. In some cases the state has been obliged to enforce positive regulations in order to insure the honest and faithful administration of funds and the protection of an unwise and gullible public against unscrupulous management.

The experience of Italy, up to 1898, offers the best example of voluntary state-aided insurance against industrial accidents. Borne along by the flood of opinion, which in the early eighties swept away from the continental mind any further idea of eliminating the accident loss to labor by an extension of the civil liability of employers, Italy was all but won over to the precepts of compulsory insurance. During the period when Germany was formulating her extensive plans, similar undertakings were being pressed in the Italian legislature. But opposition to state compulsion was too strong to be overcome at that time and when a proposition was laid before the legislative body by a number of leading financial institutions to provide for the formation of a privately administered accident insurance bank, or association, it met with immediate approval. The law of July 8, 1883, authorized the establishment of the National Bank for the Insurance of Workingmen against Accidents, as the result of a contract between the government and a federation of banks.

The central factor in this movement was the Savings Bank of Milan, assisted by many of the strongest financial institutions existing for the benefit of the people. In return for certain aid from the government, the federation proposed to found and administer the bank, whose capital stock was placed at 1,500,000 francs ($289,500). Management was placed in the hands of a board of directors chosen one each by the federating

institutions, and of an administrative committee selected by the Bank of Milan, whose subscription to the stock was 625,000 francs ($120,625). The entire expense of the bank was shared by the several institutions in proportion to their subscriptions. The government was given the right of approval in certain instances of rates and regulations. In addition, the bank is exempt from taxation and enjoys the privileges of the post office department, such as "franking" and the establishment of branch offices in postal stations.

Three kinds of insurance are offered by the bank, individual, collective and combination. The first is, of course, that wherein the individual assumes the entire responsibility of his insurance and pays all the premiums; the second is much in vogue in all countries wherein compulsory insurance has not been adopted, and implies the insurance by the employer of his entire body of workmen with or without their consent; the third is a combination of collective and liability insurance, whereby the employer is relieved of his civil code liability, and operates precisely as does employer's liability insurance in the United States.

The amount of indemnification is as follows: In case of death or permanent total disability, a sum according to the policy agreed upon, but not to exceed 10,000 francs ($1,930); in case of permanent partial disability a sum graduated according to the severity of the injury; in case of temporary disability a daily stipend after the fifth day succeeding the accident for a period varying in accordance with the policy, but not to exceed 300 days. The average indemnity agreed upon in cases of death or total disability has been about 1,000 francs ($193.00), and in cases of temporary disability an average of about one franc ($0.193) per day. Accident tables compiled from the operations of the German system are taken as a basis on which are computed the twelve risk classifications used in calculating premiums.

Below is reproduced a table showing the operations of the national bank for the years 1884–1893. Though the corresponding data for the next five years is not included, this table is sufficient to demonstrate many points of interest in regard to

the bank and to the system which it serves to exemplify. It must be remembered, however, that the bank, though supervised in its operations by the state, is a public spirited corporation privately administered.

OPERATIONS OF THE NATIONAL BANK FOR INSURANCE OF WORKINGMEN AGAINST ACCIDENTS, 1884-1893.

Year.	Persons Insured.			Persons insured at end of year.	Payments Made On		
	Individually.	Collectively.	Total.		Individual policies.	Collective policies.	Total.
1884	42	1,621	1,663	443	$48 56	$925 64	$974 20
1885	304	12,220	12,524	13,830	360 52	1,124 25	1,484 76
1886	544	35,134	35,678	31,830	561 64	28,318 29	28,879 93
1887	1,062	44,474	45,536	46,522	1,132 06	29,725 87	30,857 92
1888	1,264	63,102	64,366	65,418	1,366 87	45,775 29	47,142 07
1889	1,283	92,342	93,625	86,645	1,576 61	68,907 73	70,584 34
1890	2,080	101,464	103,544	101,372	3,730 81	83,092 51	86,823 32
1891	1,891	112,811	114,702	107,432	2,619 44	86,100 86	88,720 29
1892	2,009	121,401	123,420	112,486	2,773 01	90,867 71	93,640 72
1893	1,973	129,012	130,985	119,447	2,373 39	98,249 62	100,623 01

[1] Willoughby: "Workingmen's Insurance," p. 212.

The rapid increase in the number of the insured from the very start is indicative of its need and of the confidence placed in its reliability and stability. But even as large as the number of the insured has grown, it seems not to have reached a point justified by the good intentions and diligent efforts of the bank. The great failing of voluntary insurance against industrial accidents is as well shown in this table as it might ever be. After operating over ten years, assisted and guaranteed by a government supported by a working population of about nine million persons, the bank succeeded in extending its benefits to but 130,985 of them. And this was accomplished only with the aid of an unique species of philanthropic institution called "Patronats," which, situated in various parts of the country, lent their serious endeavors to increasing the number of the banks insured. These societies assumed entire control of spreading information concerning the formation and operation of the bank, and to their efforts alone is due what measure of success it has attained. Acting as business agents, they attend gratuitously to all the details of the taking out of in-

surance. Their importance is attested by the fact that from 1884 to 1893 the Patronat of Milan alone procured the insurance of 116,781 workingmen.

Another significant feature of the operation of the Italian bank is the relative number of men insured individually and collectively. Practically 97% of those participating in the benefits of the institution were insured not through their personal efforts but through the generosity of their employers. This is but an indication of the great failing of voluntary insurance as a system of wide operation. Unless compelled to do so, the average individual workman will not avail himself of the opportunity of providing in advance for posible future misfortune. Whether this failure is due to supposed inability or to lack of foresight is beside the point; the experience of the national insurance bank of Italy shows conclusively that under the most favorable conditions he will not. Employers, on the other hand, were quick to take advantage of the facilities offered by the bank. Especially those who in the past had conducted local benefit schemes. The results being practically the same, the gain, resulting from ridding themselves of the expense and management of such schemes made it profitable for them to insure their workmen in the bank.

Viewed in the light of a successful remedy of the evil brought upon workmen as a result of accidents, the Italian national bank has not merited the praise which greeted it upon its formation. Its defects, due perhaps in a measure to the laxity of a management whose interest in its success was public and philanthropic rather than private and personal, can be attributed to nothing but to the system of which it is such an excellent example. Combining as it does the solidarity and reliability afforded by government supervision and aid with the initiative found rarely outside of private ventures, the bank is a model for the organization of all similar projects. Since 1898, this institution has served as the government insuring organization, under the compulsory scheme at that time adopted.

Other examples of state voluntary insurance are found in France and Belgium. These, however, have met with less success than that of Italy, and deserve little mention. The French

bank for insurance against accidents,[1] created by the law of July 11, 1868, insured in the twenty-four years following only 33,112 persons, on whose policies $27,645.41 were paid in indemnities. The premiums paid amounted to but $39,817.53. Three grades of insurance are provided for, varying in accordance with the amount of the yearly premium which may be three, five, or eight francs. Applicants must be above the age of twelve years. Relief for permanent incapacity is in the shape of a pension purchased from the National Old Age Pension Bank with a capital 640 times the amount of the annual premiums paid by the insured and injured man. For permanent incapacity to follow his usual employment the compensation is one-half this amount. In case of death a double yearly payment aggregating twice the annual pension allowed for total incapacity is granted the heirs.

In spite of the good intention of its founder, Leopold II, the Belgium bank for the insurance against industrial accidents is not an insurance institution, but one that dispenses alms to the needy as the state of the funds on hand permits. Administration of the fund, which in 1894 aggregated $464,415.90, is in the hands of a committee of five appointed by the crown.

State compulsory insurance has met with uniform success wherever adopted; state voluntary insurance is of little account as a remedy for the social evil attached to the inability of injured workmen to secure compensation for accidents met with in the course of their employment. The lack of enterprise and initiative in any organization that has not for its object personal gain is the undoubted cause of the failure of the voluntary schemes to bring under their protection all who are in need of assistance.

[1] Willoughby: "Workingmen's Insurance," p. 129.

CHAPTER IV.

PRIVATE RELIEF FOR INJURIES DUE TO ACCIDENTS.

In the foregoing chapter the distinctive features of those schemes of compensation organized or directly aided by state authority were discussed. It is the purpose of this chapter to investigate those methods of relief organized entirely apart from state interference and administered some with and some without any exterior regulations. Workingmen's insurance has given rise to a considerable amount of controversy over the nature of the duty of government, and in regard to the measure of state activity in relation to such an institution, a general classification is possible as follows:[1] (1) state compulsory insurance; (2) state voluntary insurance; (3) private insurance regulated by legislative enactment; (4) private insurance existing with no interference on the part of the state. In the following pages the various schemes of relief for disabilities arising from accident fallling in the last two divisions will be considered; the last chapter attempted the investigation of those schemes belonging to the first two divisions.

Private relief is best considered from three points of view, varying as do the parties interested in their organization and as the methods of participation therein. In the many attempts to lessen the rigor of the application of common law principles initiative has been on the part: (1) of employes; (2) of employers; (3) of employes and employers acting conjointly. All such schemes may be said to have had their origin long before the organization of the present industrial system, at a time when there existed a community of interest which united employes with fellow-employes, and employers with thei-

[1] Willoughby, F. W.: "Workingmen's Insurance," pp. 22–25.

neighbors and friends who worked under their guidance. In their various forms, they are manifestations of the desire of the prosperous and well to assist the needy and disabled. Although modern conditions have led to the introduction of widely different reasons for the existence of many of such schemes, they are based even today on the principles of voluntary and brotherly assistance. In regard to the amount of positive benefit conferred upon those in whose interests these efforts are expended, it is certain that, though often accompanid by many grave abuses, they accomplish a great social and economic good.

I. RELIEF BY EMPLOYES.

To obtain for themselves relief in cases of distress laborers in the United States through their unions have made many endeavors, some of which have been eminently successful. But the American trade union lacks the stability which is essential to the operation of financial schemes of any sort, and which is gained only through age and experience. The trade union movement in this country is even now in its infancy. Whereas 118 of the existing British trade unions were organized prior to 1850, none of the present American unions was organized at that time, and only twelve national unions were in existence prior to 1880.[1] It is not surprising, therefore, that trade union benefits have not been as widely extended in this country as in England, nor that with but few exceptions none of the national unions conducts benefit features on any large scale. A few unions, however, have met with great success in this work, and are today a source of great relief to their members. In none of these has the attempt been made to offer protection particularly against disability due to accident; all deal with accidental injuries as with sickness, and with death from accident as with death from natural causes. And it must be remembered, too, that trade unions proivde in practically all cases for strike and out-of-work benefits. Thus it happens that sick and death benefits are rather the incidental and attractive

[1] See Bemis, E. W., Bulletin of Labor, No. 22, p. 361 seq., for discussion of trade union benefits.

features of trade unions than the essential factors to the furthering of which the unions owe their origin and existence.

The Cigar Makers' International Union of America is one of the oldest national labor organizations in this country, and has the reputation of maintaining relief work on a larger and better developed scale than any similar union. Its work in the line of sick and death benefits for the sixteen years ending in 1897 is shown in the following table:[1]

MEMBERSHIP, SICK AND DEATH BENEFITS, AND AVERAGE COST PER MEMBER TO THE CIGAR MAKERS' INTERNATIONAL UNION OF AMERICA, 1882-1897.

Year.	Membership Jan. 1.	Benefits Paid.		Average Cost of Benefits.	
		Sick.	Death.	Sick.	Death.
1882	11,430	$17,145	$1,674	$1 50	$0 15
1883	13,214	22,250	2,690	1 69	20
1884	11,871	31,551	3,920	2 66	33
1885	12,000	29,379	4,214	2 45	35
1886	24,672	42,225	4,820	1 71	20
1887	20,566	63,900	8,850	3 11	43
1888	17,199	58,824	21,319	3 42	1 24
1889	17,555	59,914	19,175	3 39	1 09
1890	24,221	64,600	26,043	2 63	1 06
1891	25,000	87,472	38,062	3 61	1 57
1892	27,045	89,906	44,701	3 59	1 79
1893	26,788	104,391	49,458	3 86	1 83
1894	26,987	106,758	62,158	3 99	2 32
1895	27,828	112,567	66,725	4 04	2 40
1896	28,074	109,208	78,768	3 89	2 80
1897	27,318	112,774	69,186	4 13	2 53

The benefits, sick and death, averaged for the last year given $6.65 per member. During the early eighties the sick benefit was $5.00 per week for 8 weeks. Later the time limit was extended to 13 weeks, at which point it has continued.

The constitution of the union provides that "every member who shall have been for not less than two years continuously a contributing member.....shall be entitled, should such member become sick or disabled in such a manner as to render such member unable to attend to his or her usual avocations, to a sum of $5.00 per week.....; provided such sickness or inability shall have been for at least one week.....and no member shall be entitled to any sick benefit for a longer period than thirteen weeks in any one year." The death

[1] Bemis, pp. 369-371.

benefit originally was $50.00, payable only to members of at least one year's good standing in the union. In 1896, it was decided to pay this benefit after two years' good standing, $200 after five years, $350 after 10 years,' and $550 after fifteen years' standing.

The United Brotherhood of Carpenters and Joiners of America pays to a member in good standing, and not over 50 years of age when joining, a death benefit of $100 after membership of six months and $200 after one year. Disability benefits are paid by the national organization of $100, $200, $300 and $400 after, respectively, one, two, three, and five years' membership. Beneficial members are assessed by local organizations 50c a month or more, 20c of which is paid to the General Secretary for the defrayment of benefits.

The International Typographical Union is the oldest American trade union, dating its organization back to 1850. Benefit features other than strike and out-of-work have received little attention. The membership as indicated by the per capita tax for the months of December, 1903, and January, 1904, was approximately 46,365. The union pays a burial benefit of $70.00 on the death of a member in good standing, but has no benefits for temporary or permanent disability. A large number of the locals maintain sick and burial benefits, but over these the international has no control. As a rule, the local benefits amount of $75.00 or $100; in some few instances, where the benefit is on the assessment plan, it is as high as $450. The German American Typographia, which in 1893–94 became a branch of the International Typographical Union, pays benefits as follows: in case of sickness, $5.00 a week for 50 weeks, after which $3.00 a week for 50 more weeks, or $400 at the most. After receiving this amount, however, no member may make further claim for two years. The death benefit is $200.[1]

The British Amalgamated Society of Carpenters and Joiners having a membership in the United Statee, in 1897, of 11,392, pays an accident benefit of $700 for total, and $350 for partial, disability. The Amalgamated Glassmakers' International Association, with a membership in March, 1904, of 45,000, pays

[1] Bemis, Bulletin of Labor, No. 22, p. 386.

a death benefit of $50.00 after one year's membership and $75.00 after two years or more in good standing, as well as a $150 benefit for total disability. Local unions make their own arrangements in regard to sick and accident benefits, and "in nearly all cases see the member through, as the saying is."[1] In the International Brotherhood of Blacksmiths "local unions may, if they so desire, enact a sick benefit, which shall be governed by local by-laws."[2] Members of the Boot and Shoe Workers' Union pay 25c a week in dues, which entitles them to a sick benefit after six months' good standing; of $5.00 per week for 13 weeks after the seventh day after claim is made, and death benefits of $50.00 and $100.00 respectively, after six months' and two years' membership. The Journeymen Barbers' International Union of America, with monthly dues of $1.35 payable to the general union, provides a sick benefit of $5.00 a week for 14 weeks after the second week. Members of the Amalgamated Association of Street and Electric Railway Employes of America are entitled from the general association after one year's membership to funeral and disability benefits of $100. Sick benefits are regulated entirely by local unions. In May, 1904, the Amalgamated Meat Cutters and Butcher Workmen of North America adopted a death benefit scheme to take effect January 1, 1905, which will pay $50.00 after six months' and $100 after one year's membership. With individual dues of $1.50 per month, members in good standing in the Lithographers' International Protective and Beneficial Association are entitled to sick and accident benefits of $5.00 per week, up to eight weeks in the year. Death benefits are paid ranging from $50 to $500.

The examples stated serve to show the entire absence of uniformity in the insurance schemes of the various unions. The insurance regulations of the Iron Moulders' Union of North America displays even as great a lack of uniformity in a single organization. Dues are $1.25 a month, 25c of which is placed in the national security fund, and 40c is paid to the International treasurer; of this amount 10 per cent is devoted

[1] Wm Figolah, General Secretary.
[2] Art. V, Sec. 4, of constitution.

to insurance purposes. The sick or disability benefit is $5.25 per week for 13 weeks after the first; the death and total disability benefit ranges from $100 to $200, though the receiving of the latter is a bar to the receiving of the former. Local unions provide various sick and death benefits. The inconsistency and want of unified purpose in these endeavors is displayed by the constitution and by-laws of the Iron Moulders' Union, No. 17, Indianapolis, which provides as follows:[1] "This union shall create a fund to be known as a Funeral Fund, by an assessment of 10 cents a month per member, for the purpose of hiring bands, etc., at funerals; this assessment to continue until the sum of $75.00 shall have been realized, when it shall stop until a death shall occur among the members of this beneficiary fund, when it shall begin again until the maximum amount shall have been reached. It shall be optional with the members of this union as to whether they become a beneficiary of this fund..... Should the relatives of any deceased member, who is entitled to the benefits of this fund, object to having a band at the funeral of the deceased they shall be paid a sum equivalent to the amount necessary for hiring a band." This quotation is interesting as an evidence of the great lack of true appreciation by laboring men of their own needs.

In general it may be said of trade union benefits for injury and death due to accident, that they are found in but a small percentage of the national organizations, and even there they are small and totally inadequate. The expense of this form of insurance is difficult to determine, in as much as from the general assessment levied on individual members all benefits and administrative expenses as well are paid. It will be noticed also that the principal work of relief in cases of sickness and accident is left in the hands of local organizations, to be handled as is there seen fit. The prevalent idea is the old, unsystematic one of fraternal assistance; that those who are in closest touch with the unfortunate members should consider it their duty to undertake on their own initiative the responsibilities of caring for their needs when in distress, and that

[1] Page 14, Art. ..I, Sec. 5, of constitution.

the feeling of brotherhood which underlies the trade union movement is sufficient guarantee that every needy member will be "seen through" his difficulty.

The railway employes of the United States through their Brotherhoods provide for themselves relief for accidental and natural death and total disability. Railroading is admittedly one of the most dangerous of occupations, and it is noteworthy that the million or more men employed in the transportation service of the country should have seen the need and advantage of organizing benefit features on a scale sufficiently large to guarantee reasonable amounts of relief. The national organizations whose members are engaged in the different branches of the railroad service are: The Grand International Brotherhood of Locomotive Engineers, the Order of Railway Conductors of America, the Brotherhood of Locomotive Firemen, the Brotherhood of Railroad Trainmen, the Brotherhood of Railway Trackmen, the Switchmen's Union of North America, the Brotherhood of Railway Carmen, the Order of Railway Telegraphers, the Brotherhood of Railway Expressmen of America, and the International Brotherhood of Maintenance-of-Way Employes. The organization of expressmen is scarcely two years old, and consequently has not yet attempted relief work on any considerable scale; on account of the relatively small risk of danger in their occupations the telegraphers have not developed a scheme of insurance; the maintenance-of-way employes have but recently given up a well defined and seemingly successful relief venture. The switchmen's union was greatly weakened by the great strike of 1893, and attempts nothing but local relief.[1]

The organization of relief features varies in different brotherhoods. The locomotive engineers have organized and incorporated a distinct department, which is managed entirely apart from the general administration of the brotherhood. The other three largest brotherhoods conduct their relief work under the control of the general management. All of the four largest organizations compel participation in the relief features

[1] Consult E. R. Johnson: "Brotherhood Relief and Insurance of Railway Employes," Bulletin of Labor, No. 17.

by all members not otherwise physically disqualified. Sick and accident benefits are not paid by the national organizations, but are provided by the locals, who are bound in this work by nothing but their fraternal duty.

Policies payable upon death or total disability are issued by the various brotherhoods for stated amounts varying from $400 to $5,000, according to the age of the member at the time of his application. The Locomotive Engineers' Mutual Life and Accident Insurance Association issues policies of $750 and $1,500, which members may secure to the maximum amount of $4,500. The Order of Railway Conductors' Mutual Benefit Department issues policies in five series, A, B, C, D, and E for the amounts respectively of $1,000, $2,000, $3,000, $4,000 and $5,000. Those not over 30 years of age when joining are eligible to any series; those over 30 years, but less than 38, to series A, B, C, and D; those between 38 and 45, to series A, B, and C; those between 45 and 50, to series A and B; and those between 50 and 60, to series A. No one over 60 years of age is admitted to the insurance department. The Brotherhood of Railway Carmen's Mutual Aid Association issues policies of $1,000, only one of which may be subscribed for by any one member. The trackmen, engineers, and firemen set a maximum for subscription, which is respectively $2,400, $4,500, and $1,500.

Payment for policies is in all cases by assessment and as occasion demands, for every case of death or disability occuring. The engineers are assessed 50c per $1,500 of insurance carried. The conductors pay $1.00 per $1,000. Assessments are $1.00 per month for eight months of the year and $2.00 for the remaining four months, the average cost per $1,000 being in the neighborhood of $14.00 a year. The premiums in the other brotherhoods are on the same basis, and are practically the same in amount per $1,000 of insurance.

The systematic organization of relief features on a comprehensive scale by the national bodies has been attended by the organization of local relief and other schemes calculated to deal more particularly with the temporary ailments. Five Ladies' Auxiliaries have been formed with the object "to secure to its

members support and assistance in time of sickness and distress."[1] The grand president of the Ladies' Auxiliary to the Order of Railway Conductors says in regard to the scope of the relief work of the local divisions: "We visit the sick, care for those who are in need, and whenever there is a call for assistance in the family of a conductor, we do all we can for them. Our particular work is in the families of our members, but we work for the families of order men (in times of need) whose wives do not belong to our order. We aim to do our work so no mention is made of what we do."[2] Such efforts as these, though commendable in the highest degree, do not meet the needs of the case.

No systematic plan of local relief has been adopted in any of the brotherhoods. The method commonly employed differs little from that found in other purely fraternal orders, such as the Foresters and Odd Fellows. One of the greatest drawbacks to the success of any such scheme from the standpoint of the common justice owed a man injured in the course of his employment is, that pride often leads to the concealment of the needs which accompany disability. The man of means naturally is anxious not to inflict himself on the mercies of his friends, and the poorer man is reluctant to appear less able to care for himself than his wealthier brother. And it must be noted, too, that the members both of the railroad brotherhoods and of the fraternal orders are drawn as a rule from a class of people of relatively high intelligence and earning capacity, who are in reality well able to meet all the ordinary needs of life as well as to prepare for future misfortunes. The death benefits of these organizations partake of the nature of ordinary life insurance, and are of such an amount as to be more than mere burial expenses, as the death benefits of the trade unions are found to be.

The Friendly Societies of England and the *Societes de Secours Mutuels* of France, Belgium and other continental countries represent in a most highly developed form the efforts of labor to provide relief for itself in case of distress. The

[1] From the constitution of the Ladies' Auxiliary to the Order of Railway Conductors. See article by E. R. Johnson, above mentioned, pp. 568-569.

[2] Vide supra, p. 569.

Friendly Societies had their origin in the friendly intercourse of neighborhood families, which later developed into the present form of systematic self-help. While in practically no cases dealing with specific relief in case of accident, these societies treat all worthy temporary disability like sickness. Their work in the earlier years, after they had separated from the guilds, was conducted purely on the assessment basis, but the growth of industrial methods accompanied by the centering of large laboring populations in single districts made the establishment of a more systematic method quite essential. National organizations now exist, which like the trade unions permit the transfer of a laboring man from one part of the country to another without the loss of timely assistance of friends when in need. With a total membership in 1895 of 2,210,476, ten of the largest of these societies had an income of some 17 million dollars, and disbursed over 12 millions in the shape of benefits. Their total assets at the time aggregated $81,333,678.[1]

The internal development of the Friendly Societies is extremely interesting as showing the possibilities of laboring men caring absolutely for their own extraordinary needs when left to their own unaided and unguided resources. The abuses which attend the handling of large amounts of money and property seemed to call for the intervention of the state in the management of their interests as far back as the latter part of the 18th century, but the natural abhorrence of the English people to state interference prevented the accomplishment of much by the government. The law of 1793, later variously extended, gave to the Friendly Societies many privileges otherwise denied them on condition of registration and of compliance with certain minor parliamentary regulations. The office of Registrar of Friendly Societies was created in 1875. In spite of the privileges accompanying registration, many societies prefer to this day to remain independent of the state. Though avoiding government interference with their methods, the Friendly Societies have made the greatest progress along the line of financial and administrative improvement. The unfairness and incompetency of a scheme of insurance founded on the

[1] Willoughby, W. F.: "Workingmen's Insurance," p. 244.

assessment basis called for careful investigation on the part of those members who had fared badly. As a result, the English Friendly Societies represent today the most successful operation by laboring men of a system of insurance as scientifically and actuarially correct as the compilation and practical use of mortality statistics and tables can accomplish. Nor have the workmen's compensation acts had any effect on the popularity of this means of accident insurance. This is largely due to the fact that membership in the societies includes membership in the relief scheme and is inseparable therefrom. Employers are apt to complain that in cases of temporary disability the relief afforded by these societies coupled with that granted under the acts often gives the injured man more than his usual wages, and an apparent desire among those thus doubly protected to meet with injury is not infrequently hinted at.

Of great significance is the rapid growth during the latter half of the last century of stock companies engaging in the accident insurance business. The problem of providing compensation for accidents is shown to permit of scientific treatment by the application of insurance principles, at a cost small enough to attract the public and large enough to make the business one of profit to stockholders. Accident insurance had its origin in the rapidly developing use of steam power in the years 1840–1850. The fear of accidents occasioned by the increasing popularity of railroads made insurance a necessity. The English Railway Passengers' Assurance Company, chartered in 1849 declared its object to be: "To insure all who do now or shall hereafter travel by railway, compensation for personal injury or loss of life consequent upon or incident to railway conveyance, whether arising from accident or negligence otherwise than wilfull."[1] The development and increase in number of accident insurance companies has been very rapid, until at the present day some thirty companies are engaged in the business in the United States.

The general scheme of accident insurance is this. In consideration of a stated quarterly or yearly premium the insurance

[1] Insurance Guide and Handbook, 1901, p. 245.

company agrees to pay certain sums in case (1) of death, (2) of disablement, (a) permanent, and (b) temporary. The different grades of disablement are set forth specifically in the contract, and vary as the injury tends to affect the ability of the injured to pursue his former avocations. Since 1893, accident policies have been written including weekly compensation for disablement resulting from the more dangerous diseases, such as typhoid, typhus, scarlet fever, smallpox, diphtheria, and measles.[1] At the same time were introduced annuity provisions in case of permanent disability as well as double benefits for death or disablement arising from railroad and other specified accidents. The various risks are broadly divided into three classes, according to the nature of the business or employment of the insured. The first class includes professional men and those engaged in mercantile pursuits; the second class, master tradesmen, and others superintending, but taking no part in, the trade or occupation; the third class, all those engaged in mechanical and constructional pursuits. The premiums of the last class are higher in proportion to the amounts of the policies than those of the other two. A still further division provides for nine classes, the highest of which is the better than preferred, and the lowest the very dangerous. Policies are written for one year and are not cumulative, but each year's payments are returned, value received, in the protection afforded. Life insurance attempts to prepare for a certain future occurrence, and is based on the probability of its happening within a certain period; accident insurance attempts to prepare for a possible future occurrence.

The benefits paid by accident insurance companies are much larger than those paid by any other schemes of compensation for accidental disability. The following outline of contract benefits of the Aetna Life Insurance Company, of Hartford, Connecticut, is indicative of the method determining, and the amounts of, payments. Combination benefits, which indemnify for loss incurred while the insured is a passenger in any regular passenger conveyance propelled by steam, electricity or

[1] Vide supra, p. 247.

cable, and in some cases while in a passenger elevator or a burning building, are also shown. The benefits are, respectively: for death, loss of both eyes, loss of hands and feet, or of one hand and one foot, $5,000 and $10,000; for loss of right hand, $1,667 and $5,000; left hand, or either foot, $1,667 and $2,000; one eye, $1,250; permanent disability, $5,000 and $10,000. A weekly indemnity for temporary disability is paid amounting to $25.00 and $50.00 for a period limited to 200 weeks. The yearly cost of this policy is $20.00 and $25.00, respectively, as it contains or not the combination rider.

It may possibly appear that such insurance as this is the most practicable form of accident compensation for the American wage-earner. One great difficulty must be overcome, however, in obtaining the co-operation of the entire body of workingmen in such a scheme. The average laborer is totally unable to accumulate the amounts necessary to pay quarterly or annual premiums. The problem of compensation is in a large measure bound up in the greater question of poverty, and as will be seen later it is the poor and otherwise dependent sufferer whom it is the desire to benefit.

To meet the demand of those to whom the outlay of any considerable amount of money for insurance is an impossibility, several insurance companies have evolved what is known as an industrial insurance policy, which is issued to cover on small weekly or monthly premiums the lower grades of risks. It is within the last five years, however, that distinct industrial accident insurance policies have been issued, the business up to that time being confined to life insurance. On industrial life and accident policies, $7,172,869,000 of insurance has been written in the years 1876–1903.[1] The number of policies in force in 1903 and the amount of the insurance thereby contracted for, was $14,600,502 and $1,977,185,534. The premium receipts for the same year were $98,063,490, against which amount losses to the amount of $27,408,191 were paid by the 15 companies engaged in the business.[2] Great as these amounts seem, they are small in proportion to the corresponding figures for

[1] Insurance Year Book, 1904.

[2] Insurance Year Book, 1904, p. 292. Column of ratios in table supplied.

Life Insurance in the United States in the same year: total premium income, $447,543,822; payments to policyholders, $225,842,072.

GROWTH OF INDUSTRIAL INSURANCE IN THE UNITED STATES.

Year.	No. of companies	Insurance written	Insurance in Force.		Premiums received.	Losses paid.	Ratio of losses paid to premium.
			Number	Amount.			
1903	15	$596,510,565	14,600,502	$1,977,185,534	$98,063,490	$27,408,191	27.9
1900	18	566,037,936	11,215,531	1,468,474,534	65,962,426	19,607,808	29.5
1895	11	380,832,362	6,943,769	819,521,573	37,008,536	12,398,782	33.5
1890	9	242,250,959	3,875,102	428,037,245	17,647,036	6,423,341	30.7
1885	3	93,736,727	1,360,376	144,101,632	5,530,622	1,919,533	34.7
1880	3	34,768,035	228,357	19,590,780	1,155,360	430,631	37.2
1876	1	727,168	4,816	443,072	14,495	1,958	13.5
Totals for years 1876–1903, incl..	.....	7,172,869,411	.....	.....	$735,379,029	$228,766,641	31.1

In the field of industrial accident insurance, the Metropolitan Life Insurance Company and the Phoenix Mutual Life Insurance Company issue a grade of policies with weekly premiums of $.10, which is sold among laborers in all employments where wages are small. While offering larger and more effective relief than trade union benefit funds, this grade of insurance is not comparable with that handled by those companies which have not gone to such an extent in the lowering of premiums. It is clear that the cost alone of collection of premiums must very greatly diminish the effectiveness of the scheme from the standpoint of the insured. At a cost of $1.00 a month the North American Accident Insurance Company issues policies paying indemnities ranging from $60.00 to $15.00 monthly for partial disablement, and $600 to $100 in case of accidental death, in accordance to the classification of risk into which the insured comes. Following is a table prepared by the above named company of the benefits payable on its monthly premium policies:

SCHEDULE OF RATES.

Class.	Monthly accident indemnity.	Monthly sickness indemnity.	Death indemnity accident.	Loss of hand or foot.	Cost per Month.	
					Accum. protection policy.	Accum. protection "special" policy.
AA	$60	$40	$6 0	$300	$1 00	$1 50
	70	60	700	350	1 50	2 00
	100	60	1,000	500	2 00	2 50
A	50	40	500	250	1 00	1 50
	70	50	700	350	1 50	2 00
	80	60	800	400	2·00	2 50
B	40	35	400	200	1 00	1 50
	50	50	500	250	1 50	2 00
	70	50	700	350	2 00	2 50
C	35	35	300	150	1 00	1 50
	50	40	500	250	1 50	2 00
	60	50	600	300	2 00	2 50
D	30	30	300	150	1 00	1 25
	40	40	400	200	1 50	2 00
	50	50	500	250	2 00	2 50
E	25	30	200	100	1 00	1 25
	35	35	300	150	1 50	2 00
	40	40	400	200	2 00	2 50
F	20	20	100	100	1 00	1 25
	30	30	100	150	1 50	2 00
	40	40	100	200	2 00	2 50
FF	25	30	100	50	1,00	1 25
	35	35	100	50	1 50	2 00
	40	40	100	50	2 00	2 50
X	20	30	100	50	1 00	1 25
	30	30	100	50	1 50	1 70
	40	35	100	50	2 00	2 50
XX	15	15	100	50	1 00	1 25
	20	20	100	50	1 50	1 75
	25	25	100	50	2 00	2 25

"Any man between ages 18 and 55 in any occupation. Accident benefits in force from date of policy. Illness benefits 30 days later. Special policy covers first week of sickness. If one year's premium is paid in advance ten per cent. is immediately added to all benefits. If paid monthly ten per cent. is added to benefits at end of year. Benefits are doubled if injured or killed while riding in or on a passenger conveyance. All accidents covered—any sickness covered."

Class XX contains men engaged in and about railroad yards and railroad engines; class X, riggers, structural iron workers, etc.; class FF, bricklayers, helpers, cornice setters, trimmers, roofers and those engaged in other occupations not more dan-

gerous; class F, locomotive engineers and firemen, conductors, etc.; class AA is the extra preferred.[1]

	Accident monthly indemnity.	Sick monthly indemnity.	Accidental death.
AA	$60	$40	$600
A	50	50	500
B	40	35	400
C	35	35	300
D	30	30	300
E	25	30	200
F	25	25	200
XX	15	15	100

This class of insurance is certainly the most practicable that is available to American workmen. Theoretically it is the same type of insurance as is offered by voluntary state schemes, though in one or two respects it differs from that, while there are certain weaknesses common to both. In the first place, this is not insurance at cost, while state insurance is intended to be such. The companies which organize and push this grade of insurance are actuated by no philanthropic motives. In the second place, state voluntary insurance lacks the progressive spirit which is necessary to extend its benefits to all of the needy classes, and which necessarily attaches itself to the enterprise of a private business. Both lack, however, the means of furnishing insurance at the lowest possible prices. So long as any such scheme as this must be carried to individual workmen and be forced upon them by argumentative methods, the expenses incurred must be great. The state organization is unable to extend its benefits beyond the most limited number, while the private company can do so only at very great expense. Commissions to agents must be high to spur them on to greater efforts against competing companies. The cost of collecting premiums also represents no small sum. The ratio of losses paid to premiums received for industrial accident insurance in the United States for the year 1903 was 27.9;[2] the same figure for ordinary life insurance was 50.4. Other things being equal

[1] For monthly premiums of $1.00, the General Accident Insurance Company of Philadelphia pays the following benefits:

[2] See foot note, p. 25 of this chapter.

(e. g., cost of administration, and profits to stockholders), it is fair to assume that the difference in these figures is due to the greater cost of soliciting and collecting in the former case.

Labor in the United States is certainly to be congratulated for the success with which its efforts to provide for itself compensation for industrial accidents have met. But there are serious defects in all of the schemes adopted and put into operation, which are due to their very nature. Being voluntary, none of them protects absolutely the less fortunate worker, who is already so heavily overburdened as to be unable to devote any of his earnings to trade union, fraternal or insurance benefits. This class is one which to be effectually assisted must have relief forced upon it, rather than to be allowed free and voluntary action.

II. RELIEF BY EMPLOYERS.

There is a most woeful lack of concerted action on the part of employers in their endeavors to relieve their employes from the unfortunate straits into which they are oftentimes cast. No employer can be so utterly regardless of the welfare of the men who work for and under him as to have no feeling of sympathy for them when they are overtaken by adversity, and few can be found who do not in some manner or other try to lend their assistance in cases of need. Other considerations, by no means negligible but on the contrary most important, impel employers to expend time and money for their employes in matters far removed from the question of wages. A show of interest in his men on the part of an employer, be he an individual or a corporation, is often productive of increased energy, care, and loyalty to their establishment on the part of those who might otherwise bear the opposite, or an indifferent attitude. Then again, without attempting gross abuse, by winning the good wishes of employes, employers are able to avoid the litigation which is but one manifestation of industrial warfare.

Very little system has been employed by masters to relieve the sufferings and losses occasioned by industrial accidents. In large industrial centers philanthropic institutions are carried on which endeavor to relieve acute distress and afford relief in

worthy cases, and these are supported in great measure by contributions from employers. Of individual efforts in this direction, the employment of a company's surgeon who gives free and prompt medical attendance of the highest grade, is one of the most characteristic examples. A great number of manufacturing establishments and practically all the railroads retain on their pay-rolls physicians who are expected to devote a certain part of their time to attendance upon company cases. This service is invaluable to the average injured employe, who is totally unable to engage the services of competent practitioners, and must rely upon the scum of the profession or upon charity for this service. Free medical treatment is a great and highly appreciated boon to those to whom it is afforded.

Many industrial establishments have endowed beds in first class hospitals which are reserved for the use of their injured and sick employes. The best of care during inability to work is thus assured victims of accidents. Other and larger corporations have their own hospitals, in which injured men are cared for free of charge. Though subject to many grave abuses, these efforts are noteworthy and commendable, and even if just pecuniary deserts are often withheld from injured men, because they have accepted such relief, it may be that in the long run labor is better off with the certainty of proper treatment in case of accident than with the uncertainty of receiving sums of money, which in no few cases have a most demoralizing effect upon the recipients.

Many employers make it a point to provide permanently injured employes with work of a character suitable to their lessened abilities. Towermen and switchmen on the railroads are recruited to a great extent from the vast number of injured, but not totally disabled, employes. This is a form of aid which combines self help with philanthropy and which is most to be encouraged. Difficult as it is for the able bodied man thrown out of employment late in life, it is even more difficult for a young and partially crippled man to find a situation whereby he can contribute partially, if not entirely, to his support. It is also the custom with many employers to continue for some length of time the wages, in whole or in part, of injured employes.

Numerous instances might be cited of the charitable work of employers expended upon the families of totally disabled or killed employes. Gifts of money, fuel, goods, etc., are by no means uncommon.

The forms of relief by employers so far mentioned, though to some extent actuated by selfish motives, are in the main prompted by charitable and kindly instincts. Relief of a totally different nature is practiced by many employers to whom the risk of accident is so great as to make civil liability for damages resulting therefrom a thing to be feared and especially to be avoided. Particularly in connection with liability insurance, policies are taken out which collectively insure the individual workmen in an establishment, in some measure as does ordinary industrial accident insurance, except that the acceptance of relief under these policies becomes a bar to further recovery from the employer. For two alternatives are offered the injured man: He may elect to bring civil action under the common law, or he may decide to accept the insurance money offered him, only, however, on the condition that he affix his signature to the release paper prepared by the employer. In the case where the employer defrays the entire expense of this collective insurance, no injustice is done the injured man to compel him to sign the release before receiving compensation; the process constitutes a method by which the employer meets his legal liabilities. But on the ground that he is bestowing upon them a great benefit, an employer often persuades his men to allow him to deduct from their wages small amounts sufficient to defray in part, or entirely, the expense of their insurance; sometimes deductions are made without either the knowledge or consent of the insured. The injustice of considering and holding the receiving of benefits under such a policy a bar to civil recovery is manifest; where employes pay for any portion of their insurance their enjoyment of benefits accruing thereunder should in no way be restricted.

It is not contended that employers are entirely to blame for instituting and urging such schemes upon their men. Workmen's collective insurance affords additional relief from the uncertainties of the employers' liability law, which employers can-

not be condemned for desiring to avoid. Many employers have made it well worth while for their men to avail themselves of the benefits of this form of insurance. The Illinois Central Railroad has made arrangements with a strong accident insurance company whereby its employes are allowed the most favorable rates. The Chicago & Alton Railroad Company has obtained for its employes most favored rates from the Aetna Life Insurance Company, and in addition pays 50% of the premiums of those in the more dangerous and 30% in the less dangerous pursuits. Numerous other instances of this sort might be cited, as for example the custom prevailing in the precious metal mines and smelters of Colorada and Idaho of deducting $1.00 per month from wages to pay for collective insurance, but however worthy may have been the intentions of their originators they operate an injustice if the acceptance of relief in any way bars the injured man from his right of action at law.

A still further abuse is possible with the use of collective insurance. Let it be supposed that in a particular establishment liability insurance costs $1.00 per $100 of wages, and that liability and collective insurance together cost $1.87; in this case the lessened civil liability of the employer occasioned by the collective insurance reduces the cost of liability insurance to $.50, leaving as the cost of the collective insurance $1.37. If of the total amount the employer pays $1.00 he is no gainer by the operation; but if he deducts from the wages of his men $1.00 he gains thereby $.13 in the cost of his insurance.[1] It is also permitted the employer to deduct 5% of premiums for the collection of the same.

On account of the vicious features with which the selfishness and greed of employers characterize it and the lack of a concerted plan, relief by employers is extremely unsatisfactory. In other lines of betterment work, employers have done much to improve the conditions of employment, and purely on their own initiative have inaugurated schemes for the aesthetic enlightenment of employers which are a credit to the American people. In the line of compensation for accidents, however, little positive good has been done by employers.

[1] See Minnesota Bureau of Labor Statistics, 3rd Biennial, 1891-1892, "Trade Union Insurance," Chap. IV, "The Financial Loss to Workmen by Accident."

III. RELIEF CONDUCTED BY BOTH EMPLOYERS AND EMPLOYES.

Three considerations have induced employers to co-operate with their employes in the organization and administration of permanent relief funds: (1) The desire to substitute a certain expense for an uncertain liability; (2) the desire to assist employes in the hour of their distress; (3) the desire to create a positive moral influence on employes which shall bear fruit in their greater feeling of responsibility for themselves and for their employer's interests. For the opinion is variously held that compensation, no part of which is contributed by employes, tends to an increase of carelessness and disregard of the means of avoiding danger. These funds are raised and maintained by contributions of employers and of employes, bearing a definite ratio each to each and in general are administered under the supervision of advisory boards of control composed of representatives of both parties. The effectiveness of these schemes over those that involve impromptu collections as occasion demands is apparent.

In England and on the Continent this form of relief has been quite widely adopted. The contracting out clause of the British Workmen's Compensation Act called forth many such schemes, although practically all the railroad systems had in operation for several years relief departments organized on this basis. The London, Brighton & South Coast Railway Company, Railway Servants' Insurance against Accidents is typical of the English mutual scheme of compensation. Of the 13,506 employes of the road on June 30, 1899, 11,233 were insured under the scheme. Following are the figures of operation during its first year, June 30, 1898–June 30, 1899:[1]

I. RECEIPTS.

Amount on hand at beginning of year	
Contributions of employers	$12,00 79
Contributions of workmen	13,232 01
Other receipts	
Total	$25,232 80

II. EXPENDITURES.

Death benefits	$9,061 42
Incapacity benefits	15,996 19
Other benefits	175 19
Expenses of management (borne by company)	
Amount on hand at end of year	
Total	$25,232 80

[1] Bulletin of Labor, No. 32, pp. 108, 109, 110.

III. DEATH AND INCAPACITY BENEFITS.

(a) Cases Where Incapacity Resulted from Injury.

Classified Duration of Incapacity.	Number of cases.	Duration of Incapacity		Amount paid.
		Weeks.	Days.	
2 weeks or less	410	551	4	$2,501 38
Over 2 weeks, less than 4	310	903	.....	4,160 86
Over 4 weeks, less than 6	102	496	5	2,355 39
Over 6 weeks, less than 8	60	428	3	1,975 80
Over 8 weeks, less than 10	31	277	3	1,265 29
Over 10 weeks, less than 13	19	217	2	1,051 16
Over 13 weeks, less than 26	22	381	4	1,771 41
Over 26 weeks	6	182	3	914 90
Total	960	3,439	.....	$15,996 19

(b) Cases Where Death Resulted from Injury.

Class of Cases as Regards Dependents.	Number of cases.	Number and Relation of Dependents.				Amount Paid.
		Widows.	Children	Parents.	Others	
Where dependents are left	9	5	14	5	.....	$8,029 78
Where no dependents are left	1	.....	.....	.....	.....	851 64
Total	10	5	14	5	.....	$9,061 42

The ratio of contributions to this fund is seen to be practically as one is to one. The expenses of management are borne by the company as is the custom in virtually all of these schemes.

The French railroads maintain similar funds contributed to by the companies as well as by employes. Expenses of management are borne by the companies, and contributions are in the following proportions:[1]

Companies.	Combinations Measured in Per Cent. of Wages.		
	Employes.	Company.	Total.
P. L. M.	4	4	8
Nord	3	variable	.....
Est	3	8	11
Ouest	4	5	9
Midi	3	6.3	9.3
Etat	5	5	10
Orleans	.....	10	10

[1] Willoughby, F. W., "Workingmen's Insurance," p. 152.

In connection with this table it is particularly interesting to note the relatively high cost of insurance.

In the United States, several large railway companies have instituted permanent relief funds under the management of Relief Departments, which represent the largest and most systematic efforts of American employers to assist employes in obtaining compensation for accidents. The Baltimore & Ohio Employes' Relief Association was organized in 1880, but upon the revocation of its charter by the State of Maryland in 1887 its work was given into the hands of the Baltimore & Ohio Railroad Company Relief Department, where it has since remained. The Pennsylvania Railroad Company formed a relief department in 1886; the Chicago, Burlington & Quincy, in 1889; the Philadelphia & Reading Relief Association was organized in 1888; the Pennsylvania Lines West of Pittsburg and Erie established a similar department in 1889; and the Plant System Relief and Hospital Department came into existence in 1896. Similar projects have since been undertaken by other railroads, though not on the scale established by these.

Membership in the relief departments of the Burlington road, the Pennsylvania lines, and the Pennsylvania line West is voluntary; in those of the other three roads it is compulsory for all employes. In most cases, the general manager of the road is president of an advisory board composed of an equal number of representatives of the railroad and of the insured employes. The work of administration is in the hands of a superintendent employed by the company, which bears all the expenses of administration. In addition to maintaining the department as a part of the service of the company, the company lends it every assistance in its power, handles in trust all the monies of the department, and guarantees the fulfillment of its obligations.

Contributions to and compensation from the relief funds are arranged in accordance to the ages and monthly wages of the individual subscribers. The ordinary wage classification is as follows: 1st, or class A, less than $35.00; 2nd, or class B, between $35.00 and $55.00; 3rd, class C, between $55.00 and $75.00; 4th, or class D, between $75.00 and $95.00; 5th, or class E, above $95.00. In the Baltimore & Ohio and Plant

System department the points of division are $35.00, $50.00, $75.00, and $100.00. These departments also separate their members into two general divisions as well, the first of which includes all those engaged in the actual process of transportation and the second, all other employes. In all of these relief departments a member may enter a higher class than that to which his wages entitle him, provided that he is not over 45 years of age (50 in the case of the Baltimore & Ohio and Plant System) and has been continuously in the company's service for five years. Additional death benefits may be subscribed for by any member not over 60 years of age, premiums on which are based on the age of the applicant as well as his wages.

Contributions are monthly in advance and are deducted from the pay-rolls. In the Burlington Relief Department contributions are: 1st class, 75 cents per month; 2nd class, $1.50; 3rd class, $2.25; 4th class, $3.00; 5th class, $3.75. The monthly rate of contribution for each extra accident death benefit is in the first class 15 cents. For each additional death benefit of the first class, contributions are determined according to the age of the insured; for a member not over 45 years of age, 30 cents, over 45 and less than 60, 45 cents; and over 60 years of age, 60 cents. The following table exhibits the amounts of the contributions and benefits of the several classes of the Philadelphia & Reading Relief Association.

CONTRIBUTIONS AND BENEFITS.

	1st class.	2d class.	3rd class.	4th class.	5th class.
Highest monthly pay	$35 00	$55 00	$75 00	$95 00	over $95 00
Contributions per month: Class	75	1 50	2 25	3 00	3 75
Additional death benefit equal to death benefit of class:					
Not over 45 years of age	30	60	90	1 20	1 50
Over 45 years of age and not over 60	45	90	1 35	1 80	2 25
Over 60 years of age	60	1 20	1 80	2 40	3 00
Disablement benefits per day, including Sundays and holidays:					
Accident, for fifty-two weeks	50	1 00	1 50	2 00	2 50
Sickness, after first seven days, and not longer than fifty-two weeks	40	80	1 20	1 60	2 00
Death benefits: For class	250 00	500 00	750 00	1,000 00	1,250 00
Additional payment from surplus fund	100 00	100 00	100 00	100 00	1 0 00
Additional death benefits that may be taken	250 00	500 00	750 00	1,000 00	1,250 00

The contributions to and benefits from the Pennsylvania Railroad Voluntary Relief Department are the same in every particular, with the exception that a benefit equaling one-half of that paid during the first 52 weeks of disablement due to accident is paid after this period until complete recovery. Contributions to the relief department of the Baltimore & Ohio Railroad Company range for the two divisions, respectively, from $1.00 and 75c to $5.00 and $3.75.

In three of the relief departments, membership is entirely lost by the employe who is discharged or otherwise severs his connection with the company. The department of the Burlington road, Baltimore & Ohio, and Plant System permit their members to continue subscriptions to the minimum death benefit. The acceptance of benefits from any of the relief departments constitutes, by agreement in the application for membership, an absolute release of all claims for damages against the company.[1] Statutes have been enacted in several states nullifying such specific contracts, however.

The expense to the companies of maintaining these departments, while probably not approximating the amount of liability incurred by them through accidents to employes, is no mean sum. Aside from the actual cash payments on account of deficiencies and other liabilities, the salaries of officials, medical examiners, clerks, etc., and the expense of stationery, printing, postage, office supplies and maintenance, and the time of officials in other departments, as the law department, represent an outlay of money by no means small. The cost to the Chicago, Burlington & Quincy Railroad Company for the establishment of its relief department and maintenance and operation from 1889 to 1903 was as follows:[2]

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[1] "And I agree that the acceptance of benefits from the said Relief Fund for injury or death shall operate as a release of all claims for damages against said company, arising from such injury or death, which could be made by or through me, and that I or my legal representatives will execute such further instrument as may be necessary formally to evidence such acquittance."—From Application for Membership in Pennsylvania Railroad Voluntary Relief Department.

[2] "The contributions of the members to the end of 1903 amounted to $4,197,912.42, and it is fair to say that the company has, in cash and facilities, contributed an equal amount in operating and maintaining the Relief Department."—15th Annual Report of the Relief Department, C., B. & Q. R. R. Co.

Expenses of establishing and operating, 1889–1902	$752,020 82
Operating expenses, 1903	71,386 16
Total operating expenses, 1889–1903	$823,406 98
Deficiencies paid	42,532 94
Total cash payment by railway company	$865,939 92

The expenses of operating the Relief Association of the Philadelphia & Reading Railway Company for the year ending November 30, 1903, were $33,658.40, of which amount $17,471.89 was paid by the company, and the remainder, representing salaries and expenses of the medical corps, was deducted from the relief fund. In addition to this amount, $12,995.02 were contributed by the company to the fund, being 5% of the contributions of employes.

The benefits actually paid by these departments aggregate several million dollars annually. On account of the large number of accidents of minor importance treated, the average per case is surprisingly small. The fifteenth annual report of the Baltimore & Ohio Relief Department shows the following aggregate and average of relief benefits paid from the organization of the first Relief Association up to June 30, 1903.

	Number of payments.	Cost.	Average per payment.
Deaths from accidents on duty	1,198	$1,915,240	$1,065
Deaths from other causes	3,698	1,866,064	504
Disablements from injuries received in discharge of duty	119,445	1,468,259	12
Surgical expenses	79,484	241,456	3
Disablements from sickness and causes other than above	150,589	2,257,336	15
Aggregate	355,014	$7,748,357	$22
Disbursements for expenses	.....	1,683,848	.....
Total disbursements for all purposes	.....	$9,432,256	.....

It is readily seen that the great numbers receiving benefits for disablement and sickness are responsible for the low average obtained.

IV. RELATIVE ADVANTAGES.

In general it may be said of relief conducted by employes that it lacks the unity and reliability requisite for an all-embracing and all-effective scheme of compensation. Of whatever form it

may be, it does not of necessity embrace in its benefits all those who are in need of the assistance offered. Trade union benefits are open only to members of the unions which manage them; fraternal orders are accustomed to recruit their members from the middle class of intelligent and fairly well-to-do citizens; accident insurance in regular companies is too expensive to be open to the mass of laborers, and the industrial form, though seemingly most practicable, must seek out individuals, which in a country, supporting close on to twenty millions of workmen is a difficult task. At the same time, representing, as it does, the individual and collective efforts of labor to provide for its own needs unaided, voluntary relief by employes is a type of compensation peculiarly adapted to the customs and traditions of freedom-loving American people.

Viewed from the financial standpoint, relief by employes is unsatisfactory in the amounts of relief, and is open to grave administrative abuses, which the absence of controlling influences by reliable outside parties makes possible. Accident insurance in regular companies, being controlled by special state laws, is thoroughly reliable and guarantees the payment of benefits satisfactory and equitable in amount. Union benefit funds, being unincorporated, are open to the depredations which unprincipled management is liable at any time to make. Nor do the amounts actually paid bear a fair proportion to the loss occasioned by death and incapacity. With the exception of the railroad brotherhood death benefits, union benefits are little more than sufficient to defray burial expenses in case of death, and in case of temporary disability are expected only to ward off actual privation.

Viewed in the light of a system of compensation, relief by employers is not worthy of consideration. The possibility of fradulent purposes and the utter unreasonableness of the benefits offered forbid that labor should maintain confidence even in the permanent local schemes often inaugurated. It may be said that from an ethical and sociological standpoint labor is justified in demanding as a right relief from its employers, but the moral laws which govern the relations of man with his fellow-men are not sufficiently understood to insure the maximum

of fair play on the part of independent employers in their treatment of dependent employes.

Relief conducted jointly by employers and employes enjoys some advantages which no other form can possess. Whereas relief by employes is the surest type to secure the interest and care of workmen in the prevention of accidents and the elimination of the need of relief funds; whereas relief by employers is the best guarantee of the adoption and enforcement of all reasonable preventive measures; relief by employes and employers combines these desirable qualities in a ratio depending only on the proportion of interest which each feels in the established funds. As organized in the United States, these relief funds afford reasonable compensation for accidental injuries and deaths, and being supported by reliable industrial institutions posses all the necessary stability.

These mutual benefit schemes have a far greater significance in the economic world than their relation to the problem of compensation alone indicates. The joint action of representatives of employers and of employes in any peaceful cause is productive of a better understanding between these factors in the production and distribution of material goods. To the public at large, this mutual understanding means greater efficiency of service rendered by all institutions of a public nature; to the employer it means a cessation of strikes and damage suits, and a consequent increase in the net returns of his business; to the employe it means more regular and certain employment and the certainty of care when overtaken by disaster.

The position of the workman, who has sustained injuries of such a nature as to entitle him to compensation under the law of employers' liability, when he is the recipient of relief of the nature first discussed above, is different from what it is when he is depending for relief on funds to which the employer has contributed. In the latter case, he must often choose from which of the two sources of compensation he will receive his compensation. The certain indemnification afforded by permanent relief funds is accompanied by a release from common law or statutory liability, while acceptance of relief from funds instituted by employes is no bar to possible recovery by legal

process of a sum far in excess of the maximum benefits afforded under the other scheme. It would seem, however, that the supremacy of the welfare of the mass over that of the individual in a minority of cases would argue for the preferment of the certain small relief, though it be a bar to the uncertain recovery of a large amount. This is particularly evident in consideration of the fact that less than 50% of the accidents that actually occur are deserving of compensation under the fellow-servant and assumption of risk doctrines of the employers' liability law.

CHAPTER V.

THE PRINCIPAL REQUISITES OF A PROPER SCHEME OF COMPENSATION.

In the preceding chapters consideration has turned: (1) to a review of the salient features of the common law of employers' liability and its chief statutory amendments, both in the United States and in England; (2) to a discussion of the Evils attendant upon the operation of the law of employers' liability, and some devices calculated to remedy them; (3) to a brief outline of the several schemes of compensation employed in the United States and in Europe, and classified in general as state compensation, compulsory and voluntary, and (4) voluntary relief of a private nature. Without going to any extent into detail, it has been seen that all of the schemes so far put into practice have been characterized by some good and by some bad features. Though it has not been shown, since it is rather foreign to the practical considerations of this paper and is of incidental rather than of essential importance to the current discussion, that the problem of compensation for industrial accidents must be considered in the light of sociological development as well as of economic reasoning and that any plan advocated for the betterment of conditions in this particular line must be guided not only by the industrial status of the working population but even as much by the ethical and moral effect of that plan upon those whom it is the desire to relief—though, I repeat, this thought has not been developed, it must necessarily, and on the face of it, be granted: it suggests in itself the great end to be attained by all movements seeking to reach the material betterment of the toiling masses. It is the purpose of this chapter to determine the principal requisites of that scheme of compensation which will prove most applicable to the needs and condition of labor in the United States.

It is necessary to keep continually before the mind the fact that this problem is one of importance and one that affects, though with unequal force, all classes of society. It must be remembered that a constant drain is being made on the working strength of the nation, weakening particularly that branch of the population actually engaged in the pursuits which make this civilization possible, and who are little able to bear, unaided, the direct effects of this sapping of the industrial power of the country. Many states of the Union have set a value on the life of individuals. Consider this value to be $5,000, allow a proportional sum for the partial loss of life which a disabling injury occasions, and it can be computed that the annual accident loss to the people of the United States represented in money values is in excess of $150,000,000.[1] But this is considering the results of accident only on the cold, hard basis of financial loss; an educated and highly civilized people has regard for other and finer interests of its individual members, which will not permit of their being reduced to the ignominy of representation in dollars and cents. Physical and mental suffering are as great considerations in this day of intellectual, artistic and aesthetic development as the problems of accumulating wealth, and the vast expenditures constantly being devoted to the advancement of philanthropic and semi-philanthropic institutions of every sort is an evidence of the desire on the part of those who best know the advantages of this state of civilization to extend them to their less fortunate brethren. Let it not be forgotten, finally, that this is a work which has for its object the increasing of the happiness of the nation.

It is necessary now to determine what must be the standpoint taken in their efforts to remedy existing conditions by those who appreciate the evils and are desirous of effecting a betterment. Evidently, there can be but one, satisfactory to all the interests concerned, that of justice. A system of compensation builded on any other foundation would prove fruitless, for it would not only add to the difficulties of its practical operation but would create new conditions as bad in themselves as those at present dominating. It is not sufficient that employers

[1] Minnesota Bureau of Labor Statistics, 3rd Biennial Report, p. 117.

make concessions to their workmen with philanthropic motives, or others which have behind them ulterior purposes of different intent; if a system of compensation be based on the generosity of its founders it will have only a repelling effect on the majority of the working population, and a degrading effect on those who, for want of a more agreeable method, are obliged to avail themselves of its opportunities. The enterprise and initiative of the American people can in no way more quickly be destroyed than by submitting the laboring classes to an institution of a charitable nature. If he be forced into a position wherein be becomes an object of charitable and philanthropic efforts, the American workman fast loses the self-respect, which is in a great measure to be credited with the advanced position in which he finds himself today; extend to him privileges, and at the same time make him feel that they are his to enjoy by all the rights of justice, and if he be not unreasonable he must grasp them willingly.

From the standpoint, then, of justice—of justice to the workman, the employer and the general public— it must first be considered by whom the accident burden of the country should be borne. It has already been seen that the annual loss due to accidents is an enormous one. Of what nature is this loss, or burden, which so regularly falls upon society?

The labor problem as generally understood deals with the distribution of the material products of industry between the two important factors, the employer and the laborer, which contribute to the success of industry. The shares of these two claimants to the products of industry are not fixed, but tend to fluctuations more or less extreme and determined by a variety of causes. Whatever adds to the total production of industry tends to increase the profits of the employer and the wages of the employe; whatever deducts from this product decreases the shares to be received by the one or the other. One of these causes which affect directly these two contending claimants of the product of industry is the cost of accidents. The national accident loss is a negative product of industry, so to speak, and hence the problem of compensation becomes quite properly a distributive one. But is it necessary that this product of in-

dustry be distributed between these two parties alone? An alternative seems to present itself. As a particular charge upon industry it is not unreasonable to throw this burden off upon the consuming public in the shape of increased prices of commodities. Thus it is clear that three distinct parties remain to share in this negative product of industry: (1) the employer; (2) the laborer and wage earner; (3) society, or the consuming public. Upon which of the three, in perfect justice, should the burden be made to fall? This question can only be determined upon two considerations: (1) which of the three profits the most by the conduct of industry; (2) which is best able to bear the accident loss occasioned thereby. If it be determined that labor is the principal gainer from the condition of modern industry, it may not be concluded that labor should indemnify itself, unless it be also shown that labor is best able to bear the expense of indemnification. If capital, as represented by the employer, is found to be the better able to repay labor for its losses, it must not be hastily concluded that the necessary amounts for compensation should be taken from the employer's profits, unless it be also shown that capital is the chief gainer.

Before endeavoring to determine on whom the burden of compensation should be made to fall, it is well to know to whom compensation should be made due, in order that the strength and ability of those to whom the scheme of compensation shall apply may be judged of. In Europe, legislation has had almost entirely to deal with those workmen whose annual wage receipts are equal to, or less than, a certain amount. Germany fixes that point at $476.00; England bases the highest awards on an annual wage of $487.00. Limiting the scope of the law to such employments as in which wages do not rise above a certain point presupposes the unquestioned ability of men occupying higher positions to care for themselves. The corollary of this proposition is that higher grades of employment represent higher grades of intelligence on the part of those filling them, and their natural willingness to provide for themselves in all cases wherein their knowledge instructs them. In addition, competition for the higher employments is not so keen. The business man, and the professional man, realize the advantages of life insurance

and protect themselves and their families accordingly. The unskilled laborer and the skilled mechanic may be aware of the advantages which insurance offers but the expense is too great for them. Somewhere in between is a line above which wages will allow a comfortable living and the laying aside of funds for future use; below which the entire amount is necessary to maintain the accustomed standard of living, or at least is insufficient to furnish a residuum, over and above the necessary expenses, large enough to permit participation in such a scheme as ordinary commercial insurance involves. It may not be said that the man who earns $450 or $600 a year is in the latter class, while he who earns $750 or $900 is in the former. Statistics of poverty and wealth in the United States do not permit the establishment of a hard and fixed rule at this time. Suffice it to say, however, that the problem of compensation deals with those, and only those, who through poverty or ignorance, or both, are disqualified to make that provision for the future which common justice demands for themselves, their families and society in general. The principal regard is for the unskilled labor which vacillates from place to place, and often from industry to industry.

Recurring now to the consideration as to which party is best able to bear the loss occasioned by accidents, it is manifest that labor is totally devoid of resources with which to meet such a constant drain. The mere fact that the problem of compensation deals with the financially dependent naturally forbids the ability of labor to pay for accident indemnification. This does not of necessity, however, prove that employers should assume the burden and responsibility. Accidents are the necessary accompaniments of modern industry; of this there is no doubt.

On what persons, and on what class of persons, does industry shower its benefits in greatest measure? The progress of civilization during the past century has been unequalled in the history of man, and industrial development is at the bottom of the whole movement. It is not possible to say that any one class has benefited thereby in a greater measure than any other. The arts, the sciences, educational and aesthetic opportunities are offered to all classes in approximately the same proportion as be-

fore. If any one class in particular has benefited, surely that class is labor. Capital is in the reach of more luxury than monarchs dreamed of a century ago, but labor is sharing in the necessities and comforts of life to an extent surpassing even that of the most well-to-do of the middle eighteenth century. The cheapness of food supplies and high wages make the fare of the lowest laborer in the United States by far superior to that of English and other foreign laborers. Cheap transportation, high grade literature at low prices, museums and parks—all these things tend to elevate the life of the laboring man from drudgery. However much employers may have benefited, it is unfair to say that their benefits are enough greater than those of labor to confer upon them the duty of caring for the unfortunate victims of industry. Thus it appears that capital, in as much as it fails to reap the greatest benefits from the progress of industry, although it is better able to assume the burden of compensation, cannot in perfect justice be made to assume it. In a similar manner, though it be granted that labor is the greater gainer from the advances in civilization, the fact of its poverty precludes the justice of shifting to its shoulders the entire burden of providing compensation for industrial accidents.

If, then, neither capital nor labor deserves to bear the burden of compensation, who ought to assume it? The answer is simple: Society as a whole. Society is the greatest gainer from industrial progress, and is best able to bear such a burden, since it represents in the aggregate the strength and welfare of all of its component parts, and thus is the body to which justice points as morally and socially bound to protect labor. The willingness of society to lend assistance to its unfortunate members is to be assumed as soon as mentioned; witness the many deeds of unorganized philanthropy and charity ever being committed! It remains to learn in what way the most easily and the most effectively society may take upon itself this burden. Taxation, direct or indirect, bespeaks too many difficulties to warrant its discussion. A saner and more effective manner of throwing the burden upon the public in such a way as to cause an equitable division of expense is to consider compensation a trade charge or a definite tax on industry, and to distribute it throughout the

community in whatever increase of the price of products may be necessary.

Of all commodities of elastic consumption the law of supply and demand is the determinant of the price. Conversely, the price of commodities determines the demand for them which the consuming public creates. Now it is a question open to serious dispute as to the probable effect of adding to the cost of industry even the small increment necessary to provide sums for compensation. The effect might be negligible, especially in the case of non-elastic consumption commodities, which will continue in equal demand though their cost be a trifle higher, and in non-competitive industries. In an industry, however, producing commodities of elastic consumption a rise in prices tends to decrease consumption and to lessen the earning capacity of capital, which is forced into other pursuits. Thus the ability of industry to shift the incidence of any particular tax upon the public is exceedingly difficult to determine until the effort is made. But under an industrial system that tends in its operation towards combination and monopoly, and secured from external competition by the high walls of a protective tariff, it is safe to assume that a tax which approximates on the average 1% of wages, may be absorbed by the public. English employers in 1880, and again in 1897, foresaw dire effects to British industry as a result of the increased burdens placed by Parliament upon industry; German employers were equally alarmed in 1884; neither have found their fears realized in the disruption of domestic or foreign trade, though neither were protected as are employers in the United States by a high tariff. For, when an increase in one industry is accompanied by a similar increase in all others, the relative positions of the different elements which compose industrial society are in no wise affected.

It is as logical and as just to consider the wear and tear on human life a trade charge, even as the wear and tear on machinery. Every employer is obliged to lay aside each year a certain amount to replace the loss occasioned by the depreciation in the value of his plant and appliances. The action of the elements tends to the destruction of his property, and this loss, though no more certain than the loss to labor through accident,

is provided for as a necessary expense of conducting industry. Every prudent manufacturer today carries insurance to protect himself against loss by fire, water, burglary, etc.; against the possible occurrence of accidental happenings no more liable to occur than accidents to labor. Is there any reason why an employer should consider the loss in the efficiency of his machinery any more a tax on industry than that of his human labor, which is withal as necessary to the conduct of his business as the former? From the standpoint of justice, the mere fact that his labor supply costs him individually nothing to procure should in no wise relieve him from his responsibility towards it while in his employment. The definite loss occasioned by accident might as well be provided for in advance as that occasioned by the decreasing efficiency of machinery. Considered as certainties and unavoidable quantities the one is of the same nature as the other, and both admit of the same treatment. The consumer pays for depreciation in the material establishment of the employer; let him in the same manner pay for that in the human establishment.

FOUNDATION PRINCIPLES.

Reliability and stability must be urged as the first requisites of that scheme of compensation which will win the confidence of all classes of society. No matter what its general characteristics, it must be of such a nature as to add to its approval by the masses an eagerness to participate in its benefits. Employers must feel that there is present an institution which is no mere temporary experiment, but a real, live and stable fact, established for a definite purpose which it is the determination of its promoters to pursue to a definite conclusion. Employers must be able to feel that here is an organization which offers an honest and strictly valid guarantee of fulfilling its obligations, of whatever sort or degree these may be. No man is willing to venture his time or his money in an undertaking which does not hold forth the promise of success. Success in a scheme of compensation implies the ready and adequate payment for all accidents, which it seeks to indemnify, not only today and tomorrow but continuously, or until a better scheme is evolved. The

effect of reliability and stability on the relations existing between labor and capital is not a mere matter of conjecture. A system of compensation which invites and warrants the confidence and trust both of the employing and of the laboring classes will tend greatly to diminish the friction that prevails between them today. The settlement of the question of compensation in a definite and conclusive manner will bring labor and capital to a plane of mutual understanding and mutual interest on at least one controverted point.

The importance of the prevention of accidents has been urged in an earlier portion of this work. Carelessness and laxity in the enforcement of preventive measures result in increasing the number of needless accidents. It is manifestly impossible for employes to provide the necessary safeguards to machinery and appliances; this is the undoubted duty of the employer. But the employer left alone will interest himself in the matter of prevention only in proportion to the degree of loss which he personally sustains. In recognition of this tendency, all civilized industrial communities have taken upon themselves the authority of compelling the adoption of such devices as afford manifestly needed protection from accident, and have in many cases imposed not only a penalty for failure to comply with such regulations which result in accident, but also for failure before accidents occur. This action on the part of the state has been accompanied by the creation of an office, commonly known as that of the Factory Inspector, the duties of which are to superintend the inspection of factories and workshops which come under its supervision and to enforce the provisions of the law.

The English Factory Act of 1895 provides that employers keep a careful record of all accidents, of which the factory inspector of the district must be immediately notified. Their registers must be at all times open to inspection. All accidents must be recorded which cause the loss of five hours' work, or of one of the three working days next succeeding the occurrence of the accident. Failure to comply with the registration provision is punishable by a fine of not more than ten pounds. Employers are obliged to afford inspectors every possible facility for the proper investigation of accidents. Two thousand certifying sur-

geons are appointed for the entire kingdom, whose duty it is to examine injured workmen as soon as possible after an accident and to report the results to the factory inspector within twenty-four hours. Penalties for failure to comply with preventive regulations are ten pounds or less, when such failure does not result in accident, and up to one hundred pounds when accident occurs.[1]

Effective as is this means of preventing accidents, the employer must in addition bear a civil or social liability for compensation, in order to enlist his greatest efforts in accord with reason in the prevention of accidents. Evasion of factory acts is often not a difficult matter on account of the laxity of inspection. The penalties prescribed for failure to comply may well be risked, if they are the only liabilities which the employer may incur. The personal and humane feeling which an employer always extends towards his men is a guarantee against the most serious abuses; but to insure the greatest degree of precaution it is necessary to add as well the financial interest which civil liability to the injured man or to compensation funds must arouse. Prevention of accidents, then, demands that employers of labor be partly, if not wholly, responsible for the compensation of injuries.

It may be urged that in a country of such wide area as the United States and of such varied industries a general system of compensation is not applicable. In the first place, a system that applies alike to all industries may be beneficial to one, and highly detrimental to another. The anthracite coal industry may have reached a point where the margin of profit is so great as to make possible the indemnification of all accidents without unduly infringing on the returns of any of the component factors in the production of coal; the extreme competition, which threatens at all times to play havoc with railroad companies, may be of such a nature as to make the application of a general system of compensation to railroad employes impracticable. Industries which are spread out over the entire country meet with certain conditions in some parts which are absent in

[1] See the excellent treatment of the subject of accident prevention in J. Caldor's "The Prevention of Factory Accidents," 1899.

others. Climatic conditions, or the grade of available employes may affect seriously the likelihood of accidents in different parts of the country, whereas the cost of living, which in every case determines the minimum wage received by labor, already tends to make industry in one part of the country unsuccessful in competition with the same industry in another part. The imposition of a heavier burden on the least favorably situated establishment might crush it out of existence.

A few words suffice to indicate how futile would be the effort to better conditions by the employment of local and decentralized schemes. Under a theoretically competitive system of industry such as maintains today in the United States the tendency is to compete on the lowest possible plane which will attract the several industrial factors. Below that level industry will not descend, because there it will have no supporters; above that level it cannot ascend on account of the dominant force of competition. That plane to which industry is forced by competition is the one wherein the lowest acceptable returns are made not only to the land-owner and the capitalist but to the employer and the laborer as well. Unless artificially raised, competition always continues on this base, and the endeavor of any individual to elevate the level results in disaster to him. Now, since compensation must inevitably, and in all cases, come from the source of all wealth in its various useful forms—the co-employment of the factors of production which is industry—the granting of compensation must either add to the cost of industry or be taken from the shares of individual factors. If the latter happens, that factor which is deprived of what it considers its lowest acceptable return will withdraw rather than continue with a less measure of gain than it deems just. The result is stagnation of industry. If the former happens in one establishment and not in another, that in which compensation is paid will be forced out of business by competition.

If it be conceded that compensation must and shall be paid, it is necessary that competition be on a higher plane, such as will include not only the shares in distribution of the factors of production, but this new claimant as well. An influence external to the economic theories which govern the distribution of

wealth is essential to the accomplishment of this process. Be this influence what it may, only through it is the granting of compensation possible. In respect to individual industries, indemnification must be through the operation of a general scheme for the entire industry, adopted either under the compulsion of outside authorities or by the mutual and voluntary agreement of its component establishments. A system which applies to a certain district, as perhaps to a single state, places at a competitive disadvantage the establishments in that district. It was the fear in England when the extension of the employers' liability was urged twenty-five years ago that the resulting burden on industry would accomplish a weakening of the British power in the competitive markets of the world; German employers feared that compulsory insurance would destroy their foreign trade. That neither of these largest industrial nations has met with the realization of its fears is sufficient proof, other things being equal, that such apprehensions as to international competition are ill-founded in the United States; that both realized the disastrous effect of imposing heavier burdens upon one competition than upon another is evidence of the necessity of adopting a general system of compensation where individuals of one nationality, and not different nations, are the competing factors.

One further consideration argues not alone for a system of compensation general as applicable to particular industries but also as to all industries. There exists today, and there probably always will exist, a class of labor which does not confine itself to steady and continuous employment. This casual class represents in a majority of instances the lowest type of unskilled labor, in as much as regularity tends to increase in the higher grades. The general movement of such casual labor is from establishment to establishment in a particular industry, though the low grade of work which it performs permits a movement ment from industry to industry. It is difficult to provide compensation for laborers who are not attached for any considerable time to a single establishment, since an employer feels less inclined to assist a stray workman who happens to be in his service at the time of an accident; but it is apparent that this class

is the one most in need of compensation. The centralized and local schemes of compensation are incapable of dealing with this problem in any effective manner especially such as in which relief is dependent upon contributions to the compensation fund. Trade union benefits are as a rule payable only after a certain period of membership in, and subscription to the funds of, the particular local union. In the relief schemes up to this time organized conjointly by employers and employes, or by employers alone, benefits are customarily given up upon the severance of employment.

As far as the individual employer is concerned, this is no more than just, for he can not be expected to guarantee compensation to a man who works for another. But from the standpoint of the man employed, who in a majority of cases is not vitally to blame for his inability to continue in a single employment, the lack of protection thus brought about is a hardship, in as much as it places a greater premium on the superior intelligence and worth of others. A man is no less deserving of compensation who toils now here now there than he who remains steadfast in one employment: both add their mite to the progress of industry. Until satisfactory proof to the contrary is at hand, it must be considered that both dispose of their labor to the best of their ability. But if the casual laborer does not work continuously he needs—and by the man himself is meant, too, the wife and children dependent upon him—so much more the protection and assistance which it is seen society owes him. Every man should be given credit for doing the best in his ability, but even though it be established that he does not make the most of his opportunities the spirit of the present age will not permit of his being ruthlessly discarded. And, too, this class of labor performs as a rule a class of work which a more intelligent and more capable class would be loathe to undertake. Organization of relief funds along the lines established by individual industries will best provide for casual labor. The workman who disposes of his labor in a single establishment deserves to look to that establishment for his compensation; similarly, he who toils alone in a single industry should receive his assistance from that industry, irrespective of the particular place or places in which

he is employed. But to provide for labor which has not spent all its time in single industries a corelation must exist between the compensation schemes of all industries.

It is at various times, and quite reasonably, pointed out that employers' liability laws and workmen's compensation acts operate a great hardship and injustice upon individual employers of smal capital and few servants. Whereas accidents are less apt to occur in small establishments, when they do come they place the employer in a position bordering on bankruptcy. Any jury may find the owner of a small machine shop employing the services of a half dozen men guilty of gross negligence for failure to replace an old emery wheel which has caused the death of an employe by suddenly breaking,and may hold him liable for thousands of dollars in damages. Such an occurrence would prove fatal to the small employer; payment of the judgment would wipe out his entire establishment. Many instances of this sort actually occur in this country, while in England the extension of the compensation laws to cover agricultural labor brought especial attention to the position of the small farmer thereunder. Insurance against liability is, of course, within the reach of this class of employers, but the small margin of profit with which they must always content themselves prevents most of them from accepting this protection, and, too, the insurance companies, while basing premiums on the amount of wages paid by the insured, refuse to accept a policy with a premium under a certain minimum. Thus the employer of a very small number of men has to pay as much for insurance as the one who employs several times as many, though the returns from his investment may be in no proportion to those of the larger employer. Not only does his personal liability in case of accident threaten to swamp the employer, but also the injured employe is never assured of obtaining compensation from him: his total resources may in extreme cases be insufficient to satisfy the demands made upon them. To cover such cases, a general scheme of compensation is alone applicable; small and large establishments must join hands in the mutual undertaking, with the purpose of mutual assistance.

But while it is seen to be necessary that the proper scheme of

compensation must be general as far as particular industries are concerned, it does not follow that it must be general for all industries. The application of the same system in all its details to all industries would not meet with complete success. In its general outline it may be the same for all industries, but in the matter of assessments and of benefits the varying nature of different industries requires the adoption of varying scales or schedules. The accidental loss of a leg does not impair materially the efficiency of a man trained to operate with his hands a sewing machine; the same loss to a railroad switchman necessarily excludes him from the further pursuance of his former employment. Thus it appears that a system of compensation which applies with equal and unvarying force to all industries does not meet the requirements of the case; it is, nevertheless, necessary that the adopted system be general for any and every industry. And this is made doubly sure by the fact that the remedy sought is for the entire body of workingmen and not for any particular number or group.

It is hardly necessary, in the light of the operation of employers' liability laws, to dwell at any length upon the two fundamental and basic principles of the contemplated scheme of compensation. Experience has shown that the only true method of dealing with the problem is by insurance, payable on the proof of the occurrence of accident. Both add to the certainty of indemnification and both are indispensable to the adequate and satisfactory solution of the difficulty. The application of scientific and systematic methods to any problem of complexity decreases the amount of wasted energy and adds to the certainty of results; and insurance is a true science. But the application of insurance principles has not been sufficient to render satisfaction in the cases where it has been tried, as long as any doubt existed as to the accidents for which compensation is payable. Insurance, then, for all injuries due to accident received in the course of employment, save alone those due to the gross and intentional negligence of the injured man, must be the basis of the only scheme of compensation applicable to needs in the United States.

ORGANIZATION.

Neither compulsory or voluntary state insurance is possible in the United States. The traditional abhorance of all that savors of compulsion is so deep-seated in the American mind as to effectually block any move in the former direction. As at present understood and interpreted the government of the Union has neither constitutional nor implied powers to interfere with the civil rights of the citizens of the several states. The government of the United States is a dual one, so great is the integration of its state and federal parts.[1] The authority of the federal government is delegated by the states of the Union, and is consequently clearly marked and seems great by enumeration. But the residuum of power that is left to the states takes on a greater air of importance after a moment's consideration. All the powers of the general government are such as affect interests which it would be impossible to regulate harmoniously by any scheme of separate state action, and only such: all other powers remain with the states. Their jurisdiction extends over the entire range of the civil and religious rights of their citizens, over all social and business relationships, and establishes the foundation of law and order. The individual states determine the power of masters over servants, and the entire law of principal and agent. In their hands lies the constitution of all corporations, private and municipal, such as do not especially fulfill the financial or other specific functions of the federal government.

In as much, then, as the problem of compensation is a social one, that affects as well the rights of all citizens, jurisdiction over its treatment is vested in the state governments. Only by the specific delegation of such particular authority to the federal government could it assume for itself the prerogative of attempting the organization of a remedy for the existing difficulty. Voluntary federal insurance is thus manifestly unfeasible. Though the several state authorities, however, might presume to attempt the solving of the problem by the inauguration of

[1] See Woodrow Wilson, "The State," pp. 468-474.

insurance schemes the difficulty of obtaining absolute uniformity in a matter which concerns the industry of the entire country would render such efforts ineffectual.

Whatever the organization of a proper scheme of insurance against accidents, it must in the first instance be independent of any active state interference. Direction might well be given such a scheme by the able advice based on the high intelligence of the Federal Bureau of Labor and the many state departments of labor and labor statistics. It would certainly appear that this problem offers an excellent field for the activities of these institutions, organized in the interests of the working classes and managed by eminent authorities on the subject of labor conditions and their betterment. The direct and indirect aid which the Bureau of Labor might lend the organization of a general scheme of insurance would prove invaluable. In the collection of accident statistics it should have the greatest facilities for obtaining the best results. Suggestions of practical value are the products of such an institution, and by turning the attention of its creation to such a matter the federal government has it in its power to exercise a positive benefit to the national prosperity, though without the constitutional power to undertake itself the solution of this problem.[1]

The extension of government privileges to compensation schemes, examples of which are found in Germany and Italy, suggests another method of indirect and constitutional assistance. The use of post-office facilities and franking, and the establishment of branch offices in local postal stations would effect a large saving to an insurance scheme, which would represent a small outlay on the part of the government. In various other ways the kindly and helpful attitude of the government towards a system of compensation might suggest and afford privileges of no small account to an institution largely public-spirited in its intent and purpose. It may be found that a form of guarantee based on the principles of subsidization might be obtaincd

[1] In the recent message to congress, President Roosevelt recommended strict employers' liability laws wherever the government has power and "that the congress appoint a commission to make a comprehensive study of employers' liability with the view of extending the provisions of a great and constitutional law to all employments within the scope of federal power."

from the government for an institution which has for its object a matter of such vital importance to national progress and prosperity.

Of the three types of voluntary organization possible, that which involves a maximum of interest and responsibility on the part of the employer is manifestly the most effective. Relief organizations in the United States supported alone by laborers have never proven adequate to the needs of that class which most requires assistance. Relief by a third party, and one disinterested in the actual process of industry, has numerous disadvantages, which are only too well displayed in the failure of the National Bank of Italy to accomplish the good expected of it. Compensation funds organized by the serious action of employers have advantages which neither of the other schemes possess. In the first place, be it granted that the cost of compensation should be considered a trade charge, it must be admitted that on the employer, and on the employer alone, rests in the first instance the duty of providing the means and source of indemnification. In the second place, prevention of accidents demands that employers have a personal interest in the creation of funds for compensation purposes.

Such is the nature of the problem of compensation that the voluntary participation of the lowest grades of labor in an established scheme, which involves any expense or action on their part, is not accomplished without great effort on the part of other interested persons. A suitable organization, then, must be of a sort which will compel the participation of these classes in its benefits. To accomplish this end, relief schemes inaugurated and managed by employes and those established by disinterested parties are found wanting. The employer is the only person possessing the ability to make certain compensation for every accident to every employe injured. On account of his peculiar relation to his employes he is in a position to know not only of the occurrence of an accident but as well of the numbers and personages of the injured. If it is insisted that every person meeting with accident in the course of his employment should receive compensation, it must be conceded that the employer should undertake the organization and administration of the requisite funds.

It has been seen that in all due justice and reasonableness the cost of compensation should be considered a trade charge and accordingly should be borne by employers. But this principle is subject to one modification important to note and to insist upon. Just as it is to the interest of the public that the employer feel a personal interest in the raising and administration of funds, even so is it desirable that the employe be made to contribute to them in order that he may exercise not only that caution which the fear of physical suffering excites but also the care which a financial interest involves. Employers urge that free compensation makes the average workman quite disregardful of the precautions necessary to insure safety from accident. It is the belief in England that the Workmen's Compensation Acts have led to an increase in the carelessness of employes, especially when they find that their total accident indemnification may exceed their regular wages. Though quicker and more agile in his actions than the German workman, the American laborer is careless to a degree possible only among a people who eagerly sacrifice every precaution to the saving of time. Employes will disregard the most obvious rules of safety, but are they any more risking of their lives than others who encounter dangers in their every move? One need but watch the throngs on a crowded metropolitan thoroughfare or the passengers alighting from or boarding moving street or steam railway cars to understand that trait in the American make-up, which seemingly causes the average citizen to look upon danger with the greatest scorn. It is an offense punishable by fine to step from or on a moving train in Germany, and every energy of the police and railroad authorities is exerted to enforce the law. But the American is always willing to "take a chance" even though no apparent advantage is gained thereby. This feeling bespeaks the ultra-optimistic spirit of our nationality which it is not wise to discourage. But at the same time a scheme which contemplates the indemnification of accidents due to this feeling can ill afford to encourage by any means, ever so little, the recklessness of the American workman.

The most logical form of organization is by and through associations of employers, acting together for the specific insurance

of workmen against accidents. German employers' associations are the best type of these institutions and may well be followed closely in this country. These associations are centralized to a great degree, but at the same time leave enough latitude to individual employers to maintain their positive interest. Not only are individual employers constrained to guard strictly against accidents in their own establishments but their mutual relations with respect to the insurance fund will be of such a nature as to force the weaker and more lax employers to live up to the regulations of the association. By assigning to each establishment an index-number, or co-efficient of risks, a constant effort will be made to reduce the number and severity of accidents in order that contributions to the fund may be diminished.

Representation in the employers' associations, must be accorded the insured employers, in recognition of their contributions to the insurance funds and of their natural interest in institutions which affect so materially their welfare. The effect of the direct intercourse between employers and employes in such a venture as this would without doubt be reflected throughout their entire relations with one another. A better understanding, each of each, would eliminate to a great extent the feelings of distrust so often expressed under present arrangements. The ability of employers and employes to meet thus for the consideration of mutual interests is already well-proven. The annual conference between employers and employes in the bituminous coal fields of Illinois, Indiana, Ohio and Pennsylvania is the battle ground wherein are fought out the questions of wages, hours and conditions of labor, and upon the decisions of the conference the entire industry rests. Each side learned respect for the other, and the petty and often recurring grievances so common in other trades have well-nigh disappeared. It it quite impossible to predict the outcome of such a mutual insurance scheme as is here contemplated, but it is safe to assume that it would accomplish wonders in the industrial progress of the nation.

IMPORTANT DETAILS.

Under the various insurance schemes already in operation the qualifying period has been set at different places. Many minor accidents occur, which while disagreeable and interfering to some extent with a man's employment are not of a sufficiently severe nature to cause any great loss. It has already been noted that many establishments employ the services of competent surgeons, who render prompt assistance in case of these minor accidents. Many employers, in addition, instruct their men in giving first aid to the injured, and thus the serious tendencies of the small cuts and bruises are greatly averted. It would be quite an impossibility for an insurance organization to take cognizance of these minor injuries, and it is for this reason that a qualifying period is established. Under the German system thirteen weeks must intervene between the occurrence of the accident and the taking over of the injured man into the care of the accident association. During the interval, however, the man is assisted by the sick relief associations, to whose funds he is a contributor.

The qualifying period under the British Workmen's Compensation Acts is two weeks, and various efforts have been made to reduce it. The argument in favor of such reduction is that employers are as little able to tide over a short period of disability as a longer one. The period established by Friendly Societies and Trade Unions of three or four days, or another arbitrary one of a week, is suggested. The objection is raised, and not alone by employers, that even the two weeks' period leads to some degree of malingering on the part of injured men, who often stop work with a slight injury and lay off for the two weeks in order to get a rest on the insurance pension. A shorter period would, of course, increase this tendency. Another suggestion is that the qualifying period remain untouched, but that compensation be paid for the two weeks, after they have passed. In answer to circular letters regarding the additional cost of insurance if the qualifying period were abolished, if it were reduced to one week and if it were left untouched, and compensation were dated back to the injury, insurance companies gave

the following replies: in the first case, premiums would be increased from 25% to 50%; in the second, from 25% to nearly 50%, and in the third from 30% to 40%. In the light of the evidence introduced the departmental committee of investigation refused to recommend any change.[1] In such a matter as this, English experience is the best guide for American efforts.

The matter of the ratio of contributions to insurance funds is one which can be determined only after a close and rigid examination into the amounts of compensation, the cost of administration and the financial status of the employes in the particular industry. No abstract principle can be evolved stating that a certain ratio will engage the interests of employers and employes to the maximum degree demanded by the situation. It would seem that the employes' contributions should bear a definite relation to the amount of compensation actually paid, rather than to the total of funds collected. In as much as they possess the superior business ability employers should assume the entire cost of administration as the best preventive of administrative excesses and abuses. Germany is, of course, the best source of information on this point; a careful analysis of her sick, accident and old-age relief associations would give a good basis for the beginning in this country.

One of the greatest arguments urged against a change in the compensation system in this country is the high awards often made by juries in individual cases, $1,500 for a single finger; $7,500 for burned hands; $15,000 for total incapacity: such verdicts would seem to indicate the ability of injured men to obtain indemnification adequate in amount to their greatest needs. But these are only a few—a very small percentage—of the total number of cases for the remainder of which compensation is small or nothing. And, too, most of the large verdicts are obtained only after long and protracted as well as costly, litigation, which cuts down sometimes as much as 75% the amount finally received by the plaintiff. Quite often, too, settlements are made after the verdict is announced on a much

[1] Report of the Departmental Committee appointed to inquire into the law relating to Compensation for Injuries to Workmen, Vol. I, pp. 72-76. London, 1904.

smaller basis. Reference to the table of damage suits, the amounts claimed and the amounts awarded in and by the courts of Cook county, Illinois, is indicative of the tendency current among lawyers to set their claims high on the hope of obtaining a greater verdict as a result of their large demands. From April 21, 1093, to January 1, 1904, claims aggregating $3,636,000 were made against the city of Chicago in personal damage suits. Judgments were entered to the amount of $192,348, averaging thus $68.51 per case, or 5.29% of the claims. When it is considered that most of these cases are in the hands of attorneys who expect a fee of at least 50%, it is apparent that the balance remaining to the plaintiff is less than 2.5% of his original claim.

A basis of comparison of awards under different systems with those in the United States is not to be found. Averages are of no avail unless derived from a sufficiently large number of similar data in each case. In the various estimates of average awards made to injured employes in the United States only a small number of the injuries actually occurring are generally recorded. Insurance company figures are difficult to obtain, becuse to the casual observer their small amounts have a repelling effect. The average payment per case of death and disability made by the Baltimore & Ohio Relief Department for the fiscal year 1902 was $20.30; for the period 1880–1902, $21.98. The average amounts of certificates issued for the payment of benefits by the Philadelphia & Reading Relief Department during the year ending November 30, 1902, were: for death from accidental and natural causes, respectively, $531.54 and $510.57; for accidents and sickness, respectively, $18.32 and $20.11. In comparison with the scale of benefits payable these amounts seem very small, but they include all cases, those of one extreme as well as those of the other. A similar estimate is that of the German accident insurance associations, which disbursed in the first ten years of their existence an average of $32.25 per case coming under their jurisdiction. On account of the relatively low wages of working people in Germany, this would equal, perhaps, twice that amount when transferred to the American standard of wages.

In all the cases so far cited the maximum death benefits are reasonable. The railway relief departments pay to the amount of $5,000 in extreme cases. The maximum death benefit under the German system is $1,328. But the maximum awards under the present employers' liability laws are much in excess of those obtainable under any other system. What, then, should be the basis of equitable compensation? The judgments claimed in a number of cases under the personal injury law are cut, by jury, court, and attorney on the average of 94%. In a fairly typical review of 281 serious personal injury cases the average amount actually received by the injured parties approximated $342.00. Of 209 cases of death among the employes of the Philadelphia & Reading Railroad the average payment was $520. Is it not evident, then, that the large damages liable to award under the law of employers' liability are not determined by their value to the plaintiffs but by the difficulty of obtaining the full amount asked for? It represents in another phase the rottenness of the system.

Certainty and reliability demand that the payment of indemnification be on a definite basis of definite awards for definite injuries. In no other way can satisfaction be secured. A system which promises "adequate" compensation for all injuries will be enrapt many times over in the multitude of disputes engendered by dissatisfied workmen. Such has been the acknowledged effect, and certainly the gravest defect, of the Workmen's Compensation Acts of England. Though the use of the courts has been somewhat limited, and confined to questions involving the interpretation of the acts, arbitration has assumed immense proportions. While not involving the great expense of litigation, arbitration becomes a source of annoyance and of financial drain whenever the terms on which settlements are effected are not sufficiently explicit to be understood by everybody, and in advance. The certainty created by a system of definite awards justifies their establishment on the smallest basis of reasonable relief. In extreme cases, the injured person may not receive the fullest indemnification in accord with his needs and the nature of the accident, but on the average, when all injuries are considered, the results will be far

more satisfactory. The certainty of compensation is worth a great deal to the working population, which amount it is no more than proper to allow those who guarantee the certainty to deduct from the awards. Benefits should be based on the earnings of the injured man immediately preceding his accident and on the degree of disability occasioned. The German system becomes again in the establishment of compensation schedules a model for American effort to pattern after.

It is impossible to imagine, nor is it to be desired, a system so perfect in its every detail as not to give rise to questions of debatable properties. Differences of opinion as to the merits of individual cases are bound to arise, and the system established must take cognizance of this act in its organization and arrange the suitable means of settling disputes. This much is certain: the entire question must be taken from the hands of the courts and the legal profession and given over to authorized bodies existing for this specific purpose. The problem is large enough to warrant specialization in its interests. Arbitration boards, and boards of appeal, which will lean no more to the one side than to the other are the effective means of affording settlement in cases of dispute. These may be maintained as district organizations, being supported conjointly by the associations of different industries, and at the lowest expense compatible with the high grade of intelligence and integrity which must characterize them.

Although designed to do away with the evils of compensation under the law of employers' liability, this scheme in no wise restrict workmen from recourse to civil process, if they so desire. Contracting out of the benefits of protective legislation is held in England and the United States as contrary to public policy, and as will subsequently be seen it is the expression of public opinion in statutory enactments which alone can bring about the inauguration of this scheme. However much it is to be desired for other reasons that labor learn to look to such a scheme, and to it alone, for assistance when incapacitated for work, it is not just to force him to decide before injury to which of two sources of relief he shall apply. But justice to the employer demands that the amount of his payments to the injured

man through the medium of the insurance fund be deducted from such civil award as may be made. As long as the state prescribes the means of indemnification it is the province of no one else to declare arbitrarily that these means shall not be employed. It must be the hope, however, that the scheme under contemplation will on the whole offer better advantages than recourse to law.

ECONOMY.

The system of compensation contemplated in these pages is analogous in many respects to the German system, the differences which are found being due to the different social, economic, and political conditions of this country. It now becomes necessary to consider the efficiency of such a system and if possible to determine the relative efficiency of that system and the one referred to in these pages as the system of employers' liability. By efficiency is meant the relations which the total of compensation paid bears to the total expense of compensation.

In an investigation of the relative efficiency of the German accident insurance system and the American employers' liability system it is impossible to attain to any great degree of accuracy. As far as the former is concerned, complete and accurate statistics of operation are easily obtained; the system is so centralized and so scientifically managed that results are obtainable to their minutest details. Such is not the case, however, with the system employed in this country; it is only in the most general sort of a way that the various figures can be obtained to throw light on the situation. Dangerous as such comparison becomes, then, it is believed possible to arrive at some general conclusions in regard to the relative efficiency of the two schemes.

For the purposes of this investigation the figures of the German Accident Insurance[1] for the year 1902 are taken, and of Employers' liability insurance and industrial insurance in the United States,[2] for the year 1903.

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[1] Guide to the Workmen's Insurance of the German Empire, Revised Edition brought up to date for the Universal Exposition at St. Louis, 1904.

[2] Insurance Year Book, 1904. Pub. by The Spectator Co., N. Y.

Country.	Total receipts.	Compensation Paid.		Administration.		Surplus or Profits.	
		Aggregate.	Per cent. of receipts.	Aggregate.	Per cent. of receipts.	Aggregate.	Per cent. of receipts.
	I.	II.	III.	IV.	V.	VI.	VII.
United States	$111,535,223	$33,015,828	29.5	.....	58.1	.....	12.4
Liability insurance	13,571,733	5,607,637	.....	.....	.....	.....	.....
Industrial insurance	98,063,490	27,408,191	....	.....	.....	.....	.....
Germany	35,348,525	27,033,275	76.4	$4,165,950	11.2	$4,149,300	12.4
Germany to United States—percentage	31.6 per ct.	78.5	.....	.....	.....	.....	.....

The amounts in the first two columns above represent for the United States the total premiums paid and the total losses paid; for Germany the total contributions to the insurance funds and the disbursements for compensation. The fourth column represents for both countries the aggregate devoted to administration expenses; no figures are obtainable for this item in the United States. The sixth column represents for the United States the amounts of premiums withheld for the creation of surplus funds and distributed among stockholders in the form of profits; for Germany, the amount set over to the credit of surplus funds, which aggregated in 1902, $49,798,575. The percentages in V and VII for the United States are calculated by equating that in VII to the German percentage in the same column. It is believed that this figure, for liability insurance at least, is no more than 7 or 8, but for purposes of comparison that adopted is small enough.

The efficiency of the two systems is displayed in column III: that of the American system being 29.5, and of the German 76.4. Comparison of these two figures reveals the fact that the latter is 2.55 as efficient as the former; that is to say, given equal amounts of premiums, the latter will return in the shape of compensation $2.55 where the former will return $1.00. Looking now at the ratio of German returns to American, it is seen that the German people accomplish 78.5% of the accident insurance that the American people do at a cost to the insurers of 31.6%. The wage-earning population in the two

countries is approximately 14 and 20 millions, or the German is 70% as large as the American. On the basis of equal population the German nation expended for the insurance of her working people against accident 46c to the dollar expended for the same purpose in the United States; but to the single dollar received by working people here, $1.12 was received there.

So much for the efficiency of the two systems; what becomes in either case of the balance of receipts over and above expenditures for compensation. In Germany the surplus funds aggregated by the insurance associations have been turned to almost every conceivable form of advantage to the laboring population generally. Model tenements have been constructed and free dispensaries and hospitals have been opened to the public. In this country an equal amount has gone into the pockets of people scattered variously over the country, and has been turned to none of the useful purposes which characterize the German surplus funds. But the greatest disparity in the two systems is seen in column V. The difference in the cost of operation and administration between the two systems is 46.9%: nearly 60 cents of every dollar paid for insurance in the United States is devoted to the operation of the insurance company, which amount in Germany is paid to the persons insured. And what does this mean? The first and minor inference is that higher salaries are paid officials. The second, and important consideration is that a small army of solicitors and collectors are required to do the work performed gratuitously and with practically no effort by German employers—what expense is thus made them is counteracted by the better relations which exist between them and their employes. A considerable portion of this 60 cents further represents a direct economic waste, since it goes to support a class of men performing no economic function, properly speaking.

This investigation has not attempted to consider the various other means of compensation employed under both systems. It is safe to assume, however, that the efficiency of union, mutual aid, permanent relief funds, and the like, is the same in both countries. What has here been shown is that the one system far surpasses the other in its significant features. It has not

been considered that the German system applies to practically all trades and pursuits, including agriculture and forestry, and to small as well as large establishments; the greater part of the liability insurance of this country is carried by large establishments, and industrial insurance has not extended over the less dangerous pursuits. As one court is balanced off against another the conclusion becomes only more evident that the greatest economy and efficiency in compensating labor for industrial accidents is found in institutions organized and administered by employers, providing insurance at cost, and putting the same in the hands of all employes.

CHAPTER VI.

THE METHOD OF REFORM.

In the last chapter it was attempted to denote the principal lines to which should be bent the efforts to reform the present systm of compensating labor for the losses which it sustains as a result of industrial accidents. A scheme has been advocated, which, though extremely visionary in so far as is concerned its immediate adoption, if taken up in the proper spirit by society in all its branches will tend to alleviate the needful suffiering of the laboring population as well as the unnecessary pain and privation, which have developed with the growth of industrial civilization. Though not defended absolutely on the ground of practicability, it is nevertheless urged that ideas embodied in this scheme are essential to the eradication of a great and crying evil and only by careful consideration of them can it be hoped to accomplish the needed reforms. In many respects out of accord with the traditions, customs and habits of the American mind, they constitute nevertheless a definite goal, which if reached will demonstrate its fitness to have been the cause of any efforts that may be expended. It is difficult to conceive of any other arrangement that will accomplish the results desired and soon to be demanded, if the opinion of students of the subject is to be given credence. And surely human activity is more effectively expended with a definite end in view, be that end ever so far distant.

It is one thing to sense an evil; it is a totally different thing to eliminate that evil even when the agents are at hand. This problem in particular is one that does not permit of easy or rapid treatment. The financial interests of the well-to-do and the wealthy seem too closely allied with its solution to permit them to undertake the steps necessary to obtain justice for the poorer and less able classes. The independence felt by labor in

its relations to capital is a bar to the workman's conversion to the belief that he not only needs but deserves the assistance of his employer. It is not the laboring man today who feels the injustice of the operation of employers' liability laws; though he may realize it, the employer is not ready to admit the evils which a limited civil liability to his injured employes keeps ever alive; the general and consuming public are too busy to notice the straits into which workingmen are so often cast as a result of the progress of civilization, or if they do perceive it in individual cases seldom realize the full extent of the loss occasioned thereby. The importance of the problem of compensation for industrial accidents has as yet been felt scarcely at all beyond the circle of those who make it their business, or pleasure, to interest themselves in the bettering of the conditions which seem to demand attention. The European mind has already taken the matter firmly in hand and is today in a position to offer positive advice of a helpful nature to those who are dissatisfied with conditions in the United States. The German trial of the new belief has stood the test of twenty years' successful operation; England is finishing her sixth year of compulsory compensation for *all* accidents. But while this movement has been going on abroad, the United States has stood practicall still. The same evil exists in this country that brought forth the reforms abroad; in these pages has been considered a manner of dealing with the problem which must sooner or later be faced, tentatively, if not absolutely, satisfactory to the needs of the case; it now remains to set forth the method of reform which alone seems capable of accomplishing the desired ends.

European nations have enjoyed a great advantage over the United States in their efforts along the lines of economic and social betterment. Abroad, the sphere of the state is wide enough to include the initiative in the matter of social legislation; here, active state interference in such matters is out of the question. The difference in the methods to be employed in accomplishing anything such as herein proposed in this country and in Europe is greater than at first sight may be supposed. Theoretically, legislation under a limited form of

monarchy voices the wishes of the people; but it may go beyond what the people demand. The rank and file of German citizens were in no wise prepared to sustain unqualifiedly the proposition laid before their representatives by the emporer in 1883, but the persuasion of those to whom the authority had been entrusted proved an easier task than would have been the persuasion of those who conferred the authority. And the expression of opinion, after the persuasion was complete, was final.

It is not proposed to use the state as a means of obtaining reform in this country. The only remedy available, aside from the action of the people's representatives, is the action of the people themselves. The strength of public opinion must be appealed to if positive results are to be obtained within a reasonable length of time. It can scarcely avoid being inevitable that if sufficient time be given employers they will come to an active realization of the futility, as regards their own interests, of longer insisting on what is manifestly barbarous and inhuman. But it is not right to leave the matter in their hands, if by so doing a continued wrong is allowed to work itself on society. Upon those who feel the necessity of reform, falls the duty of endeavoring to accomplish it. They must seek the remedy. But the legislative halls are not their fields of operation: the only weapon that offers for prompt action its sharp and resistless blade is public opinion. The voice of the people must be made to call for a betterment of conditions; employers, in their endeavor to retain the good graces of the consuming public, will be obliged to conform to the wishes expressed.

The course of public opinion, however, is slow and subject to fits and starts. Its attention is too easily diverted from the channels into which it is directed, and before its course is regained the progress previously made is often lost, unless held rigidly by a fostering and alert hand. That which legislation brings about is accomplished once for all; the passage into law of an act of legislation is a finality, which requires an equally definite act to accomplish its repeal. The difficulty encountered by public opinion in its efforts to move any reform may be likened to the trouble experienced by the man who is attempting by means of a hand derrick, so constructed as not to be braked

effectually, to lift a heavy stone. Until his strength begins to fail him he is able to keep up a steady revolution of the crank and the stone slowly but steadily rises. But gradually he tires, the ascent of the stone becomes irregular, and finally he is obliged to set the brake in order that while he rests he may not lose all that he has gained. But the brake is defective and gradually the stone slips back to its initial position on the ground. Though he perceive this tendency, the attention of the man is directed to regaining his strength and he is powerless to stop it. Soon, however, he is refreshed and for a time is able to make progress as in the first place. But when he again tires and rests the stone gradually recedes from the position which it has gained. At length, after many trials and the expenditure of considerably more effort than the distance he desired to elevate the stone seemed to necessitate, he accomplishes his object. From a position on the ground the stone has been raised twenty feet in the air. But if he desire it to remain there he must place beneath it a permanent support lest otherwise it gradually slip back again.

The analogy, if not already so, is soon apparent. The stone, which is to be moved, is not only belief in compensation for all accidents but also the institution of a proper scheme for insuring that compensation. The distance which it is to be moved is from a position where the belief is entertained by the few who have made its propositions a matter of study to that where it is eagerly accepted as an all-important truth, and where the institution of an effective relief scheme is an accomplished fact. The man who seeks to elevate the stone is public opinion, and his declining strength is as the force of the people's sentiments toward one matter when its attention is being detracted toward others. The derrick is the natural tendency of producers to cater to the wishes of consumers, and as the intensity of public opinion increases or decreases so the derrick performs its mechanical purpose of creating the proper adjustment between cause and effect. Lastly, the defective brake may be likened to the tendency on the part of all men who are being artificially supported against their will to fall back into their old habits as soon as the tension is relieved; it represents the efforts of many

men to avoid the expenditure of all that which they feel will create a loss when gone.

In order to complete the analogy it is necessary to consider the operator of the derrick not only as one ignorant of the mechanical means of completing the efficiency of his machine, but also as one unable to obtain the knowledge or assistance necessary to fully brake the derrick. It must be considered, even, that the defect is to be remedied neither by himself nor by any human power. For the trait in the character of mankind to which is likened the defective brake is so inborn and deep-rooted as to make worse than futile the attempts of any who would dislodge it.

It has been granted that after some time the man accomplished his purpose and had the stone in the position wherein he started to place it. In the analogous case this supposition could hardly be made, for the desire of man to conform to the dormant behests of public opinion is extremely difficult to figure on as a positive quantity. In nine cases out of ten the return to the original position would be more rapid by far than the steady advance which had ceased; and if the question of compensation from the standpoint of employers in the United States be judged from that of European, and particularly English, employers, it is safe to say that it involves all the accumulated difficulties of the nine that oppose the one. If his machinery were as defective as that of its analogy, the operator must have had at hand a ready and strong prop with which to sustain at every stop the suspended stone, and it is more than probable that he had an assistant who placed the support before he relaxed his energies.

But the difficulties that presented themselves to the tiring operator were small as compared with those which confront the economists and sociologists, who as the heart and soul of public opinion seek to avoid the loss of what temporary advance they may have made. He has many objects with which to construct a prop; they have but one. He has at hand loose and otherwise worthless material, perhaps, in the shape of old lumber, bricks, stones, scantlings, etc.; they have only the extremely unwieldy tool which legislation offers. In as much as law represents the combined will of the people by whom it is enacted, even so the

expression of popular will is ground for the creation of new laws. But the need or the demand for legislation is not always closely followed by legislation. The paths of law-making are dark and winding and need persistence to be followed successfully. Hence the difficulty of increasing step by step the civil liability of employers, as they themselves, bowing to public opinion, recognize the justice of such increased liability and release their efforts against any amendments of existing laws, is extremely great. Arduous, however, as the method is, it is the only manner in which can be accomplished in the United States the needed reforms.

The ultimate result of thes uccessful operation of the method of reform suggested in the analogy is easy to see. When public opinion is once aroused and starts on its fitful task of obtaining justice, each successive increment added to its support by the acts of legislatures gives a new and fresh foundation on which to work. For legislation then, as now, is the basis on which the problem rests. Gradually, as public opinion advances, legislation will outgrow its former bounds and will soon reach a position previously untenable in the popular mind. The extreme to which, in this case, such a movement would tend is naturally compulsory federal insurance, in as much as that form of compensation includes those advantageous qualifications which justice in the matter of indemnification demands. Public opinion would then accord the federal government greater authority than is now the case.

Socialistic, and socialistic in the extreme, this doctrine may appear, but what is in a name? Is it less socialistic than many of the advances that the state has made in the last century in the matter of interfering with private and corporate rights? The *laissez faire* doctrine of the eighteenth century would as little have countenanced government interference in the handling of mail and would have branded such a proceeding as Socialistic, had the name at that time been in use. It has grown to be too much of an habitual occurrence in this day and age to brand everything that savors of progress as Socialistic; the bubble will break sometime and those who call themselves conservatives will be obliged to seek new pretexts for impeding

social reform. It is not the purpose of this work to advocate the principles of Socialism; the writer is too firm a believer in the ability of the American people to work out each and every encountered problem peacefully, rationally, and without an overthrow of the existing order of things. But he believes, as well, that there is ever present in the lives of all men in every place and at all times a force which impels them unwittingly to change, and keep ever changing, their views on matters which confront them. This world was not accomplished in a day, nor will it be changed in a year. Our present civilization is a result of a constant building-up process, that bases itself in each succeeding era on the experience of the past; that has been in progress since the human mind was first evolved, and that will continue to exist until man has departed this sphere. Evolution is one of the greatest agents of civilization that has been discovered. Deny the claims of evolution, and man is placed on the level of the beast that lives his day and passes off leaving no heritage to posterity in the shape of mental, moral and social development. On the experience of the past man builds for the future and therein lies the salvation finally of humanity. The process is slow and gradual, but with the broadening of experience man's attitude changes, and it is often easier to under estimate than to over estimate the end.

Before passing on to a further consideration of methods it is interesting to note one more illustration of the analogy above drawn. Let it be supposed that the operator had it in his power to concentrate the entire energy at his disposal for this task, as well as the efficiency which the machine was to lend his efforts, and that in one single, instantaneous move he lifted the stone to the desired position. In such a case his effort would be like the single act of legislation, which in a single measure encompasses the most extreme ideas of its enactors and without delay creates the desired remedy. The impossibility of such an occurrence in the one case as in the other is proof of the futility of endeavoring by any means but by the education of public opinion to obtain definite and conclusive reform in the manner of compensating workmen for industrial accidents.

The question of methods now resolves itself to the effective

manner of arousing public opinion. It is needless to say that until the public becomes fully conscious of the presence of this evil it can not be expected to commence its extermination. Several lines of action present themselves as well calculated to bring the matter in all its details before the public eye. The extension of factory and work-shop legislation in the directions already taken will tend to give great prominence to the ever present danger of industrial accidents, and can be made to present some idea of the loss and suffering occasioned thereby. The several states should consider this one of their best fields of activity for the accomplishment of a needed and lasting benefit to the people.

As the matter stands today, the actual knowledge, among those who are interested in social betterment, of the real conditions and circumstances of industrial accidents in the United States is disgracefully meager. This fact has been dwelt upon at some length in an early part of this work, but an example taken from before our very eyes is not amiss at this point. In its biennial report, of which this paper is a part, the Wisconsin Bureau of Labor Statistics publishes statistics of accidents in the state for the year ending July 1, 1904, and embracing 140,800 workmen. The investigation of this bureau shows that of the entire number of workmen 18 were fatally, 43 permanently, and 1,156 temporarily injured as a result of industrial accidents. This bureau is the one institution in the State of Wisconsin best able to conduct such an investigation as this, and the only one upon which any authority in the undertaking might be bestowed. But under existing conditions, of what value are the results which it presents to the state? They are hardly worth the paper on which they are printed from the standpoint of their ability to convey a comprehensive impression of the actual human loss to the state occasioned by industrial accidents. Simultaneously with the printing of this report a meeting of the legislature is being held, before which several measures of reform in the law of employers' liability are presented. The question is not to be avoided; can the representatives of the people of this state take intelligent action on a matter of such importance as this without a greater knowledge of the facts and conditions which their

decision is to affect? Energy directed to obtaining comprehensive legislation today is misdirected, and can be effective only by a miracle.

The State of Wisconsin, and every state in the union, should empower, and insist upon the carrying out of its purpose, its bureau of labor and statistics to collect all reasonable data relating to accidents within the state. The police power of every state is surely large enough to compel employers to keep accurate and full accounts of the circumstances connected with accidents in their establishments. These accounts should record the nature of the accident, number and names of the injured, extent of their injuries, conjugal state and number of dependents of the injured, length of time incapacitated for work and the total of wages lost as a result of the injuries. These accounts should be kept open to the bureau of statistics and should be sent to the secretary of the bureau upon request. It is necessary, though, for the protection of individual employers from blackmail and from the effects of public opinion that these reports be considered confidential and that they be given to the public only in the aggregate for all establishments. Such a compilation, thoroughly and systematically made, would reveal to all interested the true nature of the case and would afford a scientific and intelligent basis for comprehensive legislative action. Such a compilation, showing the causes of accidents, might well serve to guide preventive legislation along the lines of greatest need and utility. Less today than ever before are prudent men inclined to venture blindly into new fields; little hope can be entertained for reform in this matter until the facts are established.

It would not be well to bring this work to a close without a word as to the attitude taken by the workingmen towards relief of any sort that emanates from his employer in whole or in part. There is undoubtedly a deep-seated aversion on the part of laboring men to avail themselves of benefits of this nature. Their attitude is that if employers find themselves financially able to expend any extra sums in the interests of their men they should do so through the regular channels of higher wages and shorter hours. This feeling is often entertained with regard to the dis-

tribution of gifts at various times of the year. The Christmas turkey presented by the employer is not eaten with the same gusto and savor of cheer that accompanies the bird purchased with the regular wages. The independence of the American people may be responsible for this feeling; but there seems to be a deeper significance to its general acceptance.

It is not long since the doctrine of the wage fund, as an economic truth, was permanently exploded. It is no longer considered that there is in a community at a certain time a fixed amount of wealth to be distributed in the shape of wages, and that the specific portions which individuals are to receive vary in accordance with the increase or decrease in the number of the wage earners. In the trained and more intelligent mind the fallacy of this doctrine is apparent. But is it not possible that a remnant of this belief still continues in the thought of the toiling masses to misguide them in their attitude toward their employers? The evident aversion of labor to accepting gratuities from employers would seem to indicate that it has not yet grasped the truth of the fact that the prosperity of nations is reflected fully as much in their consumption of commodities as in their production, and that the welfare of the laboring population is not dependent upon a single fund which is devoted to its maintenance. Labor and capital must both come to a realization that compensation for industrial accidents is an item distinctly apart from wages; that society feels its debt not because labor may be underpaid but because it is, through no fault of its own, overtaken by adverse circumstances which are beyond its means to regulate.

This work has attempted to deal with a difficult and complex problem, and claims consideration not on its statistical but on its suggestive merits. The problem of compensation for industrial accidents is daily assuming greater importance in the public mind. The reviews herein attempted of experience under various systems and the suggestions as to the manner and end of reform in this country are in no wise comprehensive, but it is hoped that they will prove of value in starting and directing intelligent thought on the subjects which they cover. Employers' liability in its present form is doomed: the American

people will not much longer submit to the abuses which characterize it. But before attempting reform of any kind it is helpful to learn of the experience of others in the same field. Germany and England are the sources from which to draw inspiration for action here and use of their experience should not be sparingly made. The United States has been confronted from its birth with problems of momentous perplexity and it can not be said that they have not all been squarely faced and solved with rare ability and on just grounds. It is but a question of time when the problem of compensation for industrial accidents will have received an equally thorough and satisfactory treatment, and the prosperity and happiness of the nation will have received an added stimulus.

SEVENTH BIENNIAL REPORT

OF THE

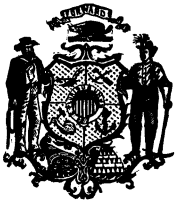
State Board of Control

OF

Wisconsin Reformatory, Charitable and Penal Institutions

FOR THE

Biennial Period Ending June 30, 1904.



MADISON:
DEMOCRAT PRINTING COMPANY, STATE PRINTER,
1904

MEMBERS AND OFFICERS OF THE BOARD.

ALLAN D. CONOVER, MADISON.
Term expires April 15, 1905.

HERMAN GROTOPHORST, BARABOO.
Term expires April 15, 1906.

GUSTAV KÜSTERMANN, GREEN BAY.
Term expires April 15, 1907.

HARVEY CLARK, MONROE.
Term expires April 15, 1908.

LESTER B. DRESSER, SAINT CROIX FALLS.
Term expires April 15, 1909.

PRESIDENT,
HERMAN GROTOPHORST.

VICE-PRESIDENT,
GUSTAV KÜSTERMANN.

SECRETARY,
M. J. TAPPINS, MADISON.

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REPORT

OF THE

STATE BOARD OF CONTROL.

To His Excellency, GOVERNOR ROBERT M. LA FOLLETTE:

The State Board of Control herewith submits its biennial report, as follows:

It gives the Board pleasure to be able to say at the outset that all the state institutions under its care are in excellent condition. The superintendents and their assistants, the stewards, matrons, doctors and all other employes are competent and willing people who have had, and still have, the welfare of the institution for which they work at heart; and, by reason of their intelligence, industry and fidelity, said institutions are now in a better, or at least in as good condition as they ever have been during their existence.

The motto of this state, "Forward," has ever been the motto of this board in the management of the institutions under its care. We never consider an institution complete or finished. It has been the object of the Board to keep abreast with the progress of the times. All state institutions should be generously supplied with all necessary improvements. Each institution should be supplied with the best methods of heating, lighting and ventilating and should have modern sewer and water plants. The farm, garden and grounds in connection with it should be the best of their kind. Each state institution should be a model in equipment and management. The

reason for this is twofold. First, because the unfortunate classes who are obliged to make it their home are entitled to receive the best treatment that the state can furnish. And second, the dignity of the great state of Wisconsin requires that its state institutions should be model ones, so that every tax payer can point to them with just pride. An institution that is not kept constantly in repair soon becomes dilapidated and out of date, and in the near future large sums of money will be needed to bring it to the proper state of repair and efficiency.

At the present time, nearly all repairs and many improvements are made out of the current expense fund. Necessarily, therefore, when no special appropriation is made and where the current expense fund is too small to warrant the making of repairs and improvements, an institution soon runs down. This was notably the case several years ago at the Industrial School for Boys at Waukesha, the Wisconsin School for the Deaf at Delavan, and the State Hospital for the Insane at Mendota. It now is, and ever has been, the object of this board to keep the institutions under its control in good repair and to make all needed improvements consistent with the funds at its disposal. In a later part of this report, we expect to show in detail, not only what repairs and improvements have been made at the various institutions during the last two years, but also to call especial attention to additional improvements which ought to be made in the near future. The legislature in the past has, in the main, shown good judgment in making liberal appropriations for the equipment and maintenance of these institutions. Yet it has not always been easy to convince the legislature or legislative committees as to what are proper needs of these institutions. Not only our citizens, as a rule, but even too many of our legislators are not familiar enough with the real conditions of our state institutions and with their needs and requirements. When we consider the enormous investment in these institutions and the cost of running them; when we remember the large number of people

who are kept and maintained therein, and the large number of their relatives interested in them, it would seem proper that not only every legislator, but every tax payer should have some personal knowledge of their general conditions.

It is safe to say that the state has invested in these institutions the gross sum of $3,750,000, and it costs annually $750,000 to maintain and run them. As the law is now, it is your duty to appoint a small committee consisting of two assemblymen and one senator to inspect the state institutions and make a report thereon. We think that this committee should be greatly increased and that such legislators should be appointed on this committee as serve on the finance and claim committees. Even then the condition of the institutions could not be fully understood, because to describe the conditions of all of them in detail would make a report so lengthy that it would undoubtedly not be read by a majority of the members of the legislature. It would seem, therefore, advisable that some method should be adopted whereby a large number, if not all, of the legislators could personally inspect all, or at least part, of them in order to become more competent to vote upon proposed legislation concerning them.

Many of the present buildings were built years ago. The plumbing, lighting, sewage, heating and power plants then installed are still in existence. Necessarily these plants are out of date, insufficient and expensive to operate. Sooner or later these old plants will have to be replaced with more modern and economic ones. It is true we can recommend the necessary changes, but it is for the legislature to make the necessary appropriation in order to enable such changes to be made. It is not the desire of this board to make any radical changes, and we shall only recommend such changes as we think it absolutely necessary to make in order to preserve the health and welfare of the inmates and as will be good economy. Former boards have made many recommendations and asked for appropriations to make certain changes, which recommen-

dations, however, have been entirely disregarded by the legislatures to the detriment of the inmates of the institutions and of the state itself. We shall speak of only two illustrations where former boards have recommended changes and the legislature has refused to appropriate the necessary money to enable the board to make such changes. We use these two illustrations because they concern an institution that can be easily visited at practically no expense by every legislator. The institution to which we have reference is the Wisconsin State Hospital for the Insane at Mendota. The first illustration is with reference to the present sewage system. The State Hospital has a population of about six hundred people, and all the sewage is deposited in front of the hospital in Lake Mendota, thus polluting the water and making it offensive and unwholesome. This has been a nuisance, not only to the people living along the shore of the lake, but it has been very detrimental to the health, comfort and welfare of the inmates of the hospital. By reason of the sewage being deposited in the lake, a typhoid fever epidemic has started and is still in existence at that institution. About forty-two people have, so far, been stricken with this disease, and five persons have died, either directly or indirectly, of the fever. At the Hospital, lake water is used for washing, sprinkling, bathing and boiler purposes, while the drinking water is furnished by an artesian well. It was found, however, that as long as any lake water was used for any purpose, it was almost impossible to prevent patients from drinking it. A bacteriological examination shows that the lake water is contaminated by typhoid fever germs and that these germs extend a considerable distance into the lake. So long as the sewage is emptied into the lake, there will remain the danger of contracting typhoid fever from the use of lake water, even though the institution itself may be supplied by artesian well water. The existence of sewage in the lake not only unfits the water for use, but it unfits the lake for boating and bathing purposes. It must also

be remembered that all the ice which supplies the institution must be taken from this lake. If the water is unfit for drinking purposes, the ice will be unfit also. The need of the removal of this danger and of the removal of the nuisance which the sewage creates in front of the Hospital certainly warrants, not only that this board ask for an appropriation to construct the necessary sewage plant, but also that the legislature should willingly and unhesitatingly make the necessary appropriation. A plant of this kind can be installed at the Hospital at a cost of not to exceed $5,000; and the existence of the typhoid fever caused by the present system of sewerage is sufficient argument to induce the legislature to grant at once the necessary appropriation.

The other illustration referred to is the gas plant at the State Hospital. The use of gas for any purpose in an institution for the insane is always dangerous. Should an insane inmate turn on the gas, the result can be easily imagined. Furthermore, the use of gas kills all plants and flowers which might be kept in the various rooms and wards for the pleasure and gratification of the inmates. Now lanterns have to be used by the nightwatches and some of the attendants, and necessarily matches have to be used to light lamps and gas jets; all of which is most dangerous in a hospital where insane persons are kept. But another strong objection to a gas plant is that it is very expensive. It takes five hundred tons of gas coal at $4.15 a ton to make the necessary gas for one year, besides other material. It takes two men to run the plant, and, taking into consideration the repairs, renewals, etc., it is safe to say that it costs over four thousand dollars annually to light the Hospital with gas—thus showing that this method of lighting is not only dangerous, but very expensive and otherwise objectionable. This board has heretofore recommended, and again recommends, the installation of an electric light plant in place of the gas plant. An electric light plant would not only be less dangerous, but also much cheaper

to operate. There is sufficient steam power available at the present time to furnish all the necessary power to operate the electric light plant. The engineer could attend to the duties of operating it, and the annual cost of operating the plant would surely be considerably less than one-half of the present expense.

We have referred at length to these two instances, showing that if any recommendations are made by this board, they are made upon good grounds. It will not be practicable for us to argue as fully in favor of every improvement that is recommended, because it would take too much space but all recommendations made herein are based upon as good grounds as those referred to.

Experience has shown that it is of the greatest benefit to most of our state institutions to have large farms in connection with them. More land is needed at the State Hospital for the Insane at Mendota, the Northern Hospital for the Insane at Winnebago, the Industrial School for Boys at Waukesha, the State Prison at Waupun, and the School for the Deaf at Delavan. In most of these institutions there are many inmates who can do but little except work on the farm. To perform labor on the farm is not only helpful to the inmates of the hospitals, but is also beneficial to prisoners and the boys at the Reformatory and Industrial School. These farms can be worked almost entirely by labor furnished by inmates, and thus a large amount of the necessary supplies for the use of these institutions can be raised with but little expense. Furthermore, each state institution ought to have sufficient land for pasture, not only to feed the cows during the summer months, but to furnish the necessary grass, hay and corn fodder during the winter months. In other words, there ought to be enough land to feed a sufficient number of cows to furnish all the milk needed. The benefits derived from large farms in connection with institutions of this character are

well illustrated by our county asylums. By careful study of the financial condition of our county asylums, it is found that those asylums that have large and good farms in connection with their institutions are self-supporting; while those that have small and poor farms are not.

Not only should the farms run in connection with the state institutions be model ones, but the persons in charge of such farms should co-operate with the agricultural department of the University; and the methods found to be practicable by the experience of the agricultural department should be adopted in running such farms. We think there is room for improvement in the management of our farms, and it will be the special effort of this board to bring these farms up to the highest state of efficiency practicable.

We desire to call special attention to the changes that had to be made at the State Prison at Waupun. For twenty-five years the M. D. Wells Company had the contract for the employment of three hundred prisoners at 50 cents per day, such prisoners being employed in the manufacture of shoes. Since the price of labor, as a rule, has increased in most of the departments where labor is employed, it was thought by the Board that a better contract for prison labor could be secured. Accordingly, the Board advertised for bids for the employment of three hundred or more prisoners, and, through such advertisement, was enabled to enter into a contract with the Paramount Knitting Company for the employment of three hundred or more prisoners at a minimum price of 65 cents per day for each. The Paramount Knitting Company manufactures knit goods, especially stockings. These stockings are not only manufactured at the Prison, but they are also dyed and the necessary boxes in which to ship and market these goods are manufactured there. For this purpose many expensive changes were required. An entirely new set of machinery had to be installed, all such machinery, of course, being installed by the

Paramount Knitting Company. The Board is much pleased to be able to report that this change was made (largely due to the efficiency of the warden) without the loss of any time whatever. That is to say, the change from a shoe factory to a knitting factory was made and completed in such a way that as soon as the M. D. Wells Company stopped paying at the rate of 50 cents per day, the Paramount Knitting Company commenced paying at the rate of 65 cents per day.

By reason of this new contract, and through the special efforts of the Prison authorities, the income of the Prison has been largely increased. To illustrate, the income of the Prison for the month of June, 1903, was $4,137.51, while the income during the month of June, 1904, was $6,204.29, showing an increase of earnings of fifty per cent and but slight increase of population. The highest earning capacity has not yet been reached, because the full skill of the men has not yet been developed.

It gives us further pleasure to state that the discipline at the Prison is excellent. The prisoners are better contented, the general state of health is good, few complaints are made, and there are very few violations of the Prison rules. It now is, and always has been, the object of the Board to see that the prisoners are fed on good and wholesome food. This will not only secure better discipline, but will keep up the health of the prisoners and enable them to perform their tasks more easily. The state was able to secure such a favorable contract largely for the reason that the discipline of the Prison is so excellent and all other conditions are favorable for the employment of prisoners. We know of no contract in existence in any other state prison as favorable as the contract above referred to. Another very satisfactory feature of the new contract is that each prisoner, if he is diligent, can earn some money by his labor, and, in a measure, share with the state the profits of his work. This matter will be more explicitly referred to hereafter.

General Report.

The Board had known for some time that the power plant at the Prison was an old, defective and expensive one. It became necessary and proper, therefore, that a new power plant should be constructed. An appropriation having been made for that purpose, the Board at once proceeded to build the new power house. Before it was half completed, the old boilers began to give out, and in a very short time three of the four gave out entirely and it became absolutely necessary for the Board to at once procure three new boilers in their place. Since the prisoners earn at the rate of $235.00 per day, delay in procuring the necessary boilers had to be avoided. Fortunately, a new boiler which had been ordered for the Hospital at Mendota, while in transit to that institution could be procured, and was at once sent to the Prison to temporarily take the place of the defective boilers. In order to construct a modern plant, an expert was employed by the Board. Upon his recommendations, suggestions and advice, the power plant was finally completed, and we now have at the Prison an up-to-date, economical plant; in fact, it has shown itself to be much less expensive than the old plant, since the necessary power is now produced with much less fuel. The water used for boiler purposes at the Prison contains large quantities of salts of lime and magnesia in solution, thus unfitting it for use for boiler purposes. It was found advisable to purchase a heater and purifier, by means of which the water is purified for use. The installation of this heater and purifier has also proven a great success.

By reason of the unforseen giving out of the boilers and by reason of the necessary changes in installing the new plant, a large outlay of money was required.

The capacity of the State Prison is five hundred and seventy-five prisoners, while there are now in that institution six hundred and twenty-two prisoners—thus showing that there are over fifty prisoners in the institution for whom there is no cell room. These extra prisoners are compelled to sleep in

corridors and dormitories. That this is unsafe and improper need not be argued. It is safe to say that in less than one year from date there will be one hundred prisoners more than we have room for. It will be incumbent upon the legislature, therefore, to take the necessary steps to furnish additional cell room for the increase in the Prison population. To build a cell wing to the present building to accommodate the prisoners who are now without room, and also for the probable increase in the near future, will cost, at least $150,000.

Since the Wisconsin State Reformatory is one of the newer institutions of the state, and perhaps less is known concerning it than any of the other state institutions, we desire to speak of it more in detail. There are now at the Reformatory at Green Bay 222 prisoners. The young men who are sent to this institution are employed at various occupations, such as farming, making brick, mason work, carpenter work, tailoring, shoe making, blacksmithing, broom making, and the making of jackets and overalls. The principal business, however, is the manufacture of jackets and overalls. About one hundred and twenty prisoners are employed at this work, on machines furnished by the state, on the piece price system. The boys employed at this work earn about 85 cents a day for the state. Under this system, as under the system adopted at the State Prison hereinbefore referred to, each prisoner has a task to perform. That is, he must make so many jackets or overalls a day. If he does more than his task, he gets pay for his overwork. It is the same with the prisoners at Waupun working under the contract system. Each prisoner who performs more than his task gets pay for his overwork. Nearly every prisoner thus employed is earning money, many earning as high as $5 or $10 per month. The benefits of this system must be apparent because it creates an interest in the work which the prisoners would not otherwise have; it teaches them industry and at the same time they learn a trade. The money they

earn is placed to their credit, and when they are released, the money they have thus earned and which is turned over to them, and is of great assistance in starting a new life. It may be stated that the money thus earned by the prisoners at the Reformatory is not turned over to them at the time they leave the institution and that for the following reason: The parole system is in vogue at the Reformatory. Prisoners are sent there for an indeterminate time; that is, say from one to five years. After a prisoner has served his minimum term, and if his conduct warrants it, he is fit for parole. The superintendent finds a place for him, and he is allowed to go on his parole and work for the person with whom the superintendent has made a contract. The person for whom the prisoner is working becomes responsible for his good behavior and has to report at stated times. Only as much money is paid to him while on parole as is necessary for his maintenance. The money which he has earned while in the Reformatory, or which he earns while working during the time he is on parole (excepting a sufficient amount to keep him) is retained by the superintendent and is paid to him when his full term has expired. We find that this system works satisfactorily. The prisoner, as long as he has money coming from the Reformatory, is not likely to violate his parols, for if he should do so, he would forfeit the money which stands to his credit. Another very important feature of this parole system is that every prisoner who leaves the institution obtains some respectable place where he can work and make a living. This is not the case in the State Prison. There a prisoner, after he has served his time, leaves the Prison, often without money and in the middle of winter. Not having any place to go, not having any employment, it is more than likely that in a very short time he will commit another offense and will be sent back to the Prison. It would seem advisable that some system or plan should be evolved whereby every prisoner who leaves the Prison should be supplied with a place, for a limited time at least, where he could find proper employment immediately upon his release.

General Report.

There are now forty young men out on parole from the Reformatory. It is very important that good places should be found for these paroled prisoners, and that they should be kept track of while out on parole. In order that this system may be further developed and made more effective, the Board has created the office of a field agent for the Reformatory, the duties of this agent to be similar to the duties of the field agent for the Industrial School for Boys; viz., to find places for prisoners who are entitled to be paroled and to visit and encourage them while on parole.

In order to diversify the industry at the Reformatory, a brick making plant has been installed, and about twenty-five prisoners are employed in brick making. This industry is working admirably; and since the Board is contemplating the building of a new power house, machine shop, engine house, and coal shed upon the Reformatory grounds near the main building, not only can the brick thus manufactured be used, but they can also be laid by the prisoners in constructing these new buildings. In fact, it is the object of the Board to have as much of this work done by the prisoners as possible, thus giving them an opportunity to learn a valuable trade and at the same time erect and construct valuable buildings for the state at but little cost.

When we consider the conditions existing at the Prison and at the Reformatory on the one hand and those at the Milwaukee House of Correction on the other, we cannot resist the expression that we sincerely hope that in the near future the management of the House of Correction may be placed under state control.

General Report.

The population of the various state institutions with two exceptions, shows the following changes during the last two years:

	POPULATION.	
	1902.	1904.
State Hospital for the Insane, Mendota	418	443
Northern Hospital for the Insane, Winnebago	614	625
School for the Deaf, Delavan	200	183
School for the Blind, Janesville	109	95
Industrial School for Boys, Waukesha	325	327
State Prison, Waupun	582	620
State Public School, Sparta	140	146
Home for Feeble Minded, Chippewa Falls	473	618
State Reformatory, Green Bay	159	222
Total	3,020	3,279

From the above table, it will be seen that the number of wards under our control is nearly three hundred more than it was two years ago. If the same increase of population had occurred in any city, it would require the building of at least one hundred and twenty-five homes. The state must expect to take care of this increase in population, and must expect to pay for the housing of all additional wards. Experience has shown that it costs from $750 to $1,000 to provide the necessary room for each additional person who becomes a ward of the state. Especially is additional room required at the Home for the Feeble Minded. In order to complete the original plan, four more dormitories ought to be built. There are now about three hundred applications on file, each one praying for admission to this home for some feeble minded person. Many of these feeble minded persons are burdens to their families, while some are kept at the expense of the county, in county asylums. Since the new administration building, dining room and kitchen have been completed, there is ample room for three hundred more patients, provided the necessary

dormitories are constructed. These four dormitories could be built at a cost of about $150,000. The object of having a home for the feeble minded is twofold. First, to furnish a proper place to keep custodial or low class feeble minded persons who cannot be properly cared for in their homes; and second, to furnish a home for the better or higher class of feeble minded persons where they can be kept, thus preventing them from bringing into the world children who would necessarily be feeble minded. It is of the greatest importance to the state that the increase of feeble minded people be prevented. The Board has lately taken steps to transfer from other state institutions all persons who are feeble minded. Sitting as a commission in lunacy, this board has found that there were 6 children at the State Public School at Sparta, 10 boys at the Industrial School for Boys, and 5 girls at the Industrial School for Girls who were feeble minded, and has ordered these children transferred to the Home for the Feeble Minded.

Milwaukee is the only city in the state that maintains its own institutions, such as the House of Correction, the Industrial School for Girls, Home for Dependent Children, and its own hospitals for the insane, etc. Why Milwaukee should have the right and authority to maintain its own institutions of this character is not at all plain to us. It may be admitted without argument that persons can be found in Milwaukee who will manage these institutions, but it may be said with equal force that the residents of Oshkosh could find among its citizens people who could satisfactorily manage the Northern Hospital for the Insane; or, that the good citizens of Green Bay could find among their number persons who could manage the State Reformatory; or, that the citizens of Chippewa Falls could manage the affairs of the Home for the Feeble Minded. That system which is most advantageous to the state and most satisfactory to the unfortunate people who have to live in these institutions should be adopted. If the proper system is that these institutions should be under the

control of the State beyond any question the institutions now existing in Milwaukee, and similar to those under the control of the Board, should be classified with other state institutions and should be controlled in the same manner. The advantages of having all the institutions of this character under one board must be apparent. This board makes it its business to frequently inspect its institutions. Nearly every week each institution is visited by one or more of the members of the Board. Much experience is gained by such constant visitations, and the slightest mismanagement or defect is easily discovered and a remedy found. The Board purchases upon competitive bids practically everything that is needed by way of equipment or for the subsistence of the institutions, thus being able to purchase everything that is needed at even less than wholesale prices.

This board has at present but little power over the institutions which it is obliged to visit and which are controlled by the county of Milwaukee. From the reports made by this board to your excellency, it must be plain that at least one institution now maintained and controlled by that county has been mismanaged. We have reference to the House of Correction. Not only has Milwaukee sustained severe loss by reason of the unprofitable contract under which the convicts in the House of Correction were employed, but for a considerable period of time many of the convicts had not performed any labor at all. The whole institution had come to be in a dilapidated condition. The cells were unsanitary and unclean. Many cells were occupied by two prisoners when such cells were intended for one prisoner only. On one occasion when our board visited this institution, the prisoners begged for an opportunity to perform labor of some kind, and begged to be taken out of the dark and unsanitary cells. It would seem that if these public institutions, now managed by the county of Milwaukee, were placed in the same class as other state institutions under the management of the State all parties concerned would be greatly benefited.

General Report.

The county system of taking care of the chronic insane adopted by the state, continues to be a success. In fact, other states, learning the advantages of this system, are adopting it. This board has authorized, since its last report, the erection of an asylum for Marinette County. This asylum will most likely be completed some time next year. Waukesha County has completed its asylum and has now a population of one hundred inmates. This board will continue to authorize the building of these institutions as the needs require. Judging from past experience, we have a right to conclude that a new county asylum will be required every two years. There are now thirty-one county asylums, all of which are built according to one general design.

Owing to the increasing numbers, both in our county asylums and state hospitals, of the violent, criminal and epileptic insane, we feel the necessity of urging that some legislation be immediately enacted for the erection of a building providing for the care and safe keeping of these particular classes, and we desire to renew the recommendation made, and repeat here what was said on this subject in our previous report.

"In each of the hospitals and county asylums are inmates who are violent, or dangerous to themselves or others, and who are an annoyance—frequently a terror—to the other more quiet and peaceable inmates. The former ought to be isolated from the latter class. This cannot be effectually done in the existing institutions. Moreover there are always in the state hospitals—usually in the Northern—several convicts who have been adjudged insane and committed from the State Prison. Convicts sometimes successfully feign insanity in order to get to the hospital with a view of escaping therefrom. The hospitals have no sufficient appliances to prevent escapes of this class, and further provision should be made therefor.

"It is believed that the above object can be effectually and the most economically attained by the erection of a building for those classes on the grounds of one of the state hospitals, such

building to be connected with the heating, lighting, water and sewerage systems of the hospital, but to be located at a sufficient distance from the other hospital buildings to prevent its inmates from mingling with or disturbing those in such other buildings. Such proposed building to constitute a component part of the hospital, and its inmates to be governed and cared for by the Superintendent and officers of the Hospital."

The erection of such proposed structure would cost $100,000.

In addition to making visitations to the state institutions and quarterly inspections of the county asylums, the Board has endeavored to inspect all the county jails and as many of the police stations and lock-ups as possible. The Board is compelled to report that it has not examined every police station in the state during the last year, nor does it seem practicable so to do. Many of the police stations are miles from any railroad station and can only be visited by a loss of time and at considerable expense, and many of them have not been used for years and their real condition is, therefore, of very little importance. It may be stated, however, that the condition of a considerable number of our county jails and lock-ups is not satisfactory. The plumbing is poor and defective, the beds and bedding are unclean and insufficient, and the cells are dirty and unsanitary. The earnest effort of this board has been to remedy these defects. About a year ago, the Board issued a circular letter addressed to the sheriffs and keepers of police stations, in which letter attention was called to the existing defects; attention was called to the law, which directs how jails and police stations should be kept; necessary improvements were recommended. With many, however, these earnest solicitations and recommendations have availed nothing. We will give one instance as an illustration, showing the reason why the law and the recommendations of the Board are not complied with.

Take, for instance, the police station at the city of Watertown. In this police station there are four cells placed in a part of the engine room of the fire department. In each cell are two boards, one above the other, upon which the prisoners are supposed to sleep. This would afford sleeping room for eight prisoners. There are no beds and there is no bedding of any kind or description. The cell rooms are dark, poorly ventilated, poorly heated, and the plumbing is defective. The records of the police court show that frequently as many as sixteen prisoners are kept in these cells over night, and they are obliged to sleep upon the boards referred to, upon the floors of the cells and upon the floors of the corridors. The authorities of the city of Watertown have been frequently solicited to correct this condition of affairs, but the efforts of the Board have been met with arguments like these: That the persons who are placed in this lock-up are tramps; that they are kept for one night only; that these tramps are filthy and often covered with vermin; that it would be impossible to keep the beds or bedding clean and in proper condition for use; that it would not be right for these tramps to be furnished with comforts, for if comforts were furnished them, it would induce them to frequent Watertown.

There, undoubtedly, is some force and truth in this argument of the Watertown authorities, and it would seem that tramps, prisoners and persons accused of crime should not be compelled to occupy the same prison or police station. The power of the Board to enforce its recommendations with reference to jails and lock-ups is inadequate.

We shall now refer to each state institution separately, calling attention to the improvements made during the last two years, and also to the improvements or changes which ought to be made in the near future.

General Report.

STATE HOSPITAL FOR THE INSANE:

Dr. Bullard, who was superintendent of this institution for over three years, lately resigned and Dr. Charles Gorst of Baraboo was appointed to fill the vacancy. No other change in the personnel of the officers has been made during the last two years, excepting that a new book-keeper was employed.

During the month of May last, the typhoid fever broke out, causing forty-two persons to become sick and the death of five inmates. It ought to be stated, however, that at least two of the persons who died were not only mentally but physically very weak when they contracted the fever, and the fever only hastened their death. The cause of this epidemic was the use of water from Lake Mendota. The Hospital is supplied with water for drinking and cooking purposes from an artesian well, and the water for all other purposes is supplied from Lake Mendota. It appears that many of the inmates and some of the employes used the lake water for drinking purposes. This fact was not known to any member of the Board until after the tyhpoid fever epidemic had broken out. As soon as the Board learned of the existence of this epidemic, vigorous measures were employed, not only to cure those who were sick, but also to prevent further spread of the fever. Upon examination, it was found that the lake water was contaminated and contained typhoid fever bacilli.

At the present time, all the sewage from this institution is deposited in Lake Mendota directly in front of the main building and not far distant from where the in-take pipe is located which furnishes the water for the institution, as hereinbefore stated. The theory of Dr. Russell, who made an examination of the premises and the water is, that a patient as early as April had a slight attack of typhoid and as the dejecta of the patient were deposited in the lake undisinfected, it caused the water to become polluted. As soon as the Board found that the lake water was the cause of the epidemic, all connections of water pipes between the Hospital and the lake were cut, and an order

was given to use artesian well water only. As a result of this action, the epidemic has been checked, and we are now able to report that no new cases have developed for over two weeks and all the fever patients are convalescing. The water from the artesian well, although excellent for cooking purposes, is too hard for the use of the boiler, laundry and bathing purposes. By bringing all lake water before it is used to a boiling point, all organisms (including the typhoid bacilli) will be destroyed and the water will become fit for use. The Board is now considering the advisability of procuring the necessary appliances to boil all the necessary lake water and then again use the same for boiler, bathing, laundry, sprinkling and barn purposes.

The new boiler, purchased over a year ago, which was used temporarily at the Prison, as hereinbefore detailed, is now being installed.

The last legislature made an appropriation of $37,000 for the purpose of building a congregate dining room, bath rooms and infirmary. By reason of the increased price in building material and the uncertain condition of labor, the Board was unable to build this proposed building for the amount appropriated, although an effort was made nearly two years ago. Plans and specifications for the proposed building have, however, been prepared and bids have again been advertised for; and it is our sincere hope that we may be able to construct this much needed building for the amount appropriated.

There are now thirteen rooms in the Hospital used for dining room purposes. As soon as the new congregate dining room is completed, these thirteen rooms can be vacated and can then be used for dormitories, thus furnishing additional room for patients. There is much need of room for the increased number of patients.

Attention has already been called to the fact that a new sewerage system should be constructed and a duplicate electric

lighting plant installed. The cost of this entire improvement would be about $25,000.

NORTHERN HOSPITAL FOR THE INSANE.

This institution continues to be ably managed by Dr. Gordon.

The water for this institution, other than that for drinking and cooking purposes, is derived from Lake Winnebago. This water is very dirty and full of weeds, making it unfit for laundry and bathing purposes. The legislature appropriated money for the purpose of constructing a filter system to purify the lake water. The filter system has been installled at a cost of $15,000.00, and the result obtained is entirely satisfactory. Duplicate pumps have also been purchased at a cost of $695.00.

The coal shed has been extended so that we can now house at least 2,500 tons of coal. It is the object of the Board here, as in all other state institutions, to build ample room for the storage of coal, so that enough can be stored in the fall to supply the respective institutions during the winter months. Since strikes are so common and railroad shipments so uncertain, it has been found advisable to keep an ample supply of coal on hand.

Here, as in many of the other institutions, there is lack of room. There ought to be additional room for at least one hundred patients. This additional room can be supplied in part by a change of the system which now prevails in housing the attendants. At the present time, all the attendants live and sleep in the institution. There are now thirty-six male and forty female attendants. If these attendants roomed outside of the institution, the rooms now occupied by them could be used by the patients for dormitory purposes. In all modern institutions of this character, the attendants live outside of the hospital. By living in a separate building, the attendants would have more comforts and better rest than they can possibly obtain by living in the institution. Not only would

this method of having the attendants live outside of the institution be better for the attendants but it would also be beneficial to the patients. A building for this purpose, including the necessary furnishings and equipments, would probably cost $35,000. The erection of a building for one hundred patients would surely be much more expensive.

WISCONSIN SCHOOL FOR THE DEAF.

Mr. and Mrs. E. W. Walker, the superintendent and matron of this institution, have done good work since they took charge. The vigorous efforts of the superintendent to place this school for the deaf in the front rank of institutions of this class have been very successful. During the last two years many improvements have been made, notably as follows:

The printing office has been re-floored and fully equipped, including a Whitlock press and an electric motor to operate the same, at a cost of $1,300.

An addition to the engine room has been built, and a second electric light unit installed, at a cost of $2,800.

The walls of the school rooms have been re-decorated, at a cost of $800.

A new school room has been made out of an old unused play room, at a cost of $200.

Many smaller improvements and repairs have been made, such as the building of side walks, re-shingling of roofs, etc., at a cost of about $500.

Improvements now under construction are the repairing and refurnishing of the kitchen and bakery. This will necessitate the laying of new tile floors and the tiling of a portion of the wainscoting, and the purchase of an entirely new kitchen outfit, all of which will cost about $1,500.

The barn used in connection with this school was built about forty years ago, and but few, if any, repairs have been made since. It is entirely inadequate and wholly out of keeping with the rest of the institution. A new barn is much needed

and would cost about $2,500. Besides the necessary horses, cows are kept. The number of cows ought to be at least twenty-four, in order to supply the necessary milk. There is not sufficient land to pasture the cows, nor is there sufficient land for garden purposes. There ought to be purchased at least twenty acres of land to fill the required needs.

More room must be provided for school and dormitory purposes. Not only are dormitories overcrowded, but many deaf children who applied for admission had to be refused for lack of room.

An appropriation of at least $30,000 should be made for this purpose.

WISCONSIN SCHOOL FOR THE BLIND.

This school is under the superintendency of O. R. Showalter. The institution is large enough, not only for all present needs, but will be ample for some years to come.

During the last two years, the following improvements have been made:

Cow shed and pig pen	$580
Wagon shed	120
Bath tubs, etc.	100
New pumps	110
Duplicate electric light plant	1,636
New toilet rooms	890
New refrigerator	370
Re-arranging dormitories	225
Installing manual training department	200
Fire escapes	182
New engine to operate fan for ventilation	155
World's Fair exhibit	137
Total	$4,705

General Report.

The following improvements are necessary, some of which are now being made:

Green house and root cellar	$800
Ice house	1,200
Toilet rooms and fixtures	500
Improvements in kitchen	100
Paint and painting	600
New roofs	100
Coal shed	2,000
Total	$5,300

INDUSTRIAL SCHOOL FOR BOYS.

Mr. and Mrs. A. J. Hutton, the superintendent and matron of this institution, have made many changes and improvements since they took charge of the School, and marked improvement is apparent since that time. It is their earnest effort to make this institution what the name implies, an industrial school for boys.

A new hospital has been built at a cost of $4,725.00. A great deal of painting and repairing has been done.

All the hot water, steam and other pipes leading from the power plant to the ten cottages, administration building and dining room were originally laid in wooden boxes, which have since become decayed, allowing the pipes to become exposed to water and soil, thus causing a great waste of heat. It is the object of the Board to build tunnels for all the pipes and properly protect them with pipe covering. A contract has just been let to boild a portion of the tunnel at a cost of $2,800. An additional sum of $10,000 will be required to complete the tunnel work and plant.

General Report.

The following improvements should be made within the next two years:

Cottage for fifty	$25,000
Green House	500
Side Walks	1,000
Cow Barn	1,000
Creamery	1,000
Gymnasium	1,000
Printing Press and Outfit	500

On account of the increased population of this institution, about twenty more cows are needed. These cows can be purchased at a cost of about $800. It is also desirable that at least eighty acres of additional land be purchased for the use of this institution.

According to Section 4961, Revised Statutes of the State of Wisconsin, only boys between the ages of ten and eighteen can be committed to this school. This section should be changed so as to include boys between the ages of eight and sixteen years. Furthermore, the power to commit boys to this institution should be restricted to courts of record.

WISCONSIN STATE PRISON.

Attention has already been called to some of the improvements made at the State Prison. Other improvements which have been made during the last two years, are as follows:

A new congregate dining room has been constructed and the kitchen remodeled at a cost of $4,200.00 A new boiler house has been constructed at a cost of $3,386.39; a new smoke stack built at a cost of $2,482.97; three new boilers and grates have been purchased for $6,313.16; one boiler has been rebuilt which cost $415; the shops, from one to fourteen, inclusive, have been remodelled at a cost of $4,099.96; a new barn has been built for $593.55; new library books purchased at a cost of $477.30; steam pipes have been covered at a cost of $368; water filter and heater installed at a cost of $2,900; the

engine room has been rebuilt, roofs repaired, etc., at a cost of $700; miscellaneous repairs and improvements amounting to $3,969.73.

The following improvements are recommended: A new cell wing for two hundred and fifty prisoners, costing approximately $150,000; a new cold storage plant, $5,000; changing and remodeling the administration building, $10,000; the drilling of a new well and the purchase of the necessary pump at $3,000. The present water supply is insufficient. The necessary additional supply is furnished by the city of Waupun at a cost of $100 per month. It would seem that we could drill a sufficient well and procure the necessary pumps and thus furnish the necessary water at less cost than it can now be obtained from the city supply.

There ought to be purchased at least one hundred acres of land to supply work for a certain class of prisoners whose work is unproductive in any other employment. By the purchase of this additional amount of land, the necessary vegetables for the subsistence of the prisoners could be raised and the necessary pasture for cows could be obtained.

STATE PUBLIC SCHOOL.

For a number of years, this school has been, and still is, satisfactorily managed by Mr. and Mrs. M. T. Park. In this school there are now 146 dependent children. This is, however, only a small portion of the total number the state really looks after. As soon as a child is committed to the State School, it is placed in one of the cottages forming a part of the school. Here the child is under the supervision of a competent matron. The child is obliged to go to school regularly and is taught, not only the necessary branches of school work, but is also instructed in the domestic arts. As soon as the habits and disposition of the child are found satisfactory, a home is found for it. Two agents employed by the state perform the duty of looking up homes and placing children

therein. Each home is visited and examined by one of these agents before a child is sent there. Only suitable persons are allowed to take children. After a child is thus indentured, the person taking it is required to send it to school, to properly clothe and feed it, and to report regularly every month to the superintendent of the State Public School. The state agents are expected to visit each and every home wherein a child is thus kept at least two or three times annually, and oftener if necessary. If the child does not receive proper care and treatment, it is taken back to the school. There are now about twelve hundred such children in good homes still under the jurisdiction of the institution.

No better method of taking care of dependent children has been adopted anywhere so far as we can learn. It need not be argued that the state is the proper authority to take care of and provide for all dependent children. Societies have been formed for the purpose of doing the work that the state ought to do. That many good homes have been found for dependent children by these societies, we do not deny, but we insist that the state has better facilities to take care of these children before and after a home is found for them, that the state uses more care in selecting proper homes, and that the children are better looked after when homes have been secured than is being done by any private person or association. If it is justifiable at all that this work of looking after the wards of the state should be intrusted to any private individual or association, such individual or association should be licensed by the state to do this work and the methods employed by them in conducting the work should be closely scrutinized by competent state authority.

Since our last report, an addition to the baby cottage has been built at a cost of $1,004; a barn has been erected at a cost of $2,210.65; new cement walks have been built, costing $1,465.29. We are now contemplating a change in the heating system of the hospital. This hospital is now heated by

a furnace in the building. We think it advisable to extend the heating plant from the central plant to this cottage. This change will cost approximately $700.

This institution ought to be supplied with a green house at a cost of $600, and additional walks need to be built in the near future, at a cost of about $800; also, a new coal shed, at a cost of $2,500. The old coal shed was recently burned.

WISCONSIN HOME FOR THE FEEBLE MINDED.

No institution under our control is better managed than this one under the superintendency of Dr. A. W. Wilmarth. This being, also, one of the new institutions, necessarily many additions ought to be made, and will have to be made in the future. During the last two years, a new school house, administration building and dining room and two dormitories have been completed. These buildings have been equipped and furnished. The total cost of this improvement is $175,000. An addition to the barn was built at a cost of $1,708.50. A coal shed has been built, holding two thousand tons, costing $1,517.41; three new hen houses, $285; complete new telephone system, $488.75; a new mangle, $1,000; a new smoke stack, boiler connection, etc., $2,699.85; connection to heater, $107.72; new oil separator, $99; addition to pig house, $264.22; 7109 square feet cement floors, $618.40; 3757 square feet cement walk, $409. We are now building an addition to the green house and room for the gardener, cost of which will be about $750. Among the improvments referred to may be classified the clearing of fifty-six acres of land by the inmates of the institution, which increases the value at least $25 per acre.

Originally, all the hot water, steam and other pipes leading from the power plant to the various cottages, school house, administration and other buildings were laid in wooden boxes. These boxes have become decayed and the pipes have become exposed, causing a great waste of heat. It is found advis-

able to construct a tunnel for all these pipes. It takes about five thousand feet of tunnel, and it was thought advisable to purchase a stone crusher, at a cost of $586, a cement mixer, at a cost of $295 and a gasoline engine at a cost of $600. There being plenty of rock upon the farm of the Home, this rock can be secured by the aid of the inmates and hauled to the place where the tunnel is to be built, where it can be crushed and mixed with cement in a cement mixer; and thus all the material necessary to construct this tunnel can be furnished at small expense. About eight hundred feet of the tunnel have already been constructed, much of the work being done by the inmates.

On the recommendation of Dr. Wilmarth, the Board has authorized the construction of sun porches for the use of paralyzed and helpless children. There are four of these porches now being built.

Much more room is needed at this institution. When we consider that the number of feeble minded persons is nearly as great as the number of insane people, we will realize the fact that the state of Wisconsin has not provided for the feeble minded as liberally as it has provided for the insane. Provision to take care of the insane is supplied by the two state hospitals and thirty-one county asylums, while there is only one institution for the Feeble Minded, which provides accommodation for six hundred and sixty inmates.

There is no hospital or infirmary at the Home for the Feeble Minded. There is great need for such a hospital. There is certainly as much need for such a building at the Home for the Feeble Minded as there is at the State Prison, Reformatory on Industrial School for Boys, all of which institutions have been furnished with sufficient money to build the needed hospitals. Such a building would cost in the neighborhood of $20,000.

WISCONSIN STATE REFORMATORY.

This institution is ably managed by Supt. C. W. Bowron. Many improvements and additions have been made here during the last two years. A cell wing, three hundred feet long, containing two hundred and ninety-six cells has been completed, at a cost of $150,000. This institution is one of the most complete and up-to-date reformatories in the country. There has also been erected a new barn, forty by eighty feet, at a cost of $2,836.03. Near the barn has been erected a silo, at a cost of $440.69. Much of the work and labor in connection with these improvements was furnished by the inmates of the institution. A fine tool house, twenty by forty feet, two stories high, was built by the inmates. All the work in constructing this building was performed by the inmates, and the state simply paid for the material, which cost $207.08. There has also been constructed a hospital building costing $18,500. At the present time, the first floor of this building is being used for office purposes. This building is two stories high, with four large hospital wards and with individual rooms. It it provided with an excellent operating room, finely equipped bath rooms, sanitary closets and well stocked drug store.

There has also been installed at this institution, a fine brick making plant, consisting of power house, machine house, drying sheds, kiln sheds, and the necessary machinery, costing $8,782.71. Over two hundred thousand brick have so far been made, which proved to be of excellent quality.

The building heretofore used for office purposes has been remodeled at an expense of $200, and is now used for a school house, chapel and assembly hall.

Concerning the improvements needed for the next two years, Superintendent Bowron reports as follows:

"In the last two years, from June 1, 1902, to June 1, 1904, the increase in the inmate population has been sixty-three. The number of inmates on June 1, 1904, was two hundred

and nineteen. Our present cell house contains two hundred and ninety-six cells. This will admit of an increase of seventy-seven inmates. It is fair to presume that our cell room accommodations will be exhausted inside of two years, judging from past experience. It requires a year and a half to build such a cell wing as that already erected. It is morally certain that the present cell house will be filled before the legislature of 1907 meets. Should the provisions for the erection of the proposed south cell wing be delayed until that time, it will probably take at least two years more for the letting of the contract and the completion of the wing. At this estimate, the south cell wing, as contemplated in the plans, would not be ready for occupancy much, if any, before 1909, while the present cell wing promises to be filled with occupants before the year 1907.

It might seem a trifle incongruous to build a detached cell wing before the main central building is erected that forms a transept between the two wings, yet, considering the necessities of an increasing population rather than the more ample conveniences of the institution, I can see no real objection to such a project.

The hospital building now used for office purposes, can be so utilized for some time to come. It is true that the school house is already inadequate, and the dining room, kitchen and store now occupy space in the factory building which would be very acceptable for industrial purposes, but these pressures will be partially relieved by the construction of a new power house, thus relinquishing the present power house to other uses.

It might be deemed practicable to construct, next year or the year following, the rear portion of the main building that is to contain the dining room and kitchen. Under proper supervision, this could be built by the labor of our own inmates. This latter suggestion is predicated upon the condition that the plans will admit of it.

With a new power house, it will be necessary to build a laundry, as the laundry necessarily must follow the boilers because of the steam and hot water necessary for laundry purposes.

Another cell wing and a power house and laundry would necessitate the construction of a permanent and adequate sewer from the institution to the river. The present sewer is only six inches in diameter, and is liable at any time to become clogged. Should this happen in the winter, we would be in a very serious predicament.

Therefore, on the presumption that it would be inadvisable to ask the next legislature for appropriations sufficient to construct the main central building and the south cell wing also, and realizing that the more essential of the two is the cell wing, the foregoing observations would lead to the following definite propositions:

(1) That the construction of the south cell wing should be provided for, costing $150,000.

(2) That, inasmuch as the Board has decided to build a new power house, provisions for its cost should be made. As the plans have not yet been made, its approximate cost can not now be estimated, but probably $10,000 would be sufficient.

(3) A building to contain the laundry and clothing repair shop should be provided for. A separate building would be preferable, not far from the power house. Probably $5,000 would suffice for this purpose.

(4) A permanent and adequate sewer should be provided. A 12-inch sewer from the institution to the river, with necessary branches, would cost about $500, our own inmates to be employed in laying it.

In figuring on buildings, whether by contract or constructed by our own labor wholly or in part, we are in position to furnish the brick therefor. I would not recommend, however,

that the work of building a cell wing be undertaken by our own inmates. It would be too large and complicated a piece of work for us to handle. The other buildings spoken of could be erected by our own labor by engaging competent overseers.

The Land Question.

The need of more land conveniently adjacent to the present property is pressing. Of the two hundred and forty acres comprising the state property, we have, to-day, ninety-five acres under cultivation. This is practically all the tillable land connected with the institution. The remainder is devoted to buildings, street, brick yard and park front, while a tract of marshy woods and low pasture land lies nearly two miles from the barns, quite inconvenient as well as inadequate for our growing herd of milch cows. We are compelled, therefore, to purchase either oats or hay or some of each every year, while the soil that can be devoted to vegetables is not of sufficient area to admit of a rotation of crops.

Most of our present land is stiff red clay—that fit for garden purposes being confined to small bits here and there. For an institution like this, where the employment of inmate labor is the main desideratum, broad and generous acres is one of the essentials, especially so if a large number of cows are kept.

There lies to the north of the present property a stretch of black loam, with clay subsoil, peculiarly adapted to our needs, both in location and character of soil, about eighty acres of which the state should own."

WISCONSIN WORKSHOP FOR THE BLIND.

In compliance with the requirements of Chapter 432, Laws of 1903, the Board established the Workshop for the Blind, at No. 1323 Vliet St., Milwaukee, Wisconsin. As manager of this workshop, Mr. Oscar Küsterman was appointed, at a salary of $1,000 per annum.

The experience of other workshops of a similar character has shown that the manufacture of willow ware is an employ-

ment best suited for blind persons. This trade is easily learned and a reasonable profit can be earned. Making use of the experience thus obtained by other workshops, the manufacture of willow ware was adopted. Within three months after opening the workshop, a number of workmen, without any previous experience, were able to earn from $4 to $6 per week. During the first six months that the workshop has been operated, about six thousand pieces of willow ware have been manufactured. There has been no difficulty in disposing of all the articles thus manufactured, and that the quality of the work has been satisfactory is shown by the fact that the demand for this ware is far in excess of the supply. The amount of money thus far expended for tools, materials, and means of instruction, exclusive of the salary of the manager and the rent for building, light, etc., is $841.85. It costs $35 per month for the rent of the building.

The average number who attended this shop during the last six months has been about sixteen. Beyond any question of doubt, this system of furnishing the blind of the state with means of supporting themselves can be made a success if the blind people of the state can be induced to take advantage of the accommodations thus offered, and the number who take advantage of this opportunity should be greatly increased. The principal reason why more blind persons do not take advantage of the opportunities offered by the state is that they are unable to pay for their board and lodging during the time that they are learning a trade. The workmen now employed at this shop are practically all from Milwaukee. It would seem, therefore, advisable to appropriate a sufficient sum of money for the support of indigent blind persons who are willing to learn a trade at this shop, to enable them to pay for their board and lodging while they are learning such trade. It would require about $75 for transportation and cost of living during the apprenticeship of each blind person coming from the state outside of the city of Milwaukee. With the aid of such neces-

sary funds and an annual appropriation sufficient to pay for the rent, salary of manager and costs of tools, material and means of instruction, we are of the opinion that this workshop will prove a success, and the motto of the shop, "Independence Through Industry," will be fulfilled.

HERMAN GROTOPHORST.
GUSTAV KÜSTERMANN.
HARVEY CLARK.
ALLAN D. CONOVER.
LESTER B. DRESSER.

Orders Issued by the Board.

ORDERS ISSUED BY THE BOARD.

ORDER NO. 1.

OFFICE STATE BOARD OF CONTROL,
MADISON, WIS., April 26, 1898.

"For the purpose of establishing and more clearly defining the functions of the Superintendent and Wardens of the several State Charitable, Penal and Reformatory Institutions governed by the Board of Control, and the officers and employes therein, their relations to each other and to the Board of Control, and the tenure of their respective offices, the following order is promulgated for the information and guidance of all concerned:

First—Superintendents, wardens, stewards and general matrons shall be appointed directly by the Board of Control.

Second—The following officers shall be appointed by the Board upon the nomination of the proper superintendent or warden: Chaplains, physicians, and assistant physicians, principals, and teachers of schools, assistant wardens and stewards, head engineers, and agents at the State Public School and the Industrial School for Boys.

The superintendent or warden may suspend any of the officers mentioned in this paragraph, and may remove any of them except the assistant warden, principal of schools, chaplain and the agents above mentioned, promptly reporting to the Board such removal, or suspensions, and the causes therefor.

Third—Each superintendent or warden shall appoint, and in his discretion may remove, all other subordinate officers and all employes, not officers in his institution. The superintendent or warden shall monthly report to the Board, with his estimate for the ensuing month, all changes of subordinate officers during the past month, and the dates of such changes.

Fourth—The regular term of office of each officer or person mentioned in paragraphs No. 1 and 2 shall be one year from July 1st next after appointment. The nominations required in paragraph No. 2 shall be submitted to the Board May 20th in each year. Appointments to fill vacancies terminate on July first, next after they were made, and nominations therefor shall be submitted to the Board as soon as practicable after the vacancy occurs.

Fifth—Superintendents and wardens are charged with the duty of giving all subordinates in their respective institutions affected by this order timely notice of its contents."

Orders Issued by the Board.

ORDER NO. 2.

OFFICE STATE BOARD OF CONTROL.
MADISON, WIS., January 3, 1900.

"A careful examination of the law fixing liability for the expense of the care and maintenance of the insane in the State Hospital and County Asylums seems to lead to the following conclusions:

I.

The only statute giving the State a right of action against individuals for such expense is Section 604*q*., R. S. It applies alike to all persons committed as insane whether inmates of a State Hospital or a County Asylum, but it only reaches the case of an inmate who has an estate sufficient to pay for his or her maintenance, the cost of which must not exceed $3.00 per week. The judge has the power in his discretion to refuse to charge the estate for the cost of maintenance of the owner, even though sufficient for that purpose, if such owner has a parent, wife or child dependent upon such estate for future support.

If a proceeding is instituted under the above Section, whether by State or County authority, it should be prosecuted before the judge in behalf both of the State and County, and his order for the payment should probably be in the name of the State and County, although perhaps action in behalf of each might be allowed.

II.

Pursuant to Section 600, R. S., the sums charged any county for maintaining a patient in the State Hospital, chargeable to it, may be collected by such county, by suit, out of the property of the patient, or from any person legally bound to support such patient. The State has no interest in, or concern with, any such proceeding. It is merely designed to reimburse the county for its expenditures for maintaining such patient in the State Hospital.

III.

If an insane person resident of and chargeable to any given county is maintained in the asylum of some other county, it seems quite certain that the county so chargeable may recover, in like manner, the sums legally paid by it for such maintenance, out of the estate of such insane person, or from any person legally liable for his or her support.

If the patient is maintained in the asylum of the county chargeable for his maintenance the recovery should be limited to $3.00 per week for such maintenance, and in addition thereto, the cost of clothing, necessarily furnished such insane person by the county.

Orders Issued by the Board.

IV.

If the county collects a sum equal to $1.50 per week for the maintenance of such insane patient no part of the expense of his maintenance can properly be charged to the State. If less than $1.50 per week be so collected the State is chargeable only for the difference between the sum collected and $1.50 per week.

V.

Under the provisions of Section 604*d*, and 604*e*, R. S., the State is not chargeable with the $1.50 per week specified in Section 604*d*, for the care of an insane inmate of any county asylum who is a resident of the county maintaining such asylum, "whose support is not properly a public charge."

The support of any such inmate is not properly a public charge: (1) If some responsible person within the reach of the process of our courts is liable therefor, as in the case of a wife or minor child of a responsible husband or father; or (2) if such inmate has a father, mother or child in like manner amenable to the process of our court or sufficient ability under Section 1504, R. S., to maintain and care for such inmate or (3) if such inmate has an estate sufficient under Section 604*q*, R. S., to defray the cost of his or her maintenance and care.

This paragraph applies only to the maintenace of insane inmates of a county asylum who are residents of, and chargeable to the county maintaining such asylum.

VI.

For the purpose of protecting the State from being charged for the support of insane persons for whose maintenance it is not legally chargeable, county asylum trustees are required to certify in their reports upon which State allowances, under Section 604*d*, R. S., are claimed, that after diligent inquiry they believe no such claim is made therein on account of any insane persons, whose support is not properly a public charge under the laws.

Each board of trustees will also report to this Board the name of each inmate in their asylum, and in the State Hospital, chargeable to their county, for whose maintenance in whole or in part their county has been reimbursed during the time covered by their report, and the amount thus recovered on account of each such inmate.

VII.

In determining whether some responsible person is liable, or may by legal proceedings be made liable, for the support of an inmate of any county asylum who is a resident of the county maintaining such asylum, or whether such inmate has a sufficient estate to pay for his or

her own maintenance, this Board does not insist upon nor desire the application of any rigid rules in favor of the State. In making such determination the officials of the asylum should consider the nature of the property of the person sought to be charged, its productiveness and the probable income which may be derived from it, the size and reasonable cost of maintaining the family of the owner and all other conditions which may reasonably be supposed to effect the liability of the owner to support such inmate. The mere fact that the cost of such support can be collected by legal proceedings against some person does not, of itself, necessarily prove that such person ought to be charged with the maintenance of such inmate and the State thereby relieved of such charge. All that the Board requires is that the asylum officials exercise a discriminating and just discretion in making their classifications of the inmates of their asylums who are residents of their county. Such is believed to be the true intent and spirit of the statute in that behalf.

VIII.

Under section 604f, for all inmates of a county asylum whose support is not chargeable to the county maintaining such asylum, the State pays such county $3.00 per week each and the amount necessarily expended for clothing them. The liability to pay this sum, and the liability of counties to refund to the state a portion of it, does not depend upon the question (as in the former paragraph) whether or not the expense of the support of such patient is properly a public charge. The obligation of the State is absolute to pay the stipulated sum for each patient of that class, and it is equally absolute that the county chargeable with the maintenance of any such inmate shall refund to the State $1.50 per week, and the amount necessarily expended for clothing him or her.

STATE BOARD OF CONTROL,
By W. P. LYON, President."

Orders Issued by the Board.

ORDER NO. 3.

COUNTY ASYLUMS FOR THE CHRONIC INSANE—DIRECTIONS CONCERNING THEIR MANAGEMENT IN CERTAIN PARTICULARS.

OFFICE STATE BOARD OF CONTROL.
MADISON, WIS., April 5, 1900.

Although the County Asylums for the Insane are erected, organized and managed by county authority, are primarily maintained by the respective counties, and, properly speaking, are county institutions, yet because the State contributes largely toward the support of all the inmates therein and has the necessary authority to prescribe proper care and treatment of such inmates (each of whom is a ward of the State) such asylums are also in a large sense State, or quasi-state institutions.

The State exercises its functions in respect to these asylums chiefly through the agency of this Board. In the discharge of its duty in that behalf this Board has from time to time requested county asylum officials to adopt certain policies and methods of procedure in their respective ayslums for the purpose of improving the condition and promoting the welfare of the inmates thereof. Such requests have the force of orders made by authority of the State, and must be so regarded. This Board has also decided to give some additional directions concerning the management of such asylums. These, with the directions heretofore given, are briefly as follows:

I.

Asylum physicians should not be selected and contracts for the medical care of the insane awarded upon competitive bids. The Trustees should appoint some competent physician and fix his salary. The selection should be made with the care and consideration that might reasonably be expected in the selection of a family physician.

The asylum physician should visit the asylum at least twice in each week. At each visit he is expected in addition to attending to the sick inmates to examine the sanitary condition of the asylum and grounds and the condition of the patients, their health, diet, clothing and cleanliness, the work required of them and any other condition affecting their welfare and comfort. He will advise and direct the Superintendent as to which of the patients should be required to labor and the kinds and amount of work each working patient is able to perform. At each visit to the asylum the physician shall enter in a book, furnished by the Superintendent, the date of his visit, the name, age and malady of each patient treated by him, the treatment prescribed and the name of each patient he has advised the Superintendent should not be required to labor. At least once in each month the physician should also enter in said book statements of the sanitary condition of the institution, and the general condition of the patients in respect to matters herein mentioned. He is invited to enter therein any suggestions he may think proper to make for the improvement of the institution and the promotion of the welfare of the inmates. Such report book should be

properly ruled and the required entries affecting individual patients should be made under the following heads:

Date of visit.	Name of patient.	Age.	Malady.	Treatment.	Remarks.

Patients excused from labor may be named in second column or under the head of "Remarks." A separate portion of the book may be set apart for the monthly report above mentioned.

II.

Each County Asylum shall have upon its staff of employes a female night attendant who shall be constantly on duty during each night in the apartments occupied by the female inmates. Such attendant shall make a daily report to the Superintendent, to be written in a book provided by him for that purpose, stating the name of each patient who was sick or disturbed during the night, the nature of her sickness or cause of her disturbance and what was done for her relief; and stating also any unusual occurrence in the female apartments during the night. The Superintendent should see that this rule is faithfully complied with. The reports of the physician and female night attendant shall be kept by the Superintendent for the inspection of all persons entitled to see them.

III.

The Trustees of each County Asylum are required to employ and keep on duty a competent night watchman at their institution through each night during the whole year.

When it is considered that each of these institutions is inhabited by from one hundred to one hundred and fifty, and more, irresponsible persons, many of them prone to mischief, and nearly all incapable of self preservation in case of fire or other peril, it seems absolutely necessary to their proper protection that some intelligent man in full possession of his faculties be with them and upon the gounds of the institution constantly.

IV.

Regulations for ascertaining the amounts chargeable for clothing furnished by the Trustees of any County Asylum to the inmates thereof, a portion of whose maintenance is charged to counties other than that in which such asylum is situated, or wholly to the State, pursuant to Section 604*f*, R. S.

1. An accurate account shall be kept of the clothing furnished each such inmate and the same shall be charged to the proper county, at the actual cost thereof. The asylum authorities are expected to use reasonable diligence to make purchases of such clothing in the cheapest available market.

Orders Issued by the Board.

2. Clothing accounts made pursuant to Section 604*f*, R. S., must be verified by the affidavit of the proper Superintendent (or in case of his inability, by a Trustee) substantially in the following form:

"State of Wiconsin, } ss.
..... County }
....., being first duly sworn, deposes and says that he is the Superintendent (or a Trustee) of the .....
..... County Asylum for the Chronic Insane and has the keeping and custody of its accounts for clothing furnished the inmates therein, that the above and foregoing statement of clothing account charged to other counties, or to the State is accurate and just, that the value of such clothing so chargeable necessarily furnished each inmate of said asylum during the fiscal year ending September 30th, ..., and the sums necessarily expended therefor are correctly stated therein and that no part of such sums has been paid or previously audited.

.....

Subscribed and sworn to before me
this ..... day of .....

.....
Notary Public."

3. The Board of Supervisors of any county charged with a portion of the expense of maintaining any person or persons in the Insane Asylum of some other county may at any time request the Trustees of such asylum to furnish it with an itemized account of the articles and cost of clothing furnished such person, and such Trustee when so requested will be expected to promptly furnish the same. The Board of Control will adjust any controversy as to the accuracy of such account.

V.

If the County Asylum and the County Poor House are under the same management, the salaries and wages of all officers and employes whose duties are common to both institutions should be apportioned to such institutions on the basis of the average population of each. The monthly report of wages and salaries should be made, and the per capita cost of maintenance in the annual report should be computed on this basis.

There shall also be kept an account of all the products of the asylum farm used or consumed in the asylum, or disposed of and the proceeds so used. The fair market value thereof, or the money received from the same and so used in each year, shall be deducted from the annual interest at 4 per cent. of the cost of the asylum plant and equipment, excluding cost of poor-house and equipment, if there be a poor-house under the same management. The balance represents the net annual interest on the investment at 4 per cent. This balance should be included in the current expense account of the asylum upon which the per capita cost of maintenance is computed.

VI.

Section 601, R. S., provides that every female over ten years of age committed to any hospital or asylum for the insane shall be accom-

Orders Issued by the Board.

panied by a competent female. This Board has been astonished to learn that this most salutary law, demanded by common decency for the protection of helpless insane women from possible outrage or neglect, has recently been disregarded in two instances, in each of which an insane woman was brought to the hospital, in one case by a sheriff alone and in the other by the sheriff and a male assistant only.

Failure to obey this law cannot be tolerated. Hence, superintendents of hospitals and asylums are directed to report any such failure to this Board with the name of the delinquent officer, to the end, that a representation of the facts may be made by this Board to the authority having power to remove such officer.

The above directions were adopted and ordered printed and distributed April 14th, 1900.

STATE BOARD OF CONTROL,
By W. P. LYON, President.

STATEMENT OF CURRENT EXPENSES.

At the several state institutions for the fiscal years ending June 30, 1903, and 1904, after taking into account the supplies on hand at the beginning and close of each year, and receipts and transfers from the different departments.

CLASSIFICATION OF ITEMS.	STATE HOSPITAL FOR THE INSANE.		NORTHERN HOSPITAL FOR THE INSANE.		SCHOOL FOR THE DEAF.		SCHOOL FOR THE BLIND.		INDUSTRIAL SCHOOL FOR BOYS.	
	1903.	1904.	1903.	1904.	1903.	1904.	1903.	1904.	1903.	1904.
Amusement and Means of Instruction	$761 52	$798 80	$845 21	$1,150 98	$115 05	$1,014 52	.....	.....	$123 21	$37 44
Agents' expenses	.....	.....	.....	.....	.....	.....	.....	.....	1,232 24	1,100 61
Barn, farm and garden	*6,981 02	*4,865 36	*11,006 40	*12,048 05	*39 40	*8 93	*790 88	*1,360 20	*5,682 31	*4,536 83
Clothing	4,499 52	3,705 43	8,910 06	8,766 78	325 15	336 29	119 76	159 83	5,076 89	4,071 12
Discharged patients	1,408 96	1,203 46	1,280 19	1,887 88	.....	.....	.....	.....	.....	.....
Discounts	*491 01	*437 56	*642 94	*583 35	*62 83	*88 81	*55 84	*45 53	*220 60	*178 34
Drug and medical department	726 43	793 71	1,703 44	1,710 16	467 42	555 41	54 70	46 75	3,845 78	493 66
Elopers	80 35	59 68	72 19	23 29	.....	.....	.....	.....	371 32	202 28
Engine and boilers	906 22	509 28	2,546 97	2,688 29	122 81	204 70	369 98	300 65	1,851 14	1,087 19
Exchange	.....	.....	.....	.....	.....	.....	2 00	4 70	.....	.....
Fire apparatus	.....	2 25	117 81	82 95	86 53	62 16	18 60	35	229 18	11 82
Fire and Boiler insurance	17 84	44 68	23 55	107 57	5 85	44 90	5 85	26 90	67 27	54 00
Freight and express	47 35	71 03	102 99	120 74	3 13	4 30	.....	.....	4 27	7 97
Fuel	12,568 99	15,112 97	11.810 78	15,385 83	3,820 53	4,090 44	1,644 69	2,526 76	7,485 63	7,255 20
Furniture	72 05	238 21	131 96	108 62	17 50	801 48	122 43	172 04	102 25	22 40
Gas and other lights	1,470 05	3,215 04	2,851 55	2,416 31	185 27	1,209 30	998 61	719 74	1,246 65	1,615 14
House furnishing	4,406 97	5,199 82	5,100 19	3,497 40	839 29	1,468 90	376 45	440 06	2,514 18	1,214 75
Laundry	959 34	997 83	1,278 65	1,157 39	134 84	176 76	284 41	195 12	214 70	351 39
Library	119 90	117 25	319 96	667 01	6 51	104 38	.....	.....	130 87	341 42
Machinery and tools	115 61	56 86	44 26	184 63	31 01	168 08	7 30	2 44	220 24	19 89
Means of Inst.	.....	.....	.....	.....	.....	.....	1,425 08	155 28	449 65	481 97
Miscellaneous	209 96	173 16	167 03	179 83	200 27	441 29	918 49	666 31	1,015 49	1,046 13
Officers' expenses	135 37	141 73	85 80	166 99	223 86	224 81	188 14	55 21	51 67	44 48
Printing office	.....	.....	.....	.....	572 75	802 48	.....	.....	.....	.....
Printing, postage, stationary & tel.	640 93	487 08	841 28	874 30	197 94	291 06	347 57	163 14	778 59	654 91
Repairs and renewals	2,631 02	2,844 93	5,583 21	5,506 67	1,417 78	1,826 24	1,024 93	1,611 08	3,602 39	2,622 06
Restraints	3 20	61 66	2 25	7 14	.....	.....	.....	.....	.....	.....
Shoe shop	.....	.....	.....	.....	614 00	613 62	.....	.....	756 53	394 18
Subsistence	32,048 92	30.556 25	44,796 90	44,701 66	8,542 70	9,785 41	8,713 24	10,718 98	21,185 63	19,642 84
Surgical Inst. and appl.	12 83	59 78	263 65	575 90	.....	.....	.....	.....	.....	.....
Tobacco	619 89	651,07	143 20	210 86	.....	.....	.....	.....	.....	.....

Statistics.

Wages and salaries	41,752 87	41,257 82	47,527 19	49,890 49	23,037 58	25,431 29	15,058 45	15,788 29	26,082 29	26,429 84
Work department	.....	.....	.....	.....	.....	.....	53 92	35 86	.....	.....
Laboratory	.....	.....	9 38	6 40	.....	.....	.....	.....	.....	.....
Totals	106,216 09	108 359 78	136,559 65	142,076 07	$40,967 77	$49,657 82	$31,734 69	$33.753 63	$78,638 06	$69,202 69
Gains deducted	*7,472 03	*5,302 92	*11,649 34	*12,631 40	*102 23	*97 74	846 72	*1,441 59	*5,902 91	*4,715 17
Net expenditures	$98,744 06	103.056 86	124,910 31	129,444 67	$40,865 54	$49,560 08	$30,887 88	$32,312 04	$72,735 15	$64,487 52
Amount deducted by Sec. of State:										
For insurance	.....	649 05	.....	1,008 19	.....	187 36	.....	187 78	.....	249 80
For printing	81 85	78 65	41 30	61 65	10 00	8 48	14 89	13 72	37 72	32 64
Total cost	$98,825 91	103,884 56	124,951 61	130,514 51	$40,875 54	$49,755 92	$30,902 77	$32,513 54	$72,772 87	$64,769 96
Received from counties	26,056 06	34,246 34	41,406 75	54,180 32	.....	.....	.....	.....	13,148 87	15,545 64
Net cost to state	$72,769 85	$69,538,22	$83,544 86	$76,334 19	$40,875 54	$49,755 92	$30,902 77	$32,513 54	$59,624 00	$49,224 32

STATEMENT OF CURRENT EXPENSES—Continued.

At the several state institutions for the fiscal years ending June 30, 1903 and 1904, after taking into account the supplies on hand at the beginning and close of each year, and receipts and transfers from the different departments.

CLASSIFICATION OF ITEMS.	STATE PRISON.		STATE PUBLIC SCHOOL.		HOME FOR FEEBLE MINDED.		STATE REFORMATORY.	
	1903.	1904.	1903.	1904.	1903.	1904.	1903.	1904.
Amusement and means of instruction			$237 02	$148 86	$321 47	$452 09		
Accounts receivable	*$66 00	*311 53						
Agents' expenses			1,735 86	1,898 37				
Armory	13 00	$2 50					$3 23	$1 49
Barn, farm and garden	*4,076 60	*3,293 99	*1,959 96	*1,156 32	10,128 82	*8,505 98	*2,288 63	*2,865 51
Brick yard							104 43	*767.72
Cabinet shop							3 98	24 41
Children's transportation			318 45	190 51				
Clothing	7,075 92	5,556 72	2,221 38	2,220 31	5,842 23	7,828 04	696 03	3,997 96
Convicts' earnings	274 08	304 91						
Convicts discharged	3,772 73	3,389 57					41 64	1 00
Discount	*345 00	*341 30	*129 29	*124 81	*357 48	*458 34	*109 03	*129 10
Drug and medical department	1,022 18	1,017 88	751 51	583 88	360 72	436 96	840 27	566 74
Elopers			12 80		48 70	154 36		
Engines and boilers	1,302 86	5,817 02	41 11	65 82	124 01	590 59	514 25	617 05
Escapes		5 00					143 03	256 56
Fire apparatus	82 40	176 40	2 10	593 99	30 50		70 10	10
Fire and boiler insurance	23 41	59 86	4 04	65 93	45 51	45 90	55 00	50 70
Freight and express			10 35	11 30	6 95	15 03	22 00	4 50
Fuel	15,083 39	20,605 67	4,864 12	6,448 92	10,834 78	13,808 74	8,443 56	8,855 39
Furniture	638 64	92 85	57 33	14 42	175 91	239 32	193 61	6 95
Gas and other lights	2,527 85	2,506 29	762 16	856 18	2,055 30	2,111 52	297 84	1,350 47
House furnishings	3,155 95	1,847 71	907 65	888 04	2,658 65	3,227 05	1,234 31	1,083 21
Indebtedness	88 38	134 56						
Laundry	844 66	752 22	101 87	92 65	227 55	695 00	103 81	145 68
Library	190 79	20 55	17 85	23 55	16 12	12 99	16 09	46 80
Machinery and tools	269 35	932 60	74 69	9 66	91 80	210 26	88 59	16 34
Mattress factory					19 42	196 91		
Means of instruction	223 93	124 86					209 92	145 96
Miscellaneous	755 95	1,290 53	638 21	400 87	302 37	877 92	357 06	347 87
Officers' expenses	209 44	278 69	209 96	200 04	144 24	68 85	82 98	64 24
Printing, postage stationery and telegraph	825 25	674 62	492 37	550 64	343 38	300 30	493 11	409 67
Repairs and renewals	3,194 98	3,166 23	1,612 10	913 69	2,054 99	1,702 03	380 33	886 17

Statistics.

Shoe shop					235 11	335 59	313 65	346 94
Subsistence	32,490 64	36,552 19	8,889 95	9,050 48	30,638 01	32,815 92	10,595 40	11,993 99
Surgical instruments and appliances					18 43	32 10		
Tailor shop					*84 99	*48 10		
Tobacco	761 98	844 76						
Transferring prisoners								
Wages and salaries	30,633 85	31,702 17	16,855 72	17,011 99	35,015 87	41,538 34	742 95	1,155 43
Broom factory							15,137 51	15,531 91
Rent of cottages							*1,757 09	
Blacksmith shop							*616 90	
								14 14
Totals	$105,461 61	$117,856 36	$40,818 60	$42,240 10	$91,612 02	$107,695 81	$41,184 68	$47,921 67
Gains deducted	*4,487 60	*3,946 82	*2,089 25	*1,281 13	*10,571 29	*9,012 42	*4,771 65	*3,762 33
Amount deducted by secretary of state:	$100,974 01	$113,909 54	$38,729 35	$40,958 97	$81,040 73	$98,683 39	$36,413 03	$44,159 34
For insurance		611 28		253 88		1,012 61		493 36
For printing	110 16	84 45	32 13	20 12	28 05	58 35	113 82	141 67
Net expenditures	$101,084 17	$114,605 27	$38,761 48	$41,232 97	$81,068 78	$99,754 35	$36,526 85	$44,794 37
Received from counties					38,975 16	53,818 90		
Receipts for convict labor	47,694 36	60,322 57					15,283 47	21,967 41
Net cost to state	$53,389 81	$54,282 70	$38,761 48	$41,232 97	$42,093 62	$45,935 45	$21,243 38	$22,826 96

MOVEMENT OF POPULATION IN THE SEVERAL STATE INSTITUTIONS FOR THE TWO YEAR PERIOD ENDING JUNE 30, 1904.

	State Hospital.		Northern Hospital.		School for Deaf.		School for Blind.		Industrial School.		State Prison.		State Public School.		Home for Feeble Minded.		State Reformatory.	
	1903.	1904.	1903.	1904.	1903.	1904.	1903.	1904.	1903.	1904.	1903.	1904.	1903.	1904.	1903.	1904.	1903.	1904.
Number remaining at commencem't of each year, to-wit, July 1st.	416	406	614	643	151	165	.....	2	325	286	582	558	141	143	474	542	159	183
Returned from escapes made & paroles granted before commencement of year	25	52	61	64	.....	.....	.....	.....	22	42	.....	.....	.....	.....	.....	1	8	10
Transferred from other institutions	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	5	23	11	14
Returned from homes and from leave of absence	.....	.....	.....	.....	.....	.....	95	86	.....	.....	.....	.....	104	81	52	58	.....	.....
Original admissions during each year	396	390	534	524	19	33	10	17	155	177	244	295	94	127	89	109	93	119
Total	837	848	1,209	1,231	170	198	105	105	502	507	826	853	339	351	620	733	271	326
Absent at close of each year, June 30th, on paroles granted each year	238	210	298	336	.....	.....	.....	.....	194	170	.....	.....	.....	.....	.....	.....	35	37
Transferred to other institutions during each year	156	139	214	216	.....	.....	.....	.....	2	.....	.....	.....	3	6	.....	.....	1	3
Eloped and not return'd during each year	4	5	7	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	3	.....	.....
Died	33	50	46	49	.....	1	.....	.....	.....	.....	7	8	5	1	15	37	1	.....
Discharged as sane under sec 587, R. S.	.....	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Graduated	.....	.....	.....	.....	.....	5	6	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Left school during year	.....	.....	.....	.....	2	6	8	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Statistics.

Dropped for various reasons	.....	.....	.....	.....	3	6	2	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Released on habeas corpus proceedings	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Discharged, expiration of sentence	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	49	58		
Transferred to Hospital for Insane	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	4	.....	.....	.....	.....	.....	.....		
Transferred to Reformatory	.....	.....	.....	.....	.....	.....	.....	.....	7	7	4	6	.....	.....	.....	.....	.....	.....		
Escaped	.....	.....	.....	.....	.....	.....	.....	.....	9	2	.....	.....	.....	.....	.....	.....	2	4		
Discharged on reduction of time	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	251	211	.....	.....	.....	.....	.....	.....		
Pardoned	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	1	.....	.....	.....	.....	.....	1		
Released by order of court	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	3	2	.....	.....	1	.....	.....	1		
Discharged	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	3	.....	.....		
Out on visit home	.....	.....	.....	.....	.....	.....	87	92	.....	.....	.....	.....	.....	.....	57	72	.....	.....		
Placed in homes on indenture	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	187	198	.....	.....	.....	.....		
Returned to counties and court	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Remaining at close of each year	406	442	643	625	165	180	2	.....	286	327	558	621	144	146	542	618	183	222		
Average for the year	415	425	600	614	166	184	90	94	292	315	553	575	142	149	505	602	163	206		

Statistics.

COMPARATIVE TABLE.

Showing current expense expenditures, current expenses, average population and per capita cost per week at the various institutions for years 1897 to 1904, inclusive. (The current expenses are determined by taking into account the supplies on hand at the beginning and close of each year and receipts and transfers from different departments.)

Institution.	Year.	Current expense. Expenditures.	Current expenses.	Average population.	Per capita cost per week.
State Hospital for Insane	1897	$112,994 73	$113,330 94	405	$5 38
	1898	109,399 60	110,497 07	410	5 18
	1899	109,817 76	104,185 67	397	5 04
	1900	108,969 67	101,120 85	405	4 79
	1901	122,070 78	110,568 45	403	5 26
	1902	89,628 03	86,906 90	413	5 40
	1903	110,373 18	98,825 91	415	4 57
	1904	108,978 14	103,784 56	425	4 67
Northern Hospital for Insane	1897	129,884 92	133,374 70	539	4 75
	1898	137,427 14	144,687 77	546	5 09
	1899	133,049 94	121,106 41	556	4 18
	1900	127,568 56	114,525 94	566	3 88
	1901	133,159 30	130,326 38	589	4 24
	1902	93,586 68	105,392 24	599	4 51
	1903	141,251 75	124,951 61	600	3 99
	1904	136,128 52	130,514 51	614	4 07
School for Deaf	1897	53,871 99	*46,874 90	139	6 48
	1898	44,442 72	45,992 53	145	6 09
	1899	41,847 39	37,850 05	195	3 72
	1900	41,122 41	37,836 42	175	4 15
	1901	40,827 71	41,510 15	197	4 04
	1902	26,966 47	36,942 28	202	4 69
	1903	42,152 30	40,875 54	166	4 72
	1904	51,209 99	49,755 92	184	5 17
School for Blind	1897	36,720 66	*33,039 78	80	7 94
	1898	33,798 30	31,017 20	82	7 27
	1899	35,671 41	31,964 72	109	5 62
	1900	35,869 94	32,520 49	108	5 77
	1901	37,089 64	34,246 76	107	6 14
	1902	26,616 74	26,116 35	111	6 03
	1903	36,000 10	30,902 77	90	6 58
	1904	36,727 15	32,513 54	94	6 61
Industrial School for Boys	1897	64,313 79	63,797 94	346	3 54
	1898	78,115 53	91,787 79	307	5 75
	1899	68,097 81	65,135 51	301	4 16
	1900	68,977 76	61,060 54	324	3 62
	1901	71,595 39	69,947 76	320	4 19
	1902	49,914 33	58,070 20	339	4 39
	1903	85,732 71	72,772 87	292	4 78
	1904	68,649 14	64,769 96	315	3 93
State Prison	1897	97,514 04	90,443 33	601	2 89
	1898	100.516 46	97,829 91	645	2 91
	1899	88,416 57	92,504 49	591	3 01
	1900	95,147 68	86,951 98	532	3 13
	1901	92,507 82	88,550 03	511	3 34
	1902	74,957 44	72,029 18	562	3 28
	1903	106,005 45	101,084 17	553	3 51
	1904	132,512 79	114,605 27	575	3 81

Statistics.

COMPARATIVE TABLE.—Continued.

Institution.	Year.	Current expense. Expenditures.	Current expenses.	Average population.	Per capita cost per week.
State Public School	1897	53,975 59	47,896 81	262	3 51
	1898	46,404 97	47,250 71	196	4 63
	1899	41,266 67	41,308 36	163	4 87
	1900	43,126 97	40,977 03	159	4 94
	1901	42,666 07	41,061 99	144	5 47
	1902	30,852 09	33,136 39	147	5 78
	1903	41,683 63	38,761 48	142	5 23
	1904	41,896 22	41,232 97	149	5 29
Home for Feeble Minded	1897	21,139 64	15,477 97	42	7 08
	1898	65,823 07	55,695 79	284	3 77
	1899	63,802 39	61,327 23	370	3 18
	1900	77,773 25	62,462 53	387	3 10
	1901	83,142 66	75,482 38	457	3 17
	1902	65,877 52	67,748 22	484	3 59
	1903	84,159 22	81,068 78	505	3 08
	1904	116,245 60	99,696 00	602	3 16
State Reformatory	1901	48,412 82	35,568 19	128	5 33
	1902	35,170 33	29,972 16	149	5 16
	1903	61,679 84	36,526 85	163	4 30
	1904	68,524 87	44,794 37	206	4 16

*At school for deaf and school for blind for the two fiscal years 1897 and 1898 the per capita cost is based upon the average population for the entire year. For the other years the per capita cost is based upon the average population for the school year.

Statistics.

TABLE.

Showing average population, yearly and weekly cost per capita.

INSTITUTIONS.	TOTAL COST.		AVERAGE POPULATION.		YEARLY COST PER CAPITA.		WEEKLY COST PER CAPITA.	
	1903.	1904.	1903.	1904.	1903	1904	1903.	1904.
1 State Hospital for Insane ...	$98,825 91	$103,784 56	415	425	$238 13	$244 20	$4 57	$4 67
2 Northern Hospital for Insane.	124,951 61	130,514 51	600	614	208 26	212 56	3 99	4 07
3 School for the Deaf....	40,875 54	49,755 92	166	184	246 23	270 41	4 72	5 17
4 School for the Blind	30,902 77	32,513 54	90	94	343 36	345 88	6 58	6 61
5 Industri'l Sch'ol for Boys. ...	72,772 87	64,769 96	292	315	249 22	205 62	4 78	3 93
6 State Prison....	101,084 17	114,605 27	553	575	182 79	199 31	3 51	3 81
7 State Public School	38,761 48	41,232 97	142	149	272 96	276 73	5 23	5 29
8 Home for Feeble Minded	81,068 78	99,696 00	505	602	160 53	165 60	3 08	3 16
9 State Reformatory	36,526 85	44,794 37	163	206	224 09	217 44	4 30	4 16
Total	$625,769 98	$681,667 10	.....	.....	.....	....	.....	.....

Statistics.

TABLE.

Showing the current expenses, current expense expenditures, average population, per capita cost per year, and per capita cost per week of the various institutions for the year ending June 30, 1903.

Institution.	Current expenses.	Current expense expenditures.	Average population.	Per capita cost per year.	Per capita cost per week
1 State Hospital for Insane	$98,825 91	$110,373 18	415	$238 13	$4 57
2 Northern Hospital for Insane	124,951 61	141,251 75	600	208 26	3 99
3 School for Deaf	40,875 54	42,152 30	166	246 23	4 72
4 School for Blind	30,902 77	36,000 10	90	343 36	6 58
5 Industrial School for Boys	72,772 87	85,732 71	292	249 22	4 78
6 State Prison	101,084 17	106,005 45	553	182 79	3 51
7 State Public School	38,761 48	41,683 63	142	272 96	5 23
8 Home for Feeble Minded	81,068 78	84,159 22	505	160 53	3 08
9 State Reformatory	36,526 85	61,679 84	163	224 09	4 30
Total	$625,769 98	$709,038 18	.....	.....	.....

TABLE

Showing the current expenses, current expense expenditures, average population, per capita cost per year, and per capita cost per week of the various institutions for the year ending June 30, 1904.

Institution.	Current expenses.	Current expense expenditures.	Average population.	Per capita cost per year.	Per capita cost per week
1. State Hospital for Insane	$103,784 56	$108,978 14	425	$244 20	$4 67
2. Northern Hospital for Insane	130,514 51	136,128 52	614	212 56	4 07
3. School for Deaf	49,755 92	51,209 99	184	270 41	5 17
4. School for Blind	32,513 54	36,727 15	94	345 88	6 61
5. Industrial School for Boys	64,769 96	68,649 14	315	205 62	3 93
6. State Prison	114,605 27	132,512 79	575	199 31	3 81
7. State Public School	41,232 97	41,896 22	149	276 73	5 29
8 Home for Feeble Minded	99,696 00	116,245 60	602	165 60	3 16
9. State Reformatory	44,794 37	68,524 87	206	217 44	4 16
	$681,667 10	$760,872 42	.....	.....	.....

Statistics.

TABLE

Showing Census by Counties of Insane under Public Care in Hospitals and County Asylums for the Insane June 30, 1903.

Counties	County Asylums.	State Hospital.	Northern Hospital.	Milwaukee Hospital.	Total.
Adams	8	4			12
Ashland	33		16		49
Barron	43	12			55
Bayfield	18		24		42
Brown	81	1	22		104
Buffalo	29	8			37
Burnett	17				17
Calumet	25		9		34
Chippewa	58	14			72
Clark	25	8	1		34
Columbia	68	9			77
Crawford	37	8			45
Dane	143	39	6		188
Dodge	99	1	30		130
Door	20		9		29
Douglas	59	22	1		82
Dunn	63	13	1		77
Eau Claire	73	6			79
Florence	4		1		5
Fond du Lac	82		26		108
Forest	2		2		4
Gates	7				7
Grant	103	18			121
Green	71	14			85
Green Lake	23		7		30
Iowa	58	8			66
Iron	14		5		19
Jackson	31	10			41
Jefferson	101		26		127
Juneau	52	15	1		68
Kenosha	37		14		51
Kewaunee	22		5		27
La Crosse	105	22			127
Lafayette	32	8			40
Langlade	13		13		26
Lincoln	25		7		32
Manitowoc	63		28		91
Marathon	56		24		80
Marinette	33		26		59
Marquette	20		10		30
Milwaukee	220		3	510	733
Monroe	45	15			60
Oconto	48		21		69
Oneida	13		10		23
Outagamie	80		16		96
Ozaukee	39		5		44
Pepin	17	4			21
Pierce	36	11			47
Polk	34	8			42
Portage	58		19		77
Price	19		7		26
Racine	108		21		129
Richland	33	8			41
Rock	112	19	1		132
St. Croix	67	6			73
Sauk	82	4	1		87
Sawyer	3	1			4

Statistics.

TABLE

Showing Census by Counties of Insane under Public Care in Hospitals and County Asylums for the Insane June 30, 1903.—Continued.

Counties.	County Asylums.	State Hospital.	Northern Hospital.	Milwaukee Hospital.	Total.
Shawano	23	.....	14	.....	37
Sheboygan	106	.....	34	.....	140
Taylor	22	.....	12	.....	34
Trempealeau	48	15	.....	.....	63
Vernon	56	15	.....	.....	71
Vilas	7	.....	1	.....	8
Walworth	64	14	.....	.....	78
Washburn	7	6	.....	.....	13
Washington	40	.....	13	.....	53
Waukesha	69	1	10	.....	80
Waupaca	62	.....	14	.....	76
Waushara	19	.....	4	.....	23
Winnebago	133	.....	31	.....	164
Wood	30	.....	13	.....	43
State-at-large	270	39	61	.....	370
Total	3,823	406	625	510	5,364

Statistics.

TABLE

Showing Census by Counties of Insane under Public Care in Hospitals and County Asylums for Insane, June 30, 1904.

Counties.	County Asylums.	State Hospital.	Northern Hospital.	Milwaukee Hospital.	Total.
Adams	14	7	1	.....	22
Ashland	32	.....	15	.....	47
Barron	47	9	.....	.....	56
Bayfield	24	.....	23	.....	47
Brown	85	1	22	.....	108
Buffalo	28	7	.....	.....	35
Burnett	16	2	.....	.....	18
Calumet	26	.....	10	.....	36
Chippewa	56	12	.....	.....	68
Clark	24	15	1	.....	40
Columbia	67	18	.....	.....	85
Crawford	37	6	.....	.....	43
Dane	154	43	4	.....	201
Dodge	107	.....	26	.....	133
Door	24	.....	12	.....	36
Douglas	58	31	.....	.....	89
Dunn	61	11	1	.....	73
Eau Claire	70	9	.....	.....	79
Florence	5	.....	3	.....	8
Fond du Lac	83	.....	26	.....	109
Forest	2	.....	1	.....	3
Gates	7	1	.....	.....	8
Grant	105	18	.....	.....	123
Green	65	16	.....	.....	81
Green Lake	26	.....	15	.....	41
Iowa	64	10	.....	.....	74
Iron	17	.....	4	.....	21
Jackson	29	14	.....	.....	43
Jefferson	105	1	33	.....	139
Juneau	51	8	.....	.....	59
Kenosha	36	.....	14	.....	50
Kewaunee	25	.....	4	.....	29
La Crosse	116	22	.....	.....	138
Lafayette	32	8	.....	.....	40
Langlade	13	.....	7	.....	20
Lincoln	29	.....	10	.....	39
Manitowoc	65	.....	30	.....	95
Marathon	62	.....	21	.....	83
Marinette	38	.....	30	.....	68
Marquette	23	.....	10	.....	33
Milwaukee	222	1	4	499	726
Monroe	50	13	.....	.....	63
Oconto	51	.....	16	.....	67
Oneida	15	.....	7	.....	22
Outagamie	79	.....	22	.....	101
Ozaukee	42	.....	7	.....	49
Pepin	16	6	.....	.....	22
Pierce	37	12	.....	.....	49
Polk	31	17	.....	.....	48
Portage	59	.....	22	.....	81
Price	22	.....	15	.....	37
Racine	104	.....	16	.....	120
Richland	40	2	.....	.....	42
Rock	113	13	.....	.....	126
St. Croix	63	13	.....	.....	76
Sauk	77	12	2	.....	91
Sawyer	3	2	.....	.....	5

Statistics.

TABLE

Showing Census by Counties of Insane under Public Care in Hospitals and County Asylums for the Insane June 30, 1904.—Continued.

Counties.	County Asylums.	State Hospital.	Northern Hospital.	Milwaukee Hospital.	Total.
Shawano	26	.....	7	.....	33
Sheboygan	111	.....	34	.....	145
Taylor	25	.....	8	.....	33
Trempealeau	50	8	.....	.....	58
Vernon	59	19	.....	.....	78
Vilas	7	.....	2	.....	9
Walworth	65	14	.....	.....	79
Washburn	8	6	.....	.....	14
Washington	42	.....	17	.....	59
Waukesha	90	1	22	.....	113
Waupaca	59	.....	14	.....	73
Waushara	20	.....	6	.....	26
Winnebago	132	.....	32	.....	164
Wood	31	.....	10	.....	41
State-at-large	276	34	57	.....	367
Total	3,953	442	643	499	5,537

Statistics.

TABLE

Showing number of insane inmates in hospitals and county asylums for the insane, June 30, 1904, and number absent from such institutions on leave, on same date and liable to be returned thereto under parole laws.

Counties.	Male.	Female.	Total.	Paroled.	Aggregate.
1. Brown	59	63	122	2	124
2. Chippewa	96	50	146	.....	146
3. Columbia	52	48	100	.....	100
4. Dane	72	83	155	6	161
5. Dodge	68	55	123	.....	123
6. Dunn	63	64	127	.....	127
7. Eau Claire	95	53	148	7	155
8. Fond du Lac	62	47	109	.....	109
9. Grant	76	62	138	3	141
10. Green	56	62	118	9	127
11. Iowa	64	48	112	2	114
12. Jefferson	85	43	128	.....	128
13. La Crosse	82	69	151	4	155
14. Manitowoc	110	54	164	2	166
15. Marathon	97	75	172	34	206
16. Milwaukee	117	104	221	10	231
17. Monroe	32	19	51	1	52
18. Outagamie	79	65	144	6	150
19. Racine	.....	.....	.....	.....	.....
20. Richland	82	41	123	2	125
21. Rock	86	71	157	10	167
22. St. Croix	79	60	139	5	144
23. Sauk	65	52	117	6	123
24. Sheboygan	65	52	117	2	119
25. Trempealeau	52	53	105	.....	105
26. Vernon	72	57	129	4	133
27. Waupaca	67	49	116	4	120
28. Walworth	59	44	103	3	106
29. Washington	67	47	114	2	116
30. Waukesha	48	53	101	1	102
31. Winnebago	129	83	203	3	206
Total asylums	2,227	1,726	3,953	128	4,081
Hospitals:					
State Hospital	245	197	442	210	652
Northern Hospital	392	233	625	336	961
Milwaukee Hospital	244	255	499	100	599
Total hospital	881	685	1,566	646	2,212
Total asylums and hospitals	3,108	2,411	5,519	774	6,293

On June 30, 1903, there were in county asylums 3,823 patients and in hospitals 1,541, making a total insane population on that date of 5,364. This does not include those on parole and liable to be returned.

TABLE SHOWING NUMBER OF PATIENTS IN EACH COUNTY ASYLUM ON JUNE 30, 1903, AND THE COUNTIES TO WHICH THEY BELONG.

Counties.	Brown.	Chippewa.	Columbia.	Dane.	Dodge.	Dunn.	Eau Claire.	Fond du Lac.	Grant.	Green.	Iowa.	Jefferson.	La Crosse.	Manitowoc.	Marathon.	Milwaukee.	Monroe.	Outagamie.	Racine.	Richland.	Rock.	St Croix.	Sauk.	Sheboygan.	Trempealeau.	Vernon.	Walworth.	Washington.	Winnebago.	Waupaca.	Total.
Adams	....	....	2	...	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	....	1	....	....	2	....	....	....	....	8
Ashland	1	7	....	....	....	....	1	....	....	....	1	1	....	....	13	....	....	....	....	....	....	5	....	....	....	....	....	1	2	1	33
Barron	....	15	....	....	....	11	5	....	1	....	....	....	2	....	3	....	....	....	....	....	....	6	....	....	....	....	....	....	....	....	43
Bayfield	....	6	....	....	....	....	2	....	....	....	....	....	1	....	3	....	....	....	....	....	....	2	....	....	....	....	....	....	3	1	18
Brown	80	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	81
Buffalo	....	....	....	....	....	1	3	....	....	2	1	....	13	....	1	....	....	....	....	....	....	2	....	....	5	1	....	....	....	....	29
Burnett	....	2	....	....	....	6	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	4	1	....	....	3	....	....	....	....	17
Calumet	....	....	....	....	....	....	....	....	....	....	....	....	....	5	....	....	....	7	....	....	....	....	....	5	....	....	....	7	1	....	25
Chippewa	....	58	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	58
Clark	....	3	....	....	....	....	2	....	....	....	....	....	3	....	8	....	....	....	....	....	....	....	....	....	6	3	....	....	....	....	25
Columbia	....	....	68	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	68
Crawford	....	....	....	....	....	....	....	....	12	....	1	....	....	....	....	....	....	....	....	20	....	....	....	....	....	4	....	....	....	....	37
Dane	....	....	....	143	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	143
Dodge	....	....	....	....	99	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	99
Door	1	....	....	....	....	....	....	....	....	....	....	1	....	10	....	....	....	7	....	....	....	....	....	....	....	....	....	....	1	....	20
Douglas	....	15	....	....	....	3	16	....	....	2	....	....	....	....	....	....	....	....	....	....	....	17	....	....	....	4	....	....	2	....	59
Dunn	....	....	....	....	....	63	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	63
Eau Claire	....	....	....	....	....	....	73	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	73
Florence	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	4
Fond du Lac	....	....	....	....	....	....	....	82	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	82
Forest	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	1	....	....	2
Gates	....	7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	7
Grant	....	....	....	....	....	....	....	....	103	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	103
Green	....	....	....	....	....	....	....	....	....	71	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	71
Green Lake	....	....	....	....	4	....	....	13	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	1	23
Iowa	....	....	....	....	....	....	....	....	....	....	58	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	58
Iron	1	2	....	....	....	....	1	....	....	....	1	....	....	....	5	....	....	....	....	....	....	....	....	....	....	....	....	....	1	3	14
Jackson	....	....	1	....	....	1	....	....	....	3	1	....	4	....	4	....	....	....	....	....	....	....	....	....	10	7	....	....	....	....	31
Jefferson	....	....	....	....	....	....	....	....	....	....	....	101	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	101
Juneau	....	....	1	....	....	....	....	....	....	15	....	....	1	....	....	....	....	....	....	4	....	....	21	....	3	7	....	....	....	....	52
Kenosha	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	14	....	....	....	....	....	....	....	23	....	....	....	37
Kewaunee	5	....	....	....	....	....	....	....	....	....	....	....	....	6	....	....	....	8	....	....	....	....	....	....	....	....	....	1	2	....	22
La Crosse	....	....	....	....	....	....	....	....	....	....	....	....	105	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	105
Lafayette	....	....	....	....	....	....	....	....	3	15	9	....	....	....	....	....	....	....	....	....	4	....	....	....	....	....	1	....	....	....	32
Langlade	1	....	....	....	....	....	....	....	....	....	....	....	....	3	4	....	....	2	....	....	....	....	....	....	....	....	....	1	1	1	13
Lincoln	....	....	....	....	2	....	....	....	....	....	....	1	....	....	11	....	....	3	....	....	....	....	....	....	....	....	....	3	5	....	25
Manitowoc	1	....	....	....	....	....	....	....	....	....	....	....	....	62	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	63
Marathon	....	....	....	....	....	....	....	....	....	....	....	....	....	....	56	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	56
Marinette	5	....	....	....	....	....	....	3	....	....	....	....	....	5	....	....	....	2	....	1	6	....	....	....	....	....	....	2	9	....	33
Marquette	....	....	6	....	....	....	2	3	....	....	....	....	....	....	2	....	....	....	....	....	4	....	....	....	....	....	....	2	1	....	20
Milwaukee	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	219	....	....	....	....	....	....	....	....	....	....	....	1	....	....	220
Monroe	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	43	....	....	....	....	....	1	....	....	....	....	....	1	....	45
Oconto	15	....	....	....	7	....	....	1	....	....	1	....	....	2	6	....	....	6	....	....	....	....	....	....	....	....	....	4	5	1	48
Oneida	....	....	....	....	....	....	....	1	....	....	....	....	....	....	5	....	....	2	....	....	....	....	....	....	....	....	....	2	2	1	13
Outagamie	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	80	....	....	....	....	....	....	....	....	....	....	....	....	80
Ozaukee	....	....	....	....	....	....	....	....	....	....	....	1	....	24	....	....	....	....	....	....	....	....	....	1	....	....	....	13	....	....	39
Pepin	....	4	....	....	....	6	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	2	1	....	....	3	....	....	....	....	17
Pierce	....	....	....	1	....	9	1	....	....	....	4	....	3	....	....	....	....	....	....	1	....	11	4	....	2	....	....	....	....	....	36
Polk	....	....	....	....	....	5	1	....	....	3	8	....	....	....	....	....	....	....	....	....	....	13	....	....	....	4	....	....	....	....	34
Portage	....	....	2	....	....	5	....	....	....	....	....	....	....	....	17	....	....	4	....	....	....	3	....	....	19	....	....	2	2	4	58
Price	....	11	....	....	....	2	1	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	1	....	....	1	....	1	19
Racine	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	108	....	....	....	....	....	....	....	....	....	....	....	108
Richland	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	33	....	....	....	....	....	....	....	....	....	....	33
Rock	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	112	....	....	....	....	....	....	....	....	....	112
St. Croix	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	66	....	....	....	....	....	....	....	....	67
Sauk	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	82	....	....	....	....	....	....	....	82
Sawyer	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	3
Shawano	1	....	....	....	2	....	....	....	....	....	....	....	....	1	7	....	....	4	....	....	....	....	....	....	....	....	....	3	4	1	23
Sheboygan	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	106	....	....	....	....	....	....	106
Taylor	1	5	....	....	....	5	5	....	....	....	....	1	....	....	1	....	....	1	....	....	....	1	....	....	....	....	....	....	1	1	22
Trempealeau	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	48	....	....	....	....	....	48
Vernon	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	56	....	....	....	....	56
Vilas	1	....	....	....	....	....	....	1	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	1	2	....	7
Walworth	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	64	....	....	....	64
Washburn	....	2	....	....	....	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	....	....	7
Washington	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	40	....	....	40
Waukesha	....	....	....	....	2	....	....	....	....	....	18	6	....	....	....	....	....	2	....	....	3	....	....	....	....	....	21	17	....	....	69
Waupaca	....	....	....	....	....	....	....	....	....	....	....	1	....	1	1	....	....	....	....	5	....	....	....	....	....	....	....	1	....	61	62
Waushara	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	5	....	19
Winnebago	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	133	....	133
Wood	1	1	....	....	....	....	....	....	....	....	....	....	....	....	13	....	....	1	....	2	....	....	....	....	7	....	....	....	1	4	30
State at large	4	5	18	2	2	7	6	2	10	4	12	12	11	34	1	....	1	5	6	41	14	9	....	....	5	22	9	12	7	9	270
Total	118	143	98	146	118	126	121	107	129	116	116	126	143	154	165	219	44	136	128	110	145	142	113	112	106	116	118	120	198	90	3,823

TABLE SHOWING NUMBER OF PATIENTS IN EACH COUNTY ASYLUM ON JUNE 30, 1904, AND THE COUNTIES TO WHICH THEY BELONG.

Counties.	Brown.	Chippewa.	Columbia.	Dane.	Dodge.	Dunn.	Fond du Lac.	Grant.	Green.	Iowa.	Jefferson.	La Crosse.	Manitowoc.	Marathon.	Milwaukee.	Outagamie.	Racine.	Richland.	Rock.	St. Croix.	Sauk.	Sheboygan.	Vernon.	Walworth.	Washington.	Winnebago.	Waupaca.	Waukesha.	Eau Claire.	Monroe.	Trempealeau.	Total.
Adams	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	....	2	....	2	....	....	....	....	....	5	....	....	14
Ashland	1	7	....	....	....	....	....	....	....	1	1	....	....	13	....	....	....	....	....	5	....	....	....	....	1	2	1	....	....	....	....	32
Barron	....	13	....	....	....	14	....	1	....	....	....	2	....	3	....	....	....	....	....	8	....	....	2	....	....	....	....	....	4	....	....	47
Bayfield	....	8	....	....	....	....	....	....	....	....	....	1	....	3	....	....	....	....	....	2	....	....	....	....	....	5	....	....	5	....	....	24
Brown	84	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	85
Buffalo	....	....	....	....	....	1	....	....	2	....	....	12	....	1	....	....	....	....	....	2	....	....	1	....	....	....	....	....	4	....	5	28
Burnett	....	2	....	....	....	5	....	....	....	....	1	....	....	....	....	....	....	....	....	4	1	....	3	....	....	....	....	....	....	....	....	16
Columet	....	....	....	....	....	....	....	....	....	....	....	....	5	....	....	6	....	....	....	....	....	5	....	....	8	2	....	....	....	....	....	26
Chippewa	....	56	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	56
Clark	....	3	....	....	....	....	....	....	....	....	....	3	....	8	....	....	....	....	....	....	....	....	3	....	....	....	....	....	1	....	6	24
Columbia	....	....	67	....	....	....	....	12	....	1	....	....	....	....	....	....	....	19	....	....	....	....	5	....	....	....	....	....	....	....	....	37
Crawford	....	....	....	154	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	154
Dane	....	....	....	....	107	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	107
Dodge	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	24
Door	2	....	....	....	....	3	....	....	....	....	....	....	13	....	....	8	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	58
Douglas	....	13	....	....	....	3	....	....	2	....	....	....	....	....	....	....	....	....	....	16	....	....	3	....	....	2	....	....	19	....	....	61
Dunn	....	....	....	....	....	61	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	70
Eau Claire	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5
Florence	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	1	....	....	....	....	....	....	....	....	....	2	....	....	....	....	....	83
Fond du Lac	....	....	....	....	....	....	83	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2
Forest	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	7
Gates	....	7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	105
Grant	....	....	....	....	....	....	....	105	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	65
Green	....	....	....	....	....	....	....	....	65	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	26
Green Lake	....	....	....	....	4	....	15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6	1	....	....	....	....	64
Iowa	....	....	....	....	....	....	....	....	....	64	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	17
Iron	1	3	....	....	....	....	....	....	....	1	....	....	....	6	....	....	....	....	....	....	....	....	....	....	....	2	3	....	1	....	....	29
Jackson	....	....	1	....	....	1	....	....	3	1	....	3	....	4	....	....	....	....	....	....	....	....	6	....	....	....	....	....	1	....	9	105
Jefferson	....	....	....	....	....	....	....	....	....	....	105	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	51
Juneau	....	....	1	....	....	....	....	....	14	....	....	1	....	....	....	....	....	4	....	....	22	....	6	....	....	....	....	....	....	....	3	36
Kenosha	....	....	....	....	....	....	....	....	10	....	....	....	....	....	....	....	....	....	5	....	....	....	....	20	1	....	....	....	....	....	....	25
Kewaunee	5	....	....	....	....	....	....	....	....	....	....	....	8	....	....	9	....	....	....	....	....	....	....	....	1	2	....	....	....	....	....	116
La Crosse	....	....	....	....	....	....	....	....	....	....	....	116	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	32
Lafayette	....	....	....	....	....	....	....	2	16	9	....	....	....	....	....	....	....	....	4	....	....	....	....	1	....	....	....	....	....	....	....	13
Langlade	1	....	....	....	....	....	....	....	....	....	....	....	3	4	....	2	....	....	....	....	....	....	....	....	1	1	1	....	....	....	....	29
Lincoln	....	....	....	....	2	....	....	....	....	....	1	....	....	12	....	3	....	....	....	....	....	....	....	....	3	6	2	....	....	....	....	65
Manitowoc	1	....	....	....	....	....	....	....	....	....	....	....	64	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	62
Marathon	....	....	....	....	....	....	....	....	....	....	....	....	....	62	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	38
Marinette	8	....	....	....	....	3	....	....	....	....	....	....	8	....	....	4	....	....	6	....	....	....	....	....	2	7	....	....	....	....	....	23
Marquette	....	....	6	....	....	3	....	....	....	....	....	....	....	2	....	....	....	1	4	....	....	....	....	....	2	2	1	....	2	....	....	222
Milwaukee	....	....	....	....	....	....	....	....	....	....	....	....	....	....	221	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	50
Monroe	15	....	....	....	6	1	....	....	....	1	....	....	2	6	....	9	....	....	....	....	1	....	....	....	3	5	3	....	....	49	....	51
Oconto	....	....	....	....	....	1	1	....	....	....	....	....	....	5	....	3	....	....	....	....	....	....	....	....	2	3	....	....	....	....	....	15
Oneida	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	79	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	79
Outagamie	....	....	....	....	....	....	....	....	....	....	....	....	24	....	....	....	....	....	....	....	....	1	....	....	17	....	....	....	....	....	....	42
Ozaukee	....	4	....	....	....	6	....	....	....	1	....	....	....	....	....	....	....	....	....	1	1	....	3	....	....	....	....	....	....	....	....	16
Pepin	....	....	....	1	....	8	....	....	1	4	....	3	....	....	....	....	....	1	....	13	4	....	....	....	....	....	....	....	1	....	1	37
Pierce	....	....	....	....	....	5	....	....	3	7	....	....	....	....	....	....	....	....	....	12	....	....	4	....	....	....	....	....	....	....	....	31
Polk	....	....	2	....	....	5	....	....	....	....	....	....	....	15	....	4	....	....	....	3	....	....	....	....	2	2	7	....	....	....	19	59
Portage	....	10	....	....	....	2	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1	....	5	....	2	....	1	22
Price	....	5	4	....	....	....	....	10	....	5	5	....	....	....	....	....	....	3	8	....	5	....	12	8	....	1	10	12	16	....	....	104
Racine	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	40	....	....	....	....	....	....	....	....	....	....	....	....	....	40
Richland	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	113	....	....	....	....	....	....	....	....	....	....	....	....	113
Rock	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	62	....	....	....	....	....	....	....	....	....	....	....	63
St. Croix	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	77	....	....	....	....	....	....	....	....	....	....	77
Sauk	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	3
Sawyer	1	....	....	....	2	....	....	....	....	....	....	....	1	7	....	4	....	....	....	....	....	....	....	....	3	4	4	....	....	....	....	26
Shawano	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	111	....	....	....	....	....	....	....	....	....	111
Sheboyan	1	6	....	....	....	5	....	....	....	....	1	....	....	1	....	1	....	....	....	1	....	....	....	....	....	1	3	....	5	....	....	25
Taylor	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	59	....	....	....	....	....	....	....	50	50
Trempealeau	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	59
Vernon	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	65	....	....	....	....	....	....	....	7
Vilas	1	1	....	....	....	....	1	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	65
Walworth	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	8
Washburn	....	2	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	....	....	2	....	....	42
Washington	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	42	....	....	....	....	....	....	90
Waukesha	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	89	....	....	....	59
Waupaca	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	58	....	....	....	....	20
Waushara	....	....	....	....	....	....	2	....	....	....	1	....	1	1	....	....	....	4	....	....	....	....	....	....	5	5	1	....	....	....	....	132
Winnebago	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	132	....	....	....	....	....	31
Wood	1	1	....	....	....	1	....	....	....	....	....	....	....	14	....	....	....	2	....	....	....	....	....	....	....	1	5	....	....	....	6	276
State at large	....	5	17	....	2	6	....	8	2	17	12	10	34	1	....	9	....	46	15	9	2	....	20	9	15	9	11	....	10	2	5	
Total	122	146	100	155	123	127	109	138	118	112	128	151	164	172	221	144	....	123	157	139	117	117	129	103	114	203	116	101	148	51	105	3,953

Statistics.

TABLE SHOWING CENSUS OF INSANE UNDER PUBLIC CARE JUNE 30, 1903.

Counties.	In State hospital.	In Northern hospital.	In Milwaukee hospital.	In county asylums for chronic insane.	Total.	Population in 1900.	Ratio of insanity to population.
Adams	4			8	12	9,141	762
Ashland		16		33	49	20,176	412
Barron	12			42	55	23,677	430
Bayfield		24		18	42	14,392	343
Brown	1	22		81	104	46,359	445
Buffalo	8			29	37	16,765	453
Burnett				17	17	7,478	439
Calumet		9		25	34	17,078	502
Chippewa	14			58	72	28,357	393
Clark	8	1		25	34	25,848	760
Columbia	9			68	77	31,121	404
Crawford	8			37	45	17,286	384
Dane	39	6		43	188	69,435	369
Dodge	1	30		99	130	46,631	358
Door		9		20	29	17,583	606
Douglas	22	1		59	82	36,335	443
Dunn	13	1		63	77	25,043	325
Eau Claire	6			73	79	31,692	401
Florence		1		4	5	3,197	639
Fond du Lac		26		82	108	47,589	440
Forest		2		2	4	1,396	349
Gates				7	7	4,680	669
Grant	18			103	121	38,881	321
Green	14			71	85	22,719	267
Green Lake		7		23	30	15,797	526
Iowa	8			58	66	23,114	350
Iron		5		14	19	6,616	348
Jackson	10			31	41	17,466	426
Jefferson		26		101	127	34,789	274
Juneau	15	1		57	68	20,629	303
Kenosha		14		37	51	21,707	425
Kewaunee		5		22	27	17,212	637
La Crosse	22			105	127	42,997	338
Lafayette	8			32	40	20,959	524
Langlade		13		13	26	12,553	483
Lincoln		7		25	32	16,269	508
Manitowoc		28		63	91	42,261	464
Marathon		24		56	80	43,256	540
Marinette		26		33	59	30,822	522
Marquette		10		20	30	10,509	350
Milwaukee		3	510	220	733	330,017	450
Monroe	15			45	60	28,103	468
Oconto		21		48	69	20,874	302
Oneida		10		13	23	8,875	386
Outagamie		16		80	96	46,247	482
Ozaukee		5		39	44	16,363	372
Pepin	4			17	21	7,905	376
Pierce	11			36	47	23,943	509
Polk	8			34	42	17,801	421
Portage		19		58	77	29,483	383
Price		7		19	26	9,106	350
Racine		21		108	129	45,644	354
Richland	8			33	41	19,483	475
Rock	19	1		112	132	51,203	388
St. Croix	6			67	73	26,830	367
Sauk	4	1		82	87	33,006	379
Sawyer	1			3	4	3,593	898

Statistics.

TABLE SHOWING CENSUS OF INSANE UNDER PUBLIC CARE JUNE 30, 1903.—Continued.

Counties.	In State hospital.	In Northern hospital.	In Milwaukee hospital.	In county asylums for chronic insane.	Total.	Population in 1900.	Ratio of insanity to population.
Shawano	.....	14	.....	23	37	27,475	742
Sheboygan	.....	34	.....	106	140	50,345	360
Taylor	.....	12	.....	22	34	11,262	331
Trempealeau	15	.....	.....	48	63	23,114	366
Vernon	15	.....	.....	56	71	28,351	399
Vilas	.....	1	.....	7	8	4,929	616
Walworth	14	.....	.....	64	78	29,259	375
Washburn	6	.....	.....	7	13	5,521	424
Washington	.....	13	.....	40	53	23,589	443
Waukesha	1	10	.....	69	80	35,229	440
Waupaca	.....	14	.....	62	76	31,615	416
Waushara	.....	4	.....	19	23	15,972	694
Winnebago	.....	31	.....	133	164	58,225	355
Wood	.....	13	.....	30	43	25,865	601
State-at-large	39	61	.....	270	370	.....	.....
Total	406	625	510	3,823	5,364	2,069,042	385

Statistics.

TABLE SHOWING CENSUS OF INSANE UNDER PUBLIC CARE JUNE 30, 1904.

Counties.	In State hospital.	In Northern hospital.	In Milwaukee hospital.	In county asylums for chronic insane.	Total.	Population in 1900	Ratio of insanity to population.
Adams	7	1	.....	14	22	9,141	415
Ashland	.....	15	.....	32	47	20,176	429
Barron	9	.....	.....	47	56	23,677	423
Bayfield	.....	23	.....	24	47	14,392	306
Brown	1	22	.....	85	108	46,359	429
Buffalo	7	.....	.....	28	35	16,765	479
Burnett	2	.....	.....	16	18	7,478	415
Calumet	.....	10	.....	26	36	17,078	474
Chippewa	12	.....	.....	56	68	28,357	417
Clark	15	1	.....	24	40	25,848	646
Columbia	18	.....	.....	67	85	31,121	366
Crawford	6	.....	.....	37	43	17,286	402
Dane	43	4	.....	154	201	69,435	345
Dodge	.....	26	.....	107	133	46,631	350
Door	.....	12	.....	24	36	17,583	488
Douglas	31	.....	.....	58	89	36,335	408
Dunn	11	1	.....	61	73	25,043	343
Eau Claire	9	.....	.....	70	79	31,692	401
Florence	.....	3	.....	5	8	3,197	400
Fond du Lac	.....	26	.....	83	109	47,589	437
Forest	.....	1	.....	2	3	1,396	465
Gates	1	.....	.....	7	8	4,680	585
Grant	18	.....	.....	105	123	38,881	316
Green	16	.....	.....	65	81	22,719	280
Green Lake	.....	15	.....	26	41	15,797	385
Iowa	10	.....	.....	64	74	23,114	312
Iron	.....	4	.....	17	21	6,616	315
Jackson	14	.....	.....	29	43	17,466	406
Jefferson	1	33	.....	105	139	34,789	250
Juneau	8	.....	.....	51	59	20,629	349
Kenosha	.....	14	.....	36	50	21,707	434
Kewaunee	.....	4	.....	25	29	17,212	593
La Crosse	22	.....	.....	116	138	42,997	312
Lafayette	8	.....	.....	32	40	20,959	524
Langlade	.....	7	.....	13	20	12,553	627
Lincoln	.....	10	.....	29	39	16,269	417
Manitowoc	.....	30	.....	65	95	42,261	444
Marathon	.....	21	.....	62	83	43,256	521
Marinette	.....	30	.....	38	68	30,822	453
Marquette	.....	10	.....	23	33	10,509	318
Milwaukee	1	4	499	222	726	330,017	454
Monroe	13	.....	.....	50	63	28,103	446
Oconto	.....	16	.....	51	67	20,874	311
Oneida	.....	7	.....	15	22	8,875	403
Outagamie	.....	22	.....	79	101	46,247	458
Ozaukee	.....	7	.....	42	49	16,363	334
Pepin	6	.....	.....	16	22	7,905	359
Pierce	12	.....	.....	37	49	23,943	488
Polk	17	.....	.....	31	48	17,801	371
Portage	.....	22	.....	59	81	29,483	364
Price	.....	15	.....	22	37	9,106	246
Racine	.....	16	.....	104	120	45,644	380
Richland	2	.....	.....	40	42	19,483	464
Rock	13	.....	.....	113	126	51,203	407
St. Croix	13	.....	.....	63	76	26,830	353
Sauk	12	2	.....	77	91	33,006	362
Sawyer	2	.....	.....	3	5	3,593	718

Statistics.

TABLE SHOWING CENSUS OF INSANE UNDER PUBLIC CARE JUNE 30, 1904.—Continued.

Counties.	In State hospital.	In Northern hospital.	In Milwaukee hospital.	In county asylums for chronic insane.	Total.	Population in 1900.	Ratio of insanity to population.
Shawano	.....	7	.....	26	33	27,475	832
Sheboygan	.....	34	.....	111	145	50,345	347
Taylor	.....	8	.....	25	33	11,262	341
Trempealeau	8	.....	.....	50	58	23,114	398
Vernon	19	.....	.....	59	78	28,351	363
Vilas	.....	2	.....	7	9	4,929	548
Walworth	14	.....	.....	65	79	29,259	370
Washburn	6	.....	.....	8	14	5,521	394
Washington	.....	17	.....	42	59	23,589	398
Waukesha	1	22	.....	90	113	35,229	311
Waupaca	.....	14	.....	59	73	31,615	433
Waushara	.....	6	.....	20	26	15,972	614
Winnebago	.....	32	.....	132	164	58,225	355
Wood	.....	10	.....	31	41	25,865	631
State-at-large	34	57	.....	276	367	.....	.....
Total	442	643	499	3,953	5,537	2,069,042	373

Statistics.

STATISTICS OF COUNTY ASYLUMS FOR 1903—POPULATION.

County Asylum.	No. at beginning of year.			No. received during year.			Total for year.			No. discharged by order of county judge.			No paroled. Taken home by friends.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1 Brown	54	61	115	11	6	17	65	67	132	...	...	...	4	3	7
2 Chippewa	91	45	136	18	5	23	109	50	159	...	...	...	3	....	3
3 Columbia	49	48	97	4	2	6	53	50	103	...	...	...	1	...	1
4 Dane	76	75	151	11	7	18	87	82	169	...	1	1	2	4	6
5 Dodge	67	46	113	5	9	14	72	55	127	...	1	1	1	1	2
6 Dunn	71	61	132	4	3	7	75	64	139	1	1	2	1	...	1
7 Eau Claire	53	44	97	30	12	42	83	56	139	...	...	...	3	3	6
8 Fond du Lac	61	44	105	10	11	21	71	55	126	1	...	1	....	1	1
9 Grant	75	52	127	7	4	11	82	56	138	1	...	1	....	1	1
10 Green	59	63	122	8	4	12	67	67	134	...	1	1	7	1	8
11 Iowa	61	56	117	5	3	8	66	59	125	...	...	...	2	....	2
12 Jefferson	73	39	112	9	9	18	82	48	130	...	...	...	..	....	....
13 La Crosse	72	65	137	7	8	15	79	73	152	...	...	...	1	....	1
14 Manitowoc	107	57	164	11	2	13	118	59	177	...	...	...	5	2	7
15 Marathon	103	66	169	6	13	19	109	79	188	...	...	...	5	.. .	5
16 Milwaukee	90	82	172	37	25	62	127	107	234	...	...	...	3	1	4
17 Monroe*	....	....	....	26	18	44	26	18	44	...	...	...	....	....	....
18 Outagamie	76	70	146	9	15	24	85	85	170	...	...	...	3	2	5
19 Racine	67	60	127	5	10	15	72	70	142	...	...	...	....	3	3
20 Richland	75	35	110	4	2	6	79	37	116	...	...	...	1	1	2
21 Rock	76	70	146	11	9	20	87	79	166	...	...	...	5	3	8
22 St. Croix	82	66	148	7	4	11	89	70	159	...	...	...	5	1	6
23 Sauk	60	51	111	6	6	12	66	57	123	...	...	...	2	2	4
24 Sheboygan	60	55	115	7	3	10	67	58	125	...	...	...	....	2	2
25 Trempealeau	51	58	109	12	3	15	63	61	124	1	...	1	2	6	8
26 Vernon	75	47	122	18	17	35	93	64	157	...	...	...	2	...	2
27 Walworth	66	48	114	5	7	12	71	55	126	...	...	...	2	1	3
28 Washington	74	43	117	17	10	27	91	53	144	1	...	1	2	1	3
29 Waupaca*	....	....	....	63	38	101	63	38	101	...	...	..	1	2	3
30 Winnebago	117	82	199	20	11	31	137	93	230	...	...	...	2	1	3
Total	2,041	1,589	3,630	393	276	669	2,434	1,865	4,299	5	4	9	65	42	107

Statistics.

STATISTICS OF COUNTY ASYLUMS FOR 1903—POPULATION—Continued.

County Asylum.	No. transferred to other institutions.			No. escaped.			No. died during year.			Total loss of population.			No. remaining June 30th, 1903.			No. absent on leave June 30th, 1903.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male	Female.	Total.
1 Brown	....	1	1	..	..	..	1	5	6	5	9	14	60	58	118	4	2	6
2 Chippewa	....	1	1	2	..	2	6	4	10	11	5	16	98	45	143	2	...	2
3 Columbia	....	....	....	1	..	1	1	2	3	3	2	5	50	48	98	1	...	1
4 Dane	1	....	1	..	..	..	8	7	15	11	12	23	76	70	146	4	1	5
5 Dodge	...	..	..	1	..	1	1	4	5	3	6	9	69	49	118	2	1	3
6 Dunn	1	1	2	..	..	..	7	1	8	10	3	13	65	61	126	1	...	1
7 Eau Claire	...	....	....	1	..	1	6	5	11	10	8	18	73	48	121	4	3	7
8 F'd du L'c.	1	1	2	..	..	..	8	7	15	10	9	19	61	46	107	3	1	4
9 Grant	....	....	....	..	..	..	5	2	7	6	3	9	76	53	129	1	2	3
10 Green	....	....	....	..	..	..	4	5	9	11	7	18	56	60	116	5	2	7
11 Iowa	....	....	....	..	..	..	5	2	7	7	2	9	59	57	116	...	...	....
12 Jefferson	1	....	1	..	..	..	2	1	3	3	1	4	79	47	126	...	...	....
13 La Crosse	....	....	....	1	..	1	4	3	7	6	3	9	73	70	143	2	...	2
14 Manitowoc	3	3	6	1	..	1	6	3	9	15	8	23	103	51	154	5	2	7
15 Marathon	5	6	11	2	..	2	3	2	5	15	8	23	94	71	165	25	10	35
16 Milwaukee	...	....	....	4	..	4	3	4	7	10	5	15	117	102	219	6	1	7
17 Monroe*	....	....	....	..	..	..	....	....	....	....	....	....	26	18	44	...	...	....
18 Outagamie	11	10	21	..	..	..	5	3	8	19	15	34	66	70	136	3	2	5
19 Racine	2	....	2	..	..	..	5	4	9	7	7	14	65	63	128	1	3	4
20 Richland	....	....	....	..	..	..	3	1	4	4	2	6	75	35	110	2	1	3
21 Rock	2	3	5	1	..	1	4	3	7	12	9	21	75	70	145	5	4	9
22 St. Croix	...	....	....	1	..	1	3	7	10	9	8	17	80	62	142	5	1	6
23 Sauk	3	1	4	..	..	..	....	2	2	5	5	10	61	52	113	2	2	4
24 Sheboygan	....	1	1	1	..	1	4	5	9	5	8	13	62	50	112	...	2	2
25 Tremp'le'u	....	....	....	2	..	2	4	3	7	9	9	18	54	52	106	3	6	9
26 Vernon	17	13	30	..	..	..	7	2	9	26	15	41	67	49	116	2	...	2
27 Walworth	....	....	....	1	..	1	3	1	4	6	2	8	65	53	118	2	1	3
28 W'shingt'n	10	3	13	..	..	..	6	1	7	19	5	24	72	48	120	5	1	6
29 Waupaca	....	....	....	..	..	..	6	2	8	7	4	11	56	34	90	1	2	3
30 Winn'bago	13	5	18	..	..	..	7	4	11	22	10	32	115	83	198	2	1	3
Total	70	49	119	19	..	19	127	95	222	286	190	476	2,148	1,675	3,823	98	51	149

Statistics.

STATISTICS OF COUNTY ASYLUMS FOR 1903—OCCUPATION.

COUNTY ASYLUMS.	No. who work all day.			No. who work ½ day or more.			No. who work a less amount.			No. who do not labor.			No. physically disabled.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1 Brown	8	5	13	15	11	26	10	8	18	27	34	61	20	16	36
2 Chippewa	43	19	62	25	16	41	14	4	18	16	6	22	20	16	36
3 Columbia	37	31	68	8	10	18	3	4	7	2	3	5	....	....	....
4 Dane	18	13	31	38	13	51	15	24	39	5	20	25	....	....	....
5 Dodge	12	11	23	8	16	24	9	8	17	40	14	54	....	....	....
6 Dunn	19	17	36	19	17	36	17	19	36	9	9	18	7	5	12
7 Eau Claire	17	12	29	17	17	34	19	9	28	20	10	30	9	8	17
8 Fond du Lac	9	6	15	15	7	22	22	8	30	15	25	40	5	1	6
9 Grant	13	7	20	22	11	33	32	27	59	9	8	17	9	8	17
10 Green	26	19	45	7	18	25	9	6	15	14	17	31	14	17	31
11 Iowa	38	27	65	14	11	25	4	4	8	3	15	18	....	....	....
12 Jefferson	40	18	58	29	17	46	4	7	11	6	5	11	1	2	3
13 La Crosse	37	30	67	25	10	35	4	10	14	7	20	27	5	12	17
14 Manitowoc	40	24	64	24	10	34	21	9	30	18	8	26	21	10	31
15 Marathon	18	20	38	....	....	....	68	44	112	8	7	15	3	2	5
16 Monroe	....	....	....	14	10	24	9	5	14	3	3	6	3	3	6
17 Milwaukee	51	45	96	19	12	31	10	10	20	37	35	72	18	20	38
18 Outagamie	25	18	43	14	16	30	11	16	27	16	20	36	4	6	10
19 Racine	30	27	57	11	13	24	6	9	15	18	14	32	....	....	....
20 Richland	22	8	30	14	6	20	16	12	28	23	9	32	13	11	24
21 Rock	12	12	24	18	18	36	28	27	55	17	13	30	10	8	18
22 St. Croix	19	20	39	23	9	32	26	16	42	12	17	29	2	2	4
23 Sauk	28	22	50	11	12	23	13	12	25	9	6	15	3	2	5
24 Sheboygan	15	13	28	10	2	12	8	13	21	29	22	51	9	9	18
25 Trempealeau	13	7	20	11	6	17	25	34	59	5	5	10	6	5	11
26 Vernon	47	30	77	9	9	18	9	9	18	2	1	3	14	23	37
27 Walworth	19	11	30	15	12	27	18	18	36	13	12	25	9	4	13
28 Waupaca	12	5	17	13	13	26	....	....	....	31	16	47	....	....	....
29 Washington	3	3	6	7	7	14	12	7	19	50	31	81	18	20	38
30 Winnebago	25	19	44	29	9	38	32	23	55	29	32	61	9	4	13
Total	696	499	1,195	484	338	822	474	402	876	493	437	930	232	214	446

Statistics.

STATISTICS OF COUNTY ASYLUMS FOR 1903—RESTRAINTS.

COUNTY ASYLUMS.	No. who have been in restraint or seclusion all the time.			No. who have been in restraint or seclusion one month or more at a time.			No. temporarily in restraint or seclusion.			No. never in restraint or seclusion.			Total No. days in restraint.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1 Brown	....	....	...	....	....	...	1	1	2	64	66	130	3	1	4
2 Chippewa	....	....	....	....	....	....	1	....	1	108	50	158	4	4	8
3 Columbia	....	....	...	....	....	....	....	....	....	53	50	103	....	....	.....
4 Dane	....	....	....	....	....	....	1	1	2	86	81	167	2	2	4
5 Dodge	....	....	..	....	....	....	....	....	...	72	55	127	.....	.....	.....
6 Dunn	....	....	...	....	....	....	....	..	..	75	64	139	.....	.....	.....
7 Eau Claire	...	....	...	4	5	9	2	2	4	77	49	126	360	818	1,178
8 Fond du Lac	....	..	....	....	....	....	2	2	4	69	53	122	20	20	40
9 Grant	....	....	....	....	....	....	....	....	....	82	56	138	.....	.....	.....
10 Green	....	....	....	....	1	1	....	....	....	67	66	133	.....	40	40
11 Iowa	....	....	...	....	....	....	....	....	..	66	59	125	....	.....	.....
12 Jefferson	...	....	....	....	....	....	....	....	....	82	48	130	.....	.....	.....
13 La Crosse	....	....	....	....	....	....	2	5	7	77	68	145	244	639	883
14 Manitowoc	....	....	...	1	1	2	2	1	3	115	57	172	326	270	596
15 Marathon	....	....	....	....	....	....	....	....	....	109	79	188	....	....	....
16 Monroe	....	....	....	....	....	....	....	2	2	26	16	42	....	11	11
17 Milwaukee	....	....	....	....	....	....	....	....	....	127	107	234	.....	.....	.....
18 Outagamie	....	....	....	....	1	1	....	....	....	85	84	169	.....	270	270
19 Racine	....	1	1	....	....	....	....	3	3	72	66	138	....	.....	.....
20 Richland	....	....	....	....	1	1	1	1	2	78	35	113	28	86	114
21 Rock	....	....	....	....	....	....	2	10	12	84	69	153	228	1	229
22 St. Croix	....	....	....	....	....	....	....	2	2	89	68	157	.....	10	10
23 Sauk	1	....	1	....	....	....	4	6	10	61	51	112	705	128	833
24 Sheboygan	....	1	1	....	....	....	....	1	1	67	56	123	.....	431	431
25 Trempealeau	....	....	....	1	4	5	....	....	....	62	57	119	73	550	623
26 Vernon	...	1	1	1	3	4	1	3	4	91	57	148	129	760	889
27 Walworth	....	...	....	4	3	7	1	11	12	66	41	107	745	331	1,076
28 Waupaca	....	....	....	1	1	2	4	3	7	58	34	92	296	223	519
29 Washington	.	..	....	....	....	....	3	3	6	88	50	138	140	140	280
30 Winnebago	....	....	....	....	....	....	4	3	7	133	90	223	15	10	25
Total	1	3	4	13	20	33	31	60	91	2,389	1,782	4,171	3,318	4,745	8,063

Statistics.

STATISTICS OF COUNTY ASYLUMS FOR 1903—EXPENDITURES.

Asylums.	Paid for wages and salaries.	Paid for subsistence.	Paid for fuel and light.	Paid for clothing.	Paid for furniture.	Paid for repairs.	Paid for other ordinary expenses.	Int. on asylum plant including buildings, at 4 per ct.	Total gross current expenses.
1 Brown	$4,484 36	$5,076 65	$2,418 22	$1,123 31	$19 75	$249 39	$1,747 31	$2,400 00	$17.518 99
2 Chippewa	4,968 12	4,311 79	949 80	1,312 13	217 85	687 54	4,157 50	2,450 49	19,055 22
3 Columbia	2,693 82	2,205 51	1,135 24	814 90	144 17	247 44	68 88	1,500 00	8,809 96
4 Dane	4,180 53	2,815 73	826 31	1,173 61	733 34	880 93	2,821 45	2,695 00	16,126 90
5 Dodge	3,247 15	5,305 32	1,075 69	549 19	44 80	1,026 35	791 14	1,600 00	13,639 64
6 Dunn	4,282 30	5,554 97	474 49	895 42	139 00	.. ....	2,186 28	3,858 80	17,391 26
7 Eau Claire	4,551 64	2,100 56	2,014 84	366 97	170 92	70 93	3,207 02	3,908 54	16,391 42
8 Fond du Lac	3,853 73	3,568 92	27 50	768 17	260 91	647 89	527 05	3,205 41	12,859 58
9 Grant	4,070 62	3,590 13	1,393 70	733 19	137 74	590 07	1,710 15	2,172 00	14,397 60
10 Green	4,075 50	2,322 00	986 76	1,680 00	96 00	320 00	278 19	3,280 00	14,038 45
11 Iowa	3,911 53	3,013 14	826 58	1,664 55	279 94	496 83	2,771 65	1,500 00	14,464 22
12 Jefferson	3,911 23	4,242 20	1,882 78	502 48	127 24	1,105 72	453 86	3,000 00	15,225 51
13 La Crosse	5,131 21	4,966 44	351 81	1,064 57	826 62	374 24	1,517 15	4,923 04	19,155 08
14 Manitowoc	5,665 62	2,703 33	1,906 74	1,527 56	230 45	381 90	6,667 46	3,000 00	22,083 06
15 Marathon	6,089 36	5,676 85	168 82	1,288 34	157 29	806 45	.....	3,991 14	18,178 25
16 Monroe	693 87	241 86	60 00	31 89	....	75 43	579 08	350 00	2,032 13
17 Milwaukee	8,808 94	8,024 34	2,897 67	990 78	67 50	304 89	2,879 35	.....	23,973 47
18 Outagamie	5,358 82	3,785 98	3,029 06	1,029 06	.....	1,412 01	580 83	4,196 00	19,391 76
19 Racine	4,782 80	5,532 20	1,350 28	1,078 12	615 24	1,790 89	397 93	2,811 13	18,358 59
20 Richland	3,986 67	4,281 05	658 59	878 19	56 57	761 64	327 30	2,492 54	13,442 55
21 Rock	4,868 25	3,413 78	2,368 61	1,000 08	117 24	900 14	744 55	4,818 69	18,231 34
22 St. Croix	3,954 96	2,788 18	443 12	918 60	158 32	1,026 84	4,161 13	3,314 54	16,765 69
23 Sauk	2,932 88	3,143 32	95 54	616 31	306 16	178 30	2,136 16	1,865 56	11,274 23
24 Sheboygan	4,251 25	3,601 76	1.037 49	763 08	453 56	305 16	1,771 28	2,498 03	14,681 61
25 Trempealeau	3,632 99	1,882 78	726 67	518 56	7 65	299 66	3,123 45	3,342 42	13,534 18
26 Vernon	5,399 70	5,794 02	2,713 92	892 87	.....	930 65	556 13	3,583 28	19,870 57
27 Walworth	3,881 85	2,190 80	1,924 42	758 98	111 84	833 45	1,781 37	2,460 00	13,942 71
28 Waupaca	5,453 92	4,467 34	2,421 25	405 83	.....	122 56	1,864 30	3,072 98	17,808 18
29 Washington	4,255 33	3,047 92	1,346 56	1,064 48	83 80	181 84	2,395 66	2,348 50	14,724 09
30 Winnebago	6,281 89	6,100 90	4,724 14	1,481 20	129 82	828 84	940 97	3,200 00	23,687 76
Total	133,660 84	116,749 77	42,236 60	27.892 42	$5,693 72	17,837 98	53,144 58	83,838 09	481,054 00

Statistics.

STATISTICS OF COUNTY ASYLUMS FOR 1903—RECEIPTS.

Asylums.	Received from sale of produce, stock, etc	Received from inmates paid by themselves or friends.	Received from other sources.	Total receipts	Net expenses.	No. of weeks board fur'ished	Average per capia per week.
1 Brown	$243 29	$134 08	$10 86	$388 23	$17,130 76	6,163	$2 78
2 Chippewa	1,054 70	889 93	2,058 00	4,002 63	15,052 59	6,850	2 20
3 Columbia	1,261 76	620 98	.....	1,882 74	6,927 22	5,116	1 35
4 Dane	559 93	1,238 10	.....	1,798 03	14,328 87	7,886	1 82
5 Dodge	.....	603 86	.....	603 86	13,035 78	6,007	2 17
6 Dunn	6,388 66	285 38	.....	6,674 04	10,717 22	6,705	1 59
7 Eau Claire	739 49	.....	.....	739 49	15,651 93	5,585	2 80
8 Fond du Lac	.....	.....	.....	.....	12,859 58	5,762	2 23
9 Grant	2,665 97	547 47	.....	3,213 44	11,184 16	6,804	1 64
10 Green	425 16	1,085 36	.....	1,510 52	12,527 93	6,238	2 01
11 Iowa	710 57	1,893 84	377 25	2,981 66	11,482 56	6,136	1 87
12 Jefferson	2,615 08	.....	.....	2,615 08	12,610 43	6,346	1 98
13 La Crosse	1,580 13	458 63	.....	2,038 76	17,116 32	7,397	2 31
14 Manitowoc	1,507 79	747 77	.....	2,255 56	19,827 50	8,212	2 41
15 Marathon	672 57	97 28	.....	769 85	17,408 40	8,445	2 06
16 Monroe	165 18	.....	282 75	447 93	1,584 20	528	3 00
17 Milwaukee	53 97	157 82	.....	211 79	23,761 68	10,395	2 28
18 Outagamie	3,500 25	635 29	.....	4,135 54	15,256 22	7,061	2 16
19 Racine	1,305 49	176 86	470 54	1,952 89	16,405 70	6,638	2 47
20 Richland	447 00	615 00	56 50	1,118 50	12,324 05	5,819	2 12
21 Rock	924 03	1,533 64	264 19	2,721 86	15,509 48	7,828	1 98
22 St. Croix	1,451 92	.....	1,307 22	2,759 14	14,006 55	7,716	1 81
23 Sauk	884 48	625 68	.....	1,510 16	9,764 07	5,903	1 65
24 Sheboygan	665 99	328 15	.....	994 14	13,687 47	5,223	2 62
25 Trempealeau	1,304 98	476 81	530 61	2,312 40	11,221 78	5,651	1 98
26 Vernon	2,316 45	1,075 75	260 80	3,653 00	16,217 57	6,317	2 56
27 Walworth	590 66	1,190 38	.....	1,781 04	12,161 67	6,024	2 01
28 Waupaca	2,070 69	.....	.....	2,070 69	15,737 49	3,631	4 33
29 Washington	488 13	441 33	.....	929 46	13,794 63	6,026	2 28
30 Winnebago	.....	.....	.....	.....	23,687 76	10,062	2 35
Total	$36,594 32	$15,859 39	$5,618 72	$58,072 43	$422,981 57	194,474	$2 23

Statistics.

STATISTICS OF COUNTY ASYLUMS FOR 1904—POPULATION.

ASYLUMS.	No. at beginning of year.			No. received during year.			Total for year.			No. discharged by order of Co. judge.			No paroled. Taken home by friends.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1 Brown	60	58	118	12	9	21	72	67	139	1	....	1	1	1	2
2 Chippewa	98	45	143	13	12	25	111	57	168	..	.	....	1	3	4
3 Columbia	50	48	98	9	4	13	59	52	111	....	..	....	...	1	1
4 Dane	76	70	146	11	15	26	87	85	172	....	....	....	1	1	2
5 Dodge	69	49	118	5	7	12	74	56	130	1	....	1	...	...	...
6 Dunn	65	61	126	5	9	14	70	70	140	1	....	1	1	2	3
7 Eau Claire	73	48	121	36	10	46	109	58	167	1	....	1	3	2	5
8 Fond du Lac	61	46	107	10	8	18	71	54	125	....	....	....	1	1	2
9 Grant	76	53	129	9	9	18	85	62	147	....	..	....	2	...	2
10 Green	56	60	116	11	10	21	67	70	137	....	....	....	4	2	6
11 Iowa	59	57	116	18	8	26	77	65	142	....	....	....	2	2	4
12 Jefferson	79	47	126	10	10	20	89	57	146	1	....	1	...	1	1
13 La Crosse	73	70	143	14	6	20	87	76	163	1	....	1	1	2	3
14 Manitowoc	103	51	154	11	6	17	114	57	171	....	....	....	1	...	1
15 Marathon	94	71	165	7	9	16	101	80	181	....	....	..	...	...	...
16 Monroe	26	18	44	10	3	13	36	21	57	2	....	2	1	...	1
17 Milwaukee	117	102	219	16	11	27	133	113	246		..	....	4	3	7
18 Outagamie	66	70	136	21	7	28	87	77	164	....	....	....	2	2	4
19 Racine	66	62	128	5	6	11	71	68	139	...	....	....	3	7	10
20 Richland	75	35	110	11	8	19	86	43	129	.	....	....	...	1	1
21 Rock	75	70	145	20	11	31	95	81	176	....	....	....	3	3	6
22 St. Croix	80	62	142	5	1	6	85	63	148	....	....	....	...	...	...
23 Sauk	61	52	113	9	7	16	70	59	129	..	....	....	4	1	5
24 Sheboygan	62	50	112	6	10	16	68	60	128	....	....	..	...	1	1
25 Trempealeau	54	52	106	4	4	8	58	56	114	....	..	..	1	2	3
26 Vernon	67	49	116	11	13	24	78	62	140	....	....	....	2	1	3
27 Walworth	65	53	118	21	9	30	86	62	148	....	....	....	1	1	2
28 Waupaca	56	34	90	25	21	46	81	55	136	....	....	....	1	1	2
29 Washington	72	48	120	14	5	19	86	53	139	....	....	....	2	...	2
30 Winnebago	115	83	198	14	4	18	129	87	216	....	....	....	1	1	2
31 Waukesha	.....	.....	...	48	56	104	48	56	104	....	....	....	...	1	1
Total	2,149	1,674	3,823	421	308	729	2,570	1,982	4,552	8	....	8	43	43	86

Statistics.

STATISTICS OF COUNTY ASYLUMS FOR 1904—POPULATION—Continued.

ASYLUMS.	No. transferred to other institutions.			No. escaped.			No. died during the year.			Total loss of population.			No. remaining June 30th, 1904.			No. absent on leave June 30th, 1904.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Femlae.	Total	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1 Brown	5	..	5	1	..	1	5	3	8	13	4	17	59	63	122	1	1	2
2 Chippewa	...	..	...	..	..	..	14	4	18	15	7	22	96	50	146	...	...	....
3 Columbia	1	1	2	1	..	1	5	2	7	7	4	11	52	48	100	...	...	....
4 Dane	3	..	3	..	..	..	11	1	12	15	2	17	72	83	155	2	4	6
5 Dodge	2	..	2	..	..	..	3	1	4	6	1	7	68	55	123	...	...	....
6 Dunn	...	..	...	..	..	..	5	4	9	7	6	13	63	64	127	..	...	....
7 Eau Claire	...	1	1	..	..	..	10	2	12	14	5	19	95	53	148	5	2	7
8 Fond du Lac	2	1	3	..	..	.	6	5	11	9	7	16	62	47	109	..	..	....
9 Grant	1	..	1	1	..	1	5	...	5	9	....	9	76	62	138	1	2	3
10 Green	..	..	..	3	..	3	4	6	10	11	8	19	56	62	118	6	3	9
11 Iowa	5	13	18	1	..	1	5	2	7	13	17	30	64	48	112	1	1	2
12 Jefferson	...	3	3		..	..	3	10	13	4	14	18	85	43	128	...	...	....
13 La Crosse	...	..	...	..	..	..	3	5	8	5	7	12	82	69	151	2	2	4
14 Manitowoc	...	..	..	..	..	..	3	3	6	4	3	7	110	54	164	1	1	2
15 Marathon	...	..	...	..	..	..	4	5	9	4	5	9	97	75	172	24	10	34
16 Monroe	...	.	..		..	..	1	2	3	4	2	6	32	19	51	1	..	1
17 Milwaukee	1	..	1	1	2	3	10	4	14	16	9	25	117	104	221	8	2	10
18 Outagamie	1	2	3	..	..	..	5	8	13	8	12	20	79	65	144	4	2	6
19 Racine	66	60	126	1	..	1	1	1	2	71	68	139	00	00	000	...	...	....
20 Richland	...	..	...	..	..	..	4	1	5	4	2	6	82	41	123	1	1	2
21 Rock	2	1	3	..	..		4	6	10	9	10	19	86	71	157	5	5	10
22 St. Croix	...	.	...	3	..	3	3	3	6	6	3	9	79	60	139	4	1	5
23 Sauk	...	..	...	..	..	..	1	6	7	5	7	12	65	52	117	4	2	6
24 Sheboygan	1	..	1	..	.	..	2	7	9	3	8	11	65	52	117	...	2	2
25 Trempealeau	1	..	1	..	..	..	4	1	5	6	3	9	52	53	105	...	...	....
26 Vernon	...		...	..	..	..	4	4	8	6	5	11	72	57	129	3	1	4
27 Walworth	10	8	18	1	..	1	15	9	24	27	18	45	59	44	103	2	1	3
28 Waupaca	...	1	1	2		2	11	4	15	14	6	20	67	49	116	2	2	4
29 Washington	11	5	16	..	..	..	6	1	7	19	6	25	67	47	114	2	...	2
30 Winnebago	...	1	1	1	..	1	7	2	9	9	4	13	120	83	203	1	2	3
31 Waukesha	...	.	...	..	..	..	...	2	2	....	3	3	48	53	101	...	1	1
Total	112	97	209	16	2	18	164	114	278	343	256	599	2,227	1,726	3,953	80	48	128

Statistics.

STATISTICS OF COUNTY ASYLUMS FOR 1904—OCCUPATION

ASYLUMS.	No. who work all day.			No. who work ½ day or more.			No. who work a less amount.			No. who do not labor.			No. physically disabled.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1 Brown	6	4	10	7	6	13	5	2	7	41	51	92	17	17	34
2 Chippewa	57	13	70	20	10	30	15	5	20	4	22	26	15	10	25
3 Columbia	39	31	70	8	10	18	2	3	5	3	4	7	....	....	....
4 Dane	18	13	31	28	11	39	21	39	60	5	20	25	....	....	....
5 Dodge	11	17	28	8	16	24	9	8	17	40	14	54	....	....	....
6 Dunn	16	19	35	14	15	29	15	18	33	18	12	30	8	4	12
7 Eau Claire	26	16	42	25	17	42	22	10	32	22	10	32	14	9	23
8 Fond du Lac	10	5	15	14	8	22	22	8	30	16	26	42	....	....	....
9 Grant	12	7	19	20	13	33	30	28	58	14	14	28	....	....	....
10 Green	24	14	38	10	20	30	9	12	21	13	16	29	13	16	29
11 Iowa	35	22	57	18	9	27	5	5	10	6	12	18	....	....	....
12 Jefferson	46	14	60	29	17	46	4	7	11	6	5	11	1	1	2
13 La Crosse	40	19	59	17	18	35	16	16	32	9	16	25	8	9	17
14 Manitowoc	30	24	54	25	10	35	34	8	42	21	12	33	18	9	27
15 Marathon	14	19	33	..	....	....	73	45	118	10	11	21	3	2	5
16 Monroe	4	3	7	9	3	12	12	6	18	7	7	14	....	2	2
17 Milwaukee	51	45	96	19	12	31	8	12	20	39	35	74	18	20	38
18 Outagamie	26	17	43	18	14	32	11	16	27	24	18	42	2	5	7
19 Racine	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
20 Richland	22	8	30	17	7	24	16	12	28	27	14	41	13	12	25
21 Rock	15	15	30	20	20	40	30	30	60	21	6	27	10	3	13
22 St Croix	19	19	38	24	9	33	25	14	39	11	18	29	79	60	139
23 Sauk	24	20	44	12	11	23	12	12	24	17	9	26	8	6	14
24 Sheboygan	14	13	27	11	3	14	17	4	21	23	32	55	8	7	15
25 Trempealeau	15	6	21	6	11	17	24	23	47	7	13	20	7	7	14
26 Vernon	50	22	72	8	7	15	2	5	7	12	23	35	5	7	12
27 Walworth	18	13	31	10	10	20	16	12	28	15	9	24	5	1	6
28 Waupaca	13	3	16	17	17	34	....	....	....	37	29	66	....	....	....
29 Washington	3	3	6	5	5	10	12	8	20	47	31	78	18	21	39
30 Winnebago	25	19	44	29	9	38	30	22	52	36	33	69	9	4	13
31 Waukesha	16	15	31	2	5	7	4	5	9	26	28	54	10	14	24
Total	699	458	1,157	450	323	773	501	395	896	577	550	1,127	289	246	535

Statistics.

STATISTICS OF COUNTY ASYLUMS FOR 1904—RESTRAINTS.

ASYLUMS.	No. who have been in restraint or seclusion all the time.			No who have been in restraint or seclusion one month or more at a time.			No. temporarily in restraint or seclusion.			No. never in restraint or seclusion.			Total No. of days in restraint.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1 Brown	....	....	....	....	....	....	....	....	....	72	67	139	.....	.....	.....
2 Chippewa	....	....	....	....	....	....	....	....	....	111	57	168	.....	.....	.....
3 Columbia	....	....	....	....	....	....	....	....	....	59	52	111	.....	.....	.....
4 Dane	....	....	....	....	....	....	1	1	2	86	84	170	6	4	10
5 Dodge	....	....	....	....	....	....	....	....	....	74	56	130	.....	.....	.....
6 Dunn	....	....	....	....	....	....	....	....	....	70	70	140	.....	.....	.....
7 Eau Claire	....	....	....	....	....	....	7	4	11	102	54	156	404	228	632
8 Fond du Lac	2	2	4	....	....	....	....	....	....	69	52	121	600	600	1,200
9 Grant	....	....	....	....	....	....	4	1	5	81	61	142	.....	.....	.....
10 Green	....	....	....	....	....	....	....	1	1	67	69	136	.....	.....	.....
11 Iowa	....	....	....	....	....	....	....	....	....	77	65	142	.....	.....	.....
12 Jefferson	....	....	....	....	....	....	....	....	....	89	57	146	.....	.....	.....
13 La Crosse	..	....	..	....	....	....	2	5	7	85	71	156	359	673	1,032
14 Manitowoc	...	....	....	....	1	1	....	....	....	114	56	170	.....	156	156
15 Marathon	....	..	....	....	....	....	....	....	....	101	80	181	.....	..	...
16 Monroe	....	....	....	....	....	....	....	....	....	36	21	57	.....	.....	.....
17 Milwaukee	....	....	....	....	....	....	....	....	....	133	113	246	.....	.....	.....
18 Outagamie	...	....	....	1	....	1	...	1	1	86	76	162	60	15	75
19 Racine	....	..	....	....	....	....	....	....	....	71	68	139	.....	.....	.....
20 Richland	....	....	....	....	....	....	2	....	2	84	43	127	72	...	72
21 Rock	....	....	..	1	....	1	....	6	6	94	75	169	30	1	31
22 St. Croix	....	....	....	..	....	....	1	2	3	84	61	145	.....	.....	.....
23 Sauk	2	2	4	1	....	1	4	4	8	63	53	116	901	520	1,421
24 Sheboygan	....	1	1	....	....	....	..	1	1	68	58	126	....	13	13
25 Trempealeau	....	1	1	....	3	3	....	1	1	58	51	109	.....	1,332	1,332
26 Vernon	1	1	2	....	5	5	....	2	2	77	54	131	366	701	1,067
27 Walworth	....	....	....	2	....	2	2	13	15	82	49	131	262	256	518
28 Waupaca	....	1	1	1	1	2	6	5	11	74	48	122	81	55	136
20 Washington	....	....	....	....	....	....	5	4	9	81	49	130	50	187	237
30 Winnebago	....	1	1	....	....	....	....	....	....	129	86	215	.....	365	365
31 Waukesha	....	....	....	....	....	....	..	3	3	48	53	101	.....	29	29
Total	5	9	14	6	10	16	34	54	88	2,525	1,909	4,434	3,191	5,135	8,326

Statistics.

STATISTICS OF COUNTY ASYLUMS FOR 1904—EXPENDITURES.

Asylums.	Paid for wages and salaries.	Paid for subsistence.	Paid for fuel and light.	Paid for clothing.	Paid for furniture.	Paid for repairs.	Paid for other ordinary expenses.	Interest on asylum plant, including buildings, at 4 per cent.	Total gross current expenses.
1 Brown.....	$4,494 79	$5,661 09	$2,451 77	$1,244 88	$36 30	$170 48	$4,682 37	$2,400 00	$21,141 68
2 Chippewa.	4,790 16	6,112 17	5,207 02	1,297 26	245 95	746 49	2,700 66	2,688 30	23,788 01
3 Columbia....	3,409 00	2,881 98	1,200 12	811 91	75 65	200 00	.....	1,500 00	10,078 66
4 Dane	4,700 90	2,836 35	1,843 85	1,069 97	990 22	1,553 63	3,192 54	2,695 00	18,882 46
5 Dodge.....	3,131 00	4,260 46	1,636 56	618 68	47 12	1,205 95	2,023 96	1,600 00	14,523 73
6 Dunn.... ...	4,597 34	5,785 94	311 49	869 69	134 93	.....	3,276 07	3,951 23	18,926 69
7 Eau Claire..	4,749 67	3,157 65	1,726 38	820 50	279 77	649 49	3,318 38	3,718 75	18,414 59
8 Fond du Lac	3,765 31	3,480 47	1,759 62	742 36	.....	59 52	574 06	3.360 00	13,741 34
9 Grant.....	3,879 05	3,870 57	1,710 03	815 12	.....	499 59	7,200 91	2,136 00	20,111 27
0 Green.....	3,912 50	3,060 00	950 00	1,600 00	.....	200 00	150 00	3,280 00	13,152 50
11 Iowa	4,238 05	2,804 63	952 91	1,433 18	167 67	390 85	1,962 94	2,495 95	14,446 18
12 Jefferson....	3,980 19	4,854 18	2,220 82	551 76	219 94	892 17	389 95	3,000 00	16,109 01
13 La Crosse...	5,496 44	6,075 91	576 30	1,240 44	488 46	184 51	494 52	5,050 49	19,607 07
14 Manitowoc..	6,198 23	3,341 63	2,013 72	1,279 31	717 59	1,123 57	8,788 01	3,568 00	27,030 06
15 Marathon...	5,816 56	7,431 30	480 56	1,254 52	183 10	2,752 50	637 24	4,027 59	22,583 37
16 Monroe.....	1,869 85	770 87	797 04	168 50	....	378 68	439 92	1,200 00	5,624 86
17 Milwaukee..	9,697 91	9,114 47	3,266 14	1,151 68	203 18	397 06	3,513 35	.....	27,343 79
18 Outagamie..	5,102 62	4,048 37	2,491 37	1,040 94	75 55	1,526 74	1,229 15	4,440 58	19,955 32
19 Racine	3,410 23	4,393 10	2,597 67	1,026 63	.....	2,901 70	1,671 37	2,811 13	18,811 83
20 Richland....	4,428 46	4,124 17	1,515 06	1,178 62	251 28	718 46	228 07	2,577 16	15,021 28
21 Rock	5,240 50	4,866 55	3,190 58	1,219 89	198 56	1,365 34	676 83	4,818 69	21,576 94
22 St. Croix....	4,589 66	3,301 05	1,235 34	1,260 96	221 94	1,137 63	.....	3,314 54	15,061 12
23 Sauk	3,071 04	3,809 90	98 90	820 88	184 63	285 30	1,788 88	2,211 16	12,270 69
24 Sheboygan..	4,395 83	3,424 95	895 68	642 07	678 26	322 71	1,911 79	2,498 55	14,819 84
25 Trempe'leau	4,350 29	1,906 16	1,419 93	940 52	241 60	281 66	1,332 71	3,569 27	14,042 14
26 Vernon.....	5,348 46	6,194 83	2,588 44	1,087 70	.....	1,381 44	551 06	3,672 55	20,824 48
27 Walworth...	4,559 83	2,953 95	2,286 97	1,093 42	270 53	953 07	1,080 73	2,565 69	15,764 19
28 Waupaca....	4,961 50	4,117 41	1,624 62	125 16	.....	299 90	2,001 73	3,212 16	16,342 48
29 Washington.	4,496 29	3,800 42	2,162 46	694 16	72 45	305 11	2,197 22	2,348 50	16,076 61
30 Winnebago..	5,719 76	6,215 80	5,054 92	976 46	253 75	1,953 87	829 89	3,200 00	24,204 45
31 Waukesha ..	1,702 90	696 06	451 00	61 98	150 45	343 16	958 79	1,028 00	5,392 34
Total.....	140,104 32	129,402 39	56,711 27	29,139 15	6,388 88	25,180 58	59,803 10	88,939 29	535,668 98

Statistics.

STATISTICS OF COUNTY ASYLUMS FOR 1904—RECEIPTS.

Asylums.	Received from sale of produce, stock, etc.	Received from inmates paid by themselves or friends.	Received from other sources.	Total receipts.	Net expenses.	No. of weeks' board fur'ished	Average per capita per week.
1 Brown	$96 93	$25 00	.....	$121 93	$21,019 75	6,282	$3 34
2 Chippewa	293 15	984 26	$4,001 07	5,278 48	8,505 53	7,577	2 44
3 Columbia	688 72	1,573 92	600 00	2,862 64	7,216 02	6,153	1 17
4 Dane	714 08	1,757 41	.....	2,471 49	16,410 97	7,944	2 06
5 Dodge	.....	1,080 44	48 20	1,128 64	13,395 09	6,423	2 08
6 Dunn	3,866 53	933 17	.....	4,799 70	14,126 99	6,459	2 18
7 Eau Claire	854 54	.....	.....	854 54	17,560 05	6,921	2 53
8 Fond du Lac	500 00	.....	.....	500 00	13,241 34	5,558	2 38
9 Grant	2,884 90	967 02	.....	3,851 92	16,259 35	6,393	2 55
10 Green	311 45	910 00	.....	1,221 45	11,931 05	5,983	1 99
11 Iowa	56 00	1,330 95	79 50	1,466 45	12,979 73	6,132	2 12
12 Jefferson	3,877 81	234 00	.....	4,111 81	11,997 20	6,646	1 80
13 La Crosse	1,626 83	366 19	2,021 92	4,014 94	15,592 13	7,552	2 06
14 Manitowoc	1,843 61	1,381 87	.....	3,225 48	23,804 58	8,378	2 84
15 Marathon	1,285 53	.....	.....	1,285 53	21,297 84	8,770	2 42
16 Monroe	877 20	.....	.....	877 20	4,747 66	2,435	1 95
17 Milwaukee	32 98	157 82	2,606 07	2,796 87	24,546 92	11,568	2 12
18 Outagamie	2,838 86	492 83	.....	3,331 69	16,623 63	6,987	2 38
19 Racine	809 59	39 42	319 13	1,168 14	17,643 69	4,529	3 84
20 Richland	880 61	771 40	550 00	2,202 01	12,819 27	5,938	2 15
21 Rock	848 86	1,229 25	158 34	2,236 45	19,340 49	8,070	2 40
22 St. Croix	1,495 64	.....	1,391 76	2,887 40	12,173 72	7,309	1 66
23 Sauk	275 14	609 61	.....	884 75	11,385 94	5,977	1 90
24 Sheboygan	549 20	603 75	1,185 75	2,338 70	12,481 14	6,105	2 04
25 Trempealeau	658 04	553 27	367 64	1,578 95	12,463 19	5,595	2 22
26 Vernon	1,227 52	169 00	260 80	1,657 32	19,167 16	6,313	3 03
27 Walworth	745 89	1,512 25	.....	2,258 14	13,506 05	6,177	2 18
28 Waupaca	3,288 95	.....	.....	3,288 95	13,053 53	5,630	2 32
29 Washington	332 32	430 21	936 00	1,698 53	14,378 08	6,302	2 28
30 Winnebago	390 74	.....	.....	390 74	23,813 71	10,278	2 31
31 Waukesha	117 85	.....	.....	117 85	5,274 49	915	4 78
Total	$34,269 47	$18,113 04	$14,526 18	$66,908 69	$468,760 29	203,299	$2 37

Statistics.

BILLS FOR THE CARE OF CHRONIC INSANE IN COUNTY ASYLUMS.

For the Fiscal Year Ending June 30, 1903.

	From state.	From county.	Total.	
Brown County Asylum:				
Own insane	$6,309 21	.....	$6,309 21	.....
Ashland	78 21	$87 66	165 87	.....
Door	90 64	105 79	196 43	.....
Iron	78 21	92 51	170 72	.....
Kewaunee	387 86	426 76	814 62	.....
Langlade	78 21	90 31	168 52	.....
Lincoln	62 14	69 99	132 13	.....
Manitowoc	78 22	86 97	165 19	.....
Marinette	245 79	279 74	525 53	.....
Oconto	1,190 57	1,320 37	2,510 94	.....
Shawano	82 28	85 68	167 96	.....
Taylor	78 21	82 11	160 32	.....
Vilas	78 22	81 77	159 99	.....
Wood	78 22	85 92	164 14	.....
State-at-large	607 53	.....	607 53	.....
	$9,523 52	$2,895 58	.....	$12,419 10
Chippewa County Asylum:				
Own insane	$3,874 93	.....	$3,874 93	.....
Ashland	362 36	$393 36	755 72	.....
Barron	1,173 22	1,246 05	2,419 27	.....
Bayfield	462 43	569 67	1,032 10	.....
Burnett	156 43	181 24	337 67	.....
Clark	234 64	269 66	504 30	.....
Douglas	1,172 78	1,309 18	2,481 96	.....
Gates	601 72	646 23	1,247 95	.....
Iron	33 00	36 16	69 16	.....
Lincoln	39 85	39 85	79 70	.....
Pepin	312 86	383 80	696 66	.....
Price	856 72	933 39	1,790 11	.....
Sawyer	20 35	31 54	51 89	.....
Taylor	402 86	443 67	846 53	.....
Washburn	156 43	165 61	322 04	.....
Wood	16 50	16 75	33 25	.....
State-at-large	2,833 37	.....	2,833 37	.....
	$12,710 45	$6,666 16	.....	$19,376 61
Columbia County Asylum:				
Own insane	$4,755 86	.....	$4,755 86	.....
Adams	156 43	$186 89	343 32	.....
Jackson	78 21	92 93	171 14	.....
Juneau	78 21	93 33	171 54	.....
Marquette	451 28	523 80	975 08	.....
Portage	196 50	244 29	440 79	.....
State-at-large	3,070 52	.....	3,070 52	.....
	$8,787 01	$1,141 24	.....	$9,928 25
Dane County Asylum:				
Own insane	$10,559 79	.....	$10,559 79	.....
Clark	43 71	$473 14	516 85	.....
Pierce	78 21	92 71	170 92	.....
State-at-large	368 31	.....	368 31	.....
	$11,050 02	$565 85	.....	$11,615 87
Dodge County Asylum:				
Own insane	$6,811 68	.....	$6,811 68	.....
Adams	3 85	$3 85	7 70	.....
Green Lake	312 85	363 75	676 60	.....
Lincoln	156 42	182 37	338 79	.....
Oconto	608 78	708 03	1,316 81	.....
Portage	45 00	45 00	90 00	.....
Shawano	156 42	178 42	334 84	.....
Waukesha	156 42	179 17	335 59	.....
State-at-large	339 00	.....	339 00	.....
	$8,590 42	$1,660 59	.....	$10,251 01

Statistics.

BILLS FOR THE CARE OF CHRONIC INSANE IN COUNTY ASYLUMS—Continued.

For the Fiscal Year Ending June 30, 1903.

	From state.	From county.	Total.	
Dunn County Asylum:				
Own insane	$4,578 64	.....	$4,578 64	.....
Barron	937 28	$1,043 68	1,980 96	.....
Buffalo	78 21	88 76	166 97	.....
Burnett	526 50	604 90	1,131 40	.....
Douglas	234 64	259 59	494 23	.....
Jackson	78 21	88 71	166 92	.....
Pepin	532 71	588 11	1,120 82	.....
Pierce	672 00	733 90	1,405 90	.....
Polk	444 21	496 71	940 92	.....
Portage	391 07	439 27	830 34	.....
Price	156 43	180 13	336 56	.....
St. Croix	78 22	89 17	167 39	.....
Taylor	391 07	441 24	832 31	.....
Washurn	78 21	92 11	170 32	.....
Waupaca	19 71	25 11	44 82	.....
State-at-large	1,160 20	.....	1,160 20	.....
	$10,357 31	$5,171 39	.....	$15,528 70
Eau Claire County Asylum:				
Own insane	$5,575 93	.....	$5,575 93	.....
Ashland	78 22	$92 15	170 37	.....
Barron	127 71	132 43	260 14	.....
Bayfield	156 43	177 19	333 62	.....
Buffalo	308 79	330 65	639 44	.....
Clark	112 93	118 19	231 12	.....
Douglas	911 57	1,029 41	1,940 98	.....
Iron	78 22	92 53	170 75	.....
Marquette	156 43	179 50	335 93	.....
Pierce	46 50	51 70	98 20	.....
Polk	79 93	106 76	186 69	.....
Price	78 22	92 93	171 15	.....
Taylor	190 50	212 21	402 71	.....
Washburn	124 72	146 47	271 19	.....
State-at-lage	746 65	.....	746 65	.....
	$8,772 75	$2,762 12	.....	$11,534 87
Fond du Lac County Asylum:				
Own insane	$6,639 86	.....	$6,639 86	.....
Green Lake	1,012 93	$1,177 73	2,190 66	.....
Marinette	278 36	350 71	629 07	.....
Marquette	294 00	376 80	670 80	.....
Oconto	78 21	89 71	167 92	.....
Onelda	78 21	94 46	172 67	.....
Taylor	30 00	48 25	78 25	.....
Vilas	78 21	94 96	173 17	.....
Waupaca	6 64	18 64	25 28	.....
Waushara	78 21	78 21	156 42	.....
State-at-large	57 43	.....	57 43	.....
	$8,632 06	$2,329 47	.....	$10,961 53
Grant County Asylum:				
Own insane	$7,561 07	.....	$7,561 07	.....
Barron	78 22	$92 97	171 19	.....
Crawford	1,009 72	1,190 81	2,200 53	.....
Lafayette	267 42	330 82	598 24	.....
State-at-large	1,743 92	.....	1,743 92	.....
	$10,660 35	$1,614 60	.....	$12,274 95

Statistics.

BILLS FOR THE CARE OF CHRONIC INSANE IN COUNTY ASYLUMS—Continued.

For the Fiscal Year Ending June 30, 1903.

	From state.	From county.	Total.	
Green County Asylum:				
Own insane	$4,830 64		$4,830 64	
Buffalo	156 43	$188 58	345 01	
Douglas	212 57	284 72	497 29	
Jackson	301 50	371 35	672 85	
Juneau	1,120 72	1,335 57	2,456 29	
Lafayette	1,254 43	1,556 01	2,810 44	
Pierce	78 22	94 27	172 49	
Polk	234 64	286 89	521 53	
State-at-large	271 96		271 96	
	$8,461 11	$4,117 39		$12,578 50
Iowa County Asylum:				
Own insane	$3,836 78		$3,836 78	
Ashland	78 21	$87 51	165 72	
Buffalo	78 21	94 66	172 87	
Crawford	89 57	111 57	201 14	
Iron	78 21	85 96	164 17	
Jackson	78 21	91 51	169 72	
Lafayette	693 43	772 86	1,466 29	
Oconto	78 21	89 61	167 82	
Pepin	78 21	88 16	166 37	
Pierce	312 86	350 36	663 22	
Polk	625 71	704 46	1,330 17	
Waukesha	1,407 86	1,568 59	2,976 45	
State-at-large	2,612 43		2,012 43	
	$9,447 90	$4,045 25		$13,493 15
Jefferson County Asylum:				
Own insane	$7,446 23		$7,446 23	
Ashland	78 22	$89 42	167 64	
Burnett	78 22	92 28	170 50	
Door	78 22	88 00	166 22	
Lincoln	78 22	84 12	162 34	
Ozaukee	20 57	27 75	48 32	
Taylor	78 22	90 82	169 04	
Waukesha	375 00	403 30	778 30	
Waushara	78 22	92 00	170 22	
State-at-large	1,986 85		1,986 85	
	$10,297 97	$967 69		$11,265 66
La Crosse County Asylum:				
Own insane	$7,771 93		$7,771 93	
Barron	156 43	$179 50	335 93	
Bayfield	78 22	89 67	167 89	
Buffalo	1,060 29	1,114 74	2,175 03	
Clark	234 64	246 41	481 05	
Jackson	373 07	415 30	788 37	
Juneau	78 22	89 26	167 48	
Monroe	13 50	14 30	27 80	
Pierce	234 64	263 04	497 68	
State-at-large	1,803 71		1,803 71	
	$11,804 65	$2,412 22		$14,216 87

Statistics.

BILLS FOR THE CARE OF CHRONIC INSANE IN COUNTY ASYLUMS—Continued.

For the Fiscal Year Ending June 30, 1903.

	From state.	From county.	Total.	
Manitowoc County Asylum:				
Own insane	$4,748 36	.....	$4,748 36	.....
Calumet	391 07	$438 27	829 34	.....
Door	1,209 28	371 84	1,581 12	.....
Kewaunee	461 79	528 39	990 18	.....
Langlade	234 64	266 84	501 48	.....
Marinette	421 72	477 12	898 84	.....
Oconto	156 43	182 18	338 61	.....
Ozaukee	1,877 16	2,150 94	4,028 10	.....
Portage	41 57	47 07	88 64	.....
Shawano	78 22	87 07	165 29	.....
Vilas	78 22	89 09	167 31	.....
Waupaca	42 20	94 25	136 45	.....
Waushara	78 22	87 72	165 94	.....
State-at-large	5,726 34	.....	5,726 34	.....
	$15,545 22	$4,820 78	.....	$20,366 00
Marathon County Asylum:				
Own insane	$4,055 36	.....	$4,055 36	.....
Ashland	1,016 79	$1,184 63	2,201 42	.....
Barron	234 64	272 67	507 31	.....
Bayfield	234 64	271 97	506 61	.....
Buffalo	78 22	87 84	166 06	.....
Clark	697 72	807 27	1,504 99	.....
Florence	156 43	179 62	336 05	.....
Iron	391 07	445 14	836 21	.....
Jackson	312 86	363 45	676 31	.....
Langlade	265 72	313 35	579 07	.....
Lincoln	830 36	960 83	1,791 19	.....
Marquette	156 42	181 95	338 37	.....
Oconto	416 79	479 78	896 57	.....
Oneida	324 85	379 90	704 75	.....
Portage	1,366 07	1,520 00	2,886 07	.....
Sawyer	115 07	131 09	246 16	.....
Shawano	588 00	685 54	1,273 54	.....
Taylor	31 07	37 24	68 31	.....
Vilas	78 21	92 18	170 39	.....
Waupaca	51 42	79 72	131 14	.....
Waushara	78 22	96 99	175 21	.....
Wood	1,061 35	1,215 23	2,276 58	.....
State-at-large	170 53	.....	170 53	.....
	$12,711 81	$9,786 39	.....	$22,498 20
Milwaukee County Asylum:				
Own insane	$15,515 53	.....	$15,515 53	.....
	$15,515 53	.....	.....	$15,515 53
Monroe County Asylum:				
Own insane	$774 86	.....	$774 86	.....
State-at-large	35 14	.....	35 14	.....
	$810 00	.....	.....	$810 00

Statistics.

BILLS FOR THE CARE OF CHRONIC INSANE IN COUNTY ASYLUMS—Continued.

For the Fiscal Year Ending June 30, 1903.

	From state.	From county.	Total.	
Outagamie County Asylum:				
Own insane	$5,589 84		$5,589 84	
Ashland	28 71	$34 79	63 50	
Calumet	658 07	801 51	1,459 58	
Door	1,038 42	156 03	1,194 45	
Forest	78 21	86 21	164 42	
Iron	22 92	22 92	45 84	
Kewaunee	625 72	691 07	1,316 79	
Langlade	156 43	170 88	327 31	
Lincoln	234 64	268 39	503 03	
Marinette	156 43	181 88	338 31	
Oconto	469 28	536 98	1,006 26	
Oneida	156 43	175 93	332 36	
Portage	300 00	343 55	643 55	
Price	78 21	86 21	164 42	
Shawano	306 43	343 90	650 33	
Taylor	78 21	84 46	162 67	
Waukesha	156 43	179 63	336 06	
Waupaca	60 00	86 81	146 81	
Wood	78 21	84 46	162 67	
State-at-large	796 91		796 91	
	$11,069 50	$4,335 61		$15,405 11
Racine County Asylum:				
Own insane	$7,738 72		$7,738 72	
Kenosha	1,078 93	$1,204 99	2,283 92	
State-at-large	1,021 76		1,021 76	
	$9,839 41	$1,204 99		$11,044 40
Richland County Asylum:				
Own insane	$2,425 50		$2,425 50	
Adams	234 65	$260 40	495 05	
Crawford	2,260 93	1,112 65	3,373 58	
Juneau	312 86	361 07	673 93	
Marquette	78 22	90 57	168 79	
Pierce	78 22	84 47	162 69	
Waushara	391 07	440 02	831 09	
Wood	156 43	182 06	338 49	
State-at-large	6,942 31		6,942 31	
	$12,880 19	$2,531 24		$15,411 43
Rock County Asylum:				
Own insane	$7,806 00		$7,806 00	
Brown	78 21	$78 21	156 42	
Crawford	126 00	158 27	284 27	
Jackson	126 00	159 21	285 21	
Lafayette	380 36	425 66	806 02	
Marinette	469 29	515 69	984 98	
Marquette	312 86	354 26	667 12	
Washburn	78 22	85 32	163 54	
Waukesha	234 65	254 89	489 54	
State-at-large	2,043 67		2,043 67	
	$11,655 26	$2,031 51		$13,686 77

Statistics.

BILLS FOR THE CARE OF CHRONIC INSANE IN COUNTY ASYLUMS—Continued.

For the Fiscal Year Ending June 30, 1903.

	From state.	From county.	Total.	
St. Croix County Asylum:				
Own insane	$4,654 92	.....	$4,654 92	.....
Ashland	391 07	$430 72	821 79	.....
Barron	469 29	512 99	982 28	.....
Bayfield	156 43	180 08	336 51	.....
Buffalo	156 43	168 33	324 76	.....
Burnett	334 07	378 27	712 34	.....
Douglas	1,536 86	1,763 08	3,299 94	.....
Iron	52 50	60 75	113 25	.....
Pepin	199 93	224 83	424 76	.....
Pierce	949 28	1,062 88	2,012 16	.....
Polk	1,036 71	1,137 66	2,174 37	.....
Portage	286 71	315 11	601 82	.....
Sawyer	102 21	121 31	223 52	.....
Taylor	78 21	87 16	165 37	.....
State-at-large	1,481 58	.....	1,481 58	.....
	$11,886 20	$6,443 17	.....	$18,329 37
Sauk County Asylum:				
Own insane	$5,425 07	.....	$5,425 07	.....
Adams	78 21	$86 11	164 32	.....
Burnett	78 21	85 76	163 97	.....
Juneau	1,710 87	1,909 80	3,620 67	.....
Monroe	296 78	338 45	635 23	.....
Pepin	78 21	96 45	174 66	.....
Pierce	370 28	437 38	807 66	.....
Sawyer	78 21	96 76	174 97	.....
Washburn	78 21	89 21	167 42	.....
	$8,194 05	$3,139 92	.....	$11,333 97
Sheboygan County Asylum:				
Own insane	$7,365 00	.....	$7,365 00	.....
Calumet	391 07	$443 07	834 14	.....
Oconto	10 07	10 07	20 14	.....
Ozaukee	78 21	90 71	168 92	.....
	$7,844 35	$543 85	.....	$8,388 20
Trempealeau County Asylum:				
Own insane	$3,747 86	.....	$3,747 86	.....
Buffalo	391 07	$410 00	801 07	.....
Clark	567 21	602 43	1,169 64	.....
Jackson	793 72	834 56	1,628 28	.....
Juneau	223 28	249 79	473 07	.....
Pepin	5 57	21 07	26 64	.....
Pierce	136 71	142 36	279 07	.....
Portage	1,486 08	1,591 15	3,077 23	.....
Price	78 21	79 11	157 32	.....
Wood	547 50	596 94	1,144 44	.....
State-at-large	673 49	.....	673 49	.....
	$8,650 70	$4,527 41	.....	$13,178 11

Statistics.

BILLS FOR THE CARE OF CHRONIC INSANE IN COUNTY ASYLUMS—Continued.

For the Fiscal Year Ending June 30, 1903.

	From state.	From county.	Total.	
Vernon County Asylum:				
Own insane	$4,402 71	.....	$4,402 71	.....
Adams	35 14	$39 62	74 76	.....
Buffalo	17 57	19 81	37 38	.....
Burnett	174 00	196 24	370 24	.....
Clark	174 00	196 24	370 24	.....
Crawford	66 00	74 41	140 41	.....
Douglas	225 43	263 74	489 17	.....
Jackson	316 92	357 42	674 34	.....
Juneau	277 71	313 19	590 90	.....
Monroe	1,778 78	2,001 84	3,780 62	.....
Pepin	156 00	175 94	331 94	.....
Polk	312 86	352 86	665 72	.....
State-at-large	3,274 31	.....	3,274 31	.....
	$11,211 43	$3,991 31	.....	$15,202 74
Walworth County Asylum:				
Own insane	$3,274 09	.....	$3,274 09	.....
Kenosha	1,841 57	$1,950 90	3,792 47	.....
Lafayette	78 21	85 59	163 80	.....
Waukesha	1,642 50	1,808 32	3,450 82	.....
State-at-large	1,387 57	.....	1,387 57	.....
	$8,223 94	$3,844 81	.....	$12,068 75
Washington County Asylum:				
Own insane	$2,894 14	.....	$2,894 14	.....
Ashland	78 21	$91 91	170 12	.....
Calumet	433 71	462 92	896 63	.....
Door	21 22	21 22	42 44	.....
Forest	78 21	92 41	170 62	.....
Kewaunee	78 21	91 01	169 22	.....
Langlade	78 21	92 96	171 17	.....
Lincoln	277 07	335 11	612 18	.....
Marinette	126 43	156 26	282 69	.....
Marquette	156 43	179 53	335 96	.....
Milwaukee	78 21	80 81	159 02	.....
Oconto	322 07	370 65	692 72	.....
Oneida	156 43	175 43	331 86	.....
Ozaukee	880 29	1,000 64	1,880 93	.....
Portage	140 79	155 64	296 43	.....
Price	78 21	84 11	162 32	.....
Shawano	219 00	243 35	462 35	.....
Vilas	89 14	92 29	181 43	.....
Waukesha	1,150 50	1,342 22	2,492 72	.....
Waupaca	144 64	154 09	298 73	.....
Waushara	391 07	442 27	833 34	.....
State-at-large	2,118 15	.....	2,118 15	.....
	$9,990 34	$5,664 83	.....	$15,655 17
Waupaca County Asylum:				
Own insane	$3,879 21	.....	$3,879 21	.....
Ashland	24 00	$24 00	48 00	.....
Bayfield	37 28	37 28	74 56	.....
Green Lake	56 14	57 02	113 16	.....
Iron	45 64	46 15	91 79	.....
Langlade	10 93	22 93	33 86	.....
Oconto	3 22	3 22	6 44	.....
Oneida	60 42	62 92	123 34	.....
Portage	201 00	219 72	420 72	.....
Price	56 14	57 32	113 46	.....
Shawano	8 36	8 36	16 72	.....
Taylor	37 28	38 42	75 70	.....
Wood	156 42	157 30	313 72	.....
State-at-large	773 64	.....	773 64	.....
	$5,349 68	$734 64	.....	$6,084 32

Statistics.

BILLS FOR THE CARE OF CHRONIC INSANE IN COUNTY ASYLUMS—Continued.

For the Fiscal Year Ending June 30, 1903.

	From state.	From county.	Total.	
Winnebago County Asylum:				
Own insane	$9,685 08		$9,685 08	
Ashland	231 00	$292 19	523 19	
Bayfield	112 72	141 96	254 68	
Calumet	78 22	90 50	168 72	
Douglas	156 43	172 91	329 34	
Florence	156 43	173 85	330 28	
Green Lake	391 07	422 67	813 74	
Iron	202 07	250 00	452 07	
Kewaunee	159 64	175 68	335 32	
Langlade	78 22	92 88	171 10	
Lincoln	356 14	392 45	748 59	
Marinette	631 93	677 44	1,309 37	
Marquette	78 22	85 40	163 62	
Oconto	386 36	421 28	807 64	
Oneida	132 43	139 17	271 60	
Portage	92 57	101 67	194 24	
Price	36 42	46 83	83 25	
Shawano	312 86	328 11	640 97	
Taylor	263 99	314 62	578 61	
Vilas	99 43	110 06	209 49	
Waupaca	64 51	69 73	134 24	
Waushara	372 86	409 12	781 98	
Wood	152 14	178 32	330 46	
State-at-large	1,457 30		1,457 30	
	$15,688 04	$5,086 84		$20,774 88
				$401,198 02

Statistics.

SUMMARY OF AMOUNTS DUE COUNTY ASYLUMS FOR CARE OF CHRONIC INSANE, 1903.

Brown County Asylum	$12,419 10
Chippewa County Asylum	19,376 61
Columbia County Asylum	9,928 25
Dane County Asylum	11,615 87
Dodge County Asylum	10,251 01
Dunn County Asylum	15,528 70
Eau Claire County Asylum	11,534 87
Fond du Lac County Asylum	10,961 53
Grant County Asylum	12,274 95
Green County Asylum	12,578 50
Iowa County Asylum	13,493 15
Jefferson County Asylum	11,265 66
La Crosse County Asylum	14,216 87
Manitowoc County Asylum	20,366 00
Marathon County Asylum	22,498 20
Milwaukee County Asylum	15,515 53
Monroe County Asylum	810 00
Outagamie County Asylum	15,405 11
Racine County Asylum	11,044 40
Richland County Asylum	15,411 43
Rock County Asylum	13,686 77
St. Croix County Asylum	18,329 37
Sauk County Asylum	11,333 97
Sheboygan County Asylum	8,388 20
Trempealeau County Asylum	13,178 11
Vernon County Asylum	15,202 74
Walworth County Asylum	12,068 75
Washington County Asylum	15,655 17
Waupaca County Asylum	6,084 32
Winnebago County Asylum	20,774 88
	$401,198 02

1903.	
Payment by the state to counties for their own insane	$174,534 80
Payment by the state to counties for insane from other counties	86,721 79
Payment by the state for state insane	44,904 58
Total paid by the state	$306,161 17
Special tax on counties for insane belonging to them kept by other counties	95,036 85
Total receipts by counties having asylums	$401,198 02

Statistics.

BILLS FOR THE CARE OF CHRONIC INSANE KEPT IN COUNTY ASYLUMS.

For the Fiscal Year Ending June 30, 1904.

	From state.	From county.	Total.	
Brown County Asylum:				
Own insane	$6,335 00		$6,335 00	
Ashland	78 42	$90 07	168 49	
Door	93 85	100 66	194 51	
Iron	78 42	92 48	170 90	
Kewaunee	401 34	427 74	829 08	
Langlade	78 42	90 56	168 98	
Manitowoc	78 42	81 38	159 80	
Marinette	468 19	501 91	970 10	
Oconto	1,212 21	1,325 15	2,537 36	
Shawano	78 42	81 98	160 40	
Taylor	78 42	82 03	160 45	
Vilas	78 42	83 03	161 45	
Wood	78 42	83 13	161 55	
State-at-large	400 66		400 66	
	$9,538 61	$3,040 12		$12,578 73
Chippewa County Asylum:				
Own insane	$3,242 36		$3,242 36	
Ashland	549 00	$586 90	1,135 90	
Barron	1,082 57	1,156 52	2,239 09	
Bayfield	536 79	598 30	1,135 09	
Burnett	156 85	181 14	337 99	
Clark	235 28	274 61	509 89	
Douglas	1,115 79	1,269 58	2,385 37	
Gates	552 21	592 81	1,145 02	
Iron	206 99	220 37	427 36	
Pepin	313 70	342 41	656 11	
Price	794 14	885 62	1,679 76	
Racine	135 00	137 45	272 45	
Taylor	405 63	436 26	841 89	
Vilas	68 14	70 74	138 88	
Washburn	156 85	166 83	323 68	
Wood	78 53	79 83	158 26	
State-at-large	820 68		820 68	
	$10,450 41	$6,999 37		$17,449 78
Columbia County Asylum:				
Own insane	$4,699 93		$4,699 93	
Adams	156 85	$192 43	349 28	
Jackson	78 43	98 51	176 94	
Juneau	78 43	99 76	178 19	
Marquette	470 57	570 50	1,041 07	
Portage	202 70	258 02	460 72	
Racine	108 86	135 45	244 31	
State-at-large	3,086 44		3,086 44	
	$8,882 21	$1,354 67		$10,236 88
Dane County Asylum:				
Own insane	$10,674 64		$10,674 64	
Pierce	78 43	$96 03	174 46	
State-at-large	262 31		262 31	
	$11,015 38	$96 03		$11,111 41
Dodge County Asylum:				
Own insane	$7,104 86		$7,104 86	
Green Lake	313 71	$363 41	677 12	
Lincoln	156 85	183 80	340 65	
Oconto	537 21	624 46	1,161 67	
Shawano	156 85	179 35	336 20	
Waukesha	129 00	163 00	292 00	
State-at-large	340 36		340 36	
	$8,738 84	$1 514 02		$10,252 86

Statistics.

BILLS FOR THE CARE OF CHRONIC INSANE KEPT IN COUNTY ASYLUMS—Continued.

For the Fiscal Year Ending June 30, 1904.

	From state.	From county.	Total.	
Dunn County Asylum:				
Own insane	$4,548 00	.....	$4,548 00	.....
Barron	875 57	$984 12	1,859 69	.....
Buffalo	78 42	92 33	170 75	.....
Burnett	457 71	532 16	989 87	.....
Douglas	235 28	266 54	501 82	.....
Jackson	78 42	85 88	164 30	.....
Oneida	9 64	9 64	19 28	.....
Pepin	470 57	516 62	987 19	.....
Pierce	652 71	712 81	1,365 52	.....
Polk	392 14	433 69	825 83	.....
Portage	392 14	436 34	828 48	.....
Price	175 71	201 76	377 47	.....
St. Croix	78 42	90 08	168 50	.....
Taylor	392 14	447 39	839 53	.....
Washburn	82 71	94 26	176 97	.....
Wood	9 64	9 64	19 28	.....
State-at-large	1,159 12	.....	1,159 12	.....
	$10,088 34	$4,913 26	.....	$15,001 60
Eau Claire County Asylum:				
Own insane	$5,508 21	.....	$5,508 21	.....
Ashland	297 21	$345 81	643 02	.....
Barron	347 56	397 18	744 74	.....
Bayfield	296 78	353 39	650 17	.....
Buffalo	292 28	329 36	621 64	.....
Clark	146 57	168 88	315 45	.....
Douglas	1,356 42	1,538 77	2,895 19	.....
Iron	78 43	92 03	170 46	.....
Jackson	36 43	45 73	82 16	.....
Marquette	156 85	182 95	339 80	.....
Pierce	81 64	105 74	187 38	.....
Polk	73 72	92 42	166 14	.....
Price	149 99	186 85	336 84	.....
Racine	433 72	515 17	948 89	.....
Taylor	392 13	454 88	847 01	.....
Washburn	156 85	185 00	341 85	.....
State-at-large	1,266 50	.....	1,266 50	.....
	$11,071 29	$4,994 16	.....	$16,065 45
Fond du Lac County Asylum:				
Own insane	$6,560 79	.....	$6,560 79	.....
Green Lake	1,132 07	$1,286 31	2,418 38	.....
Marinette	235 29	270 79	506 08	.....
Marquette	235 29	286 54	521 83	.....
Oconto	78 43	90 58	169 01	.....
Oneida	78 43	91 18	169 61	.....
Vilas	78 43	94 43	172 86	.....
Waushara	100 71	100 72	201 43	.....
State-at-large	184 96	.....	184 96	.....
	$8,684 40	$2,220 55	.....	$10,904 95
Grant County Asylum:				
Own insane	$7,408 71	.....	$7,408 71	.....
Barron	78 43	$82 43	160 86	.....
Crawford	941 14	1,008 24	1,949 38	.....
La Fayette	204 85	239 50	444 35	.....
Racine	276 43	301 28	577 71	.....
State-at-large	1,410 65	.....	1,410 65	.....
	$10,320 21	$1,631 45	.....	$11,951 66

Statistics.

BILLS FOR THE CARE OF CHRONIC INSANE KEPT IN COUNTY ASYLUMS—Continued.

For the Fiscal Year Ending June 30, 1904.

	From state.	From county.	Total.	
Green County Asylum:				
Own insane	$4,350 00	.....	$4,350 00	.....
Buffalo	156 86	$188 81	345 67	.....
Douglas	156 86	197 36	354 22	.....
Jackson	235 29	267 59	502 88	.....
Juneau	1,121 57	1,337 67	2,459 24	.....
Kenosha	278 57	354 87	633 44	.....
La Fayette	1,199 36	1,432 11	2,631 47	.....
Pierce	78 43	95 18	173 61	.....
Polk	235 29	280 94	516 23	.....
State-at-large	448 10	.....	448 10	.....
	$8,260 33	$4,154 53	.....	$12,414 86
Iowa County Asylum:				
Own insane	$3,679 07	.....	$3,679 07	.....
Ashland	78 43	$86 46	164 89	.....
Barron	7 29	23 79	31 08	.....
Buffalo	25 07	41 57	66 64	.....
Crawford	78 43	84 48	162 91	.....
Eau Claire	13 50	13 50	27 00	.....
Iron	78 43	89 43	167 86	.....
Jackson	78 43	87 83	166 26	.....
La Fayette	653 36	716 79	1,370 15	.....
Oconto	78 43	92 38	170 81	.....
Pepin	78 43	90 78	169 21	.....
Pierce	313 71	352 26	665 97	.....
Polk	613 92	691 68	1,305 60	.....
Racine	145 71	202 41	348 12	.....
Waukesha	1,134 00	1,447 70	2,581 70	.....
State-at-large	2,470 28	.....	2,470 28	.....
	$9,526 49	$4,021 06	.....	$13,547 55
Jefferson County Asylum:				
Own insane	$7,805 79	.....	$7,805 79	.....
Ashland	78 42	$90 04	168 46	.....
Burnett	78 42	88 22	166 64	.....
Door	7 92	21 62	29 54	.....
Lincoln	156 86	553 77	710 63	.....
Ozaukee	20 14	23 54	43 68	.....
Racine	138 21	152 69	290 90	.....
Taylor	78 42	89 82	168 24	.....
Waukesha	351 00	380 05	731 05	.....
Waushara	78 42	90 42	168 84	.....
State-at-large	2,002 72	.....	2,002 72	.....
	$10,796 32	$1,490 17	.....	$12,286 49
La Crosse County Asylum:				
Own insane	$8,253 21	.....	$8,253 21	.....
Barron	156 85	$186 61	343 46	.....
Bayfield	78 42	84 43	162 85	.....
Buffalo	943 50	1,034 63	1,978 13	.....
Clark	235 28	251 89	487 17	.....
Jackson	275 35	322 63	597 98	.....
Juneau	78 42	83 48	161 90	.....
Pierce	235 28	269 94	505 22	.....
State-at-large	1,742 36	.....	1,742 36	.....
	$11,998 67	$2,233 61	.....	$14,232 23

Statistics.

BILLS FOR THE CARE OF CHRONIC INSANE KEPT IN COUNTY ASYLUMS—Continued.

For the Fiscal Year Ending June 30, 1904.

	From state.	From county.	Total.	
Manitowoc County Asylum:				
Own insane	$4,275 21	.....	$4,275 21	.....
Calumet	371 77	$428 67	800 44	.....
Door	988 28	1,158 88	2,147 16	.....
Kewaunee	573 85	655 55	1,229 40	.....
Langlade	235 27	266 08	501 35	.....
Marinette	573 85	662 01	1,235 86	.....
Oconto	156 85	179 65	336 50	.....
Ozaukee	1,882 28	2,192 08	4,074 36	.....
Shawano	78 42	88 73	167 15	.....
Vilas	78 42	93 28	171 70	.....
Waushara	78 42	87 58	166 00	.....
State-at-large	5,799 15	.....	5,799 15	.....
	$15,091 77	$5,812 51	.....	$20,904 28
Marathon County Asylum:				
Own insane	$4,567 71	.....	$4,567 71	.....
Ashland	1,023 64	$1,189 69	2,213 33	.....
Barron	235 28	278 65	513 93	.....
Bayfield	235 29	274 48	509 77	.....
Buffalo	78 42	91 23	169 65	.....
Clark	627 43	718 10	1,345 53	.....
Florence	156 86	183 20	340 06	.....
Iron	416 35	489 65	906 00	.....
Jackson	313 72	374 84	688 56	.....
Langlade	313 72	363 77	677 49	.....
Lincoln	918 22	1,062 94	1,981 16	.....
Marquette	156 86	181 00	337 86	.....
Oconto	470 57	550 26	1,020 83	.....
Oneida	392 14	455 24	847 38	.....
Portage	1,270 92	1,420 92	2,691 84	.....
Sawyer	78 42	91 18	169 60	.....
Shawano	549 00	639 87	1,188 87	.....
Taylor	78 42	87 93	166 35	.....
Vilas	78 42	93 95	172 37	.....
Waushara	78 42	91 33	169 75	.....
State-at-large	170 95	.....	170 95	.....
Wood	1,033 07	1,199 58	2,232 65	.....
	$13,243 83	$9,837 81	.....	$23,081 64
Milwaukee County Asylum:				
Own insane	$17,274 17	.....	$17,274 17	$17,274 17
Monroe County Asylum:				
Own insane	$3,612 55	.....	$3,612 55	.....
Vernon	68 58	$206 57	275 15	.....
State-at-large	335 61	.....	335 61	.....
	$4,016 74	$206 57	.....	$4,223 31

Statistics.

BILLS FOR THE CARE OF CHRONIC INSANE KEPT IN COUNTY ASYLUMS—Continued.

For the Fiscal Year Ending June 30, 1904.

	From state.	From county.	Total.	
Outagamie County Asylum:				
Own insane	$5,856 28	.....	$5,856 28	.....
Calumet	494 36	$597 91	1,092 27	.....
Door	559 29	670 34	1,229 65	.....
Florence	49 28	53 78	103 06	.....
Forest	78 42	86 92	165 34	.....
Kewaunee	637 71	732 88	1,370 59	.....
Langlade	156 85	173 05	329 90	.....
Lincoln	235 28	273 28	508 56	.....
Marinette	203 99	239 74	443 73	.....
Oconto	495 64	581 04	1,076 68	.....
Oneida	193 49	219 89	413 38	.....
Portage	313 71	361 71	675 42	.....
Price	78 42	90 32	168 74	.....
Shawano	313 70	361 30	675 00	.....
Taylor	78 42	86 67	165 09	.....
Waukesha	141 85	176 55	318 40	.....
Wood	53 14	74 89	128 03	.....
State-at-large	1,055 83	.....	1,055 83	.....
	$10,995 66	$4,780 27	.....	$15,775 93
Racine County Asylum:				
Own insane	$4,723 54	.....	$4,723 54	.....
Kenosha	764 57	$972 49	1,737 06	.....
State-at-large	870 54	.....	870 54	.....
	$6,358 65	$972 49	.....	$7,331 14
Richland County Asylum:				
Own insane	$2,311 07	.....	$2,311 07	.....
Adams	235 28	$265 18	500 46	.....
Crawford	1,548 43	1,790 43	3,338 86	.....
Juneau	313 72	377 77	691 49	.....
Marquette	78 43	94 46	172 89	.....
Pierce	78 43	88 63	167 06	.....
Racine	81 64	92 64	174 28	.....
Waushara	354 86	418 56	773 42	.....
Wood	156 85	190 15	347 00	.....
State-at-large	7,357 86	.....	7,357 86	.....
	$12,516 57	$3,317 82	.....	$15,834 39
Rock County Asylum:				
Own insane	$7,901 39	.....	$7,901 39	.....
Brown	78 43	$91 19	169 62	.....
Kenosha	138 20	171 25	309 45	.....
La Fayette	313 70	333 35	647 05	.....
Marinette	470 55	517 15	987 70	.....
Marquette	313 70	345 60	659 30	.....
Racine	233 77	286 28	520 05	.....
Walworth	15 86	15 85	31 71	.....
Washburn	78 43	86 77	165 20	.....
Waukesha	199 28	226 22	425 50	.....
State-at-large	2,436 65	.....	2,436 65	.....
	$12,179 96	$2,073 66	.....	$14,253 62
Sauk County Asylum:				
Own insane	$5,835 86	.....	$5,835 86	.....
Adams	84 42	$95 23	179 65	.....
Burnett	78 42	84 33	162 75	.....
Juneau	1,604 57	1,855 34	3,459 91	.....
Monroe	78 43	.....	78 43	.....
Pepin	78 42	98 33	176 75	.....
Pierce	313 70	364 15	677 85	.....
Racine	137 12	170 63	307 75	.....
Sawyer	78 42	92 78	171 20	.....
Washburn	78 42	97 88	176 30	.....
State-at-large	100 25	.....	100 25	.....
	$8,468 03	$2,858 67	.....	$11,326 70

Statistics.

BILLS FOR THE CARE OF CHRONIC INSANE KEPT IN COUNTY ASYLUMS—Continued.

For the Fiscal Year Ending June 30, 1904.

	From state.	From county.	Total.	
St. Croix County Asylum:				
Own insane	$4,797 21	.....	$4,797 21	.....
Ashland	392 14	$439 79	831 93	.....
Barron	519 00	567 15	1,086 15	.....
Bayfield	156 86	180 16	337 02	.....
Buffalo	156 86	180 16	337 02	.....
Burnett	313 71	354 36	668 07	.....
Douglas	1,265 36	1,443 95	2,709 31	.....
Pepin	129 64	141 69	271 33	.....
Pierce	911 14	1,048 19	1,959 33	.....
Polk	990 21	1,112 89	2,103 10	.....
Portage	235 29	264 44	499 73	.....
Sawyer	78 43	90 53	168 96	.....
Taylor	78 43	87 28	165 71	.....
State-at-large	1,502 25	.....	1,502 25	.....
	$11,526 53	$5,910 59	.....	$17,437 12
Sheboygan County Asylum:				
Own insane	$7,905 43	.....	$7,905 43	.....
Calumet	392 15	$445 65	837 80	.....
Ozaukee	78 43	90 93	169 36	.....
Rock	63 00	93 50	156 50	.....
	$8,439 01	$630 08	.....	$9,069 09
Trempealeau County Asylum:				
Own insane	$3,766 75	.....	$3,766 75	.....
Buffalo	392 12	$434 36	826 48	.....
Clark	470 55	519 11	989 66	.....
Jackson	766 25	844 12	1,610 37	.....
Juneau	235 27	268 40	503 67	.....
Pierce	136 06	147 19	283 25	.....
Portage	1,490 14	1,661 60	3,151 74	.....
Price	78 42	82 53	160 95	.....
Wood	475 26	566 75	1,042 01	.....
State-at-large	840 06	.....	840 06	.....
	$8,650 88	$4,524 06	.....	$13,174 94
Vernon County Asylum:				
Own insane	$4,377 86	.....	$4,377 86	.....
Adams	156 85	$176 85	333 70	.....
Barron	182 14	207 14	389 28	.....
Buffalo	78 42	88 42	166 84	.....
Burnett	235 27	265 27	500 54	.....
Clark	235 27	265 27	500 54	.....
Crawford	339 42	383 42	722 84	.....
Douglas	255 63	299 13	554 76	.....
Jackson	478 69	550 19	1,028 88	.....
Juneau	491 77	559 77	1,051 54	.....
Pepin	235 27	265 27	500 54	.....
Polk	313 70	353 70	667 40	.....
Racine	326 58	374 58	701 16	.....
State-at-large	3,606 00	.....	3,606 00	.....
	$11,312 87	$3,789 01	.....	$15,101 88

Statistics.

BILLS FOR THE CARE OF CHRONIC INSANE KEPT IN COUNTY ASYLUMS—Continued.

For the Fiscal Year Ending June 30, 1904.

	From state.	From county.	Total.	
Walworth County Asylum:				
Own insane	$3,834 26	.....	$3,834 26	.....
Kenosha	1,669 50	$1,880 55	3,550 05	.....
La Fayette	78 43	89 68	168 11	.....
Racine	225 86	258 86	484 72	.....
Waukesha	1,217 36	1,501 62	2,718 98	.....
State-at-large	1,640 27	.....	1,640 27	.....
	$8,665 68	$3,730 71	.....	$12,596 39
Washington County Asylum:				
Own insane	$3,004 93	.....	$3,004 93	.....
Ashland	78 43	$86 92	165 35	.....
Calumet	564 86	598 90	1,163 76	.....
Door	78 43	83 87	162 30	.....
Forest	78 43	87 42	165 85	.....
Green Lake	94 71	124 82	219 53	.....
Kenosha	24 85	24 86	49 71	.....
Kewaunee	78 42	82 13	160 55	.....
Langlade	78 43	80 17	158 60	.....
Lincoln	235 28	261 89	497 17	.....
Marinette	156 85	164 36	321 21	.....
Marquette	156 85	178 21	335 06	.....
Milwaukee	78 42	79 73	158 15	.....
Oconto	288 85	322 61	611 46	.....
Oneida	156 85	174 21	331 06	.....
Ozaukee	1,174 28	1,299 69	2,473 97	.....
Portage	156 85	188 61	345 46	.....
Price	78 43	81 77	160 20	.....
Shawano	235 29	246 83	482 12	.....
Vilas	78 43	83 77	162 20	.....
Waukesha	1,090 29	1,239 38	2,329 67	.....
Waupaca	78 43	79 62	158 05	.....
Waushara	392 14	432 84	824 98	.....
State-at-large	2,176 28	.....	2,176 28	.....
	$10,615 01	$6,002 61	.....	$16,617 62
Waupaca County Asylum:				
Own insane	$4,111 93	.....	$4,111 93	.....
Ashland	142 50	$175 03	317 53	.....
Bayfield	19 28	39 32	58 60	.....
Green Lake	78 42	80 33	158 75	.....
Iron	235 27	255 12	490 39	.....
Langlade	78 42	81 28	159 70	.....
Lincoln	79 07	87 19	166 26	.....
Marinette	28 71	44 99	73 70	.....
Marquette	78 21	80 02	158 23	.....
Oconto	201 85	206 70	408 55	.....
Oneida	8 78	28 79	37 57	.....
Portage	595 05	673 70	1,268 75	.....
Price	386 98	417 56	804 54	.....
Racine	270 00	287 42	557 42	.....
Shawano	208 92	219 64	428 56	.....
Taylor	126 42	134 41	260 83	.....
Waushara	6 64	6 64	13 28	.....
Winnebago	15 64	21 65	37 29	.....
Wood	314 56	349 49	664 05	.....
State-at-large	1,631 75	.....	1,631 75	.....
	$8,618 40	$3,189 28	.....	$11,807 68

Statistics.

BILLS FOR THE CARE OF CHRONIC INSANE KEPT IN COUNTY ASYLUMS—Continued.

For the Fiscal Year Ending June 30, 1904.

	From state.	From county.	Total	
Waukesha County Asylum:				
Own insane	$1,032 64	.....	$1,032 64	.....
Racine	153 64	$162 34	315 98	.....
	$1,186 28	$162 34	.....	$1,348 62
Winnebago County Asylum:				
Own insane	$9,643 73	.....	$9,643 73	.....
Ashland	156 85	$169 66	326 51	.....
Bayfield	341 77	382 35	724 12	.....
Calumet	131 35	141 85	273 20	.....
Douglas	156 85	178 87	335 72	.....
Florence	156 85	172 42	329 27	.....
Green Lake	417 41	453 62	871 03	.....
Iron	156 63	171 41	328 04	.....
Kewaunee	156 85	169 81	326 66	.....
Langlade	78 42	87 50	165 92	.....
Lincoln	436 28	475 41	911 69	.....
Marinette	820 71	875 43	1,696 14	.....
Marquette	134 78	142 28	277 06	.....
Oconto	392 12	417 21	809 33	.....
Oneida	162 85	175 32	338 17	.....
Portage	156 85	161 53	318 38	.....
Racine	16 71	18 72	35 43	.....
Shawano	313 70	332 36	646 06	.....
Taylor	78 43	83 73	162 16	.....
Vilas	78 42	85 39	163 81	.....
Waushara	392 12	424 18	816 30	.....
Wood	84 85	93 03	177 88	.....
State-at-large	1,480 52	.....	1,480 52	.....
	$15,945 05	$5,212 08	.....	$21,157 13
	.....	.....	.....	$416,150 15

Statistics.

SUMMARY OF AMOUNTS DUE COUNTY ASYLUMS FOR CARE OF CHRONIC INSANE, 1904.

Brown County Asylum	$12,578 73
Chippewa County Asylum	17,449 78
Columbia County Asylum	10,236 88
Dane County Asylum	11,111 41
Dodge County Asylum	10,252 86
Dunn County Asylum	15,001 60
Eau Claire County Asylum	16,065 45
Fond du Lac County Asylum	10,904 95
Grant County Asylum	11,951 66
Green County Asylum	12,414 86
Iowa County Asylum	13,547 55
Jefferson County Asylum	12,286 49
La Crosse County Asylum	14,232 28
Manitowoc County Asylum	20,904 28
Marathon County Asylum	23,081 64
Milwaukee County Asylum	17,274 17
Monroe County Asylum	4,223 31
Outagamie County Asylum	15,775 93
Racine County Asylum	7,331 14
Richland County Asylum	15,834 39
Rock County Asylum	14,253 62
Sauk County Asylum	11,326 70
St. Croix County Asylum	17,437 12
Sheboygan County Asylum	9,069 09
Trempealeau County Asylum	13,174 94
Vernon County Asylum	15,101 88
Walworth County Asylum	12,396 39
Washington County Asylum	16,617 62
Waupaca County Asylum	11,807 68
Waukesha County Asylum	1,348 62
Winnebago County Asylum	21,157 13
	$416,150 15

1904.	
Payment by the state to counties for their own insane	$179,003 09
Payment by the state to counties for insane from other counties	88,874 39
Payment by the state for state insane	46,599 11
Total paid by the state	$314,476 59
Special tax on counties for insane belonging to them kept by other counties	101,673 56
Total receipts by counties having asylums	$416,150 15

Statistics.

DIVISIONS OF APPROPRIATIONS TO COUNTY ASYLUMS FOR THE YEAR ENDING JUNE 30, 1903.

Table No. 1.

Counties from which transferred.	Counties to be paid for care.	From state.	Special tax on counties from which transferred.	Total.
Ashland	Brown	$78 21	$87 66	$165 87
	Chippewa	362 36	393 36	755 72
	Eau Claire	78 22	92 15	170 37
	Iowa	78 21	87 51	165 72
	Jefferson	78 22	89 42	167 64
	Marathon	1,016 79	1,184 63	2,201 42
	Outagamie	28 71	34 79	63 50
	St Croix	391 07	430 72	821 79
	Washington	78 21	91 91	170 12
	Waupaca	24 00	24 00	48 00
	Winnebago	231 00	292 19	523 19
Adams	Columbia	156 43	186 89	343 32
	Dodge	3 85	3 85	7 70
	Richland	234 65	260 40	495 05
	Sauk	78 21	86 11	164 32
	Vernon	35 14	39 62	74 76
Barron	Chippewa	1,173 22	1,246 05	2,419 27
	Dunn	937 28	1,043 68	1,980 96
	Eau Claire	127 71	132 43	260 14
	Grant	78 22	92 97	171 19
	La Crosse	156 43	179 50	335 93
	Marathon	234 64	272 67	507 31
	St. Croix	469 29	512 99	982 28
Bayfield	Chippewa	462 43	569 67	1,032 10
	Eau Claire	156 43	177 19	333 62
	La Crosse	78 22	89 67	167 89
	Marathon	234 64	271 97	506 61
	St. Croix	156 43	180 08	336 51
	Waupaca	37 28	37 28	74 56
	Winnebago	112 72	141 96	254 68
Buffalo	Dunn	78 21	88 76	166 97
	Eau Claire	308 79	330 65	639 44
	Green	156 43	188 58	345 01
	Iowa	78 21	94 66	172 87
	La Crosse	1,060 29	1,114 74	2,175 03
	Marathon	78 22	87 84	166 06
	St. Croix	156 43	168 33	324 76
	Trempealeau	391 07	410 00	801 07
	Vernon	17 57	19 81	37 38
Burnett	Chippewa	156 43	181 24	337 67
	Dunn	526 50	604 90	1,131 40
	Jefferson	78 22	92 28	170 50
	St. Croix	334 07	378 27	712 34
	Sauk	78 21	85 76	163 97
	Vernon	174 00	196 24	370 24
Calumet	Manitowoc	391 07	438 27	829 34
	Outagamie	658 07	801 51	1,459 58
	Shebovgan	391 07	443 07	834 14
	Washington	433 71	462 92	896 63
	Winnebago	78 22	90 50	168 72
Brown	Rock	78 21	78 21	156 42

Statistics.

DIVISIONS OF APPROPRIATIONS TO COUNTY ASYLUMS FOR THE YEAR ENDING JUNE 30, 1903.—Continued.

Table No. 1.

Counties from which transferred.	Counties to be paid for care.	From state.	Special tax on counties from where transferred.	Total.
Clark	Chippewa	234 64	269 66	504 30
	Dane	43 71	473 14	516 85
	Eau Claire	112 93	118 19	231 12
	La Crosse	234 64	246 41	481 05
	Marathon	697 72	807 27	1,504 99
	Trempealeau	567 21	602 43	1,169 64
	Vernon	174 00	196 24	370 24
Crawford	Grant	1,009 72	1,190 81	2,200 53
	Iowa	89 57	111 57	201 14
	Richland	2,260 93	1,112 65	3,373 58
	Rock	126 00	158 27	284 27
	Vernon	66 00	74 41	140 41
Door	Brown	90 64	105 79	196 43
	Jefferson	78 22	88 00	166 22
	Manitowoc	1,209 28	371 84	1,581 12
	Outagamie	1,038 42	156 03	1,194 45
	Washington	21 22	21 22	42 44
Douglas	Chippewa	1,172 78	1,309 18	2,481 96
	Dunn	234 64	259 59	494 23
	Eau Claire	911 57	1,029 41	1,940 98
	Green	212 57	284 72	497 29
	St. Croix	1,536 86	1,763 08	3,299 94
	Vernon	225 43	263 74	489 17
	Winnebago	156 43	172 91	329 34
Florence	Marathon	156 43	179 62	336 05
	Winnebago	156 43	173 85	330 28
Forest	Outagamie	78 21	86 21	164 42
	Washington	78 21	92 41	170 62
Gates	Chippewa	601 72	646 23	1,247 95
Green Lake	Dodge	312 85	363 75	676 60
	Fond du Lac	1,012 93	1,177 73	2,190 66
	Waupaca	56 14	57 02	113 16
	Winnebago	391 07	422 67	813 74
Iron	Brown	78 21	92 51	170 72
	Chippewa	33 00	36 16	69 16
	Eau Claire	78 22	92 53	170 75
	Iowa	78 21	85 96	164 17
	Marathon	391 07	445 14	836 21
	Outagamie	22 92	22 92	45 84
	St. Croix	52 50	60 75	113 25
	Waupaca	45 64	46 15	91 79
	Winnebago	202 07	250 00	452 07
Jackson	Columbia	78 21	92 93	171 14
	Dunn	78 21	88 71	166 92
	Green	301 50	371 35	672 85
	Iowa	78 21	91 51	169 72
	La Crosse	373 07	415 30	788 37
	Marathon	312 86	363 45	676 31
	Rock	126 00	159 21	285 21
	Trempealeau	793 72	834 56	1,628 28
	Vernon	316 92	357 42	674 34

Statistics.

DIVISIONS OF APPROPRIATIONS TO COUNTY ASYLUMS FOR THE YEAR ENDING JUNE 30, 1903.—Continued.

Table No. 1.

Counties from which transferred.	Counties to be paid for care.	From state	Special tax on counties from which transferred.	Total.
Juneau	Columbia	78 21	93 33	171 54
	Green	1,120 72	1,335 57	2,456 29
	La Crosse	78 22	89 26	167 48
	Richland	312 86	361 07	673 93
	Sauk	1,710 87	1,909 80	3,620 67
	Trempealeau	223 38	249 79	473 07
	Vernon	277 71	313 19	590 90
Kenosha	Racine	1,078 93	1,204 99	2,283 92
	Walworth	1,841 57	1,950 90	3,792 47
Kewaunee	Brown	387 86	426 76	814 62
	Manitowoc	461 79	528 39	990 18
	Outagamie	625 72	691 07	1,316 79
	Washington	78 21	91 01	169 22
	Winnebago	159 64	175 68	335 32
Lafayette	Grant	267 42	330 82	598 24
	Green	1,254 43	1,556 01	2 810 44
	Iowa	693 43	772 86	1,466 29
	Rock	380 36	425 66	806 02
	Walworth	78 21	85 59	163 80
Langlade	Brown	78 21	90 31	168 52
	Marathon	265 72	313 35	579 07
	Outagamie	156 43	170 88	327 31
	Washington	78 21	92 96	171 17
	Waupaca	10 93	22 93	33 86
	Winnebago	78 22	92 88	171 10
	Manitowoc	234 64	266 84	501 48
Lincoln	Brown	62 14	69 99	132 13
	Chippewa	39 85	39 85	79 70
	Dodge	156 42	182 37	338 79
	Jefferson	78 22	84 12	162 34
	Marathon	830 36	960 83	1,791 19
	Outagamie	234 64	268 39	503 03
	Washington	277 07	335 11	612 18
	Winnebago	356 14	392 45	748 59
Manitowoc	Brown	78 22	86 97	165 19
Marinette	Brown	245 79	279 74	525 53
	Fond du Lac	278 36	350 71	629 07
	Manitowoc	421 72	477 12	898 84
	Outagamie	156 43	181 88	338 31
	Rock	469 29	515 69	984 98
	Washington	126 43	156 26	282 69
	Winnebago	631 93	677 44	1,309 37
Marquette	Eau Claire	156 43	179 50	335 93
	Fond du Lac	294 00	376 80	670 80
	Marathon	156 42	181 95	338 37
	Richland	78 22	90 57	168 79
	Rock	312 86	354 26	667 12
	Washington	156 43	179 53	335 96
	Winnebago	78 22	85 40	163 62
	Columbia	451 28	523 80	975 08
Milwaukee	Washington	78 21	80 81	159 02
Monroe	La Crosse	13 50	14 30	27 80
	Sauk	296 78	338 45	635 23
	Vernon	1,778 78	2,001 84	3,780 62

Statistics.

DIVISIONS OF APPROPRIATIONS TO COUNTY ASYLUMS FOR THE YEAR ENDING JUNE 30, 1903.—Continued.

Table No. 1.

Counties from which transferred.	Counties to be paid for care.	From state.	Special tax on counties from which transferred.	Total
Oconto	Brown	1,190 57	1,320 37	2,510 94
	Dodge	608 78	708 03	1,316 81
	Fond du Lac	78 21	89 71	167 92
	Iowa	78 21	89 61	167 82
	Manitowoc	156 43	182 18	338 61
	Marathon	416 79	479 78	896 57
	Outagamie	469 28	536 98	1,006 26
	Sheboygan	10 07	10 07	20 14
	Washington	322 07	370 65	692 72
	Waupaca	3 22	3 22	6 44
	Winnebago	386 36	421 28	807 64
Oneida	Fond du Lac	78 21	94 46	172 67
	Marathon	324 85	379 90	704 75
	Outagamie	156 43	175 93	332 36
	Washington	156 43	175 43	331 86
	Waupaca	60 42	62 92	123 34
	Winnebago	132 43	139 17	271 60
Ozaukee	Manitowoc	1,877 16	2,150 94	4,028 10
	Sheboygan	78 21	90 71	168 92
	Washington	880 29	1,000 64	1,880 93
	Jefferson	20 57	27 75	48 32
Pepin	Chippewa	312 86	383 80	696 66
	Dunn	532 71	588 11	1,120 82
	Iowa	78 21	88 16	166 37
	St. Croix	199 93	224 83	424 76
	Sauk	78 21	96 45	174 66
	Trempealeau	5 57	21 07	26 64
	Vernon	156 00	175 94	331 94
Pierce	Dunn	672 00	733 90	1,405 90
	Eau Claire	46 50	51 70	98 20
	Green	78 22	94 27	172 49
	Iowa	312 86	350 36	663 22
	La Crosse	234 64	263 04	497 68
	Richland	78 22	84 47	162 69
	St. Croix	949 28	1,062 88	2,012 16
	Sauk	370 28	437 38	807 66
	Trempealeau	136 71	142 36	279 07
	Dane	78 21	92 71	170 92
Polk	Dunn	444 21	496 71	940 92
	Eau Claire	79 93	106 76	186 69
	Iowa	625 71	704 46	1,330 17
	St. Croix	1,036 71	1,137 66	2,174 37
	Vernon	312 86	352 86	665 72
	Green	234 64	286 89	521 53
Portage	Columbia	196 50	244 29	440 79
	Dodge	45 00	45 00	90 00
	Dunn	391 07	439 27	830 34
	Manitowoc	41 57	47 07	88 64
	Marathon	1,366 07	1,520 00	2,886 07
	Outagamie	300 00	343 55	643 55
	St. Croix	286 71	315 11	601 82
	Trempealeau	1,486 08	1,591 15	3,077 23
	Washington	140 79	155 64	296 43
	Waupaca	201 00	219 72	420 72
	Winnebago	92 57	101 67	194 24

Statistics.

DIVISIONS OF APPROPRIATIONS TO COUNTY ASYLUMS FOR THE YEAR ENDING JUNE 30, 1903.—Continued.

Table No. 1.

Counties from which transferred.	Counties to be paid for care.	From state.	Special tax on county from which transferred.	Total.
Price	Chippewa	856 72	933 39	1,790 11
	Dunn	156 43	180 13	336 56
	Eau Claire	78 22	92 93	171 15
	Outagamie	78 21	86 21	164 42
	Trempealeau	78 21	79 11	157 32
	Washington	78 21	84 11	162 32
	Waupaca	56 14	57 32	113 46
	Winnebago	36 42	46 83	83 25
St. Croix	Dunn	78 22	89 17	167 39
Sawyer	Marathon	115 07	131 09	246 16
	St. Croix	102 21	121 31	223 52
	Sauk	78 21	96 76	174 97
	Chippewa	20 35	31 54	51 89
Shawano	Brown	82 28	85 68	167 96
	Dodge	156 42	178 42	334 84
	Manitowoc	78 22	87 07	165 29
	Marathon	588 00	685 54	1,273 54
	Outagamie	306 43	343 90	650 33
	Washington	219 00	243 35	462 35
	Waupaca	8 36	8 36	16 72
	Winnebago	312 86	328 11	640 97
Taylor	Brown	78 21	82 11	160 32
	Chippewa	402 86	443 67	846 53
	Dunn	391 07	441 24	832 31
	Eau Claire	190 50	212 21	402 71
	Fond du Lac	30 00	48 25	78 25
	Jefferson	78 22	90 82	169 04
	Marathon	31 07	37 24	68 31
	Outagamie	78 21	84 46	162 67
	St. Croix	78 21	87 16	165 37
	Waupaca	37 28	38 42	75 70
	Winnebago	263 59	314 62	578 61
Vilas	Brown	78 22	81 77	159 99
	Fond du Lac	78 21	94 96	173 17
	Manitowoc	78 22	89 09	167 31
	Marathon	78 21	92 18	170 39
	Washington	89 14	92 29	181 43
	Winnebago	99 43	110 06	209 49
Washburn	Chippewa	156 43	165 61	322 04
	Dunn	78 21	92 11	170 32
	Eau Claire	124 72	146 47	271 19
	Rock	78 22	85 32	163 54
	Sauk	78 21	89 21	167 42
Waukesha	Dodge	156 42	179 17	335 59
	Iowa	1,407 86	1,568 59	2,976 45
	Jefferson	375 00	403 30	778 30
	Outagamie	156 43	179 63	336 06
	Rock	234 65	254 89	489 54
	Walworth	1,642 50	1,808 32	3,450 82
	Washington	1,150 50	1,342 22	2,492 72

Statistics.

DIVISIONS OF APPROPRIATIONS TO COUNTY ASYLUMS FOR THE YEAR ENDING JUNE 30, 1903.—Continued.

Table No. 1.

Counties from which transferred.	Counties to be paid for care.	From state.	Special tax on county from which transferred.	Total.
Waupaca	Dunn	19 71	25 11	44 82
	Fond du Lac	6 64	18 64	25 28
	Manitowoc	42 20	94 25	136 45
	Marathon	51 42	79 72	131 14
	Outagamie	60 00	86 81	146 81
	Washington	144 64	154 09	298 73
	Winnebago	64 51	69 73	134 24
Waushara	Fond du Lac	78 21	78 21	156 42
	Jefferson	78 22	92 00	170 22
	Manitowoc	78 22	87 72	165 94
	Marathon	78 22	96 99	175 21
	Richland	391 07	440 02	831 09
	Washington	391 07	442 27	833 34
	Winnebago	372 86	409 12	781 98
Wood	Brown	78 22	85 92	164 14
	Chippewa	16 50	16 75	33 25
	Marathon	1,061 35	1,215 23	2,276 58
	Outagamie	78 21	84 46	162 67
	Richland	156 43	182 06	338 49
	Trempealeau	547 50	596 94	1,144 44
	Waupaca	156 42	157 30	313 72
	Winnebago	152 14	178 32	330 46
		$86,721 79	$95,036 85	$181,758 64

Statistics.

DIVISIONS OF APPROPRIATIONS TO COUNTY ASYLUMS FOR THE YEAR ENDING JUNE 30, 1903.—Continued.

Table No. 2.

Counties.	For their own insane.	For state insane.	Total.
Brown	$6,309 21	$607 53	$6,916 74
Chippewa	3,874 93	2,833 37	6,708 30
Columbia	4,755 86	3,070 52	7,826 38
Dane	10,559 79	368 31	10,928 10
Dodge	6,811 68	339 00	7,150 68
Dunn	4,578 64	1,160 20	5,738 84
Eau Claire	5,575 93	746 65	6,322 58
Fond du Lac	6,639 86	57 43	6,697 29
Grant	7,561 07	1,743 92	9,304 99
Green	4,830 64	271 96	5,102 60
Iowa	3,836 78	2,012 43	5,849 21
Jefferson	7,446 23	1,986 85	9,433 08
La Crosse	7,771 93	1,803 71	9,575 64
Manitowoc	4,748 36	5,726 34	10,474 70
Marathon	4,055 36	170 53	4,225 89
Milwaukee	15,515 53	.....	15,515 53
Monroe	774 86	35 14	810 00
Outagamie	5,589 84	796 91	6,386 75
Racine	7,738 72	1,021 76	8,760 48
Richland	2,425 50	6,942 31	9,367 81
Rock	7,806 00	2,043 67	9,849 67
St. Croix	4,654 92	1,481 58	6,136 50
Sauk	5,425 07	.....	5,425 07
Sheboygan	7,365 00	.....	7,365 00
Trempealeau	3,747 86	673 49	4,421 35
Vernon	4,402 71	3,274 31	7,677 02
Walworth	3,274 09	1,387 57	4,661 66
Washington	2,894 14	2,118 15	5,012 29
Waupaca	3,879 21	773 64	4,652 85
Winnebago	9,685 08	1,457 30	11,142 38
Total	$174,534 80	$44,904 58	$219,439 38

Statistics.

DIVISION OF APPROPRIATIONS TO COUNTY ASYLUMS FOR THE YEAR ENDING JUNE 30, 1904.

Table No. 1.

Counties from which transferred.	Counties to be paid for care.	From state.	Special tax on counties from which transferred.	Total.
Ashland	Brown	$78 42	$90 07	$168 49
	Chippewa	549 00	586 90	1,135 90
	Eau Claire	297 21	345 81	643 02
	Iowa	78 43	86 46	164 89
	Jefferson	78 42	90 04	168 46
	Marathon	1,023 64	1,189 69	2,213 33
	St. Croix	392 14	439 79	831 93
	Washington	78 43	86 92	165 35
	Waupaca	142 50	175 03	317 53
	Winnebago	156 85	169 66	326 51
Adams	Columbia	156 85	192 43	349 28
	Richland	235 28	265 18	500 46
	Sauk	84 42	95 23	179 65
	Vernon	156 85	176 85	333 70
Barron	Chippewa	1,082 57	1,156 52	2,239 09
	Dunn	875 57	984 12	1,859 69
	Eau Claire	347 56	397 18	744 74
	Grant	78 43	82 43	160 86
	Iowa	7 29	23 79	31 08
	La Crosse	156 85	186 61	343 46
	Marathon	235 28	278 65	513 93
	St. Croix	519 00	567 15	1,086 15
	Vernon	182 14	207 14	389 28
Bayfield	Chippewa	536 79	598 30	1,135 09
	Eau Claire	296 78	353 39	650 17
	La Crosse	78 42	84 43	162 85
	Marathon	235 29	274 48	509 77
	St. Croix	156 86	180 16	337 02
	Waupaca	19 28	39 32	58 60
	Winnebago	341 77	382 35	724 12
Brown	Rock	78 43	91 19	169 62
Buffalo	Dunn	78 42	92 33	170 75
	Eau Claire	292 28	329 36	621 64
	Green	156 86	188 81	345 67
	Iowa	25 07	41 57	66 64
	La Crosse	943 50	1,034 63	1,978 13
	Marathon	78 42	91 23	169 65
	St. Croix	156 86	180 16	337 02
	Trempealeau	392 12	434 36	826 48
	Vernon	78 42	88 42	166 84
Burnett	Chippewa	156 85	181 14	337 99
	Dunn	457 71	532 16	989 87
	Jefferson	78 42	88 22	166 64
	Sauk	78 42	84 33	162 75
	St. Croix	313 71	354 36	668 07
	Vernon	235 27	265 27	500 54
Calumet	Manitowoc	371 77	428 67	800 44
	Outagamie	494 36	597 91	1,092 27
	Sheboygan	392 15	445 65	837 80
	Washington	564 86	598 90	1,163 76
	Winnebago	131 35	141 85	273 20

Statistics.

DIVISIONS OF APPROPRIATIONS TO COUNTY ASYLUMS FOR THE YEAR ENDING JUNE 30, 1904.—Continued.

Table No. 1.

Counties from which transferred.	Counties to be paid for care.	From state.	Special tax on counties from which transferred.	Total.
Clark	Chippewa	235 28	274 61	509 89
	Eau Claire	146 57	168 88	315 45
	La Crosse	235 28	251 89	487 17
	Marathon	627 43	718 10	1,345 53
	Trempealeau	470 55	519 11	989 66
	Vernon	235 27	265 27	500 54
Crawford	Grant	941 14	1,008 24	1,949 38
	Iowa	78 43	84 48	162 91
	Richland	1,548 43	1,790 43	3,338 86
	Vernon	339 42	383 42	722 84
Door	Brown	93 85	100 66	194 51
	Jefferson	7 92	21 62	29 54
	Manitowoc	988 28	1,158 88	2,147 16
	Outagamie	559 29	670 34	1,229 63
	Washington	78 43	83 87	162 30
Douglas	Chippewa	1,115 79	1,269 58	2,385 37
	Dunn	235 28	266 54	501 82
	Eau Claire	1,356 42	1,538 77	2,895 19
	Green	156 86	197 36	354 22
	St. Croix	1,265 36	1,443 95	2,709 31
	Vernon	255 63	299 13	554 16
	Winnebago	156 85	178 87	335 72
Florence	Marathon	156 86	183 20	340 06
	Outagamie	49 28	53 78	103 06
	Winnebago	156 85	172 42	329 27
Forest	Outagamie	78 42	86 92	165 34
	Washington	78 43	87 42	165 85
Gates	Chippewa	552 21	592 81	1,145 02
Green Lake	Dodge	313 71	363 41	677 12
	Fond du Lac	1,132 07	1,286 31	2,418 38
	Washington	94 71	124 82	219 53
	Waupaca	78 42	80 33	158 75
	Winnebago	417 41	453 62	871 03
Iron	Brown	78 42	92 48	170 90
	Chippewa	206 99	220 37	427 36
	Eau Claire	78 43	92 03	170 46
	Iowa	78 43	89 43	167 86
	Marathon	416 35	489 65	906 00
	Waupaca	235 27	255 12	490 39
	Winnebago	156 63	171 41	328 04
Eau Claire	Iowa	13 50	13 50	27 00
Jackson	Columbia	78 43	98 51	176 94
	Dunn	78 42	85 88	164 30
	Eau Claire	36 43	45 73	82 16
	Green	235 29	267 59	502 88
	Iowa	78 43	87 83	166 26
	La Crosse	275 35	322 63	597 98
	Marathon	313 72	374 84	688 56
	Trempealeau	766 25	844 12	1,610 37
	Vernon	478 69	550 19	1,028 88

Statistics.

DIVISIONS OF APPROPRIATIONS TO COUNTY ASYLUMS FOR THE YEAR ENDING JUNE 30, 1904.—Continued.

Table No. 1.

Counties from which transferred.	Counties to be paid for care.	From state.	Special tax on counties from which transferred.	Total.
Juneau	Columbia	78 43	99 76	178 19
	Green	1,121 57	1,337 67	2,459 24
	La Crosse	78 42	83 48	161 90
	Richland	313 72	377 77	691 49
	Sauk	1,604 57	1,855 34	3,459 91
	Trempealeau	235 27	268 40	503 67
	Vernon	491 77	559 77	1,051 54
Kenosha	Green	278 57	354 87	633 44
	Racine	764 57	972 49	1,737 06
	Rock	138 20	171 25	309 45
	Walworth	1,669 50	1,880 55	3,550 05
	Washington	24 85	24 86	49 71
Kewaunee	Brown	401 34	427 74	827 08
	Manitowoc	573 85	655 55	1,229 40
	Outagamie	637 71	732 88	1,370 59
	Washington	78 42	82 13	160 55
	Winnebago	156 85	169 81	326 66
Lafayette	Grant	204 85	239 50	444 35
	Green	1,199 36	1,432 11	2,631 47
	Iowa	653 36	716 79	1,370 15
	Rock	313 70	333 35	647 05
	Walworth	78 43	89 68	168 11
Langlade	Brown	78 42	90 58	168 98
	Manitowoc	235 27	266 08	501 35
	Marathon	313 72	363 77	677 49
	Outagamie	156 85	173 05	329 90
	Washington	78 43	80 17	158 60
	Waupaca	78 42	81 28	159 70
	Winnebago	78 42	87 50	165 92
Lincoln	Dodge	156 85	183 80	340 65
	Jefferson	156 86	553 77	710 63
	Marathon	918 22	1,062 94	1,981 16
	Outagamie	235 28	273 28	508 56
	Washington	235 28	261 89	497 17
	Waupaca	79 07	87 19	166 26
	Winnebago	436 28	475 41	911 69
Manitowoc	Brown	78 42	81 38	159 80
Marinette	Brown	468 19	501 91	970 10
	Fond du Lac	235 29	270 79	506 08
	Manitowoc	573 85	662 01	1,235 86
	Outagamie	203 99	239 74	443 73
	Rock	470 55	517 15	987 70
	Washington	156 85	164 36	321 21
	Waupaca	28 71	44 99	73 70
	Winnebago	820 71	875 43	1,696 14
Marquette	Columbia	470 57	570 50	1,041 07
	Eau Claire	156 85	182 95	339 80
	Fond du Lac	235 29	286 54	521 83
	Marathon	156 86	181 00	337 86
	Rock	313 70	345 60	659 30
	Winnebago	134 78	142 28	277 06
	Richland	78 43	94 46	172 89
	Washington	156 85	178 21	335 06
	Waupaca	78 21	80 02	158 23

Statistics.

DIVISIONS OF APPROPRIATIONS TO COUNTY ASYLUMS FOR THE YEAR ENDING JUNE 30, 1904.—Continued.

Table No. 1.

Counties from which transferred.	Counties to be paid for care.	From state.	Special tax on counties from which transferred.	Total.
Milwaukee	Washington	78 42	79 73	158 15
Monroe	Sauk	78 43	.....	78 43
Oconto	Brown	1,212 21	1,325 15	2,537 36
	Dodge	537 21	624 46	1,161 67
	Fond du Lac	78 43	90 58	169 01
	Iowa	78 43	92 38	170 81
	Manitowoc	156 85	179 65	336 50
	Marathon	470 57	550 26	1,020 83
	Outagamie	495 64	581 04	1,076 68
	Washington	288 85	322 61	611 46
	Waupaca	201 85	206 70	408 55
	Winnebago	392 12	417 21	809 33
Oneida	Dunn	9 64	9 64	19 28
	Fond du Lac	78 43	91 18	169 61
	Marathon	392 14	455 24	847 38
	Outagamie	193 49	219 89	413 38
	Washington	156 85	174 21	331 06
	Waupaca	8 78	28 79	37 57
	Winnebago	162 85	175 32	338 17
Ozaukee	Jefferson	20 14	23 54	43 68
	Manitowoc	1,882 28	2,192 08	4,074 36
	Sheboygan	78 43	90 93	169 36
	Washington	1,174 28	1,299 69	2,473 97
Pepin	Chippewa	313 70	342 41	656 11
	Dunn	470 57	516 62	987 19
	Iowa	78 43	90 78	169 21
	Sauk	78 42	98 33	176 75
	St. Croix	129 64	141 69	271 33
	Vernon	235 27	265 27	500 54
Pierce	Dane	78 43	96 03	174 46
	Dunn	652 71	712 81	1,365 52
	Eau Claire	81 64	105 74	187 38
	Green	78 43	95 18	173 61
	Iowa	313 71	352 26	665 97
	La Crosse	235 28	269 94	505 22
	Richland	78 43	88 63	167 06
	Sauk	313 70	364 15	677 85
	St. Croix	911 14	1,048 19	1,959 33
	Trempealeau	136 06	147 19	283 25
Polk	Dunn	392 14	433 69	825 83
	Eau Claire	73 72	92 42	166 14
	Green	235 29	280 94	516 23
	Iowa	613 92	691 68	1,305 60
	St. Croix	990 21	1,112 89	2,103 10
	Vernon	313 70	353 70	667 40
Portage	Columbia	202 70	258 02	460 72
	Dunn	392 14	436 34	828 48
	Marathon	1,270 92	1,420 92	2,691 84
	Outagamie	313 71	361 71	675 42
	St. Croix	235 29	264 44	499 73
	Trempealeau	1,490 14	1,661 60	3,151 74
	Washington	156 85	188 61	345 46
	Waupaca	595 05	673 70	1,268 75
	Winnebago	156 85	161 53	318 38

Statistics.

DIVISION OF APPROPRIATIONS TO COUNTY ASYLUMS FOR THE YEAR ENDING JUNE 30, 1904.—Continued.

Table No. 1.

Counties from which transferred.	Counties to be paid for care.	From state.	Special tax on counties from which transferred.	Total.
Price	Chippewa	794 14	885 62	1,679 76
	Dunn	175 71	201 76	377 47
	Eau Claire	149 99	186 85	336 84
	Outagamie	78 42	90 32	168 74
	Trempealeau	78 42	82 53	160 95
	Washington	78 43	81 77	160 20
	Waupaca	386 98	417 56	804 54
St. Croix	Dunn	78 42	90 08	168 50
Sawyer	Marathon	78 42	91 18	169 60
	Sauk	78 42	92 78	171 20
	St. Croix	78 43	90 53	168 96
Shawano	Brown	78 42	81 98	160 40
	Dodge	156 85	179 35	336 20
	Manitowoc	78 42	88 73	167 15
	Marathon	549 00	639 87	1,188 87
	Outagamie	313 70	361 30	675 00
	Washington	235 29	246 83	482 12
	Waupaca	208 92	219 64	428 56
	Winnebago	313 70	332 36	646 06
Racine	Chippewa	135 00	137 45	272 45
	Columbia	108 86	135 45	244 31
	Eau Claire	433 72	515 17	948 89
	Grant	276 43	301 28	577 71
	Iowa	145 71	202 41	348 12
	Jefferson	138 21	152 69	290 90
	Richland	81 64	92 64	174 28
	Rock	233 77	286 28	520 05
	Sauk	137 12	170 63	307 75
	Vernon	326 58	374 58	701 16
	Walworth	225 86	258 86	484 72
	Waupaca	270 00	287 42	557 42
	Waukesha	153 64	162 34	315 98
	Winnebago	16 71	18 72	35 43
Rock	Sheboygan	63 00	93 50	156 50
Taylor	Brown	78 42	82 03	160 45
	Chippewa	405 63	436 26	841 89
	Dunn	392 14	447 39	839 53
	Eau Claire	392 13	454 88	847 01
	Jefferson	78 42	89 82	168 24
	Marathon	78 42	87 93	166 35
	Outagamie	78 42	86 67	165 09
	St. Croix	78 43	87 28	165 71
	Waupaca	126 42	134 41	260 83
	Winnebago	78 43	83 73	162 16
Vilas	Brown	78 42	83 03	161 45
	Chippewa	68 14	70 74	138 88
	Fond du Lac	78 43	94 43	172 86
	Manitowoc	78 42	93 28	171 70
	Marathon	78 42	93 95	172 37
	Washington	78 43	83 77	162 20
	Winnebago	78 42	85 39	163 81
Walworth	Rock	15 86	15 85	31 71

Statistics.

DIVISION OF APPROPRIATIONS TO COUNTY ASYLUMS FOR THE YEAR ENDING JUNE 30, 1904.—Continued.

Table No. 1.

Counties from which transferred.	Counties to be paid for care.	From state.	Special tax on county from which transferred.	Total.
Washburn	Chippewa	156 85	166 83	323 68
	Dunn	82 71	94 26	176 97
	Eau Claire	156 85	185 00	341 85
	Rock	78 43	86 77	165 20
	Sauk	78 42	97 88	176 30
Waukesha	Dodge	129 00	163 00	292 00
	Iowa	1,134 00	1,447 70	2,581 70
	Jefferson	351 00	380 05	731 05
	Outagamie	141 85	176 55	318 40
	Rock	199 28	226 22	425 50
	Walworth	1,217 36	1,501 62	2,718 98
	Washington	1,090 29	1,239 38	2,329 67
Waupaca	Washington	78 43	79 62	158 05
Waushara	Fond du Lac	100 71	100 72	201 43
	Jefferson	78 42	90 42	168 84
	Manitowoc	78 42	87 58	166 00
	Marathon	78 42	91 33	169 75
	Richland	354 86	418 56	773 42
	Washington	392 14	432 84	824 98
	Waupaca	6 64	6 64	13 28
	Winnebago	392 12	424 18	816 30
Wood	Brown	78 42	83 13	161 55
	Chippewa	78 43	79 83	158 26
	Dunn	9 64	9 64	19 28
	Marathon	1,033 07	1,199 58	2,232 65
	Outagamie	53 14	74 89	128 03
	Richland	156 85	190 15	347 00
	Trempealeau	475 26	566 75	1,042 01
	Waupaca	314 56	349 49	664 05
	Winnebago	84 85	93 03	177 88
Winnebago	Waupaca	15 64	21 65	37 29
Vernon	Monroe	68 58	206 57	275 15
		$88,874 39	$101,673 56	$190,547 95

Statistics.

DIVISION OF APPROPRIATIONS TO COUNTY ASYLUMS FOR THE YEAR ENDING JUNE 30, 1904.—Continued.

Table No. 2.

Counties.	Own Insane.	State Insane.	Total.
Brown	$6,335 00	$400 66	$6,735 66
Chippewa	3,242 36	820 68	4,063 04
Columbia	4,699 93	3,086 44	7,786 37
Dane	10,674 64	262 31	10,936 95
Dodge	7,104 86	340 36	7,445 22
Dunn	4,548 00	1,159 12	5,707 12
Eau Claire	5,508 21	1,266 50	6,774 71
Fond du Lac	6,560 79	184 96	6,745 75
Grant	7,408 71	1,410 65	8,819 36
Green	4,350 00	448 10	4,798 10
Iowa	3,679 07	2,470 28	6,149 35
Jefferson	7,805 79	2,002 72	9,808 51
La Crosse	8,253 21	1,742 36	9,995 57
Manitowoc	4,275 21	5,799 15	10,074 36
Marathon	4,567 71	170 95	4,738 66
Milwaukee	17,274 17	.....	17,274 17
Monroe	3,612 55	335 61	3,948 16
Outagamie	5,856 28	1,055 83	6,912 11
Racine	4,723 54	870 54	5,594 08
Richland	2,311 07	7,357 86	9,668 93
Rock	7,901 39	2,436 65	10,338 04
Sauk	5,835 86	100 25	5,936 11
St. Croix	4,797 21	1,502 25	6,299 46
Sheboygan	7,905 43	.....	7,905 43
Trempealeau	3,766 75	840 06	4,606 81
Vernon	4,377 86	3,606 00	7,983 86
Walworth	3,834 26	1,640 27	5,474 53
Washington	3,004 93	2,176 28	5,181 21
Waupaca	4,111 93	1,631 75	5,743 68
Waukesha	1,032 64	.....	1,032 64
Winnebago	9,643 73	1,480 52	11,124 25
Total	$179,003 09	$46,599 11	$225,602 20

ESTIMATES OF AMOUNTS REQUIRED FOR CURRENT EXPENSES AT THE VARIOUS INSTITUTIONS FOR THE TWO YEAR PERIOD COMMENCING JANUARY 1ST, 1905.

Institutions.	Appropriation terms commence in each odd numbered year.	Estimated receipts from counties, industries and other sources during term.	Surplus at end of appropriation Period	Estimated appropriation required for term commencing in 1905.	Total resources for the term.	Expenditures for two years term ending June 30th, 1906.	Deficiency at end of appropriation period.	Estimated amounts required per month.
State hospital for insane.....	January 1st	$70,000 00	.....	$183,000 00	$253,000 00	$219,351 32	$1,000 00	$10,500 00
Northern hospital for insane...	January 1st	100,000 00	$3,500 00	184,500 00	288,000 00	277,380 27	.....	12,000 00
School for deaf.....	March 1st..	1,000 00	.....	111,000 00	112,000 00	93,362 29	5,000 00	4,458 33
School for blind	March 1st..	1,000 00	.....	77,000 00	78,000 00	72,727 25	.....	3,250 00
Industrial school for boys.....	January 1st	28,000 00	.....	124,000 00	152,000 00	154,381 85	8,000 00	6,000 00
State prison.....	March 1st..	135,000 00	.....	86,000 00	221,000 00	238,537 60	.....	9,208 33
State public school..... ...	March 1st .	1,000 00	1,000 00	84,400 00	86,400 00	83,579 85	.....	3,600 00
Home for feeble minded.....	January 1st	120,000 00	8,000 00	131,000 00	259,000 00	201,404 82	.....	10,791 66
State reformatory	April 1st..	72,000 00	.....	72,000 00	144,000 00	130,204 71	.....	6,000 00
				$1,057,900 00				

Last appropriation $1,033,000 00.

Estimate of Expenses for Special Purposes.

ESTIMATES FOR APPROPRIATIONS FOR SPECIAL PURPOSES.

STATE HOSPITAL FOR THE INSANE, MENDOTA, WIS:	
Electric lighting plant	$21,500 00
Cold storage	2,500 00
Finishing and furnishing	9,000 00
New land	5,000 00
	$38,000 00
NORTHERN HOSPITAL FOR THE INSANE, WINNBAGO, WIS.:	
Building for violent, dangerous, epileptic and criminal insane	$100,000 00
Sewage disposal, and new sewer	6,000 00
	$106,000 00
SCHOOL FOR THE DEAF, DELAVAN, WIS:	
Extension for extra school room and dormitories	$25,000 00
Land and land improvements	6,000 00
Barn	2,500 00
Cold storage	2,500 00
	$36,000 00
SCHOOL FOR THE BLIND, JANESVILLE, WIS.:	
New building for tuning department, etc	$10,000 00
INDUSTRIAL SCHOOL FOR BOYS, WAUKESHA, WIS.:	
Completing tunnel and piping	$4,000 00
Cow barn extension	1,000 00
General repairs and walks	4,000 00
Workshop	5,000 00
Land	10,000 00
	$24,000 00
STATE PRISON, WAUPUN, WIS.:	
Reconstructing center building	$5,500 00
Cold storage	4,000 00
New pump and storage reservoir	3,000 00
Land	12,500 00
New cell house (part)	100,000 00
Coal shed	2,000 00
	$127,000 00
STATE PUBLIC SCHOOL, SPARTA, WIS.:	
Extension of heating plant	$1,000 00
Coal shed	2,500 00
Tunnel and cement walks	2,500 00
	$6,000 00

Estimate of Expenses for Special Purposes.

HOME FOR THE F EBLE-MINDED, CHIPPEWA FA'LS, WIS.:

Two dormitories	$80,000 00
Furnishing	5,000 00
Tunnels, walks and improvements	5,000 00
	$90,000 00

STATE REFORMATORY, GREEN BAY, WIS.:

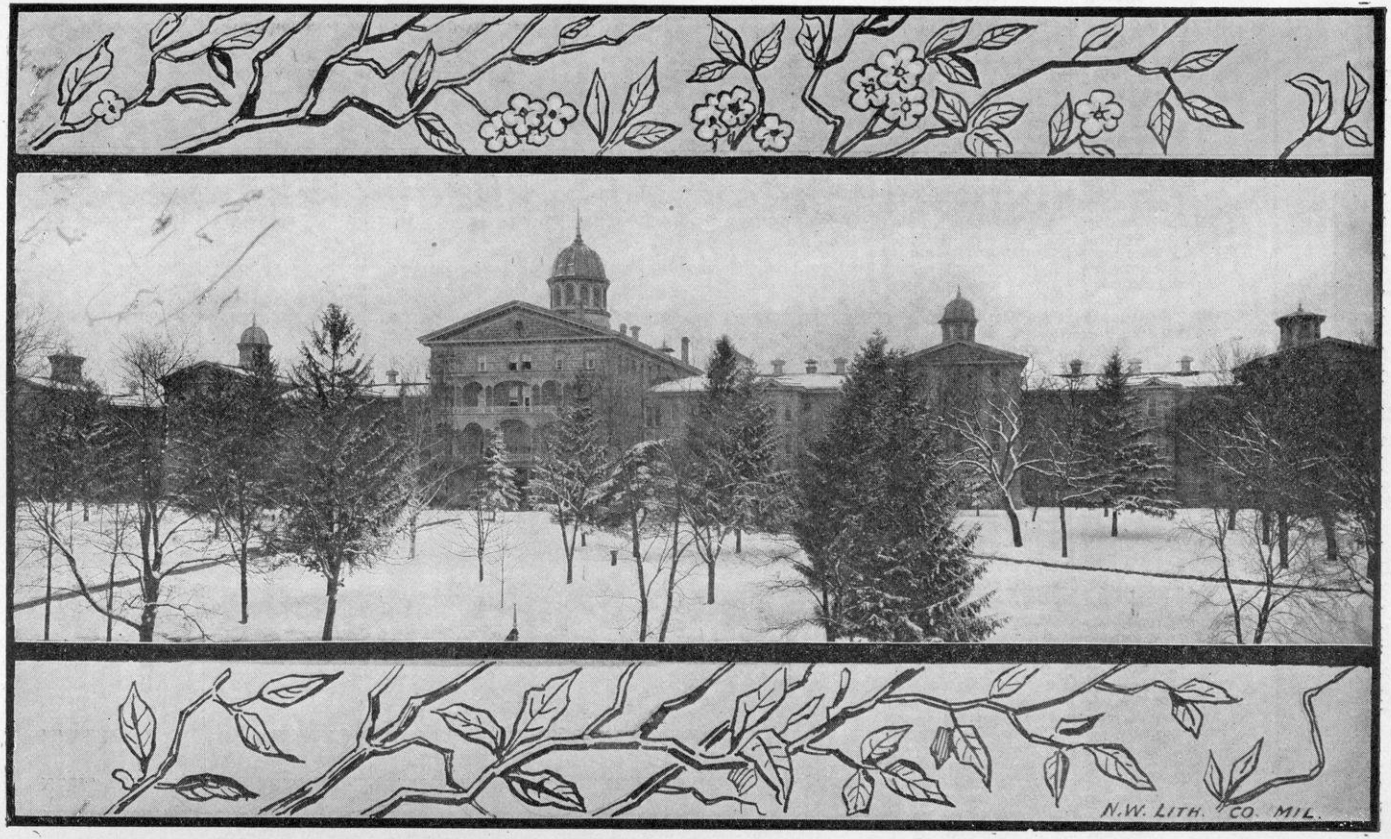
Coal shed and water storage reservoir	$10,000 00
Part of new cell wing	80,000 00
Rear center	20,000 00
	$110,000 00

OFFICERS OF COUNTY ASYLUMS FOR CHRONIC INSANE.

Counties.	Postoffice asylum.	Superintendent.	Visiting Physicians.	Trustees.	Postoffice of trustees.
Brown	Green Bay	Fred M. Loftus	R. C. Buchanan, Green Bay	A. L. Gray	Green Bay.
				Chas. Davis	Depere, R. D. 1.
				Andrew Reis	Green Bay.
Chippewa	Chippewa Falls	R. P. Dickinson	P. H. Lindley, Chippewa Falls	Geo. Hartman	Tilden.
				Henry Lebies	Bloomer.
				D. G. Colman	Chippewa Falls.
Columbia	Wyocena	B. Miller	Jos. Chandler, Pardeeville	Alan Bogue	Poynette.
				John Graham	Portage.
				J. A. Erhart	Columbus.
Dane	Verona	L. P. Edwin	J. C. Cutler, Verona	H. J. Sutherland	Madison.
				R. E. Davis	Middleton.
				L. C. Kravick	Cambridge.
Dodge	Juneau	Solomon Rudolph	W. E Hallock, Juneau	John Herberg	Mayville.
				Fred Engel	Horicon.
				S. Rudolph	Juneau.
Dunn	Menomonie	S. W. Jackson	N. L. Howison, Menomonie	G. H. Seeley	Menomonie.
				A. R. Hall	Knapp.
				W. H. Smith	Eau Galle.
Eau Claire	Eau Claire	O. H. Kitzman	Fred Farr, Eau Claire	Ira B. Bradford	Augusta.
				Louis Germann	Bracket.
				J. G Ingram	Eau Claire.
Fond du Lac	Fond du Lac	Louis Manderschied.	F. S. Wiley, Fond du Lac	W. F. Treleven	Fond du Lac.
				Henry Landall	Alta.
				M. Thelan	Ashford.
Grant	Lancaster	W. J. Dyer	S. E. Hassell, Lancaster	Herman Grimm	Cassville.
				John McArthur	Platteville.
				Geo. Brown	Woodman.
Green	Monroe	R. C. Whitcomb	S. R. Moyer, Monroe	J. C. Baker	Monroe.
				Fred Ties	Brodhead.
				Wm. Ferguson	Dayton.
Iowa	Dodgeville	E. J. Perkins	S Vivian, Mineral Point	J. W. Rewey	Rewey.
				Jas L. Jones	Hillside.
				Jas Spensley	Mineral Point.
Jefferson	Jefferson	W. E. Voigt	W. W. Reed, Jefferson	R. C. Quentmeyer	Watertown.
				G. J. Hausz	Ft. Atkinson.
				E. Stoppenbach	Jefferson.
La Crosse	West Salem	C. S. McKnown	S. R Wakefield, P. A. Wakefield, West Salem	Wm. Torrance	La Crosse.
				Jno. J Durlan	La Crosse.
				Ira Richardson	Bangor.
Manitowoc	Manitowoc	Henry Goedjen	F. S. Luhmann, Manitowoc	Henry Wernecke	Manitowoc.
				Wm Fenn	Edwards.
				Henry Wilke	Two Rivers.

Officers of County Asylums.

Marathon	Wausau	J. B. Thomas	H. L. Rosenberry, Wausau	J. H. Reiser	Wausau.
				G. G. Knoller	Dancy.
				C. Cramer	Spencer.
Monroe	Sparta	F. J. Mooney	C. M. Beebe	Fred Gross	Sparta.
				Frank Drew	Tomah.
				J. J. Menn	Norwalk.
Milwaukee	Wauwatosa	Wm. F. Buetler	Wm. F. Buetler, Wauwatosa	Jacob Truss	Milwaukee.
				M. J. Haisler	Milwaukee.
				Geo. W. Mayhew	Milwaukee.
				Andrew Oswald	Milwaukee.
				Richard Seidel	Milwaukee.
Outagamie	Appleton	G. R. Downer	J. V. Canavan, Appleton	John L. Pringle	Appleton.
				J. J. McCarty	Kaukauna.
				H. D. Hardacker	Hortonville.
Racine	Racine	F. E. Overson	W. S. Haven, Racine		
Richland	Richland Center	L. T. Johnson	R. H. Delap, Richland Center	J. E. Coffland	Richland Center.
				H. B. Allen	Richland Center.
				W. W. Ellsworth	Lone Rock.
Rock	Janesville	K. Killam	J. Frank Pember, Janesville	Robt. More	Emerald Grove.
				W. J. McIntyre	Janesville.
				C. E. Langworthy	Edgerton.
St. Croix	New Richmond	T. D. Wheeler	F. S. Wade, New Richmond	H. L. North	Hudson.
				W. C. Bradley	Hudson.
				O. W. Mosher	New Richmond.
Sauk	Reedsburg	J. S. Hall	C. Kordenat, Reedsburg	M. L. Patterson	Baraboo.
				J. M. Kindshi	Prairie du Sac.
				Wm. Riggert	Reedsburg.
Sheboygan	Sheboygan	A. J. Whiffin	O. J. Gutsch, Sheboygan	John A. Riess	Sheboygan.
				Reinhard L. Frome	Howards.
				James Leahy	Random Lake.
Trempealeau	Whitehall	P. H. Johnson	S. E. Hutchins, Whitehall	J. I. Dewey	Arcadia.
				F. M. Smith	Osseo.
				Wm. Merwin	Trempealeau.
Vernon	Viroqua	F. Wilkins	Marshall Sorenson, Viroqua	C. M. Butt	Viroqua.
				Homer Lombard	La Farge.
				A. H. Dahl	Westby.
Walworth	Elkhorn	D. W. Stanford	W. H. Hurlbut, Elkhorn	Chas. Dunlap	Elkhorn.
				J. P. Davis	Elkhorn.
				T. R. Spooner	Whitewater.
Waukesha	Waukesha	Geo. F. Carroll	E. W. Malone	M. L. Davis	Mukwanago.
				Geo. F. Westover	Oconomowoc.
				W. P. Dunlap	Waukesha.
Washington	West Bend	Peter Lochen	W. J. Wehle, West Bend	Joseph Ott	West Bend.
				C. F. Leins	West Bend.
				G. W. Jones	West Bend, R. D. 1.
Waupaca	Weyauwega	C. M. Haward	E. H. Jones, Weyauwega	Frank Whipple	Waupaca.
				C. H. Anderson	Scandinavia.
				G. E. Beedle	Embarrass.
Winnebago	Winnebago	C. F. Appley	F. W. A. Brown, Oshkosh	Adam Ehrgott	Menasha.
				Thos. Hough	Oshkosh.
				W. W. Noble	Eureka.



WISCONSIN STATE HOSPITAL FOR THE INSANE.

ELEVENTH BIENNIAL REPORT

OF THE

Wisconsin State Hospital for the Insane

FOR THE

Biennial Period Ending June 30, 1904.

OFFICERS.

DR. CHAS. GORST,	SUPERINTENDENT.
DR. EUGENE CHANEY,	ASSISTANT PHYSICIANS.
DR. M. K. GREEN,	ASSISTANT PHYSICIANS.
P. D. CRAMER,	STEWARD.
H. T. LERDALL,	ASSISTANT STEWARD.
MRS. J. I. BREWER,	MATRON.

SUPERINTENDENT'S REPORT.

The Honorable, the Board of Control,

GENTLEMEN:—Conformably to law, I have the honor to submit for your consideration the eleventh biennial report of the Wisconsin State Hospital for the Insane.

The percentage of deaths to the whole number of patients treated has been 4.44 which, though lower than the average of similar institutions throughout the States, is a considerable increase over that of my last report of 3.55 per cent which was the lowest for a similar period recorded in the history of this institution. The average percentage of deaths for the biennial term just closed, and the one preceding, covering the term of the present superintendent, is 4.23, the lowest of any quadrennial term for the past 28 years. The relatively high death rate for the past year is due principally to the failure to adopt certain sanitary measures, the importance of which was pointed out to your honorable body in my report of July 1, 1902, as follows: "In the way of better sanitation much needs to be done. The main building, though perhaps a model of its kind four decades ago, is now antiquated and in some respects ill fitted for the purpose for which it was designed."

"The sewage system is faulty to the point of danger, the heating plant inadequate, the ventilation and light in parts of the building defective. As these matters have been made the subject of a special report to the Board by Prof. Storm Bull of the State University, an authority on these subjects, it would be a work of supererogation to further dwell upon them here."

"For many years, the sewage of the institution together with the water holding in solution and in suspension the by-products formed in the manufacture of gas have been emptied directly

in front of the main building, into Lake Mendota, from which the ice is taken for hospital use. This is a menace to the health, and an offense to the senses, not only of our own population, but also to nearby residents along the lake shore. This nuisance would be tolerated but a short time if it were committed by a private individual. The sewage should be first collected into a tank of sufficient capacity and then pumped upon the land."

"For the purpose of better safeguarding the health of the inmates against the introduction of contagious diseases, a building should be erected wherein all patients would be received, supplied with bathing facilities and an apparatus for sterilizing clothing, made sufficiently large for detaining for several days those suspected of having been exposed to contagious diseases. A small building should also be constructed, remote from the other buildings, which would serve the purposes of an isolation hospital, in which cases of this character, after they had developed, could be cared for without danger to others."

Your attention was at the same time called to the fact that the infirmary was inadequate to our needs, its location on the fourth floor inconvenient, and in case of fire extremely dangerous, that a general dining room, an electric lighting plant, and better bathing facilities were needed.

The last legislature appropriated $40,000 for a congregate dining room, general bath rooms for each sex, an infirmary, two boilers, and for covering steam pipes. This sum, had it been expended at once, would have afforded at least partial relief. But up to the present time, only $3,019 of this amount have been expended—$1,000 of which were paid for a boiler, which was, by your orders, shipped directly from the foundry to the State Prison and kept there until it was too late to be installed at the hospital for use last winter. Partially because of our failure to receive this boiler, and partially because of the inferior grade of coal supplied, it was frequently impos-

sible to raise the temperature of the wards above 50° F., resulting in much discomfort to, and in some cases actual suffering, of our patients. Thus it will be seen that our needs are practically what they were two years ago, to which must be added the ordinary wear and tear of a plant already in an advanced stage of decrepitude. The time has now arrived when this Fabian policy must be discontinued. If the unfortunate outbreak of typhoid fever traceable directly to the contamination of the water supply by the sewage of the hospital, shall serve to impress the next legislature with the importance of the sanitary needs of the institution, and with the gravity of further delay, to the end that a sufficient appropriation may be made for the carrying out of the foregoing recommendations, what appears to be a calamity may be a blessing in disguise.

I believe that it will take $100,000 to properly equip this institution so that it may attain the high ideals which the people of this State demand.

In the business management of the hospital the greatest economy has been practiced consistent with the maintenance of the high standard of living which has heretofore obtained. It is gratifying to be able to show a substantial reduction in the per capita cost without in any way curtailing the comforts of our inmates. A still further reduction in the cost of maintenance could be effected by the addition of 200 acres more to the farm. Then, all of the butter used by the institution could be made here.

Under the existing conditions, patients who are paroled, though nominally subject to the supervision of the hospital authorities, are entirely lost sight of in the majority of cases. We seldom hear of them unless their condition is such as to require their return. I believe that a great deal of good could be accomplished if the paroled insane had an agent to care for them, with duties similar to those of the agent now employed by the Industrial School for Boys.

State Hospital.

In the care of the insane, the best results are obtainable by the judicious combination of work and recreation; but drudgery and idleness are alike to be avoided. All patients are encouraged to perform some daily duty, be it ever so small, and all are equally encouraged to participate in the various forms of amusement provided. We note with satisfaction the fact that there has been a very considerable increase in the number of patients who have recovered sufficiently to be paroled.

I would again call your attention to the fact that the pay of attendants is too low for the character of the services demanded.

Religious services which have been much appreciated by patients and employes have been conducted by the following clergymen:

Baptist ..... Rev. R. T. Capen.
Lutheran ..... Rev. Th. Eggen.
Congregational ..... Rev. E. G. Updike,
Episcopalian ..... Rev. J. Wilkinson and Dr. Riley.
Unitarian ..... Rev. F. A. Gilmore
Catholic ..... Rev. P. B. Knox, and Rev. McCarthy.
Methodist ..... Rev. A. W. Stalker.
Presbyterian ..... Rev. G. Hunt.

Superintendent's Report.

Acknowledgments are due to the press for gratuitous subscriptions as follows:

Adams County Press,
Barron County Shield,
Chetek Alert,
Bayfield County Press,
Green Bay Review,
Buffalo County News,
Cambria News,
Lodi Valley News,
Wis. Farmer (Madison),
Northwestern Mail (Madison),
Sickle (Mazomanie),
Superior Times,
Eau Claire Leader,
Dial-Enterprise (Boscobel),
Broadhead Independnnt,
Monroe Sentinel,
Monticello News,
Dodgeville Chronicle,
Badger State Banner (B. R. Falls),
Hoard's Weltburger (Ft. Atkinson),
Tribune (Mineral Point),
Watertown Republican,
Mauston Star,
Wonewoc Star,
Waupaca Republican,
Nordstern (La Crosse),
Nordstern (Manitowoc),
Chronicle (Two Rivers),
Montello Express,
Germania (Milwaukee),
Herold (Milwaukee),
Columbia (Milwaukee),
Freidenker (Milwaukee),
Tomah Journal,
River Falls Journal,
The Slavic (Racine),
Wis. Agriculture (Racine),
Clinton Herald,
The Enterprise (Evansville),
The Review (Evansville),
Janesville Gazette,
Janesville Recorder,
True Republican (Hudson),
Reedsburg Free Press,
Galesville Independent,
Elkhorn Independent,
Wis. Times (Delavan),
Oconomowoc Free Press.

In closing, I wish to acknowledge my appreciation of the valued suggestions received from your honorable body from time to time, and also my obligations to the many employes who have discharged their trying and often distasteful duties with the greatest fidelity.

Appended hereto will be found explanatory tables pertaining to the affairs of the institution.

Respectfully yours,

E. L. BULLARD,
Superintendent.

Mendota, Wis., July 1, 1904.

State Hospital.

TABLE NO. 1.

Movements of population in Wisconsin State Hospital for Insane during each year of biennial term ending June 30, 1904.

	1902-03.			1903-04.		
	Male.	Female.	Total.	Male.	Female.	Total.
Remaining in hospital at commencement of each year, to-wit, July 1st	250	166	416	240	166	406
Returned from escapes effected, paroles granted, and transfers made before commencement of year	17	8	25	32	20	52
Original admissions during each year	241	155	396	229	161	390
Number in hospital during some time of each year	508	329	837	501	347	848
Absent at close of each year June 30, 1903, and June 30, 1904, on paroles granted during each year	149	89	238	132	78	210
Transferred to other institutions and not returned during each year	98	58	156	89	50	139
Eloped and not returned during each year	4	0	4	5	.....	5
Died	17	16	33	28	22	50
Discharged as sane under sec. 587, R. S	0	0	0	2	.....	2
Number in hopsital at some time during each year but absent at close of year	268	163	431	256	150	406
Remaining in hospital at close of each year	240	166	406	245	197	442
Daily average in hospital	246	168	415	247	178	425
Number of paroled patients discharged during each year as sane by virtue of sec. 587c, R. S., as amended by chapter 327, laws of 1899, such patients having been continuously absent from the hospital during their respective paroles for two years	85	62	147	64	50	114

Statistical Tables.

TABLE No. 2.

Admissions and discharges from beginning of hospital.

	1903.			1904.		
	Male.	Female.	Total.	Male.	Female.	Total.
Admitted	5,749	4,285	10,034	6,010	4,466	10,476
Paroled	3,096	2,239	5,335	3,228	2,317	5,545
Transferred to other institutions and not returned during year	1,674	1,362	3,036	1,763	1,412	3,175
Discharged sane (Sec. 587, R. S.)	5	.....	5	7	.....	7
Eloped and not returned	26	.....	26	31	.....	31
Died	708	518	1,226	736	540	1,276
Remaining Sept. 30, 1903, and June 30, 1904	240	166	406	245	197	442

TABLE No. 3.

Number attacked at various ages during 1903 and 1904.

	1902-03.			1903-04.		
	Male.	Female.	Total.	Male.	Female.	Total.
Less than 15 years	1	2	3	1	2	3
Between 15 and 20 years	10	6	16	14	8	22
Between 20 and 30 years	51	49	100	51	36	87
Between 30 and 40 years	72	39	111	61	54	115
Between 40 and 50 years	56	30	86	56	34	90
Between 50 and 60 years	37	20	57	31	24	55
Over 60 years	24	16	40	38	21	59
Unknown	7	1	8	9	2	11
Total	258	163	421	261	181	442

State Hospital.

TABLE NO. 4.

Number at each age from beginning of hospital.

When attacked.	Male.	Female.	Total.
Less than 15 years	84	62	146
Between 15 and 20 years	397	308	705
Between 20 and 30 years	1,553	1,280	2,833
Between 30 and 40 years	1,395	1,154	2,549
Between 40 and 50 years	1,085	758	1,843
Between 50 and 60 years	661	459	1,120
Over 60 years	580	318	898
Unknown	243	117	360
Not insane	12	10	22
Total	6,010	4,466	10,476

Statistical Tables.

TABLE NO. 5.

Nativity of patients admitted.

	1903.	1904.	From beginning.		1903.	1904.	From beginning.
Austria	4	3	43	West Indies	.....	.....	1
Bavaria	1	1	18	Alabama	.....	.....	4
Belgium	.....	.....	4	Arkansas	.....	.....	1
Bohemia	2	3	85	California	.....	.....	2
Canada	2	17	246	Connecticut	3	2	88
China	.....	.....	1	Georgia	.....	.....	1
Cuba	.....	.....	5	Illinois	7	5	141
Denmark	1	6	97	Indiana	5	4	89
England	7	4	329	Iowa	6	1	63
Finland	3	2	17	Kansas	.....	.....	2
France	2	1	21	Kentucky	.....	.....	22
Germany	28	42	1,270	Maine	.....	1	93
Holland	.....	1	8	Maryland	.....	.....	6
Hungary	.....	.....	1	Massachusetts	3	.....	105
Ireland	12.	17	689	Michigan	4	3	63
Isle of Man	.....	.....	3	Minnesota	12	10	70
Isle of Wight	.....	.....	1	Mississippi	1	.....	3
Italy	1	.....	11	Missouri	1	1	13
New Brunswick	.....	.....	19	Nebraska	1	1	6
New Foundland	.....	.....	1	NewHampshire	.....	.....	61
New Zealand	.....	.....	1	New Jersey	.....	2	27
Norway	56	33	1,125	New York	26	24	1,025
Nova Scotia	1	1	19	North Carolina	1	.....	6
On Ocean	.....	1	8	Ohio	6	10	284
Ontario	1	.....	1	Pennsylvania	4	7	274
Peru	.....	.....	1	Rhode Island	.....	.....	10
Poland	.....	.....	22	South Carolina	.....	.....	11
Prussia	.....	2	15	Tennessee	.....	.....	7
Russia	2	.....	8	Texas	1	.....	1
Scotland	.....	2	83	Vermont	1	4	145
Sweden	18	21	298	Virginia	1	.....	27
Switzerland	3	7	137	South Dakota	.....	.....	1
United States	3	2	94	Wisconsin	184	184	2,821
Unknown	7	12	244				
Wales	.....	5	69	Total	421	442	10,467

State Hospital.

TABLE NO. 6.

Residence of patients admitted.

	1903.		1904.	
	Admitted.	Re'aining.	Admitted.	Re'aining.
Adams	2	4	4	7
Barron	19	12	15	9
Brown	1	1	.....	1
Buffalo	6	8	7	7
Burnett	1	.....	2	2
Chippewa	12	14	10	12
Clark	7	8	10	15
Columbia	6	9	19	18
Crawford	13	8	9	6
Dane	45	39	58	43
Dodge	.....	1	1	.....
Douglas	19	22	21	31
Dunn	13	13	13	11
Eau Claire	11	6	9	9
Gates	1	.....	2	1
Grant	24	18	20	18
Green	13	14	17	16
Iowa	8	8	14	10
Jefferson	.....	.....	1	1
Jackson	9	10	12	14
Juneau	16	15	9	8
La Crosse	21	22	26	22
Lafayette	13	8	12	8
Monroe	13	15	13	13
Milwaukee	.....	.....	2	1
Pepin	3	4	4	6
Pierce	14	11	11	12
Polk	8	8	15	17
Richland	10	8	6	2
Rock	13	19	22	13
St. Croix	9	6	10	13
Sauk	9	4	15	12
State at large	37	39	19	34
Sawyer	2	1	1	2
Trempealeau	9	15	3	8
Vernon	14	15	13	19
Walworth	16	14	14	14
Washburn	3	6	2	6
Waukesha	1	1	1	1
Total	421	406	442	442

Statistical Tables.

TABLE No. 7.

Duration of insanity before the entrance of those admitted.

	1903.			1904.			From the Beginning.		
	Male.	Female.	Total.	Male.	Female.	al	Male.	Female.	Total.
Less than three months	62	39	101	59	44	103	1,765	1,222	2,987
Between 3 and 6 months	21	14	35	20	13	33	612	502	1,114
Between 6 aud 12 months	29	16	45	29	12	41	636	493	1,129
Between 1 and 2 years..	28	19	47	18	16	34	584	412	996
Between 2 and 3 years..	14	6	20	23	26	49	424	303	727
Between 3 and 5 years..	25	23	48	36	20	56	501	403	904
Between 5 and 10 years.	23	21	44	26	20	46	428	430	858
Between 10 and 20 years	18	9	27	18	14	32	244	268	512
Between 20 and 30 years	5	4	9	3	8	11	62	62	124
Over 30 years.....	2	3	5	3	3	6	17	19	36
Unknown	31	9	40	26	5	31	725	342	1,067
Not insane	....	....	....	....	....	....	12	10	22
Total.....	258	163	421	261	181	442	6,010	4,466	10,476

State Hospital.

TABLE No. 8.

Ratio of death for thirty-three years.

YEAR.	WHOLE NO. TREATED.			NUMBER DIED.			PER CENT. DIED.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1872.....	265	256	521	11	14	25	4.15	5.45	4.80
1873.....	297	288	585	9	13	22	3 03	4.51	3.77
1874.....	222	235	457	12	12	24	5.40	5.11	5.26
1875.....	260	247	507	9	11	20	3.08	4.45	3 77
1876.....	289	268	557	10	10	20	3.46	3 73.	3.55
1877.....	250	248	489	17	11	28	6.80	4.44	5.12
1878.....	278	252	530	18	12	30	6.00	4 76	5.38
1879.....	305	302	607	9	7	16	2.95	2.32	2 64
1880.....	377	346	723	19	16	35	5.04	4.62	4 83
1881.....	402	368	770	19	14	33	4.72	3.80	4.26
1882.....	339	317	656	12	16	28	3.57	5.05	4.31
1883.....	369	308	677	18	8	26	4.88	2.60	3.74
1884.....	383	325	708	18	12	30	4.70	3.70	4.20
1885.....	426	352	778	22	21	43	5.16	5.94	5 52
1886.....	410	346	756	21	16	37	5.12	4.62	4 87
1887.....	423	360	783	17	12	29	4.02	3.33	3.67
1888.....	450	342	792	18	19	37	4.00	5 55	4.77
1889.....	436	309	445	17	16	33	3 89	5.17	4 43
1890.....	418	305	723	18	8	26	4.30	2 62	3.46
1891.....	458	305	763	21	15	36	4.58	4.91	4 71
1892.....	483	346	829	24	14	38	4.96	4.11	4 58
1893.....	521	340	861	28	11	39	5 37	3.23	4 52
1894.....	511	355	866	30	21	51	5.87	5.91	5.88
1895.....	486	347	843	27	18	45	5.44	5.18	5.33
1896.....	488	358	846	26	15	41	5.15	4.11	4.84
1897.....	461	312	773	28	10	38	6.07	3.01	4 90
1898.....	469	310	779	30	19	49	6.39	6 01	6 27
1899.....	393	295	648	19	9	28	4.83	3 05	4.07
1900.....	489	322	811	33	21	54	6.74	6.50	6.65
1901.....	480	333	813	18	10	28	3.75	3.00	3.44
1902.....	422	315	737	10	17	27	2.36	5.39	3.66
1903.....	508	329	837	17	16	33	3.34	4.86	3.94
1904.....	501	347	848	28	22	50	5.58	6.34	5.89

Statistical Tables.

TABLE No. 9.

Number of deaths for the biennial period, and from beginning, and the cause.

Causes.	1903.			1904.			From the Beginning.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Accident	....	....	....	....	....	....	2	....	2
Angina pectoris	....	....	....	....	....	....	1	....	1
Alcoholism	1	....	1	....	1	1	3	2	5
Carcinoma	....	....	....	....	....	....	3	5	8
Cerebral hemorrhage	2	1	3	4	1	5	49	22	71
Cerebral exostosis	....	....	....	....	....	....	....	1	1
Cerebro spinal meningitis	1	....	1	....	....	....	1	2	3
Chlorosis	....	....	....	....	....	....	....	5	5
Cyanche maligna	....	....	....	....	....	....	1	....	1
Cystitis	....	....	....	....	....	....	3	....	3
Diarrhoea, chronic	....	....	....	....	....	....	2	1	3
Diphtheria	....	....	....	....	....	....	....	2	2
Dysentery	....	....	....	....	....	....	6	8	14
Embolism	....	....	....	....	....	....	1	2	3
Empyema	...	....	....	....	....	....	2	....	2
Epilepsy	....	....	....	1	....	1	45	31	76
Erysipelas	....	1	1	....	....	....	1	4	5
Erysipelas phlegmonous	....	....	....	....	....	....	3	....	3
Exhaustion from acute mania	2	5	7	4	9	13	105	86	191
Exhaustion from dementia	....	....	....	....	....	....	1	1	2
Exhaustion from puerperal-mania	....	....	....	....	....	....	....	4	4
Exhaustion from chronic mania	....	....	....	....	....	....	58	77	135
Exhaustion from melancholia	2	2	4	3	7	10	54	45	99
Exhaustion, senile	4	2	6	8	1	9	65	28	93
Exhaustion, senile complicated by burn	....	....	....	....	....	....	1	....	1
Fracture of skull	....	....	....	....	....	....	1	....	1
Gangrene of lung	....	....	....	....	....	....	....	1	1
Gangrene, senile	....	....	....	....	....	....	....	1	1
Gastritis	....	....	....	....	....	....	....	2	2
Gastro enteritis	....	....	....	...	1	1	3	5	8
General paresis	....	1	1	1	....	1	72	8	80
Hepatitis	....	....	....	....	....	....	1	1	2
Hernia strangulated	....	....	....	....	....	....	2	....	2
Inanition	....	....	....	....	....	....	14	13	27
Intestinal obstruction	....	....	....	....	....	...	1	....	1
Locomotor ataxia	....	....	....	....	....	....	2	....	2
Lymphadenoma	....	....	....	....	....	....	....	1	1
Marasmus	....	....	....	....	....	....	47	38	85
Meningitis, acute	...	....	....	....	....	....	3	3	6
Nephritis	....	1	1	....	....	....	9	2	11
Oedema, general	....	....	....	....	....	....	2	....	2

State Hospital.

TABLE No. 9—Continued.

Number of deaths from the biennial period, and from the beginning, and the cause.

Causes.	1903.			1904.			From the Beginning.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Organic disease of the brain	....	....	....	....	....	....	26	12	38
Ostersarcoma of scapula	....	....	....	....	....	....	1	....	1
Peritonitis	....	....	....	....	....	....	6	3	9
Pernicious anaemia	1	....	1	....	....	....	2	1	3
Phthsis pulmonalis	1	2	3	1	....	1	44	60	104
Pleurisy, chronic	....	....	....	....	....	....	1	1	2
Pneumonia	1	....	1	....	....	....	32	23	55
Septicaemia	....	....	....	....	....	....	....	1	1
Shock and loss of blood	....	....	....	....	....	....	6	2	8
Stomach, carcinoma of	....	....	....	....	....	....	....	1	1
Stomach, perforating ulcer of	....	....	....	....	....	....	1	....	1
Suicide	1	1	2	2	1	3	15	12	27
Typhoid fever	....	....	....	3	1	4	8	8	16
Valvular disease of heart	1	....	1	1	....	1	26	13	39
Uraemia	....	....	....	....	....	....	1	1	2
Unknown	....	....	....	....	....	....	2	1	3
Total	17	16	33	28	22	50	736	540	1276

Statistical Tables.

TABLE NO. 10.

Attributed cause of insanity in 8,308 cases, 1876-1904.

ATTRIBUTED CAUSE OF INSANITY.	1903.			1904.			IN 8,308 CASES.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Abscess of liver	....	....	....	....	....	....	....	1	1
Arsenical poisoning	....	....	....	....	....	....	....	1	1
Brights disease	....	....	....	....	....	....	2	2	4
Cerebral anaemia	....	....	....	....	....	....	...	1	1
Cerebral congestion	1	....	1	....	....	....	1	1	2
Cerebral hemorrhage	1	....	1	....	....	....	18	11	29
Cerebral softening	....	....	....	....	....	....	2	....	2
Change of life	....	2	2	....	3	3	....	61	61
Child birth	....	5	5	....	2	2	....	175	175
Chorea	....	....	....	....	....	....	1	2	3
Cocaine habit	....	....	....	....	....	....	1	1	2
Cocaine poisoning	....	....	....	....	....	....	1	....	1
Debility	7	8	15	8	4	12	58	91	149
Diphtheria	....	....	....	....	....	....	...	1	1
Disappointment	....	1	1	....	....	....	19	18	37
Domestic trouble	1	1	2	2	5	7	62	123	185
Epilepsy	2	2	4	11	1	12	221	100	321
Fever	1	1	2	....	....	....	3	3	6
Fever, typhoid	....	....	....	2	....	2	10	6	16
Fright	....	....	....	....	4	4	12	30	42
Grief	4	6	10	2	7	9	45	94	139
Heredity	2	1	3	1	1	2	509	461	970
Heredity with change of life	....	....	....	....	....	....	....	6	6
Heredity with child birth	....	....	....	....	....	....	....	13	13
Heredity with domes. trouble	....	....	....	....	....	....	6	9	15
Heredity with epilepsy	....	....	....	....	....	....	6	6	12
Heredity with grief	....	....	....	....	....	....	1	2	3
Heredity with miscarriage	....	....	....	....	....	....	....	2	2
Heredity with intemperance	....	....	....	....	....	....	24	3	27
Heredity with old age	....	....	....	....	....	....	3	1	4
Heredity with injury to head	....	....	....	....	....	....	9	1	10
Heredity with poverty	....	....	....	....	....	....	3	2	5
Heredity with typhoid	....	....	....	....	....	....	1	....	1
Heredity with uterine disease	....	....	....	....	....	....	....	2	2
Heart, disease of	....	....	....	....	....	....	1	....	1
Hysteria	....	....	....	....	....	....	....	2	2
Idiocy	....	....	....	....	....	....	19	7	26
Infantile cerebral disease	....	....	....	....	....	....	3	2	5
Insomnia	....	....	....	....	1	1	3	1	4
Injury of head	9	....	9	9	2	11	153	23	176
Injury of spine	....	....	....	....	....	....	1	....	1
Intemperance	40	1	41	39	2	41	453	20	473
Jealousy	1	....	1	....	1	1	2	3	5

State Hospital.

TABLE No. 10—Continued.

Attributed cause of insanity in 8,303 cases, 1876-1904.

ATTRIBUTED CAUSE OF INSANITY.	1903.			1904.			IN 8,308 CASES.		
	Male.	Female	Total.	Male.	Female.	Total.	Male.	Female.	Total.
La Gripp	1	1	2	4	6	..	56	32	38
Locomotor ataxia	....	....	....	....	....	....	4	....	4
Love affair	5	3	8	3	4	7	21	27	48
Malaria	....	....	....	....	....	....	2	1	3
Masturbation	4	....	4	8	1	9	209	10	219
Meningitis	....	....	....	1	....	1	12	6	18
Menstrual derangement	....	2	2	....	2	2	....	38	38
Mscarriage	....	1	1	....	....	....	....	5	5
Morphine and cocaine habit	....	....	....	....	....	....	1	4	5
Old age	4	....	4	3	2	5	93	41	134
Opium habit	1	....	1	1	....	1	13	5	18
Over work	4	10	14	1	8	9	55	87	142
Petit mal	....	....	....	....	....	....	1	....	1
Pecuniary embarrassment	4	....	4	2	1	3	85	13	98
Pneumonia	....	....	....	....	....	....	2	1	3
Pregnancy	....	3	3	....	1	1	....	17	17
Prostatic disease	....	....	....	....	....	....	1	....	1
Privation	1	....	1	....	1	1	6	7	13
Prostration, nervous	....	....	....	....	....	....	3	7	10
Protracted lactation	....	....	....	....	....	....	....	1	1
Puberty	....	1	1	....	....	....	....	2	2
Religious excitement	3	4	7	1	2	3	81	91	172
Rheumatism	....	....	....	....	....	....	4	1	5
Seduction	....	....	....	....	....	....	....	5	5
Sexual excess	....	....	....	....	....	....	6	3	9
Shock, electric	....	....	....	....	....	....	....	3	3
Surgical operation	1	....	1	1	2	3	3	2	5
Sunstroke	7	....	7	8	....	8	118	7	125
Syphilis	1	1	2	2	....	2	32	6	38
Trauma	....	....	....	....	....	....	2	3	5
Tuberculosis	....	....	....	....	1	1	4	3	7
Uterine disease	....	1	1	....	1	1	....	41	41
Uraemic poisoning	....	....	....	....	....	....	1	....	1
Worry and anxiety	20	17	37	19	6	25	140	98	238
Unknown	133	91	224	135	112	247	2260	1563	3823
Not insane	....	....	....	....	....	....	12	10	22
Toial	258	163	421	261	181	442	4883	3425	8308

Statistical Tables.

TABLE NO. 11.

Form of insanity for the biennial period, and in 8,308 cases, 1876-1904 inclusive.

Forms of Insanity.	1903.			1904.			In 8,308 cases.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Adoiescent insanity	....	....	....	....	....	....	4	1	5
Circular insanity	1	....	1	....	....	....	2	....	2
Delusional insanity	....	....	....	....	....	....	19	47	66
Dementia	....	4	4	2	2	4	41	33	74
Dementia, chronic	....	....	....	....	....	....	183	92	275
Dementia, senile	12	....	12	21	7	28	186	79	265
Dipsomania	59	....	59	48	1	49	270	8	278
Dementia Paralytica	4	....	4	5	....	5	46	3	49
Hysteria	....	....	....	....	....	....	1	53	54
Idocy	....	....	....	....	....	....	26	15	41
Imbecility	1	1	2	4	....	4	7	1	8
Mania, acute	28	17	45	28	32	60	1064	692	1756
Mania, sub acute	1	5	6	5	5	10	293	202	495
Mania, chronic	22	18	40	22	15	37	679	479	1158
Mania, epileptic	5	4	9	14	5	19	243	114	357
Mania, puerperal	....	....	....	....	....	....	.....	88	88
Mania, recurrent	5	15	20	10	23	33	147	167	314
Melancholia, acute	57	46	103	45	43	88	988	735	1723
Melancholia, sub acute	16	9	25	12	8	20	200	162	362
Melancholia, chronic	33	25	58	27	19	46	325	325	650
Melancholia, recurrent	12	19	31	15	19	34	132	107	239
Morphine and cocaine habit	....	....	....	....	....	....	1	3	4
Mysobia	....	....	....	....	....	....	.....	1	1
Not insane	....	....	....	....	....	...	12	10	22
Paranoia	2	....	2	3	2	5	10	7	17
Stuporous insanity	....	....	....	....	....	....	4	1	5
Total	258	163	421	261	181	442	4883	3425	8308

State Hospital.

TABLE NO. 12.

Occupation of patients admitted.

Occupation.	1903.	1904.	Occupation.	1903.	1904.
Auctioneer	1	.....	Merchant	4	2
Agent	.....	4	Mason	4	2
Barber	2	.....	Music teacher	1	.....
Blacksmith	2	5	Miner	1	1
Brickmaker	.....	1	Mechanic	.....	2
Book-keeper	1	1	Millwright	.....	2
Bartender	.....	3	Moulder	.....	2
Carpenter	6	6	Optician	.....	1
Clerk	5	5	Painter	4	4
Contractor	.....	1	Printer	2	1
Clergyman	2	.....	Physician	1	2
Cook	2	.....	Pattern maker	.....	1
Cigarmaker	.....	1	Plumber	1	.....
Domestic	13	15	Piano tuner	.....	1
Dressmaker	.....	2	Restaurant keeper	.....	1
Druggist	.....	1	Real estate dealer	.....	1
Dentist	1	1	Saloon keeper	4	2
Draughtsman	1	.....	Stenographer	.....	1
Engineer	2	.....	Student	10	13
Editor	.....	1	Stock dealer	1	.....
Farmer	78	90	Shoemaker	1	.....
Factory girl	1	1	Tailor	2	4
Fireman	.....	1	Teacher	5	6
Gardener	1	.....	Traveling salesman	1	1
Harness maker	1	1	Tobacco dealer	.....	1
Housewife	90	96	Tinner	2	.....
Hotel keeper	1	1	Unknown	36	26
House work	38	41	Veterinary surgeon	1	.....
Jeweler	1	1	Woodsman	.....	1
Knife grinder	1	.....	Weaver	1	2
Laborer	87	80			
Mail carrier	1	.....	Total	421	442
Machinist	1	3			

Statistical Tables.

TABLE NO. 13.

Heredity transmission in patients.

	1903.	1904.	Total.
Father insane	9	9	18
Father and mother insane	.....	3	3
Father and uncle insane	.....	2	2
Father and brother insane	.....	2	2
Father, mother, brother and sister	.....	1	1
Father and grandfather	1	.....	1
Mother insane	5	13	18
Mother and brother insane	1	1	2
Mother, brother and sister insane	1	1	2
Mother and sister insane	1	.....	1
Mother and aunt insane	.....	1	1
Mother and uncle insane	1	1	2
Mother, uncle, aunt and cousin insane	.....	1	1
Mother and cousin	1	1	2
Mother and two sisters	1	.....	1
Maternal relative	1	.....	1
Brother insane	7	12	19
Two brothers insane	.....	1	1
Half brother insane	1	.....	1
Brother and two uncles	.....	1	1
Half brother and mother	.....	1	1
Sister, mother and two cousins	.....	1	1
Sister insane	9	5	14
Sister and aunt insane	1	1	2
Half sister	1	.....	1
Son insane	2	.....	2
Daughter insane	.....	1	1
Grandfather insane	.....	3	3
Grandfather and aunt	1	.....	1
Grandmother insane	3	2	5
Grandmother, father and sister insane	1	.....	1
Maternal and paternal grandmother	.....	1	1
Grandmother and aunt insane	.....	1	1
Grandmother and father insane	.....	1	1
Grandmother and two aunts insane	1	.....	1
Grandmother, sister and aunt	.....	1	1
Great grandfather, great uncle and great aunt	.....	1	1
Grandmother and sister	1	.....	1
Uncle insane	8	3	11
Uncle and aunt insane	1	.....	1
Uncle and two cousins insane	.....	1	1
Uncle and cousin insane	1	.....	1
Great uncle insane	.....	1	1
Nephew insane	.....	1	1
Niece insane	.....	1	1

State Hospital.

TABLE No. 13—Continued.

Heredity transmission in patients—Continued.

	1903.	1901.	Total.
Two children insane	1	.....	1
Aunt insane	7	6	13
Cousin insane	7	5	12
Two cousins insane	2	.....	2
Three cousins insane	....	1	1
Grand cousin	1	.....	1
Grand aunt insane	1	.....	1
Second cousin insane	1	.....	1
Aunt and cousin	4	.....	4
Daughter and nephew	.....	1	1
Total	84	89	173

Statistical Tables.

OFFICERS AND EMPLOYES AT THE WISCONSIN STATE HOSPITAL FOR THE INSANE, JUNE 30, 1901.

Name.	Position.	Salary per month.	Date of employment.	Residence when appointed.
E L. Bullard	Superintendent	$203 33	May, 1901	Waukesha Co.
Eugene Chaney	Physician, 1st asst	125 00	Nov., 1897	Maryland.
M. K. Green	Physician, 2d asst	75 00	Dec., 1901	Dane Co.
P. D. Cramer	Steward	100 00	July, 1902	Baraboo, Sauk Co.
H. T. Lerdall	Steward, asst	55 00	Nov., 1903	Dane Co.
Mrs. J. I. Brewer	Matron	41 67	Aug., 1901	Sauk Co.
A. C. Nordvi	Druggist	40 00	Feb., 1901	Waupaca Co.
Eva M. Bullard	Stenographer	30 00	Sep., 1903	Dane Co.
J. F. Rose	Supervisor	50 00	Nov., 1885	Dane Co.
C. Christensen	Supervisor, asst	33 00	Jan., 1889	Winnebago Co.
Frank E. Bangs	Attendant	26 00	Apr., 1903	Winnebago Co.
R. W. Brotherton	Attendant	25 00	Sep., 1903	Marathon Co.
Chas. Bouck	Attendant	26 00	Oct., 1903	Illinois.
J. H. Beckman	Attendant	23 00	Jan., 1904	Dane Co.
S. A. Boaler	Attendant	22 00	June, 1904	Brown Co.
W. H. Collins	Attendant	30 00	Aug., 1903	Minnesota.
F. A. Collman	Attendant	22 00	June, 1904	Dane Co.
J. Chester	Attendant	22 00	June, 1904	Illinois.
M. A. Sanders	Supervisoress	35 00	Sep., 1890	Illinois.
Fannie Christensen	Supervisoress, asst	25 00	Apr., 1899	Winnebago Co.
F. N. Delno	Attendant	28 00	Apr., 1901	Waukesha Co.
Harry Delmoss	Attendant	26 00	Mar., 1904	Michigan.
Thos. Derickson	Attendant	24 00	May, 1902	Richland Co.
John Engen	Attendant	28 00	Feb., 1904	Chippewa Co.
W. T. Heaslett	Attendant	28 00	Sep., 1902	Clark Co.
C. B. Helm	Attendant	26 00	Aug., 1897	La Fayette Co.
H. V. Herd	Attendant	24 00	Dec., 1903	Dane Co.
J. C. Jurrjens	Attendant	22 00	May, 1904	Nebraska.
Henry Kapelka	Attendant	24 00	Oct., 1903	Sauk Co.
James Leary	Attendant	30 00	Sep., 1902	Green Co.
L. L. Marsh	Attendant	26 00	Sep., 1901	Clark Co.
E. C. Meigs	Attendant	22 00	May, 1904	Dane Co.
A. H. Nichols	Attendant	21 00	Mar., 1904	South Dakota.
Chas. B. Nichols	Attendant	25 00	May, 1904	South Dakota.
J. O. Ott	Attendant	22 00	May, 1904	Trempealeau Co.
R. M. Rosier	Attendant	25 00	Oct., 1903	Minnesota.
F. C. Schliesing	Attendant	23 00	June, 1904	Winnebago Co.
Alfred Watson	Attendant	30 00	Mar., 1900	Dane Co.
L. H. Watson	Attendant	28 00	Mar., 1903	Dane Co.
Clara Bold	Attendant	25 00	July, 1901	Illinois.
Ella Cratsenberg	Attendant	16 00	June, 1903	Sauk Co.
Mary Corbin	Attendant	16 00	June, 1904	Sauk C .
Nellie Casey	Attendant	16 00	June, 1904	Dane Co.
Fredrikke Engen	Attendant	21 00	Feb., 1903	Chippewa Co.
Lillian Greenleaf	Attendant	19 00	Aug., 1903	Milwaukee Co.
Fannie Hughes	Attendant	19 00	June, 1903	Sheboygan Co.
Frances Grant	Attendant	21 00	July, 1897	Illinois.
Mayme Guinan	Attendant	21 00	Apr., 1902	Illinois.
Josie M. Johnson	Attendant	21 00	Feb., 1903	Dane Co.
Eleanor B. Johnson	Attendant	17 00	Feb., 1903	Dane Co.
Minnie Kjos	Attendant	19 00	June, 1903	Trempealeau Co.
Grace Kempfler	Attendant	21 00	Apr., 1904	Indiana.
Bertha Leak	Attendant	19 00	Oct., 1903	Illinois.
Sidie Merwin	Attendant	23 00	June, 1902	Trempealeau Co.
Susie Minnahan	Attendant	19 00	Sept., 1900	Calumet Co.
Lydia Messersmith	Attendant	21 00	Sept., 1902	Dane Co.
Winifred Merwin	Attendant	18 00	Feb., 1903	Minnesota.
L. Gertrude Murphy	Attendant	18 00	Apr., 1904	Winnebago Co.
Mary Nevin	Attendant	19 00	Dec., 1896	Dane Co.
Kate Nevin	Attendant	19 00	Apr., 1900	Dane Co.
Kittie Person	Attendant	19 00	Nov., 1901	Sauk Co.
Emma H. Peterson	Attendant	19 00	Dec., 1902	Winnebago Co.
Ada Raschein	Attendant	21 00	Oct., 1896	Sauk Co.
Maggie Schleck	Attendant	21 00	July, 1898	Dane Co.

State Hospital.

OFFICERS AND EMPLOYES AT THE WISCONSIN STATE HOSPITAL FOR THE INSANE, JUNE 30, 1904—Continued.

Name.	Position.	Salary per month.	Date of employment.	Residence when appointed.
Lulu Schulte	Attendant	$21 00	Jan., 1903	Illinois.
Medora Todd	Attendant	19 00	Apr., 1902	Winnebago Co.
Minnie Welch	Attendant	23 00	Oct., 1902	Dane Co.
C. F. Olson	Barber	30 00	July, 1897	Minnesota.
Patrick Welsh	Butcher	25 00	1870	Dane Co.
Ed. W. Russell	Carpenter	22 00	Dec., 1903	Iowa.
John Eichman	Cook	65 00	Oct., 1882	Dane Co.
Ed. Johnson	Cook	25 00	Feb., 1903	Dane Co.
Siver Olson	Cook	22 00	Apr., 1904	Dane Co.
Mrs. T. Anderson	Cook	17 00	Jan., 1902	Portage Co.
Beesey Mullarkey	Cook	17 00	July, 1901	Dane Co.
Bertha Schleck	Cook	16 00	May, 1903	Dane Co.
Mary Singletary	Cook	15 00	June, 1904	Richland Co.
Anna Wade	Cook	25 00	Oct., 1898	Dane Co.
Agnes Mooney	Dairymaid	15 00	May, 1892	Dane Co.
John Dippolt	Driver	25 00	Sept., 1890	Dane Co.
Clarence Willis	Engineer	70 00	July, 1902	Winnebago Co.
F. E. Baldwin	Engineer Ass't	30 00	Feb., 1904	Indiana.
Robt. Stone	Engineer Helper	30 00	June, 1904	Milwaukee Co.
E. J. Jerden	Fireman	30 00	Sept., 1902	Jefferson Co.
Wm. Murphy	Fireman	30 00	Jan., 1894	Dane Co.
Chas. Schnider	Fireman	30 00	Feb., 1904	Dane Co.
August Braatz	Gardener	35 00	Mar., 1882	Dane Co.
Mike Toban	Gasman	35 00	Feb., 1882	Dane Co.
Ada Anderson	Housemaid	15 00	Dec., 1902	Dane Co.
Mary Dippolt	Housemaid	16 00	July, 1885	Ireland.
Lizzie Delaney	Housemaid	17 00	Aug., 1891	Dane Co.
Linnie Harrison	Housemaid	16 00	Mar., 1894	Sauk Co.
Emma Jungbluth	Housemaid	16 00	Dec., 1897	Dane Co.
Nannie Murphy	Housemaid	17 00	Mar., 1886	Dane Co.
Julia Sullivan	Housemaid	16 00	Dec., 1902	Dane Co.
O. E. Gumz	Launderer	40 00	Jan., 1904	Fond du Lac Co.
F. N. Hazelwood	Launderer	22 00	Mar., 1904	Kansas.
Mrs. A. Curtis	Laundress	15 00	June, 1904	Dane Co.
Bertha Gumz	Laundress	15 00	Feb., 1904	Fond du Lac Co.
Elsie Krause	Laundress	15 00	May, 1904	Brown Co.
Mable Liberty	Laundress	15 00	Apr., 1904	Michigan.
Tone Vopalensky	Laundress	13 00	June, 1904	Grant Co.
Alice Vopalensky	Laundress	14 00	June, 1904	Grant Co.
Edith Waite	Laundress	15 00	June, 1904	Winnebago.
Patrick Joyce	Laborer	22 00	June, 1904	Dane Co.
Patrick Mullarkey	Laborer	22 00	May, 1904	Dane Co.
Mark Ryan	Laborer	23 00	May, 1903	Dane Co.
Louis Scheppeler	Lawn man	40 00	Aug. 1898	Illinois.
Arthur Breslauer	Lawn man	22 00	June 1904	Milwaukee Co.
Engvald Bolstad	Mason	60 00	Mar. 1903	Dane Co.
F. E. Liley	Night watch	26 00	Feb. 1900	Indiana.
W. A. Murphey	Night watch	26 00	Jan. 1894	Dane Co.
Robt. Rogers	Night watch	26 00	Mar. 1903	Racine Co.
Grace N. Clapp	Night watch	20 00	June 1904	Minnesota.
Clara Mahneke	Night watch	21 00	June 1904	Minnesota.
K. Mary Paulson	Night watch	20 00	Sep. 1903	Wood Co.
Grace M. Prust	Night watch	20 00	Mar. 1904	Clark Co.
Arthur Andrews	Painter	50 00	May 1902	Chippewa Co.
W. O. Mack	Painter	23 00	Apr. 1904	Connet.
Geo. Wehrle	Painter	25 00	Oct 1903	Dane Co.
Ed. Johnson	Porter	22 00	May 1904	Minnesota.
S. L. Wade	Porter	23 00	Nov. 1898	Dane Co.
S. J. Cunningham	Seamstress	17 00	June 1903	Dane Co.
Bessie McPherson	Seamstress	16 00	Sep. 1902	Grant Co.
Maud McPherson	Seamstress	16 00	Sep. 1902	Grant Co.
A. C. Nordvi	Storekeeper	10 00	Feb. 1901	Waupaca Co.
Marcus Johnston	Teamster	22 00	Apr. 1904	Dane Co.
Alfred Korb	Teamster	22 00	Mar. 1904	Dane Co.
James Ruddy	Teamster	22 00	Mar. 1903	Dane Co.
Paterick Ryan	Teamster	22 00	July 1903	Dane Co.
Anton Weno	Tailor	15 00	Apr. 1904	Finland.
H. J. Greenfield	Upholsterer	40 00	July 1902	Dane Co.

Statistical Tables.

STATEMENT OF CURRENT EXPENSE FUND, 1903.

1902.				
July 1	Balance			$ 46,006 95
1903.				
Jan. 1	From counties			26,056 06
May 1	Appropriation, Chap. 163, laws of 1903			160,000 00
June 30	Steward for board and clothing patients			2,760 95
June 30	Steward for sundries			5,753 52
June 30	Paid on account of current expenses this year		$110,373 18	
June 30	Balance appropriation in state treasury	$130,052.23		
June 30	Balance in hands of steward	152.07	130,204 30	
			$240,577 48	$240,577 48

STATEMENT OF CURRENT EXPENSE FUND, 1904.

1903.				
July 1	Balance			$130,204 30
1904.				
Jan. 1	From counties			34,246 34
June 30	Steward for board and clothing patients			3,800 15
June 30	Steward for sundries			3,376 14
June 30	Paid on account of current expenses this year		$108,978 14	
	Balance in state treasury	$62,404.61		
	Balance in hands of steward	244 18	62,648 79	
			$171,626 93	$171,626 93

State Hospital.

STATEMENT OF

At the Wisconsin State Hospital for Insane

Classification.	Inventory June 30, 1902.	Expended on this acc't during the year.	Transferred to this acc't during the year.	Total.
Amusements	$2,767 03	$844 13		$3,611 16
Barn, farm and garden	14,361 80	3,402 64		17,764 44
Board and clothing patients		81 47	$2,760 95	2,842 42
Clothing	2,467 87	5,158 68		7,626 55
Discharged patients		1,408 96		1,408 96
Discounts		1 93		1 93
Drug and medical dept.	512 22	853 76		1,365 98
Engine and boilers	15,648 92	978 31		16,627 23
Elopers		80 35		80 35
Freight and express		47 35		47 35
Fire apparatus	1,101 87			1,101 87
Fire and boiler insur'e		17 84		17 84
Fuel	2,750 00	11,834 99		14,584 99
Furniture	13,418 57	35 20		13,453 77
Gas and other lights	1,686 30	4,582 77		6,269 07
Hides and pelts			2 00	2 00
House furnishing	29,566 08	5,308 85		34,874 93
Laundry	4,937 42	876 57	107 00	5,920 99
Library	2,725 59	141 90		2,867 49
Lumber	196 95			196 95
Machinery and tools	4,010 35	49 18		4,059 53
Miscellaneous	667 07	540 34		1,207 41
Officers, expenses		145 37		145 37
Printing, postage stationery and telegraph	383 33	622 54		1,005 87
Real estate including buildings, etc.	584,268 57		694 72	584,963 29
Repairs and renewals	1,333 03	2,553 05	270 00	4,156 08
Restraints	245 45	8 75		254 20
Scraps			65 91	65 91
Special attendance		14 13	1,364 43	1,378 56
Subsistence	2,393 36	27,032 40	7,929 39	37,355 15
Surgical instruments and appliances	895 49	42 33		937 82
Tobacco	59 54	577 57		637 11
Wages and salaries		43,609 37		43,609 37
Total	$686,399 81	$110,850 73	$13,194 40	$810,444 94
Less discount, etc.		559 40		711,700 88
Deducted by Secretary of State, for printing		$110,291 33 81 85		$98,744 06
Net expenses		$110,373 18		

Statistical Tables.

CURRENT EXPENSES

for the year ending June 30, 1903.

Inventory June 30, 1903.	Cash received on this acc't during the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
$2,849 64	.....	.....	$2,849 64	.....	$761 52
14,373 95	$1,610 40	$8,731 11	24,745 46	$6,981 02	.....
.....	2,812 42	.....	2,812 42	.....	.....
2,826 11	300 92	.....	3,127 03	.....	4,499 52
.....	.....	492 94	.....	.....	1,408 96
.....	.....	.....	492 94	491 01	.....
639 55	.....	.....	639 55	.....	726 43
15,703 94	16 71	36	15,721 01	.....	906 22
.....	.....	.....	.....	.....	80 25
.....	.....	.....	.....	.....	47 35
1,104 87	.....	.....	1,104 87	.....	.....
.....	.....	.....	.....	.....	17 84
2,016 00	.....	.....	2,016 00	.....	12,568 99
13,381 72	.....	.....	13,381 72	.....	72 05
3,592 55	1,203 43	3 04	4,799 02	.....	1,470 05
.....	2 00	.....	2 00	.....	.....
30,465 87	.....	2 09	30,467 96	.....	4,406 97
4,902 01	.....	59 64	4,961 65	.....	959 34
2,745 59	2 00	.....	2,747 59	.....	119 90
.....	.....	196 95	196 95	.....	.....
3,943 92	.....	.....	3,943 92	.....	115 61
633 23	314 22	.....	997 45	.....	209 96
.....	10 00	.....	10 00	.....	135 37
364 94	.....	.....	364 94	.....	640 93
584,963 29	.....	.....	584,963 29	.....	.....
1,448 22	10 93	65 91	1,525 06	.....	2,631 02
251 00	.....	.....	251 00	.....	3 20
.....	65 91	.....	65 91	.....	.....
.....	1,378 56	.....	1,378 56	.....	.....
2,307 05	234 90	2,764 28	5,306 23	.....	32,048 92
924 99	.....	.....	924 99	.....	12 83
17 22	.....	.....	17 22	.....	619 89
.....	492 07	1,364 43	1,856 50	.....	41,752 87
$639,505 66	$8,514 47	$13,680 75	$711,700 88	$7,472 03	$106,216 09
.....	.....	.....	.....	.....	7,172 03
					$98,744 06
.....	.....	.....	.....	.....	81 85
.....	.....	.....	.....	.....	$98,825 91

State Hospital.

STATEMENT OF

At the Wisconsin State Hospital for the Insane

Classification.	Inventory June 30, 1903.	Expended on this acc't during the year.	Transferred to this acc't during the year.	Total.
Amusements	$2,849 61	$855 73	.....	$3,705 37
Barn, farm & garden.	14,373 95	2,741 52	.....	17,115 47
Board and clothing of patients	.....	58 40	$3,800 15	3,858 55
Clothing	2,826 11	3,641 79	.....	6,467 90
Discharged patients	.....	1,203 46	.....	1,203 46
Discounts	.....	.....	.....	.....
Drug and med. dep't.	639 55	824 17	.....	1,463 72
Engine and boilers	15,703 94	559 68	.....	16,263 62
Elopers	.....	62 72	.....	62 72
Freight and express	.....	71 03	.....	71 03
Fire apparatus	1,104 87	26 25	.....	1,131 12
Fire and boiler insur'e	.....	72 00	.....	72 00
Fuel	2,016 00	14,756 97	.....	16,772 97
Furniture	13,381 72	155 52	.....	13,537 24
Gas and other lights.	3,592 55	462 81	.....	4,055 36
Hides and pelts	.....	.....	18 00	18 00
House furnishing	30,465 87	5,888 74	.....	36,354 61
Laundry	4,902 01	1,054 05	167 00	6,123 06
Library	2,745 59	137 25	.....	2,882 84
Machinery and tools.	3,943 92	61 89	.....	4,005 81
Miscellaneous	683 23	649 99	.....	1,333 22
Officers' expense	.....	161 73	.....	161 73
Printing, postage, stationery and tel	364 94	669 25	.....	1,034 19
Real estate, including buildings, etc	584,963 29	.....	.....	584,963 29
Repairs and renewals.	1,448 22	3,188 31	.....	4,636 53
Restraints	251 00	19 61	.....	270 61
Scraps	.....	.....	99 31	99 31
Special attendance	.....	11 89	2,062 52	2,074 41
Subsistence	2,307 05	27,058 91	6,254 83	35,620 79
Surgical instruments and appliances	924 99	251 31	.....	1,176 30
Tobacco	17 22	667 87	.....	685 09
Wages and salaries	.....	43,375 15	.....	43,375 15
Total	$689,505 66	$108,688 00	$12,401 81	$810,595 47
Less discount	.....	437 56	.....	707,538 61
Add amount deducted by Sec'y of State for		$108,250 44		$103,056 86
printing	$78 65			
Insurance	649 05	727 70	.....	.....
Net expenses	.....	$108,978 14	.....	.....

Statistical Tables.

CURRENT EXPENSES

for the year ending June 30, 1904.

Inventory June 30, 1904.	Cash rec'd. on this acc't during the year.	Transferred from this acc't during the year.	Total.	Gained.	Expended.
$2,906 57	.....	.....	$2,906 57	.....	$798 80
15,524 52	$201 48	$6,254 83	21,980 83	$4,865 36	.....
.....	3,858 55	.....	3,858 55	.....	.....
2,565 29	197 18	.....	2,762 47	.....	3,705 43
.....	.....	.....	.....	.....	1,203 46
.....	.....	437 56	437 56	437 56	.....
670 01	.....	.....	670 01	.....	793 71
15,754 34	.....	.....	15,754 34	.....	509 28
.....	3 04	.....	3 04	.....	59 68
.....	.....	.....	.....	.....	71 03
1,128 87	.....	.....	1,128 87	.....	2 25
.....	27 32	.....	27 32	.....	44 68
1,660 00	.....	.....	1,660 00	.....	15,112 97
13,299 03	.....	.....	13,299 03	.....	238 21
689 82	150 50	.....	840 32	.....	3,215 04
.....	18 00	.....	18 00	.....	.....
31,149 79	5 00	.....	31,154 79	.....	5,199 82
5,125 23	.....	.....	5,125 23	.....	997 83
2,765 59	.....	.....	2,765 59	.....	117 25
3,948 95	.....	.....	3,948 95	.....	56 86
728 06	432 00	.....	1,160 06	.....	173 16
.....	20 00	.....	20 00	.....	141 73
547 11	.....	.....	547 11	.....	487 08
584,963 29	.....	.....	584,963 29	.....	.....
1,673 57	18 72	99 31	1,791 60	.....	2,844 93
208 95	.....	.....	208 95	.....	61 66
.....	99 31	.....	99 31	.....	.....
.....	2,074 41	.....	2,074 41	.....	.....
1,066 82	12 57	3,985 15	5,064 54	.....	30,556 25
1,116 52	.....	.....	1,116 52	.....	59 78
30 62	3 40	.....	34 02	.....	651 07
.....	54 81	2,062 52	2,117 33	.....	41,257 82
$687,522 95	$7,176 29	$12,839 37	$707,538 61	$5,302 92	$108,359 78
.....	.....	.....	.....	.....	5,302 92
					$103,056 86
.....	.....	.....	.....	.....	727 70
.....	.....	.....	.....	.....	$103,784 56

State Hospital.

STATEMENT OF SPECIAL APPROPRIATION FUNDS, 1904.

Classified Items.	Appropriations, 1903.	Expended during biennial term.	Balance available June 30, 1904.
Congregate dining room, bath rooms, etc.	$40,000 00	$3,019 20	$36,980 80

STATEMENT OF MONEYS RECEIVED AT THE INSTITUTION

	1903.	1904.
Barn, farm and garden	$1,640 40	$201 48
Board and clothing patients	2,842 42	3,858 55
Clothing	300 92	197 18
Elopers	.....	3 04
Engine and boilers	16 71	.....
Fire and boiler insurance	.....	27 32
Gas and other lights	1,203 43	150 50
Hides and pelts	2 00	18 00
House furnishing	.....	5 00
Miscellaneous	314 22	432 00
Officers expenses	10 00	20 00
Repairs and renewals	10 93	18 72
Scraps	65 91	99 31
Special attendants	1,378 56	2,074 41
Subsistence	234 90	12 57
Tobacco	.....	3 40
Wages and salaries	492 07	54 81
Library	2 00	.....
	$8,514 47	7,176 29

Statistical Tables.

CASH DEPOSITED TO BE EXPENDED FOR THE BENEFIT OF PATIENTS.

On hand July 1, 1902	$899 36
Received during the period	2,999 46
Total	$3,898 82
Expended for benefit of patients	3,153 63
Balance on hand June 30, 1904	745 19

MONEY RECEIVED.

Cash taken from patients for safe keeping.

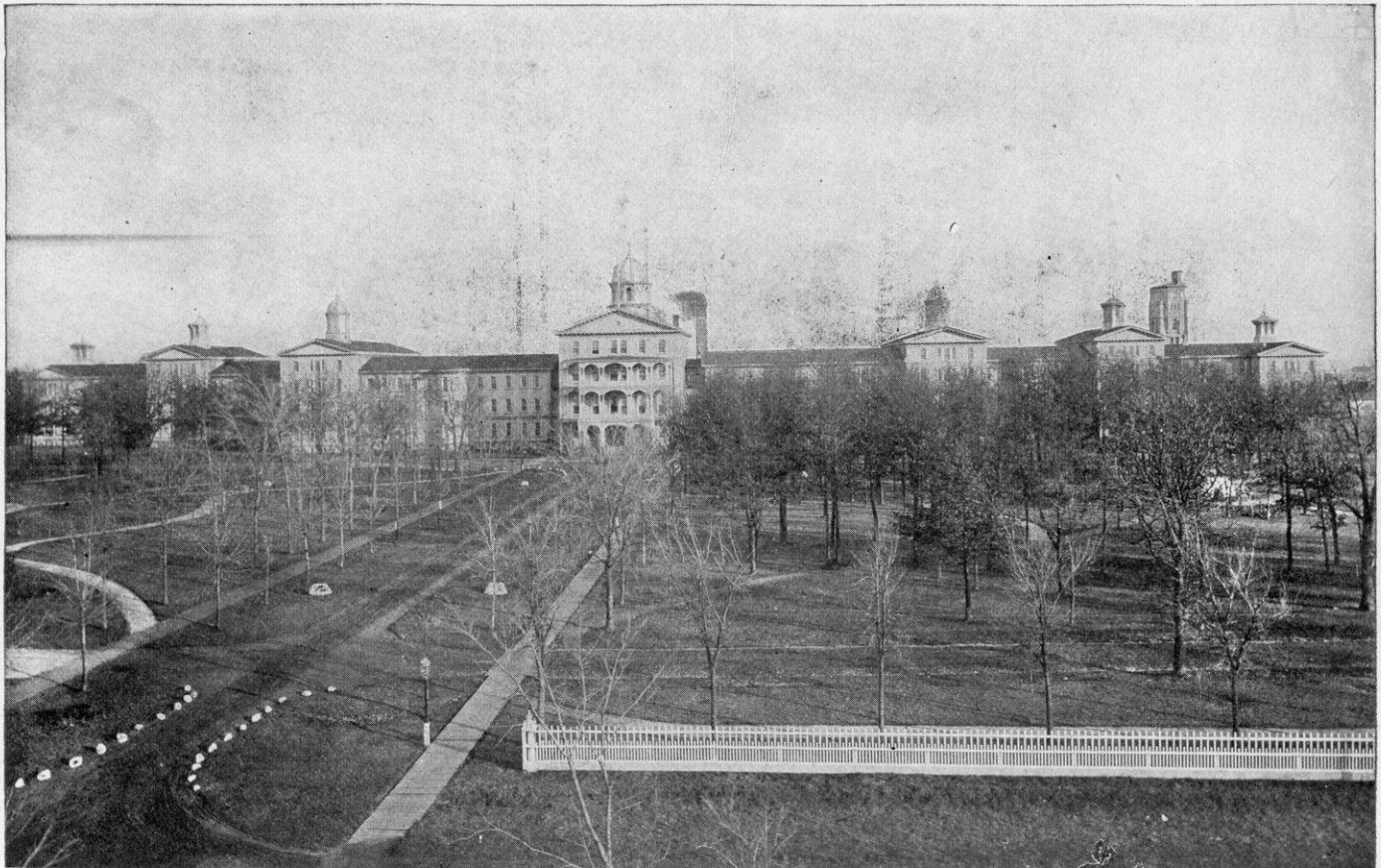
On hand July 1, 1902	$2,283 43
Received during the two years	3 337 18
Total	$5,620 61
Returned to patients or their representatives	3,277 34
Balance in hands of steward June 30, 1904	$2,343 27

State Hospital.

FARM AND GARDEN PRODUCTS.

Year ending June 30, 1903, and year ending June 30, 1904.

Article.	Quantity, 1903.	Value, 1903.	Quantity, 1904.	Value, 1904.
Asparagus	25 lb.	$2 50	415 lbs.	$30 30
Apples	66 bu.	33 00	.....	.....
Beef	.....	.....	3,660 lbs.	208 00
Beans	131 bu.	83 05	30 bu.	7 50
Beans	2 bbls.	12 00	.....	.....
Beets	122 bu.	53 20	83 bu.	25 20
Beet greens	105 bu.	10 50	260 bu.	35 00
Blackberries	.....	.....	90 qts.	9 00
Cabbage	5,287 hd.	145 24	4,485 hd.	102 55
Cucumbers	141 bu.	79 20	57 bu.	28 50
Cucumber pickles	.....	.....	10 bl.	60 00
Carrots	319 bu.	114 55	250 bu.	63 70
Currents	650 qts.	39 00	.....	.....
Celery	313 doz.	87 25	.....	.....
Corn, sweet	790 bu.	191 75	495 bu.	123 75
Corn, dry	1,200 bu.	600 00	1,300 bu.	520 00
Corn stalks	80 ton	160 00	100 tons	200 00
Ensilage	500 ton	2,000 00	500 tons	2,000 00
Gooseberries	350 qts.	17 50	.....	.....
Hay	200 ton.	1,600 00	230 tons	1,760 00
Lettuce	76 bu.	20 80	83 bu.	16 85
Milk	299,020 lbs.	4,485 30	317,115 lbs.	4,756 72
Melons, musk	10 bu.	5 00	.....	.....
Oats	1,100 bu.	440 00	1,600 bu.	560 00
Oat straw	30 tons	60 00	40 tons	80 00
Onions	467 bu.	279 20	386 bu.	193 00
Parsnips	306 bu.	113 70	56 bu.	16 80
Peas	63 bu.	61 75	180 bu.	182 75
Pieplant	3,125 lbs.	56 75	3,200 lbs.	32 00
Pork	24,650 lbs.	1,851 00	8,864 lbs.	544 96
Potatoes	1,061 bu.	294 85	710 bu.	355 00
Raspberries, black	760 qts.	76 00	1,225 qts.	98 00
Raspberries, red	4,563 qts.	684 45	2,925 qts.	292 50
Radishes	64 bu.	56 50	33 bu.	14 75
Rutabagas	149 bu.	41 40	174 bu.	43 20
Spinach	140 bu.	42 00	250 bu.	75 00
Strawberries	2,355 qts	188 40	2,890 qts.	172 00
Sauerkraut	15 bbls	45 00	.....	.....
Tomatoes	232 bu	186 70	536 bu.	268 00
Turnips	258 bu.	66 95	224 bu.	60 70
Tallow	1,550 lbs.	107 00	3,200 lbs	167 00
Veal	.....	.....	2,380 lbs.	121 72
Total	.....	$14,391 49	.....	$13,224 45



ELEVENTH BIENNIAL REPORT

OF THE

Northern Hospital for the Insane

FOR THE

Biennial Period Ending June 30, 1904.

OFFICERS.

W. A. GORDON, M. D., ... SUPERINTENDENT

A. SHERMAN, M. D.,
THOS. R. JONES, M. D.,
BERTHA V. THOMPSON, M. D.,
F. W. POPE, M. D., ... ASSISTANT PHYSICIANS

A. P. ALLER, ... STEWARD

A. E. CHASE, ... ASSISTANT STEWARD

MISS MINNIE SCHRIBER, ... MATRON

SUPERINTENDENT'S REPORT.

To The Honorable State Board of Control.

GENTLEMEN—The eleventh biennial report of the Northern Hospital for the Insane, from July 1st, 1902, to July 1, 1904, is herewith submitted. The "movement of population" and other statistics will be found in the accompanying tables.

In a general way the results of the two years' work have been as satisfactory as any previous period in the history of the Hospital. The general health of the patients and employes has been excellent. Liberality in the parole of patients has tended to lessen friction, and has several times convinced relatives of the necessity of the continued hospital detention where no argument was effective.

The care of the insane is one of the most undesirable of occupations.

The work is poorly paid.

The attendants, especially, have long hours, small pay, and no prospect for promotion that amounts to much.

The office of attendant is an exasperating one, the patients are often insulting and frequently make vicious assaults upon the employes, so that the position of attendant is one of danger.

Since I have been in this Hospital, one woman attendant had her arm broken, one had some teeth knocked out, quite a number have had handfulls of hair pulled out, some have received black eyes, and many have had their clothing torn by patients. Occasionally, an attendant has been bitten by a patient.

Of the patients who were here during the last biennial period, thirteen have actually committed murder, forty-one have attempted and sixty-eight have threatened murder.

There have been over 3,000 employes on the pay roll of

the hospital in the last thirty years. This fact shows how temporary is the period of service and how lightly the positions are esteemed, and it ought to be a satisfactory demonstration that the service should be made more attractive and be better paid.

It is impossible for the best results attainable to be had when there is such a constant change of employes.

The State, having taken upon itself the care of this variety of sick people, is in duty bound to give them reasonably good care.

No amount of overseeing can get the best possible results from indifferent employes. The attendants should be strong, healthy, placid, intelligent persons.

In mental qualifications, they should be above the average person. The attendant, who serves the State for twenty-five years, should have a pension. The attendant, who is crippled in course of duty, should be pensioned or paid a reasonable sum.

There is urgent need of radical changes in the existing methods of dealing with the attendant problem. There have been seventy epileptic persons here during the last two years. These people are disturbers of the peace of hospitals. If permitted to attend chapel or the dances, concerts, etc., the horrifying, pre-convulsion shriek is almost certain to send a shiver through the audience, and thus mar the pleasure of the entertainment. If they are not allowed to attend, they keenly feel what appears to them to be an injustice. The insane should be shielded from the agitating influence of the epileptics, and the epileptics should be shielded from the injurious association with the insane. The county asylums and State hospitals contain many dangerous epileptics, who are a constant menace to the comfort and the lives of the other inmates. Wisconsin is rich enough and is sufficiently humanitarian and modern to segregate her epileptics in a colony when once the barbarity of the present method is clearly understood.

Superintendent's Report.

It is hereby respectfully suggested that "a circular of information" for the benefit of friends and relatives of patients be prepared and a copy given the family of each patient at the time of admission. This circular should advise against bringing children to visit parents while here. The memory of having gone to the insane hospital, and had a lachrymose interview with an insane parent, is not a valuable intellectual asset. It should be kept out of the life of the impressionable child. Sending money, tobacco, etc., to patients is not wise. Often a visit from the nearest and dearest has a very markedly injurious influence on the patient. These and other facts should be succinctly set forth in the circular.

The erection of dormitories near the Hospital for the attendants to sleep in, is one of the most needed improvemnts. By having the attendants out of the Hospital at night, additional room, which is needed, would be obtained at very small expense. With a capacity for 600 patients and the annual admissions nearly 600, the whole population has practically to be changed each year. The attendants would be happier and, consequently would give better service, if they could have a comfortable abode outside of the hospital proper. The patients would be happier because they cannot but be frequently aroused from sleep by the attendants going to their rooms after the patients' bed time. As a matter of economy, this is the cheapest possible way in which provision can be made for the increasing number of insane. This is no experiment. Other states have this plan in operation and find it good. There have been as usual several attempts at self destruction. There were 1,058 patients admitted during the biennial period with a history of 193 having attempted or threatened suicide. Two men succeeded in taking their lives. In one instance the deed was accomplished in the presence of several witnesses. In the other, the patient was alone in his room. In the latter case the coroner was notified and a jury summoned. The verdict exonerated the employes who had imme-

diate charge of the patient. The wonder is that the efforts at suicide are not more frequently successful.

Patients have as usual been encouraged to write to their relatives. All letters criticising the hospital or the officers and employes have been promptly forwarded to their destination. The detention of patients' letters would be a source of irritation to them and to their friends. If any complaints are to be made, it is well to have the friends come and investigate them while they are fresh. Letters containing obscene expressions are not sent if it is known. Many letters are sent without inspection. Relatives thus have an opportunity of judging of the mental condition of the patient. The idea that patients have to smuggle uncomplimentary letters is entertained by some persons who are not familiar with the practical management of institutions of this kind. The greater publicity there is, the more confidence the public has in sending patients promptly to the Hospital.

The public highways in the neighborhood have had the benefit of some of our surplus labor. The good roads movement has been encouraged by a practical exhibition of what can be done at small expense in grading the roads. The patients have been benefitted by this and other out door work in the gardens and on the farm.

The establishment of manufacturing of any kind is impracticable because of the brief stay of the great mass of those admitted.

The Hospital is indebted to Mr. D. H. Hillman of Brandon for the gift of a raccoon and a coyote, to Mrs. W. Y. Wentworth of Ft. Atkinson for a box of magazines, to A. L. P. Loomis of Rochester for a barrel of magazines and to the following newspapers for sending regularly their respective publications: Amerika, Appleton Weekly Post, Bayfield County Press, Berlin Weekly Journal, Brown County Democrat, Chilton Times, DePere News, Der Nord Western, Excelsior, Elkhorn Independent, Folkets Avis, Green Bay Review, Kewaunee Enter-

prise, Montello Express, Manitowoc Citizen, Phillips Times, Sheboygan Zeitung, Slavia, Skandinavian, Stevens Point Journal, The Gazette, The Advocate, The Germania, Wisconsin Free Press, Waupaca Republican, Waupaca Post, Waupun Times, Waukesha Freeman, Winnebago Anzeiger, Watertown Weltburger and Der Waldbote.

The entertainments have been of the same general character as in former years. During the biennial period there have been 66 patients' dances, 63 concerts (home talent), 1 entertainment (9 home talent), 3 entertainments by C. L. Lacy Theater Co., 1 entertainment by A. L. French, impersonator, 2 entertainments by Mr. Goodell and others, 1 entertainment by Jessie Maine Woodford, 2 entertainments by Mr. Babcock and others, 3 entertainments by the Lyric Quartette, 1 entertainment by the Janesville Quartette, 3 stereoptican views and lectures by Rev. Payne, 1 entertainment by Mr. Bryant, 2 concerts by outside talent, 1 entertainment by blind people, Louis and Barbara Tremmel, 1 mask ball, 5 patients' and employes' dances, 6 band concerts in grove, 2 entertainments and Christmas tree, 2 firework displays (4th of July).

There have been three notable improvements since the last report—the two new Scotch marine boilers, the two new pumps and the filtering plant. Gradually the Hospital is approaching perfection in equipment. If the criminal insane could be removed to another institution, it would be a great relief.

The affairs of the Hospital have been conducted with very little friction. The officers and employes have worked in harmony. The resolution of the Board allowing a fourth assistant physician was a wise action. Dr. Pope was appointed to the position on Feb. 23, 1904, and has discharged his duties satisfactorily.

Much of the success of the Hospital is due to the kindly and considerate manner in which the Board of Control has directed

and managed, and to the discretion with which you have ordered the general policy of the institution.

Personally, gentlemen, you have my heartfelt thanks for your forbearance and courtesy.

Yours respectfully,

W. A. GORDON.
Superintendent.

Statistical Tables.

Movement of population during each year of biennial term, ending June 30th, 1904.

	1902–1903.			1903–1904.		
	Male.	Female.	Total.	Male.	Female.	Total.
1. Remaining in hospital at commencement of each year, to-wit, July 1st	364	250	614	384	259	643
2. Returned from escapes made, and paroles granted before commencement of year.	38	23	61	43	21	64
3. Original admissions during each year	327	207	534	327	197	524
4. Number in hospital during some part of each year	729	480	1209	754	477	1231
5. Absent at the close of each year (June 30th, 1903, and June 30th, 1904)	184	113	297	199	137	336
6. Transferred to other institutions during the year	124	90	214	135	81	216
7. Eloped and not returned during each year	7	....	7	3	....	3
8. Died during each year	29	17	46	23	26	49
9. Discharged as sane under Section 587, R. S. during year	1	....	1	....	....	....
10. Deported by United States officer	....	1	1	2	....	2
11. Number in hospital at some time during each year, but absent at close of year	345	221	566	362	244	606
12. Remaining in hospital at close of each year	384	259	643	392	233	625
13. Daily average in hospital	364	237	601	379	229	608
14. Number of paroled patients discharged during each year as sane by virtue of Sec. 587c, R. S., as amended by Chapter 327, Laws of 1899, such patients having been continuously absent from the hospital under their respective paroles for two years	110	63	173	91	78	169

Northern Hospital.

Ages of those admitted during the two years.

	1902–1903.			1903–1904.		
	Male.	Female.	Total.	Male.	Female.	Total.
Between 10 and 15 years	2	1	3	1	1	2
Between 15 and 20 years	13	10	23	16	12	28
Between 20 and 25 years	30	18	48	24	15	39
Between 25 and 30 years	43	24	67	37	22	59
Between 30 and 35 years	34	33	67	47	25	72
Between 35 and 40 years	44	26	70	39	21	60
Between 40 and 45 years	36	23	59	42	24	66
Between 45 and 50 years	34	19	53	37	30	67
Between 50 and 60 years	33	24	57	29	18	47
Between 60 and 70 years	23	18	41	24	12	36
Between 70 and 80 years	21	5	26	13	5	18
Over 80 years	2	4	6	4	6	10
Unknown	12	2	14	14	6	20
Total	327	207	534	327	197	524

Statistical Tables.

Civil condition of those admitted during the two years.

	1902–1903.			1903–1904.		
	Male.	Female.	Total.	Male	Female.	Total.
Married	121	111	232	129	118	247
Single	150	52	202	158	46	204
Divorced	9	6	15	4	1	5
Widowed	29	36	65	31	30	61
Unknown	18	2	20	5	2	7
Total	327	207	534	327	197	524

Education of those admitted during the two years.

	1902–1903.			1903–1904.		
	Male.	Female.	Total.	Male.	Female.	Total.
Collegiate	1	1	2	5	4	1
Good	21	14	35	13	14	27
Common	179	135	314	148	82	230
Limited	62	34	106	105	71	176
None	16	7	23	12	5	17
Unknown	48	16	54	44	21	65
Total.	327	207	534	327	197	524

Northern Hospital.

Parentage of those admitted during the two years.

	1902–1903.			1903–1904.		
	Male.	Female.	Total.	Male.	Female.	Total
American	54	32	86	39	24	63
Austrian	2	1	3	6	2	8
Assyrian	.....	.....	.....	1	.....	1
Belgian	3	4	7	1	1	2
Bohemian	4	2	6	8	4	12
Bavarian	.....	1	1	.....	.....	.....
Canadian	7	1	8	6	3	9
Danish	5	2	7	5	1	6
English	15	9	24	5	8	13
French	3	4	7	5	3	8
Finlander	7	2	9	7	.....	7
German	106	92	198	102	81	183
Hollander	3	2	5	1	5	6
Irish	24	19	43	18	14	32
Italian	1	.....	1	1	.....	1
Luxemburger	1	.....	1	.....	.....	.....
Norwegian	11	8	19	15	5	20
Polish	9	2	11	8	6	14
Russian	1	.....	1	1	1	2
Swedish	8	5	13	26	7	33
Scotch	3	.....	3	5	2	7
Swiss	1	1	2	.....	1	1
Welsh	.....	.....	.....	1	1	2
American-Irish	1	.....	1	2	3	5
American German	5	3	8	6	2	8
American-Scotch	2	3	5	.....	.....	.....
American-Swiss	1	.....	1	.....	.....	.....
American-English	1	.....	1	2	2	4
American-French	1	.....	1	1	.....	1
American-Danish	.....	.....	.....	.....	1	1
Canadian-French	4	2	6	2	.....	2
German-Scotch	2	.....	2	.....	.....	.....
German-Swiss	1	.....	1	.....	.....	.....
German-Irish	2	1	3	2	.....	2
German-French	2	.....	2	2	2	4
German-English	.....	.....	.....	2	.....	2
German-Spanish	.....	.....	.....	.....	1	1
Irish-Welsh	.....	.....	.....	1	.....	1
Irish-English	4	.....	4	2	1	3
Scotch-English	1	2	3	1	2	3
Scotch-Irish	.....	.....	.....	3	2	5
Scotch-Swedish	.....	.....	.....	1	.....	1
Unknown	32	9	41	39	12	51
Total	327	207	534	327	197	524

Statistical Tables.

Nativity of those admitted during the two years.

	1902-1902.			1903-1904.		
	Male.	Female.	Total.	Male.	Female.	Total.
Assyria	.....	.....	.....	1	.....	1
Austro-Hungary	2	1	3	5	2	7
Bohemia	4	1	5	8	4	12
Belgium	3	.....	3	1	.....	1
Bavaria	.....	2	2	1	.....	1
Batavia	.....	1	1	.....	.....	.....
Canada	18	9	27	12	2	14
Denmark	5	2	7	6	1	7
England	2	1	3	2	3	5
Finland	5	1	6	6	.....	6
Germany	55	48	103	54	39	93
Holland	.....	1	1	1	3	4
Ireland	5	6	11	7	4	11
Italy	.....	1	1	1	.....	1
Norway	9	5	14	11	5	16
Poland	4	1	5	6	5	11
Prussia	.....	.....	.....	2	.....	2
Russia	3	.....	3	1	2	3
Sweden	11	4	15	11	1	12
Switzerland	3	.....	3	.....	2	2
Scotland	1	.....	1	3	1	4
United States	186	120	306	175	119	294
Unknown	11	3	14	11	3	14
Wales	.....	.....	.....	2	1	3
Total	327	207	534	327	197	524

Northern Hospital.

Occupation of those admitted during the two years.

Male.	1902–1903.	1903–1904.	Male.	1902–1903.	1903–1904.
Agent	1	.....	Merchant	5	3
Apprentice	1	.....	Millwright	1	1
Architect	1	.....	Moulder	1	.....
Blacksmith	5	5	Mason	1	3
Bartender	1	4	Malster	.....	1
Barber	3	3	None	17	12
Butcher	2	3	News reporter	2	.....
Boilermaker	1	.....	Night watchman	2	.....
Brakeman	.....	1	Painter	6	4
Brushmaker	.....	1	Photographer	2	.....
Bookkeeper	.....	1	Peddler	1	1
Cook	4	.....	Printer	.....	1
Carpenter	8	10	Physician	.....	1
Conductor	1	.....	Plumber	.....	1
Cooper	2	.....	Pattern maker	.....	1
Clerk	1	6	Soldier	1	.....
Candymaker	1	.....	Student	3	3
Cigarmaker	1	1	Salesman	2	5
Carriagemaker	1	.....	Saloonkeeper	1	4
Chimney sweep	.....	1	Speculator	1	.....
Dentist	1	.....	Shoemaker	1	2
Druggist	1	.....	Stonecutter	.....	1
Editor	2	1	Shingle weaver	.....	1
Engineer	.....	2	Street car conductor	.....	1
Farmer	81	66	Sailor	.....	1
Florist	1	.....	Section man	.....	1
Factory employe	.....	4	Teacher	2	1
Fisherman	.....	1	Teamster	1	.....
Gardener	1	1	Tramp	2	2
Harnessmaker	2	.....	Timber buyer	1	.....
Hostler	1	2	Tinner	1	1
Hotel keeper	.....	1	Tailor	.....	2
Jeweler	1	1	Unknown	7	5
Laborer	125	144	Woodsman	6	3
Lawyer	1	1	Wire worker	1	.....
Lumberman	1	1	Wagonmaker	1	.....
Machinist	4	4			
Miner	2	.....	Total	327	327

Statistical Tables.

Occupation of those admitted during the two years.

Female.	1902–1903.	1903–1904.	Female.	1902–1903.	1903–1904.
Housework	55	52	Composer	.....	1
Housewife	118	123	Stenographer	.....	1
Farmer	2	1	None	7	8
Music teacher	2	1	Unknown	10	2
Seamstress	6	2			
Cook	2	.....	Total	207	197
Teacher	2	4			
Milliner	1	.....	Male	327	327
Student	1	.....	Female	207	197
Nurse	1	1			
Factory girl	.....	1	Total	534	524

Northern Hospital.

Assigned cause of insanity in those admitted during the two years.

PSYCHICAL CAUSE.	1902–1903.			1903–1904.		
	Male.	Female.	Total.	Male.	Female.	Total.
Fright	1	2	3	.....	1	1
Grief	5	7	12	3	5	8
Domestic trouble	2	8	10	1	4	5
Love affair	2	2	4	3	1	4
Disappointment	1	1	2	2	.....	2
Financial difficulty	4	1	5	6	.....	6
Worry	6	6	12	16	11	27
Religion	1	2	3	4	3	7
Excitement	4	2	6	3	2	5
Jealousy	1	.....	1	.....	.....	.....
Shock	.....	2	2	1	1	2
PHYSICAL CAUSE.						
Alcoholism	56	.....	56	45	.....	45
Paralysis	.....	1	1	.....	.....	.....
Injury	12	1	13	9	1	10
Rheumatism	1	3	4	1	.....	1
Heredity	7	5	12	4	8	12
Senility	4	2	6	9	.....	9
Lactation	.....	1	1	.....	1	1
Menstrual derangement	.....	1	1	.....	2	2
Heat apoplexy	1	1	2	.....	.....	.....
Over work	8	6	14	4	7	11
Masturbration	7	1	8	7	.....	7
Vertigo	1	.....	1	.....	.....	.....
Abuse	1	.....	1	.....	.....	.....
Privation	1	.....	1	.....	.....	.....
Congenital	1	.....	1	.....	.....	.....
Syphilis	6	.....	6	2	.....	2
Change of life	.....	2	2	.....	5	5
Child birth	.....	5	5	.....	3	3
Meningitis	2	.....	2	.....	.....	.....
Toxic	1	.....	1	.....	.....	.....
Pneumonia	1	.....	1	2	1	3
Epilepsy	6	1	7	6	2	8
Mental strain	.....	1	1	.....	.....	.....
Sunstroke	4	.....	4	2	.....	2
Nervousness	2	1	3	1	3	4
Female trouble	.....	4	4	.....	.....	.....
Diseased brain	1	2	3	2	.....	2
Fatigue	1	.....	1	.....	.....	.....
Stomach trouble	.....	1	1	.....	.....	.....
Trouble	1	2	3	3	.....	3
Cerebral softening	.....	1	1	.....	.....	.....
Dementia	4	.....	4	.....	.....	.....
Morphine	2	.....	2	.....	.....	.....
Pressure on brain	.....	1	1	.....	.....	.....
Ear trouble	1	.....	1	.....	.....	.....
Embolus	.....	1	1	.....	.....	.....

Statistical Tables.

Assigned cause of insanity in those admitted during the two years.—Con.

PHYSICAL CAUSE.	1902-1903.			1903-1904.		
	Male.	Female.	Total.	Male.	Female.	Total.
Miscarriage	.....	3	3	.....	.....	.....
Debility	1	2	3	1	1	2
Exposure	.....	1	1	.....	.....	.....
Hysteria	.....	2	2	.....	.....	.....
La Grippe	1	.....	1	.....	.....	.....
Cigarette	2	.....	2	.....	.....	.....
Venery	1	.....	1	.....	.....	.....
Sickness	1	4	5	3	3	6
Menopause	.....	1	1	.....	4	4
Eclampsia	.....	1	1	.....	.....	.....
Over study	.....	.....	.....	3	1	4
Neurasthenia	.....	.....	.....	.....	3	3
Anaemia	.....	.....	.....	.....	1	1
Amputation of penis	.....	.....	.....	1	.....	1
Puerperal	.....	.....	.....	.....	3	3
Melancholia	.....	.....	.....	1	.....	1
Uterine disease	.....	.....	.....	.....	3	3
Tobacco	.....	.....	.....	1	.....	1
Poison	.....	.....	.....	.....	1	1
Pregnancy	.....	.....	.....	.....	3	3
Jaundice	.....	.....	.....	1	.....	1
Dentition	.....	.....	.....	1	.....	1
Unknown	162	116	278	179	113	292
Total	327	207	534	327	197	524

Northern Hospital.

Duration of insanity previous to admission.

	1902–1903.			1903–1904.		
	Male.	Female.	Total.	Male.	Female.	Total.
Less than one week	15	4	19	13	7	20
Between 1 and 2 weeks	25	14	39	13	13	26
Between 2 and 3 weeks	17	10	27	14	12	26
Between 3 weeks and one month	13	13	26	15	10	25
Between 1 month and 3 months	25	27	52	22	31	53
Between 3 months and 6 months	26	20	46	26	22	48
Between 6 months and 1 year	27	20	47	39	19	58
Between 1 year and 2 years	29	16	45	25	10	35
Between 2 years and 3 years	17	16	33	28	9	37
Between 3 years and 4 years	13	10	23	12	6	18
Between 4 years and 5 years	17	10	27	18	10	28
Between 5 years and 10 years	34	15	49	22	13	35
Between 10 years and 15 years	5	7	12	6	5	11
Between 15 years and 20 years	5	4	9	2	5	7
Between 20 years and 30 years	3	1	4	3	2	5
Over 30 years	1	....	1	1	2	3
Unknown	55	20	75	68	21	89
Total	327	207	534	327	197	524

Statistical Tables.

Cause of death of those who died during the two years.

	1902–1903.			1903–1904.		
	Male.	Female.	Total.	Male.	Female.	Total.
Acute encephalitis	....	....	...	....	1	1
Acute splenitis	....	....	....	....	1	1
Bronchitis	1	....	1	....	....	....
Cerebral thrombosis	1	....	1	....	....	....
Cerebral tumor	1	....	1	....	...	....
Carcinoma	....	1	1	..	....	....
Cerebral hemorrhage	1	4	5	....	2	2
Cerebral meningitis	....	1	1	1	....	1
Cerebral paralysis	1	....	1	....	...	....
Cerebral abscess	....	....	....	....	1	1
Diabetes	1	....	1	....	....	....
Delirium grave	....	....	....	1	2	3
Exhaustion of melancholia	1	....	1	....	2	2
Endo carditis	....	1	1	....	....	...
Exhaustion of senile dementia	5	1	6	4	1	5
Erysipelas	....	1	1	....	2	2
Embolism basilar artery	...	1	1	....	....	....
Exhaustion of acute mania	....	....	....	1	1	2
Exhaustion of epilepsy	1	....	1	1	2	3
Exhaustion	....	....	....	1	....	1
Gangrenous dermatitis	....	....	....	....	1	1
Heart disease	3	...	3	1	....	1
Hemorrhagic meningitis	....	....	....	....	1	1
Inanition	....	1	1	...	....	....
Mania-a-potu	1	....	1	....	....	....
Mensenteric hermorrhage	....	....	....	1	....	1
Nephritis	....	1	1	1	....	1
Nephritis and empyema	....	....	....	1	....	1
Paretic dementia	6	....	6	8	....	8
Pachymeningitis	....	1	1	....	....	....
Pneumonia and pleurisy	....	1	1	....	....	....
Post partum hemorrhage	....	1	1	....	....	....
Pneumonia	3	....	3	6	....	6
Suicide	1	....	1	1	....	1
Status epilepticus	1	....	1	1	....	1
Syphilitic meningitis	....	1	1	....	....	....
Tuberculosis	1	....	1	....	3	3
Ulcerative enteritis	....	1	1	....	....	....
Total	29	17	46	23	26	49

Northern Hospital.

Duration of insanity in those who died during the two years.

	1902-1903.			1903-1904.		
	Male.	Female.	Total	Male.	Female.	Total.
Between 1 and 2 weeks	2	2	4	4	2	6
Between 3 weeks and 1 month	1	2	3	....	2	2
Between 1 month and 3 months	1	1	2	2	4	6
Between 3 months and 6 months	3	2	5	3	3	6
Between 6 months and 1 year	12	3	15	5	4	9
Between 1 year and 2 years	2	1	3	6	2	8
Between 2 years and 3 years	....	...	....	1	2	3
Between 3 years and 4 years	....	1	1	1	2	3
Between 4 years and 5 years	1	2	3	....	....	....
Between 5 years and 10 years	2	1	3	2	3	5
Between 10 years and 15 years	3	....	3	....	....	....
Between 15 years and 20 years	1	....	1	1	1	2
Thirty four years	....	1	1	....	....	....
Fifty years	....	....	....	....	1	1
Unknown	1	1	2	....	1	1
Total	29	17	46	23	26	49

Statistical Tables.

Number of patients by counties, June 30, 1904.

Names of counties.	Male.	Female.	Names of counties.	Male.	Female.
Ashland	8	8	Oconto	14	7
Bayfield	18	6	Oneida	9	1
Brown	15	7	Outagamie	10	6
Calumet	7	2	Ozaukee	2	3
Clark	.....	1	Portage	8	11
Dodge	16	14	Price	5	2
Door	9	.....	Racine	10	11
Dane	6	.....	Rock	1	.....
Douglas	1	.....	Sauk	1	.....
Dunn	1	.....	Shawano	8	6
Green Lake	4	3	Sheboygan	20	14
Florence	.....	1	Taylor	5	7
Fond du Lac	14	12	Vilas	.....	1
Forest	.....	2	Washington	5	8
Iron	4	1	Waukesha	5	5
Jefferson	17	9	Waushara	2	2
Kenosha	9	5	Waupaca	9	5
Kewaunee	3	2	Winnebago	15	16
Langlade	7	6	Wood	8	5
Lincoln	5	2	Juneau	.....	1
Manitowoc	16	12	State at large	59	2
Marathon	15	9			
Marinette	15	11	No. of patients.	392	233
Marquette	4	6			
Milwaukee	2	1	Total	.....	625

Northern Hospital.

MATRON'S REPORT.

For the biennial period ending June 30th, 1904.

DR. W. A. GORDON, *Superintendent.*

SIR:—Herewith is an account of the foods and delicacies prepared in the kitchen during the last two years. Also a list of the articles made and repaired in the mending and sewing rooms.

Yours respectfully,

MINNIE SCHRIBER,
Matron.

Fruits and Pickles—Pie plant, 14 quarts; strawberries, 119 quarts; strawberry jam, 17 quarts; currants, 13 quarts; raspberries, 60 quarts; blackberries, 20 quarts; blueberries, 20 quarts; plums, 14 quarts; peaches, 40 quarts; cherries, 47 quarts; currant jelly, 128 quarts; strawberry jelly, 12 quarts; raspberry jelly, 10 quarts; apple jelly, 60 quarts.

Sweet Pickles—Peaches, 50 quarts; pears, 60 quarts.

Pickles—Tomatoes, canned, 1,191 gallons; sauerkraut, 56 barrels: piccalilli, 800 gallons; chilli sauce, 174 gallons; cucumbers, 48 barrels; cucumbers (ripe), 41 gallons; cauliflower, 143 gallons; salad pickles, 6 gallons; pepper pickles, 10 gallons.

MENDING ROOM.

Articles repaired—Aprons, 462; bed spreads, 18; clothes bags, 351; bath towels, 209; coats, 162; camisoles, 91; clothes curtains, 76; drawers, 8,638; hose, 10,279; jackets, 65; night shirts, 48; night dresses, 48; napkins, 45; overalls, 69; pillow cases, 29; pants, 1,010; skirts, 34; shirts, 5,657; strong dresses, 48; strong suits, 93; sheets, 253; table cloths, 144; undervests, 6,553; vests, 74.

SEWING ROOM.

Articles made.—Aprons (feeding) 6, aprons (barber) 6, aprons (carpenter) 4, aprons (men) 504, aprons (women) 714, aprons (dress) 17, aprons (rubber dress) 8, aprons (rubber men) 27, bed straps 12, bags (feather) 12, bandages 24, blankets (hemmed) 50, bath towels (hemmed) 144, coffee sacks 18, carriage cover 1, clothes bags 150, clothes curtains 23 pair, cover (billiard table) 5, caps (night) 6, cover (shirt waist box) 8, camisole 30, camisole strings 300 yds, curtains (cheese cloth) 38 pair,

Matron's Report.

curtains (denim) 3 pair, chemise 3, cover (screen) 21, curtains (hemmed) 12 pair, cover (table) 48, cover (floor) 1, curtains (half) 18 pair, dresses 973, dresses (entertainments) 8, dresses (night) 726, dresses (denim) 24, dresses (bed) 2, dusters 48, drawers 12, holders 183, jackets 42, milk strainers 72, mattress ticks 140, napkins (table) 542, napkins (sanitary) 874, pillow cases 1,025, pillow shams 78, pillow ticks 254, pants 118, pads (turkish bath) 18, restraint mitts 3 pair, restraint sheets 3, sofa pillows 39, sheets 2,002, shirts 12, shirts (night) 36, skirts 784, strong dresses 20, strong suits 30, shirt waists 36, sheets (mangle) 15, towels (roller) 666, towels (yard) 2,698, towels (½ yd.) 1,332, table cloths 294, wrappers 60, infant slips 12, infant skirts 6, infant diapers 48.

Northern Hospital.

Employes of the Northern Hospital, June 30, 1904.

Names.	Rate per month.	Occupation.	No. months emplo'd.	Address.
W. A. Gordon	$208 33	Superintendent	108	Oshkosh, Wis.
A. Sherman	125 00	1st assistant	106	Cadott, Wis.
Thos. R. Jones	83 33	2nd assistant	78	Oshkosh, Wis.
Bertha V. Thompson	65 00	3rd assistant	25	Oshkosh, Wis.
F. W. Pope	50 00	4th assistant	4	Racine, Wis.
A. P. Aller	100 00	Steward	52	Janesville, Wis.
A. E. Chase	55 00	Asst. Steward	31	Oshkosh, Wis.
Minnie Schriber	41 67	Matron	102	Oshkosh, Wis.
J. V. N. Sonn	35 00	Apothecary	63	Ft. Atkinson, Wis.
Katherine Berto	25 00	Stenographer	9	Hixton, Wis.
Edward Minckler	41 00	Supervisor	216	Oshkosh, Wis.
Peter C. Hansen	41 00	Supervisor	152	Neenah, Wis.
L. E. Gilson	36 00	Supervisor	60	Greenleaf, Wis.
Mattie Finch	30 00	Supervisoress	58	Wausau, Wis.
Jessie Whalen	26 00	Supervisoress	32	Centreville, Wis.
Clara Genter	20 00	Supervisoress	36	Oshkosh, Wis.
J. F. Rhyner	33 00	Attendant	92	Oshkosh, Wis.
Martin Schneider	30 00	Attendant	87	Oshkosh, Wis.
Harold Monroe	36 00	Attendant	108	Oshkosh, Wis.
Chas. Schoenian	33 00	Attendant	108	Oshkosh, Wis.
Geo. Davis	32 00	Attendant	98	Wild Rose, Wis.
B. E. Sigler	32 00	Attendant	72	Oshkosh, Wis.
Andrew Kraby	31 00	Attendant	96	Oshkosh, Wis.
Geo. S. Hansen	30 00	Attendant	43	Vinland, Wis.
T. C. Rhoades	30 00	Attendant	38	Neenah, Wis.
J. B. Nugent	24 00	Attendant	33	Me asha, Wis.
Chas. H. Davis	32 00	Attendant	20	Garden Prairie, Il.
C. W. Dale	31 00	Attendant	37	Middle Creek, Ill.
J. H. Landford	25 00	Attendant	16	Pittsville, Wis.
Henry Eckstein	30 00	Attendant	12	Oshkosh, Wis.
Chas. Maltbey	30 00	Attendant	26	Stockbridge, Wis.
Geo. H. Hatch	29 00	Attendant	44	Oshkosh, Wis.
Frank Goodwin	27 00	Attendant	10	Fond du Lac, Wis.
Fred. J. Peterson	28 00	Attendant	10	Menasha, Wis.
M. M. Steele	26 00	Attendant	9	Oshkosh, Wis.
A. J. McCormick	31 00	Attendant	8	Bad Axe, Mich.
Louis Gums	27 00	Attendant	60	West Bend, Wis.
Chas. Groesbeck	30 00	Attendant	8	Oshkosh, Wis.
W. H. Chase	28 00	Attendant	18	Oshkosh, Wis.
Hubert Johann	30 00	Attendant	4	Fond du Lac, Wis.
Sam Van Rossen	30 00	Attendant	4	Wild Rose, Wis.
Lewis McBreen	27 00	Attendant	3	Wells, Vt.
J. H. Beiser	24 00	Attendant	3	Winneconne, Wis.
Joseph Lovely	23 00	Attendant	3	Oshkosh, Wis.
Otto Lindenstruth	23 00	Attendant	2	Oshkosh, Wis.
Geo. Freeborn	30 00	Attendant	8	Oshkosh, Wis.
Louis S. Martinson	25 00	Attendant	1	New Richmond, Wis.
G. H. Baum	25 00	Attendant	1	Greenleaf, Wis.
M. Simonin	20 00	Attendant	72	Milwaukee, Wis.
Alma Witte	20 00	Attendant	75	Oskosh, Wis.
Johanna Proschinger	20 00	Attendant	42	Myra, Wis.
Caroline Anderson	22 00	Attendant	39	Oskosh, Wis.
Jocehine Rhoades	20 00	Attendant	85	Neenah, Wis.
Zada Griffith	21 00	Attendant	9	Appleton, Wis.
Ida Wolff	20 00	Attendant	31	Black Creek, Wis.
Tillie Haberman	18 00	Attendant	47	Waterloo, Wis.
Mayme Humphrey	20 00	Attendant	25	Omro, Wis.
Nellie Hooseman	19 00	Attendant	19	Oshkosh, Wis.
Blanche House	20 00	Attendant	18	Appleton, Wis.
Florence Mathies	19 00	Attendant	24	Pittsburg, Ia.
Minnie Charbonneau	19 00	Attendant	11	Oshkosh, Wis.
Emma Blouck	20 00	Attendant	24	Racine, Wis.
Amelia Alberty	20 00	Attendant	9	Appleton, Wis.
Carrie E. Mortenson	18 00	Attendant	9	Clintonville, Wis.
Esther Gilson	17 00	Attendant	7	Greenleaf, Wis.
Bertha Meyer	18 00	Attendant	7	Colby, Wis.

Statistical Tables.

Employes of the Northern Hospital, June 30, 1904—Continued.

Names.	Rate per month.	Occupation.	No. months emplo'd.	Address.
Cora Dickinson	20 00	Attendant	7	Waupaca, Wis.
Alice Beach	18 00	Attendant	6	Neenah, Wis.
Jennie Bergstrom	18 00	Attendant	7	Neenah, Wis.
Matie Van Seggern	20 00	Attendant	14	Fontenoy, Wis.
Annie Mckenna	19 00	Attendant	22	Chilton, Wis.
Lulu Horton	16 00	Attendant	7	Eureka, Wis.
Della Pfeil	16 00	Attendant	2	Nekime, Wis.
Leona Lucey	16 00	Attendant	2	Chase, Mich.
Grace Butters	16 00	Attendant	1	Spencer, Wis.
Alice Jacobs	16 00	Attendant	8	Neenah, Wis.
Maggie Madsen	18 00	Asst. Center	118	Oskosh, Wis.
Tessie Neary	15 00	Asst. Center	5	Winnebago, Wis.
Mrs. E. Rockstrah	15 00	Asst. Center	6	Appleton Wis.
Maude M. Harvey	18 00	Asst. Rear	24	Oskosh, Wis.
W. A. Weller	28 00	Barnman	49	Clemensville, Wis.
Geo Unmuth	55 00	Baker	204	Oskosh, Wis.
Ernst Geiger	30 00	Asst. Baker	75	Oskosh, Wis.
Edw. Nix	28 00	Barber	9	Ashland, Ill.
S. Marden	25 00	Butcher	3	Winnebago, Wis.
T. E. Fulley	25 00	Carman	83	Oskosh, Wis.
O. W. Beals	50 00	Carpenter	27	Ipswich, S. Dak.
G. B. Sawyer	52 00	Cook, rear	106	Oshkosh, Wis.
Chas. Hansen	35 00	Asst. cook, rear	62	Oshkosh, Wis.
T. J. Laffey	31 00	Asst. cook, rear	23	Oshkosh, Wis.
Mary White	22 00	Cook, center	144	Oshkosh, Wis.
Agusta Farrow	18 00	Asst. cook, center	62	Neenah, Wis.
John Zych	35 00	Cowman	8	Black Creek, Wis.
Thomas Johnson	30 00	Cowman	20	Appleton, Wis.
Frank R. Barlow	90 00	Engineer	72	Oshkosh, Wis.
Frank M. Remis	50 00	Asst. engineer	31	Pittsville, Wis.
Fred Myhill	35 00	Fireman	11	Oshkosh, Wis.
Ernst Gasser	30 00	Fireman	3	Lubicon, Wis.
C. A. Griffin	30 00	Fireman	2	Oshkosh, Wis.
Chas. Swanson	25 00	Farmer	144	Winnebago, Wis.
J. C. Ashdown	25 00	Farmer	20	Waupaca, Wis.
John Wiley	25 00	Farmer	292	Winnebago, Wis.
Lester Martin	25 00	Farmer	12	Oshkosh, Wis.
Frank Nickel	25 00	Farmer	3	Oshkosh, Wis.
John Davis	60 00	Gardener	104	Winnebago, Wis.
Chris Madsen	35 00	Asst. gardener	132	Washburn, Wis.
W. H. Brink	35 00	Launderer	192	Winnebago, Wis.
Delia Dunn	22 00	Laundress	144	Oshkosh, Wis.
Lena Erfert	15 00	Laundress	144	Oshkosh, Wis.
Josephine Trummer	15 00	Laundress	35	Fond du Lac, Wis.
Helen Nelson	13 00	Laundress	38	Waupaca, Wis.
Lucy Clemens	13 00	Laundress	24	Neenah, Wis.
Bertha G. Laffey	13 00	Laundress	¼	Oshkosh, Wis.
Anna Elsner	14 00	Laundress	15	New London, Wis.
Cora Elsner	15 00	Laundress	15	New London, Wis.
Marie Lang	13 00	Laundress	3	Oshkosh, Wis.
Matilda Trummer	13 00	Laundress	2	Fond du Lac, Wis.
Pearl Watts	13 00	Laundress	1	Winnebago, Wis.
Jay Harwood	48 00	Painter	192	Racine, Wis.
Julius Pistohl	61 00	Mason	240	Oshkosh, Wis.
E. W. Payne	34 00	Nightwatch	123	Oshkosh, Wis.
Wm. Griffith	30 00	Nightwatch	48	Ogdensburg, N. Y.
J. P. Collins	30 00	Nightwatch	10	Mt. Comfort, Ind.
W. G. Montgomery	30 00	Nightwatch	12	Merrill, Wis.
W. J. Davis	28 00	Nightwatch	11	Oskdosh, Wis.
Mary Rieschl	20 00	Nightwatch	11	Stevens Point, Wis.
Martha Engel	18 00	Nightwatch	4	Mayville, Wis.
Mary Eilertsen	16 00	Nightwatch	3	Clintonville, Wis.
Martha Marquardt	18 00	Nightwatch	2	Colby, Wis.
Anna Wolff	20 00	Nightwatch	62	Black Creek, Wis.
Hattie Kellett	16 00	Seamstress	32	Neenah, Wis.
Mrs. L. J. Stevens	15 00	Seamstress	22	Oshkosh, Wis.
Lydia Karow	15 00	Seamstress	13	Oshkosh, Wis.
Anton Kromchinski	18 00	Shoemaker	116	New London, Wis.

Northern Hospital.

Employes of the Northern Hospital, June 30, 1904—Continued.

Names.	Rate per month.	Occupation.	No. months emplo'd.	Address.
A. E. Chase	10 00	Storekeeper		
Ida Jagerson	30 00	Teacher	32	Neenah, Wis.
Alta L. Pepper	30 00	Teacher	3	Waupun, Wis.
T. H. Farrow	34 00	Upholsterer	79	Oshkosh, Wis.
Josie Goeden	16 00	Attendant	⅛	Appleton, Wis.
Jennie E. Whiting	16 00	Attendant	⅛	Romeo, Mich.
Myrtle E. Meenk	16 00	Attendant	¼	Waupun, Wis.
Ida Procknow	16 00	Attendant	¼	Oshkosh, Wis.
August Staven	23 00	Attendant	¼	Greenleaf, Wis.
Henry L. Rees	25 00	Attendant	⅛	Georgetown, Ohio.

Statistical Tables.

STATEMENT OF CURRENT EXPENSE FUND, 1903.

1902.				
July 1	Balance			$65,288 65
1903.				
Jan. 1	From counties			41,406 75
May 6	Appropriations. chap. 163, laws 1903			180,000 00
June 30	Steward, for board and clothing patients			3,800 15
June 30	Steward, sundries			3,907 38
June 30	Transfer from alter and repair buildings			11 78
June 30	Paid on account of current expenses this year		$141,251 75	
June 30	Balance appropriation in state treasury	$152,970 31		
June 30	Balance in hands of steward	192 65	$153,162 96	
			$294,414 71	$294,414 71

STATEMENT OF CURRENT EXPENSE FUND, 1904.

1903.				
July 1	Balance			$153,162 96
1904.				
Jan. 1	From counties			54,180 32
June 30	Steward, for board and clothing patients			4,057 49
June 30	Steward sundries			3,131 12
June 30	Paid on account of current expenses this year		$136,128 52	
June 30	Balance appropriation in state treasury	$78,148 14		
June 30	Balance in hands of steward	255 23	78,403 37	
			$214,531 89	$214,531 89

Northern Hospital.

STATEMENT OF

At the Northern Hospital for the Insane

Classification.	Inventory June 30th, 1902.	Expended on this acc't during the year.	Transferred to this acc't during the year.	Total.
Amusements	$2,918 65	$848 58	.....	$3,767 23
Barn, farm and garden	11,413 72	3,435 67	.....	15,849 39
Board and clothing patients	.....	139 06	$3,639 09	3,778 15
Clothing	2,418 59	8,987 11	.....	11,405 70
Discharged patients	.....	1,321 29	.....	1,321 29
Discounts	.....	2 58	.....	2 58
Drug and med. dep	1,229 94	2,026 96	.....	3,256 90
Engines and boilers	20,314 15	2,011 84	.....	22,325 99
Elopers	.....	72 19	.....	72 19
Freight and express	.....	102 99	.....	102 99
Fire apparatus	1,912 68	51 69	.....	1,964 37
Fire and boiler insur'e	.....	23 55	.....	23 55
Fuel	1,548 00	14,487 78	.....	16,035 78
Furniture	13,665 73	130 21	.....	13,795 94
Gas and other lights	50	351 05	2,500 00	2,851 55
Hides and pelts	.....	.....	40 94	40 94
House furnishing	29,435 10	4,700 05	.....	34,135 15
Laundry	4,673 87	1,110 22	140 60	5,924 69
Library	2,643 36	320 60	.....	2,963 96
Laboratory	1,437 67	144 00	.....	1,581 67
Machinery and tools	1,307 05	123 75	.....	1,430 80
Miscellaneous	1,086 00	441 89	.....	1,527 89
Officers' expenses	.....	85 80	.....	85 80
Printing, postage, stationery and telegra'h	360 14	826 9 2	.....	1,187 06
Real estate, including buildings, etc	788,255 85	.....	17,377 15	805,633 00
Repairs and renewals	1,038 43	13,459 98	.....	14,498 41
Restraints	76 10	17 75	.....	93 85
Scraps	.....	.....	69 19	69 19
Special attendance	.....	157 12	2,515 00	2,672 12
Subsistence	1,536 35	35,601 07	13,377 60	50,515 02
Surgical instruments and appliances	2,090 73	426 02	.....	2,516 75
Tobacco	10 00	172 04	.....	182 04
Wages and salaries	.....	50,333 53	.....	50,333 53
Total	$890,372 61	$141,913 29	$39,659 57	$1,071,945 47
Less discounts, etc	.....	702 84	.....	947,035 16
Deducted by Sec'y of State for printing	.....	$141,210 45 41 30	.....	$124,910 31 .....
Net expenses	.....	$141,251 75	.....	.....

Statistical Tables.

CURRENT EXPENSES.

for the year ending June 30, 1903.

Inventory. June 30th, 1903.	Cash rec'd on this account during the year.	Transferred from this account during year.	Total.	Gained.	Expended.
$2,922 02	.....	.....	$2,922 02	.....	$845 21
13,164 82	$313 37	$13,377 60	26,855 79	$11,006 40	.....
.....	3,778 15	.....	3,778 15	.....	.....
2,319 96	175 68	.....	2,495 64	.....	8,910 06
.....	41 10	.....	41 10	.....	1,280 19
.....	.....	645 52	645 52	642 94	.....
1,541 51	3 68	8 27	1,553 46	.....	1,703 44
19,743 12	14 65	21 25	19,779 02	.....	2,546 97
.....	.....	.....	.....	.....	72 19
.....	.....	.....	.....	.....	102 99
1,846 56	.....	.....	1,846 56	.....	117 81
.....	.....	.....	.....	.....	23 55
1,725 00	.....	2,500 00	4,225 00	.....	11,810 78
13,663 98	.....	.....	13,663 98	.....	131 96
.....	.....	.....	.....	.....	2,851 55
.....	40 94	.....	40 94	.....	.....
29,030 06	1 00	3 90	29,034 96	.....	5,100 19
4,646 04	.....	.....	4,646 04	.....	1,278 65
2,642 50	1 50	.....	2,644 00	.....	319 96
1,572 29	.....	.....	1,572 29	.....	9 38
1,386 54	.....	.....	1,386 54	.....	44 26
1,114 65	246 21	.....	1,360 86	.....	167 03
.....	.....	.....	.....	.....	85 80
333 01	12 77	.....	345 78	.....	841 28
805,633 00	.....	.....	805,633 00	.....	.....
914 94	.....	8,000 26	8,915 20	.....	5,583 21
90 10	1 50	.....	91 60	.....	2 25
.....	69 19	.....	69 19	.....	.....
.....	2,672 12	.....	2,672 12	.....	.....
1,831 62	44 33	3,842 17	5,718 12	.....	44,796 90
2,253 10	.....	.....	2,253 10	.....	263 65
38 84	.....	.....	38 84	.....	143 20
.....	291 34	2,515 00	2,806 34	.....	47,527 19
$908,413 66	$7,707 53	$30,913 97	$917,035 16	$11,649 34	$136,559 65
.....	.....	.....	.....	.....	11,649 34
					$124,910 31
.....	.....	.....	.....	.....	41 30
.....	.....	.....	.....	.....	$124,951 61

Northern Hospital.

STATEMENT OF

At the Northern Hospital for the Insane

Classification.	Inventory June 30, 1903.	Expended on this acc't during the year.	Transferred to this account during year.	Total.
Amusements	$2,922 02	$1,037 03	.....	$ 3,959 05
Barn, farm and garden	13,164 82	2,909 78	.....	16,074 60
Board and clothng of patients	.....	88 37	4,057 49	4,145 86
Clothing	2,319 96	8,344 81	.....	10,664 77
Discharged patients	.....	1,899 15	.....	1,899 15
Discount	.....	.....	.....	.....
Drug and medical department	1,541 51	1,891 69	.....	3,433 20
Engines and boilers	19,743 12	1,323 46	4,330 00	25,396 58
Elopers	.....	23 29	.....	23 29
Freight and express	.....	120 74	.....	120 74
Fire apparatus	1,846 56	30 85	86 10	1,963 51
Fire and boiler insurance	.....	144 00	.....	144 00
Fuel	1,725 00	17,713 33	.....	19,438 33
Furniture	13,663 98	104 30	.....	13,768 28
Gas and other lights	.....	416 31	2,000 00	2,416 31
Hides and pelts	.....	.....	33 66	33 66
House furnishing	29,030 06	4,198 80	55 00	33,283 86
Laundry	4,646 04	907 73	122 28	5,676 05
Library	2,642 50	389 78	.....	3,032 28
Laboratory	1,572 29	.....	.....	1,572 29
Machinery and tools	1,386 54	98 67	.....	1,485 21
Miscellaneous	1,114 65	496 43	.....	1,611 08
Officers' expenses	.....	176 99	.....	176 99
Printing, postage, stationery and telegraph	333 01	880 77	.....	1,213 78
Real estate, including buildings, etc	805,633 00	.....	.....	805,633 00
Repairs and renewals	914 94	5,594 39	.....	6,509 33
Restraints	90 10	10 64	.....	100 74
Scraps	.....	.....	3 40	3 40
Special attendant	.....	83 00	1,633 00	1,716 00
Subsistence	1,831 62	34,295 04	14,364 51	50,491 17
Surgical instruments and appliances	2,253 10	677 81	.....	2,930 91
Tobacco	38 84	224 63	.....	263 47
Wages and salaries	.....	51,565 85	.....	51,565 85
	$908,413 66	$135,647 64	$26,685 44	$1,070,746 74
Less discounts and other credits	.....	588 96	.....	941,302 07
		$135,058 68		$129,444 67
Add amount deducted by secretary of state for printing	61 65	.....	.....	.....
Insurance	1,008 19	1,069 84	.....	.....
		$136,128 52		

Statistical Tables.

CURRENT EXPENSES.

for the year ending June 30, 1904.

Inventory June 30, 1904.	Cash rec'd on this account during year.	Transferred from this account during year.	Total.	Gained.	Expended.
$ 2,808 07	.....	.....	$2,808 07	.....	$1,150 98
13,182 69	520 35	14,419 61	28,122 65	$12,048 05	.....
.....	4,145 86	.....	4,145 86	.....	.....
1,635 44	212 55	.....	1,897 99	.....	8,766 78
.....	11 27	.....	11 27	.....	1,887 88
.....	.....	583 35	583 35	583 35	.....
1,705 32	17 72	.....	1,723 04	.....	1,710 16
22,601 74	20 45	86 10	22,708 29	.....	2,688 29
.....	.....	.....	.....	.....	23 29
.....	.....	.....	.....	.....	120 74
1,880 56	.....	.....	1,880 56	.....	82 95
.....	36 43	.....	36 43	.....	107 57
2,050 00	2 50	2,000 00	4,052 50	.....	15,385 83
13,659 66	.....	.....	13,659 66	.....	108 62
.....	.....	.....	.....	.....	2,416 31
.....	33 66	.....	33 66	.....	.....
29,786 46	.....	.....	29,786 46	.....	3,497 40
4,518 66	.....	.....	4,518 66	.....	1,157 39
2,362 27	3 00	.....	2,365 27	.....	667 01
1,565 89	.....	.....	1,565 89	.....	6 40
1,300 58	.....	.....	1,300 58	.....	184 63
1,219 40	211 85	.....	1,431 25	.....	179 83
.....	10 00	.....	10 00	.....	166 99
329 63	9 85	.....	339 48	.....	874 30
805,633 00	.....	.....	805,633 00	.....	.....
852 76	146 50	3 40	1,002 66	.....	5,506 67
93 60	.....	.....	93 60	.....	7 14
.....	3 40	.....	3 40	.....	.....
.....	1,716 00	.....	1,716 00	.....	.....
1,525 71	44 86	4,218 94	5,789 51	.....	44,701 66
2,355 01	.....	.....	2,355 01	.....	575 90
52 61	.....	.....	52 61	.....	210 86
.....	42 36	1,633 00	1,675 36	.....	49,890 49
$911,169 06	$7,188 61	$22,944 40	$941,302 07	$12,631 40	$142,076 07
.....	.....	.....	.....	.....	12,631 40
					$129,444 67
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	1,069 84
					$130,514 51

Northern Hospital.

STATEMENT OF SPECIAL APPROPRIATIONS.

	Balance available July 1, 1902.	Appropriations, 1903.	Expended during biennial term.	Transferred to water filter and pumps.	Transferred from filter for lake water.	Transferred to complete filter.	Transferred to current expenses fund.	Transferred from water filter and pumps.	Balance available July 1, 1904.
Filter for lake water	$900 00	.....	$62 80	$837 20	.....	.....	.....	.....	.....
Water filter and pumps	4,293 00	.....	5,014 35	.....	$837 20	$115 85	.....	.....	.....
Altering and repairing building	22 78	.....	11 00	.....	.....	.....	$11 78	.....	.....
To complete filter system	.....	$10,000 00	5,844 79	.....	.....	.....	.....	$115 85	$4,271 06

STATEMENT OF MONEYS RECEIVED AT THE INSTITUTION.

Classification.	1903.	1904.
Barn, farm and garden	$313 37	$520 35
Board and clothing patients	3,778 15	4,145 86
Clothing	175 68	212 55
Discharged patients	41 10	11 27
Drug and medical department	3 68	17 72
Fire and boiler insurance	.....	36 42
Engine and boilers	14 65	20 45
Fuel	.....	2 50
Hides and pelts	40 94	33 66
House furnishing	1 00	.....
Library	1 50	3 00
Miscellaneous	246 21	211 85
Officers' expenses	.....	10 00
Printing, postage, stationery and telegraph	12 77	9 85
Restraints	1 50	.....
Repairs and renewals	.....	146 50
Scraps	69 19	3 40
Special attendants	2,672 12	1,716 00
Subsistence	44 33	44 86
Wages and salaries	291 34	42 36
	$7,707 53	.....
Water filter and pumps	136 30	20 06
	$7,843 83	$7,208 67

Statistical Tables.

STATEMENT OF PATIENTS' CASH.

Cash taken from patients for safe keeping.

On hand July 1, 1902	$2,014 24
Received during 24 month period	2,846 43
Total	$4,860 67
Returned to patients or their representatives	3,034 20
Balance on hand June 30, 1904	$1,826 47

CASH DEPOSITED TO BE EXPENDED FOR THE BENEFIT OF PATIENTS.

On hand July 1, 1902	$877 28
Received during 24 month period	2,297 62
Total	$3,174 90
Expended for benefit of patients	1,956 50
Balance on hand July 1, 1904	$1,218 40

Northern Hospital.

FARM AND GARDEN PRODUCTS.

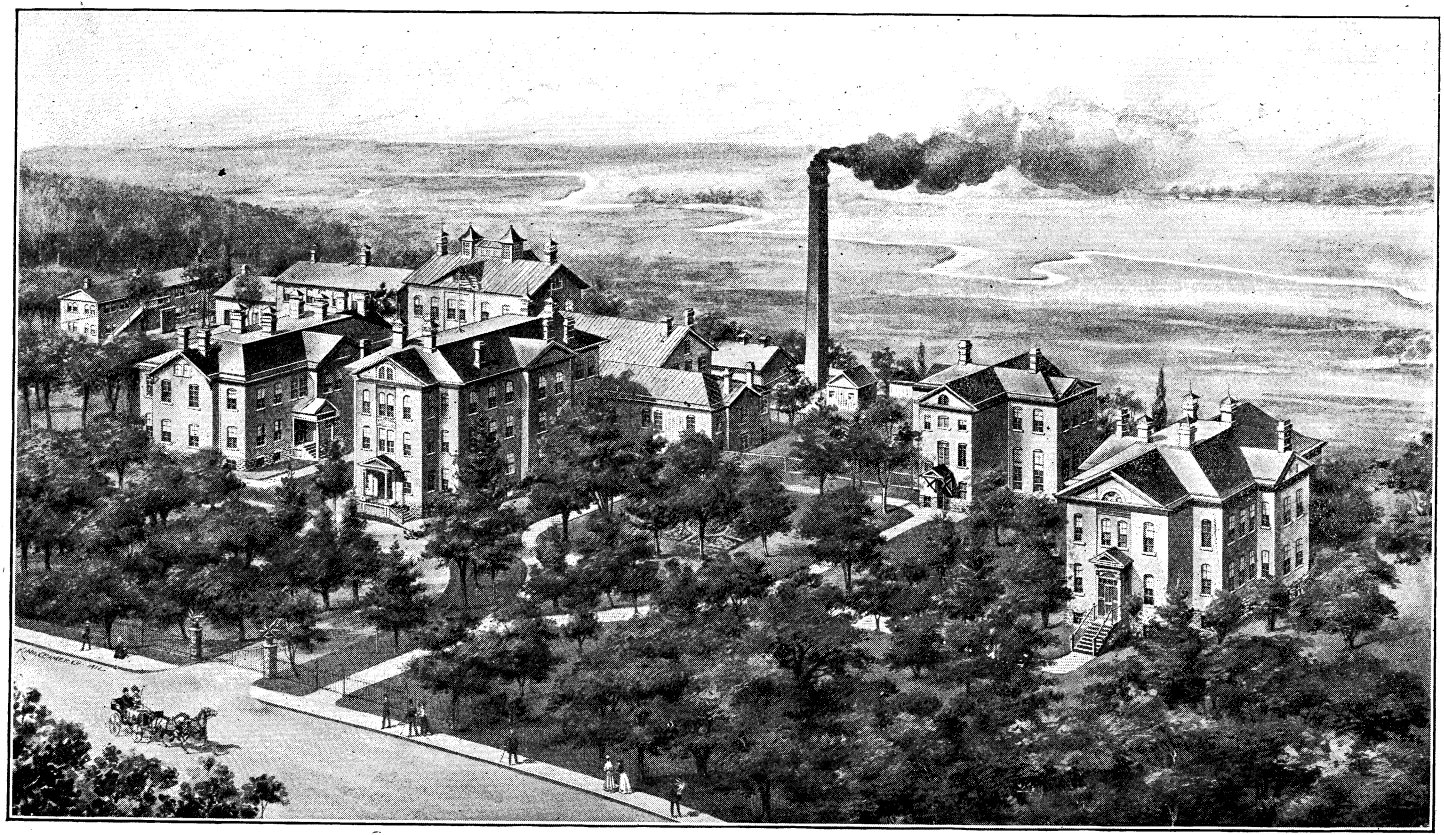
Year ending June 30, 1903, and year ending June 30, 1904.

Article.	Quantity, 1903.	Value, 1903.	Quantity, 1904.	Value, 1904.
Asparagus	3,677 bch.	$73 54	3,152 bch.	$63 04
Apples, crab	.....	.....	4 bu.	5 00
Beans	.....	.....	51 bu.	127 50
Beans, wax	154½ bu	73 00	147 bu.	58 80
Beets	118½ bu.	47 20	104 bu.	41 60
Beet, leaves	.....	.....	63 bu.	5 04
Beef, dressed	4,942 lbs.	317 77	3,990 lbs.	223 49
Cabbages	17,248 hds.	401 90	12,939 hds.	547 14
Carrots	217½ bu.	63 09	178¾ bu.	71 50
Chickens	2,334 lbs	231 07	4,333½ lbs.	492 22
Cress	1,519 bch.	35 63	2,329 bch.	54 48
Cucumbers	191 bu.	118 48	45 bu.	31 49
Cucumber pickles	27 bu.	19 90	22 bu.	15 40
Currants	1,706 qts.	85 30	313 qts.	25 04
Corn, dry	2,700 bu.	1,215 00	2,500 bu.	1,125 00
Corn, green	459 bu.	459 00	714 bu.	714 00
Corn, stalks	160 tons	320 00	175 tons	350 00
Celery	10,683 bch.	213 66	14,544 bch.	294 98
Cauliflower	1,948 hds.	40 34	356 hds.	14 24
Ducks	3,425 lbs.	262 74	5,660 lbs.	585 14
Eggs	1,783¼ doz.	286 90	1,894½ doz	352 08
Eggs, plant	.....	.....	16 no.	60
Feathers	.....	.....	275 lbs.	55 00
Geese	1,148 lbs.	92 15	1,055⅓ lbs	114 78
Gooseberries	974 qts.	97 40	139 qts.	11 12
Grapes	8 bu.	9 60	1 bu.	1 25
Hay	130 tons	1,300 00	165 tons	1,320 00
Hares	.....	.....	196 lbs.	19 60
Lettuce	13,829 bch	276 58	10,332 bch.	206 64
Horseradish	.....	.....	8¾ bu.	13 12
Milk	169,391 qts.	5,081 73	171,502 qts.	5,145 06
Melons, musk	3,022	60 44	162	3 24
Onions, dry	288¾ bu.	127 65	290 bu.	156 88
Onions, green	16,024 bch.	320 48	14,634 bch.	292 68
Oats	3,068 bu.	1,227 20	2,672 bu.	1,068 80
Oats, straw	95 tons	190 00	90 tons	180 00
Potatoes	470 bu.	166 70	220½ bu.	110 75
Peas	131½ bu.	52 60	240 bu.	96 00
Parsley	280 bch.	5 20	290 bch.	5 80
Pork	3,129 lbs.	235 53	3,520 lbs.	233 35
Peppers	35 doz.	8 75	58 doz.	14 50

Statistical Tables.

FARM AND GARDEN PRODUCTS—Continued.

Article.	Quantity, 1903.	Value, 1903.	Quantity, 1904.	Value, 1904.
Pumpkins	258	$5 16	462	$9 24
Parsnips	251 bu.	78 80	228¼ bu.	91 30
Pigeons	155	15 50	.....	.....
Popcorn	.....	.....	12 bu.	16 80
Radishes	9,550 bch.	189 30	7,121 bch.	142 42
Raspberries	1,674 qts	200 88	5,367 qts.	536 70
Rutabagas	62¾ bu.	25 10	184 bu	73 60
Rhubarb	1,890 lbs.	18 90	3,470 lbs.	69 40
Squash, summer	2,490 lbs.	113 70	4,750 lbs.	153 50
Squash, winter	20,480 lbs.	776 00	13,460 lbs.	269 20
Sage	371 bch.	7 42	253 bch.	5 06
Salsify	60 bu.	24 00	52 bu.	20 80
Sauerkraut	11 bbl.	22 00	14¼ bbl.	28 50
Swiss chard	116 bu.	46 40	84 bu.	33 60
Spinach	110 bu. 183 bch.	49 49	114 bu.	45 60
Strawberries	9,980 qts	475 10	4,118 qts.	411 80
Turnips	376½ bu.	150 90	928¾ bu.	371 50
Tomatoes	211 bu.	189 52	405¾ bu	218 55
Tallow	3,517 lbs.	140 70	87 lbs.	3 48
Turkey	.....	.....	28 lbs.	4 48
Lard	112 lbs	12 52	.....	.....
Total	.....	$16,057 92	.....	$16,751 88



ELEVENTH BIENNIAL REPORT

OF THE

Wisconsin School for the Deaf.

AT DELAVAN, WISCONSIN.

For the Biennial Period Ending June 30th, 1904.

OFFICERS, TEACHERS AND ASSISTANTS.

Superintendent and Steward,
E. W. WALKER.

Asst. Steward,
EDGAR D. FISKE.

Matron.
MRS. E. W. WALKER.

Asst. Matron.
TILLIE CANNAN.

Boys' Supervisor.
JOSEPH W. HEMINGWAY.

Engineer.
W. M. STILLMAN.

Physician.
C. C. BLANCHARD, M. D.

INSTRUCTORS.

Manual Department.

W. A. COCHRANE, M. A.	WARREN ROBINSON, M. A.
JAMES JOSEPH MURPHY, B. A.	THOMAS HAGERTY, B. A.
PAUL LANGE, M. A.	EDITH FITZGERALD, B. A.

Oral Department.

A. I. HOBART, B S.	W. F. GRAY.
ELSIE M. STEINKE.	SETH W. GREGORY, M. A.
MARY D. FONNER.	MARY WILLIAMS.
MATIE WINSTON.	ALICE T. COBURN.
DORA P. HENDRICKSON.	ELIZABETH RHODES.

GUSSIE GREENER.

Blind-Deaf Department.
DELIA D. RICE.

Art Department.
LILLIAN SORRENSON.

Manual Training Department.

CLARA HENDERSON.	H. A. CONGDON.

Physical Culture Department.

THOMAS HAGERTY.	JULIA CARNEY.

Industrial Department.

F. C. LARSON.....Printing
J. C. ECKERT.....Carpenter and Cabinet Work
JOHN BEAMSLEY.....Shoe Making
G. W. KIRK.....Baking

SUPERINTENDENT'S REPORT.

To the State Board of Control.

GENTLEMEN—The close of another biennial period makes it my duty to report to you upon the condition, progress, and needs of this institution. I therefore submit this Eleventh Biennial and Fifty-second Annual Report of the Wisconsin School for the Deaf.

GENERAL CONDITION OF THE INSTITUTION.

It affords me great pleasure to be able to report to you that the general condition of the institution is satisfactory. This is due in part to faithful and efficient work on the part of officers and teachers. The progress and wholesome spirit of the pupils has been marked. On the physical side of the institution there yet remains much to be done. It is encouraging, however, for me to report that during the last biennial period, under your direction, much has been done by way of improvement.

IMPROVEMENTS.

The walls in fourteen school rooms have been renewed and tinted in restful and harmonious colors.

Two new school rooms have been added to provide for the increasing number of classes.

One new science room has been made by utilizing vacant space in the basement of the school house. A small science equipment has been provided for this room.

Over 1,000 sq. ft. of cement walk have been laid.

A duplicate engine and generator have been provided for the electric lighting plant. For the better accommodation of this unit the engine room has been enlarged.

Wisconsin School for the Deaf.

A Whitlock electric motor printing press, secured from the U. S. government, has been installed in the printing office.

About seventy-five rods of new fence have been built.

A new boys' dormitory, with study room, play room, wash room, and water closet, has been equipped.

Modern water closets connected with the water supply and sewerage system of the institution have been placed in the school house.

In addition to the above many small pieces of general repair work have been made. These need not be enumerated here.

There is also in progress at the present time the complete refinishing and refurnishing of the large institution kitchen and bakery. These rooms are to be provided with new tile floors, new ranges, sinks, and steam kettles.

NEEDS OF THE INSTITUTION.

If this institution is to keep pace with growth in educational matters the next biennial period should bring about other marked improvements. First of all, we need more room. During the past year it was necessary to reject the applications of six girls because we had not room for them. This is an unfortunate condition. Neither have we school rooms enough even for the present. To provide for the future needs of the institution a new building, or a large addition to the present building, is necessary. The rear part of what is known as the administration building is in such poor condition that I believe the most satisfactory way of meeting present demands would be to tear down this portion of the building and replace it with a better and larger building. Another feasible method to meet the difficulty will be to erect a new building containing an auditorium, girls' dormitory, and six or eight school rooms. This will enable us to use the present auditorium as a girls' dormitory.

The institution barn has long since served its purpose. It is neither well built nor well planned for modern purposes, nor

sufficiently large to meet the demands upon it. In my opinion it would be folly to attempt to enlarge it. It should be torn down and replaced by a new, larger, and modern building.

The refrigerator, fruit store room, and vegetable cellar are unsatisfactory. For a number of years this matter has been brought to the attention of your board but nothing has been done for the reason that it does not appear that the present building can be remodeled to meet the requirements. This will probably always be an eyesore until it is replaced by a modern and adequate building.

The open sewer extending across the cow pasture should be covered. While this is being done enough tile should be laid to underdrain the low places in the pasture.

The outside woodwork of all the institution buildings should be repainted.

About 2,000 sq. ft. of cement walk should be laid during the next biennial period.

Children who have no hearing must receive every inspiration, entertainment, and instruction through the eye. To this end the institution should be more generously supplied with pictures. I believe a stereopticon with moving picture attachment should form a part of the equipment for every institution of the deaf.

THE HOME DEPARTMENT.

It is fair for me to say in this first biennial report that I make to your Board that I came to this institution with something of a prejudice against institutional life. I felt that in a way the institution had a tendency to break up home ties without providing any adequate substitute. Two years of experience and close observation here have completely changed my opinion. The deaf child, unless he has deaf parents, never has a home in the sense that most people understand it. He may be well cared for, well clothed, fed, and sheltered, but

he it still homeless. That is, he has no intellectual home; he takes no ready part in the conversation of the home. The result is he is apart from that home, he is isolated. Under these conditions he frequently becomes apathetic and morose.

But here in the institution the condition is quite different. In his hours out of school he associates with people with whom he can cerry on ready and fluent conversation. He takes part in active, exhilerating games, so that mind and body are constantly alert. He thus develops a keenness and alertness of mind as well as a happiness of disposition not usually shared by deaf children at home.

So far as possible this institution endeavors to retain each child's home ties. Pictures of his home and members of the family are obtained if possible, and he is taught to talk and write about his home life. He thus retains his ties for his natural home while he profits by all the environments of his institution home.

HEALTH.

Owing to regular habits and wholesome food the health of the children here is exceptionally good. This is still further accentuated by the excellent location of the institution, its water supply and drainage being practically perfect.

No deaths from sickness have occurred in the institution during the last biennial period. One young man, Carl Knutson, whose home is at Pineville, Polk Co., was run down by the cars and killed in May, 1904. The children in this institution are constantly cautioned against walking upon the railroad track.

During the spring of 1903 several cases of illness showing typhoid symptoms appeared here. The water supply was immediately shut off and we were connected with the city supply system. We used the city water until our own supply had been analyzed by the State Board of Health. This board found that the water was thoroughly wholesome. In the meantime all typhoid symptoms had disappeared and there has been no recurrence of them.

Superintendent's Report.

During the past year we have had thirty-two cases of measles and two cases of scarlet fever. None of these were of a serious nature. They were promptly isolated.

SOCIAL LIFE OF THE CHILDREN.

Parties for the children are given on Thanksgiving evening, Christmas eve, New Year's eve, Valentine Day, Washington's Birthday, and an annual picnic is given on Memorial Day. A banquet in honor of the Governor's Guards is given on the last Saturday of the year. Only the older boys and girls are invited to this. In addition to the above somewhat formal social functions many informal ones are held. These are given by the different teachers and officers.

DISCIPLINE OF THE SCHOOL.

It is inevitable that in an institution where 200 children are in constant attendance there should be some cases of discipline. In order that no abuses may arise all serious cases for discipline are reported to the superintendent and he administers the punishment. All punishment in this institution is corrective and not retributory. It usually consists in depriving the pupil of some privilege, although a few cases of corporal punishment occur during the year. Except on the part of a very few students, not to exceed a dozen, in the entire number there is a high moral sense which makes the pupils largely self governing.

THE SCHOOL DEPARTMENT.

The method of instruction used in this institution is what is known as the combined method. A careful study of the various methods used for the instruction of the deaf has led me to the conclusion that this is unquestionably the best method for teaching them. I do not mean to say this dogmatically for I am well aware that there is a wide and honest difference of opinion in this matter. Nor do I believe that any one method

is necessarily the only one to be employed. Perhaps the method which is best administered is best. I approached this problem wholly free from the prejudices which seem to exist in the minds of many people who have long been in the work with the deaf and brought to bear twenty years of experience in general educational work. My best judgment is as above stated. We apply the combined method thus:

Each new pupil is placed in an oral class. Here every effort is made to teach him articulation and lip reading. He is retained in this department until it becomes apparent that he can never become a good lip reader. Many deaf children perfectly capable of receiving a good education are not able to read lips with any degree of certainty. It does not seem wise in such cases to retard the child's education for the sake of devoting all his energy to lip reading and speech. I do not mean to minimize these accomplishments for the deaf. It is certainly a blessed thing for the deaf to be able to take a thought from lips of other people and to articulate, even though somewhat indistinctly, words used in ordinary conversation; but with many of the deaf lip reading is largely guessing and speech is inarticulate, and sometimes disagreeable. In these cases I believe it is better to place the child in the manual or sign department.

There are at present in this institution eleven teachers in the oral department and six in the manual department. This means that two-thirds of our pupils are in the oral department. I think this fraction justly records the proportion of deaf who can profitably be taught speech and lip reading.

LITERARY SOCIETIES.

Two literary societies are maintained by the students of the institution. The Ariadne Society is supported by the girls and the Phoenix Green Literary Society by the boys. These societies furnish opportunity for recitations, readings, debates, and other forms of literary entertainment. They supplement in a way the school work.

Superintendent's Report.

DRAMATIC ENTERTAINMENT FOR THE DEAF.

I believe the drama is a form of intellectual entertainment well adapted to the deaf. It appeals to the eye, and represents not only intellectual but emotional phases of life. It thus becomes the nearest approach to music that the deaf can ever appreciate. During the past biennial period the pupils of the school have presented upon the stage dramatizations of "Rip Van Winkle," "Hiawatha," "Merchant of Venice," and "Uncle Tom's Cabin." I believe the drama should be still more encouraged in this institution.

ATTENDANCE.

There have been enrolled in the institution during the past biennial period 213 students. Of these 91 are girls and 122 are boys. Had we been able to take the six girls who applied and were rejected for lack of room, our total enrollment would have been 219. The present indications are that a larger number must be rejected during the coming year.

Statistics of attendance will be given in succeeding pages.

I also append a copy of the year book which will set forth to you much detailed information regarding the running of the institution.

I take this occasion to express publicly my keen appreciation of the faithfulness, zeal, and efficiency manifested by the official and teaching staff of this institution, and to express to your honorable body my gratitude for the many evidences of confidence you have reposed in me. Your constant support of my plans and sympathetic interest in the welfare of this institution has made my work here exceedingly pleasant.

Respectfully submitted,

E. W. WALKER,
Superintendent.

Delavan, Wisconsin, June 30, 1904.

WISCONSIN SCHOOL FOR THE DEAF.

This school is located at Delavan, Wisconsin, on the southwestern division of the Chicago, Milwaukee & St. Paul Railway, and was incorporated by act of legislature, April 19, 1852. The school buildings stand on the hill west of the village, which secures perfect drainage and gives a commanding view of one of the most beautiful landscapes in all Wisconsin, diversified by forest, prairies, river and lake. Remarkable immunity from disease through a long series of years attests the healthfulness of the place, while the quiet orderly city in which the school is located affords the ideal site for an institution of learning.

Deaf mutes of Wisconsin of proper age are admitted to all the privileges of the school free of charge. There is no charge for board or tuition for children living in this state. Friends are expected to pay traveling and incidental expenses and to provide clothing, a sufficient supply of which should be furnished at the beginning of the school year or sent by express as needed. All articles should be distinctly marked with the owner's name. Five dollars should also be deposited with the superintendent at the commencement of the year to defray incidental expenses, such as repair of shoes, postage, etc.

Bear in mind this is not a hospital, an asylum for the dependent, or a reform school for the vicious, but simply a school for the deaf. The school is maintained by the state of Wisconsin for the education of those children who on account of deafness are unable to receive instruction in the common schools. It has two departments:

First—The academic department in which the pupils are taught language, writing, reading, composition, arithmetic, geography, history, natural science, penmanship and drawing. All new pupils are placed in the oral classes, in which they re-

main during the entire course unless it appears that they are incapable of acquiring plain, intelligible speech. The course of training also includes calisthenics and light gymnastics.

Second—Manual training in connection with trade schools, in which bench-work, joinery, forging and molding, needle-work, baking, cooking, printing, carpentry and shoemaking are taught.

The regular course of instruction occupies about ten years. Articulation and lip-reading are taught by teachers of skill and experience, with very gratifying success. The day is divided into hours for labor, study and recreation, with the design of securing habits of industry and promoting health as well as intellectual and moral development. No leave of absence is granted during the term except in cases of sickness or extreme necessity. A blank form of application is sent to anyone wishing to send a child to this school. No child should be sent or brought to school until the application, properly filled, has been accepted and notice of the same returned to the person making the application. Candidates for admission should not be under seven nor more than twenty years of age, sound of mind and good morals. Imbecile, idiotic or feeble-minded children will not be received. Each pupil should be provided with a trunk containing a year's supply of plain, comfortable clothing, marked in indelible ink, with the name in full. The annual session begins the second Wednesday in September and continues until second Wednesday in June. The proper time for the admission of pupils is the beginning of the term, and under ordinary circumstances, none will be received at any other time. Except in cases of sickness, all pupils are expected to remain during the entire term; but the superintendent may require the removal, at any time, of pupils, whose condition, moral, mental or physical is not such as to warrant their continuance. The summer vacation extends from June to September. Children are sent home promptly at the close of the term, accompanied to prominent railroad points by

messengers from the institution. Friends will be expected to meet them at places designated. Pupils from other schools will be examined before being classified. All letters and packages for pupils should be marked "Wisconsin School for the Deaf, Delavan, Wis." Express matter and telegrams should be prepaid. Letters in regard to pupils or applications for admission should be addressed to the superintendent. Any information or letters or inquiry in regard to deaf children or their education should be addressed,

SUPERINTENDENT WISCONSIN SCHOOL FOR THE DEAF,
DELAVAN, WIS.

In this connection city and county superintendents of schools should read section 3, chapter 331, laws of Wisconsin session of 1891, as follows:

Section 3. It shall be the duty of each county and city superintendent of the schools to send to the superintendent of the state school for the deaf at Delavan and to the superintendent of the state school for the blind at Janesville, the address of parents, with the name and age of each deaf or blind child known to be in his county or city, and to inform parents, guardians and custodians of deaf mutes and blind children in his county or city, respecting the several schools for deaf mutes and the blind in the state, and the conditions of admission to them; and for this purpose, the superintendents of such institutions shall provide each such superintendent with sufficient printed information and with the names and residences of all deaf mutes and blind children known to be in his county or city. And each such superintendent shall include in his annual report to the county board of supervisors or the city board of education, a statement of the number of deaf mutes and the blind children of school age in such county or city then receiving an education, or the number of each not receiving an education and the number of personal visits he has made during the year, upon the parents, guardians or custodians of such

children, to induce them to give such children a proper education.

Letters in regard to pupils, applications for admission and inquiries in regard to deaf children or their education should be addressed to,

E. W. WALKER,
Superintendent.

Delavan, Wis.

Causes of Deafness in Cases Admitted during the Biennial Period Ending June 30, 1904.

Brain fever	1
Congenital	16
Catarrh	3
Drinking lye	1
LaGrippe	1
Measles	1
Mumps	1
Sickness	1
Spinal meningitis	2
Severe fall	1
Unknown	4
Total	33

Nativity of parents of new pupils.

American	10
English	1
English-Irish	1
French-German	1
German	11
German-American	2
Irish-French	1
Irish-German	1
Norwegian	1
Polish	1
Swedish	1
Welsh	2
Total	33

Wisconsin School for the Deaf.

Age of new pupils when hearing was lost.

At birth	16
At 1 year and younger	3
At 2 years	4
At 3 years	1
At 4 years	1
At 5 years	1
At 8 years	2
At 9 years	1
At 15 years	1
Unknown	2
* Not deaf, but dumb	1
Total	33

Age of new pupils at date of admission.

At 5 years	1
At 6 years	3
At 7 years	2
At 8 years	3
At 10 years	5
At 11 years	4
At 13 years	3
At 14 years	4
At 16 years	2
At 17 years	1
At 19 years	1
At 22 years	1
Unknown	3
Total	33

Graduating class of nineteen hundred and four.

Dennis Sullivan, Janesville. Fred Christiansen, Hickory.
Edna Tyler, Aztalan. Daisy Wood, Viola.
Josephine Thompson, Viroqua.

* Dismissed later as not being a fit subject for this school.

Session Roll.

SESSION ROLL, SEPTEMBER, 1902.

Name.	Town.	County.	Admit'd.
Anderson, George	Clinton	Rock	1898
Adleman, Eldora	Oakley	Green	1897
Anderson, Alma	Baldwin	St. Croix	1899
Anderson, Clara	Colfax	Dunn	1897
Anderson, Selma	Hudson	St. Croix	1901
Asp, Melvin	Pineville	Polk	1901
Adleman, Orville	Oakley	Green	1894
Baker, Clara	Monterey	Waukesha	1894
Barlow, Leslie	Omro	Winnebago	1897
Blackman, Laura	North Freedom	Sauk	1897
Brekke, Gerhard	Mt Horeb	Dane	1898
Blumer, Ernest	East Delavan	Walworth	1897
Broderick, Gwen	Brodhead	Green	1896
Berndt, Alvina	Allen's Grove	Walworth	1895
Bengaard, Peter	Racine	Racine	1900
Bluemel, Martha	Glidden	Ashland	1890
Bohan, Adolar	Marinette	Marinette	1894
Buchman, Mary	Hortonville	Outagamie	1902
Bulmer, Floyd	Rock Elm	Pierce	1897
Brandenburg, Evered	Park Falls	Pierce	1901
Booth, Charles	Diamond Bluff	Pierce	1900
Bongey, Leon	Monroe	Green	1901
Beck, Lizzie	Stevens Point	Portage	1890
Chaignot, Henry	Wausau	Marathon	1902
Carlson, Bernard	Mason	Bayfield	1901
Chapman, Willard	Little Prairie	Walworth	1898
Clark, Leone	Delavan	Walworth	1901
Clobes, Louis	River Falls	Pierce	1898
Christiansen, Fred	Hickory	Oconto	1893
Confer, John	Pardeeville	Columbia	1900
Cullen, Celia	Darlington	Lafayette	1902
Capper, John	Mindoao	La Crosse	1902
Dahl, Carl	Hale	Trempealeau	1900
Delveaux, Joseph	Champion	Brown	1896
Davis, Leslie	Pardeeville	Columbia	1900
Epstein, Jerry	Berlin	Green Lake	1898
Errard, George	Fond du Lac	Fond du Lac	1893
Ehmke, Alma	Saukville	Ozaukee	1901
Erdahl, Clara	Stoughton	Dane	1896
Erdahl, Earl	Stoughton	Dane	1896
Faber, William	Houghton, Mich	Houghton	1900
Feedler, Hubert	Tomah	Monroe	1899
Feldhausen, Anton	Green Bay	Brown	
Fernquist, Eskil	Commonwealth	Florence	1896
Finn, Rosa	Oshkosh	Winnehogo	1901

Wisconsin School for the Deaf.

SESSION ROLL, SEPTEMBER, 1902—Continued.

Name.	Town.	County.	Admit'd.
Fisch, Mathew	Hilbert	Calumet	1902
Fleming Carrie	Jefferson	Jefferson	1897
Foster, Ray	Luck	Polk	1896
Franck, Ella	Medford	Taylor	1899
Garlock, Myrtle	Hebron	Jefferson	1899
Gallenberger, William	Deerbrook	Langlade	1902
Genack, George	Prentice	Pierce	1899
Gersdorff, Annie	Medford	Taylor	1898
Gersdorff, Carrie	Medford	Taylor	1898
Giese, Paul	Portage	Columbia	1900
Goetsch, Julius	Merrill	Lincoln	1902
Greenheck, Mary	Bear Valley	Richland	1900
Greenheck, Henrietta	Bear Valley	Richland	1899
Gosso, Willie	Darien	Walworth	1896
Hackett, Wilbur	Whitewater	Walworth	1900
Hansman, Harry	Thorp	Clark	1900
Hahner, George	Kaukauna	Outagamie	1898
Hahner, Willie	Kaukauna	Outagamie	1901
Harter, Erwin	Birnamwood	Shawano	1896
Halliday, Eva	Wausau	Marathon	1902
Hallida, Chas	Ashland	Ashland	1884
Hanson, Helmer	Spring Valley	Pierce	1896
Hegge, Agnes	Westby	Vernon	1901
Helminiak, Pelegia	Cassimer	Portage	1900
Hirte, Emily	Norwalk	Monroe	1897
Hirte, Gertie	Norwalk	Monroe	1900
Hinterthuer, Earl	Neenah	Winnebago	1902
Hodge, Milo	Ft. Atkinson	Jefferson	1897
Hook, Merle	Madison	Dane	1900
Hopkins, Bernice	Delavan	Walworth	1897
Huchthausen, Herbert	West Bend	Washington	1901
Huss, Willie	North Freedom	Sauk	1900
Herman, Elizabeth	Tomahawk	Lincoln	1896
Hamre, Joseph	Morrisonville	Dane	1898
Hanson, Clarence	Manitowoc	Manitowoc	1901
Hougsted, Ole	Glasgow	Trempealeau	1894
Haehnke, Ida	Random Lake	Sheboygan	1903
Hylleberg, Anton	Lake Geneva	Walworth	1903
Jacobs, Agnes	Kenosha	Kenosha	1894
Jones, Leta	Shiocton	Outagamie	1903
Kidd, Curtis	Spokeville	Clark	1896
Klamin, Kasmir	Lena	Oconto	1899
Klein, Charles	Waukesha	Waukesha	1895
Kramer, Louis	Eastman	Crawford	1899
Kollenbach, Mary	Prairie Farm	Barron	1901

Session Roll.

SESSION ROLL, SEPTEMBER, 1902—Continued.

Name.	Town.	County.	Admit'd.
Knutson, Carl	Pineville	Polk	1896
Kuschell, Charles	Aniwa	Shawano	1898
Knowles, Averil	Mattoon	Shawano	1900
Larson, Charles	Duerholm	Polk	1897
Long, Theresa	Chippewa Falls	Chippewa	1896
Larson, Rebecca	La Crosse	La Crosse	1899
Landsverk, Ludwig	Glenwood	St. Croix	1902
Linde, Harold	Beaver Dam	Dodge	1898
Luken, Carl	Blair	Trempealeau	1895
Munns, Bessie	Fennimore	Grant	1900
Marter, John	Oregon	Dane	1901
Matson, John	Dunbarton	Lafayette	1899
Miller, Guy	Manawa	Waupaca	1898
Mongon, Ellis	Milwaukee	Milwaukee	1902
Motelet, Ralph	Avoca	Iowa	1896
Moreau, Marie	Chippewa Falls	Chippewa	1898
Mules, Aldred	Oak Hill	Jefferson	1902
Murphy, Gertrude	Lost Creek	Pierce	1900
McGregor, Wilda	Post Lake	Langlade	1902
Murray, Joseph	Elk Grove	Lafayette	1902
Nelson, Mabel	Peshtigo	Marinette	1902
Nueske, Arthur	Wittenburg	Shawano	1902
Ostrander, Gertrude	Boscobel	Grant	1894
Parks, James	Fox Lake	Dodge	1899
Peterson, Amy	Tomah	Monroe	1901
Phillips, Silas	Clintonville	Waupaca	1894
Pleskatcheck, Nick	Milwaukee	Milwaukee	1899
Prideaux, Elmer	Dodgeville	Iowa	1899
Pudrzynski, Louis	Stevens Point	Portage	1900
Radlaff, Fay	Mt, Morris	Waushara	1901
Ramsour, Grace	Fennimore	Grant	1900
Ramsour, Belle	Fennimore	Grant	1900
Rasmus, Edward	Bloomer	Chippewa	1900
Rasmus, Herman	Bloomer	Chippewa	1896
Riemer, George	Beloit	Rock	1896
Reige, Herman	Waterloo	Racine	1900
Rockwood, Ruth	Milton	Rock	1898
Robinson, Evan	Berlin	Green Lake	1897
Rolfson, Emma	Tichigan	Racine	1895
Rolfson, Annie	Tichigan	Racine	1896
Rolfson, Elmer	Tichigan	Racine	1893
Roux, Rosilda	Rice Lake	Barron	1900
Rubin, George	Milton	Rock	1900
Reed, Belle	Boscobel	Grant	1901
Riemer, Albert	Beloit	Rock	1894

Wisconsin School for the Deaf.

SESSION ROLL, SEPTEMBER, 1902--Continued.

Name.	Town.	County.	Admit'd.
Stewart, Frank	Argyle	Lafayette	1897
Schaffer, Gustav	Kewaskum	Washington	1898
Sayles, Frank	Rockton	Vernon	1899
Schmidt, Dora	Sheboygan	Sheboygan	1895
Schmidt, Margaret	Glidden	Ashland	1900
Schoepski, Elizabeth	Sharon	Walworth	1897
Scroggie, Grace	River Falls	Pierce	1896
Scroggie, Jeanette	River Falls	Pierce	1896
Schoess, Lawrence	Nicholson	Waupaca	1894
Shattuck, Claude	Lafarge	Vernon	1902
Sodders, Gladys	Lodi	Columbia	1897
Sorrenson, Olaf	Merrill	Lincoln	1896
Sprague, James	Prairie du Sac	Sauk	1897
Sprague, George H	Milwaukee	Milwaukee	1902
Snider, Ethel	Appleton	Outagamie	1893
Stryker, Maud	Delavan	Walworth	1898
Suhr, Hubert	Hustisford	Dodge	1900
Sullivan, Dennis	Janesville	Rock	1893
Svacina, Edw	Dobie	Barron	1897
Schwartz, Amelia	Burnett Junction	Dodge	1900
Sturgulewski, Alice	Ashland	Ashland	
Tomlinson, Stanley	Waupun	Fond du Lac	1900
Taylor, Eunice	LaGrange	Walworth	1896
Trundeau, Archie	Saxon	Iron	1894
Thompson, Roy	Fennimore	Grant	1900
Thomas, Albert	Eastman	Crawford	1901
Thomas, Sadie	Eastman	Crawford	1901
Tyler, Edna	Aztalan	Jefferson	1894
Tyler, Florence	Aztalan	Jefferson	1900
Thompson, Josie	Viroqua	Vernon	1894
Uebel, Willie	Juneau	Dodge	1901
Van Horn, Walter	Mill's Center	Brown	1901
Van Ame, Francis	Beloit	Rock	1899
Vandenboom, Paul	Marinette	Marinette	1901
Vandenboom, Louis	Marinette	Marinette	1901
Wartzok, Emma	Leland	Sauk	1896
Wandersleben, Hilda	Plymouth	Sheboygan	1900
White, Addison	Verona	Dane	1897
Williams, Jennie	Delavan	Walworth	1895
Wood, Willie	Necedah	Juneau	1900
Wood, Daisy	Liberty	Vernon	1893
West, Roscoe	Elkhorn	Walworth	1903
Zuidmulder, Peter	Green Bay	Brown	1902
Zaubeck, George	Spruce	Oconto	1902

Session Roll.

FIFTY SECOND TERM, 1903-1904.

Alphabetical addition to be made to the session roll.

Name.	Town.	County.	Admit'd.
Blackman, Rubin	North Freedom	Sauk	1903
Bongey, Lester	Monroe	Green	1903
Bausch, Annie	Cassville	Grant	1903
Bachhuber, Willie	Mayville	Dodge	1903
Dzraldowski, Frank	Hurley	Iron	1903
Danoshofsky, Augusta	Muskego	Waukesha	1903
Danoshofsky, Emma	Muskego	Waukesha	1903
Danoshofsky, Lena	Muskego	Waukesha	1903
Darrow, Stanley	Reedsburg	Sauk	1903
Dickerman, May S.	East Troy	Walworth	1903
Erdahl, Clarence	Stoughton	Dane	1903
Guenther, Tillie	Chippewa Falls	Chippewa	1903
Gableman, John	Milwaukee	Milwaukee	1903
Hirte, Christian	Norwalk	Monroe	1903
Jones, Elsie	Mineral Point	Iowa	1903
Jones, John	Mineral Point	Iowa	1903
Jones, Margaret	Milton Junction	Rock	1903
Johnson, Annie,	Colfax	Dunn	1904
Meredith, Thos	Stoughton	Dane	1903
Marter, Frances	Oregon	Dane	1903
Nelson, Edith	Stockholm	Pepin	1903
Nichols, Iva	Eau Claire	Eau Claire	1903
Reidell, Charles	La Crosse	La Crosse	1903
Smith, Sibyl	Waukesha	Waukesha	1903
Smith, Beulah	Waukesha	Waukesha	1903
Siedschlag, Louis	Wilmont	Kenosha	1903
Sawyers, Mary J	Bayfield	Bayfield	1903
Shepherd, Rolla	Viola	Richland	1903
Sprague, Lottie	Milwaukee	Milwaukee	1903
Schroeder, Lydia	Peshtigo	Marinette	1903
Stone, Nellie	Augusta	Eau Claire	1903
Vanderhoof, Alice	Veefkind	Clark	1903
Weigand, Lawrence	Appleton	Outagamie	1903

Wisconsin School for the Deaf.

The following list contains the names of all the pupils of the State School (at Delavan) during the year 1903-1904.

Name of Pupil.	Postoffice.	Years of age.	No. years in-mate.
Adelman, Eldora	Juda, Green Co	15	7
Anderson, Alma	Baldwin, St. Croix Co	12	5
Anderson, Selma	Hudson, St. Croix Co	26	3
Asp, Melvin	Clayton, Polk Co	21	3
Bongey, Leon	Monroe, Green Co	10	3
Bongey, Lester	Monroe, Green Co	8	1
Blumer, Ernest	Lake Geneva, Walworth Co	15	8
Bluemel, Marthas	Glidden, Ashland Co	12	4
Broderick, Gwen	Brodhead, Green Co	16	7
Buchman, Marie	Hortonville, Outagamie Co	8	2
Buchman, Barbara	Hortonville, Outagamie Co	.....	.....
Bachhuber, Willie	Mayville, Dodge Co	9	1
Beck, Lizzie	Stevens Point, Portage Co	.....	.....
Berndt, Alvina	Allens Grove, Walworth Co	16	9
Blackman, Laura	North Freedom, Sauk Co	18	6
Blackman, Rubin	North Freedom, Sauk Co	11	1
Bulmer, Floyd	Rock Elm, Pierce Co	15	7
Baker, Clara	Monterey, Waukesha Co	20	10
Barlow, Leslie	Omro, Winnebago Co	15	7
Brault, Albert	Beaver, Marinette Co	19	10
Brekke, Gerhard	Mt. Horeb, Dane Co	14	6
Bystrom, Ella	Hager City, Pierce Co	20	4
Bengaard, Peter	Racine, Racine Co	12	4
Bausch, Annie	Cassville, Grant Co	6	1
Confer, John	Pardeeville, Columbia Co	15	4
Clark, Leone	Delavan, Walworth Co	10	3
Chapman, Willard	Troy Center, Walworth Co	13	5
Cloves, Louise	River Falls, Pierce Co	16	6
Capper, John	Mindora, La Crosse Co	14	2
Christiansen, Fred	Lena, Oconto Co	23	11
Collins, James	Menomonie, Dunn Co	24	10
Dzraldowski, Frank	Hurley, Iron Co	8	1
Danoshofsky, Augusta	Muskego, Waukesha Co	20	1
Danoshofsky, Emma	Muskego, Waukesha Co	23	1
Danoshofsky, Lena	Muskego, Waukesha Co	12	1
Darrow, Stanley	Reedsburg, Sauk Co	15	1
Davis, Leslie	Pardeeville, Columbia Co	15	4
Dahl, Carl	Hale, Trempealeau Co	18	4
Dickerman, May S	East Troy, Walworth Co	7	1

List of Pupils.

LIST OF PUPILS—Continued.

Name of Pupil.	Postoffice.	Years of age.	No. years in-mate.
Ehmke, Alma.	Saukville, Ozaukee Co	13	3
Erickson, Theodore	Collins, Manitowoc Co	12	3
Errard, George	Fond du Lac, Fond du Lac Co	19	11
Epstein, Jerry	Berlin, Green Lake Co	18	6
Erdahl, Clara	Stoughton, Dane Co	16	8
Erdahl, Earl	Stoughton, Dane Co	13	6
Erdahl, Clarence	Stoughton, Dane Co	7	1
Fleming, Carrie	Jefferson, Jefferson Co	14	7
Franck, Ella	Medford, Taylor Co	13	5
Foster, Ray	Luck, Polk Co	16	8
Fernquist, Eskil	Commonwealth, Florence Co	17	8
Finn, Rose	Oshkosh, Winnebago Co	16	3
Faber, Willie	Houghton, Mich., Houghton Co.	10	4
Feedler, Hubert	Tomah, Monroe Co	14	6
Gersdorf, Carrie	Medford, Taylor Co	14	6
Gersdorf, Annie	Medford, Taylor Co.	16	6
Greenheck, Henrietta	Bear Valley, Richland Co	14	5
Greenheck, Mary	Bear Valley, Richland Co	11	4
Garlock, Myrtle	Hebron, Jefferson Co	20	5
Genack, George	Prentice, Price Co	21	5
Guenther, Tillie	Chippewa Falls, Chippewa Co	12	1
Goetsch, Julius	Wausau, Marathon Co	14	2
Gosso, Willie	Darien, Walworth Co	16	8
Gallenberger, Willie	Kewaunee, Langlade Co	10	2
Gableman, John	Natl. Soldiers Home, Milwaukee	15	1
Hackett, Wilbur	Waukesha, Waukesha Co	11	4
Halliday, Eva	Milwaukee, Milwaukee Co	18	3
Huchthausen, Herbert	West Bend, Washington Co	13	3
Hallada, Charles	Ashland, Ashland Co	21	10
Hodge, Milo	Ft. Atkinson, Jefferson Co	18	7
Hook, Merle	Madison, Dane Co	12	4
Hamre, Joseph	Morrisonville, Dane Co	15	6
Hinterthuer, Earl	Neenah, Winnebago Co	9	2
Hahner, George	Kaukauna, Outagamie Co	25	8
Hahner, Willie	Kaukauna, Outagamie Co	19	3
Hopkins, Bernice	Delavan, Walworth Co	14	7
Hegge, Agnes	Westby, Vernon Co	15	3
Hansman, Harry	Thorp, Clark Co	13	4
Hanson, Clarence	Manitowoc, Manitowoc Co	19	3
Helminiak, Pelegia	Cassimer, Portage Co	14	4

Wisconsin School for the Deaf.

LIST OF PUPILS—Continued.

Name of Pupil.	Postoffice.	Years of age.	No. years in-mate.
Hirte, Gertrude	Norwalk, Monroe Co	12	4
Hirte, Emily	Norwalk, Monroe Co	15	7
Hirte, Christian	Norwalk, Monroe Co	7	1
Hanson, Helmer	Spring Valley, Pierce Co	17	8
Herman, Elizabeth	Tomahawk, Lincoln Co	.....	.....
Harter, Erwin	Birnamwood, Shawano Co	14	8
Hylleberg, Tony	Lake Geneva, Walworth Co	12	1
Huss, Willie	Little Chute, Outagamie Co	15	4
Herman, Oscar	Sheboygan, Sheboygan Co	.....	.....
Jones, Leta	Shiocton, Outagamie Co	16	1
Jones, Elsie	Mineral Point, Iowa Co	14	1
Jones, John	Mineral Point, Iowa Co	12	1
Jacobs, Agnes	Kenosha, Kenosha Co	18	10
Jones, Margaret	Milton Junction, Rock Co	14	1
Johnson, Annie	Colfax, Dunn Co	16	½
Kramer, Louis	Eastman, Crawford Co	34	4
Kidd, Curtis	Spencer, Marathon Co	18	8
Kollenbach, Mary	Dallas, Barron Co	10	3
Kuschell, Chas	Aniwa, Shawano Co	14	6
Knowles, Averil	Matoon, Shawano Co	12	4
Knutson, Carl	Pineville, Polk Co	20	8
Klaman, Kasmir	Lena, Oconto Co	12	5
Larson, Rebecca	La Crosse, La Crosse Co	28	5
Linde, Harold	Beaver Dam, Dodge Co	13	6
Long, Theresa	Chippewa Falls, Chippewa Co	18	8
Larson, Charles	Duerholm, Polk Co	17	7
Luken, Carl	Blair, Trempealeau Co	18	9
Landsverk, Ludwig	Glenwood, St. Croix Co	16	2
Loss, Walter	Brodhead, Green Co	20	3 da.
Murray, Joseph	Platteville, La Fayette Co	15	2
Mongon, Ellis	Milwaukee, Milwaukee Co	17	2
Maahs, Nona	Milwaukee, Milwaukee Co	13	6
Mules, Alfred	Palmyra, Jefferson Co	13	2
Matson, John	Cassville, La Fayette Co	15	5
Munns, Bessie	Fennimore, Grant Co	13	4
Miller, Guy	Manawa, Waupaca Co	15	6
Meredith, Thomas	Stoughton, Dane Co	7	1
Marter, Frances	Oregon; Dane Co	17	1
Marter, John	Madison, Dane Co	15	3
McGregor, Wilda	Post Lake, Langlade	11	2

List of Pupils.

LIST OF PUPILS—Continued.

Name of Pupil.	Postoffice.	Years of age.	No. years in- mate.
Nelson, Mabel	Peshtigo, Marinette Co	11	2
Nelson, Edith	Stockholm, Pepin Co	15	1
Nueske, Arthur	Wittenberg, Shawano Co	12	2
Nichols, Iva	Eau Claire, Eau Claire Co	11	1
Ostrander, Gertrude	Boscobel, Grant Co	22	11
Peterson, Amy	Tomah, Monroe Co	14	3
Pudrzynski, Louis	Beaver, Marinette Co	13	5
Prideaux, Elmer	Dodgeville, Iowa Co	13	5
Phillips, Claude	Pittsville, Wood Co	13	3
Phillips, Silas	Blair, Trempealeau Co	18	10
Roux, Rosilda	Rice Lake, Barron Co	19	4
Rasmus, Herman	Bloomer, Chippewa Co	15	3
Rasmus, Edward	Bloomer, Chippewa Co	10	4
Reidell, Chas	La Crosse, La Crosse Co	11	1
Ramsour, Grace	Fennimore, Grant Co	18	4
Ramsour, Belle	Fennimore, Grant Co	11	4
Reed, Belle	Boscobel, Grant Co	16	3
Riemer, George	Beloit, Rock Co	11	4
Radlaff, Fay	Mt. Morris, Waushara	15	2
Rubin, George	Lima Center, Rock Co	11	4
Robinson, Evan	Berlin, Green Lake Co	18	4
Riege, Herman	Waterloo, Jefferson Co	14	4
Rolfson, Elmer	Waterford, Racine Co	24	11
Rolfson, Emma	Waterford, Racine Co	22	10
Rolfson, Annie	Waterford, Racine Co	20	10
Rockwood, Ruth	Milton, Rock Co	14	6
Suhr, Hubert	Hustisford, Dodge Co	14	3
Smith, Sibyl	Waukesha, Waukesha Co	7	1
Smith, Beulah	Waukesha, Waukesha Co	9	1
Siedschlag, Louis	Wilmont, Kenosha Co	11	1
Sawyers, Mary J	Bayfield, Bayfield Co	18	1
Schoess, Lawrence	Nicholson, Waupaca	17	10
Schmidt, Margaret	Glidden, Ashland Co	11	4
Schmidt, Dora	Sheboygan, Sheboygan Co	50	9
Shepherd, Rolla	Viola, Richland Co	12	1
Sullivan, Dennis	Janesville, Rock Co	22	11
Stewart, Frank	Argyle, LaFayette Co	16	7
Sprague, James	Prairie du Sac, Sauk Co	15	7
Sprague, George	Milwaukee, Milwaukee Co	20	2
Sprague, Lottie	Milwaukee, Milwaukee Co	17	1

Wisconsin School for the Deaf.

LIST OF PUPILS—Continued.

Name of Pupil.	Postoffice.	Years of age.	No. years in-mate.
Schwartz, Amelia	Burnett Jct., Dodge Co	13	4
Schroeder, Lydia	Peshtigo, Marinette Co	14	1
Snider, Ethel	Appleton, Outagamie Co	22	11
Scroggie, Jennette	River Falls, Pierce Co	18	8
Scroggie, Grace	River Falls, Pierce Co	15	8
Stone, Nellie	Augusta, Eau Claire Co	11	1
Shattuck, Claude	LaFarge, Vernon Co	15	2
Svacina, Edward	Dobie, Barron Co	15	7
Stryker, Maude	Delavan, Walworth C.o	17	7
Sayles, Frank	Rockton, Vernon Co	15	4
Schoepski, Elizabeth	Sharon, Walworth Co	20	7
Sturgulewski, Alice	Ashland, Ashland Co	13	2
Sodders, Gladys	Delavan, Walworth Co	12	7
Sorrenson, Ole	Merrill, Lincoln C o	17	8
Schaffer, Gustav	Kewaskum, Washington Co	18	6
Trudeau, Arthur	Saxon, Iron Co	20	10
Thomas, Albert	Eastman, Crawford Co	11	3
Thomas, Sadie	Eastman, Crawford Co	9	3
Thompson, Roy	Fennimore, Grant Co	16	4
Thompson, Josie	Viroqua, Vernon Co	19	10
Tyler, Edna	Jefferson, Jefferson Co	21	10
Tyler, Florence	Jefferson, Jefferson Co	12	4
Taylor, Eunice	LaGrange, Walworth Co	25	7
Tomlinson, Stanley	Waupun, Fond du Lac Co	10	4
Ubel, Willie	Juneau, Dodge Co	19	3
Van Horn, Walter	Mills Center, Barron Co	11	3
Vanderhoof, Alice	Veefkind, Clark Co	15	1
Vandenboom, Paul	Marinette, Marinette Co	16	3
Vandenboom, Louis	Marinette, Marinette Co	14	3
Wandersleben, Hilda	Plymouth, Sheboygan	16	4
Wood, Daisy	Liberty, Vernon	21	11
Wilson, Mida	Racine, Racine	15	8
Wartzok, Emma	Leland, Sauk	14	7
White, Addison	Madison, Dane	15	7
West, Roscoe	Elkhorn, Walworth	14	1
Wiegand, Lawrence	Appleton, Outagamie	9	1
Williams, Jennie	Delavan, Walworth	19	9
Wood, Willie	Necedah, Juneau	15	4
Zaubeck, George	Spruce, Oconto	21	2

County Representation.

COUNTY REPRESENTATION.

By attendance of pupils, June 30, 1901.

Ashland—Martha Bluemel, Glidden; Chas. Hallada, Ashland; Margaret Schmidt, Glidden; Alice Sturgulewski, Ashland.

Barron—Mary Kollenbach, Dallas; Rosilda Roux, Rice Lake; Edw. Svacina, Dobie; Walter Van Horn, Mill's Center.

Bayfield—Mary J. Sawyers, Bayfield.

Columbia—John Confer, Pardeeville; Leslie Davis, Pardeeville.

Chippewa—Tillie Guenther, Chippewa Falls; Theresa Long, Chippewa Falls; Herman Rasmus, Bloomer; Edward Rasmus Bloomer.

Clark—Harry Hansman, Thorp; Alice Vanderhoof, Veefkind.

Crawford—Louis Kramer, Eastman; Albert Thomas, Eastman; Sadie Thomas, Eastman.

Dodge—Willie Bachhuber, Mayville; Harold Linde, Beaver Dam; Hubert Suhr, Hustisford; Amelia Schwartz, Burnett Junction; Willie Uebel, Juneau.

Dane—Gerhard Brekke, Mt. Horeb; Clara Erdahl, Stoughton; Earl Erdahl, Stoughton; Clarence Erdahl, Stoughton; Merle Hook, Madison; Joseph Hamre, Morrisonville; Thos. Meredith, Stoughton; Frances Marter, Oregon; John Marter, Madison; Addison White, Madison.

Dunn—James Collins, Menomonie; Annie Johnson, Colfax.

Eau Claire—Iva Nichols, Eau Claire; Nellie Stone, Augusta.

Florence—Eskil Fernquist, Commonwealth.

Fond du Lac—Geo. Errard, Fond du Lac; Stanley Tomlinson, Waupun.

Green—Eldora Adleman, Juda; Leon Bongey, Monroe; Lester Bongey, Monroe; Gwen Broderick, Brodhead; Walter Loss, Brodhead.

Grant—Annie Bausch, Cassville; Bessie Munns, Fennimore; Grace Ramsour, Fennimore; Belle Ramsour, Fennimore; Belle Reed, Boscobel; Roy Thompson, Fennimore; Gertrude Ostrander, Boscobel.

Green Lake—Jerry Epstein, Berlin; Eva Robinson, Berlin.

Iowa—Elsie Jones, Mineral Point; John Jones Mineral Point; Elmer Prideaux, Dodgeville.

Iron—Frank Dzraldowski, Hurley; Arthur Trudeau, Saxon.

Jeffierson—Carrie Fleming, Jefferson; Myrtle Garlock, Hebron; Milo Hodge, Ft. Atkinson; Aldred Mules, Palmyra; Herman Riege, Waterloo; Edna Tyler, Jefferson; Florence Tyler, Jefferson.

Juneau—Willie Wood, Necedah.

Kenosha—Agnes Jacobs, Kenosha; Louis Siedschlag, Wilmot.

Wisconsin School for the Deaf.

La Crosse—John Capper, Mindoro; Rebecca Larson, La Crosse; Chas; Riedell, La Crosse.

Langlade—Wm. Gallenberger, Kewaunee; Wilda McGregor, Post Lake.

Lincoln—Elizabeth Herman, Tomahawk; Olaf Sorrenson, Merrill.

LaFayette—Joseph Murray, Platteville; John Matson, Cassvile; Frank stewart, Argyle.

Marathon—Julius Goetsch, Wausau; Curtis Kidd, Spencer.

Milwaukee—John J. Gableman, Milwaukee; Eva Halliday, Milwaukee; Ellis Mongon, Milwaukee; Mona Maahs, Milwaukee; Georgie Sprague, Milwaukee; Lottie Sprague, Milwaukee.

Manitowoc—Theodore Erickson, Collins; Clarence Hanson, Manitowoc.

Monroe—Hubert Feedler, Tomah; Gertrude Hirte, Norwalk; Emily Hirte, Norwalk; Christian Hirte, Norwalk; Amy Peterson, Tomah.

Marinette—Albert Brault, Beaver; Mabel Nelson, Peshtigo; Louis Pudrzynski, Beaver; Lydia Schroeder, Peshtigo; Paul Vandenboom, Marinette; Louis Vandenboom, Marinette.

Outagamie—Marie Buchman, Hortonville; Barbara Buchman, Hortonville; George Hahner, Kaukauna; Willie Hahner, Kaukauna; Willie Huss, Little Chute; Leta Jones, Shiocton; Ethel Snider, Appleton; Lawrence Weigand, Appleton.

Oconto—Fred Christiansen, Lena; Kasmir Klaman, Lena; George Zaubeck, Spruce.

Ozaukee—Alma Ehmke, Saukville.

Pepin—Edith Nelson, Stockholm.

Price—George Genack, Prentice.

Pierce—Floyd Bulmer, Rock Elm; Ella Bystrom, Hager City; Louise Clobes, River Falls; Helmer Hanson, Spring Valley; Jeanette Scroggie, River Falls; Grace Scroggie, River Falls.

Portage—Lixzie Beck, Stevens Point; Pelegia Helminiak, Cassimer

**Richland—Henrietta Greenheck, Bear Valley; Mary Greenheck, Bear Valley; Rolla Shepherd, Viola.

Polk—Melvin Asp, Clayton; Ray Foster, Luck; Carl Knutson, Pineville; Charles Larson, Duerholm.

Racine—Peter Bengaard, Racine; Elmer Rolfson, Waterford; Emma Rolfson, Waterford; Anna Rolfson, Waterford; Mida Wilson, Racine.

**Rock—Margaret Jones, Milton Jnnction; George Reimer, Beloit; George Rubin, Lima Center; Ruth Rockwood, Milton; Dennis Sullivan, Janesville.

Shawano—Erwin Harter, Birnamwood; Charles Kuschell, Aniwa; Averil Knowles, Mattoon; Arthur Nueske, Wittenburg.

County Representation.

Sheboygan--Oscar Herman, Sheboygan; Dora Schmidt, Sheboygan; Hilda Wandersleben, Plymouth.

Sauk--Laura Blackman, North Freedom; Rubin Blackman, North Freedom; Stanley Darrow, Reedsburg; James Sprague, Prairie du Sac; Emma Wartzok. Leland.

St. Croix--Alma Anderson, Baldwin; Selma Anderson, Hudson; Ludwig Landsverk, Glenwood.

Trempealeau--Carl Dahl, Hale; Carl Luken, Blair; Silas Phillips, Blair

Taylor--Ella Franck, Medford; Carrie Gersdorf, Medford; Anna Gersdorf, Medford.

Vernon--Agnes Hegge Westby; Claude Shattuck, LaFarge; Frank Sayles, Rockton; Josie Thompson, Viroqua; Daisy Wood, Liberty.

Wood--Claude Phillips, Pittsville.

Waushara--Fay Radlaff, Mt. Morris.

Waupaca--Guy Miller, Manawa; Lawrence Schoess, Nicholson.

Washington--Herbert Hutchausen, West Bend; Gustav Schaffer, Kewaskum.

Winnebago--Leslie Barlow, Omro; Rose Finn, Oshkosh; Earl Hinterthuer, Neenah.

Waukesha--Clara Baker, Monterey; Augusta Danoshofsky, Muskego; Emma Danoshofsky, Muskego; Lena Danoshofsky, Muskego; Wilbur Hackett, Waukesha; Sibyl Smith, Waukesha; Beulah Smith, Waukesha.

Walworth--Ernest Blumer, Lake Geneva; Alvina Berndt, Allens Grove; Leona Clark, Delavan; Willard Chapman, Troy Center; May S. Dickerman, East Troy; Willie Gosso, Darien; Bernice Hopkins, Delavan. Tony Hylleberg, Lake Geneva; Maude Stryker, Delavan; Elizabeth Schoepski, Sharon; Gladys Sodders, Delavan; Eunice Taylor, La Grange; Roscoe West, Elkhorn; Jennie Williams, Delavan.

Wisconsin School for the Deaf.

PAY ROLL FOR JUNE, 1904.

Name.	When first employed.	Per month.	Occupation.	Employed from.
E. W. Walker[1]	Sept., 1902	$166 66⅔	Supt. and steward.	Superior, Wis.
E. D. Fiske[1]	June, 1899	50 00	Asst. steward	Darien, Wis.
Mrs. E. W. Walker[1]	Sept., 1902	41 66⅔	Matron	Superior, Wis.
Pearl Lathrop[2]	Feb., 1904	25 00	Stenographer	Delavan, Wis.
Tillie Cannon[1]	June, 1878	30 00	Asst. matron	Darien, Wis.
W. M. Stillman[1]	Mar., 1882	60 00	Engineer	Minnetonka, Minn.
John Moore[5]	Sept., 1892	47 50	Engineer, asst	Delavan, Wis.
Henry Nittle[1]	Aug., 1900	30 00	Barn man	Delavan, Wis.
J. W. Hemingway[1]	Sept., 1903	40 00	Boys' supervisor	Hanover, Wis.
Ralph M. Fiske[1]	Mar., 1904	35 00	Watchman	Darien, Wis.
F. C. Larson[4]	Sept., 1895	60 00	Printer	Delavan, Wis.
H. A. Congdon[4]	Sept., 1903	60 00	Carpenter	Delavan, Wis.
John Beamsley[4]	Sept., 1881	50 00	Shoemaker	Delavan, Wis.
G. W. Kirk[5]	Sept., 1896	50 00	Baker	Delavan, Wis.
H. W. Utley[3]	Sept., 1900	5 00	Butcher	Delavan, Wis.
Wm. Dunham[1]	May, 1903	20 00	Laborer	Delavan, Wis.
Mary Jung[1]	Mar., 1897	20 00	Officers' cook	Delavan, Wis.
Anna Bale[1]	Sept., 1903	18 00	Pupils' cook	Madison, Wis.
Susie Dutzenrod[1]	May, 1904	18 00	Supt's cook	Allen's Grove, Wis.
Della Mason[1]	Sept., 1903	18 00	Boys' nurse	Whitewater, Wis.
Anna Einlof[1]	Nov., 1900	17 00	Ironer	Chilton, Wis.
Emma Mason[1]	Sept., 1903	15 00	Laundress	Whitewater, Wis.
Mary Creney[1]	Jan , 1904	14 00	Laundress	Westfield, Wis.
Mamie Rugg[1]	Jan., 1904	14 00	Chamber maid	Hebron, Ill.
Emma Reisenberg[1]	May, 1904	14 00	Chamber maid	Richmond, Wis.
Maude Murray[1]	Nov., 1903	14 00	Waiter	Kilbourn, Wis.
Eliza Brickley[1]	Sept., 1903	14 00	Waiter	New Richmond, Wis
J. C. Eckert[4]	June, 1904	60 00	Carpenter	Delavan, Wis.

[1]With board. [2]Dinner only. [3]No board or meals. [4]Without board. [5]Board without lodging (except Sundays no board).

Statistical Tables.

NAMES ON PAY ROLL JUNE 30, 1904.

Name.	When first employed.	Per month.	Occupation.	Employed from.
W. A. Cochrane*.....	Sept.1867	$110 00	Teacher.....	Beloit, Wis.
L. L. Jones*.....	Sept.1903	50 00	Teacher.....	Delavan, Wis.
W. F. Gray*.....	Sept.1887	100 00	Teacher.....	Oregon, Wis.
Seth W. Gregory*.....	Sept.1894	95 00	Teacher.....	Gallaudet Col. D. C., Home in Beloit.
Warren Robinson*.....	Sept.1884	95 00	Teacher.....	Moscow, Wis.
Paul Lange*.....	Oct 1901	95 00	Teacher.....	Evansville, Ind.
Thos. Hagerty†.....	Dec. 1891	80 00	Teacher.....	Manitowoc Wis.
J. J. Murphy*.....	Nov. 1883	75 00	Teacher.....	Oshkosh, Wis.
A. I. Hobart‡.....	Sept.1884	70 00	Teacher.....	Janesville, Wis.
Elsie M. Steinke‡.....	Sept.1887	65 00	Teacher.....	Horicon, Wis.
Lillian Sorrenson‡....	Sept.1893	65 00	Teacher.....	Kilbourn, Wis.
M. D. Fonner‡.....	Apr. 1897	65 00	Teacher.....	Chicago, Ill.
Dora P. Hendricl.son‡.	Sept.1901	65 00	Teacher.....	Manitowoc, Wis.
Alice T. Coburn‡.....	Sept.1901	65 00	Teacher.....	Chicago, Ill.
Elizabeth Rhodes‡.....	Sept.1903	60 00	Teacher.....	Norrie, Wis.
Gussie Greener‡.....	Sept.1903	60 00	Teacher.....	Rhinelander, Wis.
Delia D. Rice†.....	Sept.1903	40 00	Teacher.....	Columbus, Ohio.
Mary Williams‡.....	Sept.1900	50 00	Teacher.....	Delavan, Wis.
Matie Winston‡.....	Sept.1901	45 00	Teacher.....	Delavan, Wis.
Clara Henderson‡.....	Sept.1897	45 00	Teacher.....	Delavan, Wis.
Edith Fitzgerald†.....	Sept.1903	25 00	Teacher.....	Quincy, Ill.
Katharine Williams†..	Sept.1903	20 00	Teacher.....	Delavan, Wis.
Julia Carney†.....	Sept 1899	20 00	Teacher.....	Russell, Ill.

* Without board. † With board. ‡ With dinner only.

Wisconsin School for the Deaf.

STATEMENT OF

At the Wisconsin School for the Deaf

Classification.	Inventory June 30, 1902.	Paid on this acc't during the year.	Transferr'd to this account during the year.	Total.
Amusement and means of instruction	$1,594 89	$592 34	$30 75	$2,217 98
Barn, farm and garden	1,008 65	1,073 00	36 00	2,117 65
Clothing and expense of pupils	277 35	235 23	91 61	601 24
Discount	.....	1 05	.....	1 05
Drug and medical dept	19 00	467 42	.....	486 42
Engine and boilers	8,135 05	145 51	.....	8,280 56
Freight and express	.....	3 13	.....	3 13
Fire apparatus	434 38	55	.....	434 93
Fire and boiler insurance	.....	5 85	.....	5 85
Fuel	697 00	3,835 78	.....	4,532 78
Furniture	5,450 54	31 21	.....	5,481 75
Gas and other lights	2,507 07	206 25	.....	2,713 32
House furnishing	6,226 90	623 04	.....	6,849 94
Laundry	874 05	86 48	31 65	992 18
Library	1,887 75	100 26	.....	1,988 01
Machinery and tools	2,025 08	25 55	77 00	2,127 63
Miscellaneous	542 50	273 13	.....	815 63
Officers' expenses	.....	223 86	.....	223 86
Printing office	1,273 24	108 25	560 00	1,941 49
Printing, postage, stationery and telegrams	193 68	204 58	23 50	421 76
Real estate, includ'g buildings, etc	127,609 67	.....	115 00	127,724 67
Repairs and renewals	1,513 96	1,421 20	.....	2,935 16
Shoe shop	605 30	442 85	500 00	1,548 15
Subsistence	255 03	7,991 19	664 76	8,910 98
Wages and salaries	.....	24,108 42	.....	24,108 42
Total	$163,131 09	$42,206 18	$2,130 27	$207,467 54
Less discount, etc	.....	63 88	.....	166,602 00
Deducted by Secretary of State for printing	.....	$42,142 30 10 00	.....	$40,865 54 .....
Net expenses	.....	$42,152 30	.....	.....

Statistical Tables.

CURRENT EXPENSES

for the year ending June 30, 1903.

Inventory June 30, 1903.	Cash receiv'd on this acc't during the year.	Transferred from this account during the year.	Total.	Gained.	Expend'd.
$2,094 13	$8 80	.....	$2,102 93	.....	$115 05
1,046 55	562 60	$547 90	2,157 05	$39 40	.....
201 20	77 89	.....	279 09	.....	325 15
.....	.....	63 88	63 88	62 83	.....
19 00	.....	.....	19 00	.....	467 42
8,157 75	.....	.....	8,157 75	.....	122 81
.....	.....	.....	.....	.....	3 13
348 40	.....	.....	348 40	.....	86 53
.....	.....	.....	.....	.....	5 85
703 00	9 25	.....	712 25	.....	3,820 53
5,464 25	.....	.....	5,464 25	.....	17 50
2,528 05	.....	.....	2,528 05	.....	185 27
5,995 62	15 03	.....	6,010 65	.....	839 29
857 34	.....	.....	857 34	.....	134 84
1,981 50	.....	.....	1,981 50	.....	6 51
2,096 62	.....	.....	2,096 62	.....	31 01
498 80	.....	116 86	615 36	.....	200 27
.....	.....	.....	.....	.....	223 86
1,277 84	36 65	54 25	1,368 74	.....	572 75
196 05	27 77	.....	223 82	.....	197 94
127,724 67	.....	.....	127,724 67	.....	.....
1,469 32	48 06	.....	1,517 38	.....	1,417 78
480 56	361 98	91 61	934 15	.....	614 00
299 01	1 62	67 65	368 28	.....	8,542 70
.....	10 84	1,060 00	1,070 84	.....	23,037 58
$163,439 36	$1,160 49	$2,002 15	$166,602 00	$102 23	$40,967 77
.....	.....	.....	.....	.....	102 23
					$40,865 54
.....	.....	.....	.....	.....	10 00
.....	.....	.....	.....	.....	$40,875 54

Wisconsin School for the Deaf.

STATEMENT OF

At the Wisconsin School for the Deaf

Classification.	Inventory June 30, 1903.	Paid on this acc't during the year.	Transferr'd to this account during the year.	Total.
Amusement and means of instruction	$2,094 13	$892 20	$126 75	$3,113 08
Barn, farm and garden	1,046 55	1,322 85	40 00	2,409 40
Clothing and expense of pupils	201 20	272 18	112 50	585 88
Discount	.....	3 01	.....	3 01
Drug and medical department	19 00	555 41	.....	574 41
Engine and boilers	8,157 75	131 05	.....	8,288 80
Freight and express	.....	4 30	.....	4 30
Fire apparatus	348 40	81 66	.....	430 06
Fire and boiler insurance	.....	54 00	.....	54 00
Fuel	703 00	4,463 94	.....	5,166 94
Furniture	5,464 25	740 53	82 75	6,287 53
Gas and other lights	2,528 05	343 71	2,907 72	5,779 48
House furnishing	5,995 62	1,370 19	.....	7,365 81
Laundry	857 34	155 68	30 55	1,043 57
Library	1,981 50	104 38	.....	2,085 88
Machinery and tools	2,096 62	203 46	.....	2,300 08
Miscellaneous	498 50	416 59	.....	915 09
Officer's expenses	.....	224 81	.....	224 81
Printing office	1,277 84	298 83	1,800 00	3,376 67
Printing, postage, stationery and telegrams	196 05	270 56	49 25	515 86
Real estate, including buildings, etc.	127,724 67	.....	1,013 03	128,737 70
Repairs and renewals	1,469 32	3,037 76	.....	4,507 08
Shoe shop	480 56	504 60	512 00	1,497 16
Subsistence	299 01	9,100 23	724 45	10,123 69
Wages and salaries	.....	26,554 04	.....	26,554 04
Total	$163,439 36	$51,105 97	$7,399 00	$221,944 33
Less discount	.....	91 82	.....	172,384 25
Add amount deducted by Secretary of State for printing	8 48	$51,014 15	.....	$49,560 08
Insurance	187 36	195 84	.....	.....
Net expenses	.....	$51,209 99	.....	.....

Statistical Tables.

CURRENT EXPENSES

for the year ending June 30, 1904.

Inventory June 30, 1904.	Cash receiv'd on this account during the year.	Transferred from this account during year.	Total.	Gained.	Expended.
$2,089 31	$9 25	.....	$2,098 56	.....	$1,014 52
1,262 80	431 08	$724 45	2,418 33	$8 93	.....
179 80	69 79	.....	249 59	.....	336 29
.....	.....	91 82	91 82	88 81	.....
19 00	.....	.....	19 00	.....	555 41
8,084 10	.....	.....	8,084 10	.....	204 70
.....	.....	.....	.....	.....	4 30
367 90	.....	.....	367 90	.....	62 16
.....	9 10	.....	9 10	.....	44 90
276 50	.....	800 00	1,076 50	.....	4,090 44
5,481 05	5 00	.....	5,486 05	.....	801 48
4,570 18	.....	.....	4,570 18	.....	1,209 30
5,884 71	12 20	.....	5,896 91	.....	1,468 90
856 70	10 11	.....	866 81	.....	176 76
1,981 50	.....	.....	1,981 50	.....	104 38
2,131 00	1 00	.....	2,132 00	.....	168 08
473 80	.....	.....	473 80	.....	441 29
.....	.....	.....	.....	.....	224 81
2,347 19	51 00	176 00	2,574 19	.....	802 48
224 80	.....	.....	224 80	.....	291 06
128,737 70	.....	.....	128,737 70	.....	.....
1,563 53	90 36	1,026 95	2,680 84	.....	1,826 24
470 09	300 95	112 50	883 54	.....	613 62
270 99	74	66 55	338 28	.....	9,785 41
.....	22 75	1,100 00	1,122 75	.....	25,431 29
$167,272 65	$1,013 33	$4,098 27	$172,384 25	$97 74	$49,657 82
.....	.....	.....	.....	.....	97 74
.....	.....	.....	.....	.....	$49,560 08
.....	.....	.....	.....	.....	195 84
.....	.....	.....	.....	.....	$49,755 92

Wisconsin School for the Deaf.

STATEMENT OF CURRENT EXPENSE FUND, 1903.

1902.				
July 1	Balance			$24,443 96
1903.				
May 6	Appropriation, chap. 163, 1903			95,000 00
June 30	Stewart for sundries			1,160 49
June 30	Paid on account of current expenses this year		$42,152 30	
June 30	Balance appropriation in state treasury	$78,256 13		
June 30	Balance in hands of steward	196 02	78,452 15	
			$120,604 45	$120,604 45

STATEMENT OF CURRENT EXPENSE FUND, 1904.

1903.				
July 1	Balance			$78,452 15
1904				
June 30	Steward for sundries			1,013 33
June 30	Paid on account of current expenses this year		$51,209 99	
June 30	Balance appropriation in state treasury	$28,085 52		
June 30	Balance in hands of steward	169 97	28,255 49	
			$79,465 48	$79,465 48

Statistical Tables.

STATEMENT OF MONEYS RECEIVED.

Classification.	1903.	1904.
Amusements and means of instruction	$8 80	$9 25
Barn, farm and garden	562 60	431 08
Clothing and expense of pupils	77 89	69 79
Fire and boiler insurance	.....	9 10
Fuel	9 25	.....
Furniture	.....	5 00
House furnishing	15 03	12 20
Laundry	.....	10 11
Printing office	36 65	51 00
Machinery and tools	.....	1 00
Printing, postage, stationery and tel	27 77	.....
Repairs and renewals	48 06	90 36
Shoe shop	361 98	300 95
Subsistence	1 62	74
Wages and salaries	10 84	22 75
	$1,160 49	$1,013 33

MONEY RECEIVED.

Cash taken from pupils for safe keeping.

On hand July 1, 1902	$313 05
Received during biennial period	2,494 30
Total	$2,807 35
Returned to pupils or their representatives	2 494 79
Balance in hand of steward, June 30, 1904	$312 56

WISCONSIN SCHOOL FOR THE BLIND.

ELEVENTH BIENNIAL REPORT

OF THE

Wisconsin School for the Blind

FOR THE

TWO YEARS ENDING JUNE 30, 1904.

OFFICERS AND TEACHERS.

OFFICERS.

CLYDE R. SHOWALTER ..... *Superintendent and Steward*
ELIZABETH J. CURTIS ..... *General Matron*
FRANCIS E. RYAN ..... *Assistant Steward*
ELEANOR PARKS ..... *Assistant Matron*
A. J. HOLMES ..... *Engineer*

TEACHERS.

S. AUGUSTA WATSON ..... *Literary Department*
FRANCES H. BENSON ..... *Literary Department*
F. P. ROETS ..... *Literary Department*
HELEN L. TUTTLE ..... *Literary Department*
LAVERN BROOKS ..... *Literary Department*

Musical Department.

JOANNA JONES ..... *Piano*
LAURA ENGLESON ..... *Piano*
ELSBETH KORRER ..... *Vocal*
R. J. HARVEY ..... *Tuning*

M. ADA TURNER ..... *Physical Culture*
EVA C. HEHN ..... *Domestic Science*
ELIZABETH McGRATH ..... *Kindergarten*

F. R. FROELICH ..... *Manual Training*
JOSEPH O. PRESTON ..... *Manual Training*
H. G. ARNOLD ..... *Manual Training*

SUPERINTENDENT'S REPORT.

State Board of Control.

GENTLEMEN—I have the honor to submit to you the report of the Wisconsin State School for the Blind for the biennial term ending June 30, 1904. During this period I have been superintendent for eighteen months. Mr. A. J. Hutton, now superintendent of the Industrial School for Boys at Waukesha, was in charge until January 1, 1903.

No material change in the policy and work of the school was caused by the change in the superintendency. Mr. Hutton's ideas of the scope and purpose of instruction and discipline in schools for the blind are in accord with the thought and experience of the most successful instructors of blind in the country, and it has been my pleasure to continue the work with only slight changes in method or purpose.

ENROLLMENT.

Year 1902–1903.

Males	60
Females	45
Total	105

Year 1903–1904.

Males	62
Females	43
Total	105

Although the total population of the school is smaller than in former years, the number of pupils of school age is practically the same. The reduction is due to the policy of not

admitting adults to the school and of not encouraging pupils to tarry long after they have reached the age of twenty-one years. The establishment in Milwaukee of the workshop for adult blind should allow the enforcement of this policy in the future with fewer exceptions than have seemed wise in the last two years. For the year just closed there were fifteen persons enrolled who were over twenty years of age. For the last year of the period covered by the preceding biennial report, the enrollment of pupils over twenty years of age was thirty-two.

PURPOSE OF THE SCHOOL.

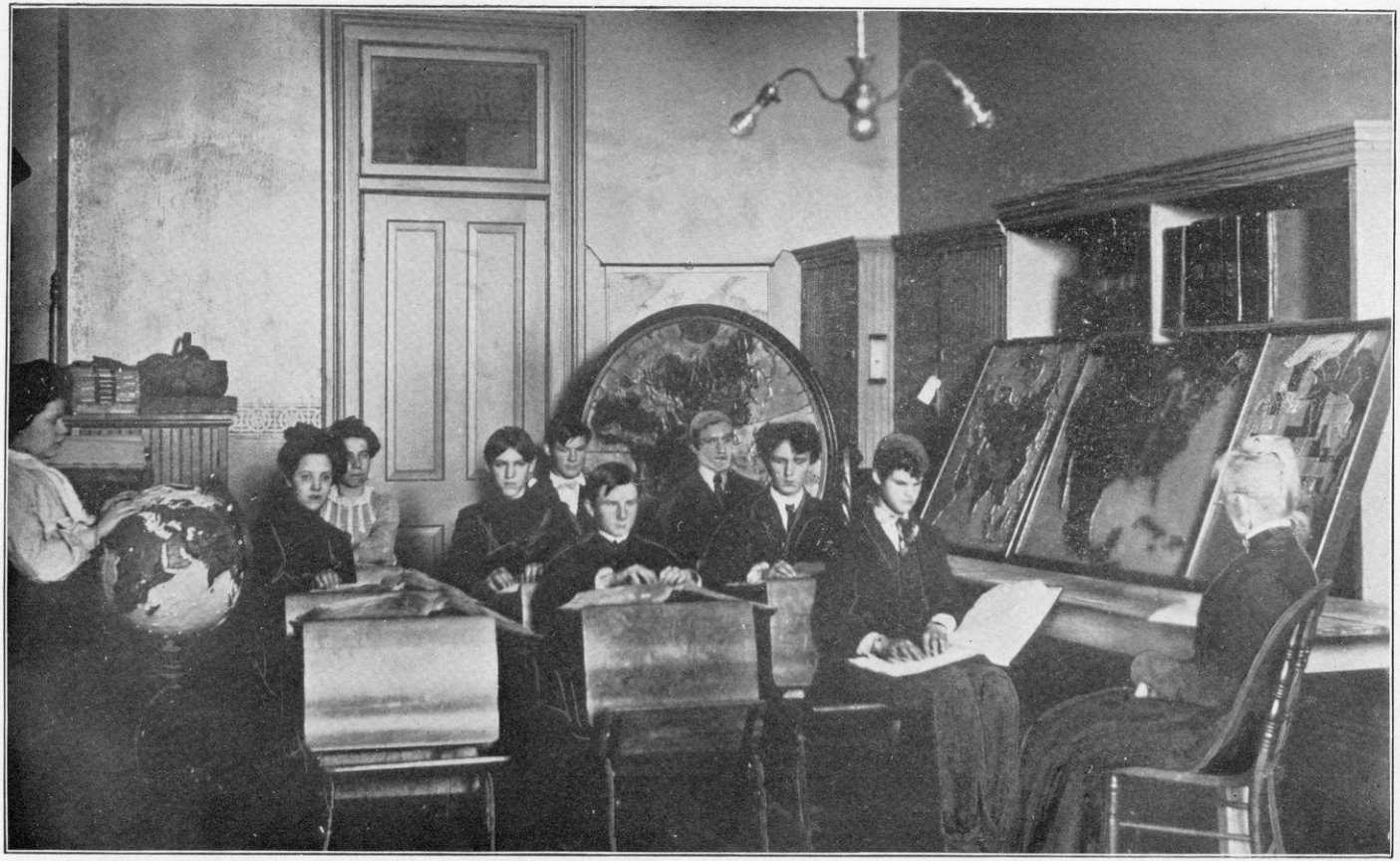
The purpose of the school as expressed in statute law is "To afford to that unfortunate class, so far as possible, enlightened and practical education which may aid them to obtain the means of subsistence, discharge the duties of citizens, and secure all the happiness which they are capable of attaining."

To attain this purpose three lines of study and work are pursued in the school—literary, musical and industrial.

LITERARY DEPARTMENT.

In the literary department the work is fairly equivalent to that of the common schools and high schools (English course) for seeing children in this state. All pupils "of suitable age and capacity" are required to pursue this course. Blind children make almost, if not quite, as rapid progress in their studies as do their seeing brothers and sisters in the common schools. Methods of instruction are not just like those in the ordinary public schools. Reading is done with the fingers from books printed in New York Point or Braille—that is books in which letters are groups of raised points to be interpreted by the sense of touch just as the seeing pupils interpret ordinary print through the sense of vision. Point writing which is done with a stylus on heavy paper held in a slate specially devised for the purpose takes the place of pencil and pen writing in public schools.

READING LESSON.



GEOGRAPHY CLASS.

The sense of sight is the great educating sense. It leads directly to the intellect. Most persons think in visual images. The blind lack sight and the multitude of visual impressions which continually impress the mind. They must have a training which so far as possible will make up this deficiency. Their thought images are auditory, motor and tactual. Through the other senses and the imagination facts must be acquired laboriously, which the seeing child gets without effort. But there are compensations. The extra labor, attention and effort required give powers of application, memory, and concentration that yield large and quick returns in other lines.

MUSICAL DEPARTMENT.

Probably in no other way is happiness secured to our pupils in greater degree than through musical training and culture. Music has a large place in this school. Every student is required to undertake work in music and the majority pursue the subject in some department throughout their attendance at school. Besides singing at general exercises, the vocal teacher conducts chorus classes daily and gives individual instruction to pupils having special ability and interest. A first class orchestra is maintained which meets daily in charge of a competent leader. Individual lessons on the violin, horns, and other orchestral instruments are part of the work. During the past two years a number of successful concerts have been given in different cities by four or five young men of the school.

More than half of the pupils receive regular instruction on the piano and a few take lessons on the pipe organ. The musical education which our pupils receive has an intellectual, an esthetic, and a moral value all contributory to usefulness and happiness. But it has also in many cases a practical commercial value. Not a few of our former pupils are wholly or in part supporting themselves by their music.

Wisconsin School for the Blind.

INDUSTRIAL.

The industrial work of the school is of two kinds; that which is given for its training—its educational value, and that which is given as a trade to be used in earning money. During the term covered by this report, we have emphasized manual training for its educational value. One year ago a manual training department distinct from trades was established and a competent teacher put in charge. Knife work, bench work, and lathe work have been done and the results are highly satisfactory. Manual training is recognized as desirable in every school. In a school for the blind it is well nigh indispensable. Thus far only boys have been taken into the department. We are planning in the future to try the experiment of giving girls a limited course.

TRADES.

Young men of the school who have the ability are taught piano tuning. No other industry offers better opportunity for blind men than does this one. No machine has yet been invented that can tune pianos, and until one is invented, the blind man can successfully meet the competition of seeing men.

Besides piano tuning we teach hammock and net making, chair caning, mattress making, broom making, and carpet and rug weaving. Blind pupils become experts in all these trades and are able to make money in them after leaving school. It is the purpose of the school to introduce basketry next year and thus co-operate with the new workshop for adult blind in Milwaukee.

Girls learn knitting, sewing, crocheting, weaving and cooking. The ability and skill acquired in all these things are very gratifying and enable a blind woman to become a help and an ornament in her home instead of a helpless dependent.

All the pupils of the intermediate grades learn typewriting and use it in writing school exercises and examinations and for correspondence with relations and friends at home.

MANUAL TRAINING.

CLASS IN PHYSICAL CULTURE.

Superintendent's Report.

PHYSICAL CULTURE.

Regular and thorough gymnasium drill is a part of the required course for all pupils. Exceptions are made in the case of pupils having some physical defect that renders the regular work harmful or impossible. Such pupils receive special lessons and exercises adapted to their needs. During the past two years much has been done in Spring and Fall in field and track work with highly gratifying results. Running, jumping, putting the shot, throwing the discus, tug of war and a modified form of foot ball are among the sports enjoyed. Field day has come to be an event of great interest. Several records in running, jumping, putting the shot and throwing the discus have been made that compare favorably with the best made in the state high schools. In its influence to interest, arouse, and give confidence, and to improve the general appearance and bearing of students nothing in the whole course surpasses field and track work.

DISCIPLINE.

A school like this where pupils live in the institution, presents in its discipline the problems of both the school and the home. Blind children need help, advice, admonition and restraint just as other children do. Generally speaking, our pupils are tractable and right minded. A high moral tone prevails and cheerfulness and good nature are the rule.

SOCIAL LIFE.

The social side of life is not neglected in this school. Two flourishing literary societies—the Red Rose for the older boys, and the White Rose for the older girls, not only give exercise in declaming, debating, original writing, etc., but also train in parliamentary practice and in the proper conduct of business by public bodies.

Three other societies occupy a large place in the social life

of the school; an Epworth League of older pupils, a Junior League of younger pupils, and the Sunshine Club of little folks. Over all of these societies teachers exercise a watchful care and through them many lessons in right conduct are impressively taught.

Every Saturday evening from seven to nine thirty o'clock all members of the household who care to come, assemble in the gymnasium for a period of recreation. We have singing, games, declamation, visiting, music and dancing. These socials are quite popular and are generally attended by most of the students, teachers and other employes.

SUNDAY SERVICES.

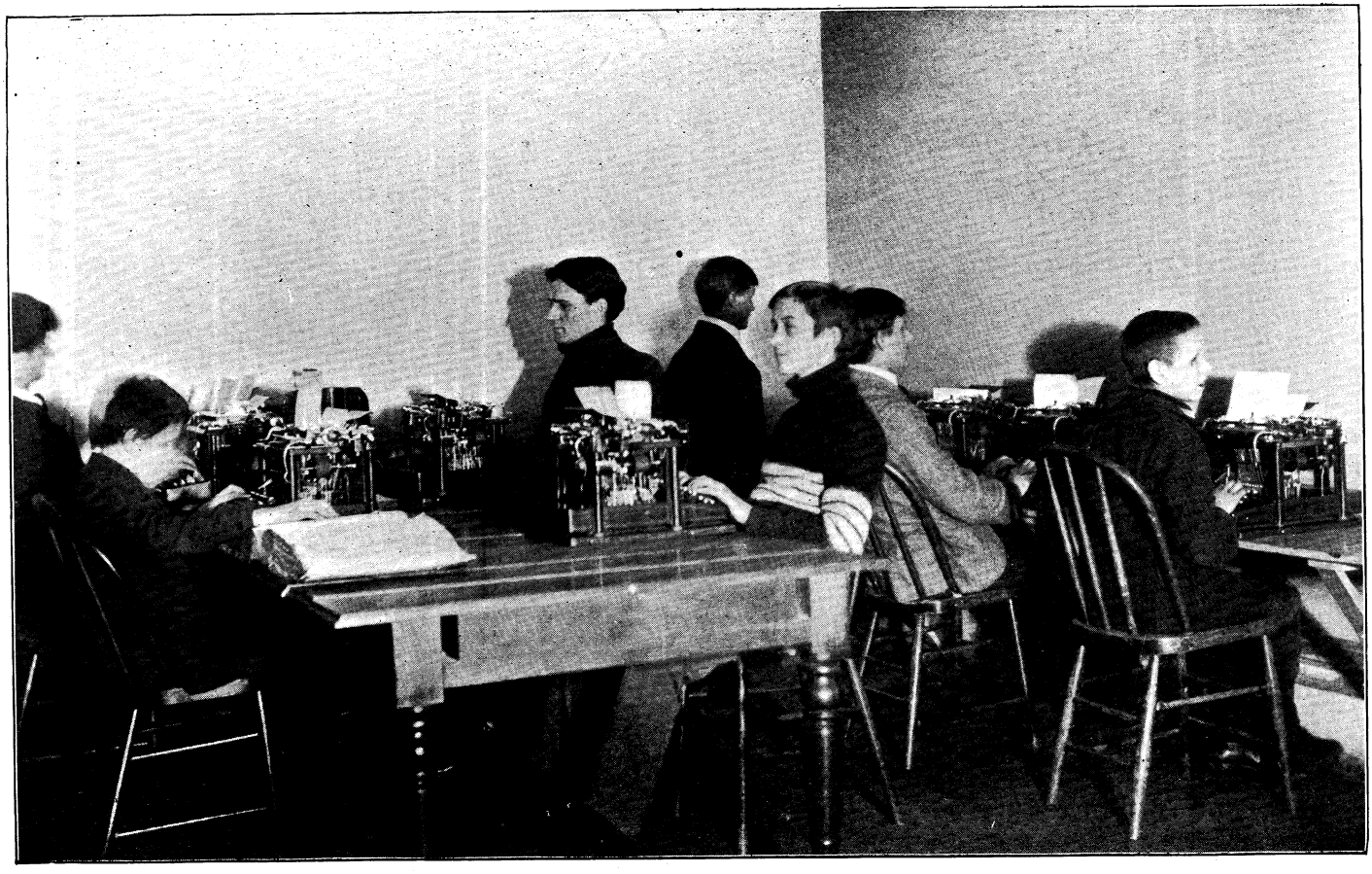
Religious and moral instruction is given. In fine weather many pupils attend church services in the city. They are all required to attend two services in the school every Sunday. One is a general exercise conducted by the superintendent but entirely non-sectarian in its nature. For the other service the children of Protestant parents are organized into a regular Protestant Sunday School in charge of Protestant members of the faculty, and the children from Catholic homes receive instruction in the catechism and in church history in classes in charge of Catholic teachers.

OUR NEEDS.

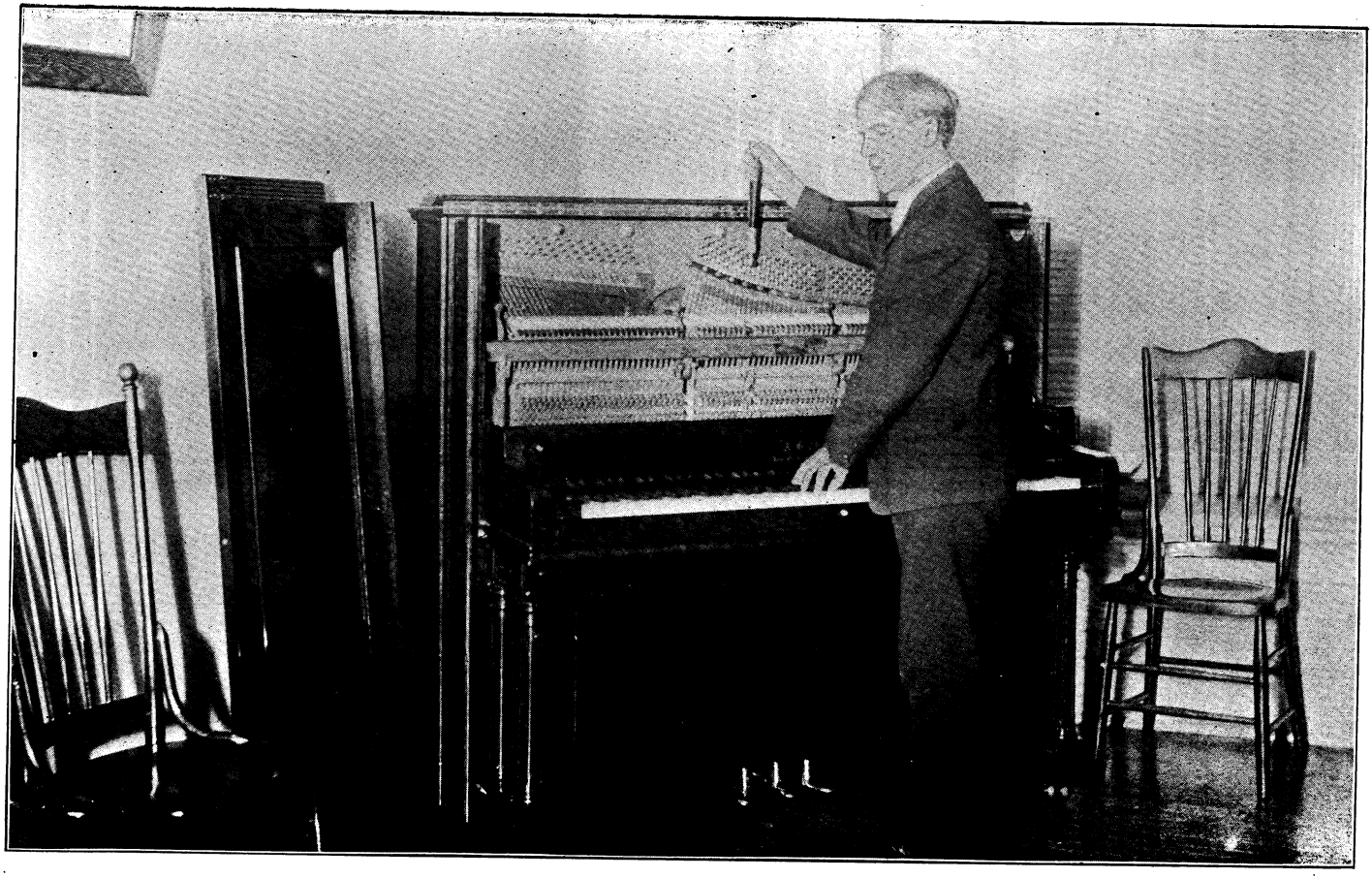
In the matter of buildings and accommodations most departments of the school are well provided for. The tuning department is an exception. There is urgent need for larger and better quarters for this most important of all our trades.

GRADUATES.

The real work and value of a school may be fairly estimated by the careers of its graduates. Measured by this standard the Wisconsin School for Blind has a record to which



TYPEWRITING.



PIANO TUNING.

the people of the state may point with pride. The first formal graduating exercises were held in 1885. The total number of graduates to date is sixty-four. They hold honored and respected positions in the communities in which they live. Not all are independent. No one in our complex life is wholly independent. Seeing people must look to one another for support and assistance. Defining independence as that condition of self support in which one earns a salary sufficient for his needs or does for others as much as others do for him, at least 75% of our graduates are self supporting. Their record in this respect will compare favorably with the graduates of the high schools for seeing. Following is given a list of graduates. Those marked with (a star) are totally blind or so nearly blind as to be unable to read ink print. Of these graduates seven are married. The total number of children resulting from these marriages, so far as I am able to learn, is eight and not one of them is blind. Three only are children of a parent congenitally blind.

Name.	Residence.	Occupation.
1885.		
1. Henry P. Klyver	Rochester, N. Y.	Clergyman.
2. M. A. McGalloway*	Fond du Lac	Mfgr. extracts & liniments.
1886.		
1. Laura Engleson*	Beloit, Wis	Music teacher Wis. School for Blind.
2. Anna Carter	Manila, P. I.	Public school teacher.
3. Libbie Wood*	Fond du Lac	Deceased.
4. Mary Shanahan*	Manitowoc	Sister Mary Efram, teacher in convent.
5. May Lyon (Ferson)	Elkhorn	Kindergarten teacher at Burlington. Married.
6. Fritz Klemp*	Thorb	Merchant.
7. Willard Tubbs	River Falls	Patent medicine mfgr.
8. Arthur Whitney	Edgerton	
1887-1888.		
1. Ida Flick (Houghtelling)*	Sparta	Married. Housekeeper.
2. Amelia Nix*	Milwaukee	Housekeeper.
3. Jennie Connor*	Sun Prairie	Housekeeper and chamber-maid.
4. Olof Olson*	LaCrosse	Tuner and music teacher.
1889-1890-1891.		
1. Jessie Anderson (Barlow)	Chicago	Married.
2. Mary Hedberg*	Minneapolis	Housekeeper.
3. Bertha Squire*	Sheboygan	Housekeeper.

Wisconsin School for the Blind.

Name.	Residence.	Occupation.
1893.*		
1. Andrew Donhard	Marshfield	Music teacher.
1894.		
1. Edward Weller	Sparta	Printer (deceased).
2. Agnes Trainer*	Topeka	Student,
1895–1896.		
1. George Wolf*	Prescott	Tuner and piano teacher.
2. Herbert Adams*	Janesville	Tuner and music teacher.
3. John Berger	Mattoon	Laborer.
4. Chester Hurlburt*	Detroit Harbor	Clergyman
5. Minnie O'Connor	Iowa	
6. Lizzie Zimmerman*	Johnston's Creek	Housekeeper.
7. Birdie Washburn (Slack)	Oklohoma	Housekeeper.
1897.		
1. Joseph Langenkamp*	Manitowoc	Tuner.
2. Louise Belongia*	Oconto	Teacher, Milwaukee.
3. Louise Pundt*	Milwaukee	Housekeeper.
4. Cassie Carr.*	Eau Claire	Housekeeper.
5. Louise Tuttle*	Baraboo	Teacher in Wis. School for Blind.
6. Genevieve Gallagher	Sauk City, Minn	Teacher public school.
7. Edward Raabe*	Milwaukee	Clerk in general store.
8. Joseph Heil*	Stevens Point	Tuner.
9. Andrew Anderson*	Oshkosh	Masseur.
10. Fred Belongia*	Oconto	
1898–1899.		
1. Margaret Davies	Corliss	Point printer Wis. School for Blind.
2. Anna Davies	Corliss	Housekeeper for wages.
3. Anna Zimmerman*	Johnston's Creek	Housekeeper.
4. Leo Heck*	Sheboygan	In workshop for blind, Milwaukee.
5. Orson Cochran	Grand Rapids	Tuner.
6. Arthur Nitschke*	Milwaukee	In workshop for blind.
7. John Schuster*	Milwaukee	Osteopathic physician.
8. Chas. Winkleman	Footville	Weaver.
9. Robert Barnes*	Milwaukee	Student in Chicago University.
1900–1901—no class.		
1902.		
1. Jessie Foster*	Janesville	Music teacher.
2. Carrie Palmer*	Janesville	Canvasser.
3. Elizabeth Emmerson*	Beloit	Housekeeper.
4. Mathilde Schnitke	Eau Claire	Governess
5. William Dobbins*	Marinette	Post graduate student. Tuner.
6. Samuel Egtdedt	Janesville	Tuner.
7. Alfred Feistel	Sheboygan	Tuner.
8. Daniel Roberts*	Baraboo	Tuner.
1903.		
1. Arthur Cory*	Viroqua	Post graduate student.
2. Oscar Sunmons*	Portland, Oregon	Tuner
3. Frank Lemere*		Tuner.
4. Winifred Gilbert	Stoughton	Public school teacher.
5. Anna Hull	Montello	Stenographer.
6. Emma Bentzine*	Cumberland	Housekeeper.
1904.		
1. Thea Lorentson*	Baldwin	
2. Chester Parish*	Whitewater	
3. Leo Lange*	Milwaukee	
4. Wm. Cochran*	Grand Rapids	

LATHE WORK.

Superintendent's Report.

PUPILS NOT GRADUATES.

In the last twenty-four years about three hundred pupils have left the school without graduating. Of these over forty are dead, many have left the state and their whereabouts are unknown to us, some have come into possession of property, and others are supported by parents or relatives who are financially well-to-do. There are over eighty of whom officers or teachers in the school have knowledge, who are self supporting or nearly so.

Following is a partial list giving names, degree of blindness, residence, and trade or business.

John Amerhine, total, Milwaukee, peddler, supports wife and 4 children.
Medar Alleyn, partial, Evanston, Ill., cook, married.
Jens Anderson, total, Stoughton, weaving and other school trades, supports himself and assists parents.
Jos. Bergs, partial, Milwaukee, workshop for blind.
George Brooks, total, Eastman, weaving, violinist, singer, partially deaf.
R. Buckser, total, Milwaukee, tuner.
Jas. M. Biggs, total, Richland Center, weaver and store keeper.
A. e Belognia, partial, Oconto, store keeper.
Frank Bus, total, tuner.
Albert Bitter, partial, Milwaukee, rat killer.
Anthony Brunson, partial, Chicago, bicycle repairer.
Jas. Babcock, partial, Illinois, farm hand.
Thos. Carney, partial, Galesville, farmer.
Wm. Crandal, total, Walworth, undertaker, supports wife and 2 children.
Arthur Covey, total, Oshkosh, weaver.
John Cuningham, total, Sun Prairie, weaver.
Grover Carey, partial, Madison, clerk.
Edward Donahoe, total, Portland, Oregon, married, two children, school trades.
Philip Donahoe, total, Big Spring, weaver.
Oscar Follansbee, partial, River Falls, married, two children.
Hugo Feick, total, Plymouth, salesman.
Emil Faulk, total, Oshkosn, weaver.
Jos. Gockle, total, Milwaukee, editor and publisher.
Edward Genrich, total, Eau Claire, tuner.

Wisconsin School for the Blind.

Frank Harmon, total, Elkhorn, farmer.
Leo Heck, partial, Milwaukee, workshop for blind.
Peter Holmgren, total, Hurley, weaver and merchant.
Howard Hall, partial, Poynette.
Edward Johnson, partial, Kendall, weaver.
Terrance Knight, partial, Darlington.
Bernard Knuth, total, Milwaukee, workshop for blind.
Julius Koepke, total, Whitewater, tuner.
Levi McCulloch, partial, Janesville, broom maker and canvasser.
Dennis Murphy, partial, Waupun, farmer.
Ernest Montgomery, partial, Poplar Grove, weaver.
Edward McMurphy, partial, Prescott, farmer.
Wm. Mann, total, Milwaukee, workshop for the blind.
Louis Manz, total, Milwaukee, workshop for blind.
Gustav Mansky, total, Milwaukee, workshop for the blind.
Placid Mougenot, total, weaver.
Lizzie Nix, partial, Milwaukee, clerk.
John Nelson, partial, River Falls, printer.
Nels Nelson, total, Pine Grove, fiddler.
Wm. Nelson, total, Cushing, farm work.
John Olson, total, Elroy, farm work.
Peter Oren, total, Blanchardville, laborer.
Edward Ouradnik, total, Slovan, weaver.
Joseph Preston, partial, Janesville, teacher school for blind.
Ulmer Park, partial, Cong. clergyman.
Frank Pratt, partial, Madison, music dealer.
Alpheus Parseneau, partial, Fall River, farmer.
Howard Pratt, partial, River Falls, butcher.
Nels Peterson, total, Racine, weaver, married, two children.
Frank Richardson, partial, Burnam Woods, weaver.
Adam Rickert, blind and deaf, Portage, peddler.
Chas. Root, total, Milwaukee, tuner.
Hays Rouse, partial, Bay Settlement, farmer.
George Stuenfig, partial, Portage, farmer.
Edward Shattuck, partial, Milton, merchant.
Henry Schart, partial, Milwaukee, workshop for blind.
Philip Slack, total, Oklahoma, book merchant, married.
Jerry Scribner, partial, Denver, tuner.
Charles Stern, partial, Hintz, weaver.
Frank Tummand, total, Dubuque, weaver.
John Wilson, total, Eastman, musician.
Hesto Washburn, partial, Delavan, teacher.
Hiram Woodard, total, Lodi, weaver.

COOKING CLASS.

Of women who left school without graduating, twenty with partial vision and four of the totally blind have married and have charge of homes. Two or three are music teachers. Many earn a little money by selling bead work and other articles of their handicraft. The large majority live with relatives and support themselves not by earning salaries but by helping in the work of the household. "Home helpers" is our name for the positions they fill and it is to train blind girls to be a real help and blessing in the homes in which they live that much of the energy of the school is directed.

Of former pupils, two women and five men are in poorhouses. One of these women has money and pays two dollars a week toward her support; the other one makes and sells bead-work which helps in paying her expense. Two of the five men will probably soon be earning a living in the workshop for the blind in Milwaukee, so that four persons—three men and one woman is nearly a fair statement of the number of our former pupils now public charges in the almshouses of the state.

To my mind these facts are eloquent in support of the policy of the state in providing generously for the education of blind children and in refusing to provide pensions or free homes for adults.

Of former pupils, not graduates, twenty women and twelve men, with partial sight, and four women and nine men with no sight, have married. The marriages have resulted in forty-one children, two with defective vision.

Only four marriages have occurred the parties to which both attended school here, and in not more than one case, if in any, was an attachment between the young people formed while attending school.

For much of the data given above, I am indebted to Miss Elizabeth Curtis, who for twenty-five years as its efficient matron has been intimately acquainted with the membership of the school.

Doubtless some errors have crept in but upon the whole, I believe the records here made are substantially correct.

Respectfully submitted,

C. R. SHOWALTER,
Superintendent and Steward.

The school has been in charge of the following principals or superintendents:

1849, J. T. Axtel (blind).
1851, Alexander McDonald.
1852, Henry Dutton.
April, 1853, C. B. Woodruff.
October, 1855, P. Lane (blind).
1856, W. H. Churchman, (blind).
1861, Thomas H. Little.
1875, Mrs. Sarah C. Little.
Sept. 1 to Dec. 1, 1891, Warren D. Parker.
Dec. 1, 1891, Lynn S. Pease.
September, 1895, H. F. Bliss.
Aug. 1, 1901, A. J. Hutton.
Jan. 1, 1903, C. R. Showalter.

THE READING HOUR.

Pay Roll.

PAY ROLL FOR SCHOOL FOR BLIND FOR MONTH OF JUNE, 1904.

Name.	Time of commencement.	Salary or wages.	Position.	County of residence.
C. R. Showalter	Jan., 1903	$166 66	Supt. and steward	Waupaca Co.
Frances E. Ryan	Nov., 1903	40 00	Assistant steward.	Rock Co.
Elizabeth Curtis	Aug., 1879	41 66	Matron	Rock Co.
Eleanor Parks	Mar., 1893	40 00	Assistant matron	Sauk Co.
S. Augusta Watson	Sept., 1865	40 00	Teacher literary	State of Maine.
Frances H. Benson	Sept., 1892	40 00	Teacher literary	Milwaukee Co.
F. P. Roet-	Sept., 1903	50 00	Teacher literary.	Walworth Co.
Lavern Brooks	Sept., 1903	50 00	Teacher literary	Grant Co.
Helen Tuttle	Sept., 1898	25 00	Teacher literary	Sauk Co.
Eva C. Hehn	Sept., 1903	40 00	Teacher dom. science	Sandwich, Canada.
Elizabeth McGrath	Sept., 1903	40 00	Teacher kindergart'n	Green Co.
M. Ada Turner	Sept., 1903	40 00	Teacher phys. cult're	Dane Co.
F. R. Froehlich	Sept., 1903	50 00	Teacher man. train'g	Sheboygan Co.
Joanna Jones	Sept., 1879	50 00	Teacher piano	Rock Co.
Laura Engleson	Sept., 1889	25 00	Teacher piano	Rock Co.
Elsbeth Korrer	Sept., 1903	40 00	Teacher vocal	Fond du Lac Co.
R. J. Harvey	Sept., 1902	40 00	Teacher tuning	New York City.
J. O. Preston	Sept., 1880	25 00	Teacher work	Rock Co.
H. G. Arnold	Sept., 1903	35 00	Teacher work	Rock Co.
Rose Gorman	Nov., 1897	15 00	Chamber maid	Dane Co.
Louise Tess	Nov., 1902	13 00	Chamber maid	Rock Co.
Mary Murphy	June, 1903	13 00	Chamber maid	Rock Co.
Lena Gruel	May, 1903	13 00	Chamber maid	Rock Co.
Mary McKinnon	Sept., 1902	18 00	Cook	Door Co.
Helen Husker	Sept., 1903	18 00	Cook	Rock Co.
Julia Nelson	Aug., 1903	13 00	Dining room	Waupaca Co.
Louise Nelson	Mar., 1904	13 00	Dining room	Waupaca Co.
Lydia Krissen	June, 1903	13 00	Dining room	Jefferson Co.
Louise Kreiger	Apr., 1904	13 00	Dining room	Monroe Co.
A. J. Holmes	Dec., 1903	55 00	Engineer	Rock Co.
J. C. Bogardus	Oct., 1902	50 00	Engineer	Rock Co.
Walter Bissel	Aug., 1893	45 00	Fireman	Marquette Co.
James O'Rourke	Aug., 1884	35 00	Gardner	Rock Co.
Emelia Olson	Mar., 1903	13 00	General work	Waupaca Co.
Anna Kirby	May, 1893	15 00	Janitress	Rock Co.
Myrtle Proctor	Dec., 1903	13 00	Kitchen	Rock Co.
Isabel Husker	May, 1904	13 00	Kitchen	Rock Co.
Thelma Anderson	Oct., 1901	20 00	Laundress	Rock Co.
Thekla Kerl	Oct., 1903	15 00	Laundress	Rock Co.
Ida Kreiger	Nov., 1903	13 00	Laundress	Monroe Co.
Julia Tess	Sept., 1903	15 00	Seamstress	Rock Co.
Anna Brickley	Feb., 1903	13 00	Seamstress	Illinois state
Sidney Batten	Mar., 1904	30 00	Stock man	Iowa Co.
Margaret Davies	Sept., 1899	15 00	Printer	Racine Co.
Barbara Fontain	Aug., 1878	13 00	Visitors' attendant	Brown Co.
Otto Atkinson	Sept., 1903	30 00	Watchman	Grant Co.

Wisconsin School for the Blind.

ENROLLMENT OF PUPILS, 1902–1903.

Boys.

Name.	Postoffice.	County.
Adams, Chas	Greenwood	Clark.
Albert, Mark	Milwaukee	Milwaukee.
Baer, John	Hartford	Washington.
Bauer, Otto	Milwaukee	Milwaukee.
Bellmon, Leonard	Oshkosh	Winnebago.
Bentzine, Alphonz	Cumberland	Barron.
Bishop, Vigo	Janesville	Rock.
Bergman, George	Watertown	Jefferson.
Brackey, Oscar	Shell Lake	Washburn.
Carter, Roy	Janesville	Rock.
Cochran, William	Grand Rapids	Wood.
Cory, Arthur	Viroqua	Vernon.
Cooley, Herbert	Eau Claire	Eau Claire.
Davies, Herbert	Corliss	Racine.
Dobbins, William	Marinette	Marinette.
Ehlert, Freddy	Milwaukee	Milwaukee.
Egdtvet, Samuel	Stoughton	Dane.
Ely, Mause	Viroqua	Vernon.
Farlow, Alfred	Horicon	Dodge.
Fitch, Willie	Clear Lake	Polk.
Fournier, Cedric	Green Bay	Brown.
Foley, Raymond	Janesville	Rock.
Gonia, Laddie	Two Rivers	Manitowoc.
Goetzinger, Walter	Milwaukee	Milwaukee.
Grebner, Joseph	Barneveld	Iowa.
Hoffman, Fred	Sp. Milwaukee	Milwaukee.
Hessenauer, Harry	Janesville	Rock.
Howard, Earl	Milwaukee	Milwaukee.
Johnston, Bert	Milwaukee	Milwaukee.
Johnson, Arndt	Blair	Trempealeau.
Knilans, Roy	Elkhorn	Walworth.
Knuth, George	Milwaukee	Milwaukee.
Kimball, Joey	Stevens Point	Portage
Klingbeil, Edward	Fon du Lac	Fond du Lac.
Lang, Frankie	Sparta	Monroe.
Lang, Leo	Milwaukee	Milwaukee.
Larson, Albin	Prentice	Price.
Lemere, Frank	Chilton	Calumet.
Leunberger, George	Monroe	Green.
Lacourciere, Leon	Oconto	Oconto.

Enrollment.

ENROLLMENT OF PUPILS, 1902-1904.

Boys.

Name.	Postoffice.	County.
McCulloch, Pliny	Janesville	Rock.
Mahn, Albert	Whitewater	Walworth.
Metajowitz, Chas	Branch	Manitowoc.
Marshall, Harold	River Falls	Price.
Mansfield, Jason	Lynxville	Crawford.
Messmer, Lawrence	Edgerton	Rock.
Montag, Adolph	Dickeyville	Grant.
Meissner, Ernest	Janesville	Rock.
McKinnon, Donald	Fish Creek	Door.
Ness, Ludwig	Superior	Douglas.
Olson, Olaf	La Crosse	La Crosse.
Parish, Chester	Whitewater	Walworth.
Peterson, Carl	Ashland	Ashland.
Ponath, Harry	Cedarburg	Ozaukee.
Prosser, James	Menasha	Winnebago.
Peglow, Edward	Grove Corners	Walworth.
Quade, William	Milwaukee	Milwaukee.
Reutzen, Emil	Milwaukee	Milwaukee.
Rausch, Chas	Mauston	Juneau.
Rausch, Eddie	Mauston	Juneau.
Smith, Arthur	Madison	Dane.
Severson, Oscar	Cambridge	Dane.
Smiley, Walter	Union Church	Racine.
Simmons, Oscar	Janesville	Rock.
Schmidt, Chas	Milwaukee	Milwaukee.
Tesser, Oscar	Saratoga	Wood.
Tyczkowski, Aloysius	Milwaukee	Milwaukee.
Tamplin, Frank	Janesville	Rock.
Van de Bogart, Don	Lake Geneva	Walworth.
Young, Guy	Barnum	Crawford.

Wisconsin School for the Blind.

ENROLLMENT OF PUPILS, 1902-1904.

Girls.

Name.	Post Office.	County.
Berger, Anna	Mattoon	Shawano.
Bentzine, Emma	Cumberland	Brown.
Bentzine, Jennie	Cumberland	Brown.
Bickford, Mabel	Waupun	Fond du Lac.
Brasette, Maggie	Red Cliff	Bayfield.
Brooks, Hattie	Pittsville	Wood.
Boldt, Martha	Abrams	Oconto.
Carlyle, Tomsina	La Crosse	La Crosse.
Cornell, Blanche	Plainfield	Waushara.
Cox, Martha	Kendall	Monroe.
Davies, Sarah	Corliss	Racine.
Emerson, Eliz	Hanover	Rock.
Enders, Emma	Marinette	Marinette.
Gilbert, Winnifred	Stoughton	Dane.
Gomm, Florence	Hustingford	Juneau.
Hartt, Agnes	Beaver Dam	Dodge.
Hawke, Julia	Hudson	St. Croix.
Hanson, Mary	Fish Creek	Door.
Helmenstein, Dolly	Blue Mounds	Dane.
Herfort, Edna	Baraboo	Sauk.
Hillsberg, Lizzie	Schofield	Marathon.
Hull, Anna	Montello	Marquette.
Krogman, Emma	Milwaukee	Milwaukee.
Klump, Frieda	Milwaukee	Milwaukee.
Larson, Mary	Kenosha	Kenosha.
Lohrie, Lillie	Waukesha	Waukesha.
Lorentson, Thea	Baldwin	St. Croix.
Lowry, Franc	Fargo, N. D	
Marden, Louise	LaCrosse	La Crosse.
Masterson, Adeline	Oconto	Oconto.
McGlauchlin, Edith	Beloit	Rock.
McKinnon, Florence	Fish Creek	Door.
Meisner, Martha	Janesville	Rock.
Merton, Augusta	Cedarburg	Ozaukee.
O'Brien, Mamie	Hudson	St. Croix.
O'Shea, Margaret	Wilson	St. Croix.
O'Shea, Stella	Wilson	St. Croix.
Patterson, Violet	Milwaukee	Milwaukee.

Enrollment.

Girls—Continued.

Name.	Post Office.	County.
Quade, Dora	Milwaukee	Milwaukee.
Rausch, Clara	Mauston	Juneau.
Rausch, Tillie	Mauston	Juneau.
Saxer, Emma	La Crosse	La Crosse.
Saxer, Freida	La Crosse	La Crosse.
Sisson, Lillian	Milwaukee	Milwaukee.
Somers, Alice	Milwaukee	Milwaukee
Terrill, Ethel	Pine River	Waushara.
Tibbitts, Anna	McMillen	Marathon.
Torger, Nora	Soldiers Grove	Carwford.
Torgenson, Lena	Deronda	Polk.
Van Gemert, Anna	De Pere	Brown.
Van Gemert, Eliz	De Pere	Brown.
Von Wald, Sarah	Reedsburg	Sauk.
Wadsworth, Irene	River Falls	Pierce.
Wanzer, Nita	Owen	Eau Claire

Wisconsin School for the Blind.

STATEMENT OF

Wisconsin School for the Blind for

Classifications.	Inventory June 30, 1902.	Paid on this account during the year.	Transferred to this acc't during the year.	Total.
Barn. farm and garden	$1,921 84	$1,499 88	$46 87	$3,468 59
Clothing and expense of pupils	29 69	114 91	.....	144 60
Discount	.....	1 29	.....	1 29
Drug and medical dept	13 55	52 70	.....	66 25
Engine and boilers	4,941 54	624 26	.....	5,565 80
Exchange	.....	2 00	.....	2 00
Fire apparatus	236 25	.....	.....	236 25
Fire and boiler insur.	.....	5 85	.....	5 85
Fuel	423 75	2,487 46	.....	2,911 21
Furniture	4,564 20	297 76	.....	4,861 96
Gas and other lights	5,686 48	1,979 48	600 00	8,265 96
House furnishing	5,213 71	884 26	20 40	6,118 37
Laundry	1,112 74	336 96	.....	1,449 70
Machinery and tools	149 53	1 88	.....	151 41
Means of instruction	11,678 99	1,629 25	.....	13,308 24
Miscellaneous	157 35	926 19	.....	1,083 54
Officers expenses	.....	188 14	.....	188 14
Printing, postage, stationery and teleg'ph	159 48	279 79	.....	439 27
Real estate, including buildings, etc	201,521 51	.....	700 00	202,221 51
Repairs and renewals	4 75	1,791 05	.....	1,795 80
Subsistence	251 80	7,503 49	1,145 51	8,900 80
Work department	787 46	281 46	.....	1,068 92
Wages and salaries	.....	15,154 28	.....	15,154 28
Total	$238,854 62	$36,042 34	$2,512 78	$277,409 74
Less discount etc.	.....	57 13	.....	246,521 86
	.....	$35,985 21	.....	$30,887 88
Deducted by Sec'y of State for printing	.....	14 89	.....	.....
Net expenses	.....	$36,000 10	.....	.....

Statistical Tables.

CURRENT EXPENSES

the year ending June 30, 1903.

Inventory June 30, 1903.	Cash rec'd on this account during the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
$1,833 62	$1,280 34	$1,145 51	$4,259 47	$790 88	.....
24 84	.....	.....	24 84	.....	$119 76
.....	.....	57 13	57 13	55 84	.....
11 55	.....	.....	11 55	.....	54 70
5,175 44	20 38	.....	5,195 82	.....	369 98
.....	.....	.....	.....	.....	2 00
217 65	.....	.....	217 65	.....	18 60
.....	.....	.....	.....	.....	5 85
150 00	516 52	600 00	1,266 52	.....	1,644 69
4,739 53	.....	.....	4,739 53	.....	122 43
7,267 35	.....	.....	7,267 35	.....	998 61
5,736 32	5 60	.....	5,741 92	.....	376 45
1,160 29	5 00	.....	1,165 29	.....	284 41
144 11	.....	.....	144 11	.....	7 30
11,847 76	35 40	.....	11,883 16	.....	1,425 08
164 55	50	.....	165 05	.....	918 49
.....	.....	.....	.....	.....	188 14
91 70	.....	.....	91 70	.....	347 57
201,702 06	.....	519 45	202,221 51	.....	.....
3 45	20 55	746 87	770 87	.....	1,024 93
187 56	.....	.....	187 56	.....	8,713 24
741 72	252 88	20 40	1,015 00	.....	53 92
.....	95 83	.....	95 83	.....	15,058 45
$241,199 50	$2,233 00	$3,089 36	$246,521 86	$846 72	$31,734 60
.....	.....	.....	.....	.....	846 72
.....	.....	.....	.....	.....	$30,887 88
.....	.....	.....	.....	.....	14 89
.....	.....	.....	.....	.....	$30,902 77

Wisconsin School for the Blind.

STATEMENT OF

At the Wisconsin School for the Blind

Classification.	Inventory, June 30, 1903.	Paid on this account during year.	Transferred to this account during year.	Total.
Barn, farm and garden	$1,833 62	$1,365 58	.....	$3,199 20
Clothing and expense of pupils	24 84	145 01	.....	169 85
Discount	.....	.....	.....	.....
Drug and medical department	11 55	46 75	.....	58 30
Engine and boilers	5,175 44	382 38	$ 60	5,558 42
Exchange	.....	4 70	.....	4 70
Fire apparatus	217 65	12 25	.....	229 90
Fire and boiler insurance	.....	36 00	.....	36 00
Fuel	150 00	3,381 59	.....	3,531 59
Furniture	4,739 53	122 37	.....	4,861 90
Gas and other lights	7,267 35	137 31	647 83	8,052 49
House furnishing	5,7 6 32	1,283 83	28 90	7,049 05
Laundry	1,160 29	327 16	.....	1,487 45
Machinery and tools	144 11	21 85	.....	165 96
Means of instruction	11,847 76	867 64	40	12,715 80
Miscellaneous	164 55	669 11	.....	833 66
Officers' expenses	.....	55 21	.....	55 21
Printing, postage, stationery and telegraph	91 70	221 97	.....	313 67
Real estate, including buildings, etc.	201,702 06	.....	740 43	202,442 49
Repairs and renewals	3 45	2,364 81	.....	2,368 26
Subsistence	187 56	8,996 09	1,748 91	10,932 56
Work department	741 72	341 28	.....	1,083 00
Wages and salaries	.....	15,788 29	.....	15,788 29
Board and tuition	.....	.....	80 00	80 00
	$241,199 50	$36,571 18	$3,247 07	$281,017 75
Less discount	.....	45 53	.....	248,705 71
		$36,525 65		$32,312 04
Add amount deducted by secretary of state for printing	$13 72	.....	.....	.....
And insurance	187 78	201 50	.....	.....
Net expenses	.....	$36,727 15	.....	.....

Statistical Tables.

CURRENT EXPENSES

for the year ending June 30, 1904.

Inventory, June 30, 1904.	Cash rec'd on this account during the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
$2,587 67	$222 82	$1,748 91	$4,559 40	$1,360 20	.....
7 92	2 10	.....	10 02	.....	$159 83
.....	.....	45 53	45 53	45 53	.....
11 55	.....	.....	11 55	.....	46 75
5,253 87	3 90	.....	5,257 77	.....	300 65
.....	.....	.....	.....	.....	4 70
229 55	.....	.....	229 55	.....	35
.....	9 10	.....	9 10	.....	26 90
357 00	.....	617 83	1,004 83	.....	2,526 76
4,685 86	4 00	.....	4,689 86	.....	172 04
7,332 75	.....	.....	7,332 75	.....	719 74
6,608 99	.....	.....	6,608 99	.....	440 06
1,292 33	.....	.....	1,292 33	.....	195 12
163 52	.....	.....	163 52	.....	2 44
12,540 52	20 00	.....	12,560 52	.....	155 28
167 35	.....	.....	167 35	.....	666 31
.....	.....	.....	.....	.....	55 21
150 53	.....	.....	150 53	.....	163 14
202,442 49	.....	.....	202,442 49	.....	.....
16 75	.....	740 43	757 18	.....	1,611 08
128 33	5 25	80 00	213 58	.....	10,718 98
761 50	327 46	29 90	1,118 86	35 86	.....
.....	.....	.....	.....	.....	15,788 29
.....	80 00	.....	80 00	.....	.....
$244,738 48	$571 63	$3,292 60	$248,705 71	$1,441 59	$33,753 63
.....	.....	.....	.....	.....	1,441 59
					$32,312 04
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	201 50
.....	.....	.....	.....	.....	$32,513 54

Wisconsin School for the Blind.

STATEMENT OF CURRENT EXPENSE FUND, 1903.

1902.				
July 1	Balance			$24,795 21
1903.				
May 6	Appropriation, chap. 163, 1903			72,000 00
June 30	Steward for sundries			2,233 00
June 30	Paid on account of current expenses this year		$36,000 10	
June 30	Balance appropriation in state treasury	$62,824 32		
June 30	Balance in hands of steward	203 79	63,028 11	
			$99,028 21	$99,028 21

STATEMENT OF CURRENT EXPENSE FUND, 1904.

1903.				
July 1	Balance			$63,028 11
1904.				
June 30	Steward for sundries			674 63
June 30	Paid on account of current expenses this year		$36,727 15	
June 30	Balance appropriation state treasury	$26,810 36		
June 30	Balance in hands of steward	165 23	26,975 59	
			$63,702 74	$63,702 74

Statistical Tables.

STATEMENT OF MONEYS RECEIVED AT THE INSTITUTION.

	1903.	1904.
Board and tuition	.....	$80 00
Barn, farm and garden	$1,280 34	$222 82
Clothing and expense of pupils	.....	2 10
Engine and boilers	20 38	3 90
Furniture	.....	00
Fuel	516 52	.....
Fire and boiler insurance	.....	9 10
House furnishing	5 60	.....
Laundry	5 00	.....
Means of instruction	35 40	20 00
Miscellaneous	50	.....
Repairs and renewals	20 55	.....
Subsistence	.....	5 25
Wages and salaries	95 83	.....
Work department	252 88	327 46
	$2,233 00	$674 63

Wisconsin School for the Blind.

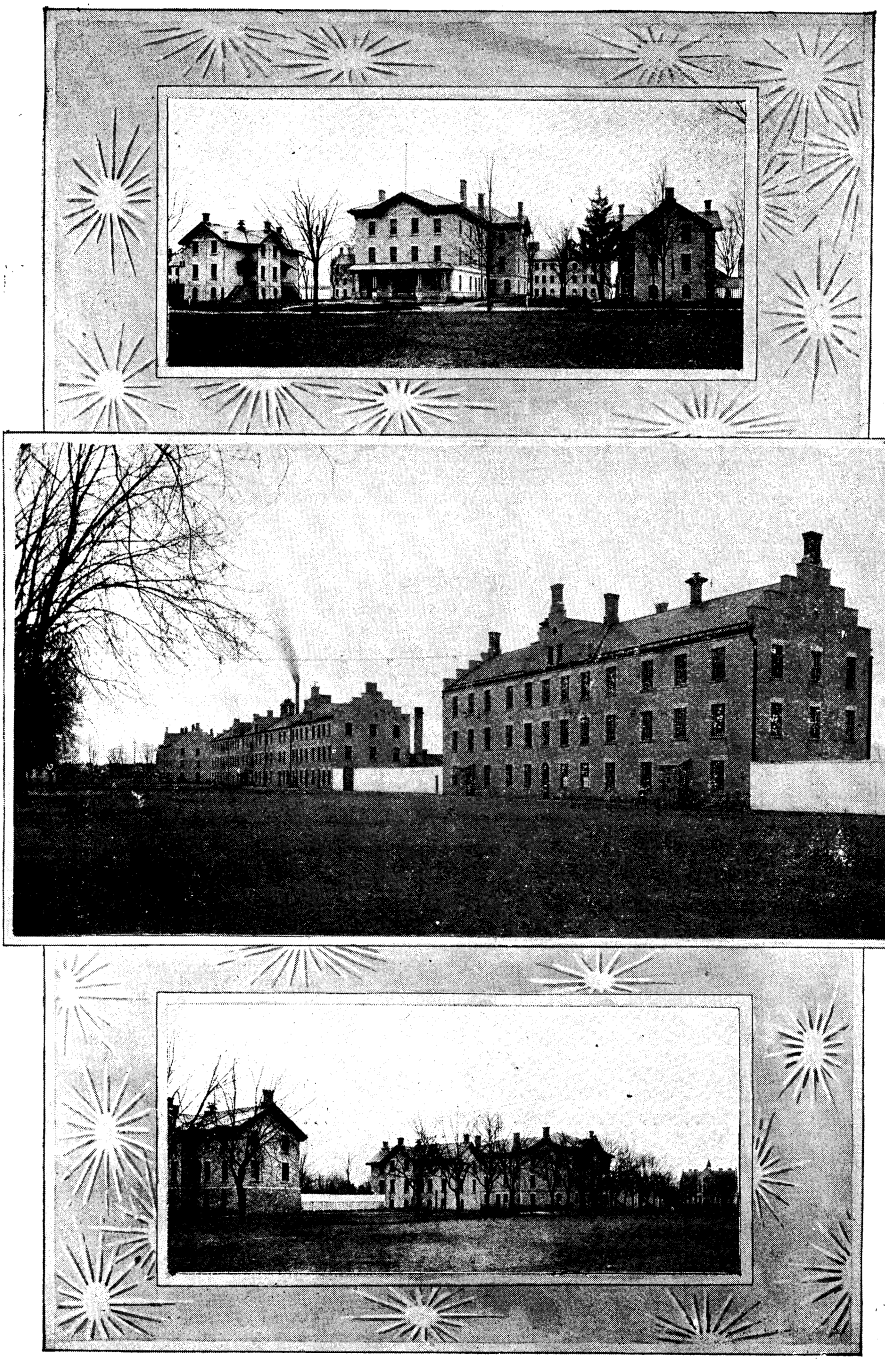
FARM AND GARDEN PRODUCTS.

Articles.	For year ending June 30, 1903.	
	Quantity.	Amount.
Asparagus	30 doz.	$10 50
Beans	5 bus.	2 25
Beets	40 bus.	16 00
Cabbage	1,500 no.	45 00
Carrots	35 bus.	14 00
Corn, sweet	30 bus.	18 00
Corn stalks	1 ton	4 50
Cucumbers	5 bus.	4 75
Hay	15 ton	135 00
Lettuce	5 bus.	3 00
Milk	61,961 lbs.	929 41
Onions, green	50 doz.	12 50
Onions	21 bus.	10 50
Parsnips	20 bus.	12 00
Peas	5 bus.	2 50
Pieplant	1,200 lbs.	27 00
Radishes	6 bus.	3 60
Radishes	50 doz.	2 50
Radishes, winter	5 bus.	2 50
Straw	10 tons	60 00
Tomatoes	50 bus.	12 50
Turnips	40 bus.	18 00
Total	.....	$1,346 01

Statistical Tables.

FARM AND GARDEN PRODUCTS.

ARTICLES.	FOR YEAR ENDING JUNE 30, 1904.	
	Quantity.	Amount.
Asparagus	10 bu.	$3 50
Asparagus	337 bunches	20 22
Beans	4 bu	1 80
Beets	30 bu.	12 00
Cabbage	1,500 no.	45 00
Cauliflower	100 heads	10 00
Carrots	15 bu.	6 00
Corn fodder	1 ton	4 50
Corn, sweet	50 bu.	30 00
Cucumbers	50 bu.	37 50
Hay	30 tons	210 00
Lettuce	800 heads	12 50
Mangles wurtzles	30 tons	90 00
Milk	76,089 lbs.	1,141 34
Onions, green	110 doz.	26 50
Onions	35 bu.	17 50
Oyster vegetables	10 bu.	5 00
Parsley	30 heads	1 50
Parsnips	12 bu.	5 40
Peas	5 bu.	2 50
Peas	96 qts.	4 80
Potatoes	22 bu.	11 00
Pieplant	100 bu.	60 00
Pieplant	1,300 lbs.	26 00
Pork	2,010 lbs.	120 60
Radishes	665 doz.	33 25
Radishes	8 bu.	8 00
Rutabagas	20 bu.	6 00
Strawberries	200 qts.	20 00
Tomatoes	75 bu.	30 00
Wood	12¾ cds.	51 00
Total	.....	$2,053 41



WISCONSIN INDUSTRIAL SCHOOL FOR BOYS.

ELEVENTH BIENNIAL REPORT

OF THE

Wisconsin Industrial School for Boys,

WAUKESHA, WISCONSIN,

FOR THE

Biennial Period Ending June 30, 1904.

OFFICERS.

A. J. HUTTON ..... *Superintendent and Steward*
E. H. HUEBING ..... *Assistant*
MRS. A. J. HUTTON ..... *Matron*
H. R. RAWSON ..... *State Agent*
J. S. ROESELER ..... *School Principal*
B. U. JACOB ..... *Physician*

SUPERINTENDENT'S REPORT.

To the State Board of Control:

GENTLEMEN—I hereby submit to you the report of the Wisconsin Industrial School for Boys, for the biennial period ending June 30, 1904.

Section 4961 Wisconsin Statutes reads as follows: "The Wisconsin Industrial School for Boys at Waukesha shall be the place of confinement and instruction of all male children between the ages of ten and eighteen years who shall be legally committed thereto as vagrants, or on conviction of any criminal offense, or for incorrigibility or vicious conduct." If the age limits in Section 4961 are meant to cover the whole of Chapter 203, then the provisions of Sec. 4966 must be construed accordingly. In the administration of the law several eminent judges have claimed that Sec. 4966 is not governed by Sec. 4961 in this respect, but that in certain cases named in Sec. 4966 boys may be committed to this institution below ten years of age and up to twenty-one. The uncertainty as to the intent of the statute should be removed by judicial or legislative action. I suggest that the age limits be made from eight to sixteen years, and that these limits shall apply to all cases. In my judgment this institution should be made as much as possible a school, and as little as possible a penal institution. It should be relieved from the responsibility of caring for large numbers of young men of decided criminal tendencies and bad criminal records.

During the period covered by this report, a few young men of this class have been transferred to the Wisconsin State Reformatory, at Green Bay, to the great advantage of the school. Boys attaining the age of eighteen in this institution, and still incorrigible, should be transferred to the State Reformatory.

Wisconsin Industrial School for Boys.

The State assumes a very grave responsibility when it takes a boy away from his home, and undertakes to care for him until he attains his majority. In order to justify that action, the State must do better for the boy and for the society of which he forms a part, than his home and his local institutions were doing. Without doubt, many boys are sent here that ought to be kept at home. It requires not only intelligence and judgment of high order, but also much special judicial experience to enable a judge to determine, with anything like certainty, what is best to be done with a vagrant or incorrigible or criminal boy. The duty of training the child rests primarily upon the parents, and they should never be lightly absolved from that duty. There are parents by character and training capable of controlling their children, who shirk that duty and throw it upon the State. There are parents from whose immoral and criminal example and training the children must be rescued if they are to be saved. In my judgment the authority to sentence boys to this institution should be taken away from justices of the peace, and placed wholly in the Courts of Record. A great many of the commitments defective in form, and unduly severe in penalty, come from justices of the peace.

Homeless and dependent boys, with no criminal records or tendencies should not be committed to this institution. "We wished to have the boy taken care of, and so we had him sent to Waukesha," is not in strict compliance with the purpose of the law. This is no place for feeble minded boys, or epileptics, though quite a number of the first class, and one of the second class have been received during the period covered by this report. One feeble minded boy and the epileptic were transferred to the Home for the Feeble Minded at Chippewa Falls. In the case of a boy with impaired vision and a criminal record it may be difficult to determine whether he should be sent here or to the School for the Blind at Janesville. The same is true of a criminal over sixteen and under eighteen years of age, as between this institution and the State

Reformatory at Green Bay. In ordinary cases an intelligent judge has no difficulty in determining to which institution the delinquent or defective boy should be sent.

The Juvenile Court of Milwaukee, under its able judge, and by the aid of its devoted probation officers is doing an excellent work for the delinquent children of that city. Delinquents are advised and warned repeatedly before they are sent to Waukesha, as persistent evil-doers and incorrigibles. Back of delinquent children in many cases are their delinquent natural or legal guardians. We need in Wisconsin to supplement the work done in the Juvenile Court of Milwaukee, and in other courts having authority to commit boys to this institution, a law similar to the Adult Delinquent Law of Colorado. That law makes it a misdemeanor, punishable, upon conviction, with fine or imprisonment, for any parent, guardian, or person having the custody of a delinquent child to cause, encourage or contribute to his delinquency. Inevitably the children must suffer from the sins and delinquencies of their fathers, but they would suffer much less if the parents were made to suffer more.

We need Juvenile Courts in all of our larger cities, and in fact we need one in every county of the State.

Some churches are taking a commendable interest in their own delinquent boys, and saving them to good citizenship. When church people recognize the duty of looking after the incorrigibles of their own faith; giving them wise and friendly advice; appearing for them when they are in court for trial; exercising over them kind but firm supervision, through probation officers; and in other ways, bringing the moral and religious power of the church to bear upon them, the population of this school will decline greatly and permanently.

There are always in this school vagrants without homes, incorrigibles with no correctors, criminals, born in the atmosphere and trained in the practice of crime. They are the victims of their environments. The sins of society, largely, have

made them what they are. It is the purpose of this school to save boys—to cause them to cease to be a distinct class, and to return them to the ranks of general society. This school gives a chance to the boy that never had one before, and another chance to the boy that has had one and abused it. With such a purpose, it follows that the discipline of the school,, while firm, and if need be severe, must be kind and sympathetic. Every effort is made to secure the willing obedience of the boy. In inflicting punishment the idea of vengeance is eliminated absolutely. Certainty of punishment is much more effective than severity of punishment. No brutal or degrading forms of punishment are used. The hope of reward is better than the fear of punishment. I am happy to say that the feeling among the boys is that they are treated fairly. Obedience to the reasonable requirements of the school is secured very largely because of this connection.

A boy committd to this school, making a clean record in conduct, may be paroled after eighteen months detention. Preferably, boys are returned to their homes. In many cases, however, the saving of the boy demands that he should not be returned to his old home and neighborhood environments. One of the great needs of the school is good homes for our paroled boys. Most of them leave the school with the purpose of leading better lives. They need opportunity, help, guidance, encouragement. They need a chance to earn their own living by their own honest labor. They should pay a dollar in service, or more, for every dollar they receive in wages, and most of them are willing to do so. There are over six hundred boys under the charge of the school out on parole. Most of them are doing well, particularly those placed in good homes in the country. Most of them, however, are city boys, with no desire or aptitude for country life. For them employment must be obtained in the cities. City employers of labor are earnestly requested to think of these boys, and whenever possible to give them a chance to make men of themselves, through honest daily labor.

Superintendent's Report.

Boys on parole promise to obey the national and the State laws, and to report to the school every three months. There is a State Agent connected with the school, whose business it is to find good homes for boys about to be paroled, to visit paroled boys, and see that they are properly treated by their employers, and in other ways work for their welfare. The work is so great and pays so well in the saving of boys, that an additional agent should be appointed at once.

With plenty of pure water, good wholesome, well-cooked food, plenty of sleep, and abundant physical exercise, the health of the boys is excellent. I hand in herewith the report of the school physician. I heartily concur in his recommendations, that a properly qualified nurse be appointed as one of the permanent officers of the school, and that a small isolated hospital for contagious diseases should be provided without delay. In addition I recommend that facilities be provided for the segregation of boys suffering from any of the forms of tuberculosis.

The school has been prosperous during the period covered by this report. I hand in herewith the report of the principal.

Extensive improvements have been made since the date of the last report.

The hospital has been built and fairly well equipped.

Inside painting has been done in all the buildings.

Many outside repairs have been made including a new roof on one of the barns.

All the basement door and window areas have been put in repair. About twenty of them have been rebuilt.

A tile floor has been laid in the laundry.

Outside stairs and porches on the cottages will be repaired or rebuilt before the cold weather sets in. Materials are purchased and ready for use.

The tunnel for steam heating pipes will be completed early in the fall, on the east half of the grounds.

Many repairs and improvements are necessary and desir-

able during the biennial period beginning July 1, 1904. Among the most pressing are the following:

1.	Completing tunnel, with new pipes	$5,000 00
2.	Pest house	500 00
3.	Cow barn	2,000 00
4.	Additional land, 40 acres or more	8,000 00
5.	20 additional cows	1,000 00
6.	Creamery	1,000 00
7.	Walks	500 00
8.	General repairs, all buildings	3,000 00
9.	Greenhouse	500 00
10.	Printing press and outfit	300 00

When I entered upon my duties, Jan. 1, 1903, I found the school well organized. Since that time I have not found it necessary to make any radical changes in its organization. My efforts have been directed day by day and every day towards efficient administration and good service. The officers of the school have worked with me harmoniously. I have many reasons for thinking that the school is moving steadily towards a better realization of its purpose and I take courage in that conviction. I find the arduous duties of my office of absorbing and fascinating interest.

To the members of the Board of Control I desire to express my gratitude for the uniform courtesy and kindness they have shown me in all my personal and official relations with them.

Very respectfully submitted,

A. J. HUTTON,
Superintendent.

PHYSICIAN'S REPORT.

Prof. A. J. HUTTON,

Superintendent, Wisconsin Industrial School for Boys.

In presenting my report for the biennial period ending June 30, 1904, I desire to congratulate you on the fact that the boys in the institution under your charge are in such good physical condition and that there are no cases of serious illness among them. During the past two years there have been no deaths among our inmates. This is the more gratifying, as at the beginning of this period we were in the midst of a severe epidemic of Diphtheria, about eighty cases of which occurred after June 30, 1902. There were 120 cases in all, with two deaths, which came earlier in the course of the epidemic.

Since the termination of that trying time our cases of disease have been generally limited to mild disorders. There have been two cases, both mild, of scarlatina. Sore throats, and cases of tonsillitis, during the late winter and early spring were the prevailing troubles. There were 179 of these cases, mostly mild. We have had six cases of broken bones, including two broken legs. There have been two cases requiring surgical operations, one for a carious rib, requiring its removal, and the other a Thoracoplasty for Pleural Empyema. Both cases recovered.

Minor ailments and injuries make up the list, a total of 694 cases treated during the two years.

Each boy is vaccinated on his admission to the school, unless he has the marks of a recent and successful vaccination.

It is a gratification to report that we now have a modern hospital, small, and as yet partially equipped, but it has already proved its usefulness, and will be a great aid in properly caring for any cases of serious sickness.

Wisconsin Industrial School for Boys.

I would recommend that a properly qualified nurse be placed on the officers' roll, she to have charge of the hospital and the care of all cases serious enough to be confined to the bed.

A small isolated hospital for contagious diseases should be provided without delay. In case of emergency the lack of such a place might easily prove disastrous. The cost of such a building would be small.

It has been my desire to aid you as far as possible in promoting the physical and general welfare of the boys in your charge. Wishing you the highest success in your great work, I am, Sir,

Yours very respectfully,

BENJ. U. JACOB, M. D.

PRINCIPAL'S REPORT.

To Prof. A. J. HUTTON,

Superintendent of the Industrial School for Boys:—

I have the honor to submit to you herewith the biennial report of the department of instruction for the period ending June 30, 1904.

Directly I can speak only of what we have done and have attempted to do since the middle of August, 1903, when I took charge of this department. I have specially endeavored to place the emphasis on practice rather than on theory; in the establishment of the habit of acquiring clear and accurate ideas and of putting them into practice; on the cultivation of the habit of doing things at the right time and in the right way.

The quality as well as the quantity of the work is what counts in the training of these boys. It requires unceasing vigilance and persistent daily attention to train these boys into habits of obedience, industry, regularity, punctuality, neatness and accuracy—the foundation virtues of good citizenship.

Following is the course of study as it has been revised to fit the needs of the school and to bring it into accord with the modern text books now in use:

COURSE OF STUDY.

First Grade.

Reading: Hawthorne's Primer. First half of Reading by Grades, first year.

Language: Every oral or written lesson to be a lesson in the correct use of language. Exercises specially arranged to correct faulty expression. Use of capitals, periods and interrogation points taught and practiced.

Wisconsin Industrial School for Boys.

Arithmetic: Simple operations, mental and written. To section IV, arithmetic by grades, Book 1. Silver's Primary Exercises in Arithmetic, No. 1.

Spelling: All words of reading lessons.

Penmanship: The Language System of Penmanship, No. 1.

Second Grade.

Reading: Second half of Reading by Grades, first year, Hawthorne's First Reader, Progressive First, Lane's Stories for Children, Around the World, Book 1, Harper's First Reader.

Language: Use subject matter of reading lessons for language lessons. Pupils copy, memorize and reproduce suitable parts. Teach memory gems and have pupils recite them in concert. Notice errors most commonly made and plan corrective work.

Arithmetic: Finish No. I, and to Section III, No. II Prince's Daily drills and reviews. Silver's No. II, Primary Exercises.

Spelling: All words used.

Penmanship: No. II.

Third Grade.

Reading: First half of Harper's Second, Hawthorne's Second, Fables and Folk Stories, Feathers and Furs.

Language: Use of correct forms of words. Dictation exercises with special attention to capitals and terminal marks. Story reproduction. Special work to secure correct use of is and are, was and were, has and have, this and these, that and those, etc.

Arithmetic: Finish Book II, and for written work use Silver's Primary Exercises No. III. Drill on previous work. Insist on neat work and accurate statements as well as correct results.

Geography: Oral lessons and occasional talks on geographical subjects, shape of earth, continents and oceans named and located on artificial globe. Readings by the teacher from Fairbank's Home Geography, and by the pupils from Around the World No. II.

Spelling: All words used.

Penmanship: No. III.

Fourth Grade.

Reading: Finish Harper's Second; Hawthorne's Third; reading by grades, second year; Progressive Second; Stories of Great Americans for Little Americans.

Language: Continue as in third grade. Dictation and observation work, reproductions, stories and letters, use of commas, quotation marks, and terminal marks, plurals formed by adding s or es to the singular form, correct use of parts of verbs with which mistakes are likely to occur, such as saw, see, break, broken, went, gone, come, came, hear, heard, etc.

Arithmetic: Prince's to Section IV, Book III, or Werner's Book I, 94 pages. For written work use Silver's Exercises No. IV. Review frequently. Work for neatness, speed and accuracy. Prefer mental to written work.

Geography: Points of compass, directions on maps and globes. Teach rivers, mountains, lakes, and cities on map of the United States. Fairbank's Home Geography read and studied by the pupils. Around the World No. III, by the teacher.

Spelling: All words used.

Penmanship: No. IV. Make every written exercise an exercise in penmanship.

Fifth Grade.

Reading: Hawthorne's Fourth Reader, Part I; first half of Harper's Third; Reading by Grades, third year; Progressive Third; Stories Mother Nature Told Her Children; Stories of American Life and Adventure.

Wisconsin Industrial School for Boys.

Geography: Shape of the earth. Divisions of surface into zones and continents. Position and shape of divisions. Map of Wisconsin. Part I, of Book I of the Tarr and McMurry geography.

Language: Mother Tongue, Book I to page 99. Keep up reproduction work. Correct errors in capitalization, punctuation, etc.

Arithmetic: Finish Prince's Book III, and to Section IV, Book IV, of Werner's Book I, to page 175.

Spelling: All words used.

Penmanship: No. V.

Sixth Grade.

Reading: Part II, Hawthorne's Fourth; Second half of Harper's Third; Story of Henry Clay; Historical Reader; Wings and Fins; Part I, Progressive Fourth.

Geography: Part II of Book I, of the Tarr & McMurry Geography.

Language: Mother Tongue, Book I to page 181 Supplementary work as in Fifth Grade.

Arithmetic: Finish book IV, Prince, or Werner's No. I. Use many problems not found in text, selected or made with reference to the needs of the class.

Spelling: All words used.

Penmanship: No. VI.

Seventh Grade.

Reading: Part I, Hawthorne's Fifth; first half of Harper's Fourth; Snow Bound, Story of George Washington; Flyers and Creepers; Story of our Country.

Language: Mother Tongue, Book I, to end.

Geography: Tarr & McMurry, Book II.

Physiology: How to keep well.

Arithmetic: To Section V, book V, Prince, or to page 100 Werner's No. II.

Spelling: As in previous grades.
Penmanship: No. VII.

Eighth Grade.

Reading: Part II Hawthorne's Fifth; Second half of Harper's Fourth; Story of Abraham Lincoln; Gordy's American Leaders and Heroes.
Language: Mother Tongue, book II to page 94.
Geography: Tarr & McMurry, Book III, to page 353.
Physiology: Blaisdell's Our Bodies 'How We Live,' to page 161.
Arithmetic: Finish Book V, and to Section IV, book VI, or finish Werner's No. II.
Spelling: All words used.
Penmanship: Book VIII, or better exercises on practice paper, giving special attention to movement, speed, legibility, proper form, and position.

Ninth Grade.

Reading: American Classics; Story of Franklin; Carpenter's Asia; Sketch Book; American Character Study Series; Jefferson, Otis, and Samuel Adams.
Langauge: Mother Tongue, to page 204.
Georgraphy: Finish book III, Tarr & McMurry's geography.
Physiology: "Our Bodies," finish.
Arithmetic: Finish Prince's book No. VI, or first half of Werner's No. III.
Spelling: All words used.
Penmanship: Practice as in preceding grade.

Tenth Grade.

Reading: English and American Classics. May be united with the preceding grade as a large selection of material is on hand so that the work can be varied from term to term to make it profitable to all. Dole's American Citizen. United States History.

Language: "Mother Tongue," book II completed, composition work.
Spelling: All words used.

MANUAL TRAINING.

The Manual Training Department is very popular among the boys. They are trained here to become familiar with the tools used by carpenters and other wood workers, and in the use of various machinery, such as the band saw, circular saw, turning lathe, etc. They learn to make the various classes of joints, besides articles of use such as tables, chairs, desks, etc., and to do various kinds of repair work.

THE SLOYD SCHOOL.

All the older boys work two sessions or four hours a day, and go to school four hours. About eighty of the smaller boys who are too young and not strong enough physically for work in the field or in the shop do Sloyd work two hours daily during a good portion of the year. During the summer months, when the weather is fine they go to school only four hours, just as the larger boys, and work in the garden or the field for four hours, doing the lighter kinds of work such as weeding, picking berries, peas, beans, etc. From twenty-four to twenty-eight do bench work, receiving training in the use of the square, saw and plane, rasp, file and sand-paper; the knife chisel, and gimlet; the compasses, wood-carving tools, and bracket-saw. They also receive training in basketry, rug weaving, pulp work and plaster paris molding and chiseling. The rest of the Sloyd boys receive training in drawing, in water color painting, and colored crayon work.

MUSIC.

The teaching of vocal music to these boys is not the easiest work. Though its practical value in helping the boys to earn their own bread and butter is small, it has a most valuable re-

fining influence, and aids greatly in the moral training which these boys need above many other things. Both the singing school and the brass band add much cheer and sunshine to the life of the school and deserve a liberal support. The school maintains a choir of about fifty boys which meets two evenings a week under the direction of the vocal music teacher. The choir furnishes music for the Sunday services and also for all school entertainments. The school of music has been in an efficient state throughout the year and has done valuable service.

The brass band has practice every forenoon. Six times a day the band plays while the boys march to and from their meals. The unseen and silent refining influence it has on the feelings and character of the boys to be in this musical atmosphere from day to day is undoubtedly more potent than most of us think. Although only about thirty boys get the benefit of the band practice, yet all the boys and officers get the benefit of the influence it exerts. There is also an orchestra maintained among the boys which renders music from time to time at entertainments and at other services.

THE LIBRARY.

The library has received no increase in the number of volumes. Somewhat over 200 volumes are out of binding, a number of these had been rebound once or several times before and are now in such worn out condition that they can either not be rebound again or at least are not worth rebinding. We need new books. Since June 30, 1902, as the cards show, there have been drawn 14,751 volumes. The favorite books are largely the same ones that were listed in the last report. There seems, however, to have been some changes effected in the reading habits of the boys as books of biography and of history are in greater demand than formerly, especially in the four highest grades. This is undoubtedly a result of the strengthening of the history and geography work of the school.

Besides the library books the following magazines and periodicals are furnished the several families: Cosmopolitan, McClures, St. Nicholas, Harper's Weekly, Success, Saturday Evening Post, Youth's Companion, Young People's Weekly, Our Times, Little Chronicle, Week's Progress, American Boy, Judge's Monthly

The following are also taken by the school: Wisconsin Journal of Education, Western Teacher, Hoard's Dairyman, and the Wisconsin Farmer.

In addition to the periodicals above a large number of local newspapers from the various cities and villages of the State have been sent to us gratis by the publishers. This kindness and liberality has been greatly appreciated by the boys, as this has enabled them to keep in touch with their respective homes. It is hoped that this public spiritedness among our local newspaper publishers may not only continue among those that have shown themselves friends of this institution in the past, but that it may extend to many others.

IN CONCLUSION.

I wish to thank the superintendent for the trust and confidence he has bestowed upon me in leaving me with considerable discretionary power so that I am free to act upon my own best judgment in the shaping of many things. Whatever success I have had is largely due to this and to the co-operation and support he has given me. I hope to merit this trust and confidence in the future. It is my sincere desire to render the very best service possible to both the State and the boys.

All of which is respectfully submitted,

JOHN S. ROESELER,
Principal.

Statistical Tables.

Movement of population.

	1903.	1904.
Number enrolled July 1, 1902 and 1903	325	286
Received by commitment	155	178
Returned from out on parole	21	40
Number of escapes returned	1	3
	502	507
Escaped	9	2
Number pardoned by governor	1	.....
Number out on writ of habeas corpus	1	.....
Number returned to court	1	.....
Released on parole	194	171
Released by defective commitment	1	.....
Transferred to Wisconsin State Reformatory	7	7
Transferred to Home for Feeble Minded	2	.....
On roll July 1	216	180
Average number of boys during year	289	312
Highest number of boys at any one time	330	330
Lowest number of boys at any one time	261	284
Total number since July, 1860	5,129	5,307
Total number dismissed, escaped and died	4,833	4,980
Leaving on roll as above	286	327

Wisconsin Industrial School for Boys.

Nationality of parents of boys received during the biennial period ending June 30, 1904.

American	64	Hungarian	1
Belgian	2	Irish	23
Belgian-French	1	Irish-Bohemian	1
Bohemian	5	Irish-Canadian	1
Canadian	1	Irish-English	2
Dutch-American	1	Irish-American	2
Dutch-English	1	Irish-Polish	1
Danish	3	Irish-Norwegian	1
English	9	Irish-Welch	1
French	10	Indian	7
French-American	1	Jew	4
French-Canadian	1	Negro	2
French-Irish	1	Norwegian	15
French-Indian	1	Porto Rican	1
Flemish-English	1	Polish	45
German	94	Polish-French	1
German-American	4	Russian	1
German-English	3	Scotch	1
German-French	2	Scotch-American	1
German-Irish	1	Scotch-Irish	2
German-Norwegian	1	Scotch-Swiss	1
German-Polish	2	Swiss-American	1
German-Swede	1	Swede	3
German-Scotch	1	Unknown	1
German-Indian	1		
Hollander	2	Total	333

Social and domestic relations.

Both parents living	205	No parents	17
Deserted by father	5	Parents separated	7
Father only	48	Unknown	3
Mother only	47		
Mother insane	1	Total	333

Statistical Tables.

Birthplace of inmates.

America	1	New York	3
Belgian	1	New Jersey	1
Connecticut	3	North Dakota	1
France	1	Norway	2
Germany	19	Ohio	4
Georgia	1	Pennsylvania	2
Iowa	2	Poland	4
Illinois	9	Porto Rico	1
Italy	4	Russia	1
Indiana	1	South Dakota	1
Minnesota	9	Sweden	1
Michigan	15	Unknown	4
Montana	2	Wisconsin	237
Missouri	2		
Massachusetts	1	Total	333

Division of labor at the close of the biennial period.

Bakery	18	Sewing room	10
Carpenter shop	4	Shoe shop	15
Engine room	8	Sloyd	80
Garden	45	Stock farm	10
General farm work	16	Tailor shop	25
General service	55	Teamsters	9
Laundry	13	Yard	9
Office	2		
Paint and blacksmith shop	8	Total	327

Wisconsin Industrial School for Boys.

Boys committed from the different counties, for

COUNTIES.	OFFENSES.										
	Total committed.	Incorrigibility.	Larceny.	Burglary.	Vagrancy.	Assault with intent to rape.	Horse stealing.	Attempt to wreck a train.	Obscene language.	Embezzlement.	Forgery.
Ashland	9	7	2								
Barron	2		1				1				
Bayfield	4	2	1	1							
Brown	2		1				1				
Chippewa	12	6	3	3							
Clark	2				1				1		
Columbia	2		2								
Crawford	3		3								
Dane	7	1	3				2	1			
Dodge	1		1								
Door	4	2	1			1					
Douglas	6	1	3		2						
Dunn	1	1									
Eau Claire	6	6									
Fond du Lac	3	2	1								
Gates	2	2									
Green	1	1									
Iron	1	1									
Jackson	2	2									
Jefferson	3	1	1	1							
Juneau	2	2									
Kenosha	8		5	3							
Kewaunee	1	1									
La Crosse	28	17	6	1	2						1
Lafayette	1		1								
Langlade	8	5	3								
Lincoln	3	1	2								
Manitowoc	1	1									
Marathon	4	1	1	1		1					
Marinette	9	6	1		1	1					
Milwaukee	92	35	30	10	13					1	
Monroe	2		2								
Oconto	11	11									
Oneida	3	2	1								
Outagamie	10	4	2	3	1						
Pepin	2		2								
Pierce	3	3									
Polk	2	1	1								
Portage	9	5	2	2							
Price	4	1	3								
Racine	7	3	1	2							
Rock	11	5	3	2							1
St. Croix	7		6								
Sauk	2	1	1								
Shawano	2		1		1						
Sheboygan	4	1	3								
Taylor	2	2									
Trempealeau	1	1									
Vernon	2		2								
Walworth	2	1	1								
Washburn	2			2							
Waukesha	1	1									
Waupaca	1	1									
Winnebago	9	5	4								
Wood	4	2	1								1
Total	333	154	108	31	21	3	4	1	1	1	3

Statistical Tables.

what offenses, and their ages when committed.

OFFENSES					AGE OF BOYS WHEN COMMITTED.								
Viciousness.	Rape.	Disorderly conduct.	Pointing a gun at a boy.	Breaking into Pub. Sch'l. Bldg. and stealing.	10 years.	11 years.	12 years.	13 years.	14 years.	15 years.	16 years.	17 years.	18 years,
					1		2	1	3		2		
							1		1				
										3	1		
					1			1					
						1	3		4	1	2	1	
										1	1		
							1		1				
						1	1				1		
						1		1	2	1	1		1
										1			
									1	1	1	1	
					1	1		2			2		
							1						
					1	1		2			2		
						1				2			
						1			1				
											1		
					1				1				
					1						1		
					1					2			
					1				1				
					2			2	1	2		1	
										1			
1						3	4	2	2	6	1	10	
											1		
					2	1	2	2				1	
						1				1	1		
							1						
							1	1		1		1	
		2		1	4	14	5	10	16	30	9	4	
								1		1			
					1		5	2		1	1	1	
							2	1					
					1		2	1	1	2	3		
						1						1	
						1	1				1		
						1					1		
					1				1	4	3		
								1	1			2	
	1				1		1	2	1	1	1		
						3	1	1	2	2	1	1	
			1		1	1		1		2		2	
							1				1		
										2			
						1	1				1	1	
								1		1			
						1		2					
								1		1			
							1						
						2	2	1	1	2	1		
						1	1					1	
1	1	2	1	1	24	37	43	41	42	74	42	29	1

Wisconsin Industrial School for Boys.

Number of inmates received each year from opening of the school.

FOR THE YEAR ENDING—	No committed.		Total from beginning.	No. return'd.		Total received during year.	No. present at close of the year.			Whole number for year.
	Boys.	Girls.		Boys.	Girls.		Boys.	Girls.	Total.	
Dec. 31, 1860	33	7	40	....	....	40	33	7	40	40
Sept. 30, 1861	34	7	81	....	....	41	35	5	40	81
Sept. 30, 1862	37	3	121	....	....	40	51	4	55	80
Sept. 30, 1863	32	10	163	....	1	42	59	13	72	98
Sept. 30, 1864	74	9	246	....	....	83	117	20	137	155
Sept. 30, 1865	85	22	353	1	....	108	134	21	155	245
Sept. 30, 1866	45	2	400	4	3	54	118	16	134	209
Sept. 30, 1867	68	....	468	4	11	83	143	12	155	217
Sept. 30, 1868	50	3	521	14	5	72	149	14	163	227
Sept. 30, 1869	59	4	584	5	2	70	163	13	176	233
Sept. 30, 1870	114	....	698	3	....	117	204	2	206	293
Sept. 30, 1871	75	....	773	6	1	82	237	2	239	288
Sept. 30, 1872	107	....	880	1	....	108	278	....	....	347
Sept. 30, 1873	80	....	960	4	....	84	281	....	....	362
Sept. 30, 1874	115	....	1,075	6	....	121	301	....	....	402
Sept. 30, 1875	103	....	1,178	8	....	111	300	....	....	412
Sept. 30, 1876	107	....	1,285	8	....	115	318	....	....	415
Sept. 30, 1877	140	....	1,425	13	....	153	364	....	....	471
Sept. 30, 1878	151	....	1,576	12	....	163	419	....	....	527
Sept. 30, 1879	117	....	1,693	8	....	125	431	....	....	543
Sept. 30, 1880	108	....	1,801	10	....	118	430	....	....	519
Sept. 30, 1881	90	....	1,891	5	....	95	372	....	....	525
Sept. 30, 1882	88	....	1,979	7	....	95	299	....	....	467
Sept. 30, 1883	95	....	2,074	8	....	103	278	....	....	402
Sept. 30, 1884	113	....	2,187	7	....	120	297	....	....	398
Sept. 30, 1885	89	....	2,276	8	....	97	293	....	....	394
Sept. 30, 1886	121	....	2,397	6	....	127	325	....	....	420
Sept. 30, 1887	127	....	2,524	6	....	133	340	....	....	461
Sept. 30. 1888	135	....	2 659	7	....	142	376	....	....	483
Sept. 30, 1889	157	....	2,817	7	....	164	406	....	....	540
Sept, 30, 1890	162	....	2,979	13	....	175	423	....	...	581
Sept. 30, 1891	181	....	3,160	17	....	198	342	....	....	621
Sept. 30, 1892	173	....	3,333	15	....	188	303	....	....	530
Sept. 30, 1893	184	....	3,517	13	....	197	313	....	....	500
Sept. 30, 1894	198	....	3,715	26	....	224	351	....	....	537
Sept. 30, 1895	209	....	3,924	30	....	239	345	....	....	590
Sept. 30, 1896	178	....	4,102	53	....	231	328	....	....	576
Sept. 30, 1897	169	....	4,271	43	....	212	344	....	....	540
Sept. 30, 1898	137	....	4,408	34	....	171	305	....	....	515
Sept. 30, 1899	134	....	4,542	26	....	160	304	....	...	474
Sept. 30, 1900	160	....	4,702	30	....	190	328	....	....	498
Sept. 30, 1901	150	....	4,852	28	....	178	330	....	....	506
June 30, 1902	122	....	4,974	21	....	143	325	....	....	473
June 30, 1903	155	....	5,129	22	....	177	286	....	....	502
June 30, 1904	178	....	5,307	43	....	221	327	....	....	507

Statistical Tables.

OFFICERS AND EMPLOYES JUNE 30, 1904.

Name.	Position.	Salary.	When first employed.	County.
Andree, A. L.	Carpenter	$50 00	9—21—'03	Waukesha.
Bell, Nora	Cook	24 00	12—19—'03	Milwaukee.
Booth, R. D.	Band & 3	50 00	6— 7—'02	Richland.
Booth, Helen B.	Matron 3 and piano	25 00	6— 7—'02	Richland.
Boyd, Mary	Boys' dining room	20 00	4—10—'03	Waukesha.
Boyd, Eva	Officers' dining room.	18 00	6— 1—'03	Waukesha.
Bornheimer, Mary	Matron 4	20 00	8— 1—'80	Waukesha.
Bryant, D. E.	Teacher & 5	40 00	10—23—'03	Michigan.
Bryant, Anna.	Matron 5	20 00	10—23—'03	Michigan.
Burnett, J. A.	Teacher & 1	40 00	8—19—'03	Ohio.
Burnett, Jessie	Matron 1	20 00	8—19—'03	Ohio
Burke, M. J.	Teacher & 2	40 00	1— 1—'02	Waukesha.
Burke, Sarah	Matron 2	20 00	2— 1—'02	Waukesha.
Burmeister, Wm.	Gardener	35 00	3—24—'01	Waukesha.
Burmeister, Fred.	General work	35 00	4—15—'90	Waukesha.
Cramp, A. J.	Teacher	40 00	5—26—'04	Waukesha.
Crnmp, Lily	Teacher	30 00	6— 6—'04	Waukesha.
Davis, Daniel	Yard	30 00	5— 1—'03	Waukesha.
Davis, Thos.	General work.	30 00	4— 5—'04	Waukesha.
Dousman, K. C.	Farm and stock	45 00	8— 8—'95	Waukesha.
Elliott, A. J.	Laundry	50 00	10— 1—'96	Waukesha.
Elliott, Mrs. Stephen.	Cook	30 00	8— 2—'04	Waukesha.
Elyard, Fred	Night engineer	45 00	1— 1—'02	Waukesha.
Fletcher, Crissie	Matron 9	20 00	7— 1—'00	Waukesha.
Gevers, Peter	Tailor	50 00	12—19—'03	Brown.
Grover, A. A.	Engineer	65 00	3—13—'03	Waukesha.
Ham, Joseph	Baker	70 00	3— 1—'78	Walworth.
Hamrick, P. S.	Sloyd	50 00	9—24—'03	Walworth.
Hanaman, G. B.	Painter and blacks'th	50 00	4— 1—'02	Fond du Lac.
Hillier, R. J.	Office & 4	40 00	9—16—'03	Dane.
Hargrave, Jennie	General work	20 00	6—22—'01	Waukesha.
Haynes, Henrietta	Teacher	30 00	7—12—'97	Waukesha.
Huebing, E. H.	Assistant	100 00	1— 1—'03	Sauk.
Hutton, A. J.	Supt. and steward	208 33	1— 1—'03	Rock.
Hutton, C. M.	Matron	41 66	7— 1—'03	Rock.
Jacob, B. U.	Physician	40 00	4— 1—01	Waukesha.
Kendall, Ella	General work	18 00	6—14—'04	Waukesha.
Owens, Thos.	Night watch	40 00	6— 8—'04	Waukesha.
Owens, Mrs. T. G.	House work	18 00	6— 9—'04	Waukesha.
Philip, H. E.	Teacher and 6	40 00	6— 1—'01	Waukesha.
Philip, Bell	Matron 6	20 00	1— 1—'02	Waukesha.
Pifkowitz, Sam	Shoe shop	50 00	6— 1—'03	Milwaukee.
Potter, Wm. H.	Music teacher	50 00	11— 6—'02	Missouri.
Purvis, B. I.	Sewing room	20 00	5— 5—'02	Waukesha.
Rayford, Julia	Reception room	20 00	4—2—'00	Milwaukee.
Rawson, H. R.	Field agent	83 33	9— 1—'97	Marquette.
Ross, L. G.	Teacher & 9	40 00	1— 1—'03	Rock.
Roeseler, J. S.	Principal teacher.	100 00	8—19—'03	Sheboygan,
Schock, J. S.	Day engineer	40 00	5— 1—'02	Waukesha.
Sherman, Edith	Stenographer	25 00	1—10—'03	Waukesha.
Smart, M. E.	General work	35 00	9— 1—'02	Waukesha.
Van Derpool, Chas.	Teacher & 8	40 00	9— 1—'93	Grant.
Van Derpool, Mary.	Matron 8.	20 00	9— 1—'93	Grant.
Zenke, Wm.	Manual training	40 00	12— 1—'03	Sheboygan.

Wisconsin Industrial School for Boys.

STATEMENT OF

At the Wisconsin Industrial School for

Classification.	Inventory, June 30, 1902.	Paid on this account during the year.	Transferred to this account during the year.	Total.
Amusements	$106 20	$127 54	.....	$233 74
Agents' expenses	.....	1,232 24	.....	1,232 24
Barn, farm and garden	7,671 04	2,368 36	$28 50	10,067 90
Clothing	4,426 54	4,994 32	311 29	9,732 15
Discount	.....	38 68	.....	38 68
Drugs and medical department	42 01	3,890 13	.....	3,932 14
Engine and boilers	10,329 80	2,873 49	.....	13,203 29
Elopers	.....	371 32	.....	371 32
Freight and express	.....	4 27	.....	4 27
Fire apparatus	540 35	.....	.....	540 35
Fire and boiler insurance	.....	67 27	.....	67 27
Fuel	1,131 50	9,789 69	.....	10,921 19
Furniture	5,392 15	48 20	121 50	5,561 85
Gas and other lights	589 45	235 49	1,200 00	2,024 94
Hides and pelts	.....	.....	84	84
House furnishing	7,606 27	3,249 39	144 60	11,000 26
Laundry	1,468 38	712 06	18 96	2,199 40
Library	745 19	123 62	.....	868 81
Machinery and tools	835 77	77 66	.....	913 43
Means of instruction	5,220 76	733 05	.....	5,953 81
Miscellaneous	25 25	1,079 17	.....	1,104 42
Officers' expenses	.....	51 67	.....	51 67
Printing, postage, stationery and telegraph.	581 81	882 17	.....	1,463 98
Real estate including buildings, etc	280,281 09	.....	5,692 80	285,973 89
Repairs and renewals	831 21	9,194 81	.....	10,026 02
Scraps	.....	.....	150 54	150 54
Shoe shop	779 93	1,097 67	.....	1,877 60
Subsistence	751 31	16,541 33	5,375 69	22,668 33
Wages and salaries	.....	26,177 01	.....	26,177 01
Total	$329,356 01	$85,960 61	$13,044 72	$428,361 34
Less discounts, etc	.....	265 62	.....	355,626 19
	.....	$85,694 99	.....	$72,735 15
Deducted by Secretary of State for printing	.....	37 72	.....	.....
Net expenses	.....	$85,732 71	.....	.....

Statistical Tables.

CURRENT EXPENSES

Boys for the year ending June 30, 1903.

Inventory, June 30, 1903.	Cash received on this account during the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
$110 53	.....	.....	$110 53	.....	$123 21
.....	.....	.....	.....	.....	1,232 24
9,074 36	$1,231 20	$5,394 65	15,750 21	$5,682 31	.....
4,655 26	.....	.....	4,655 26	.....	5,076 89
.....	.....	259 28	259 28	220 60	.....
58 90	26 40	1 00	86 36	.....	3,845 78
11,348 75	3 40	.....	11,352 15	.....	1,851 14
.....	.....	.....	.....	.....	371 32
.....	.....	.....	.....	.....	4 27
311 17	.....	.....	311 17	.....	229 18
.....	.....	.....	.....	.....	67 27
2,157 50	78 03	1,200 00	3,435 56	.....	7,485 63
5,459 60	.....	.....	5,459 60	.....	102 25
681 28	91 01	.....	778 29	.....	1,246 65
.....	81	.....	81	.....	.....
8,461 08	25 00	.....	8,486 08	.....	2,514 18
1,984 70	.....	.....	1,984 70	.....	214 70
733 19	4 75	.....	737 94	.....	130 87
693 19	.....	.....	693 19	.....	220 24
5,501 46	2 70	.....	5,504 16	.....	449 65
73 30	15 63	.....	88 93	.....	1,015 49
.....	.....	.....	.....	.....	51 67
677 44	7 95	.....	685 39	.....	778 59
285,973 89	.....	.....	285,973 89	.....	.....
811 94	54 38	5,557 31	6,423 63	.....	3,602 39
.....	150 54	.....	150 54	.....	.....
768 59	12 69	339 79	1,121 07	.....	756 53
1,319 62	84 82	48 26	1,482 70	.....	21,185 63
.....	94 72	.....	94 72	.....	26,082 29
$340,888 75	$1 937 15	$12,800 29	$355,626 19	$5,902 91	$78,638 06
.....	.....	.....	.....	.....	5,902 91
.....	.....	.....	.....	.....	$72,735 15
.....	.....	.....	.....	.....	37 72
.....	.....	.....	.....	.....	$72,772 87

Wisconsin Industrial School for Boys.

STATEMENT OF

At the Wisconsin Industrial School for

Classification.	Inventory June 30, 1903.	Paid on this account during the year.	Transferred to this account during the year.	Total.
Amusements	$110 53	$67 05	.....	$177 58
Agent expenses	.....	1,100 61	.....	1,100 61
Barn, farm and garden	9,074 36	2,029 61	$64 70	11,168 67
Clothing	4,655 26	4,284 18	997 50	9,936 94
Discount	.....	1 15	.....	1 15
Drug and medical dep't	58 90	573 46	.....	632 36
Engines and boilers	11,348 75	1,057 54	.....	12,406 29
Elopers	.....	202 60	.....	202 60
Freight and express	.....	7 97	.....	7 97
Fire apparatus	311 17	104 20	.....	415 37
Fire and boiler insura'ce	.....	54 00	.....	54 00
Fuel	2,157 50	7,998 70	.....	10,156 20
Furniture	5,459 60	64 23	60 93	5,584 76
Gas and other lights	684 28	85 97	1,500 00	2,270 25
Hides and pelts	.....	.....	2 50	2 50
House furnishing	8,461 08	2,671 96	16 35	11,149 39
Laundry	1,984 70	355 40	.....	2,340 10
Library	733 19	317 83	.....	1,051 02
Machinery and tools	693 19	80 07	.....	773 26
Means of instruction	5,501 46	752 14	4 90	6,258 50
Miscellaneous	73 30	1,069 12	.....	1,142 42
Officers' expenses	.....	47 61	.....	47 61
Printing, postage, stationery and telegraph	677 44	542 75	.....	1,220 19
Real estate, including buildings, etc	285,973 89	.....	4,000 00	289,973 89
Repairs and renewals	811 94	2,826 31	.....	3,638 25
Scraps	.....	.....	33 57	33 57
Shoe shop	768 59	1,672 72	.....	2,441 31
Subsistence	1,349 62	14,142 64	5,350 32	20,842 58
Wages and salaries	.....	26,436 51	.....	26,436 51
Total	$340,888 75	$68,546 33	$12,030 77	$421,465 85
Less discounts and other credits	.....	179 63	.....	356,978 33
	.....	$68,366 70	.....	$64,487 52
Add amount deducted by secretary of state for printing	32 64	.....	.....	.....
And insurance	249 80	282 44	.....	.....
	.....	$68,649 14	.....	.....

Statistical Tables.

CURRENT EXPENSES.

Boys for the year ending June 30, 1904.

Inventory June 30, 1904.	Cash received on this account during the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
$140 14	.....	.....	$140 14	.....	$37 44
.....	.....	.....	.....	.....	1,100 61
9,216 97	$1,138 21	$5,350 32	15,705 50	$4,536 83	.....
5,863 02	2 80	.....	5,865 82	.....	4,071 12
.....	.....	179 49	179 49	178 34	.....
138 70	.....	.....	138 70	.....	493 66
11,319 10	.....	.....	11,319 10	.....	1,087 19
.....	32	.....	32	.....	202 28
.....	.....	.....	.....	.....	7 97
403 55	.....	.....	403 55	.....	11 82
.....	.....	.....	.....	.....	54 00
1,399 00	2 00	1,500 00	2,901 00	.....	7,255 20
5,562 36	.....	.....	5,562 36	.....	22 40
655 11	.....	.....	655 11	.....	1,615 14
.....	2 50	.....	2 50	.....	.....
9,934 64	.....	.....	9,934 64	.....	1,214 75
1,937 96	75	.....	1,988 71	.....	351 39
709 60	.....	.....	709 60	.....	341 42
753 37	.....	.....	753 37	.....	19 89
5,761 88	.....	14 65	5,776 53	.....	481 97
75 30	20 99	.....	96 29	.....	1,046 13
.....	3 13	.....	3 13	.....	44 48
525 28	40 00	.....	565 28	.....	654 91
289,973 89	.....	.....	289,973 89	.....	.....
874 09	20 00	122 10	1,016 19	.....	2,622 06
.....	33 57	.....	33 57	.....	.....
1,021 68	1 75	1,023 70	2,047 13	.....	394 18
1,082 73	114 37	2 64	1,199 74	.....	19,612 84
.....	6 67	.....	6 67	.....	26,429 84
$347,398 37	$1,387 06	$8,192 90	$356,978 33	$4,715 17	$69,202 69
.....	.....	.....	.....	.....	4,715 17
.....	.....	.....	.....	.....	$64,487 52
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	$282 44
.....	.....	.....	.....	.....	$64,769 96

Wisconsin Industrial School for Boys.

STATEMENT OF CURRENT EXPENSE FUND, 1903.

1902.				
July 1	Balance			$34,399 72
1903.				
Jan. 1	From counties			13,148 87
May 6	Appropriation, chap. 163, 1903			114,000 00
June 30	Steward for sundries			1,937 15
June 30	Paid on account of current expenses this year		$85,732 71	
June 30	Balance appropriation in state treasury	$77,486 51		
June 30	Balance in hands of steward	266 52	77,753 03	
			$163,485 74	$163,485 74

STATEMENT OF CURRENT EXPENSE FUND, 1904.

1903.				
July 1	Balance			$77,753 03
1904.				
Jan. 1	From counties			15,545 61
June 30	Steward for sundries			1,387 06
June 30	Paid on account of current expenses this year		$68,649 14	
June 30	Balance appropriation in state treasury	$25,840 95		
June 30	Balance in hands of steward	195 64	26,036 59	
			$94,685 73	$94,685 73

Statistical Tables.

STATEMENT OF SPECIAL APPROPRIATION FUNDS, 1904.

Classified items.	Balance available July 1, 1902.	Appropriation, 1903.	Expended during biennial period.	Balance available June 30, 1904.
Front and farm fence	$1,029 93	.....	$92 62	$937 31
Hospital repairing, pipe covering, etc	.....	$11,000 00	6,554 07	5,445 93

STATEMENT OF MONEYS RECEIVED AT THE INSTITUTION.

Classification.	1903.	1904.
Barn, farm and garden	$1,281 20	$1,138 21
Clothing	.....	2 80
Drug and medical department	26 46	.....
Engine and boilers	3 40	.....
Elopers	.....	32
Fuel	78 06	2 00
Gas and other lights	94 01	.....
Hides and pelts	84	2 50
House furnishing	25 00	.....
Library	4 75	.....
Laundry	.....	75
Means of instruction	2 70	.....
Miscellaneous	15 63	20 99
Office expenses	.....	3 13
Printing, postage, stationery and telegraph	7 95	40 00
Repairs and renewals	54 38	20 00
Scraps	150 54	33 57
Shoe shop	12 69	1 75
Subsistence	84 82	114 37
Wages and salaries	94 72	6 67
Total	$1,937 15	$1,387 06

Wisconsin Industrial School for Boys.

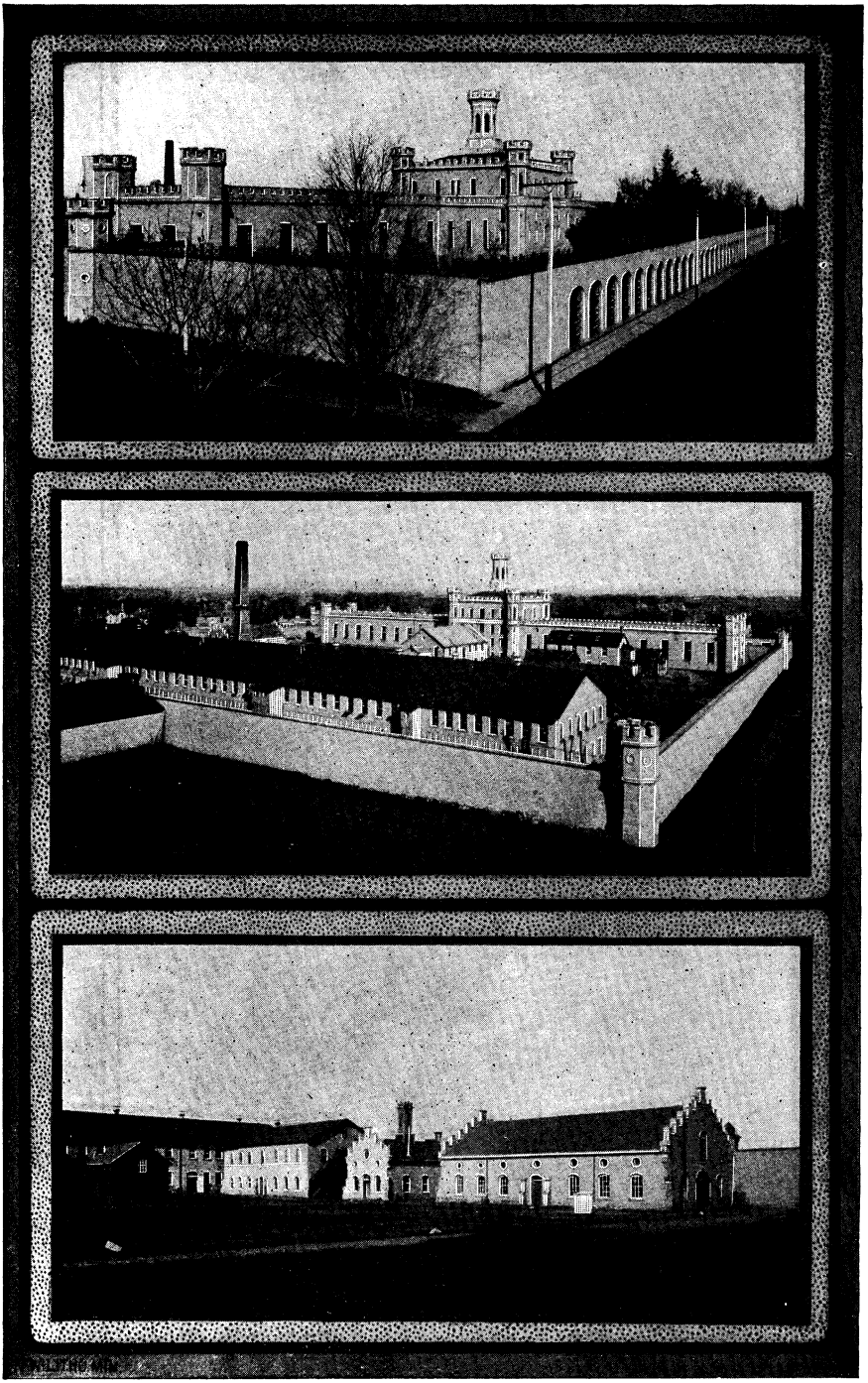
FARM AND GARDEN PRODUCTS.

	1903.		1904.	
	Quantity.	Value.	Quantity.	Value.
Apples	121 bu.	$72 60	6½ bu.	$3 25
Apples, crab	4 bu.	3 00	.....	.....
Asparagus	48½ bu.	97 00	25½ bu.	69 00
Beans	210 bu.	367 50	121 bu.	90 75
Beef	8,160 lbs.	185 89	.....	.....
Beets	614 bu.	154 75	232 bu.	116 00
Beet Greens	1 bu.	25	7 bu.	3 50
Cabbage	7,900 lbs.	13 83	36 hds.	1 20
	7,310 hds.	219 30	3,932 hds.	196 60
Calves	10	81 00	18	116 00
Carrots	66 bu.	16 50	300 bu.	120 00
			28 bu.	11 20
Cauliflower	1,486 hds	72 10	182 hds.	18 20
Cherries	181 qts.	12 70	2 bu.	2 00
			9 bu.	18 00
Chickens	206 lbs.	28 40	250	31 25
Corn, sweet	1,556 doz.	155 60	4,937 lbs.	14 81
			2,496 doz.	249 60
Corn, field	.....	.....	1,800 bu.	720 00
Corn stalks	10 loads.	15 00	110 loads.	165 00
Cucumbers	102 bu.	61 20	53 bu.	53 00
Currants	1,696 qts.	135 68	19½ bu.	15 62
			33 bu.	33 00
Eggs	817⅔ doz.	129 66	707⅛ doz.	91 17
Egg plant	.....	.....	33	3 30
Ensilage	150 T.	300 00	150 T.	300 00
Goose berries	1,038 qts.	51 90	11 bu.	12 75
			438 qts.	21 95
Grapes	12 bu.	24 00	15 bu.	33 00
Hay	168 T.	1,680 00	33 A.	95 00
			59,275 lbs.	207 46
			155 T.	1,085 00
Hides	74 lbs.	4 37	.....	.....
Hogs	13,025 lbs.	736 28	5,470 lbs.	216 32
Horse radish	5 bu.	2 50	6 bu.	3 00
Kohlrabi	.....	.....	16 bu.	8 00
Lettuce	100 bu.	46 00	153½ bu.	63 50
Mangles	.....	.....	987 bu.	197 40
Milk	24,412 gal.	2,641 20	30,810 gals.	3,081 00
Musk melons	.....	.....	2 doz.	2 00
Onions	559 bu.	169 35	279¾ bu.	89 52
			417 bu.	52 45
Oats	.....	.....	2,379 bu.	594 75

Statistical Tables.

FARM AND GARDEN PRODUCTS—Continued.

	1903.		1904.	
	Quantity.	Value.	Quantity.	Value.
Parsley	4 bu.	4 00	5 bu.	5 00
Parsnips	.....	.....	65 bu.	32 50
			30 bu.	15 00
Peas	178 bu.	178 00	171 bu.	171 00
Pigs	55	112 75	117	255 00
Plums	.....	.....	6 bu.	12 00
Potatoes	1,650 bu.	825 00	500 bu.	285 00
Radishes	28½ bu.	37 75	70 bu.	117 00
Raspberries	.....	.....	970 qts.	116 40
Rutabagas	.....	.....	36 bu.	18 00
Rhubarb	107 bu.	53 50	72 bu.	36 00
Rye	700 bu	420 00	405 bu.	202 50
Sauer kraut	15 bbls.	60 00	.....	.....
Squash, summer	.....	.....	98 hds.	49 00
Squash, Hubbard	25 doz hds.	25 00	200 hds.	40 00
Spinach	41½ bu.	20 75	18 bu.	43 00
Strawberries	6,079 qts.	321 55	2,813 qts.	249 45
Straw	45 T.	225 00	80 T.	400 00
Tomatoes	178 bu.	106 80	.....	.....
Tomatoes, green	40 bu.	16 00	.....	.....
Tallow	1,609 lbs.	64 36	.....	.....
Turnips	121 bu.	33 25	42 bu.	21 00
Veal	707 lbs.	58 02	125 lbs.	10 00
Water melon	.....	.....	24 doz.	4 00
Vegetables, misc	.....	.....	.....	115 33
Total	.....	$10,039 29	.....	$10,402 73



WISCONSIN STATE PRISON.

ELEVENTH BIENNIAL REPORT.

OF THE

Wisconsin State Prison

FOR THE

Biennial Period Ending June 30, 1904.

OFFICERS.

HENRY TOWN ..... *Warden*
E. S. HARVEY ..... *Deputy Warden*
JACOB FUSS ..... *Clerk*
REV. G. W. PEPPER ..... *Protestant Chaplain*
REV. J. C. HARTMAN ..... *Catholic Chaplain*
J. B. FROWN, M. D ..... *Physician*
MRS. MARY HUDSON ..... *Matron Female Prison*

SUPERINTENDENT'S REPORT.

STATE BOARD OF CONTROL,

GENTLEMEN:—I herewith submit the eleventh biennial report of the Wisconsin State Prison, for the two fiscal years ending June 30th, 1904. A portion of the time covered by this report, namely: from July 1st, 1902 to September 23rd, 1902, the affairs of the prison were conducted by Acting Warden A. G. Nelson.

The enlargement of the prisoners' dining room and kitchen was begun under the administration of Mr. Nelson, and was completed under my administration. At its completion the dining room had a seating capacity of 575, which was sufficient to seat all the male population of the prison at that time, but within the past six months it has been found necessary to increase the capacity to 600, which allows all the prisoners to dine at the same time, excepting those who are engaged as cooks and waiters. In the old dining room, the majority of the prisoners were fed on the lower floor, and the balance were fed in the front portion of the upper story, while the back portion was used as a kitchen. By making the building 56 feet longer, it was possible to have all the prisoners fed on the upper floor, while the front portion of the lower floor was made into a kitchen. The kitchen is modern in every respect, has cement floor and the sanitary conditions are the best obtainable.

We have recently completed the erection of a boiler house and smoke stack, at a total cost of $5,869.26. The boiler house building also contains a roomy machine shop. A new boiler plant, consisting of three new boilers, equipped with Conway patent grates, piping, setting, induced draft arrangement, etc., has been installed, the cost of which was $4,963.16.

Wisconsin State Prison.

Other repairs and improvements were made as follows:

Repairs on shops 1 to 14	$4,099 96
New Barn	593 55
New Library Books	477 30
Covering steam pipes	386 00
Water filter and heater	2,900 00
Miscellaneous repairs	3,969 73
Total	12,426 54

These repairs and improvements, together with those previously mentioned, brings the total cost to $23,258.96.

We are now putting a new roof on the engine room, and rebuilding that portion of the old boiler house in which the water heater and purifier are located. The estimated expense for this work is $700.00.

On account of the steadily increasing population of our prison, I would recommend that an additional cell room be built. At the present time we have only 564 cells, while our male population is 608. In order to avoid "doubling up" (having two men in one cell) it has been found necessary to convert the old hospital quarters on the second floor of the main building, into sleeping quarters, and at the present time 31 prisoners sleep there. A cell house containing 250 cells would be just what we need.

The second and third stories of the main building are in a bad state of repair, and I would recommend that they be rebuilt. This would give us cheerful sleeping quarters for the officers, as well as a chapel large enough to accommodate all the prisoners. This work would cost in the neighborhood of $10,000.00.

We are in need of either an air lift,—or some similar contrivance,—or a new well. The water in our present well does not flow fast enough, and we are obliged to use the city water about one day in every three. In this connection I wish to state that a reservoir for holding a reserve supply of water is badly needed.

Warden's Report.

I would recommend the purchase of 100 acres of land, adjoining our farm, which would enable us to raise all the vegetables,—including potatoes,—needed for the institution. We would also be able to pasture enough cows to furnish us with all the milk needed here. As it is now we are obliged to purchase from two to three thousand bushels of potatoes every fall. I believe the land could be bought for $100.00 per acre.

We are in need of a cold storage plant, and I would recommend the construction of one at an expense not to exceed $5,000.00

I believe the bakery should be moved from its present location to where purer air and proper ventilation could be had; and I also recommend the building of a new brick oven.

The M. D. Wells Co. vacated the prison shops on February 15th of this year, and on that date the Paramount Knitting Company took possession. The Knitting Company now employs about 330 prisoners, on this new contract.

The discipline of the institution is first-class, owing to the assistance of an efficient corps of officers.

In conclusion I wish to thank your honorable body for the many courtesies shown me, and for your aid and counsel so cheerfully given.

Very truly yours,

HENRY TOWN,
Warden.

Wisconsin State Prison.

STATISTICAL REPORT.

TABLE No. 1.

Admissions and Discharges.

Admissions.	Male.	Female.	Total.
Number confined June 30, 1902	570	12	582
Received during year ending June 30, 1903	239	5	244
Received during year ending June 30, 1904	289	6	295
Total	1,098	23	1,121

Discharges.	Male	Female.			
Discharged during year ending June 30, 1903	249	6			
Transferred to reformatory	4				
Died	6				
Committed suicide	1				
Transferred to hospital for insane	2				
Discharged during year ending June 30, 1904	210	4			
Transferred to reformatory	6				
Died	7				
Committed suicide	1				
Transferred to hospital for insane	4				
			490	10	500
Remaining June 30, 1904			608	13	621

Average number confined during the year:

ending September 30th, 1885	413
ending September 30th, 1886	458
ending September 30th, 1887	448
ending September 30th, 1888	441
ending September 30th, 1889	463
ending September 30th, 1890	523
ending September 30th, 1891	535
ending September 30th, 1892	519
ending September 30th, 1893	537
ending September 30th, 1894	609
ending September 30th, 1895	625
ending September 30th, 1896	606
ending September 30th, 1897	598
ending September 30th, 1898	615
ending September 30th, 1999	592
ending September 30th, 1900	532
ending September 30th, 1901	511
ending June 30th, 1902	574
ending June 30th, 1903	552
ending June 30th, 1904	577

Statistical Tables.

TABLE NO. 2.

Whole number of days spent in prison.

	Year ending June 30th, 1903		Year ending June 30th, 1904.	
Whole number of days during the year:				
Male	197,375		206,383	
Female	4,275		4,208	
		201,650		210,591
Lost time:				
Sundays and holidays	29,399		29,990	
Sick in hospital	3,498		3,554	
Excused sick	597		629	
In punishment	310		305	
Out on order of court			5	
Not assigned	6,667		4,863	
Locked up, deadlock	774		380	
		41,245		
Shops closed, defective boilers			773	
				40,499
Labor not directly productive:				
Janitors	305		307	
Hospital attendants	1,095		1,273	
Tier tenders	4,776		4,388	
Barbers	591		588	
Main buildings	2,729		2,889	
Tobacco shop	610		614	
Kitchen	4,450		5,257	
Dining room	3,772		3,934	
Bakers	1,052		1,406	
Butchers	365		375	
Laundry	2,930		3,035	
Barn and garden	610		565	
Farm	4,037		3,864	
Mending shop	5,164		4,620	
Vegetable men	837		614	
Yard	5,132		5,340	
Female prisoners	4,275		4,208	
Photographer	365		433	
Clerks	781		674	
Female prison	365		363	
Wardens residence	365		435	
Ward	2,958		3,686	
		47,564		
Choreman			1,208	
Stone gang			1,596	
				51,672
Productive labor:				
Contractors	83,907		87,097	
Knitting shop	17,292		20,610	
Engine and boilers	4,431		4,294	
Masons	5,016		4,467	
Miscellaneous repairs	2,195		1,952	
		112,841		118,420
Total		201,650		210,591
Per cent of:				
Lost time		20.45		19.23
Labor not productive		23.59		24.54
Labor productive		55.96		56.23

Wisconsin State Prison.

TABLE NO. 3.

Consolidated statement of contract labor for the year ending June 30, 1903.

Month.	Number of days work.	Average number per day.	Total number of hours.		Total number of days.			Amounts.
1902:			hours.	min.	days.	hrs.	min.	
July.....	7,371	283	73,611	15	7,361	1	15	$3,680 56
August.....	7,311	281	72,982	30	7,298	2	30	3,649 13
September..	6,824	272	68,128	30	6,812	8	30	3,406 43
October.....	7,308	270	72,980	....	7,298	....	.....	3,649 00
November...	6,221	259	61,059	45	6,105	9	45	3,052 98
December...	6,879	264	67,873	45	6,787	3	45	3,393 68
1903:								
January.....	7,170	275	71,635	5	7,163	5	5	3,581 75
February....	6,453	280	64,465	10	6,446	5	10	3,223 26
March.....	7,136	274	71,268	55	7,126	8	55	3,563 45
April.....	7,147	274	71,369	20	7,136	9	20	3,568 47
May.....	6,868	264	68,595	30	6,859	5	30	3,429 77
June.....	7,219	277	71,313	45	7,131	3	45	3,565 68
	83,907	272	835,283	30	83,528	3	30	$41,764 16

Consolidated statement of convict labor for the year ending June 30, 1904.

Month.	Number of days work.	Average number per day.	Total number of hours.		Total number of days.			Amounts.
1903;			hours.	min.	days.	hrs.	min	
July.....	7,118	274	71,114	25	7,111	4	25	$3,555 72
August.....	7,020	270	70,147	15	7,014	7	15	3,507 36
September..	6,682	267	66,764	.....	6,676	4	.....	3,338 20
October.....	7,038	261	70,304	.....	7,030	4	.....	4,063 45
November...	6,031	252	57,148	40	5,714	8	40	3,714 66
December...	7,039	278	70,254	55	7,025	4	55	4,359 04
1904:								
January.....	6,947	278	68,060	5	6,806	.. ..	5	4,423 91
February....	6,590	275	65,875	45	6,587	5	45	4,281 93
March.....	8,028	293	79,663	40	7,966	3	40	5,178 14
April.....	7,925	305	79,130	10	7,913	.....	10	5,143 46
May.....	8,096	324	79,373	.....	7,937	3	.....	5,159 25
June	8,573	330	85,501	.....	8,550	1	.....	5,557 57
	87,097	284	863,336	55	86,333	6	55	$52,282 69

Statistical Tables.

TABLE NO. 4.

Summary of Receipts.

Counties where from.

Counties.	1903.	1904.	Counties.	1903.	1904.
Adams	.....	1	Marathon	18	10
Ashland	8	11	Marinette	4	8
Barron	1	4	Marquette	1	1
Bayfield	4	10	Milwaukee	23	20
Brown	4	1	Monroe	3	2
Buffalo	1	.....	Oneida	2	4
Calumet	.....	1	Outagamie	1	.....
Chippewa	7	10	Ozaukee	.....	1
Clark	1	1	Pepin	1	.....
Columbia	1	6	Pierce	1	.....
Crawford	1	1	Polk	.....	1
Dane	13	13	Portage	4	9
Dodge	1	3	Price	5	4
Door	1	.....	Racine	10	13
Douglas	14	23	Rock	9	21
Dunn	4	2	Sauk	2	1
Eau Claire	4	5	Sheboygan	.....	5
Florence	1	1	Shawano	2	.....
Fond du Lac	2	5	St. Croix	3	2
Forest	1	.....	Taylor	.....	2
Gates	1	.....	Trempealeau	1	10
Grant	4	3	Vernon	3	3
Green	1	2	Vilas	.....	2
Green Lake	1	1	Walworth	4	1
Iowa	.....	2	Washburn	3	.....
Iron	4	11	Waukesha	12	9
Jackson	3	3	Waupaca	2	1
Jefferson	1	2	Waushara	1	.....
Juneau	4	7	Winnebago	7	5
Kenosha	3	3	Wood	5	3
La Crosse	12	13	U. S. courts	2	.....
Langlade	1	4	Rec'd from hospital	1	.....
Lincoln	2	6			
Manitowoc	8	2	Total	244	295

Wisconsin State Prison.

Residence when arres'ed.

Counties.	1903	1904.	Counties.	1903.	1904.
Adams	1	1	Taylor	.....	3
Ashland	5	6	Trempealeau	1	4
Barron	1	4	Vernon	2	2
Bayfield	2	3	Walworth	3	1
Brown	1	.....	Washington	1	1
Buffalo	1	1	Washburn	1	.....
Calumet	.....	1	Waukesha	2	2
Chippewa	1	1	Waushara	1	.....
Clark	3	1	Waupaca	1	1
Columbia	1	1	Winnebago	1	6
Crawford	1	1	Wood	2	5
Dane	8	7			
Dodge	2	.....	Total	160	179
Door	1	.....			
Douglas	6	13			
Dunn	1	2	States:		
Eau Claire	3	2	California	1	1
Florence	.....	1	Colorado	1	1
Fond du Lac	4	6	Illinois	13	29
Forest	2	.....	Iowa	2	3
Grant	5	1	Kentucky	3	2
Green	.....	1	Massachusetts	3	2
Green Lake	1	1	Michigan	8	7
Iowa	.....	2	Minnesota	3	17
Iron	1	3	Missouri	3	2
Jackson	2	3	Nebraska	.....	2
Jefferson	2	1	New Mexico	1	.....
Juneau	2	2	New York	3	9
Kenosha	4	1	North Dakota	.....	1
La Crosse	5	11	Ohio	1	3
Langlade	2	5	Oregon	.....	1
Lincoln	1	2	Pennsylvania	5	5
Manitowoc	2	.....	Tennessee	1	.....
Marathon	11	5	Texas	1	.....
Marinette	3	6	Virginia	1	1
Marquette	.....	1	Washington	1	.....
Milwaukee	31	18	West Virginia	1	.....
Monroe	1	2	Foreign	4	8
Oneida	.....	4	No home	27	22
Outagamie	2	.....	Returned from Hos.	1	.....
Pepin	2	.....			
Pierce	1	.....	Total	244	295
Portage	5	9			
Price	4	2			
Racine	4	5	*Sex.*		
Richland	.....	4			
Rock	5	11	Male	239	289
Sauk	2	.....	Female	5	6
Shawano	1	.....			
Sheboygan	.....	3	Total	244	295
St. Croix	2	.....			

Statistical Tables.

Age.

	1903.		1904.	
	Total number.	Per centage.	Total number.	Per centage.
Under 20 years	22	9.4	15	.5
From 20 to 30 years	87	35.6	128	43.8
From 30 to 40 years	70	28.6	89	30.0
From 40 to 50 years	44	18.0	43	14.6
From 50 to 60 years	17	6.9	11	3.7
From 60 to 70 years	4	1.5	8	2.6
From 70 to 80 years	.....	.....	1	.3
	244		295	

Habits.

Intemperate	108	44.3	137	46.4
Moderate	104	42.6	125	42.3
Temperate	32	13.1	33	11.3
	244		295	

How often sentenced.

First conviction	195	79.9	239	81.1
Second conviction	25	10 3	29	9.8
Third conviction	11	4.5	8	2.7
Fourth conviction	3	1.2	4	1.3
Fifth conviction	4	1.6	6	2.1
Sixth conviction	2	.8	1	.3
Thirteenth conviction	1	.4	.....	.....
Reform school	3	1.3	8	2.7
	244		295	

Wisconsin State Prison.

Religious Instruction.

	1903.		1904.	
	Total number.	Per centage.	Total number.	Per centage.
Protestant	127	52	148	50.1
Catholic	89	36.5	124	42.1
Jews	.....	.....	3	1
No religion	28	11.5	20	6.8
	244		295	

Conjugal Relations.

Married	75	30.7	69	23.4
Single	150	61.5	196	66
Widower	12	4.9	23	7.8
Widows	.....	.....	1	.4
Divorced	6	2.5	3	1
Separated	1	.4	3	1
	244		295	

Color.

White	233	95.5	283	96
Black	7	2 9	2	.7
Mulatto	4	1.6	6	1.9
Indian	.....	.....	2	.7
Half Indian	.....	.....	2	.7
	244		295	

Statistical Tables.

Education.

Read and write English	220	90.2	281	95.2
Read and write German only	3	1.2	.....	.....
Read and write French only	1	.5	.....	.....
Read and write Finnish only	3	1.2	.....	.....
Read and write Polish only	4	1.6	.....	.....
Neither read nor write	13	5.3	14	4.8
	244		295	

Terms of Sentence.

	1903.	1904.
During life	4	6
Thirty-five years	1	.....
Twenty-five years	4	1
Twenty years	1	.....
Sixteen years	1	.....
Fifteen years	1	7
Fourteen years	2	1
Twelve years	1	1
Ten years	12	3
Eight years	2	8
Seven years and six months	1	.....
Seven years	10	5
Six years	4	5
Five years	12	11
Four years and ten months	1	.....
Four years and six months	3	3
Four years	9	10
Three years and six months	5	9
Three years	20	29
Two years and ten months	.....	1
Two years and six months	4	1
Two years	35	40
One year and nine months	1	1
One year and eight months	.....	1
One year and six months	27	24
One year and three months	2	5
One year and two months	2	1
One year	61	95
Ten months	1	1
Nine months	4	6
Eight months	1	2
Seven months	1	2
Six months	10	12
Three months	.....	2
General term	.....	2
Returned from hospital	1	.....
Total	244	295

Wisconsin State Prison.

Crime.

	1903.	1904.
Assault with intent to commit a felony	.....	2
Assault with intent to commit sodomy	.....	1
Assault with intent to kill	11	8
Assault with intent to do great bodily harm	10	15
Assault with intent to rape	7	9
Assault with intent to rob	9	7
Assault with intent to maim	.....	1
Assault with a dangerous weapon	.....	2
Assault regardless of human life	.....	2
Assault and robbery	3	.....
Assault and theft	2	1
Abandonment	5	3
Adultery	11	13
Attempted burglary	.....	1
Attempted sodomy	.....	1
Arson	.....	2
Accessory to assault with intent to kill	1	.....
Attempting to aid prisoners to escape	1	.....
Abortion and manslaughter	1	.....
Bigamy	.....	1
Burglary	51	74
Burglary and being habitual criminal	.....	2
Counterfeiting	1	.....
Desertion and adultery	.....	1
Drunkenness	.....	1
Desertion	1	.....
Embezzlement	4	8
Endeavoring to procure commission of perjury	.....	1
Forgery	21	17
Fornication	5	1
Horse stealing	4	2
Having burglar tools in possession	1	1
Incest	3	5
Keeping house of ill fame	.....	1
Kidnapping	1	.....
Larceny, all grades	43	69
Making false bank report	.....	1
Malicious injury to property	1	.....
Murder, first degree	4	6
Murder, second degree	6	2
Murder, third degree	1	.....
Manslaughter, first degree	1	.....
Manslaughter, second degree	1	1
Manslaughter, third degree	1	4
Manslaughter, fourth degree	3	2
Non support	1	.....
Obtaining money under false pretenses	.....	5
Obtaining goods under false pretenses	.....	1
Perjury	.....	1

Statistical Tables.

Crime—Continued.

	1903.	1904.
Polygamy	1	.....
Passing counterfeit money	2	.....
Rape	9	2
Robbery	4	8
Receiving stolen goods	2	.....
Sodomy	4	2
Taking indecent liberties	.....	6
Theft	1	.....
Uttering forged paper	4	.....
Uttering forged check	1	.....
Vagrancy	.....	2
Returned from hospital	1	.....
	244	295

Statistical Tables.

Profession or trades.

	1903.	1904.		1903.	1904.
Accountant	2	.....	Lumberman	2	5
Actor	1	.....	Lather	2	.....
Agent	1	2	Lineman	.....	1
Brakeman	1	6	Logger	1	.....
Barber	1	7	Lawyer	1	1
Bookkeeper	2	1	Liveryman	1	.....
Butcher	3	3	Mason	3	3
Blacksmith	5	3	Machinist	4	5
Bartender	3	5	Miner	2	.....
Bookmaker	1	.....	Moulder	3	1
Baker	1	4	Musician	3	1
Banker	.....	1	Marble carver	1	....
Buffer	.....	1	Miller	1	.....
Boilermaker	.....	1	Nurse	.....	2
Bookbinder	.....	1	Peddler	2	1
Cheesemaker	1	1	Pressman	....	1
Clerk	2	4	Plumber	1	1
Cook	2	12	Printer	3	.....
Carpenter	11	8	Porter	2	1
Cigar maker	1	1	Paper hanger	1	.....
Cabinet maker	1	1	Painter	13	17
Carriage maker	1	.....	Railroad man	.....	4
Chimney sweep	.....	1	Sailor	1	2
Cooper	1	.....	Salesman	4	5
Coremaker	1	.....	Saloon keeper	1	.....
Dishwasher	1	.....	Shoemaker	3	2
Drug clerk	.....	1	Stenographer	2	1
Engineer	3	9	Solicitor	1	.....
Electrician	2	3	Steam fitter	1	.....
Farmer	14	11	Steward	1	1
Farm laborer	15	16	Switchman	.....	2
Fireman	6	7	Steel roller	1	.....
Gardener	1	1	Tailor	.....	5
Housekeeper	5	5	Telegraph operator	.....	4
Hostler	6	3	Teamster	3	6
Horsetrainer	1	.....	Tinsmith	1	.....
Hoop maker	.....	1	Veterinary surgeon	1	1
Hotel clerk	.....	1	Waiter	2	3
Justice of the peace	1	.....	Wook worker	1	.....
Jockey	1	.....	Returned from hospital	1	.....
Journalist	1	.....			
Knitter	1	1			
Laborer	74	97	Total	244	295

Statistical Tables.

Nativity.

	1903	1904.		1903.	1904.
States:			*States:*		
Alabama	.....	3	Vermont	3	.....
Arkansas	1	.....	Virginia	2	1
California	2	1	West Virginia	1	.....
Connecticut	.....	1	Wisconsin	69	105
Iowa	3	7			
Illinois	14	20	*Foreign:*		
Indiana	2	4	Austria	1	2
Kentucky	5	2	Bohemia	1	2
Kansas	.....	1	Canada	15	13
Louisiana	1	1	Denmark	.....	1
Maine	.....	2	England	3	5
Massachusetts	3	4	Finland	9	4
Michigan	12	15	France	1	1
Minnesota	6	8	Germany	27	21
Maryland.	1	1	Holland	.....	2
Missonri	1	1	Ireland	5	4
Mlssissippi	1	.....	Norway	2	6
Nebraska	1	.....	New Brunswick	.....	1
New Hampshire	1	.....	Prussia	4	1
New Jersey	1	.....	Poland	3	4
New York	13	25	Prince Edwards Isle.	1	.....
New Mexico	1	.....	Russia	2	3
North Dakota	.....	1	Scotland	3	2
Ohio	4	6	Sweden	5	3
Oregon	1	1	Wales	.....	1
Pennsylvania	11	8	Returned from hosp'l	1	.....
Rhode Island	.....	1			
Tennesseé	1	.....	Total	244	295

Nativity of parents.

	1903.	1904.
Parents born in the United States	61	80
Parents born in foreign countries	158	183
Father born in the United States, mother foreign	8	7
Mother born in United Strtes, father foreign	11	24
Not known	5	1
Returned from hospital	1	.....
	244	295

Wisconsin State Prison.

TABLE NO. 5.

Prisoners discharged.

	1903.	1904.
Reduction of time	248	210
Expiration of time	1	1
Governor's pardon	1	1
Transferred to State Reformatory	4	6
Order of court	5	2
Transferred to Hospital for the Insane	2	4
Died	6	7
Committed suicide	1	1
	268	232

Per cent. of pardons granted for the year ending—	To average population.	To number discharged.
September 30, 1885	3.16	6.70
September 30, 1886	3.73	7.65
September 30, 1887	2.90	6.31
September 30, 1888	2.94	6.46
September 30, 1889	4.10	8.56
September 30, 1890	4.02	8.53
September 30, 1891	3.94	7.75
September 30, 1892	3.66	5.00
September 30, 1893	2.79	5.72
September 30, 1894	2.63	5.95
September 30, 1895	4.96	8.49
September 30, 1896	3.13	5.31
September 30, 1897	2.84	5.29
September 30, 1898	3.41	5.91
September 30, 1899	2.47	4.38
September 30, 1900	2.63	4.53
September 30, 1901	1.57	3 45
June 30, 1902	0.52	1.90
June 30, 1903	0.18	0.37
June 30, 1904	0.17	0.43

Statistical Tables.

TABLE No. 6.

Prison population at the close of the fiscal year ending June 30, 1904.

Counties where from.

Adams	1	Marinette	12
Ashland	16	Marquette	3
Barron	9	Milwaukee	95
Bayfield	12	Monroe	4
Brown	4	Oconto	4
Buffalo	1	Oneida	5
Calumet	2	Outagamie	2
Chippewa	14	Ozaukee	3
Clark	6	Price	8
Columbia	8	Pierce	2
Crawford	2	Polk	4
Dane	25	Portage	16
Dodge	4	Racine	20
Douglas	36	Richland	2
Dunn	5	Rock	31
Eau Claire	11	St. Croix	7
Fond du Lac	8	Sauk	3
Forest	1	Sawyer	1
Florence	3	Shawano	4
Gates	1	Sheboygan	7
Grant	7	Trempealeau	11
Green	5	Vernon	3
Green Lake	4	Walworth	6
Iowa	2	Washington	2
Iron	11	Taylor	2
Jackson	11	Vilas	2
Jefferson	4	Waukesha	20
Juneau	9	Waupaca	5
Kenosha	9	Waushara	3
Kewaunee	1	Winnebago	12
La Crosse	21	Wood	9
Langlade	5	U. S. Courts	4
Lincoln	9		
Manitowoc	11		621
Marathon	31		

Ages.

Under 20 years	18	From 60 to 70 years	28
From 20 to 30 years	207	From 70 to 80 years	9
From 30 to 40 years	189	From 80 to 90 years	2
From 40 to 50 years	114		
From 50 to 60 years	54		621

Wisconsin State Prison.

Color.

White	595	Half Indian	1
Black	10		
Mulatto	9		621
Indian	6		

How often sentenced.

First conviction	498	Twelfth conviction	1
Second conviction	60	Thirteenth conviction	2
Third conviction	31	Reform school	12
Fourth conviction	7		
Fifth conviction	7		621
Sixth conviction	3		

Education.

Read and write English	553	Read German	1
Read and write German only	15	Read Polish	1
Read and write Italian only	3	Read only	4
Read and write Swedish only	2	Neither read nor write	37
Read and write Polish only	3		
Read and write Finnish only	2		621

Received in the several years as follows:

1863	1	1890	6
1867	1	1891	6
1871	1	1892	2
1872	2	1893	3
1874	2	1894	5
1876	1	1895	4
1877	1	1896	8
1878	1	1897	9
1879	1	1898	21
1880	1	1899	17
1883	3	1900	16
1884	3	1 01	44
1885	3	1902	107
1886	1	1903	188
1887	1	1904	156
1888	5		
1889	1		621

Statistical Tables.

Crime.

Abandonment	3	Fornication with insane female	3
Adultery	15	Having burglary tools in possession	1
Attempting to aid prisoner to escape	1	Horse stealing	8
Attempting to commit a fel'y	2	Incest	15
Arson	4	Kidnapping	1
Attempted sodomy	1	Larceny (of all grades.)	75
Accessory to assault, with intent to kill	1	Keeping house of ill fame	1
Assault and theft	3	Endeavoring to procure commission of perjury	1
Assault with intent to kill	27	Murder, first degree	85
Assault with intent to do great bodily harm	21	Murder, second degree	31
Assault with intent to rape	24	Manslaughter, first degree	3
Assault with intent to commit sodomy	1	Manslaughter, second degree	2
Assault with intent to rob	8	Manslaughter, third degree.	5
Assault with intent to maim	1	Manslaughter, fourth degree	4
Assault with intent to steal	2	Manslaughter	1
Assault with a dangerous weapon	3	Making false bank report	1
Assault regardless of human life	2	Malicious injury to property	1
Assault and robbery	4	Obstructing railroad tracks.	1
Abortion and manslaughter	1	Obtaining money under false pretenses	4
Burglary	132	Obtaining goods under false pretenses.	2
Burglary and larceny	1	Passing counterfeit money.	1
Burglary and habitual criminal	2	Perjury	2
Bigamy	1	Rape	32
Counterfeiting.	1	Robbery	15
Desertion and adultery	1	Receiving stolen goods	2
Drunkenness	1	Sodomy	3
Embezzlement	11	Taking indecent liberties	7
Forgery	30	Theft	1
Fornication	6	Uttering forged check	1
		Vagrancy	2
		Total	621

Wisconsin State Prison.

Terms of sentence.

During life	88	Four years	37
Thirty-five years	2	Three years and six months	17
Thirty years	3	Three years	58
Twenty-five years	13	Two Years and ten months	1
Twenty-four years	1	Two years and six months	6
Twenty-one years	1	Two years	67
Twenty years	8	One year and nine months	2
Eighteen years	2	One year and eight months	1
Sixteen years	2	One year and six months	35
Fifteen years	21	One year and three months	7
Fourteen years	9	One year and two months	1
Twelve years	4	One year	89
Ten years	23	Ten months	1
Eight years	15	Nine months	3
Seven years and six months	2	Eight months	1
Seven years	20	Six months	7
Six years	12	Three months	1
Five years	49	General term	4
Four years and ten months	1		
Four years and six months	7		621

Statistical Tables.

TABLE NO. 7.

Life prisoners.

Number confined June 30, 1902	.....	81
Received during the year ending June 30, 1903,	5	.....
Received during the year ending June 30, 1904,	6	.....
		11
		92
Discharged on order of court	1	.....
Died	2	.....
Committed suicide	1	.....
		4
Remaining June 30, 1904		88

Ashland	3	Milwaukee	12
Barron	2	Monroe	2
Brown	1	Oconto	2
Calumet	1	Price	1
Chippewa	3	Portage	1
Clark	2	Ozaukee	1
Dane	2	Racine	4
Dodge	1	Richland	1
Dunn	1	Rock	4
Douglas	2	Sawyer	1
Eau Claire	3	Shawano	2
Fond du Lac	1	St. Croix	1
Green	1	Trempealeau	1
Green Lake	2	Waukesha	4
Iowa	1	Walworth	1
Jackson	2	Winnebago	1
Jefferson	2	Wood	2
Kenosha	3	Waupaca	2
Langlade	1	Waushara	3
Lincoln	3	U. S. Courts	2
Marqette	1		88
Marathon	4		
Manitowoc	1		

Wisconsin State Prison.

Color.		*Sex.*	
White	79	Male	83
Black	3	Female	5
Indian	5		88
½ Indian	1		
	88		
Ages.			
Under 20 years	1		
From 20 to 30 years	9	*Conjugal relations.*	
From 30 to 40 years	16		
From 40 to 50 years	25	Married	31
From 50 to 60 years	16	Single	34
From 60 to 70 years	12	Widows	4
From 70 to 80 years	7	Widowers	18
From 80 to 90 years	2	Divorced	1
	88		88

Nativity.

Native:		Foreign:	
Connecticut	1	Austria	1
Illinois	1	Bohemia	1
Iowa	1	Canada	5
Maine	2	Denmark	1
Minnesota	1	England	2
Michigan	3	France	1
New York	3	Germany	22
New Jersey	1	Holland	2
Ohio	1	Ireland	1
Pennsylvania	2	Italy	2
Tennessee	2	Poland	1
Virginia	2	Prussia	1
Wisconsin	24	Sweden	2
		Switzerland	2

Statistical Tables.

Total number of life prisoners received since organizatian of the prison.

Murder—first degree	233	.....
Murder—second degree	11	.....
Desertion	1	.....
Rape	5	.....
		250
Discharged on governor's pardon	65	.....
Writ of habeas corpus	5	.....
Order secretary of war	1	.....
Order supreme court	3	.....
Commutation of sentence	3	.....
Remanded for new trial	21	.....
Removal to hospital for insane	16	.....
Died	43	.....
Committed suicide	3	.....
Escaped	2	.....
		162
		88

Wisconsin State Prison.

TABLE NO. 8.

Female prisoners.

Number confined June 30, 1902	.....	12
Received during the year ending June 30, 1903	5	.....
Received during the year ending June 30, 1904	6	11
		23
Discharged on reduction of time	.....	10
Remaining June 30, 1904	.....	13

Counties where from		*Age.*	
Ashland	2	Under 20 years	1
Jefferson	1	From 20 to 30 years	2
Kenosha	1	From 30 to 40 years	4
Langlade	1	From 40 to 50 years	4
Milwaukee	3	From 50 to 60 years	1
Marathon	2	From 60 to 70 years	1
Price	2		13
Shawano	1		
	13	*Conjugal relations.*	
		Married	8
		Single	1
		Widows	4
			13

Statistical Tables.

Nativity.

Native:		Foreign:	
Indiana	1	Bohemia	2
Michigan	1	Germany	4
Pennsylvania	1	Sweden	1
Wisconsin	3		13

Terms of sentence.

During life	5	Two years	1
Eight years	1	One year and six months	1
Six years	1	One year	2
Five years	1		13
Three years and six months	1		

Crime.

Accessory to assault with intent to kill	1	Manslaughter, 4th degree	1
Adultery	3	Murder	5
Arson	1	Robbery	1
Larceny	1		13

Wisconsin State Prison.

TABLE NO. 9.

Prison population, number of female prisoners and life members at the close of each fiscal year since the organization of the prison. Number pardoned, died, committed suicide and escaped during the year.

Date.	Prison population.	Females.	Life prisoners.	Pardoned.	Died.	Suicide	Escaped.
April 1, 1852	15						
December 31, 1852	28	2					1
December 31, 1853	61	5			1		
December 31, 1854	71	5		13			
December 31, 1855	72	4	8	14	1		
December 31, 1856	108		12	13	1	1	
December 31, 1857	160						
December 31, 1858	202			16	1		
December 31, 1859	182			29	2		
September 30, 1860	170	12		25	1		1
September 30, 1861	137	12		26			
September 30, 1862	116	4	16	5			
September 30, 1863	131	8	20	14			2
September 30, 1864	120	14	22	9	1		2
September 30, 1865	97	6	24	15	2		2
September 30, 1866	169	10	27	13	1	1	
September 30, 1867	206	15	30	16			
September 30, 1868	184	8	33	11	1		
September 30, 1869	180	3	31	13	1		
September 30, 1870	195	2	35	5			
September 30, 1871	191	2	35	12	1	1	
September 30, 1872	187	7	36	13	2		2
September 30, 1873	180	5	36	14	1		
September 30, 1874	230	7	40	18	1		
September 30, 1875	248	12	37	19	2		
September 30, 1876	266	13	40	22	1	1	
September 30, 1877	290	10	42	27	2	2	
September 30, 1878	346	6	45	19	2		1
September 30, 1879	309	7	48	11	1		
September 30, 1880	277	7	47	13	3	1	
September 30, 1881	305	7	49	6	6		
September 30, 1882	348	7	44	13	3		2
September 30, 1883	366	9	48	16	3		1
September 30, 1884	410	9	50	14	5	1	
September 30, 1885	441	12	49	14	7		
September 30, 1886	450	13	51	17	2		3
September 30, 1887	428	13	52	13	1		
September 30, 1888	438	14	60	13	2		5
September 30, 1889	507	15	64	19	4		1
September 30, 1890	532	17	68	19	10		4
September 30, 1891	529	15	74	23	7		2
September 30, 1892	498	17	77	19	4	2	
September 30, 1893	536	24	77	15	2		
September 30, 1894	662	24	81	16	6		
September 30, 1895	615	24	79	31	5		
September 30, 1896	582	19	77	19	5		
September 30, 1897	610	13	72	15	4		2
September 30, 1898	601	21	78	22	7		1
September 30, 1899	567	17	86	14	4	1	1
September 30, 1900	496	13	83	14	8	1	1
September 30, 1901	523	12	84	8	5		1
June 30, 1902	582	13	81	3	5		
June 30, 1903	558	11	84	1	6	1	
June 30, 1904	621	13	88	1	7	1	
				750	147	14	35

Statistical Tables.

Exhibit of United States prisoners confined June 30, 1904.

Number on register.	Where convicted.	Term of sentence.	Date of sentence.	Crime.
5040.	Eastern district .	Life	Sept. 20,1890	Rape.
5177.	Western district	Life.....	Mar. 23,1891	Rape.
8772.	Western district.	Eighteen months..	May 18,1903	Counterfeiting silver dollars.
8805.	Western district.	Eighteen months..	June 23,1903	Passing counterfeit money.

PHYSICIAN'S REPORT.

To the HONORABLE STATE BOARD OF CONTROL,
Madison, Wisconsin.

GENTLEMEN—I herewith respectfully present the 11th biennial report of the Medical Department of the Wisconsin State Prison.

I wish to thank the State Board of Control, the Warden, Deputy and officers of the institution, for their help and courtesies extended to me in my work in this department.

J. F. BROWN,
Prison Physician.

TABLE NO. 1.

General Statement.

Total number of persons in prison July 1, 1902	582
Total number received from July 1, 1902 to June 30, 1904.....	539
Total numper discharged from July 1, 1902 to June 30, 1904.....	500
Total number treated in hospital from July 1, 1902 to June 30, 1904	428
Total number treated in dispensary from July 1, 1902 to June 30, 1904	23,542
Total number of deaths from July 1, 1902 to June 30, 1904.....	15
Total number transferred to asylum	4
Monthly average number in prison	$561\frac{20}{24}$
Monthly average number in hospital.....	17.8
Monthly average number treated from dispensary.....	$980\frac{22}{24}$

Wisconsin State Prison.

TABLE NO. 2.

Out hospital report.

Months.	Number treated.	Medical treatments.	Surgical treatments.	Average number in prison.	Number working days in month.	Daily average No. treated.
1902.						
July	793	582	48	573	26	30.5
August	927	732	42	559	26	35.6
September	826	582	38	549	25	33.
October	920	619	65	545	27	34.
November	999	695	54	546	23	43.4
December	1,207	953	56	552	26	46.4
1903.						
January	1,052	855	60	550	26	40.4
February	868	762	26	550	23	36.8
March	1,151	973	33	546	26	44.2
April	1,000	833	36	550	26	38.4
May	897	708	61	550	25	35.8
June	911	691	82	557	26	35.
July	941	704	75	555	26	36.2
August	929	692	83	552	26	35.7
September	961	770	67	542	25	38.4
October	975	738	69	549	27	36.1
November	901	669	56	569	25	36.
December	1,082	849	63	578	26	41.6
1904.						
January	1,010	804	49	582	25	40.4
February	1,015	763	82	577	24	42.2
March	1,235	954	98	582	27	45.7
April	1,061	815	60	566	26	40.8
May	982	729	70	608	25	39.2
June	999	721	47	597	26	38.4
Totals	23,542	18,293	1,420	13,484	613	924.2
Averages	$980\frac{22}{24}$	$962\frac{5}{24}$	$59\frac{4}{24}$	$561\frac{20}{24}$	$25\frac{13}{24}$	$38\frac{12}{24}$

Statistical Tables.

TABLE NO. 3.

In hospital report.

Months.	In hospital first of month.	Rec'd in hospital during month.	Discharged from hospital during month.	Treated in hospital during mo.	Number of deaths.	Daily average number in hospital.
1902.						
July	8	5	5	13	0	9.3
August	8	9	8	17	0	8.1
September	9	9	10	18	0	9.1
October	8	15	14	23	1	8.
November	9	10	7	19	1	9.2
December	12	7	5	19	1	10.6
1903.						
January	14	9	12	23	1	11
February	11	7	11	18	2	10.4
March	7	8	5	15	0	9.3
April	10	9	8	19	0	11.7
May	11	3	3	14	1	11.1
June	11	7	7	18	0	9.5
July	11	5	6	16	1	8.8
August	10	7	7	17	1	9.5
September	10	9	7	19	0	8.6
October	8	3	1	11	0	8.6
November	10	5	2	15	1	11.8
December	13	6	7	19	1	12.3
1904.						
January	12	8	5	20	0	12.8
February	15	6	7	21	1	14.
March	13	4	3	17	1	13.3
April	14	6	5	20	1	12.8
May	15	5	7	20	1	13.7
June	12	5	2	17	0	12.
Totals	261	167	156	428	15	255.3
Averages	$10\frac{21}{24}$	$6\frac{23}{24}$	$6\frac{19}{24}$	$17\frac{20}{24}$	.....	10.6

Wisconsin State Prison.

TABLE NO. 4.

Record of deaths.

Name.	Age.	Entered prison.	Term	Crime.	Reg. No.	Disease.	Date of death.
James Adams.	26	Oct. 16,1901	1½ ys	Burglary.....	8363	Sarcoma.....	Oct. 18,1902
John Schmidt.	28	Dec. 14,1900	5 yrs	Burglary. ...	8141	Hung himself in cell.....	Nov. 26,1902
John Wylie ...	54	Aug. 16,1901	6 yrs	Burglary.....	8311	Heart rupture of left auricle	Dec. 3,1902
Henry St.Clair	24	Mch. 21,1898	10 yrs	Ass'lt to rape	7388	Tuberculosis ..	Jan. 30,1903
A. Hilgendorf.	67	Sep. 25,1896	Life	Murder, 1st d	6883	Pneumonia	Feb. 19,1903
W. M. Johnson	39	Sep. 10,1901	5 yrs	Burg. tools in possession .	8325	Tuberculosis ..	Feb. 28,1903
A. J. Kohl	23	Dec. 9,1902	3 yrs	Ass'lt to kill.	8658	Acute pneumonic phthisis..	May 22,1902
G.Worthingt'n	21	Nov. 25,1901	2-3 ys	Larceny	8403	Heart failure..	July 6,1903
Chris. Bosser.	42	June 21,1899	14 yrs	Murder, 2d d.	7791	Phthisis pulmonalis	Aug. 4,1903
John Smith...	21	Nov. 14,1901	4 yrs	Burglary.....	8397	Tuberculosis ..	Nov. 29,1903
Merritt Stoner	24	Oct. 26,1903	1 yr	Larceny	8890	Heart failure..	Dec. 31,1903
Geo. Colgrove.	34	Feb. 20,1885	Life	Murder, 1st d	3712	Cancer of stomach.....	Feb. 19,1904
Geo. Brandt ..	39	Oct. 10,1903	Life	Murder, 1st d	8867	Hung himself in cell.....	Mch. 12,1904
H. G. Latham	38	Jan. 19,1903	1½ ys	Forgery.....	8693	Phthisis pulmonalis.....	Apr. 1,1904
E. F. Larson.	30	Oct. 21,1902	7 yrs	Forgery....	8618	Tuberculosis ..	May 17,1904

TABLE NO. 5.

Transferred to State Hospital for Insane.

Reg. No.	Name.	Age	Date of sentence.	Terms.	Date of transfer.
7590	Sam Langvine.....	38	Oct. 19, 1898	10 yrs.	Aug. 13, 1903
8595	Frank Marshall.....	20	Sept. 12, 1902	5 yrs.	Aug. 13, 1903
8893	Wm. Schmidt.....	24	Oct. 29, 1903	15 yrs.	Feb. 11, 1904
7423	Anton Balistiere.....	34	Apr. 30, 1898	20 yrs.	June 7, 1904

Statistical Tables.

TABLE NO. 6.

Hospital substistance and drug account.

Year.	Total cost of hospital subsist'nce.	Daily average cost of hospital subsistence.	Daily average No. in hospital.	Total cost of all drugs used in prison.	Average cost of drugs per day.	Daily average No. of persons in prison.	Daily average No. of persons treated from dispensary.
1902	$683 95	$1 87	9.7	$678 08	$1 85	552	3.61
1903	573 04	1 56	11.5	783 37	2 14	548	32.8
Totals	$1,256 99	3 43	21.2	$1,462 45	3 99	1,100	64.4
Averages.	$628 49	1 71	10.6	$731 22	1 99	550	32.2

TABLE NO. 7.

The individual record of Waupun Prison for ten years as follows:

Year.	Deaths from tuberc'losis.	From all other causes.	Average No. of prisoners.	Percentage.
1895	2	5	625	.001
1896	3	5	606	.012
1897	2	4	598	.010
1898	0	7	645	.010
1899	3	4	592	.011
1900	0	1	523	.013
1901	2	3	511	.011
1902	3	1	574	.006
1903	3	4	552	.012
1904	4	4	571	.014
Totals	22	38	5,797	.010

Wisconsin State Prison.

CHAPLAIN'S REPORT FOR 1904.

To the Honorable State Board of Control.

GENTLEMEN—Two more years of life in the prison and we find ourselves still meeting the same old problems, and facing the same difficulties, as in the past, but with enough of added experience to show us the utter inability of our present system to successfully counteract the tendencies toward crime in the individual, or the volume of crime in the State; but this experience has not brought to us the assurance that we can outline a better system or a better method of solving the problems confronting us.

We have tried to faithfully perform the round of office duties, and find that the personal touch they give us with each prisoner, in the care of the library, inspection of the mail and the personal interviews, give us a clearer insight into the needs of prisoners, and a more friendly relation with them than could come in any other way.

The chapel services have been well attended as a rule, and the interest of the audience has always been marked. We have been greatly aided in these services by the faithful and very efficient help of the prison orchestra and choir.

During the two years past we have had a very pleasant and successful Christian Endeavor service, on each Sunday, immediately following the chapel exercises, at which we study the current Sunday School lesson, in one large Bible class. These meetings are attended by about one hundred men.

The night school is proving a blessing to the men who attend, and one of the sad, disappointing features in our work is that we have so poor an equipment for our school work. We can accommodate only about one hundred pupils, and

twice this number should attend and would do so if the necessary room and facilities were provided.

Our library is well patronized and many of the better class of books are exceedingly popular with the men. As the increase in the number and variety of books greatly stimulates reading, means should be provided for the procuring of additional books each year.

We are glad to thus acknowledge the kindly interest manifested and sympathy extended in our work by the benevolent people of the State, as evidenced by the large quantities of reading matter they have so kindly supplied us with.

We have great faith in the power of the Gospel of Jesus Christ to correct the ills of the moral nature, and find that although men and women may be behind iron bars, they are no exception to the rule; and we are still looking to Him who came to "seek and to save the lost," to exemplify his saving power here, for we feel that it is the only sure and safe remedy.

Respectfully Submitted,

G. W. PEPPER,

Chaplain.

Wisconsin State Prison.

ROSTER OF EMPLOYES AT WISCONSIN STATE PRISON, JUNE 30, 1904.

NAME.	Occupation.	Salary per month.	APPOINTED.		Place whence appointed.
			Year.	Date.	
Henry Town	Warden	.....	1902	Sept.	Madison.
E. S. Harvey	Deputy warden	$83 33	1899	Sept. 14	Chicago, Ill.
Richard Elliott	Asst. deputy warden.	60 00	1899	Aug. 1	Waupun.
Jacob Fuss	Chief clerk	88 33	1874	Apr. 1	Green Bay.
Wm. M. Campbell	Record clerk	60 00	1898	Aug. 23	Milwaukee.
Dr. J. F. Brown	Physician	125 00	1902	Nov. 15	Milwaukee.
Rev. Geo. W. Pepper.	Chaplain, Protestant	76 66	1901	July 1	Kilbourn.
Rev. Jos. C. Hartman	Chaplain, Catholic	16 66	1895	Aug. 1	Waupun.
Edward Kerstell	Keeper So. cell room.	50 00	1900	July 12	Winnebago.
Willis A. Yarham	Keeper No. cell room.	50 00	1900	Oct. 8	Waupaca.
John Kerrigan	Keeper knitting shop.	46 25	1904	Feb. 1	Waupun.
H. J. Miller	Keeper knitting shop.	46 25	1903	Oct. 20	Watertown.
Chas. H. Lindsley	Keeper knitting shop.	46 25	1904	Apr. 11	Waupun.
John D. Smith	Keeper knitting shop.	46 25	1901	Sept. 20	Black River Falls.
G. A. Benson	Keeper knitting shop.	46 25	1003	Apr. 29	Black River Falls.
Walter A. Bayley	Keeper knitting shop.	46 25	1903	Nov. 2	Madison.
E. L. Young	Keeper knitting shop.	46 25	1903	Nov. 1	Randolph.
R. H. Pepper	Keeper knitting shop.	46 25	1901	Oct. 5	Tomah.
P. J. Cawley	Keeper knitting shop.	46 25	1901	Sept. 30	Madison.
J. N. Baumel	Keeper knitting shop.	46 25	1901	Aug. 15	Black River Falls.
Frank Benway	Keeper, special	46 25	1901	July 1	Waupun.
A. Erickson	Keeper tailor shop	50 00	1903	May 6	Madison.
Wm. A. Graves	Keeper laundry	40 00	1903	Sept. 9	Fox Lake.
W. C. Fuller	Keeper idle room	40 00	1891	Aug. 1	Juneau.
J. R. Brower	Chief engineer	80 00	1903	Nov. 23	Milwaukee.
H. B. Morrow	Asst. engineer	50 00	1901	Dec. 1	Madison.
Robert Hadfield	Night engineer	46 25	1901	Oct. 24	Milwaukee.
Walter A. Watson	Overseer kitchen	56 75	1902	Apr. 28	Winnebago
Dick Drake	Store keeper	56 75	1900	May 1	Fort Atkinson.
Thomas Green	Mason	60 00	1901	Apr. 22	Waupun.
George Steck	Carpenter	60 00	1896	Jan. 31	Milwaukee.
Jas. Van Epps	Farmer	60 00	1899	Apr. 1	Waupaca.
Jos. Carrall	Night captain	51 40	1900	Sept. 6	Winnebago.
Henry Johnson	Night guard cellroom	46 25	1901	May 13	Markesan.
Peter Hanson	Night guard cellroom	46 25	1897	Oct. 30	Marshfield.
L. D. De Gore	Night guard office	46 25	1897	Apr. 5	Mondovi.
H. R. Durkee	Night guard hospital.	46 25	1896	Feb. 1	Lake Geneva.
Ed. Kjorstad	Yardman	46 25	1898	May 12	Chippewa Falls.
H. L. Penfield	Guard hospital.	40 00	1903	Jan. 20	Verona, Dane Co.
Andrew A. Sunne	Guard office	40 00	1898	June 1	Rhinelander.
Max Fuss	Guard front gate	40 00	1889	Dec. 29	Waupun.
B. W. Harney	Wall guard	40 00	1901	Apr. 5	Waupun.
C. L. Esselstyn	Wall guard	40 00	1903	Mar. 29	Fort Atkinson.
Thomas Purcell	Wall guard	40 00	1893	July 1	Waupun.
F. Roybar	Wall guard	40 00	1903	July 31	Madison.
Henry J. Meenk	Wall guard	40 00	1904	July 1	Waupun.
Mrs. M. H. Shilling	Matron	41 66	1904	July 1	Delavan.

Statistical Tables.

STATEMENT OF SPECIAL APPROPRIATIONS FUND, 1904.

Classified Items.	Balance available July 1, 1902.	Appropriation, 1903.	Expended during biennial period.
Cement floors	$360 42	.....	$360 42
Extension of dining room	4,000 00	.....	4,000 00
New boiler and furnace	974 32	.....	974 32
Water power and pumps	1,840 72	.....	1,840 72
Covering steam pipes, new smoke stack, etc	.....	$5,000 00	5,000 00

STATEMENT OF KNITTING SHOP FUND, 1904.

1902 July 1.	Balance	.....	$16,500 00
	Receipts for biennial period	.....	13,964 85
	Convict labor profits during period	$13,964 85	.....
	Balance	16,500 00	.....
		$30,464 85	$30,464 85

Wisconsin State Prison.

STATEMENT OF

At the Wisconsin State Prison

Classification.	Inventory June 30, 1902.	Expended on this acc't during the year.	Transferred to this acc't during the year.	Total.
Accounts receivable ..	$110 48	.....	.....	$110 48
Armory	374 55	$1 00	.....	375 55
Barn, farm & garden.	8,755 60	1,974 43	.....	10,730 03
Clothing	4,566 97	6,973 03	.....	11,540 00
Convicts discharged..	.....	3,772 73	.....	3,772 73
Convicts' earnings....	.....	274 08	.....	274 08
Discounts.....	.....	7 82	.....	7 82
Drug and med. dep't..	966 50	1,037 68	.....	2,004 18
Engine and boilers ...	11,490 94	3,017 32	.....	14,508 26
Fire apparatus	376 50	112 40	.....	488 90
Fire and boiler insur'e	.....	23 41	.....	23 41
Fuel	1,587 05	17,866 02	.....	19,453 07
Furniture.....	6,238 55	94 94	$749 00	7,082 49
Gas and other lights..	949 92	667 29	2,000 00	3,617 21
House furnishing.....	9,690 04	3,329 15	.....	13,019 19
Indebtedness previous year.....	.....	88 38	.....	88 38
Laundry	2,348 26	258 10	.....	2,606 36
Library	1,835 29	.....	456 00	2,291 29
Machinery and tools..	1,437 87	323 90	.....	1,761 77
Means of instruction.	1,355 89	213 28	.....	1,569 17
Miscellaneous	1,694 08	570 70	.....	2,264 78
Officers' expenses.....	.....	209 44	.....	209 44
Printing, postage, stationery and tel	502 69	833 65	.....	1,336 34
Real estate, including buildings, etc	459,875 90	.....	5,263 35	465,139 25
Repairs and renewals.	738 90	3,340 48	.....	4,079 38
Scraps	.....	.....	207 53	207 53
Subsistence	1,303 97	29,904 33	3,160 80	34,369 10
Tobacco	95 27	747 40	.....	842 67
United States	.....	.....	210 82	210 82
Wages and salaries ...	.....	30,633 85	.....	30,633 85
Total	$516,295 22	$106,274 81	$12,047 50	$634,617 53
Less discount, etc.....	.....	379 52	.....	533,643 52
Deducted by Secretary of State for printing	.....	$105,895 29 110 16	.....	$100,974 01 .....
Net expenses...	.....	$106,005 45	.....	.....

Statistical Tables.

CURRENT EXPENSES

for the year ending June 30, 1903.

Inventory June 30, 1903.	Cash rec'd. on this acc't during the year.	Transferred from this acc't during the year.	Total.	Gained.	Expended.
$66 00	$110 48	.....	$176 48	$66 00	.....
362 55	.....	.....	362 55	.....	$13 00
9,419 41	2,226 42	$3,160 80	14,806 63	4,076 60	.....
4,460 83	3 25	.....	4,464 08	.....	7,075 92
.....	.....	.....	.....	.....	3,772 73
.....	.....	.....	.....	.....	274 08
.....	.....	352 82	352 82	345 00	.....
982 00	.....	.....	982 00	.....	1,022 18
13,167 33	37 19	88	13,205 40	.....	1,302 86
406 50	.....	.....	406 50	.....	82 40
.....	.....	.....	.....	.....	23 41
2,343 50	26 18	2,000 00	4,369 68	.....	15,083 39
6,443 85	.....	.....	6,443 85	.....	638 64
1,088 55	81	.....	1,089 36	.....	2,527 85
9,838 35	7 50	17 39	9,863 24	.....	3,155 95
.....	.....	.....	.....	.....	88 38
1,760 58	.....	1 12	1,761 70	.....	844 66
2,100 50	.....	.....	2,100 50	.....	190 79
1,492 42	.....	.....	1,492 42	.....	269 35
1,345 24	.....	.....	1,345 24	.....	223 93
1,492 83	16 00	.....	1,508 83	.....	755 95
.....	.....	.....	.....	.....	209 44
511 09	.....	.....	511 09	.....	825 25
465,139 25	.....	.....	465,139 25	.....	.....
638,13	38 74	207 53	884 40	.....	3,194 98
....	207 53	.....	207 53	.....	.....
1,609 36	50 97	218 13	1,878 46	.....	32,490 64
80 69	.....	.....	80 69	.....	761 98
.....	210 82	.....	210 82	.....	.....
.....	.....	.....	.....	.....	30,633 85
$524,748 96	$2,935 89	$5,958 67	$533,643 52	$4,487 60	$105,461 61
.....	.....	.....	.....	.....	4,487 60
					$100,974 01
.....	.....	.....	.....	.....	110 16
.....	.....	....	.....	.....	$101,084 17

Wisconsin State Prison.

STATEMENT OF

At the Wisconsin State Prison for

Classification.	Inventory June 30, 1903.	Paid on this acc't during the year.	Transferred to this acc't during the year.	Total.
Account receivable	$66 00	.....	.....	$66 00
Armory	362 55	$46 99	.....	409 54
Barn, farm and garden	9,419 41	1,254 75	.....	10,674 16
Clothing	4,460 83	5,573 31	.....	10,034 14
Convicts discharged	.....	3,389 57	.....	3,389 57
Convicts escaped	.....	5 00	.....	5 00
Convicts earnings	.....	304 91	.....	304 91
Discounts	.....	.....	.....	.....
Drug and medical dept.	982 00	978 60	.....	1,960 60
Engine and boilers	13,167 33	2,080 92	$8,716 10	23,964 35
Fire apparatus	406 50	76 90	.....	483 40
Fire and boiler insur'e	.....	72 00	.....	72 00
Fuel	2,343 50	22,489 17	.....	24,832 67
Furniture	6,443 85	233 32	.....	6,677 17
Gas and other lights	1,088 55	934 34	2,000 00	4,022 89
House furnishing	9,838 35	2,962 36	.....	12,800 71
Indeb'ess previous yr.	.....	134 56	.....	134 56
Laundry	1,760 58	836 81	.....	2,597 39
Library	2,100 50	24 30	75 00	2,199 80
Machinery and tools	1,492 42	982 77	.....	2,475 19
Means of instruction	1,345 24	234 75	.....	1,579 99
Miscellaneous	1,492 83	1,278 40	.....	2,771 23
Officers', expenses	.....	278 69	.....	278 69
Printing, postage stationery and telegraph	511 09	794 90	.....	1,305 99
Real estate including buildings, etc.	465,139 25	.....	13,583 90	478,723 15
Repairs and renewals	638 13	20,228 97	.....	20,867 10
Scraps	.....	.....	154 10	154 10
Subsistence	1,609 36	34,498 74	2,635 13	38,743 23
Tobacco	80 69	896 63	.....	977 32
United States	.....	.....	314 28	314 28
Wages and salaries	.....	31,702 17	.....	31,702 17
Total	$524,748 96	$132,293 83	$27,478 51	$684,521 30
Less discounts and other credits	.....	476 77	.....	570,611 76
		$131,817 06		$113,909 54
Add. am't deducted by secretary of state, for printing and insur'e.	84 45 611 28	695 73	.....	.....
Net expenses	.....	$132,512 79	.....	.....

Statistical Tables.

CURRENT EXPENSES

the year ending June 30, 1904.

Inventory June 30, 1904.	Cash rec'd on this acc't during the year.	Transferred from this acc't during the year.	Total.	Gained.	Expended.
$311 53	$66 00	.....	$377 53	$311 53	.....
407 04	.....	.....	407 04	.....	$2 50
9,696 06	1,636 96	$2,635 13	13,968 15	3,293 99	.....
4,471 42	6 00	.....	4,477 42	.....	5,556 72
.....	.....	.....	.....	.....	3,389 57
.....	.....	.....	.....	.....	5 00
.....	.....	.....	.....	.....	304 91
.....	.....	341 30	341 30	341 30	.....
942 72	.....	.....	942 72	.....	1,017 88
18,120 88	26 45	.....	18,147 33	.....	5,817 02
307 00	.....	.....	307 00	.....	176 40
.....	12 14	.....	12 14	.....	59 86
2,227 00	.....	2,000 00	4,227 00	.....	20,605 67
6,584 32	.....	.....	6,584 32	.....	92 85
1,516 60	.....	.....	1,516 60	.....	2,506 29
10,950 86	1 20	94	10,953 00	.....	1,847 71
.....	.....	.....	.....	.....	134 56
1,844 05	.....	1 12	1,845 17	.....	752 22
2,179 25	.....	.....	2,179 25	.....	20 55
1,514 39	3 00	25 20	1,542 59	.....	932 60
1,455 13	.....	.....	1,455 13	.....	124 86
1,480 70	.....	.....	1,480 70	.....	1,290 53
.....	.....	.....	.....	.....	278 69
629 57	1 80	.....	631 37	.....	674 62
478,723 15	.....	.....	478,723 15	.....	.....
3,915 08	164 52	13,621 27	17,700 87	.....	3,166 23
.....	154 10	.....	154 10	.....	.....
1,830 75	35 41	324 88	2,191 04	.....	36,552 19
132 56	.....	.....	132 56	.....	844 76
.....	314 28	.....	314 28	.....	31,702 17
.....	.....	.....	.....	.....	.....
$549,240 06	$2,421 86	$18,949 84	$570,611 76	$3,946 82	$117,856 36
.....	.....	.....	.....	.....	3,946 82
					$113,909 54
.....	.....	.....	.....	.....	695 73
.....	.....	.....	.....	.....	$114,605 27

Wisconsin State Prison.

STATEMENT OF CURRENT EXPENSE FUND, 1902.

1902.				
July 1	Balance			$29,975 94
1903.				
May 6	Appropriation, chapt. 163—1903			105,000 00
June 30	Convict labor from steward, including profits knitting shop			47,694 36
June 30	Steward for sundries			2,935 89
June 30	Paid on account of current expenses this year		$106,024 81	
June 30	Balance appropriation in state treasury	$78,809 93		
June 30	Bal. in hands of steward	771 45	79,581 38	
			$185,606 19	$185,606 19

STATEMENT OF CURRENT EXPENSE FUND, 1903.

1903.				
July 1	Balance			$79,581 38
1904.				
June 30	Convict labor from steward, including profits knitting shop			60,322 57
June 30	Steward for sundries			2,421 86
June 30	Transfered from cement floors			71 31
June 30	Paid on account of current expenses this year		$132,512 79	
June 30	Balance appropriation in state treasury	$9,154 53		
June 30	Bal. in hands of steward	729 80	9,884 33	
			$142,397 12	$142,397 12

Statistical Tables.

PRODUCTS FROM FARM AND GARDEN.

	Year Ending June 30, 1903.		Year Ending June 30, 1904.	
	Quantity.	Value.	Quantity.	Value.
Asparagus	.....	.....	2¼ bu.	$2 25
Beets	196 bu	$73 03	67¾ bu.	33 88
Beans, string	50¼ bu.	30 15	31¾ bu.	15 88
Beet greens	89¾ bu.	17 95	77⅜ bu.	15 48
Corn	71⅔ doz.	3 58	5.027 ears	50 27
Cabbage	5,363 hd.	230 91	3,825 hd.	115 94
Carrots	174 bu.	87 04	155⅜ bu.	77 69
Cucumbers	156 doz.	31 20	351 doz.	30 02
Cucumbers	22) bu.	88 00	43½ bu.	21 75
Currants	40 qts.	3 20	12 qts	96
Chickens	37½ lbs.	4 36	20 lbs.	2 20
Eggs	83 doz.	12 11	54 doz.	8 33
Gooseberries	48 qts.	2 40	54 qts.	5 40
Lettuce	117 bu.	58 50	38¾ bu.	19 37
Milk	107,025 lbs.	1,337 79	108,105 lbs.	1,351 30
Onions	1,452 doz	43 56	2,895½ doz.	86 86
Onions	28½ bu.	21 09	108⅞ bu.	54 43
Potatoes	2,253 bu.	543 12	698 bu.	332 13
Pig	.....	.....	1	2 00
Pork	705 lbs.	60 82	90 lbs	7 20
Peas	25 bu.	12 50	9¾ bu.	5 87
Radishes	2,259 doz.	67 77	2,530 doz.	75 90
Raspberries	365 qts.	36 50	557 qts.	55 70
Rhubarb	2,878 lbs	57 56	2,257 lbs.	51 81
Strawberries	2,331 qts.	210 76	870 qts.	71 92
Tomatoes	.....	.....	2¾ bu.	1 38
Turnips	58½ bu.	16 07	7⅛bu.	3 56
Veal	1,521 lbs.	110 83	1,691 lbs.	135 65
Total	.....	$3,160 80	.....	$2,635 13
SOLD.				
Bull	.....	.....	1	$36 50
Calfskins	13	$8 54	138 lbs.	7 07
Cows	.....	.....	2	59 12
Hogs	150; 32,210 lbs.	1,917 65	207; 36,805 lbs.	1,514 27
Pigs	.....	.....	10	20 00

Wisconsin State Prison.

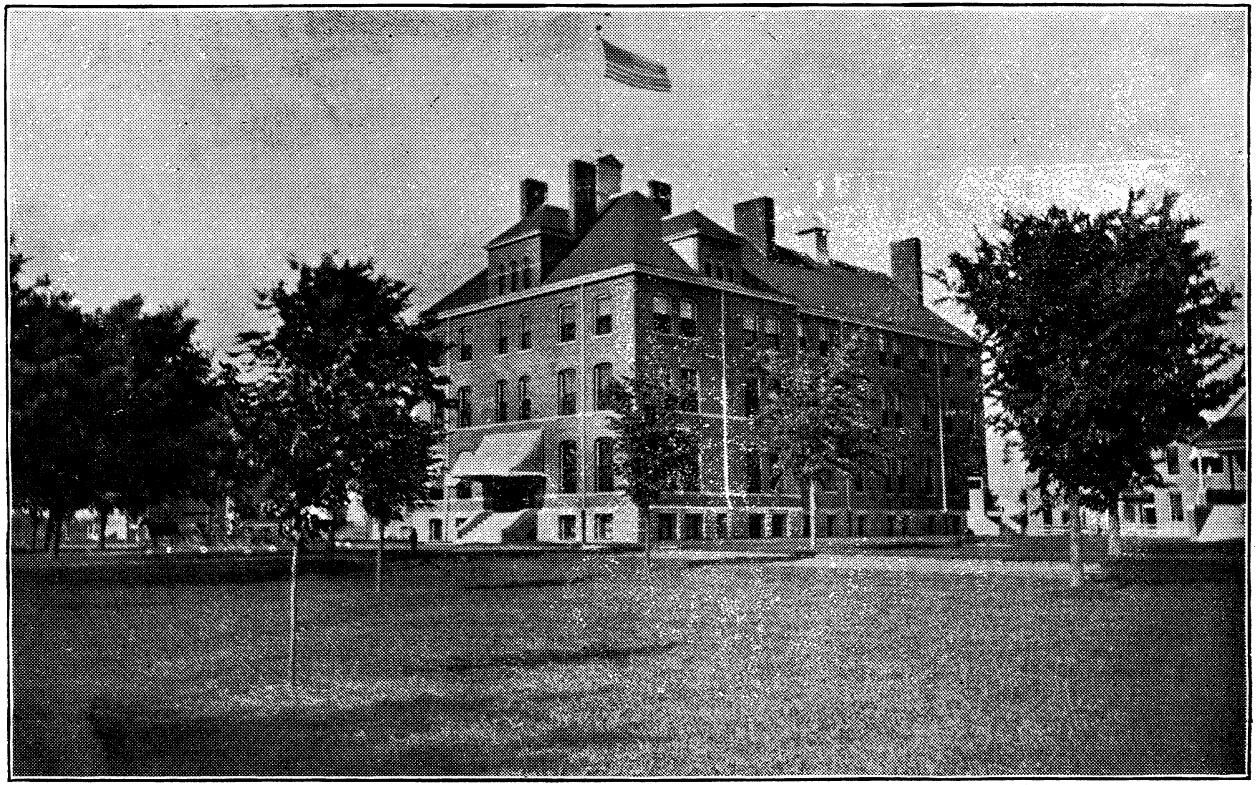
PRODUCTS FROM FARM AND GARDEN—Continued.

	Year Ending June 30,		Year Ending June 30, 1904.	
	Quantity.	Value.	Quantity.	Value.
On Hand and Fed to Stock.				
Beets	400 bu.	$120 00	.....	.....
Cucumbers	100 bu.	50 00	.....	.....
Cabbage	15,000 hds.	600 00	.....	.....
Carrots	200 bu	100 00	100 bu.	$30 00
Corn	3,000 bu.	600 00	2,000 bu.	1,000 00
Ensilage	75 tons	150 00	85 tons	170 00
Fodder	40 tons	80 00	70 tons	140 00
Hay	40 tons	400 00	47 tons	470 00
Onions	100 bu	50 00	.....	.....
Oats	2,000 bu.	500 00	1,670 bu.	501 00
Potatoes	2,500 bu.	1,250 00	.....	.....
Straw	40 tons	80 00	50 tons	125 00
Turnips	100 bu.	25 00	.....	.....
Total	.....	$9,091 99	.....	$6,708 09

Statistical Tables.

STATEMENT OF MONEY RECEIVED AT STATE PRISON.

Classification.	1903.	1904.
Accounts receivable	$110 48	$66 00
Barn, farm and garden	2,226 42	1,636 96
Clothing	3 25	6 00
Convict labor	41,764 16	52,287 92
Engine and boilers	37 19	26 45
Fuel	26 18	.....
Fire and boiler insurance	.....	12 14
Gas and other lights	81	.....
House furnishing	7 50	1 20
Knitting shop	5,930 20	8,034 65
Machinery and tools	.....	3 00
Miscellaneous	16 00	.....
Printing, postage, stationery and telegraph	.....	1 80
Repairs and renewals	38 74	164 52
Subsistence	50 97	35 41
Scraps	207 53	154 10
United States	210 82	314 28
Extension of dining room	106 80	.....
Waterpower and pumps	14 76	.....
Total	$50,751 81	$62,744 43



ADMINISTRATION BUILDING
In which are located the offices, superintendent's living rooms, store rooms, kitchens and dining rooms.

NINTH BIENNIAL REPORT

OF THE

State Public School

FOR THE

Biennial Period Ending June 30, 1904.

OFFICERS OF THE SCHOOL.

M. T. Park	Superintendent	Elkhorn.
Mrs. Isabel C. Park	Matron General	Elkhorn.
A. F. Brandt	State Agent	Sparta.
Miss Elsie M. Loomis	State Agent	Chippewa Falls.
Arthur DeGroff	Book-Keeper	Nelson.
Mrs. M. DeGroff	Stenographer	Racine.
W. T. Sarles	Physician	Sparta.

TEACHERS.

Miss Edna L. Jones	Grammar Room	Sparta.
Miss Lola W. Billings	Intermediate	Rhinelander.
Miss Margaret Harris	Primary	Wausau.
Miss Evelyn H. Wanvig	Kindergarten	Milwaukee.
Miss Caroline Harris	Domestic Science	Appleton.

MATRONS.

Miss Carrie M. Scott	Cottage A	Glenwood.
Miss Angie L. Fanning	Cottage B	Sparta.
Mrs. Emma F. Strain	Cottage C	Milwaukee.
Miss Margaret Roberts	Cottage D	South Dakota.
Miss Mary L. Evans	Cottage E	Sparta
Miss Helen E. Mitchell	Hospital	Minnesota.

D. G. Williams	Boys' Supervisor and Farm Director.
J. C. Venus	Engineer.

SUPERINTENDENT'S REPORT.

SPARTA, WISCONSIN, June 30, 1904.

To the State Board of Control:

GENTLEMEN—I submit herewith a report of the State Public School for Dependent and Neglected children for the biennial term ending June 30th, 1904.

WORK OF THE SCHOOL.

This school opened in November, 1886, for the care of children who had not the care which they were entitled to, has in my opinion, done a work which no other agency would have done. And it has been done systematically. The records have been kept in a manner that children have often been traced years after they had passed legal age, and been restored to parents or other relatives.

The first child was received at the school on the 27th day of November, 1886. He was educated and cared for in a home until old enough to provide for himself and he went forth equipped for life's work, presumably far better prepared, than he would have been, had he remained in the environments from which he was rescued.

Up to date, 2,641 children have been received and cared for since the school was opened. While these children came from homes where they were neglected, perhaps a majority from parents who did not hesitate to commit crimes, under the discipline of the school and the environments of good homes, more than eighty-five per cent have grown to be good children, and more than eighty-five per cent of those who have grown to manhood and womanhood have become good and useful citizens in their respective localities. Thus the school should be classed as one of the most essential as well as most economical

charities in Wisconsin. Essential, in this feature, that there are hopes of true citizenship in a rescued child, who would naturally drift into crime if permitted to remain in his early environments. Economical, because it limits the number of criminals who would certainly come upon the scene, later in life, were they not taken from their early surroundings.

HEALTHFULNESS.

Notwithstanding assertions made that children in institutions do not enjoy as good health as those in homes, that mortality rate is greater, the healthfulness of the children at the school is remarkable. During the last year we have had but one death and that a baby, who was taken ill a few hours after he was received here, and died from spinal meningitis within two days after. The only death in more than a year, and that barely a member of the school. During the fall months of 1903, we had two cases of pneumonia, both recovering within a few weeks. Since that time, every child in the institution, except the one who died from meningitis, has eaten three meals per day and enjoyed them.

We attribute this remarkably healthful condition to the regular life and the watchfulness and care of our good physician and matrons. No children in any place, have better or more thoughtful physical protection, than those in the State school.

IMPORTANCE OF THE SCHOOL.

After five years of service in the State School, I am more and more impressed with the comparative importance of the work, as the very best means of caring for dependent and neglected children. The officers of the school devote their whole time, in one way or another to these children. For instance, our agents devote their best energies to looking after their charges. They have no "side lines," as it were, to take time from their duties. They do not solicit children, nor solicit funds to maintain them.

PRACTICAL MANUAL TRAINING.

In this connection permit me to say that no class of unfortunates is more deserving of the protection of the State than helpless children. They will be cared for, a permanent record made of them, that will last as long as the State exists. The work of the school is under the public eye, may be inspected and is watched by the State Board of Control in a more careful, systematic manner, than the work of individuals or associations in placing children. Hence the State system, in my opinion, is the best for caring for neglected children.

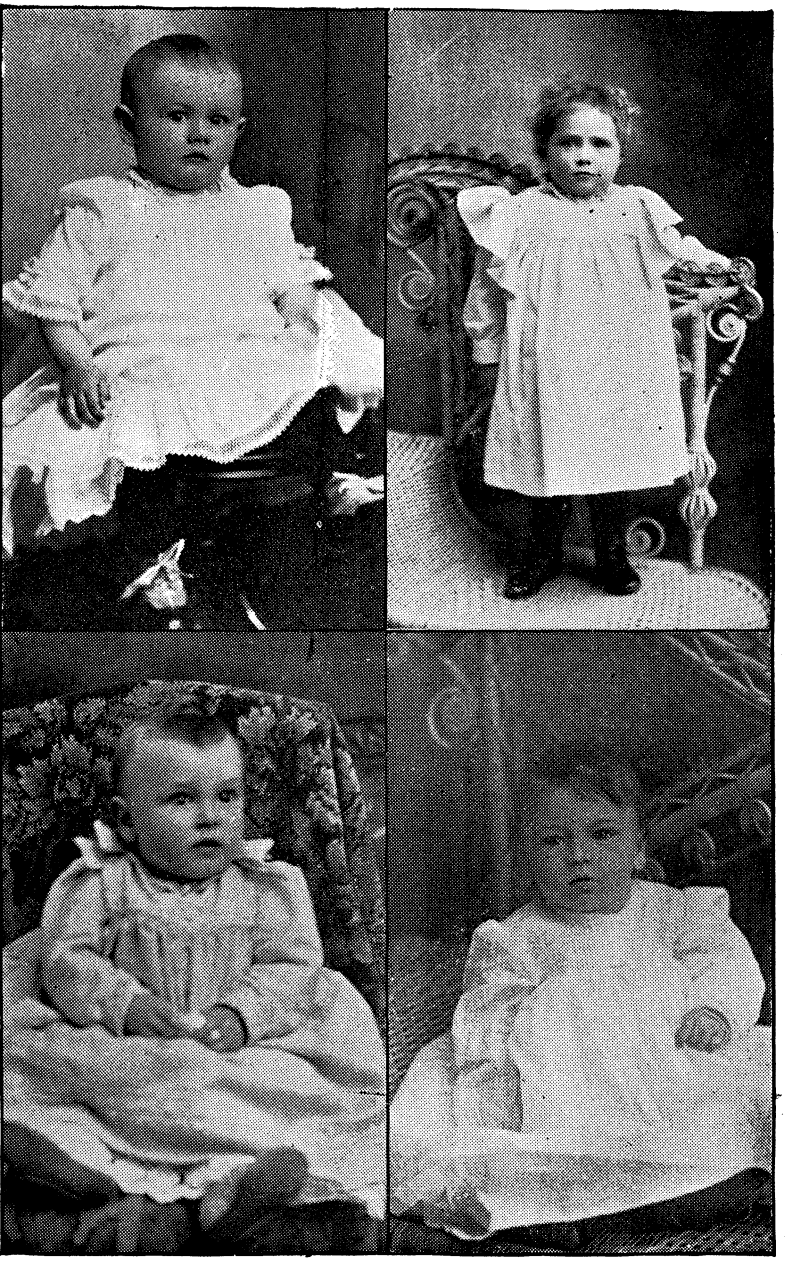
THE COTTAGE LIFE.

I am glad to be able to report to the Board even a better average and better results in our Cottage life than before. Our matrons are taking especial pains to make *homes* for the children while at the school in all that the word implies. I believe they are more and more impressed with the thought of the noble work they may do, and are acting upon their convictions from high standpoints. Their labors are regular and enervating, but in the main these christian ladies are content with their lot, happiest when engaged in their duties, when they can minister well to those under their charge. The position of matron is most important in the work with neglected children, and the superintendent is glad to report that the school has been most fortunate in the ladies now occupying these positions.

THE TEACHERS.

There have been no changes in our force of teachers during the last four years, except our kindergartener has resigned to assume other and presumably higher duties.

One of our teachers has been in the school nearly thirteen years, another eight, one six and the other five. Permanency has contributed to excellent results in our schools. Although many of our children are in the school for a few weeks, only, habits of study and general discipline are helpful days in the lives of those who have been sadly neglected.



FOUR OF OUR BABIES IN GOOD HOMES.

State Public School.

The work of our teachers is an important factor in the system of the State school, and the responsible duties are faithfully and conscientiously performed.

THE WORK OF THE AGENTS.

Homes for Children.

We are constantly receiving applications for children, from people who have good homes, and are capable of giving children the care they need to grow into industrious, useful citizenship. From the lack of children we are unable to supply all of these homes, so we accept the very best, as determined by personal, careful investigation by our agents who are fully impressed with the responsibilities resting upon them in this very important work. The test they make is,—"Would I be willing to have a child, a near relative, come under the care and influences of this home, if he were left unprovided for?" The mental reply decides whether the home is to be accepted or rejected.

Visiting Children.

The regulations of the school are that each child shall be visited in his home at least twice each year. In fact the average is more than that, as many children require more attention from the school than the two visits in one year. Many are visited four or five times, as may be necessary.

In this connection I wish to express my appreciation of the faithful services of our agents, Mr. A. F. Brandt, and Miss E. M. Loomis. Mr. Brandt has been in his position nearly eight years, and Miss Loomis is in her fifth year of service. They take no vacations, because of the pressure of work, although the superintendent has repeatedly urged them to do so. Whenever they have attempted to secure a few days of much needed rest, emergency cases have called them to duty again and they have cheerfully responded.

LUNCH TIME IN THE NURSERY.

State Public School.

Long service has added materially to the usefulness of the agents. They have a personal acquaintance with children and their guardians as well. In fact they learn much of neighborhoods, whether meddlesome or otherwise and are governed by this knowledge, often deciding to not place any more children in certain localities.

During the last fiscal year the agents have traveled over 30,000 miles by railway and livery. They have investigated nearly 400 homes, and have made 1,500 visits to children in homes. The expense of the agents for the last fiscal year, including salaries and traveling expenses, amounts to $3,815.47, but the money is well expended.

SELECTION OF ASSISTANTS.

The superintendent considers it one of his most responsible duties, to select the very best assistants in the various subordinate positions in the school. To select a "mother" for thirty little boys, one who will make a home for them, is no small task, if the boys are to have the judicious care which they are entitled to. In these selections the superintendent has been permitted to use his own judgment, no recommendations from the Board of Control, or any politician has trammeled him, and he is grateful for the privilege to search for and employ the best service he can secure. Not only in the difficult position of matron, but in all other positions he has been free to select his assistants. And the results are gratifying. The State School today is more like a large family, each doing his appointed work pleasantly and cheerfully. Bickerings and jealousies are almost unknown, and the children are as happy under such pleasant influences as any children in the state. In these small but most important features it is a pleasure to note that great advancement and improvement have been made since the last report in 1902.

SCENE IN GIRLS' COTTAGE.

State Public School.

FREEDOM AT THE SCHOOL.

Our children are in no sense prisoners. Although committed by courts of record to be kept in charge until eighteen years of age, they have no jailers while at the state school. The cottages are never locked. Any child may walk out at any time of the night. Children are permitted to go down town, to attend church in the city, unattended by any officer of the school. Fifty per cent of our children go every Sunday, when weather and other conditions permit. And they are held up as models of attention and good behavior by various pastors and many in the city. A pride in the school and in the cottage is sufficient to insure good behavior by the most mischievous boy, although he knows that no officer of the school is watching him.

Notwithstanding this freedom very few children try to escape. We have had but one attempt in over a year, and that was by a sour, morose boy, who walked away from the school grounds one morning about eight o'clock. He knew that no one was watching him, and he made the attempt but was captured two miles out of town. The lad is now in a good home and we receive fair reports of him from agents and guardian.

In this matter of escapes, there has been great improvement during the last few years. Formerly it was not an unusual incident to have more attempts made to escape in a single week than we now have in a year. The change has been brought about by a more contented spirit, and by the pride that the members of each cottage take in their home. The children consider it a disgrace to their cottage to have such attempts made by any of their own number.

MANUAL TRAINING.

Our work along this line is of the directly practical kind. The older boys are taught all the forms of farm life such as plowing, harrowing, planting, cultivating, harvesting. They are also taught how to work in the gardens, and much of the care

LARGER BOYS' COTTAGE—EVENING SCENE.

of stock, assisting in milking and caring for our fine herd of Holsteins. All of this knowledge will be valuable to them as they go out into the world to make their own way in life.

Fully as important as the above is the training given our older girls. They are taught sewing, and cooking in the Domestic Science department, and they have practical work in the kitchens and dining rooms of the school, also various kinds of work such as cleaning, sewing, darning and mending in the cottages.

It is the policy of the school that every child should have some little work to do for which he is personally responsible. He must have time for school and recreation as well, and this is accorded him, but the necessity of leading into industrious habits by regular work is none the less essential.

RELIGIOUS INFLUENCES.

It is in no sense within the province of any officer of the State School to do any proselyting in religious matters. The utmost care is taken to place Catholic children in Catholic homes and Protestant children in Protestant homes. Beyond this no religious test is permitted. Our homes are selected because of the moral and upright influences which prevail, and not on account of any particular church or creed, except in the special cases heretofore mentioned.

IMPROVEMENTS.

Since the last report we have built an addition to the baby cottage, two stories in height. The lower part is used for a toilet room, the upper for sleeping room for the little ones. The total cost was $1,004.00.

Last year we built a horse barn which is complete in all its parts. It is modern and will accommodate five horses. The cost of construction was $2,250.00

A GIRLS' CLASS IN SEWING.

State Public School.

During June, 1903, we laid 9,636 square feet of cement walk at a cost of $1,465.29. The contract was let to the lowest bidder, and the work was done in a substantial manner.

I am aware that the cost of walk-building is greater at the State School than at other institutions, but we have to obtain our gravel from La Crescent, Minnesota, and this is the cause of higher rates.

OUR LIBRARY.

Our library is small, consisting of a few hundred volumes, but as our population is changing from time to time the books are ever new except to those children who from some physical, mental or moral defects, are here for long periods. The library is especially valuable in affording reading for the time the children are at the school, and even more valuable in leading these neglected children into habits of reading and investigation in their future lives.

While the majority of children prefer fiction, many enjoy history, biography and travel. The library is open on Saturday afternoons, in care of the general matron, and requisitions are made from the cottages and the books dispensed at this time.

AMUSEMENTS.

The children have spacious grounds for ball, football, tennis and other outdoor sports. In their cottages they are provided with many games, and in the Winter a spacious rink furnishes good skating. Every child, as soon as old enough, is provided with a pair of skates, which are his individual property as long as he remains in the school.

The larger children attend some entertainments in the city, and occasionally a concert or some interesting entertainment is given in the assembly room. In addition to this the children give many varied programs during the year which are entertaining and beneficial.

A PORTION OF THE CHILDREN'S DINING ROOM AT DINNER TIME.

State Public School.

All children who are old enough to comprehend are taken to the County Fair one day, and the larger children usually attend two or three days. The management of the agricultural society has admitted the children free of charge, and is entitled to thanks for its generous courtesy.

The annual picnic of the school, given in August, is an important event in our social life. This was established a few years, since, and is held on grounds on the farm especially prepared for the purpose. All of the children, and all of the officers of the school attend this annual affair, as one great family. Games and contests are indulged in, a bountiful dinner is served, and at the close many children say "This is the best day of the year."

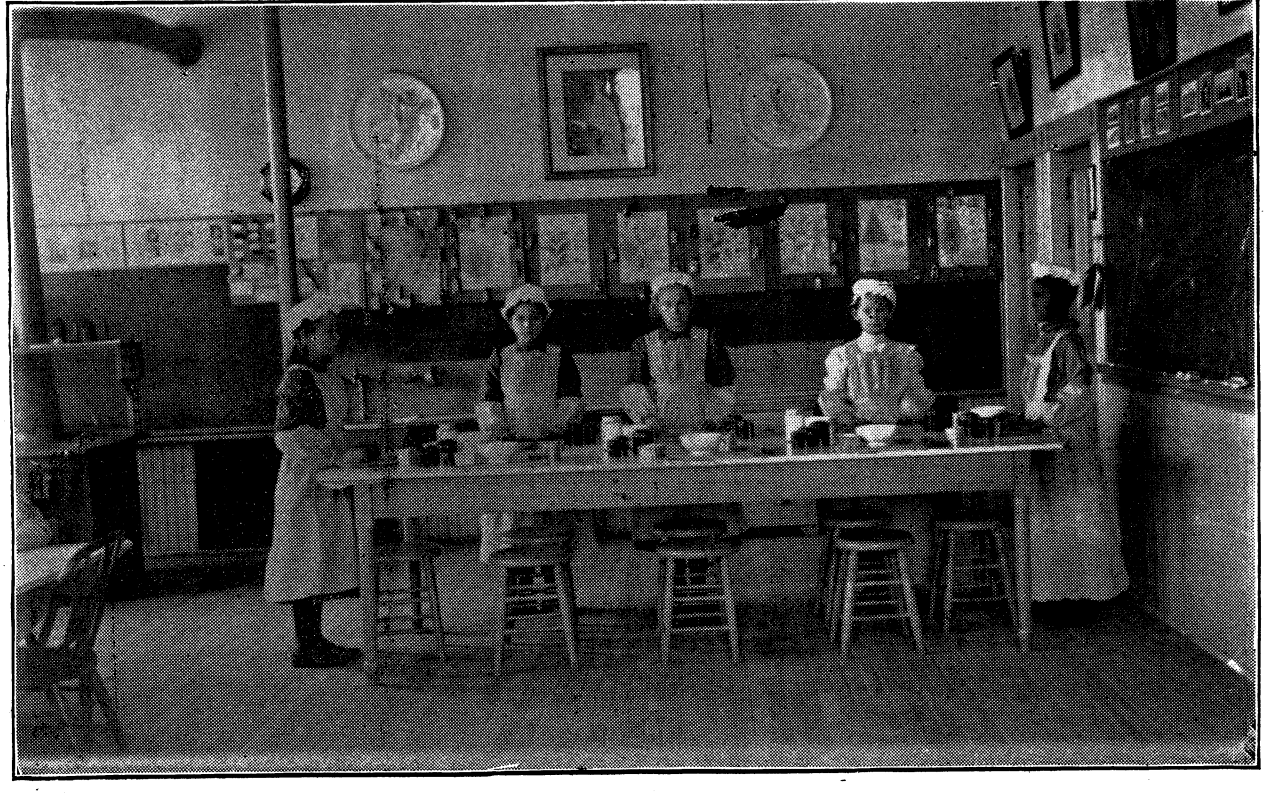
All holidays are appropriately observed, in addition to the other special features.

THE FARM AND GARDEN.

Our farm of 234 acres is a valuable auxiliary in training, as well as contributing to the support of the children. About 120 acres are under cultivation, the balance in pasture land. The farm is directly under the care of the farm supervisor who counsels with the superintendent every working day morning. Notwithstanding the light, sandy soil, rotation in crops and the application of fertilizers has brought it to an excellent condition. During the last two years oats and rye have been raised with fair success, as reference to our table of statistics will show.

Our gardens are our pride. We believe there are no better in the state. In addition to quantities of vegetables, more than our children and employes can consume, we raise strawberries, currants, raspberries and blackberries, all that we need for our tables.

Our farm supervisor and gardener have double duties to perform, not only to produce quantities of grains, vegetables and fruits, but to instruct the older boys in the work. This they have done faithfully and well.



A LESSON IN THE COOKING SCHOOL.

State Public School.

NEED OF ADVERTISING.

The school has been established nearly eighteen years, and strange as it may appear average citizens throughout the state know but little of its practical and useful ministrations, except the people who live in the western portion of the state near the location of the school. During the last two years the superintendent has delivered several addresses in various cities in the state, and has met intelligent people who had never heard of the school before, while others came to him at the close of the meetings and asked many questions which indicated lack of knowledge in regard to the school. A prominent member of a county board, one who had served his people well, was surprised to learn that no charge was made against counties, as prevails in some other state institutions. Along this line of advertising and information, I consider the "Catechism of Wisconsin Institutions," prepared by a member of the State Board of Control, very valuable for the purposes intended. And I wish that a copy of the book might be placed in every family in the state. As a result of a little advertising the number of children received during the last year was fifty per cent greater than the year before. Believing as we do, that the system of the State School is the very best for the care and protection of neglected children, this is a gratifying result.

PER CAPITA STATEMENT.

Nothing is more unjust and unfair, and I might say misleading than a per capita statement of expenses. As a rule the larger the institution and the more permanent the inmates the smaller the expense for each. However, the State School is an exception to this. Our per capita statement will be made on an average attendance of 148 at the school. At the same time our average number in homes, and also under the care of the school, was more than 900, in all more than 1,050 directly and indirectly under the care of the school last year, probably the

largest institution in the state. The children in homes are sources of expense all of the time until they reach legal age. Each is provided with two new suits of good clothes, when they leave for their homes, besides a grip or satchel to carry the extra suit in. All expenses of transportation as railroad fare, hotel bills, livery hire, etc., must be paid by the State School. Then the costs of the agent's visits to these children, and not infrequently the return of a child within a few months all add to the injustice of the per capita statement of the 148 average in the school during the year. It would be fairer and nearer a correct statement to take at least one-third, or 300 in homes, and add to the 148 in the school, thus making the average 448, for the purposes of such statement, than to now make calculations on the average number at the school during the year.

There are many inaccuracies and glaring inconsistencies in all per capita statements, rendering them worthless for the purpose sought, but the most unjust of all is to consider the State School as consisting of 148 members.

DIETARY FOR ONE WEEK.

Although high prices have prevailed on all eatables during the last biennial period, our children have been well fed. The food has been of the best quality, as all meats, vegetables, bread and butter, have been of the same kind in every respect as those furnished officers and employes.

The following dietary was taken during the fall. The list varies, of course, during the year. While there may not be as many luxuries as some children have in homes, the children have all they need at all times. Thanksgiving day, Christmas, and other holidays, bountiful dinners are served, such as may be seen in the best homes on such occasions.

Monday.

Breakfast—Oatmeal, meat, potatoes, milk, bread and butter.
Dinner—Roast beef, potatoes, gravy, pickles, muskmelon, bread and milk.

State Public School.

Supper—Tomatoes, bread and butter, cold meat, milk and biscuits.

Tuesday.

Breakfast—Oatmeal, milk, potatoes, bread and butter.

Dinner—Boiled meat, gravy, potatoes, pickles, boiled cabbage, milk, bread and butter.

Supper—Cold meat, tomatoes, apple sauce, milk, bread and butter.

Wednesday.

Breakfast—Oatmeal, potatoes, milk, bread and butter.

Dinner—Roast beef, potatoes, gravy, stewed tomatoes, pickles, milk, bread and butter.

Supper—Crabapple sauce, milk, bread and butter.

Thursday.

Breakfast—Oatmeal, hash, milk, bread and butter.

Dinner—Roast beef, potatoes, gravy, Lima beans, pickles, milk, bread and butter.

Supper—Cold meat, milk, cookies, syrup, bread and butter.

Friday.

Breakfast—Oatmeal, potatoes, hash, milk, bread and butter.

Dinner—Celery soup, meat, potatoes, pickles, crackers, bread and milk.

Supper—Cold meat, peach sauce, milk, bread and butter.

Saturday.

Breakfast—Oatmeal, potatoes, meat, milk, bread and butter.

Dinner—Meat, potatoes, pork and beans, pickles, milk, bread and butter.

Supper—Cold meat, prunes, milk, bread and butter.

Sunday.

Breakfast—Oatmeal, potatoes, milk, bread and butter.

Dinner—Frankfurt sausage, potatoes, milk, sweet pickles, braed and butter, apple pie.

Supper—Peach sauce, meat, beans, milk, bread and butter.

Hominy, rice and corn meal are served at various times, but the children prefer oatmeal for breakfast. Puddings, cake and fruit are also served from time to time.

APPRECIATION.

My report would be incomplete without an expression of gratitude for the many kindly courtesies and helpful suggestions from the various members of your Board during the last two years. Whatever of success has been attained in the school, is very largely due to the helpful influences of the Board of Control.

I wish also to bear evidence of the faithfulness of the assistant officers and employes. Their duties have been performed cheerfully and well. And not the least important feature is the conduct and behavior of the children. Neglected all of their lives before commitment, they respond to any interest taken in them in a wonderful manner. During fifteen years of service as principal and teacher in public schools, I never have met more grateful, generous, loving children than those at the State School.

Respectfully submitted,

M. T. PARK,
Superintendent.

State Public School.

Children admitted since opening of school.

	Boys.	Girls.	Total.
Number received since opening of the school in 1886..	1,668	973	2,641
Number received during last two fiscal years	134	87	221
Number placed in homes during last two fiscal years.			366
Number in homes June 30, 1904.....			887
Whole number who have been legally adopted.....			267

Nativity of children admitted.

	Up to 1903.	1903 and 1904.	Total.
American.....	1,230	122	1,352
Bohemian.....	33	.....	33
Belgian.....	3	.....	3
Canadian.....	5	.....	5
Danish.....	4	.....	4
Dutch.....	7	.....	7
English	36	5	41
French.....	55	1	56
Finnish	.....	3	3
German.....	465	34	499
Half breeds.....	14	.....	14
Irish.....	62	4	66
Italian	1	.....	1
Jew.....	8	.....	8
Negro.....	26	1	27
Norwegian.....	90	7	97
Polish.....	40	9	49
Porto Rican.....	1	.....	1
Scotch.....	15	1	16
Swiss.....	5	2	7
Swede.....	26	5	31
Unknown.....	287	27	314
Welsh.....	7	.....	7
Total.....	2,420	221	2,641

Statistical Tables.

Number received from each county.

	1903.			1904.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Adams	4	.....	4	.....	.....	.....
Ashland	3	3	6	4	4	8
Bayfield	3	2	5	.....	.....	.....
Barron	5	1	6	1	.....	1
Brown	.....	.....	.....	.....	3	3
Columbia	2	1	3	.....	.....	.....
Chippewa	2	2	4	1	2	3
Crawford	3	.....	3	.....	.....	.....
Clark	.....	.....	.....	1	2	3
Dodge	.....	2	2	.....	.....	.....
Dane	4	.....	4	2	1	3
Dunn	2	2	4	.....	.....	.....
Eau Claire	.....	1	1	.....	.....	.....
Gates	1	.....	1	.....	.....	.....
Green Lake	.....	.....	.....	1	.....	1
Green	.....	.....	.....	.....	1	1
Grant	1	1	2	1	.....	1
Iowa	.....	.....	.....	5	1	6
Jefferson	1	.....	1	1	3	4
Jackson	.....	3	3	1	1	2
Juneau	1	.....	1	.....	.....	.....
La Crosse	10	4	14	8	9	17
Langlade	1	.....	1	.....	.....	.....
Lafayette	.....	.....	.....	2	.....	2
Lincoln	.....	.....	.....	2	2	4
Marathon	5	2	7	.....	.....	.....
Monroe	.....	2	2	5	3	8
Manitowoc	1	.....	1	.....	.....	.....
Marinette	1	1	2	.....	.....	.....
Oneida	1	1	2	1	.....	1
Oconto	.....	.....	.....	8	6	14
Portage	.....	.....	.....	2	.....	2
Polk	.....	.....	.....	.....	1	1
Price	.....	.....	.....	1	.....	1
Rock	4	1	5	3	2	5
Richland	.....	.....	.....	2	.....	2
Sheboygan	1	.....	1	3	1	4
Sauk	.....	.....	.....	2	2	4
St. Croix	.....	.....	.....	4	3	7
Shawano	.....	.....	.....	3	1	4
Sawyer	.....	.....	.....	2	.....	2
Taylor	2	.....	2	2	.....	2
Trempealeau	.....	.....	.....	2	2	4
Vernon	.....	1	1	.....	.....	.....
Walworth	1	1	2	3	2	5
Waupaca	1	2	3	.....	.....	.....
Waukesha	.....	1	1	.....	.....	.....
Washington	.....	.....	.....	1	1	2
	60	34	94	74	53	127

State Public School.

Parentage of children admitted.

	1903.	1904.	Total.
Orphans	1	10	11
Half orphans	35	64	99
Having both parents living	58	53	111
	94	127	221
Number deserted by father	46	36	82
Number deserted by mother	6	12	18
Number deserted by both parents	7	8	15
Number whose father was criminal	18	14	32
Number whose mother was criminal	8	14	22
Number whose father was intemperate	28	20	48
Number whose mother was intemperate	10	11	21
Number who came from poorhouse	24	25	49

Ages of children admitted.

	1903.	1904.	Total.
Under one year of age	19	16	35
Between 1 and 2 years	5	4	9
Between 2 and 3 years	4	9	13
Between 3 and 4 years	3	7	10
Between 4 and 5 years	5	9	14
Between 5 and 6 years	1	11	12
Between 6 and 7 years	10	7	17
Between 7 and 8 years	9	11	20
Between 8 and 9 years	7	6	13
Between 9 and 10 years	8	10	18
Between 10 and 11 years	6	11	17
Between 11 and 12 years	6	5	11
Between 12 and 13 years	8	10	18
Between 13 and 14 years	3	11	14
Average age 7+	94	127	221

Statistical Tables.

Average number in the school by months and years.

	1903.	1904.
July	136	143
August	133	141
September	140	136
October	143	140
November	137	153
December	144	162
January	151	161
February	140	147
March	139	145
April	139	148
May	143	149
June	148	155
Average for the year	141	148

Present grading of school.

Number in kindergarten	21
Number reading in primer	19
Number reading in first reader	29
Number reading in second reader	17
Number reading in third reader	16
Number reading in fourth reader	9
Number working in arithmetic	90
Number in geography	25
Number in language and composition	55
Number in United States history	8
Number in physiology and hygiene	25
Number in civil government. General exercise	25
Number in vocal music	111
Number in spelling	90
Number in domestic science department	24

Drawing and nature study are taught in some of the deparments of the school.

State Public School.

Number of children on indenture in each county, June 30, 1904.

Adams	10	Marquette	64
Ashland	2	Milwaukee	9
Barron	15	Monroe	104
Bayfield	3	Oconto	6
Brown	5	Outagamie	2
Buffalo	13	Ozaukee	2
Calumet	5	Oneida	1
Chippewa	14	Outside the state	36
Clark	8	Pepin	5
Columbia	59	Pierce	9
Crawford	22	Polk	23
Dane	41	Portage	6
Dodge	12	Racine	1
Douglas	7	Richland	8
Dunn	5	Rock	12
Eau Claire	14	St. Croix	2
Fond du Lac	11	Sauk	57
Grant	7	Shawano	1
Green	14	Sheboygan	5
Green Lake	32	Taylor	2
Gates	1	Trempealeau	18
Iowa	4	Vernon	14
Jackson	26	Walworth	4
Jefferson	7	Washburn	4
Juneau	37	Washington	1
La Crosse	27	Waukesha	15
Lafayette	7	Waupaca	3
Langlade	4	Waushara	31
Lincoln	1	Winnebago	5
Manitowoc	2	Wood	9
Marathon	9		
Marinette	5	Total	887

Statistical Tables.

The A Class Lessons in Cooking for One Month.

1. String beans in milk.
2. Corn boiled on the cob.
3. Cucumber pickles. 200.
4. Chow chow. One peck tomatoes.
5. Chili sauce. One-half peck tomatoes.
6. Catsup. One-half peck tomatoes.
7. Green tomato pickles. One peck tomatoes.
8. Corn cut from cob.
9. Corn fritters.
10. Stewed tomatoes.
11. Scolloped tomatoes.
12. Tomato soup.
13. Stuffed tomatoes.
14. Cauliflower in cream sauce.
15. Onions in cream sauce.
16. Boiled ham.
17. Green corn soup.
18. Stewed squash.
19. Baked squash.
20. Pickled apples.
21. Apple jelly.
22. Plum jelly.

Sent to Children's Dining Room.

For Cottage B tables, chili sauce.
For Cottage B tables, catsup.
For Cottage C tables, chow chow made from tomatoes raised by one of the boys.
For Cottage C tables, green tomato pickles.
For Cottage A tables, chow chow.

Vacation Work of the Girls in Domestic Science Department.

90 handkerchiefs hemmed.
38 dishtowels hemmed.
13 hand towels hemmed.
3 pillow cases made.
2 bags for fruit made.
11 wash cloths hemmed.
3handkerchiefs hemstitched.
3ruffled aprons made.
1 white skirt made.
3 dark skirts made.
6 ironing sheets made.
14 linen napkins hemmed.
10 pairs oversleeves made.
26 dust cloths hemmed.
24 half handkerchiefs hemmed.

State Public School.

LIST OF OFFICERS AND EMPLOYES OF THE STATE PUBLIC SCHOOL, JUNE 30, 1904.

Names.	Occupation.	Salary.	County.	
M. T. Park	Supt. and steward	$150 00	Walworth	July 1, 1899
A. F. Brandt	State agent	83 33	Monroe	Sept. 1, 1897
Elsie M. Loomis	State agent	70 00	La Crosse	April 1, 1900
Dr. W. T. Sarles	Physician	50 00	Monroe	April 1, 1898
Isabel C. Park	Matron General	41 67	Walwarth	July 1, 1899
Arthur DeGroff	Clerk	55 00	Buffalo	Aug. 1, 1895
Mime DeGroff	Stenographer	30 00	Racine	Mar. 1, 1896
Edna L. Jones	Teacher	30 00	Monroe	Sept. 1, 1891
Caroline Harris	Teacher	30 00	Outagamie	Aug. 1, 1898
Lola W. Billings	Teacher	30 00	Oneida	Aug. 1, 1899
Margaret Harris	Teacher	30 00	Marathon	Jan. 1, 1900
Evelyn H. Wanvig	Teacher	30 00	Milwaukee	Aug. 1, 1902
Carrie M. Scott	Matron	30 00	Polk	Sept. 1, 1903
Angie L. Fanning	Matron	30 00	Monroe	Apr. 15, 1888
Emma F. Strain	Matron	30 00	Milwaukee	Sep. 15, 1903
Margaret Roberts	Matron	30 00	So. Dakota	June 19, 1901
Mary L. Evans	Matron	30 00	Monroe	July 15, 1888
Helen E. Mitchell	Matron	30 00	Minnesota	Mar. 25, 1903
Martha Winterfield	Seamstress	17 00	Monroe	Sept 1, 1897
Clara Walker	Chambermaid	14 00	Wood	May 27, 1901
Clara Lippert	Chambermaid	12 00	Clark	Apr. 21, 1903
Sophia Winterfield	Chambermaid	12 00	Monroe	July 6, 1903
Maud Britton	Dining room girl	13 00	Monroe	Jan. 18, 1904
Martha Baumbach	Dining room girl	12 00	Monroe	Nov. 14, 1903
Mattie Whartnaby	Laundress	16 00	Monroe	May 1, 1897
Etta Lippert	Laundress	13 00	Clark	Aug. 21, 1902
Adelia Brown	Laundress	13 00	Monroe	June 6, 1897
Hattie Golz	Laundress	$1.50prda	Monroe	Sep. 10, 1892
Blanche Wilson	Assistant matron	12 00	Clark	June 1, 1904
Lorinda Plautz	Assistant matron	12 00	Monroe	May 29, 1904
Martha Roscovious	Assistant matron	12 00	Monroe	Jan. 6, 1903
Christene Winter	Assistant matron	13 00	Monroe	July 29, 1903
Theresa M. Callahan	Assistant matron	12 00	Minnesota	June 6, 1904
Madge Mickel	Assistant matron	12 00	Richland	Feb. 13, 1904
Clarrisa Smith	Nurse, baby cottage	15 00	Monroe	June 1, 1904
Ella Shoop	Cook	19 00	Clark	May 1, 1902
Retta Dean	Cook	16 00	Trempealeau	May 1, 1903
D. G. Williams	Boys supervisor	40 00	Monroe	Sept. 4, 1889
J. C. Venus	Engineer	55 00	Shawano	Oct. 1, 1892
C. W Lake	Fireman	30 00	Monroe	July 2, 1901
H. E. Ranum	Baker and Cook	60 00	La Crosse	Jan. 10, 1892
F. M. Anderson	Driver	35 00	Monroe	May 1, 1904
John Seeland	Night watchman	35 00	Monroe	Mar. 1, 1903
G. A. Reese	Janitor	30 00	Monroe	Nov. 1, 1888
August Janke	Gardener	35 00	Monroe	April 2, 1901
Julius Jessie	Farmer	30 00	Monroe	June 15, 1904
Adelia Jessie	Farmer's help	5 00	Monroe	June 15, 1904

Statistical Tables.

STATEMENT OF SPECIAL APPROPRIATION FUNDS, 1904.

Classified Items.	Appropriations 1903.	Expended during biennial term.	Balance available June 30, 1904.
Horse barn and general repairs....	$1,000 00	$1,000 00	... .

STATEMENT OF CURRENT EXPENSE FUND, 1903.

1902.				
July 1	Balance.....		.....	$31,753 68
1903.				
May 6	Appropriation, chap. 163, 1903.....		.....	81,000 00
June 30	Steward for sundries.....		.....	672 79
June 30	Paid on account of current expenses this year		$41,683 63	.....
June 30	Balance appropriation in state treasury.....	$71,165 52		
June 30	Bal. in hands of stewaad	577 32	71,742 84	.....
			$113,426 47	$113,426 47

STATEMENT OF CURRENT EXPENSE FUND, 1904.

1903.				
July 1	Balance.....		.....	$71,742 84
1904.				
June 30	Steward for sundries.....		.....	662 40
June 30	Paid on account of current expenses this year		$41,896 22	.....
June 30	Balance appropriation in state treasury.....	$29,886 00		
June 30	Bal. in hands of steward	623 02	30,509 02	.....
			72,405 24	72,405 24

State Public School.

STATEMENT OF

At the State Public School

Classification.	Inventory June 30, 1902.	Expended on this account during the year	Transferred to this account during the year.	Total.
Amusement and means of instruction	$1,794 31	$222 64	.....	$2,016 95
Addition to baby cottage	.....	1,004 00	.....	1,004 00
Barn, farm and garden	5,186 39	2,436 16	.....	7,622 55
Children's transportation	.....	327 93	.....	327 93
Clothing	497 28	2,146 81	.....	2,644 09
Cement walks	.....	1,465 29	.....	1,465 29
Discount	.....	42	.....	42
Drug & medical dept.	116 64	738 42	.....	855 06
Engine and boilers	2,115 99	53 38	.....	2,169 37
Elopers	.....	12 80	.....	12 80
Freight and express (not classified)	.....	10 35	.....	10 35
Fire apparatus	2,512 59	.....	.....	2,512 59
Fire and boiler insurance	.....	4 04	.....	4 04
Fuel	1,546 25	4,044 62	.....	5,590 87
Furniture	5,776 87	100 30	.....	5,877 17
Gas and other lights	618 67	807 06	.....	1,425 73
House furnishings	9,741 80	1,015 67	.....	10,757 47
Laundry	1,618 15	96 06	.....	1,714 21
Library	203 83	65 77	.....	269 60
Machinery and tools	383 89	41 49	.....	425 38
Miscellaneous	69 56	638 21	.....	707 77
Officers' expense	.....	230 05	.....	230 05
Printing, postage, stationery and tel	170 13	531 31	.....	701 44
Real estate, including buildings, etc	140,729 02	.....	$2,469 29	143,198 31
Repairs and renewals	862 55	1,519 97	.....	2,382 52
Subsistence	411 46	5,584 53	3,286 64	9,282 63
Wages and salaries	.....	16,857 97	.....	16,857 97
Agents' expenses	.....	1,825 96	.....	1,825 96
Total	$174,355 38	$41,781 21	$5,755 93	$221,892 52
Less discount, etc	.....	129 71	.....	183,163 17
Deducted by Secretary of State for printing	.....	41,651 50 32 13	.....	38,729 35 .....
Net expenses	.....	$41,683 63	.....	.....

Statistical Tables.

CURRENT EXPENSES

for the Year Ending June 30th, 1903.

Inventory June 30, 1903.	Cash receiv'd on this acc't during the year.	Transferred from this acc't during the year.	Total.	Gained.	Expended.
$1,779 22	$ 71	.....	$1,779 93	.....	$237 02
.....	.....	$1,004 00	1,004 00	.....	.....
5,836 81	459 06	3,286 64	9,582 51	$1,959 96	.....
.....	9 48	.....	9 48	.....	318 45
389 01	33 70	.....	422 71	.....	2,221 38
.....	.....	1,465 29	1,465 29	.....	.....
.....	.....	129 71	129 71	129 29	.....
99 05	4 50	.....	103 55	.....	751 51
2,128 26	.....	.....	2,128 26	.....	41 11
.....	.....	.....	.....	.....	12 80
.....	.....	.....	.....	.....	10 35
2,510 49	.....	.....	2,510 49	.....	2 10
.....	.....	.....	.....	.....	4 04
726 75	.....	.....	726 75	.....	4,864 12
5,791 59	28 25	.....	5,819 84	.....	57 33
663 57	.....	.....	663 57	.....	762 16
9,846 76	3 06	.....	9,849 82	.....	907 65
1,612 34	.....	.....	1,612 34	.....	101 87
251 75	.....	.....	251 75	.....	17 85
350 69	.....	.....	350 69	.....	74 69
69 56	.....	.....	69 56	.....	638 21
.....	20 09	.....	20 09	.....	209 96
209 07	.....	.....	209 07	.....	492 37
143,198 31	.....	.....	143,198 31	.....	.....
754 83	15 59	.....	770 42	.....	1,612 10
386 68	6 00	.....	392 68	.....	8,889 95
.....	2 25	.....	2 25	.....	16,855 72
.....	90 10	.....	90 10	.....	1,735 86
$176,604 74	$672 79	$5,885 64	$183,163 17	$2,089 25	$40,818 60
.....	.....	.....	.....	.....	2,089 25
					$38,729 35
.....	.....	.....	.....	.....	32 13
.....	.....	.....	.....	.....	$38 761 48

State Public School.

STATEMENT OF

At the State Public School

Classification.	Inventory June 30, 1903.	Expended on this account during the year.	Transferred to this account during the year	Total.
Agents expenses	.....	$1,918 37	.....	$1,918 37
Amusements and means of instruction	$1,779 22	178 98	.....	1,958 20
Barn, farm and garden	5,836 81	1,518 00	.....	7,354 81
Children's transportation	.....	215 36	.....	215 36
Clothing	339 01	2,198 25	.....	2,587 26
Discount	.....	.....	.....	.....
Drug and med. dept.	99 05	594 78	.....	693 83
Engine and boilers	2,128 26	45 90	.....	2,174 16
Elopers	.....	.....	.....	.....
Freight and express	.....	11 30	.....	11 30
Fire apparatus	2,510 49	103 99	.....	2,614 48
Fire and boiler insurance	.....	72 00	.....	72 00
Fuel	726 75	6,231 42	.....	6,958 17
Furniture	5,791 59	67 66	.....	5,859 25
Gas and other lights	663 57	838 73	.....	1,502 30
House furnishing	9,846 76	1,000 59	.....	10,847 35
Laundry	1,612 34	109 89	.....	1,722 23
Library	251 75	23 55	.....	275 30
Machinery and tools	350 69	23 21	.....	373 90
Miscellaneous	69 56	401 22	.....	470 78
Officers' expense	.....	200 04	.....	200 04
Printing, postage, stationery and telegraph	209 07	574 92	.....	783 99
Real estate, including buildings, etc	143,198 31	.....	$2,300 00	145,498 31
Repairs and renewals	754 83	2,114 37	.....	2,869 20
Subsistence	386 68	6,292 51	2,804 47	9,483 66
Wages and salaries	.....	17,011 99	.....	17,011 99
	$176,604 74	$41,747 03	$5,104 47	$223,456 24
Less discount	.....	124 81	.....	$182,497 27
		$41,622 22	.....	$40,958 97
Add amount deducted by secretary of state for printing	$20 12	.....	.....	.....
And insurance	253 88	$274 00	.....	.....
	.....	$41,896 22	.....	.....

Statistical Tables.

CURRENT EXPENSES

for the year ending June 30th, 1904.

Inventory June 30, 1904.	Cash received on this account during the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
.....	$20 00	.....	$20 00	.....	$1,898 37
$1,809 34	.....	.....	1,809 34	.....	148 86
5,211 84	494 82	2,804 47	8,511 13	$1,156 32	.....
.....	24 85	.....	24 85	.....	190 51
332 95	34 00	.....	366 95	.....	2,220 31
.....	.....	124 81	124 81	124 81	.....
109 95	.....	.....	109 95	.....	583 88
2,108 34	.....	.....	2,108 34	.....	65 82
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	11 30
2,020 49	.....	.....	2,020 49	.....	593 99
.....	6 07	.....	6 07	.....	65 93
509 25	.....	.....	509 25	.....	6,448 92
5,842 83	2 00	.....	5,844 83	.....	14 42
646 12	.....	.....	646 12	.....	856 18
9,959 31	.....	.....	9,959 31	.....	888 04
1,629 58	.....	.....	1,629 58	.....	92 65
251 75	.....	.....	251 75	.....	23 55
364 24	.....	.....	364 24	.....	9 66
69 56	35	.....	69 91	.....	400 87
.....	.....	.....	.....	.....	200 04
233 35	.....	.....	233 35	.....	550 64
145,498 31	.....	.....	145,498 31	.....	.....
729 99	1 07	1,224 45	1,955 51	.....	913 69
353 94	79 24	.....	433 18	.....	9,050 48
.....	.....	.....	.....	.....	17,011 99
$177,681 14	$662 40	$4,153 73	$182,497 27	$1,281 13	$42,240 10
.....	.....	.....	.....	.....	1,281 13
.....	.....	.....	.....	.....	$40,958 97
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	274 00
.....	.....	.....	.....	.....	$41,232 97

State Public School.

Statement of moneys received at the institution.

	1903.	1904.
Agents' expenses	$90 10	$20 00
Amusements and means of instruction	71	.....
Barn, farm and garden	459 06	494 82
Clothing	33 70	34 00
Children's transportation	9 48	24 85
Drug and medical department	4 50	.....
Furniture	28 25	2 00
Fire and boiler insurance	.....	6 07
House furnishing	3 06	.....
Miscellaneous	.....	35
Officers' expenses	20 09	.....
Repairs and renewals	15 59	1 07
Subsistence	6 00	79 24
Wages and salaries	2 25	.....
	$672 79	$662 40

MONEY DEPOSITED TO THE CREDIT OF INMATES.

On hand July 1st, 1902	$13,145 30
Received during biennial period	11,630 98
	$24,776 28
Returned during biennial period	7,143 54
Balance in hands of steward, June 30th, 1904	$17,632 74

Statistical Tables.

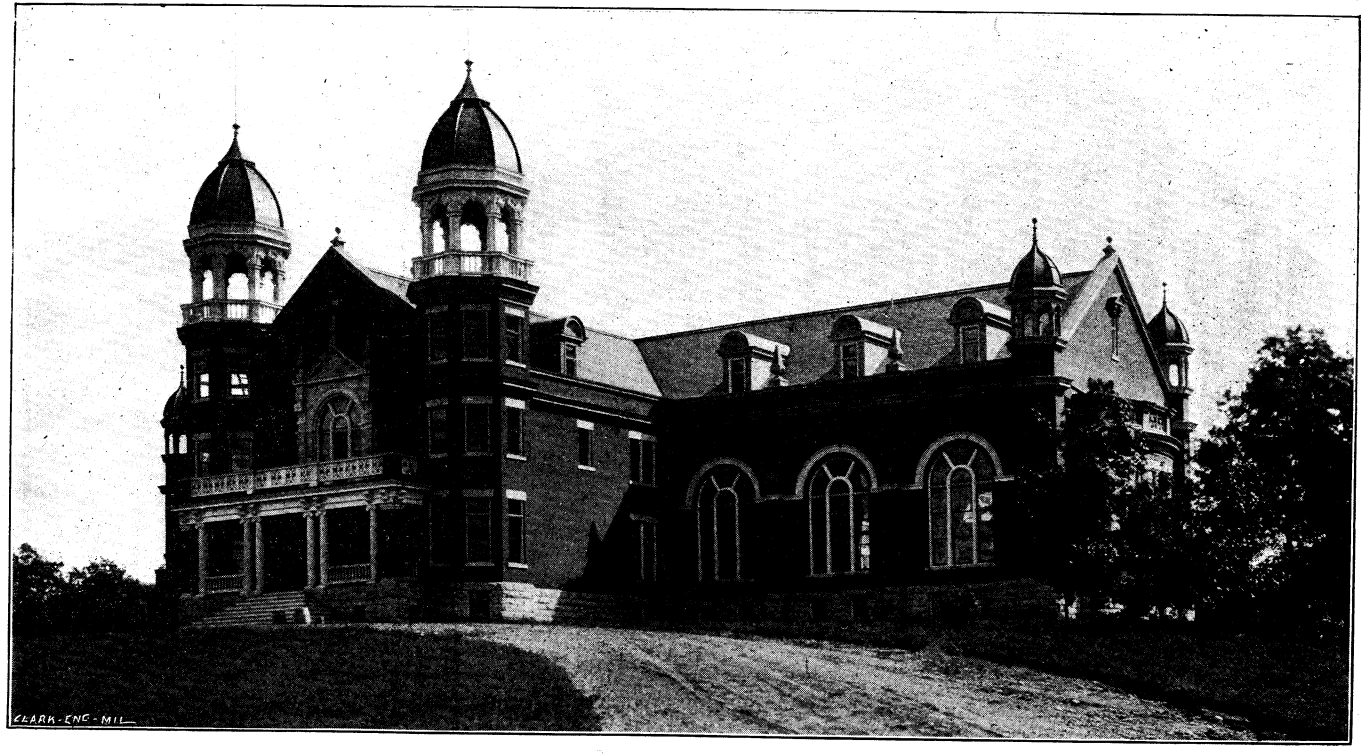
PRODUCTS OF FARM CONSUMED.

ARTICLES.	YEAR ENDING JUNE 30, 1903.		YEAR ENDING JUNE 30, 1904.	
	Quantity.	Amount.	Quantity.	Amount.
Asparagus	500 doz.	$75 00	958 doz.	$143 74
Beets	175 bu.	43 75	137 bu.	68 50
Beets	127 doz.	6 35	79 doz.	7 90
Beet greens	10 bu.	10 00	5 bu.	5 00
Beans, Lima	1½ bu.	75	.....	.....
Beans, string	27 bu.	13 50	14½ bu.	18 50
Cabbage	1,031 hds.	51 55	1,216 hds.	60 80
Cucumbers	66½ bu.	33 25	64½ bu.	32 25
Celery	289 doz.	86 70	239 doz.	71 70
Carrots	182 bu.	45 50	140 bu.	70 00
Carrots	110 doz.	5 30	53 doz.	5 30
Cauliflower	64 hds.	9 60	154 hds.	7 70
Chicken	100 lbs.	10 00	82 lbs.	10 24
Eggs	339 doz.	54 15	260 doz.	40 86
Horseradish	.....	.....	½ bu.	75
Lard	2,000 lbs.	263 32	695 lbs.	69 50
Milk	132,182 lbs.	1,321 82	131,213 lbs.	1,312 13
Muskmelons	600	30 00	170	17 00
Onions	252 bu.	100 80	108 bu.	54 00
Onions	1,032 doz.	51 60	707 doz.	35 35
Pork	5,882 lbs.	448 80	2,384 lbs.	129 44
Potatoes	1,300 bu.	325 00	500 bu.	300 00
Peas	81 bu.	61 50	50 bu.	62 50
Parsnips	10 bu.	4 00	11 bu.	8 25
Pickling onions	.....	.....	½ bu.	1 50
Lettuce	37 bu.	17 75	58 bu.	29 00
Radishes	1,433 doz.	71 65	732 doz.	36 60
Rhubarb	12 bu.	7 35	12 bu.	7 50
Rutabagas	.....	.....	26 bu.	13 60
Sauer kraut	3 bbls.	18 00	.....	.....
Squash	120	12 00	78	11 70
Sweet corn	558 doz.	27 90	466 doz.	23 30
Strawberries	.....	.....	88½ cases	61 95
Turnips	94 bu.	23 50	17 bu.	8 50
Turnips	33 doz.	2 45	96 doz.	9 60
Tomatoes	52 bu.	26 05	56½ bu.	33 25
Watermelons	277	27 70	100	10 00
Total	.....	$3,286 59	.....	$2,777 91

Statistical Tables.

FARM PRODUCTS.

	1903.	1904.
Corn	400 bushels..	50 bushels.
Ensilage	300 tons	300 tons.
Hay	40 loads.....	60 loads.
Mangles	1,500 bushels	2,000 bushels.
Oats	500 bushels..	790 bushels.
Pumpkins	50 loads.....	75 loads.
Rye	175 bushels .	220 bushels.



HOME FOR THE FEEBLE MINDED—ADMINISTRATION BUILDING.

FOURTH BIENNIAL REPORT

OF THE

Home for Feeble-Minded

FOR THE

Biennial Period Ending June 30, 1904.

OFFICERS.

A. W. WILMARTH, M. D.....Superintendent and Steward.
Dr. E. M. WILSON.....Assistant Physician
MISS VIOLA L. HAYTER.....Clerk.

TEACHERS.

MISS LIZZIE RODGERS.....MISS. EMILY MEIDING.
MISS BESSIE T. SAVAGE.....MR. A. A. GAYNOR.
MISS DORA H. EARLL.....MR. AUG. PEIPER.
MISS JENNIE V. SLUSS.....MISS EMMA JOHNSON.
MISS CHARLOTTE PRUESS.....MISS BERTHA A. CHEEVER.

MATRONS.

MRS. H. L. BUXTON.....MRS. W. R. TAYLOR.
MRS. S. J. JENKINS.....MRS. E. J. BOYCE.
MRS. M. R. VOIGHT.
MISS HELEN DOUGLAS.....Stenographer.

SUPERINTENDENT'S REPORT.

To the Honorable, the State Board of Control,

GENTLEMEN—I submit herewith the fourth biennial report for the Wisconsin Home for Feeble Minded.

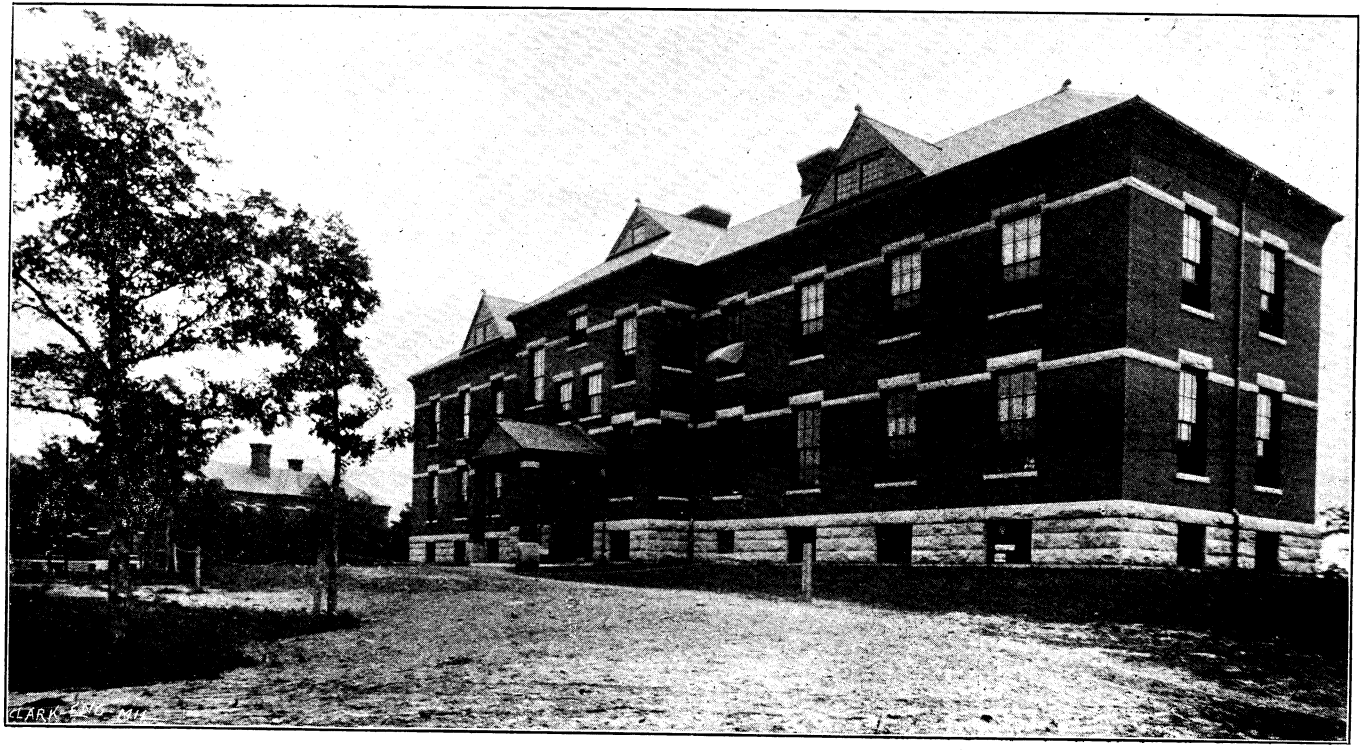
The movement of population has been as follows:

In Home, June 30th, 1902	474
Admitted July 1st, 1902 to June 30th, 1903	94
Returned from visit	52
Discharged	5
Eloped	10
Died	15
Went out on visit	48
In Home, June 30th, 1903	542
Admitted July 1st, 1903 to June 30th, 1904	132
Returned from visit	60
Discharged	3
Eloped	28
Died	37
Went out on visit	48
In Home, June 30th, 1904	618

The past biennial period has been a very active one and has been marked by important additions to the institution. While the Home was originally designed in two departments, the School and Custodial, the growth of the latter was much more marked during the early period of the institution's existence. This was due to the greater demand for the admission of the more helpless children. They were a heavier burden in the home, where, in many instances, it was impossible to give them the best and most humane care. Moreover a lack of sufficient

school facilities prevented the growth of the school department; our schools being in scattered rooms in the different buildings, even sitting rooms and one dining room being utilized to some extent for classes. The opening of our school building, with its large assembly hall, greatly improves this condition. Four well lighted school rooms in addition to our former quarters are now available. A commodious assembly hall occupies the second story of the building, with a very complete stage and seating capacity for at least 400. This is easily accessible from the school below and is in daily use for calisthenics and kindergarten exercises, and is occupied nearly every evening of the week for drills, dancing, or some form of entertainment. The new dining room, with a seating capacity of six hundred, is in active use. The new offices, in place of the tiny rooms formerly used in one of the living buildings, add greatly to the convenience of the administrative department. The opening of two cottages, each with a capacity of 96, has enabled us to admit a great many of our waiting cases. These are like the general type of dormitory cottages in the way of general construction. The appointments while plain, as they should be in all public buildings of this class, have every convenience for the comfortable and, at the same time, economical care of their numerous inhabitants.

On the farm quite extensive improvements have been made. The dairy barn has been enlarged to accommodate 25 more head of cattle. The piggery has also been extended. New hen houses have been built and incubators installed. Much old side walk, which needed to be repaired, has been replaced by cement walk, utilizing the labor of our boys and enabling us to put in very good work at a comparatively low price. The entire basement floor of the administration building is covered with cement; this being done at a much lower figure than could be obtained from reliable contractors. Our coal sheds have been enlarged so that we can readily store 2,000 tons of coal, thus insuring its shipment and unloading before the very in-

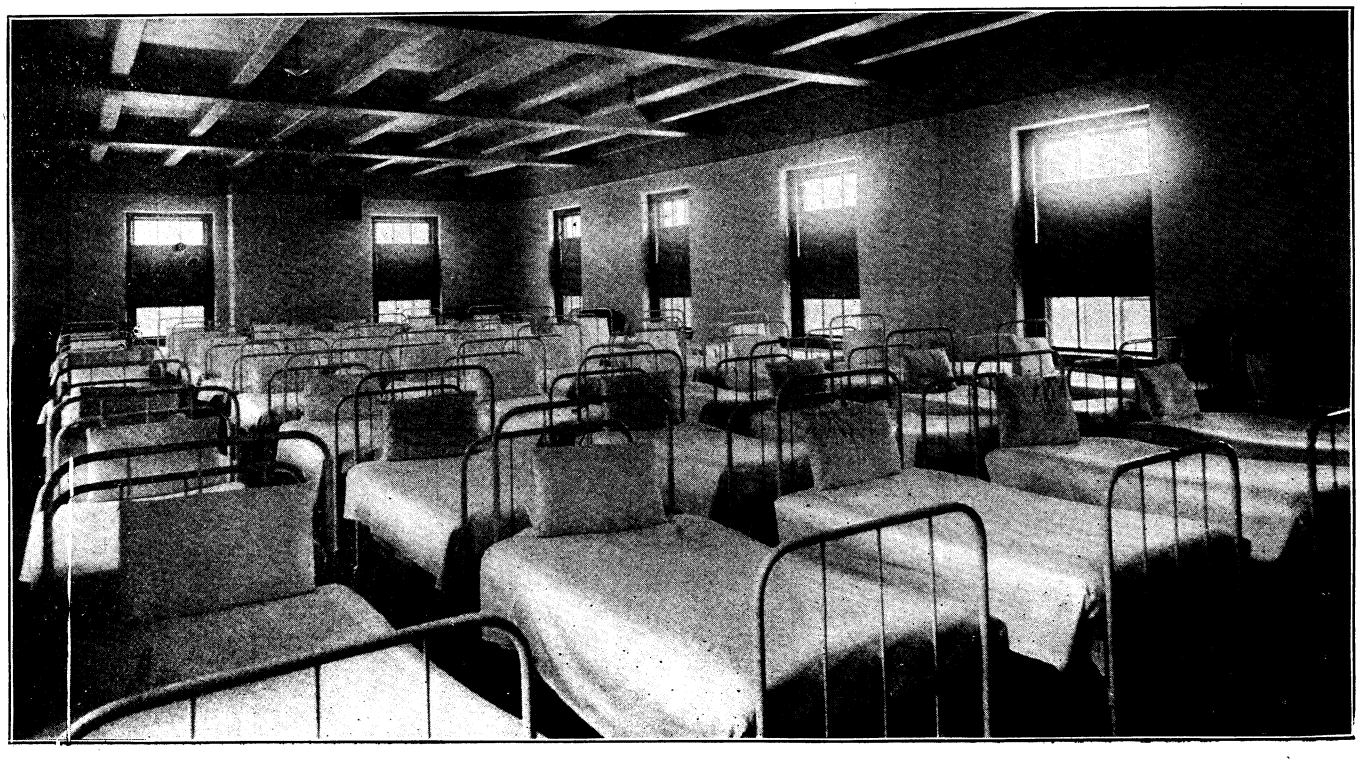


COTTAGE.

clement weather of Winter comes on. Sixty-five acres of wild land have been redeemed, fifty-two of which are planted with corn, where formerly nothing but scrub oak and brush grew. Important improvements are now in progress; among which is replacement of the wooden steam box, in which our steam pipes are placed, by a stone concrete tunnel, which will prevent the access of water to the pipes which rapidly destroys their covering. Large sun porches are in process of construction on the South side of the rooms where our helpless children are cared for, thus enabling them to be readily brought into the fresh air and sunlight during pleasant weather. Sufficient additions are being made to our green-houses to meet the increasing demands of our rapidly growing institution. Three more hen houses are being constructed. Forty or more acres of wild land will be redeemed this year. Many minor improvements have also been added during this period.

The general health in children throughout the biennial period has been good. An epidemic of measles has occurred, the first in the history of the Home. This occurred in warm weather and gave us but little trouble. Smallpox was introduced by a new boy, who broke out with the eruption shortly after admission and infected a number of cases; these were of an extremely mild type. Vigorous measures for its isolation were at once taken, and it was confined to the wing of the building in which it first appeared. We have just reached the end of a mild epidemic of Rötheln, introduced by an employe, which caused us very little inconvenience and has been followed by no complications whatever.

Our death rate the past year has been heavy. It will be noticed, however, that these deaths are confined principally to the Custodial department. In this department are sheltered many cases in the late stages of nervous diseases, whose natural termination is death. Moreover, when new buildings are opened, it necessitates the reception of a large number of feeble cases, these being the most troublesome in the home and suffer-



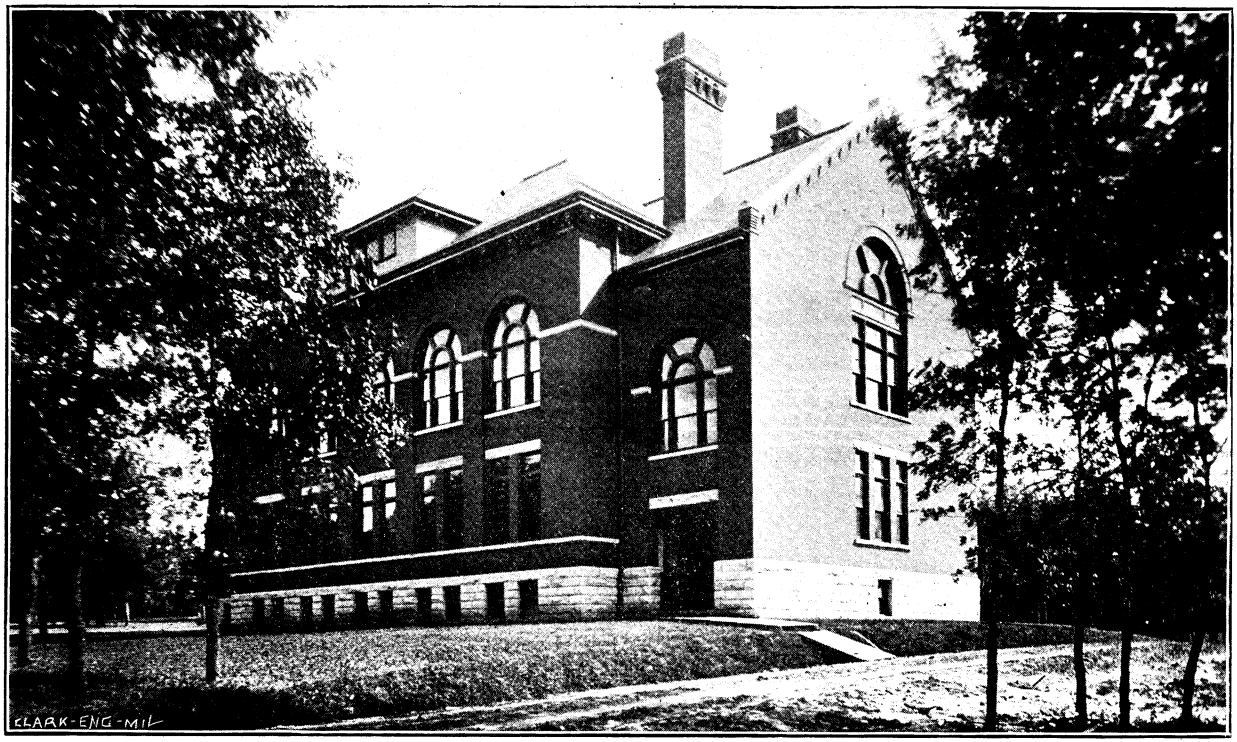
DORMITORY.

ing most acutely for lack of special care. The influx of a large number of such cases must necessarily be followed by a temporary raise in our death rate. The number of fatalities in our School department will be seen to bear a small percentage to our population.

The institution has also made rapid growth in the number cared for and in the development of its work. It was started on the most rational basis; that of having both a School and a Custodial department. It seemed necessary that the Custodial department should be developed early owing to the very great number of helpless children which were awaiting admission. Still the School department was not neglected and was inaugurated at the same time and has grown steadily until now over 200 children are under daily instruction in such school branches as are profitable for them to take up. Many more are in the various industrial classes enjoying the blessing of conscious usefulness.

Our system of instruction is developed with the belief that education is only useful so far as it increases the happiness and usefulness of the pupil in the circle in which he will move. Therefore we take pains to avoid branches in which the child can never become profitably proficient, and to expend all his ability to learn, which is always limited, to such things as his feeble mind can readily grasp and apply to the broadening of his narrow life. Hand work must always go hand in hand with mental work, or perhaps take precedence in such a course of instruction.

The endeavor of the management is to create, not a place of confinement, but a community or colony. It is designed to make all members as useful units in each community as possible, and make them realize the part they take, in order to increase their self respect and stimulate them to do their best; to afford them, further, entertainment and to exercise no more restraint than a wise parent would use to guide their uncontrolled instincts and guard them from such evils as they would not themselves avoid.



SCHOOL HOUSE.

Home for Feeble-Minded.

The advantage of the large institution over the small, in organizing such a colony, is readily seen, since it allows the separating of the children of about the same mental ability into a group, or family, by themselves. The very small institution necessitates more or less isolation for its children, or promiscuous mixing of children of different grades together.

Much annoyance has been created in the past by friends of some children who demand their release when they are entirely unfitted to go into general society. This seems prompted by many motives, the principal one being the fact the child has become useful and consequently profitable to them. This is done without considering the child's further welfare or the injury it may inflict on the public, or receive from its vicious members.

It is frequently asked, "When will this call for provision end?" The Feeble Minded will always be with us, but the need of future provision can be enormously curtailed by furnishing the higher grades of the Feeble Minded with a home in a community where they are given every comfort and privilege, except that of inflicting their own weakness, probably intensified through union with one of their own grade of intelligence, on their issue. What sadder event can occur than the deliberate creation of a child predestined to an existence of inferiority and suffering? Surely this is one place where the public is justified in assuming parental control over liberty of action, which, in these cases, becomes harmful license.

The regulation of this matter, through the control of marriage, is difficult. An excellent beginning, which imposes no trouble on those not actually afflicted, has been made in Connecticut, which prohibits the marriage of epileptics, insane, or feeble minded, or their living together in the state as husband and wife, and (what is a very important part of the law) punishes by a prohibitive penalty all who aid or abet such marriage. Such a law would be an excellent beginning and imposes no actual hardship.

COTTAGE DINING ROOM.

Home for Feeble-Minded.

The great immediate need of this institution, or rather of the public who established it, is more provision for the many helpless ones who are pleading, through their friends, for its care. Few realize that the feeble minded are about as numerous as the insane. When this fact is brought to their notice, they can appreciate the inadequacy of the present provision for the feeble minded, as compared with the great number of institutions for the insane.

Further provision for the feeble minded would not only be commendable as bettering the condition of the most helpless of all human classes, but profitable on account of its relieving so many heads of families of a paralyzing burden, and allowing them to devote their earnings to the proper raising of their normal offspring. From the standpoint of social economy, it need hardly be pointed out that the segregation of this class and the certain prevention of their manifold increase will mean a corresponding diminution of the public tax, and a constant decrease of a class from which the ranks of tramps, paupers, and petty criminals are constantly reinforced.

With these ends in view I would recommend the erection of four more dormitories, on the same general plan as our latest buildings, to accommodate approximately 400 more children. At least two more will be needed to enable us to take the most pressing cases. This will enable us to still further classify our inmates, especially our epileptics. The writer does not personally believe that the association of epileptic imbeciles with the non-epileptic is in any way detrimental. After some twenty years experience and observation, covering hundreds of cases, he has never seen an instance where he thought the association with epileptics induced spasms in non-epileptic children, and, if such a result was at all frequent, some instance should have come to his view in that time.

As the diet of epileptics is a most important part of their treatment, however, it is desirable that the more active cases should be so grouped that they may have their own dining rooms and their diet in that way be closely governed.

KINDERGARTEN

Home for Feeble-Minded.

The institution has, undoubtedly, reached a point where a hospital building is not only desirable but almost essential. Should new dormitories be erected, our population will then be raised to 850. With this number, even with our extremely sanitary location and appointments, we must expect more or less illness at all times. Our present method of caring for the sick in the different buildings is not the best, and a separate hospital building would greatly increase the comfort and convenience of our patients and be especially desirable in case of epidemic illness.

We desire to thank the publishers of the "Monroe Sentinel," the "North Star," and the "Development" for the regular receipt of their papers. We desire, further, to express our gratitude to the many friends of the institution, who, at Christmas time, have contributed so liberally to the entertainment of our children; and we regret that they could not personally see the pleasure they conferred on these little ones.

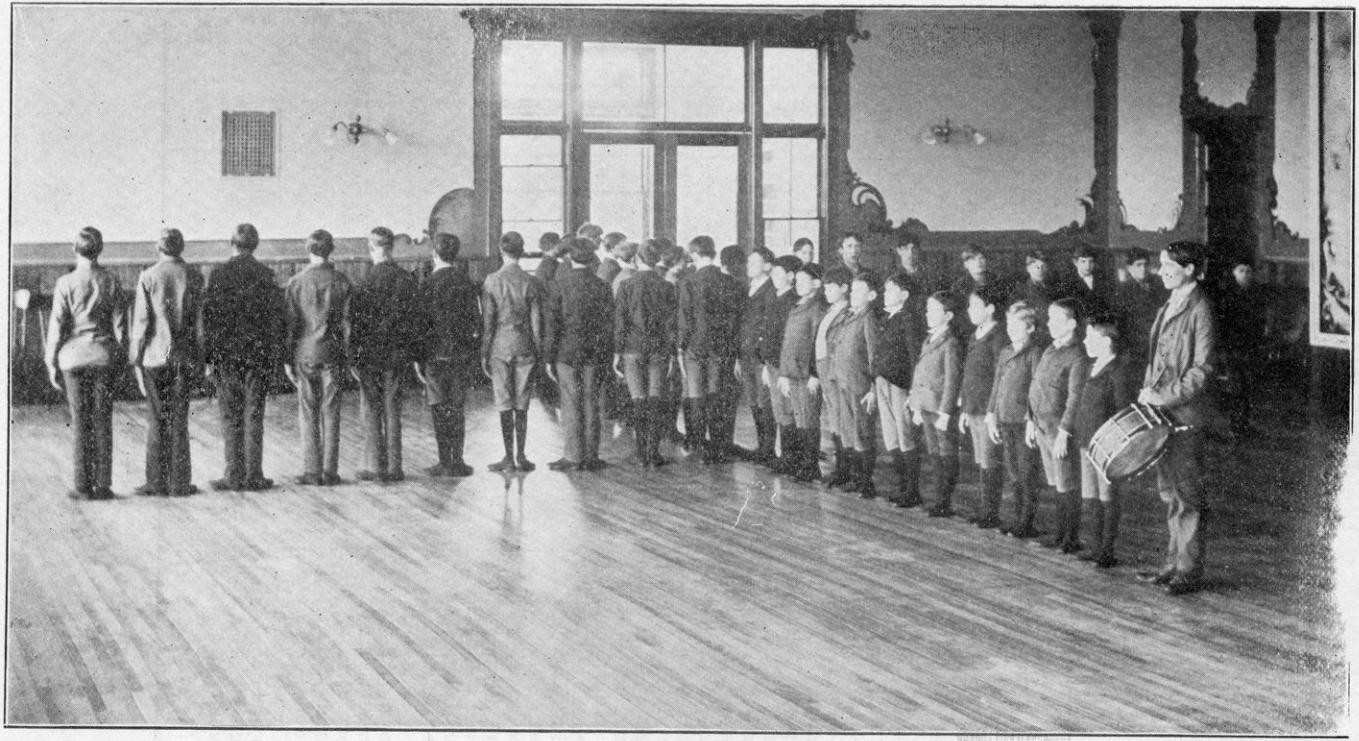
This report of the work for the past two years would be incomplete without a mention of the faithful service given by the officers and employes of the institution. At no time since the establishment of the Home has there been a stronger evidence of mutual confidence and cordial co-operation to secure the best results. I take this opportunity of expressing my personal gratitude for their assistance.

To the State Board of Control I again express my grateful appreciation for their watchful care over the management of the institution, and thank them for their counsel, for their sympathy and helpfulness at all times, and for their personal supervision of the purchasing of the major supplies for the institution, which has given us such excellent goods at so low a cost.

Respectfully submitted,

A. W. WILMARTH,

Superintendent.



BOY'S DRILL

Home for Feeble-Minded.

Counties and number of children admitted from each.

	1902-3	1903-4		1902-3	1903-4
Adams	1	.....	Manitowoc	.....	1
Ashland	1	3	Marathon	2	4
Barron	1	1	Marinette	.....	6
Bayfield	3	.....	Marquette	.....	1
Brown	3	4	Milwaukee	12	30
Buffalo	.....	.....	Monroe	.....	1
Burnett	.....	1	Oconto	2	2
Calumet	2	.....	One da	1	2
Chippewa	1	2	Outagamie	2	2
Clark	1	.....	Ozaukee	1	.....
Columbia	1	2	Pepin	.....	.....
Crawford	1	1	Pierce	2	.....
Dane	4	2	Polk	1	5
Dodge	1	3	Portage	1	2
Door	1	.....	Price	.....	.....
Douglas	3	2	Racine	3	3
Dunn	1	2	Richland	1	1
Eau Claire	4	3	Rock	.....	1
Florence	.....	.....	St. Croix	2	1
Fond du Lac	1	.....	Sauk	1	2
Forest	.....	.....	Sawyer	.....	.....
Gates	1	.....	Shawano	3	1
Grant	2	3	Sheboygan	2	1
Green	.....	1	Taylor	3	5
Green Lake	.....	1	Trempealeau	1	3
Iowa	1	1	Vernon	1	3
Iron	.....	.....	Vilas	.....	1
Jackson	.....	2	Walworth	1	1
Jefferson	2	1	Washburn	1	.....
Juneau	2	.....	Washington	2	1
Kenosha	.....	.....	Waukesha	1	.....
Kewaunee	.....	1	Waupaca	1	4
La Crosse	1	2	Waushara	2	.....
Lafayette	.....	.....	Winnebago	1	5
Langlade	.....	1	Wood	3	3
Lincoln	2	1			
			Total	94	132

Statistical Tables.

Age on admission.

Under five years	8
5 to 10 years	53
10 to 15 years	59
15 to 20 years	47
20 to 25 years	26
Over 25 years	28
Unknown	5
Total	226

Causes assigned by friends.

	1902–03.	1903–04.
No cause given	50	62
Infantile diseases	19	25
Traumatism	4	13
Epilepsy	3	4
Heredity	17	27
Consanguinity	1	1
Total	94	132

Table of heredity.

	Father's side.	Mother's side.	Both sides.	Brother or sister.	Parent and brother or sister.	Other relatives.	Present, but degree not stated.	Heredity denied.	History incomplete.	Total.
Direct	6	18	6	....	...	....	....	....	....	30
Collateral	2	2	1	5	....	3	....	....	....	13
Direct and collateral	1	1	....	...	17	....	....	....	....	19
Present, but degree not stated	....	....	....	....	....	....	6	....	....	6
Heredity denied	....	....	....	....	....	....	....	82	....	82
History incomplete	....	....	....	....	....	....	....	....	76	76
Total	9	21	7	5	17	3	6	82	76	226

Home for Feeble-Minded.

Deaths.

	School.		Custodial.		
	Male.	Female.	Male.	Female.	Total.
1902-03	1	3	8	3	15
1903-04	3	3	17	14	37

Work done in sewing room from June 30, 1902 to July 1st, 1904.

Aprons	490	Dresses	1,902
Bibs	617	Drawers	539
Bed spreads, hemmed	105	Diapers	1,854
Button holes	35,994	Doilies	12
Bed pads quilted	4	Days' mending	966
Blankets, hemmed	48	Dolls, rag	12
Bags, candy	1,008	Dolls dressed	44
Bags, laundry	99	Feeding jackets	20
Belts, sanatory	323	Gaiters	89 pr
Broom covers, cotton flannel	122	Handkerchiefs	1,208
Badges, ribbon	90	Hoods	18
Bread cloths	4	Knee pads	67
Carriage cover	1	Mattress pads	12
Corset covers	783	Masquerade suits	76
Curtains, long	49 pr.	Mittens, muslin	160
Curtains, sash	222 pr.	Night dresses	1,168
Curtains, stage sets	4	Night shirts	981
Cot covers	35	Napkins	2,248
Cushions	38	Pillow cases	2,532
Combination suits, corduroy	116	Sanatory napkins	600
Com'tion suits, cotton flannel	95	Shirts	11
Caps	339	Skirts	754
Collars	8	Sheets	2,879
Chemise	4	Shrouds	10
Cloaks	31	Stand covers	18
Capes	91	Towels, bath	2,628
Carpet rags	387 lbs	Towels, roller	220
Dresser scarfs	129	Towels, face	150
Dish cloths	60	Towels, dish	766
Dress skirts	29	Table cloths	332
Dress waists	84	Waists, blouse	60

Statistical Tables.

SHOE SHOP REPORT.

July 1st, 1902 to June 30th, 1904.

Shoes made from July 1st, 1902, to June 30th, 1903 ..... pair	609
Shoes made from July 1st, 1903, to June 30th, 1904 ..... pair	452
Shoes repaired from July 1st, 1902, to June 30th, 1904 ..... pair	1,768

MATTRESS SHOP REPORT.

July 1st, 1902, to June 30th, 1904.

New springs put in	40
New mattresses made	26
Mattresses made over	394
Pillows made over	442
New pillows made	29
Springs cut over	492
Beds enameled	435

Home for Feeble-Minded.

LIST OF OFFICERS AND EMPLOYES, June 30, 1904.

Name.	Position.	Wages.	Employed.	Residence.
A. W. Wilmarth	Superintendent	$2 8 33	1—11—'97	Pennsylvania.
E. M. Wilson	Assistant physician	100 00	1— 1—'02	Oshkosh.
Viola L. Hayter	Assistant steward	55 00	8—.5—'07	Oshkosh.
Mrs. E. J. Boyce	Matron	45 00	3—11—'98	Eau Claire.
Mrs. W. R. Taylor	Matron	35 00	8— 1—'02	Cottage Grove.
Mrs. H. L. Buxton	Matron	3 00	5—27—'04	Milwaukee.
Mrs. S. J. Jenkins	Matron	40 00	6— 3—'97	Milwaukee.
Mrs. M. R. Voight	Matron	30 00	5—18—'03	Green Bay.
Helen L. Douglas	Stenographer	30 00	6—24—'01	Monroe.
Bessie I. Savage	Teacher	40 00	9—21—'03	Grand Rapids, Mich.
Jennie V. Sluss	Teacher	35 00	10—25—'03	Sweet Springs, Mo.
Emily Mieding	Teacher	35 00	9—31—'03	Milwaukee.
Charlotte Preuss	Teacher	28 00	9—16—'02	Milwaukee.
Clara M. Donaldson	Teacher	25 00	9— 1—'03	Chicago.
A. A. Gaynor	Training teacher	35 00	4—10—'03	Philadelphia.
Harry L. Cleaves	Assistant teacher	25 00	9— 2—'03	Chippewa Falls.
Lizzie Rodgers	Assistant teacher	20 00	11— 2—'02	Boyd.
Mrs. C. A. Seaman	Attendant	20 00	6—22—'97	Eau Claire.
Mrs. Addie Williams	Attendant	20 00	10—29—'01	Waupaca.
M. H. Gifford	Attendant	20 00	8—19—'01	Eau Claire.
Minna Bundlie	Attendant	20 00	1—28—'04	Ellsworth.
Ruth Chapman	Attendant	20 00	12—1 —'02	Eau Claire.
Mina Brown	Attendant	18 00	9— 2—'01	Chippewa Falls.
Birdie Coleman	Attendant	18 00	10—1 —'03	Green Bay.
Anna Smith	Attendant	18 00	5—28—'03	Boyd.
Bess Elliott	Attendant	18 00	3—28—'03	Ellsworth.
Hattie White	Attendant	16 00	2—.6—'04	Eau Claire.
Mabel Nelson	Attendant	16 00	7—24—'03	Boyd.
Edith Zapp	Attendant	16 00	9—18—'03	Boyd.
Hattie Searles	Attendant	16 00	12—21—'03	Wonewoc.
Ethel Browning	Attendant	16 00	11— 2—'03	Boyd.
Mrs. M. E. White	Attendant	16 00	6—21—'04	Eau Claire.
Anna McGough	Attendant	16 00	6—26—'04	Eau Claire.
Nellie Doolittle	Attendant	18 00	6— 3—'04	Ellsworth.
Louise Erd	Attendant	15 00	9— 4—'03	Wonewoc.
Phyllis Daetsch	Attendant	15 00	5— 3—'03	Milwaukee.
Laura Loper	Attendant	15 00	3— 8—'04	Lodi.
Mae Chilton	Attendant	15 00	6—17—'04	Ellsworth.
Clara Buehlman	Attendant	15 00	6—18—'04	Thorp.
Bessie Novack	Attendant	15 00	6— 7—'04	Stanley.
Ida Couey	Attendant	15 00	5—30—'04	Stanley.
Fanny Clark	Attendant	15 00	5—22—'04	Chippewa Falls.
Essie Poppe	Attendant	15 00	5—14—'04	Stanley.
Cassie Cathers	Attendant	15 00	6— 1—'04	Chippewa Falls.
Mayme Groat	Attendant	15 00	5—23—'04	La Valle.
Ellis Hemenway	Attendant	28 00	7—21—'02	Cadott.
Roy Kibbee	Attendant	25 00	9— 7—'02	Chippewa Falls.
H. Peterson	Attendant	25 00	2—19—'04	Wauwatosa.
Arnt Nyhus	Attendant	24 00	6— 4—'03	Chippewa Falls.
Clark Ackerman	Attendant	22 00	11—14—'03	Chippewa Falls.
Gilbert Kittleson	Attendant	21 00	12—27—'03	Chippewa Falls.
Henry Lake	Attendant	21 00	3—11—'04	Chippewa Falls.
Nels Lokken	Attendant	23 00	6— 7—'04	Chippewa Falls.
Regnval Rasmussen	Attendant	20 00	5— 9—'04	Eau Claire.
Bernt Dahley	Baker	50 00	5— 1—'97	Chippewa Falls.
Axel Anderson	Butcher	40 00	4— 1—'01	Chippewa Falls.
H. W. Busch	Carpenter	60 00	3— 1—'97	Algoma.
Alma Pfughoeft	Center	16 00	3—19—'03	Algoma.
Nora Johnson	Center	15 00	6—16—'03	Chippewa Falls.
Helen Sheehy	Clotheskeeper	18 00	2— 1—'01	Green Bay.
Martha Rickert	Clotheskeeper	18 00	6—10—'97	Oshkosh.
Tillie Hughes	Clotheskeeper	18 00	6— 1—'01	Oconto.

Statistical Tables.

LIST OF OFFICERS AND EMPLOYES—Continued.

Name.	Position.	Wages.	Employed.	Residence.
Lillie Murphy	Clotheskeeper	$18 00	8—20—'01	Arcadia.
Martha Olson	Cook	20 00	5— 2—'03	Chippewa Falls.
Ida Sass	Cook	18 00	2—24—'04	Boyd.
Bergliot Hverven	Cook	18 00	11— 9—'03	Chippewa Falls.
Pauline Matchette	Cook	18 00	2—17—'04	Chetek.
Hilga Gregerson	Assistant cook	16 00	4— 2—'04	Eau Claire.
Almon Hunt	Dairyman	45 00	4— 2—'00	Lafayette.
Mrs. Anna Dahley	Dining room	18 00	9—22—'99	Chippewa Falls.
Mildred Holcomb	Dining room	16 00	3—10—'04	Oshkosh.
Clara Meyer	Dining room	15 00	12—21—'03	Chippewa Falls.
Blanche McGuire	Dining room	14 00	5—21—'04	Wonewoc.
Lizzie Teich	Dining room	14 00	9— 2—'03	Kidan.
Alida Larson	Dining room	14 00	12—20—'03	Chippewa Falls.
Luther Forsyth	Engineer	70 00	2— 1—'97	Merrill.
Earl Bedell	Assistant engineer	57 00	3—18—'99	Wausau.
John Mitchell	Assistant engineer	55 00	12— 1—'99	Lafayette.
John Redman	Farmer	42 00	8— 1—'98	Lafayette.
Frank Redman	Assistant farmer	37 00	Feb.—'00	Lafayette.
Lyman Bingham	Assistant farmer	30 00	4— 5—'93	Richland Center.
Alfred Allard	Assistant farmer	30 00	1— 1—'03	Lafayette.
Phillip Allard	Assistant farmer	30 00	4— 1—'04	Lafayette.
M. S. McKee	Assistant farmer	20 00	3— 2—'04	Stanley.
Ray Hunt	Assistant farmer	30 00	3—22—'04	Viroqua.
C. A. Seaman	Assistant farmer	30 00	6—22—'97	Eau Claire.
Joseph Benish	Fireman	35 00	3—12—'04	Chippewa Falls.
Martin Peterson	Foreman, per day	2 25	4—16—'00	Chippewa Falls.
F. O. Bible	Gardner	40 00	3—15—'99	Menomonie.
Lottie White	Laundress	18 00	12—16—'03	Eau Claire.
Ottilie Pfeil	Laundress	18 00	12— 4—'03	Oshkosh.
A. F. Brady	Night watch	35 00	11—10—'02	Weyauwega.
Ole Kittelson	Night watch	35 00	11—23—'03	Chippewa Falls.
Margaret Manley	Night watch	22 00	3—18—'03	Cascade.
Frank E. Titus	Night fireman	25 00	3—28—'03	Green Bay.
Thos. McDonald	Steam fitter	45 00	11—12—'02	Chippewa Falls.
Lizzie McInerny	Seamstress	20 00	5— 2—'97	Durand.
Jennie Harrington	Seamstress	20 00	12—22—'02	Stanley.
Jennie Daetsch	Seamstress	20 00	3— 1—'04	Milwaukee.
Ella Manley	Seamstress	20 00	8— 3—'02	Cascade.
Andrew Anderson	Shoemaker	50 00	11— 2—'97	Chippewa Falls.
Maude Harrington	Supervisor	25 00	12—23—'02	Stanley.
Minnie Halverson	Supplemental	15 00	10—28—'02	Chippewa Falls.
Dora Schroeder	Supplemental	15 00	1—13—'01	Eau Claire.
Lydia Lints	Supplemental	15 00	10—30—'03	Boyd.
Hans Carlsrud	Teamster	42 00	4— 1—'97	Menomonie.
John Koepfer	Laborer	30 00	6—17—'97	Chippewa.
Chas. Guse	Laborer	30 00	4—25—'04	Chippewa.
Mary E. Vosberg	Cook	18 00	5—20—'02	Waupaca.
Mrs. G. L. Boss	Attendant	16 00	7—24—'01	Winnebago.
G. L. Boss	Attendant	28 00	7—14—'01	Winnebago.
Emma Johnson	Teacher	23 00	7— 1—'97	Chippewa.
Ruth Matchette	Attendant	15 00	2—17—'04	Chetek.
Bessie Young	Attendant	16 00	1—29—'03	Eau Claire.
Mabel Fraser	Attendant	15 00	2—23—'04	Eau Claire.
Ella Smith	Cook	18 00	7—13—'03	Boyd.
Caroline Fosmo	Seamstress	20 00	3— 5—'03	Martel.
Lillie Johnson	Cook	18 00	5—25—'99	Chippewa.
Aug. Pieper	Music teacher	30 00	6———'04	Chippewa.

Home for Feeble-Minded.

STATEMENT OF SPECIAL APPROPRIATION FUNDS, 1904.

	Balance avail'ble July 1, 1902.	Appropriation, 1903.	Expended during biennial period.	Transferred to current expense fund.	Balance avail'ble July 1, 1904.
Duplicate engine and dynamo	$304 65	.....	$304 65	.....	.....
New building, equipment, etc	21,615 92	.....	23,056 41	$1,440 49	.....
Complete furnishing and equipment of buildings	.....	$20,000 00	19,762 66	.....	$237 34
New boiler and smoke stack	.....	3,500 00	2,725 91	.....	774 09

Home for Feeble-Minded.

STATEMENT OF CURRENT EXPENSE FUND, 1903.

1902.			
July 1.	Balance	.....	$37,477 22
1903.			
Jan. 1.	From counties	.....	38,975 16
May 6.	Appropriation, chap. 163, 1903..	.....	140,000 00
June 30.	Steward for sundries	.....	1,752 01
June 30.	Paid on account of current expenses this year	$84,159 22	.....
June 30.	Transferred to new building and equipment, etc.	1,440 49	.....
June 30.	Balance appropriation in state treasury $132,431 98		
June 30.	Bal. in hands of steward 172 70	132,604 68	.....
		$218,204 39	$218,204 39

STATEMENT OF CURRENT EXPENSE FUND, 1904.

1903.			
July 1.	Balance	.....	$132,604 68
1904.			
Jan. 1.	From counties	.....	53,818 90
June 30.	Steward for sundries	.....	2,426 16
June 30.	Paid on account of current expense this year	$116,245 60	.....
June 30.	Balance appropriation in state treasury $72,454 58		
June 30.	Bal. in hands of steward 149 56	72,604 14	.....
		$188,849 74	$188,849 74

Home for Feeble-Minded.

STATEMENT OF

At the Home for the Feeble Minded

Classification.	Inventory June 30, 1902.	Paid on this account during the year.	Transferred to this account duri'g the year.	Total.
Amuseme't and means of instruction	$1,606 06	$618 91	.....	$2,224 97
Barn, farm and garden	8,026 57	3,720 71	.....	11,747 28
Clothing	915 57	4,825 88	$1,365 75	7,107 20
Discounts	.....	2 58	.....	2 58
Drug and medical dept	399 84	322 74	.....	722 58
Engines and boilers	5,889 27	419 49	.....	6,308 76
Elopers	.....	48 70	.....	48 70
Fire apparatus	.....	30 50	.....	30 50
Fire and boiler insur.	.....	45 51	.....	45 51
Freight and express	.....	6 95	.....	6 95
Fuel	2,429 30	10,904 23	.....	13,333 53
Furniture	6,299 90	139 04	864 54	7,303 48
Gas and other lights	6,893 26	211 40	2,000 00	9,104 66
House furnishing	18,862 36	3,113 09	3,870 00	25,845 45
Laundry	3,002 31	310 93	.....	3,313 24
Library	110 00	20 12	.....	130 12
Machinery and tools	113 63	223 75	.....	337 38
Mattress factory	97 37	49 37	.....	146 74
Miscellaneous	278 66	305 60	.....	584 26
Office expenses	.....	169 85	.....	169 85
Printing, postage, stationery and telegr'ph	387 92	319 68	.....	707 60
Real estate	41,165 91	.....	1,854 50	43,020 41
Bl'dg. & improvemt's	268,472 42	.....	154,925 40	423,397 82
Repairs and renewals	337 28	2,462 70	.....	2,799 98
Scraps	.....	.....	32 00	32 00
Shoe shop	707 04	1,156 47	.....	1,863 51
Subsistence	1,070 42	19,653 68	11,866 33	32,590 43
Surgical instruments and appliances	156 80	19 52	.....	176 32
Tailor shop	248 08	224 38	.....	472 46
Wages and salaries	.....	35,172 27	.....	35,172 27
Board and clothing inmates	.....	.....	583 24	583 24
Total	$367,469 97	$84,498 05	$177,361 76	$629,329 78
Less discount, etc	.....	366 88	.....	548,289 05
	.....	$84,131 17	.....	$81,040 73
Deducted by secretary of state for printing	.....	28 05	.....	.....
Net expenses	.....	$84,159 22	.....	.....

Statistical Tables.

CURRENT EXPENSES.

for the year ending June 30, 1903.

Inventory June 30, 1903.	Cash received on this account during the year.	Transferred from this account duri'g the year.	Total.	Gained.	Expended
$1,903 43	$ 07	.....	$1,903 50	.....	$321 47
9,083 52	926 25	$11,866 33	21,876 10	10,128 82	.....
1,260 92	4 05	.....	1,264 97	.....	5,842 23
.....	.....	360 06	360 06	357 48	.....
361 86	.....	.....	361 86	.....	360 72
6,182 53	2 22	.....	6,184 75	.....	124 01
.....	.....	.....	.....	.....	48 70
.....	.....	.....	.....	.....	30 50
.....	.....	.....	.....	.....	45 51
.....	.....	.....	.....	.....	6 95
498 75	.....	2,000 00	2,498 75	.....	10,834 78
7,127 57	.....	.....	7,127 57	.....	175 91
7,049 36	.....	.....	7,049 36	.....	2,055 30
23,186 65	15	.....	23,186 80	.....	2,658 65
3,085 69	.....	.....	3,085 69	.....	227 55
114 00	.....	.....	114 00	.....	16 12
245 58	.....	.....	245 58	.....	91 80
127 32	.....	.....	127 32	.....	19 42
269 64	12 25	.....	281 89	.....	302 37
.....	25 61	.....	25 61	.....	144 24
361 12	3 10	.....	364 22	.....	343 38
43,020 41	.....	.....	43,020 41	.....	.....
423,397 82	.....	.....	423,397 82	.....	.....
706 32	6 67	32 00	744 99	.....	2,054 99
.....	32 00	.....	32 00	.....	.....
629 15	.....	999 25	1,628 40	.....	235 11
1,362 36	.....	590 06	1,952 42	.....	30,638 01
157 89	.....	.....	157 89	.....	18 43
190 95	.....	366 50	557 45	84 99	.....
.....	156 40	.....	156 40	.....	35,015 87
.....	583 24	.....	583 24	.....	.....
$530,322 84	$1,752 01	$16,214 20	$548,289 05	$10,571 29	$91,612 02
.....	.....	.....	.....	.....	10,571 29
.....	.....	.....	.....	.....	$81,040 73
.....	.....	.....	.....	.....	28 05
.....	.....	.....	.....	.....	$81,068 78

Home for Feeble-Minded.

STATEMENT OF
At the Home for Feeble Minded

Classification.	Inventory June 30, 1903.	Paid on this account during the year.	Transferred to this account during the year.	Total.
Amusem'ts and means of instruction	$1,303 43	$704 01	.....	$2,607 44
Barn, farm and garden	9.083 52	4 810 16	.....	13,893 68
Board and clothing of inmates	.....	.....	$1,433 93	1,433 93
Clothing	1,260 92	6,795 36	759 00	8,815 28
Discount	.....	.....	.....	.....
Drug and medical department	361 86	609 05	.....	970 91
Engines and boilers	6,182 53	688 24	.....	6,870 77
Elopers	.....	154 36	.....	154 36
Fire apparatus	.....	.....	.....	.....
Fire and boiler ins'nce	.....	72 00	.....	72 00
Freight and express	.....	15 03	.....	15 03
Fuel	498 75	18,980 74	.....	19,479 49
Furniture	7,127 57	305 79	687 00	8,120 36
Gas and other lights	7,049 36	133 03	2,000 00	9,182 39
House furnishing	23,186 65	4,790 75	.....	27,977 40
Laundry	3,085 69	1,976 96	.....	5,062 65
Library	114 00	44 65	.....	158 65
Machinery and tools	245 58	1,645 31	.....	1,890 89
Mattress factory	127 32	204 84	.....	332 16
Miscellaneous	269 64	859 63	.....	1,129 27
Officers expenses	.....	68 85	.....	68 85
Printing, postage, station'ry and telegraph	361 12	435 19	.....	796 31
Real estate	43,020 41	.....	1,015 00	44,035 41
Build'gs and improv'ts	423,397 82	.....	8,500 12	431,897 94
Repairs and renewals	706 32	6,259 89	.....	6,966 21
Scraps	.....	.....	32 33	32 33
Shoe shop	629 15	1,114 02	.....	1,743 17
Subsistence	1,362 36	21,959 83	11,981 41	35,303 60
Surgical instruments and appliances	157 89	36 82	.....	194 71
Tailor shop	190 95	13 50	.....	204 45
Wages and salaries	.....	41,545 57	.....	41,545 57
Tunnel	.....	1,414 59	.....	1,414 59
Total	$530,322 84	$115,638 17	$26,408 79	$672,369 80
Less discounts and other credits	.....	463 53	.....	573,686 41
	.....	$115,174 61	.....	$98,683 39
Add amount deducted by secretary of state for printing	$58 35	.....	.....	.....
And insurance	1,012 61	1,070 96	.....	.....
Net expenses	.....	$116,245 60	.....	.....

Statistical Tables.

CURRENT EXPENSES.

for the year ending June 30, 1904.

Inventory June 30, 1904.	Cash received on this account during year.	Transferred from this account during the year.	Total.	Gained.	Expended.
$2,155 35	.....	.....	$2,155 35	.....	$452 09
9,581 62	$836 63	$11,981 41	22,399 66	$3,505 98	.....
.....	1,433 93	.....	1,433 93	.....	.....
956 50	30 74	.....	987 24	.....	7,828 04
.....	.....	458 34	458 34	458 34	.....
533 95	.....	.....	533 95	.....	436 96
6,265 18	15 00	.....	6,280 18	.....	590 59
.....	.....	.....	.....	.....	154 36
.....	.....	.....	.....	.....	.....
.....	26 10	.....	26 10	.....	45 90
.....	.....	.....	.....	.....	15 03
3,670 50	25	2,000 00	5,670 75	.....	13,808 74
7,881 04	.....	.....	7,881 04	.....	239 32
7,070 87	.....	.....	7,070 87	.....	2,111 52
24,748 88	72	75	24,750 35	.....	3,227 05
4,367 65	.....	.....	4,367 65	.....	695 00
145 66	.....	.....	145 66	.....	12 99
1,680 63	.....	.....	1,680 63	.....	210 26
135 25	.....	.....	135 25	.....	196 91
230 50	20 85	.....	251 35	.....	877 92
.....	.....	.....	.....	.....	68 85
489 94	6 07	.....	496 01	.....	300 30
44,035 41	.....	.....	44,035 41	.....	.....
431,897 94	.....	.....	431,897 94	.....	.....
1,188 67	16 31	4,059 20	5,264 18	.....	1,702 03
.....	32 33	.....	32 33	.....	.....
719 08	.....	688 50	1,407 58	.....	335 59
1,049 31	.....	1,438 37	2,487 68	.....	32,815 92
162 61	.....	.....	162 61	.....	32 10
182 05	.....	70 50	252 55	48 10	.....
.....	7 23	.....	7 23	.....	41,538 34
1,414 59	.....	.....	1,414 59	.....	.....
$550,563 18	$2,426 16	$20,697 07	$573,686 41	$9,012 42	$107,695 81
.....	.....	.....	.....	.....	9,012 42
.....	.....	.....	.....	.....	$98,683 39
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	1,012 61
.....	.....	.....	.....	.....	$99,696 00

Home for Feeble-Minded.

STATEMENT OF MONEYS RECEIVED.

Classified Items.	1903.	1904.
Amusements and means of instruction	$ 07	.....
Barn, Farm and garden	926 25	$836 63
Board and clothing of inmates	583 24	1,433 93
Clothing	4 05	30 74
Engine and boilers	2 22	15 00
Fire and boiler insurance	.....	26 10
Fuel	.....	25
House furnishing	15	72
Miscellaneous	12 25	20 85
Officers' expenses	25 61	.....
Printing, postage, stationery and telegraph	3 10	6 07
Repairs and renewals	6 67	16 31
Scraps	32 00	32 33
Wages and salaries	156 40	7 23
	$1,752 01	$2,426 16
Complete furnish and equip bldgs. (special)	.....	40 19
	$1,752 01	$2,466 35

Statistical Tables.

REPORT OF FARM PRODUCTS.

ARTICLES.	1902–1903.		1903–1904.	
	Quantity.	Amount.	Quantity.	Amount.
Asparagus	204 bunches	$8 70	112 bunches	$16 60
Beet greens	59 crates	62 50	59 crates	59 00
Beets	425½ bu.	183 75	251 bu.	251 00
Beef	872 lbs.	56 70	2,837 lbs.	182 70
Blueberries	270 qts.	27 00	304 qts.	27 36
Blackberries	.....	.....	108 qts	12 25
Currants	285 qts	23 60	215 qts.	30 50
Celery	773 bunches	41 70	105 bunches	39 27
Cauliflower	406 heads	33 60	24 heads	2 40
Cabbage	5,672 heads	283 60	237 crates	214 25
Carrots	613 bu.	204 00	222 bu.	136 45
Cucumbers	31½ bu	22 50	12 bu.	10 90
Citron	50	5 00	.....	.....
Corn	1,510 bu.	755 00	718 bu.	359 00
Calves	48	107 10	34	68 00
Corn, green	80 bu.	40 00	442 bu.	221 00
Ensilage	160 tons	.....	134 tons	.....
Hay	294 tons	.....	265 tons	.....
Hides	3	7 60	23	39 56
Hogs	9,080 lbs	588 92	11,730 lbs.	548 77
Lettuce	150 crates	163 75	49 crates	49 00
Milk	186,841 qts.	7,940 74	200,939 qts.	8,539 91
Melon, water	587	58 70	24	2 40
Melon, musk	452	23 05	.....	.....
Oats	1,939 bu.	646 33	1,498 bu.	599 20
Onions	1,930 bunches	30 65	2,886 bunches	162 90
Onions	497 bu.	339 60	222 bu.	186 00
Potatoes	4,950 bu.	1,237 50	1,100 bu.	605 00
Parsnips	29 bu.	210 00	127 bu	101 00
Peas	29¼ bu.	14 70	55 bu	110 00
Peppers	1 bu.	2 00	.....	.....
Pumpkins	860	48 50	24	1 20
Radishes	5,612 bunches	94 40	2,090 bunches	99 20
Rhubarb	45 lbs	45	206 lbs.	5 34
Raspberries	57 qts.	5 70	220 qts.	22 00
Spinach	35 crates	36 80	49 crates	49 00
Strawberries	2,985 qts.	328 17	5,261 qts.	350 95
String beans	28 bu.	19 00	28 bu.	28 00
Squash	1,898	71 80	80	8 00
Sauerkraut	1,120 gal.	224 00	.....	.....
Tomatoes	100½ bu.	70 50	49 bu.	41 15
Turnips	384 bu.	131 70	320 bu.	148 50
Veal	112 lbs.	6 70	724 lbs.	50 68
Wheat	.....	.....	139 bu.	118 15
Total	.....	$14,156 01	.....	$13,496 59

Hay and ensilage not valued as they produce milk which is credited.

FOURTH REPORT

OF THE

Wisconsin State Reformatory

FOR THE

Biennial Period Ending June 30, 1904.

OFFICERS

CHAS. W. BOWRON.... .. ..Superintendent and Steward
O. E. BICKFORD .... Assistant Superintendent
DR. J. P. LENFESTY..... ....Physician
T. J. BAST ....Clerk
J. W. CLARK.. ....Engineer
W. C. JENS.... ....Foreman
J. M. MORE.... ... . Field Agent

REPORT OF THE SUPERINTENDENT.

To the State Board of Control:

GENTLEMEN—In presenting to you the fourth report of the Wisconsin State Reformatory, for the biennial period between June 30, 1902, and July 1, 1904, I am happy to say that the conditions prevailing during the last two years may be modestly but fitly expressed in one word, Improving.

There has been a marked improvement in every department of effort connected with the institution. There has been improvement in facilities and appliances; improvement in buildings and grounds; improvement in farm and garden and stock; improvement in discipline; improvement in the general morale of the official force; heavy increase in revenues; comparative decrease in current expenses; a large addition to permanent improvements through the labor of inmates; further additions to industries; and, I am sorry to say, a large increase in population. The statistical tables appended to this report will disclose some of these things more particularly and definitely.

Although the casual reader of these statistics might not therein discern it, the fact nevertheless is that the state is building up quite a large institution through the labor of the inmates and the revenues derived from our industries, and at the same time giving instructive employment to a class of erring young men to whom wholesome labor and the manual arts have been comparative strangers.

Without any appropriation therefor by the legislature, we have, during the past two years, built a large stock barn 40x80 feet, the basement of which was furnished with cement floors, swinging stancheons, electric lights, hot and cold water and steam for heating foods. We have also constructed a silo 25 feet in diameter and 35 feet high, entirely with the labor of the

inmates. We have also built a large two story implement and tool house, the upper story of which is used as a granary. Also a spacious root cellar capable of holding sixteen thousand bushels of vegetables, mostly in slatted trays. We have built and equipped a fine brick yard with its power plant, machine house, drying sheds, kiln sheds and tracks, costing $8,275.10, and have already turned out brick the market value of which is enough to cover half the original investment. This brick is now on hand ready to be used in future building operations.

We have laid 1,000 feet of 18-inch main sewer. We have made extensive additions to the electric lighting plant. The old two story wooden structure, formerly occupied as offices, has been moved back into the yard and has been fitted up as a school house.

All these physical improvements, and many minor ones, have been made without calling upon the legislature for the appropriation of a dollar therefor. The materials have been purchased out of the revenues of the institution and the labor has been performed by the inmates, thus adding considerably to the state's property without any direct taxation therefor.

I might mention incidentally that in inventorying this and all other state property, we have listed it at the cost of materials and have not computed anything for the labor of inmates; so that the actual value of the property scheduled is considerably greater than the figures given in the inventory.

During the past year the new hospital building was completed, costing $18,880. As the building fund became exhausted before it was finished, we made the concluding payments of $4,631.94 from the current expense fund. The new hospital building is of brick, with stone trimmings and slate roof, and is furnished with the latest sanitary appliances. The lower story is being used for office purposes, until the main central building shall have been constructed, for which, however, no provision has yet been made by the legislature.

Superintendent's Report.

REPAIRS AND RENOVATION.

The past year especially has been one of much repair and renovation about the institution. For over ten months a crew of inmates was kept at work under a competent overseer painting and calsomining and renovating the different buildings. Nearly every structure on the place was repainted and renovated inside and out, and the interior of the cell house has had not less than three coats of paint in the last twelve months. Good paint covers a multitude of dirt and the work of putting it on teaches some of the inmates a useful trade.

NEW ARTESIAN WELL.

The old artesian well from which our supply of water has been derived, began to fail the past year until we found it necessary to draw water from the river for flushing purposes. In this predicament a contract was let for a new well which was sunk to the granite, 875 feet below the surface.

This well is ten inches in diameter through the clay and eight inches in diameter below the clay and is packed with a six inch flow pipe. The rise of water on the new well is about six feet above ground and the overflow about sixty gallons a minute.

This well cost $1,930.37. The contractor allowed $400.00 for the labor of inmates in assisting in the work, and the difference was paid in cash out of the current expense fund.

MORE ROOM NEEDED.

The need of another cell wing will be imperative by another year. In fact, long before another cell wing can be erected the present one will be completely filled. Our present cell house will accommodate 296 inmates, and at this writing (Oct. 1) our population is 240. By the time the fall and spring terms of court have been concluded, probably every cell will be occupied.

Our cells, although spacious for one are too small for two occupants, even if such occupancy were at all permissible in an institution of this character. The law requires me to notify the courts when our accommodations are exhausted, and this I shall do as soon as every cell is filled.

The main central building contemplated in the plans has not yet been provided for by the legislature, and the dining room, kitchen, bath room and store now occupy extensive space in the factory building that was intended solely for industrial purposes. Although many desirable features in the training and education of inmates are hampered by the lack of the main building and because of the space thus occupied in the factory building, it is more essential that additional sleeping accommodations shall be provided at the earliest possible date. We need the main building badly, but by the spring of 1905, we will need another cell wing more.

NEW POWER HOUSE.

The work of constructing a new power house consisting of engine room, machine shop, boiler room and coal shed is now well under way. This building is 143x180 feet in dimensions, and is calculated to meet every future need of the institution when fully completed according to the adopted plans. The foundations are of concrete, the walls brick, and the iron truss roof will be covered with slate. Although the building would cost upwards of $35,000, if let by contract, we have started in to build what we can of if out of the revenues of the institution and by the labor of our own inmates, who have made the brick for it, laid the concrete foundations for it and are doing the mason work upon it. It is probable that a little legislative help will be needed to meet the bills for materials for its final completion.

OUR PRODUCTIVE INDUSTRIES.

The overall factory is at present the main source of revenue. From 100 to 125 men are constantly employed on the piece

price plan and are given a share in the profits, which easily accounts for the good financial showing of this industry.

From June 30, 1902, to June 30, 1903, the overall factory turned out 713,166 garments.

From June 30, 1903, to June 30, 1904, this factory turned out 1,018,878 garments, or a total of 1,732,044 garments in the biennial period.

The average daily earnings per man in this shop has increased from 57 cents in June, 1902, to 93 cents in June, 1904. This is due to increased facilities, better organization and stricter discipline.

During the period covered by this report, the clothing and repair department has turned out the following manufactured articles:

342 grade coats, 360 grade trousers, 598 work shirts, 207 first grade caps, 318 second grade caps, 110 outgoing suits, 21 extra vests, 42 extra trousers, 22 officer's uniforms, 1,152 inmate bed sheets, 879 inmate pillow cases, 261 bed ticks, 272 pillow ticks, 48 officer's bed sheets, 27 officer's pillow cases, 1,272 single towels, 827 double towels, 84 kitchen aprons, 62 white duck coats, 34 white caps, 72 blue aprons.

Besides which this department has done all the mending for the institution.

The shoe shop has turned out 676 pairs of new shoes and repaired 982 pairs.

The cabinet shop has made 97 commodes for the cells, and 30,000 pallets and 2,000 drying racks for the brick yard.

The broom factory manufactured 5,753 dozen brooms during the fiscal year ending June 30, 1903, and 7,467 dozen during the year ending June 30, 1904.

The farm products which amounted in value to $2,176.10 in 1901, have increased to $4,438.88 in 1903, and will exceed that amount in 1904. This takes no account of the increase in live stock.

The brick yard was completed in August, 1903, and one trial kiln of 250,000 was made, which proved very satisfactory.

Wisconsin State Reformatory.

This year the yard has been running in full force and will manufacture several hundred thousand brick by the close of the season.

MONEYS RECEIVED.

The revenues of the institution are constantly increasing. The revenue from the overall factory, commonly mentioned in the statistical tables as the tailor shop, has increased from $12,944.00 in 1901, and $13,575.62 in 1902, to $21,787.60 in 1903, and $30,565.91 for the fiscal year 1904.

The sale of products of the farm which in 1902 amounted to only $202.08, were $943.82 in 1903, and $1,153.29 for the fiscal year 1904.

The broom factory yielded an income of $790.92 in 1902. For the fiscal year 1903, the receipts were $1,757.09, and for the fiscal year 1904, they amounted to $1,891.39.

How the total cash receipts from all sources have increased annually is shown in the following:

Total cash receipts, 1901.....	$14,748.51
Total cash receipts, 1902.....	15,258.13
Total cash receipts, 1903.....	25,228.00
Total cash receipts, 1904.....	34,888.27

And on June 30, 1904, there were outstanding uncollected accounts for June amounting to $2,799.56.

INMATE POPULATION.

The population is rapidly increasing. The number in custody June 30, 1902, was 159. There have been 235 original admissions during the biennial period, and 20 readmissions, making a total of 255. Discharges for all reasons during this period have been 192, leaving 222 in custody on June 30, 1904.

During the past two years six inmates escaped, but five of them were subsequently captured and returned to the institution.

Superintendent's Report.

HEALTH.

The general health of the inmates has been good. The institution has been free from epidemics. Several tuberculosis inmates have been received, and upon further development of the disease have been sent home on invalid paroles.

While such a policy is not the best that might be devised, were there proper and scientific facilities anywhere in the state for caring for this class of cases, I have deemed it prudent under present circumstances, to allow tuberculous patients to go home on parole, especially in cases well advanced and where parents have requested it.

Eight tuberculous inmates have died during the last three years while thus out on invalid parole. One died in the hospital, his father declining to receive him home, as he himself was fighting death with the same disease and was evidently in straightened circumstances.

The clothes of every incoming inmate are burned, no matter of what quality or how well preserved. It is cheaper to make new clothing than to run the risk of disease germs and vermin. Fortunately no species of vermin has ever been found in our cell house.

SCHOOL AND CHAPEL.

Our school of letters continues to do good work. The school rooms proper have become so overcrowded that two classes find it necessary to seek accommodations in the chapel.

We now have six grades, varying from the illiterates just learning the alphabet, to the higher classes in political economy and civil government.

Several inmates are taking courses in the American School of Correspondence, for whom special accommodations are provided outside of class work. Mechanical drawing and electrical engineering mainly are followed in these courses.

Up to a year ago the school hours were directly after dinner.

This has now been changed and the school session occupies the latter part of the afternoon.

Religious services are held every Sunday presided over by the different ministers of Green Bay and De Pere, with an occasional sermon by a visiting clergyman.

Interest in these services is much enhanced by a male choir consisting of twenty-four inmates, who are under the instruction of a competent chorister. The chorister also instructs the inmate brass and reed band.

EARNINGS OF INMATES.

The earnings of inmates, over and above their board and clothing, have been constantly increasing. The amount of such daily earnings paid to out-going inmates during the fiscal year ending June 30th, 1903, was $3,851.95, and for the fiscal year ending June 30th, 1904, it was $5,205.72, making a total of $9,057.67 for the biennial period. There was still due inmates June 30, 1904, on their daily earnings accounts, the sum of $4,654.21. These earnings, it should be understood, are not paid over to inmates until their final release.

The profit sharing arrangement in the overall factory (denoted in the reports as "overtime," to distinguish it from daily earnings) netted to the inmates sharing therein during the fiscal year ending June 30, 1903, $1,674.01, and during the fiscal year ending June 30, 1904, $2,980.47, a total of $4,654.48 for the two years. Adding the $9,057.67 paid for daily earnings to the $4,654.48 paid for overtime or profit sharing gives us a total of $13,712.15 in cash, which has actually been paid over to inmates out of the funds of the institution for their labor, over and above their board and clothing, during the biennial period covered by this report. This item, it should be noted, serves to materially increase the per capita cost of conducting the institution. And it might be remarked parenthetically, as further explanatory, that this is the only institution in the state required by law to pay the expenses of bring-

ing inmates to its doors, which still further increases the per capita cost. The cash paid for transportation of prisoners during the last two years amounted to $1,829.15.

THE SAVINGS DEPARTMENT.

The inmates' earnings derived from profit sharing are nominally paid over to those entitled to them by crediting their accounts with the amounts, but retaining the money for them in our savings department until they go out. To these savings are added their surplus wages when out on parole, which their employers are required to remit to the institution instead of paying it to them direct. Inmates are allowed to draw on these savings for various proper purposes and are encouraged to send home moderate amounts to their parents. The amount of funds in the savings department on June 30, 1903, was $2,759.98, which has increased to $4,513.34 on June 30, 1904.

EMPLOYMENT.

The following list will indicate approximately the employment to which the inmates are at present assigned during working hours:

Bookkeeping	3
Carpentry	5 to 8
Farming and gardening	8 to 12
Teaming	4
Tending stock	4
Tending engines and dynamo	2
Firing boilers and coaling	3
Laundry	4
Kitchen and dining-room	12
Broom making	15
Barbering	3
Electrical work	2
Shoemaking	2
Making and repairing clothing	4

Wisconsin State Reformatory.

Cutting in overall factory	4
Sewing and making overalls	125
Boxing and shipping	3
Brick yard (in season)	20
Mason work	6 to 10
Painting	4

Besides the usual complement of scrubbers, messengers and boys of all work, which varies according to circumstances.

OPERATION OF PAROLE.

Our experience with the paroling of inmates during the past two years has been fairly encouraging. Seventy-five inmates have been paroled during that period, of whom five violated their paroles and ran away; three violated their obligations and were returned; two were surrendered by their employers, and one returned voluntarily and was reparoled. For an inmate to return voluntarily I do not regard as a violation of parole. I take pains to impress upon every boy's mind when he goes out on parole that, should he return voluntarily because of circumstances or conditions which render it unbearable for him to longer remain in his assigned place of employment, I will accord him the same grade and station he occupied when he went out, and secure for him another place of employment as soon as possible. I desire to have all paroled boys thoroughly understand that failure on parole through no fault of their own will not militate against them, and that their voluntary return will be regarded as a further evidence of the mutual confidence existing between them and the institution. When paroled boys feel that they may come and go without prejudice to their standing, they are more apt to feel at least a temporary home attachment for the institution, and frequently endure conditions outside that would otherwise tempt them to run away. A number of boys have, during my experience with the institution, shown their appreciation of this policy

by returning voluntarily instead of violating their paroles by running away. Therefore, counting those who ceased to report, those who were returned for violation and those surrendered by employers for one reason and another, it gives us a total of ten out of seventy-five boys paroled during the past two years who have technically violated their paroles—a trifle over 13%. On July 1st, 37 paroled inmates were still reporting, their terms having not yet expired, and I am quite confident that not one of these will prove untrue to his obligations. The parole statistics covering the entire life of the institution make a very favorable showing. Out of 191 inmates paroled since the institution was opened in August, 1898, only 37 have proved recreant to their trusts—a fraction over 19%. The proportion of parole violaters, according to my report on June 30, 1902, was 23% up to that time. Thus it will be seen that the proportion of parole violaters is constantly decreasing. But the benefits of the institution to boys committed to its care must not be judged solely by the number of boys who go out on parole. The parole feature is but incidental to the object sought to be gained. Many boys who remain their full terms are as likely to reform and become good citizens as some who go out on parole. In fact is some cases it is regarded as better for the boy to remain here even if he has the fullest confidence of the management. Home surroundings, the trade or occupation and course of study the boy is pursuing, the nature of the only employment that can be found for him on the outside, and the general temperament and tendencies of the subject have much to do in determining what is best for him. It is not always wise to yield to the imploring appeals of parents, who are often misguided in their judgment. Indeed the necessity for reformatory imprisonment is largely based on the fact as well as theory that the state has been compelled to assume supervision because of the failure of parents to successfully perform that function. The state often has less assurance of the parent's suddenly acquired ability to

Wisconsin State Reformatory.

properly control a wayward boy than it has of the boy's more slowly acquired ability to properly control himself. There is a formative stage in every boy's life. Many boys committed here, particularly between the ages of 16 and 21, are just passing through that period of life when permanent characteristics begin to form, and habits are adjusting themselves to a settled mold. There is no doubt that, in particular cases, it conduces more to the boy's future welfare to withhold a parole and permit the formative process to go on, while in restraint, that will render him less susceptible to the evil influences to which his unfolding manhood would be subjected on the outside.

HOME LIFE.

It is well settled that the home life of every boy up to the age of 16 has much to do with the outcome of his formative period, be that period early or later in life. For the purpose of ascertaining to some extent what the domestic surroundings of inmates of this institution have been, and as indicative of previous formative influences, I have taken pains to compile from our records a table showing to what extent the home has been disturbed by death or divorce of parents. I find that of the 615 inmates received up to July 1, 1904, the records show:

Father dead	114
Mother dead	91
Father and mother both dead	58
Father and mother divorced	26
Mother in insane asylum	4
	293

This is 47 per cent of the total number received up to that date. Up to the present writing of this report there have been 664 inmates received of whom the records show:

Father dead	130
Mother dead	102
Father and mother dead	60
Father and mother divorced	30
Mother in insane asylum	4
	326

or 49 per cent of the total number received who have had their home life affected by the death or divorce of parents. Nor are death and divorce the only circumstances bearing upon the question of home influences and surroundings. In addition thereto, the records of 615 show the following:

Insanity or epilepsy in the family	51
Drunken parents	84
Criminals in the family	35
	170

These figures impressively tell their own story.

THE LAW OF COMMITMENT.

The provision of law covering the committment of inmates to this institution has proved by experience to occasion much confusion and misunderstanding, and should be amended. Considering the purposes for which a reformatory is founded, the commitment and parole features should so harmonize that a practicable system may be evolved in their joint application. Under the present law this is quite difficult. The statute prescribes the following form of sentence: "You are sentenced to the Wisconsin State Reformatory for a general or indeterminate term not less than ——— years and not more than ——— years." And then follows this clause: "Such sentence shall have the force and effect of a sentence for such maximum term." This, however, is subject to the power of parole.

Thus while the law prescribes the form of an indefinite sentence, the qualifying clause emphatically makes it a definite sentence for the maximum term mentioned therein. The convicted person and his relatives believing from the language of the commitment that the term of sentence hinges on the minimum, are disappointed and chagrined to find, when too late, that the language of the law makes the term of sentence hinge upon the maximum. The law is contradictory and misleading, and, if the court is not perfectly familiar with the rules of the institution and the operation of its parole system, it is apt to be misled in its estimate of the effect its sentence will have upon the youthful prisoner at the bar. The parole law provides that the Board of Control, upon recommendation of the superintendent, may parole an inmate at any time. The commitment says the inmate shall be detained not less than the minimum period and not longer than the maximum period mentioned therein. But again, the law says that, under such a sentence, an inmate is definitely committed for the maximum period. In view of this provision the indeterminate form of sentence is meaningless, and the minimum cuts no figure in the premises unless it be construed as indicating the court's opinion that the subject ought not to be paroled until he has served his minimum. This, in fact, is the only construction now given it, notwithstanding the fact that the law empowers the Board of Control, on recommendation of the superintendent, to parole at any time. These inconsistencies and contradictions are difficult of reconciliation. Occasionally a boy is committed to the Reformatory for a period of from 1 to 7 or 1 to 10 years. Some maximum terms have been as high as 15 years, and we have at this writing four inmates sentenced to from 1 to 20 years. Nearly every boy committed tells us that the court and district attorney assured him and his relatives that if he is a good boy he will be released at the end of his minimum. Most of those sentenced actually believe that their sentences expire at the minimum, and that then they will be finally restored to freedom. But, presuming that the inmate with a

short minimum and a long maximum is admitted to parole at the expiration of his minimum sentence, what is to be done with him for the remainder of his term, perhaps up to ten and even twenty years? The parole law says he shall not be paroled unless a suitable place of employment is found for him. This provision can not be carried out unless some one is willing to sign agreements to employ the boy and act as the agent of the state in looking after his behavior and welfare, and remit his wages to this institution to be kept for him in the savings department until his time is out. Who will undertake such responsibilities for such long periods? Very few. One year is usually the longest that any employer will agree to act in this capacity. At the end of the year, what is to become of the boy? He must be returned to the institution or another employer and quasi guardian must be found for him. How many years may this process go on before the paroled victim will become disheartened and irritated over his long restraint and will flee to parts unknown under the apprehension that he is likely to be returned to prison? This may not necessarily denote a criminal nature. It is simply human nature. Thus what might be reformation leads to outlawry through long maximum sentences. And these conditions are the more intensified by the fact that boys on parole are not able to secure the wages accorded free agents. They cannot compete in the labor market. They see others about them receiving higher wages. They may be offered, perhaps, better positions at greater compensation, but they are bound down by a contract with their present employer which they cannot break without forfeiting their parole. Therefore it is not only impracticable, but imprudent in many cases to parole inmates having maximum sentences so great as to be a standing temptation to them to become fugitives rather than earners of freedom. Better a reasonably short term, with a parole well earned and liberty closely following as a reward of merit than long years of doubts and uncertainties filled with bitter reflections at the law's severity upon first offenders. Nor do I lose sight of the necessities that present themselves in the

reformatory training of these boys when I make that remark. The sick may become bed sore; the morally infirm may become prison sour.

I am constrained to believe that the plan adopted in New Jersey, as I understand it, more nearly meets the requirements. Under this plan, inmates are sentenced to the reformatory subject to final discharge by the board of managers, but such confinement shall not be longer than the maximum term specified by statute for the offense for which the inmate is committed.

If the subject proves tractable, this affords time for a reasonable amount of training within the walls of the institution and a proper trial on parole outside the institution before he can acquire his full liberty. If he proves intractable, or the necessities of his mental and moral infirmities require it, he may be kept his entire time. At the state reformatory of Elmira, New York, out of over 1,400 inmates only two have been detained more than five years. In most states where the power of final release of reformatory inmates is vested in managing boards, inmates are discharged at the end of a year's probation on parole if their conduct warrants it. In some of the states only six months' good conduct on parole secures a final discharge.

Prisoners sent to the Wisconsin State Reformatory are supposed to be first offenders. Most of them really are first offenders, and a majority of them are mere boys whose crimes are more the result of ignorance, idle companionship and misguided adventure than of vicious or criminal instinct. Unfortunate home environment is the seed to most of their troubles. The philosophy on which their sentence and imprisonment, and possible parole, is based is that of ultimate reformation. To accomplish this, systems of gradation are instituted within the reformatory based on conduct, labor, progress in school studies and general development along the lines of right living and right thinking, with the inducement ever in view that an inmate may thus work his way to the upper grade, thence to parole and find his ultimate reward in his release, practically

restored to good citizenship. Long maximum sentences seriously interfere with this process. First, because of the discouragements they entail and the inducements to escape which they foster; and second, because they are inconsistent with any practical parole system. Taking philosophical view of the question, and assuming that a sentence of from 1 to 20 years means what it says, if a boy's offense is such that his minimum sentence to the reformatory is only for a year, there would not likely be any necessity for keeping him technically a prisoner for 20 years; and if his character is such that he should be kept under the surveillance of the state for 20 years, the chances are that he should be kept within prison walls for more than one year. One inmate, since released for a new trial, was sentenced to a term of not less than 10 years and not more than 30 years. While much more could be said respecting the difficulties of formulating any satisfactory system of reformatory work, where rewards shall follow right doing at every step to final freedom, it may suffice to draw from this brief review of the situation the following conclusions: (1) That the present indeterminate form of a really definite sentence should be abolished. (2) It would create less misunderstanding to have sentences to this institution definite, in form, subject to the power of the Board of Control to parole. The rules of the institution are sufficient to determine what part of that sentence shall be served within its walls.

IN CONCLUSION.

In conclusion I wish to make due acknowledgment of the cooperation and able assistance of Mr. O. E. Bickford, assistant superintendent, upon whom falls the responsibility for the discipline of the institution. I can truly say that the discipline is better than ever before, and occasions for punishment of inmates for breach of rules are comparatively rare. The subordinate officers are to be commended for their general observance of duty.

Superintendent's Report.

To the members of the State Board of Control I desire to express my warmest appreciation of their constant and increasing interest in the development of the institution, and my gratitude for the courtesy and confidence they have always shown towards me personally in my humble efforts.

Respectfully submitted,

C. W. BOWRON,
Superintendent.

Statistical Tables.

Summary of population.

Total number received since opening of the institution	615
Returned after violating parole or escaping	44
Total	659
Total number discharged by expiration of sentence, parole, death, and escape	437
In custody June 30, 1904	222
In custody June 30, 1902	159

Received between June 30, 1902, and June 30, 1904.

Transferred from state prison at Waupun	9	
Transferred from industrial school at Waukesha	14	
Sentenced by courts	212	
Total original admissions		235
Returned after violating parole:		
By officers	6	
Voluntarily	4	
Surrendered by employers	3	
	—	13
Returned from escape		5
Returned from insane hospital		1
Returned from state prison		1
Total readmissions		20
Grand total received		255

Discharged between June 30, 1902, and June 30, 1904.

On parole	75	
Reparoled from previous period	1	
Expiration sentence	103	
Transferred to state prison	4	
Released for new trial	1	
Released by governor	1	
Escaped	6	
Died	1	
Total		192

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Statistics of parole.

Paroled from opening of institution, Aug. 31, 1898, to Sept. 30, 1900	42	
Paroled between Sept. 30, 1900, and June 30. 1902	74	
Paroled between June 30, 1902, and June 30, 1904	75	
Total		191
Terms expired during parole	101	
Died during parole	8	
Violated parole and ceased to report	18	
Violated parole and were returned	16	
Surrendered by employers	3	
Returned voluntarily	5	
Discharged by governor	3	
Still reporting June 30, 1904	37	
Total		191

Age on admission here.

Between 16 and 20 years of age	120
Between 20 and 25 years of age	87
Between 25 and 30 years of age	27
Between 40 and 50 years of age	1
Total	235

Previous arrest of prisoners.

First arrest leading to present imprisonment	133
Former arrest but not imprisonment	19
Arrested and sentenced to jail	53
State prison sentence	1
Reformatory sentence	1
Total	235

Heredity.

Insanity or epilepsy in family	15
Drunkenness in parents	31
Criminals in family	5
Total	51

Statistical Tables.

Education in ancestry.

None at all	37
Simply read and write	60
Common school or better	85
High school or more	15
Not known	38
Total	235

Pecuniary circumstances of parents.

Very poor	72
No accumulations	48
Well-to-do	80
Not known	35
Total	235

Occupation of parents.

Professional	3
Merchant	13
Farmers	47
Servants and clerks	15
Mechanics	58
Common laborer	64
No occupation	3
Not known	32
Total	235

Character of home environment.

Bad	44
Fair	89
Good	67
Unknown	35
Total	235

Duration of home life.

Left home previous to 10 years of age	15
Left home between 10 and 14 years of age	36
Left home after 14 years of age	75
At home up to time of crime	109
Total	235

Wisconsin State Reformatory.

Educational.

Without any education	29
Read and write (with difficulty)	94
Ordinary common school	98
High school	7
College	7
Total	235

Character of associations.

Positively bad	89
Not good	50
Doubtful	39
Good	57
Total	235

Nominal religious faith.

Protestant	103
Roman Catholic	93
None	39
Total	235

Nature of offense.

Against property	194
Against the person	41
Total	235

Statistical Tables.

Maximum term for which prisoner could be kept.

Six months	6	Three years	37
Eight months	2	Four years	13
One year	65	Five years	22
Thirteen months	2	Seven years	6
Fourteen months	1	Eight years	2
Fifteen months	1	Ten years	2
Sixteen months	1	Fifteen years	3
Eighteen months	9	Twenty years	1
Twenty months	1		
Two years	54	Total	235
Two and one-half years	7		

Occupation of prisoners before conviction.

Common laborer	26	Liveryman	1
Farm hand	24	Carpenter	3
No occupation	75	Tailor	3
Miner	2	Barber	2
Bartender	1	Printer	5
Teamster	5	Butcher	3
Clerk	5	Painter	6
Sailor	3	Telegrapher	1
Stenographer	2	Bell boy	2
Brakeman	2	Iron moulder	2
Cook	6	Fireman	8
Bookkeeper	4	Electrician	1
Woodsman	7	Engineer	2
Baker	3	Pail maker	1
Shoemaker	4	Musician	2
Correspondent	1	Brewer	1
Blacksmith	7	Jeweler	1
Steam fitter	2	Attorney	1
Waiter	3	Messenger	2
Machinist	3		
Druggist	1	Total	235
Plumber	2		

Wisconsin State Reformatory.

Table showing the number of inmates received from the different counties up to June 30, 1904.

Counties.	Received.	Counties.	Received.
Ashland	22	Manitowoc	11
Brown	24	Monroe	7
Barron	2	Marathon	2
Bayfield	9	Marquette	3
Buffalo	2	Marinette	20
Burnett	1	Milwaukee	104
Clark	4	Oconto	9
Crawford	7	Oneida	1
Calumet	1	Outagamie	13
Chippewa	11	Ozaukee	1
Columbia	8	Pepin	1
Dane	32	Pierce	4
Dodge	3	Polk	2
Douglas	33	Portage	3
Door	1	Price	5
Dunn	4	Rock	17
Eau Claire	12	Racine	23
Fond du Lac	17	Richland	1
Florence	1	Sauk	7
Gates	1	St. Croix	10
Grant	19	Shawano	2
Green	6	Sheboygan	14
Iron	9	Taylor	5
Iowa	2	Trempealeau	2
Jefferson	4	Vernon	7
Jackson	1	Waupaca	7
Juneau	3	Waukesha	9
Kewaunee	4	Walworth	9
Kenosha	29	Waushara	2
La Crosse	5	Winnebago	12
LaFayette	11	Wood	7
Langlade	3		
Lincoln	4	Total	615

Statistical Tables.

OFFICERS AND EMPLOYES, JUNE 30, 1904.

Name and Position.	Appointed.	Salary.	Residence when appointed.
C. W. Bowron, superintendent	July 1, 1901	$2,000 00	Oshkosh.
O. E. Bickford, assistant superintendent	1901	1,500 00	Waupun.
T. J. Bast, clerk	July 1, 1904	900 00	Johnson Creek.
F. L. Brunette, carpenter	Aug. 1898	660 00	Green Bay.
Theo. Mahn, superintendent clothing dept	1904	660 00	Green Bay.
W. C. Jens, foreman	Mar. 1900	1,200 00	Waupun.
A. Scherphorn, foreman	1903	600 00	Green Bay.
C. J. Huebuer, inspector	1902	660 00	Green Bay.
F. E. Rice, cook	1902	720 00	Waupun.
John W. Clark, engineer	1903	960 00	DePere.
W. H. Nellis, assistant engineer	July 1900	540 00	Winnebago.
Rudolph Martin, assistant engineer	1903	660 00	Green Bay.
L. Williams, farmer	Mar. 1899	600 00	Green Bay.
James Briquelette, keeper	1903	600 00	Green Bay.
J. R. Junion, keeper	Aug. 1898	720 00	Kewaunee.
Bruce Dodge, keeper	Aug. 1898	720 00	Walworth Co.
S. W. Goss, keeper	1903	540 00	Brown Co.
L. Bouchard, keeper	1903	660 00	Wisconsin.
A. T. Bickford, storekeeper	1903	540 00	Waupun.
E. Chamberlain, brickmaker	Sept. 1900	720 00	Waupaca.
Wallace Young, night guard	1903	660 00	Green Bay.
Frank Sutherland, night guard	1904	480 00	Janesville.
M. J. Morgan, keeper	1904	540 00	Green Bay.
W. E. Wheeler, teamster	Oct. 1901	600 00	Menasha.
Molly Schierner, housemaid	1903	180 00	Green Bay.

STATEMENT SPECIAL APPROPRIATION FUNDS, 1904.

Classified Items.	Balance available July 1, 1902.	Expended during biennial period.
Continue erection and furnishings	$80,624 80	$80,624 80

Wisconsin State Reformatory.

STATEMENT OF CURRENT EXPENSE FUND, 1903.

1902.				
July 1	Balance		.....	$52,963 45
1903.	Appropriation, chap. 163, laws 1903		.....	48,000 00
May 1	Steward, profits tailor shop		.....	15,283 47
June 30	Steward, for sundries		.....	9,942 58
June 30	Paid on account current expenses this year		$61,679 84	.....
June 30	Balance appropriation in state treasury	$63,680 12		
June 30	Balance in hands of steward	829 54		
			64,509 66	.....
			$126,189 50	$126,189 50

STATEMENT OF CURRENT EXPENSE FUND, 1904.

1903.				
July 1	Balance		.....	$64,509 66
1904.	Steward, profits tailor shop		.....	20,210 32
June 30	Steward, for sundries		.....	12,158 16
June 30	Steward, receipts from broom factory		.....	1,891 39
June 30	Steward, for rent of cottages		.....	638 40
June 30	Paid on account of current expenses this year		$68,524 87	
June 30	Balance appropriation in state treasury	$30,126 59		.....
June 30	Balance in hands of steward	756 47		
			30,883 06	.....
			$99,407 93	$99,407 93

Statistical Tables.

STATEMENT OF MONEYS RECEIVED AT THE INSTITUTION.

Classification.	1903.	1904.
Clothing	.....	$185 35
Barn, farm and garden	$913 82	1,153 29
Broom factory	1,757 09	1,891 39
Engine and boilers	20 70	.....
Miscellaneous	8 03	210 90
Printing, postage, stationery and telegraph	89	.....
Subsistence	63 46	191 73
Rent of cottages	616 90	638 40
Tailor shop	21,787 60	30,565 91
Wages and salaries	27 56	.....
Continue erection of buildings, etc	1 95	.....
Fire and boiler insurance	.....	21 30
	$25,223 00	$34,888 27

CASH DEPOSITED TO THE CREDIT OF INMATES.

On hand July 1, 1902	$1,684 42
Received during biennial period	9,513 69
Total	$11,198 11
Returned during biennial period	6,518 01
Balance in hands of steward June 30, 1904	$4,680 10

Wisconsin State Reformatory.

STATEMENT OF

At the State Reformatory

Classification.	Inventory June 30, 1902.	Paid on this account during the year.	Transferred to this account during the year.	Total.
Armory	$256 03	$2 90	.....	$258 93
Barn, farm and garden	3,738 97	2,463 39	$7 55	6,209 91
Broom factory	.....	.....	.....	.....
Cabinet shop	245 93	17 80	.....	263 73
Clothing	2,658 76	1,684 85	.....	4,343 61
Convicts discharged	.....	41 64	.....	41 64
Convicts earnings	.....	3,851 95	.....	3,851 95
Convicts escaped	.....	143 03	.....	143 03
Discounts	.....	13 82	.....	13 82
Drug and med. dep	73 20	903 70	.....	976 90
Engines and boilers	6,272 43	568 52	.....	6,840 95
Freight and express	.....	22 00	.....	22 00
Fire apparatus	419 60	1 50	.....	421 10
Fire and boiler insur'e	.....	55 00	.....	55 00
Furniture	1,820 05	1,109 55	4 91	2,934 51
Fuel	1,011 00	7,580 61	.....	8,591 61
Gas and other lights	1,428 17	709 35	.....	2,137 52
House furnishing	4,092 93	1,825 86	.....	5,918 79
Laundry	834 47	490 12	.....	1,324 59
Library	.....	42 09	450 00	492 09
Machinery and tools	616 00	307 66	1 90	925 56
Means of instruction	1,151 43	352 65	.....	1,504 08
Miscellaneous	175 15	363 41	.....	538 56
Officers' expenses	.....	82 98	.....	82 98
Printing, postage, stationery and telegra'h	301 90	500 36	.....	802 26
Rent of cottages	.....	.....	.....	.....
Repairs and renewals	490 85	637 81	.....	1,128 66
Scraps	.....	.....	85	85
Shoe shop	150 70	321 40	.....	472 10
Subsistence	265 83	8,901 07	2,044 92	11,211 82
Tailor shop	6,100 50	2,834 95	3,803 28	12,738 73
Transferring prisoners	.....	742 95	.....	742 95
Wages and salaries	.....	15,165 07	.....	15,165 07
New barn	.....	2,320 89	45 21	2,366 10
Brick yard	.....	7,422 91	104 43	7,527 34
Tool house	.....	207 08	.....	207 08
Real estate	19,303 23	.....	.....	19,303 23
Buildings & improvements	112,416 98	.....	98,124 13	210,541 11
Total	163,824 11	$61,638 87	$104,587 18	$330,100 16
Less discounts, etc	.....	122 85	.....	293,687 13
	.....	$61,566 02	.....	$36,413 03
Deducted by Sec'y of State for printing	.....	113 82	.....	.....
Net expenses	.....	$61,679 84	.....	.....

Statistical Tables.

CURRENT EXPENSES.

for the year ending June 30, 1903.

Inventory June 30, 1903.	Cash rec'd on this account during the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
$255 70	.....	.....	$255 70	.....	3 23
5,329 69	$943 82	$2,225 03	$8,498 54	$2,288 63	.....
.....	1,757 09	.....	1,757 09	1,757 09	.....
259 75	.....	.....	259 75	.....	3 98
3,647 58	.....	.....	3,647 58	.....	696 03
.....	.....	.....	.....	.....	41 64
41 49	7 18	3,803 28	3,851 95	.....	.....
.....	.....	.....	.....	.....	143 03
.....	.....	122 85	122 85	109 03	.....
136 63	.....	.....	136 63	.....	840 27
6,306 00	20 70	.....	6,326 70	.....	514 25
.....	.....	.....	.....	.....	22 00
351 00	.....	.....	351 00	.....	70 10
.....	.....	.....	.....	.....	55 00
2 740 90	.....	.....	2,740 90	.....	193 61
148 05	.....	.....	148 05	.....	8,443 56
1,563 68	.....	276 00	1,839 68	.....	297 84
4,684 48	.....	.....	4,681 48	.....	1,234 31
1,220 78	.....	.....	1,220 78	.....	103 81
476 00	.....	.....	476 00	.....	16 09
836 97	.....	.....	836 97	.....	88 59
844 16	.....	450 00	1,294 16	.....	209 92
181 50	.....	.....	181 50	.....	357 06
.....	.....	.....	.....	.....	82 98
308 26	89	.....	309 15	.....	493 11
.....	616 90	.....	616 90	616 90	.....
488 64	.....	259 69	748 33	.....	380 33
.....	85	.....	85	.....	.....
158 45	.....	.....	158 45	.....	313 65
552 96	63 46	.....	616 42	.....	10,595 40
6,234 60	6,504 13	.....	12,738 73	.....	.....
.....	.....	.....	.....	.....	742 95
.....	27 56	.....	27 56	.....	15,137 51
.....	.....	2,366 10	2,366 10	.....	.....
7,422 91	.....	.....	7,422 91	.....	104 43
.....	.....	207 08	207 08	.....	.....
19,303 23	.....	.....	19,303 23	.....	.....
210,541 11	.....	.....	210,541 11	.....	.....
$274,034 52	$9,942 58	$9,710 03	293,687 13	$1,771 65	$41,184 68
.....	.....	.....	.....	.....	4,771 65
.....	.....	.....	.....	.....	$36,413 03
.....	.....	.....	.....	.....	113 82
.....	.....	.....	.....	.....	$36,526 85

Wisconsin State Reformatory.

STATEMENT OF

At the State Reformatory for

Classification.	Inventory June 30, 1903.	Paid on this account during the year.	Transferred to this account during the year.	Total.
Armory	$255 70	$3 50	.....	$259 20
Barn, farm and garden	5,329 69	1,565 63	.....	6,895 32
Blacksmith shop	.....	29 02	$8 70	37 72
Brickyard	7,422 91	1,277 02	24 55	8,724 48
Buildings and improvements	210,541 11	.....	21,579 48	232,120 59
Cabinet shop	259 75	70 90	.....	330 65
Clothing	3,647 58	2,463 69	.....	6,111 27
Convicts discharged	.....	1 00	.....	1 00
Convicts' earnings	41 49	5,146 73	17 50	5,205 72
Convicts escaped	.....	256 56	.....	256 56
Discount	.....	.....	.....	.....
Drug and medical department	136 63	595 45	.....	732 08
Engines and boilers	6,306 00	742 92	.....	7,048 92
Freight and express	.....	4 50	.....	4 50
Fire apparatus	351 00	25 45	.....	376 45
Fire and boiler insurance	.....	72 00	.....	72 00
Furniture	2,740 90	186 26	492 65	3,419 81
Fuel	148 05	10,116 52	.....	10,264 57
Gas and other lights	1,563 68	425 43	1,000 00	2,989 11
House furnishing	4,684 48	1,557 11	.....	6,241 59
Laundry	1,220 78	217 80	.....	1,438 58
Library	476 00	103 50	.....	579 50
Machinery and tools	836 97	48 32	315 38	1,200 67
Means of instruction	844 16	464 86	.....	1,309 02
Miscellaneous	181 50	355 87	.....	537 37
Officers' expenses	.....	64 24	.....	64 24
Printing, postage, stationery and telegraph	308 26	508 64	.....	816 90
Repairs and renewals	488 64	7,499 18	.....	7,987 82
Shoe shop	158 45	303 86	.....	462 31
Subsistence	552 96	10,198 82	1,906 16	12,657 94
Tailor shop	6,234 60	5,320 89	6,341 65	17,897 14
Transferring prisoners	.....	1,155 43	.....	1,155 43
Wages and salaries	.....	16,731 91	.....	16,731 91
New barn	.....	515 14	32 00	547 14
Real estate	19,303 23	.....	.....	19,303 23
	$274,034 52	$68,028 15	$31,718 07	$373,780 74
Less discounts and other credits	.....	138 31	.....	329,621 40
		$67,889 84		$44,159 34
Add amount deducted by secretary of state for printing	141 67	.....	.....	.....
Insurance	493 36	635 03	.....	.....
		$68,524 87		

Statistical Tables.

CURRENT EXPENSES

the year ending June 30, 1904.

Inventory. June 30, 1904.	Cash rec'd on this account during the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
$257 71	.....	.....	$257 71	.....	$1 49
6,252 77	$1,152 51	$2,355 55	9,760 83	$2,865 51	.....
23 18	40	.....	23 58	.....	14 14
9,492 20	.....	.....	9,492 20	767 72	.....
232,120 59	.....	.....	232,120 59	.....	.....
280 24	26 00	.....	306 24	.....	24 41
1,927 96	185 35	.....	2,113 31	.....	3,997 96
.....	.....	.....	.....	.....	1 00
95 46	4 82	5,105 44	5,205 72	.....	.....
.....	.....	.....	.....	.....	256 56
.....	.....	129 10	129 10	129 10	.....
165 34	.....	.....	165 34	.....	566 74
6,430 27	.....	1 60	6,431 87	.....	617 05
.....	.....	.....	.....	.....	4 50
376 35	.....	.....	376 35	.....	10
.....	21 30	.....	21 30	.....	50 70
3,412 86	.....	.....	3,412 86	.....	6 95
273 75	135 43	1,000 00	1,409 18	.....	8,855 39
1,572 24	.....	66 40	1,638 64	.....	1,350 47
5,140 88	.....	17 50	5,158 38	.....	1,083 21
1,292 90	.....	.....	1,292 90	.....	145 68
532 70	.....	.....	532 70	.....	46 80
1,184 33	.....	.....	1,184 33	.....	16 34
1,163 06	.....	.....	1,163 06	.....	145 96
189 50	.....	.....	189 50	.....	347 87
.....	.....	.....	.....	.....	64 24
401 67	2 56	.....	407 23	.....	409 67
710 06	2 25	6,389 34	7,101 65	.....	886 17
115 37	.....	.....	115 37	.....	346 94
393 38	264 51	6 06	663 95	.....	11,993 99
7,514 11	10,353 03	.....	17,897 14	.....	.....
.....	.....	.....	.....	.....	1,155 43
.....	.....	1,200 00	1,200 00	.....	15,531 91
.....	.....	547 14	547 14	.....	.....
□19,303 23	.....	.....	19,303 23	.....	.....
$300,655 11	$12,148 16	$16,818 13	$329,621 40	$3,762 33	$47,921 67
.....	.....	.....	.....	.....	3,762 33
					$44,159 34
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	635 03
					$44,794 37

Wisconsin State Reformatory.

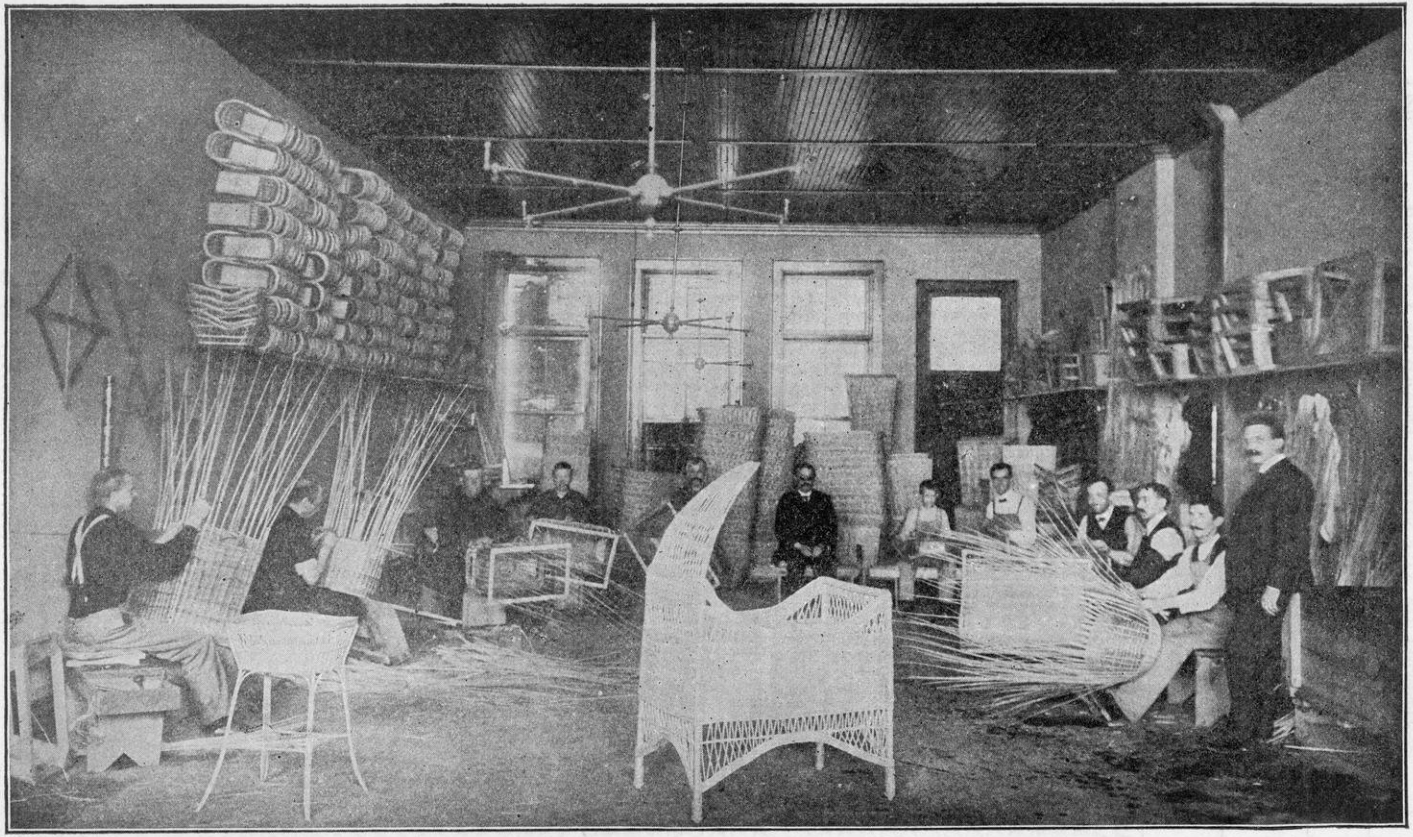
FARM AND GARDEN PRODUCTS FOR THE SEASON OF 1903.

Article.	Quantity.		Price.	Amount.
Apples (crab)	8	bu.	$ 50	$4 00
Apples (large)	5	bu.	75	3 75
Asparagus	276	bch.	02	5 52
Beans (string)	20	bu	50	10 00
Beans (shelled)	2,772	lbs.	.....	58 00
Beets	335	bu.	22	73 70
Beets (green)	100	lbs.	01	1 00
Cabbages	6,200	hd.	02	124 00
Carrots	225	bch.	01	2 25
Carrots	260	bu.	15	39 00
Cauliflower	24	hd.	02	48
Currants	540	qts.	04	21 60
Celery	761	bch.	02	15 22
Corn (sweet)	590⅓	doz.	08	47 23
Corn (ear)	566	bu.	40	226 40
Cucumbers (ripe)	7	bu.	20	1 40
Cucumbers (pickles)	50½	bu.	60	3 30
Cucumbers (green)	67	doz.	08	5 36
Egg plant	15	doz.	10	1 50
Ensilage	200	tons	2 00	400 00
Gooseberries	13	qts.	08	1 04
Hay (tame)	21	tons	8 00	168 00
Hay (June grass and Red-top)	7	tons	3 00	21 00
Kohlrabi	22½	bu.	22	4 95
Leek	400	bch.	01	4 00
Lettuce	48	bu.	30	14 40
Milk	105,108	lbs.	01	1,051 08
Melons (musk)	175	hd.	02	3 50
Oats	1,431	bu.	30	429 30
Onions (green)	3,805	bch.	01	38 05
Onions (dry)	1,480	bu.	50	710 00
Parsnips	123	bu.	25	30 75
Peas (green)	39	bu.	40	15 60
Peppers	1	bu.	60	60
Potatoes	646	bu.	45	290 70
Pork	2,370	lbs.	.....	145 70
Radishes	4,225	bch.	01	42 25
Raspberries	35	qts.	06	1 98
Rhubarb	1,395	lbs.	01	13 95
Rutabagas	142¼	bu.	25	35 56
Salsify	15	bu.	35	5 25
Spinach	80	bu.	25	20 00
Squash (summer)	146	hd.	05	7 30
Straw	35	lds.	2 00	70 00
Beets (sugar)	52,065	lbs.	.....	123 66
Strawberries	312	qts.	05	15 60
Tomatoes	80½	bu.	30	24 15
Turnips	257	bu.	25	51 40
Veal	420	lbs.	.....	21 40
Total	.....		.....	$4,434 88

Statistical Tables.

PRODUCTS OF THE FARM AND GARDEN AT THE WISCONSIN STATE REFORMATORY FOR THE SEASON OF 1904.

Article.	Quantity.		Value.
Asparagus	240	bch.	$4 80
Apples	4	bu.	3 00
Beans (string)	62	bu.	31 00
Beets (green)	100	lbs	1 00
Beets	140	bu.	35 00
Beef	575	lbs.	34 50
Calf skins	7		8 24
Cow hides	2		8 72
Corn (sweet)	95	doz.	7 60
Carrots	397	bu.	79 40
Currants	71¾	bu.	107 63
Cucumbers (green)	131½	doz.	10 52
Celery	1,700	bch.	34 00
Cauliflower	469	hd.	9 48
Cucumbers (ripe)	10	bu.	2 00
Cucumbers (green)	12	bu.	3 60
Cucumbers (pickle)	44¾	bu	26 85
Cabbage	21,000	hds.	420 00
Corn (ear)	650	bu.	260 00
Corn stalks	15	lds.	30 00
Egg plant	9	doz.	90
Ensilage	.....		500 00
Gooseberries	81	qts.	6 48
Hay	47	tons	376 00
Hogs, sold	5,510	lbs.	261 72
Kohlrabi	4	bu.	88
Leek	26	bch.	26
Lettuce	683	bch.	13 66
Milk	84,179	lbs.	841 79
Musk melons	29		58
Oats	782	bu.	273 70
Onions	1,600	bu.	1,120 00
Onions	377	bch.	3 77
Potatoes	1,740	bu.	609 00
Parsnips	108	bu.	32 40
Peas	63¼	bu.	25 30
Pork	615	lbs.	49 20
Pumpkins	202		4 04
Rhubarb	2,462	lbs.	24 62
Radishes	487	bch	4 87
Raspberries	33	qts.	1 98
Rutabagas	140	bu.	35 00
Straw	14	lds.	28 00
Sugar beets	63,900	lbs	151 76
Salsify	5	bu.	1 75
Spinach	1,010	bch.	20 20
Strawberries	394	qts.	19 70
Squash (summer)	150		7 50
Squash (Hubbard)	150		7 50
Turnips	131	bu.	26 20
Tomatoes (green)	1	bu.	30
Tomatoes (ripe)	72¼	bu.	21 68
Veal	1,044	lbs.	83 58
Water melons	105		10 50
Total	.....		$5,681 16



WORKSHOP FOR THE BLIND.

FIRST REPORT

OF THE

Wisconsin Workshop for the Blind

FOR THE

Six Months' Period Ending June 30, 1904.

28

OFFICERS.

OSCAR KÜSTERMANN.....Superintendent.

TEACHERS.

JAMES SIMANDL.....Instructor.
MICHAEL ZANA ..... Assistant Instructor.

SUPERINTENDENT'S REPORT.

To the State Board of Control.

GENTLEMEN—When pursuant to chapter 432, laws of 1903, you established the Workshop for the Blind, it was considered an experiment, but now, after a period of six months, I am pleased to report that it has passed the experimental stage and is already providing the means of self-support to a number of adult blind of our state.

As shown in the tabulation attached hereto, twenty-two blind people have taken advantage of the opportunities offered in our workshop, working in all 8,959 hours.

With the same difference between individuals, as is the case with normal persons, there were some, who learned quickly and took great delight in the work, while others lacked talent and energy and soon became discouraged. However, more than half of those who entered the shop have remained and are happy to have work and a chance to earn their own living.

While not one of the present workmen knew anything about willow work, the leading trade in our shop, several of them have already become experts in this line and are earning from four to six dollars per week, these amounts representing as the law contemplated, the difference between the cost of material and the price of the manufactured article. On opening our shop in December, we were obliged to buy willows from jobbers, the price paid was at least 25 per cent higher than if bought from farmers, making quite a difference in the earnings of our men.

To reduce the price of raw material and to give our workmen the benefit of the same, I have started a willow farm with 13,000 plants, on low land connected with the "Industrial School for Boys" at Waukesha, and if the Board consents, it

is my intention to raise willows also at some of the other state institutions on land not otherwise utilized.

As shown in the separate report hereto annexed, within the first six months, we manufactured 861 baskets, 162 hampers, and 2,870 doll carriages, in addition to recaning chairs and repairing mattresses. Considering that our men began without experience in this work, the showing is certainly very gratifying. In connection with this it may be mentioned that I am in possession of a number of letters from customers, referring to the excellent quality of our goods.

In order to purchase material at the lowest possible figure, it ought to be bought in large quantities, and in selling the finished article to jobbers, we must be able, the same as other manufacturers, to give them the customary 30 or 60 days. A sufficient stock to fill orders promptly ought to be kept on hand constantly. It is, therefore, necessary that we be provided with a wroking capital of $2,000, this money to be merely a loan from the state.

As will be noticed in the attached list of workmen, the great majority of them are residents of the city of Milwaukee, where the workshop is situated. The reason so few blind people, living outside of Milwaukee, take advantage of the opportunities offered at our workshop, is that they have not the necessary funds for board and lodging while learning the trade, a period of two to three months. During this time their earnings are not sufficient to cover necessary expenses, amounting to about $4 per week, and in order to give these blind people an even chance with those living in Milwaukee, I sincerely hope that the next legislature will authorize your Honorable Board to allow each blind person, entering our shop, a sufficient amount for his board and lodging while learning his trade.

There are about 1,500 blind adults in the state, many now being kept in poorhousese, and it goes without saying, that a fair proportion of this number would gladly take up work with us, if transportation and means for necessary expenses while learning the trade, were provided for.

In connection with this, it may be of interest to you to know what other states and cities are doing for their blind:

The state of Illinois authorizes the several counties to pay a pension of $150 per year to each blind adult, in addition to keeping up a workshop and home for the blind at an expense of about $40,000 per year.

The state of Connecticut teaches trades to the adult blind at their Industrial Home for the Blind, allowing $300 per year for a term of three years to each blind person, learning a trade, and at the expiration of three years, paying each one $200 for tools and material.

The state of Michigan appropriated $85,000 for the establishment of a workshop and home for the blind, and after the first year allowed the board in charge to expend not to exceed $25,000 per year for current expenses.

The state of Pennsylvania allows $17,500 annually to run their workshop, and the city of Philadelphia contributes $5,000 per year in addition to the above sum.

The city of New York pays to each blind resident a pension of $50 per year, while the city of Cleveland allows $100 annually.

While a number of states have established homes in connection with workshops, our short experience has already shown that our system, a workshop only, is preferable in many ways. It relieves the blind from the disagreeable consciousness of dependence and enables them to feel that they are coming together, not to eat charity soup at a common table, but to do their day's work and earn their own living. After their day's work they return to their homes or boarding places, thus keeping up their relations with people not blind and remaining in touch with the outside world. Our workmen showed the right spirit in unanimously approving of the motto "Independence through Industry" which is embodied in our trade mark. As soon as arrangements are made to help the blind living outside of Milwaukee to pay for their board and lodging, while

learning the trade, the number of our workmen will undoubtedly materially increase, necessitating additional workroom and tools. To be prepared for this additional expense, it seems advisable to have the present yearly appropriation raised to about $8,000.

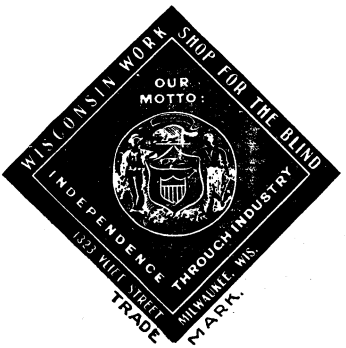
Grateful as I am to a large number of residents of Milwaukee for the work sent to our shop and the orders given us, I hope that their interest in the success of our establishment may be continued.

Sincerely thanking the members of your Board for the valuable assistance lent in starting and running the workshop, and assuring you that it will be my constant aim to make this new Wisconsin institution equal to the best in other states, I remain

Very Respectfully,

OSCAR KÜSTERMANN,
Superintendent.

MILWAUKEE, June 30, 1904.



Statistical Tables.

PAY ROLL FOR MONTH OF JUNE, 1904.

Name.	Salary.	Occupation.
Oscar Küstermann	$83 33	Superintendent.
James Simandl	65 00	Instructor.
Michael Zana	12 00	Assistant Instructor.

STATEMENT OF CURRENT EXPENSES.

December 16, 1903, to June 30, 1904.

Furniture and fixtures	$184 67
Machinery and tools	283 23
Salaries	1,080 81
Rent	245 00
Express	6 25
Light, heat and power	68 28
General expense	105 55
Allowance for material	558 63
Willow farm—Waukesha	26 00
Total	$2,558 42

Wisconsin Workshop for the Blind.

STATEMENT OF WORKSHOP.

Profit and Loss Account.

Material bought	$603 05	.....
Allowance to workmen	403 61	.....
Expense	17 56	.....
Merchandise sold	.....	$850 18
Stock merchandise, inventory	.....	122 85
Material, inventory	.....	171 87
Surplus	120 68	.....
	$1,144 90	$1,144 90

BALANCE ACCOUNT.

Appropriation for material	.....	$558 63
Due to workmen	.....	25 98
Cash on hand	$22 55	.....
Cash in bank	6 20	.....
Accounts receivable	381 82	.....
Stock, inventory	122 85	.....
Material, inventory	171 87	.....
Surplus	.....	120 68
	$705 29	$705 29

Statistical Tables.

LIST OF BLIND MEN WORKING IN THE SHOP.

Name.		Age.	Hours of work.
Wutke, Otto	Milwaukee	30	1
Nitschke, Arthur	Milwaukee	29	906
Schart, Henry	Milwaukee	32	1,207
Bergs, Joseph	Milwaukee	35	1,131
Mann, William	Milwaukee	50	141
Remhardt, Herman	Milwaukee	37	1,415
McCormick, Charles	Milwaukee	33	170
Bethke, Friedel	Milwaukee	25	681
Schindhelm, Edward	Milwaukee	33	139
Gockel, Joseph	Milwaukee	32	2
Manz, Louis	Milwaukee	46	1,302
Buckser, Rudolph	Milwaukee	33	1
Heck, Leo	Sheboygan	28	1,192
Hess, Joseph	Kewaskum	25	1
Lytge, John	Milwaukee	35	1
Berger, Nicholas	Mattoon	24	96
Amrhein, John	Milwaukee	45	247
Knuth, Bernhard	Wauwatosa	25	306
Evans, Charles	Milwaukee	50	9
Klatte, Louis	Wauwatosa	52	3
Mansky, Gustav	Milwaukee	40	7
Goetzinger, Walter	Milwaukee	19	1
			8,959

WORK DONE IN SHOP. DEC. 16, 1903, TO JUNE 30, 1904.

Bushel and hop baskets	5
Market baskets	82
Round hampers	45
Square hampers	117
Doll carriages	2,870
Office baskets	291
Clothes baskets	483
Chairs recaned	46
Mattress repaired	1

Statistics.

County Asylums, Poor Houses, Jails, Etc.

Statistical Tables.

WEEKLY COST PER CAPITA OF INSTITUTIONS FOR THE INSANE.

As reported by the officers in charge of each.

FOR FIRST DECADE.

INSTITUTIONS.	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870
State hospital	$4 61	$3 79	$3 75	$3 63	$5 08	$4 30	$4 50	$4 43	$4 42	$4 30
Northern hospital	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

FOR SECOND DECADE.

INSTITUTIONS.	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880
State hospital	$4 12	$4 59	$5 12	$4 81	$5 22	$5 85	$5 03	$4 81	$4 73	$4 93
Northern hospital	.....	.....	9 27	6 41	6 46	5 14	4 68	4 61	4 20	4 35
Milwaukee hospital	.....	.....	.....	.....	.....	.....	.....	.....	.....	2 91

FOR THIRD DECADE.

INSTITUTIONS.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
State hospital	$4 42	$3 92	$3 90	$3 46	$3 53	$3 46	$3 55	$3 74	$3 78	$3 83
Northern hospital	4 38	3 57	3 89	3 67	3 73	3 22	3 32	3 80	3 44	3 70
Milwaukee hospital	3 66	4 14	3 89	3 86	3 94	3 16	3 79	3 88	3 21	3 58
COUNTY ASYLUMS.										
Brown	.....	2 15	2 16	2 00	1 61	1 88	1 65	1 70	1 89	1 85
Columbia	.....	.....	1 32	1 83	1 67	1 27	1 39	1 48	1 52	1 65
Dane	.....	.....	2 09	2 01	1 90	1 68	1 61	1 34	1 57	1 75
Dodge	.....	.....	2 33	2 27	2 11	1 93	1 80	1 82	1 86	1 78
Fond du Lac	.....	.....	.....	.....	.....	2 00	1 85	1 78	1 60	1 81
Grant	.....	.....	2 00	2 00	1 87	1 81	1 89	1 56	1 47	1 79
Green	.....	.....	1 71	1 94	1 73	1 41	1 47	1 65	1 72	1 74
Iowa	.....	.....	.....	.....	.....	.....	1 57	1 30	1 70	1 24
Jefferson	.....	1 02	95	1 28	1 40	1 50	1 52	1 60	1 68	1 62
La Crosse	.....	.....	.....	.....	.....	.....	.....	2 30	1 80	1 32
Manitowoc	.....	.....	.....	.....	1 73	1 93	1 87	1 80	1 72	1 51
Milwaukee	.....	.....	.....	.....	.....	.....	.....	.....	3 23	2 54
Outagamie	.....	.....	.....	.....	.....	.....	.....	.....	.....	3 28
Racine	.....	.....	.....	.....	.....	.....	.....	.....	.....	3 73
Rock	.....	1 70	1 57	1 33	1 73	2 14	1 83	1 61	1 47	1 37
Sauk	.....	.....	.....	.....	.....	.....	1 49	1 17	1 39	1 09
Sheboygan	.....	2 30	2 24	2 19	2 10	2 10	2 37	2 63	2 29	1 98
Vernon	.....	.....	.....	.....	.....	.....	.....	.....	2 64	1 68
Walworth	.....	1 33	1 29	1 28	1 52	80	1 09	1 22	1 28	1 33
Winnebago	....	1 47	1 13	1 50	1 28	1 33	1 32	1 25	1 25	1 18
Av. for county asylum	.....	$1 66	$1 68	$1 79	$1 89	$1 70	$1 65	$1 64	$1 69	$1 75

Statistical Tables.

FOR FOURTH DECADE.

INSTITUTIONS.	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
State hospital	$4 17	$3 89	$3 71	$4 02	$5 03	$5 01	$5 38	$5 18	$5 04	$4 79
Northern hospital	3 56	3 56	3 70	3 73	4 56	4 07	4 75	5 09	4 18	3 88
Milwaukee hospital	3 65	3 51	3 95	3 16	3 63	3 79	3 37	3 39	3 30	3 32
COUNTY ASYLUMS.										
Brown	2 00	1 75	1 80	1 95	1 85	2 05	1 95	2 07	1 87	2 47
Chippewa						2 67	1 55	1 48	1 64	1 76
Columbia	1 53	1 55	1 65	1 84	1 32	1 28	1 32	1 20	1 54	1 75
Dane	1 70	1 60	1 58	1 40	1 18	1 38	1 35	1 22	1 19	1 57
Dodge	1 75	1 98	1 99	2 00	1 85	1 74	1 65	1 73	1 82	2 34
Dunn		1 86	1 55	1 55	1 54	1 32	1 81	1 73	1 78	2 54
Fond du Lac	1 93	2 25	2 14	1 90	1 96	1 67	1 80	1 81	1 61	2 50
Grant	1 74	1 99	1 67	1 89	1 72	1 60	1 56	1 60	1 28	1 99
Green	1 90	1 52	1 65	1 58	1 73	1 68	1 66	1 79	1 51	1 92
Iowa	1 44	1 58	1 53	1 23	1 65	1 44	1 34	1 17	1 16	1 79
Jefferson	1 88	1 87	1 86	1 54	1 79	1 66	2 05	1 54	1 42	1 47
La Crosse	1 35	1 37	1 49	1 27	1 39	1 36	1 27	1 56	1 41	2 26
Marathon				4 26	1 77	1 49	1 39	1 61	1 70	2 15
Manitowoc	1 60	1 61	1 52	1 72	1 67	1 61	1 70	1 70	1 77	2 74
Milwaukee	2 51	2 74	2 71	2 51	2 48	3 41	2 52	2 27	2 36	2 70
Outagamie	2 10	1 85	1 72	1 71	1 47	1 62	1 75	1 30	1 37	2 79
Racine	2 01	1 89	2 21	1 94	1 95	2 05	1 98	1 72	2 35	2 46
Richland							2 38	1 70	1 82	1 97
Rock	1 21	1 32	1 14	1 53	1 58	1 31	1 30	1 43	1 40	2 35
St. Croix							1 88	1 45	1 26	2 35
Sauk	1 09	1 08	1 15	1 18	1 35	1 31	1 22	1 25	1 39	1 57
Sheboygan	2 31	2 26	2 19	1 83	1 90	2 19	2 14	1 86	1 93	2 42
Trempealeau										3 96
Vernon	1 66	1 55	1 62	1 49	1 63	1 76	1 93	1 89	1 67	2 19
Walworth	1 38	1 21	1 45	1 38	1 12	1 17	1 00	1 24	98	1 58
Washington									3 02	2 54
Winnebago	1 16	1 56	1 53	1 68	1 93	2 08	1 68	1 65	1 63	2 33
Av. for county asylums	$1 78	$1 70	$1 74	$1 74	$1 68	$1 73	$1 66	$1 60	$1 62	$2 18

Statistical Tables.

FOR FIFTH DECADE.

Institutions.	1901.	1902.	1903.	1904.
State hospital	$5 26	$4 40	$4 57	$4 67
Northern hospital	4 24	4 51	3 99	4 07
Milwaukee hospital	3 39	3 26	3 56	3 58
County Asylums.				
Brown	2 84	3 67	4 78	3 34
Chippewa	1 74	1 86	2 20	2 44
Columbia	1 76	1 62	1 35	1 17
Dane	1 67	1 88	1 82	2 06
Dodge	2 38	2 11	2 17	2 08
Dunn	1 99	2 66	1 59	2 18
Eau Claire	3 60	3 40	2 80	2 53
Fond du Lac	2 17	3 62	2 23	2 38
Grant	1 65	1 76	1 64	2 55
Green	1 92	2 03	2 01	1 99
Iowa	2 20	2 01	1 87	2 12
Jefferson	1 72	2 40	1 98	1 80
LaCrosse	2 24	2 24	2 31	2 06
Marathon	2 29	2 82	2 06	2 42
Manitowoc	2 63	2 20	2 41	2 84
Milwaukee	2 79	3 17	2 28	2 12
Monroe	...	...	3 00	1 95
Outagamie	2 26	2 28	2 16	2 38
Racine	2 55	2 63	2 47	3 84
Richland	2 29	2 37	2 12	2 15
Rock	2 45	2 32	1 98	2 40
St. Croix	1 81	2 58	1 81	1 66
Sauk	1 63	1 91	1 65	1 90
Sheboygan	2 35	2 69	2 62	2 04
Trempealeau	3 17	2 88	1 98	2 22
Vernon	2 37	2 27	2 56	3 03
Walworth	1 93	1 83	2 01	2 18
Waupaca	...	...	4 33	2 32
Washington	2 64	2 47	2 28	2 28
Waukesha	...	...	2 01	4 78
Winnebago	2 12	2 02	2 35	2 31
Average for county asylums	$2 26	$2 42	$2 23	$2 37

Statistical Tables.

STATISTICS OF PAUPERISM

For the biennial period ending June 30th, 1904.

Movement of population in poor houses.	1903.	1904.
Number in poor houses at beginning of year	1,592	1,495
Of whom were male	1,149	1,081
And females	443	414
There were received during the year	1,015	1,033
Of whom were male	783	823
And females	232	210
There were born in poor houses	18	19
Of whom were male	10	13
And females	8	6
Making the total in poor houses during the year	2,635	2,547
Of whom were male	1,942	1,917
And females	683	630
There were discharged during the year	891	519
Of whom were male	681	389
And females	210	130
There were placed out during the year	19	27
Of whom were male	11	17
And females	8	10
Ran away during the year	26	292
Of whom were male	22	254
And females	4	38
There died in poor houses during the year	176	227
Of whom were male	136	175
And females	40	52
Total loss of population during the year	1,112	1,065
Of whom were male	850	835
And females	262	230
Number remaining in poor house at the end of the year	1,513	1,482
Of whom were male	1,092	1,082
And females	421	400

On June 30, 1904, there were 43 county, 1 town and 3 city poor houses in the state.

COMPARATIVE TABLE

Showing the total amount expended for poor relief including the amount expended in maintaining poor houses, and the outdoor relief administered by counties, towns and municipalities.

Counties.	1891.	1893.	1895.	1897.	1899.	1901.	1903.	Total.	Average population 1890 and 1900.	Average annual cost.	Cost of poor relief to population.
Adams	$1,985 44	$2,000 00	$2,208 68	$1,080 64	$2,382 28	$3,310 50	$2,130 35	$15,097 89	8,015	$2,156 84	$ 29
Ashland	9,884 87	11,874 76	19,250 52	15,445 11	11,927 56	10,011 98	13,662 18	92,056 98	20,419	13,150 99	64
Barron	2,477 19	3,443 16	4,928 65	3,678 40	2,259 16	3,502 63	4,618 37	24,907 56	19,546	3,558 22	18
Bayfield	2,429 55	9,452 94	8,276 72	10,231 21	6,109 00	17,178 93	5,107 10	58,785 45	10,891	8,397 92	78
Brown	6,754 50	7,309 60	7,154 90	3,604 79	3,491 00	9,557 34	7,780 42	45,552 57	42,761	6,507 51	15
Buffalo	1,678 00	2,248 00	3,503 15	2,600 24	2,743 52	3,335 17	2,335 02	18,443 10	16,381	2,634 73	16
Burnett	1,258 51	1,294 28	1,986 28	1,624 80	2,054 41	2,129 00	1,679 43	12,026 71	5,935	1,718 10	29
Calumet	1,825 70	3,022 27	3,201 61	4,931 50	3,514 29	4,341 09	2,941 85	23,878 31	16,859	3,411 19	20
Chippewa	6,109 82	5,814 66	5,476 27	2,116 97	3,794 27	5,107 72	3,439 42	31,859 13	29,090	4,551 30	16
Clark	4,725 58	4,289 39	2,094 32	1,253 72	1,659 09	2,820 87	3,854 29	20,697 26	21,778	2,956 75	13
Columbia	10,511 78	14,000 00	12,039 50	3,365 65	2,835 96	4,890 94	2,882 22	50,526 05	29,735	7,218 01	24
Crawford	3,601 99	3,805 08	3,798 70	1,383 25	1,870 00	3,157 34	3,794 79	21,414 15	16,636	3,059 16	18
Dane	17,730 53	13,646 52	12,249 03	12,718 25	13,718 48	10,425 36	13,000 00	93,488 17	64,506	13,355 45	27
Dodge	3,190 46	3,691 45	7,143 73	4,158 29	8,516 80	6,825 04	6,3 7 38	39,864 15	45,807	5,694 74	12
Door	2,438 00	1,766 74	3,936 09	2,729 92	2,325 84	2,486 23	2,496 57	18,179 39	16,632	2,597 05	15
Douglas	9,399 71	17,680 75	24,012 01	3,500 00	15,035 63	22,628 85	21,092 18	113,349 13	24,901	16,192 73	65
Dunn	6,966 76	2,733 17	6,935 46	3,909 35	4,777 16	5,657 15	5,900 00	36,879 05	23,853	5,268 43	22
Eau Claire	4,836 24	4,105 66	10,293 71	11,266 54	4,621 35	11,824 11	11,857 55	58,809 16	31,182	8,401 31	27
Florence	1,580 38	525 24	2,820 00	905 75	1,784 43	1,864 45	1,900 00	11,380 26	2,900	1,625 75	56
Fond du L'c	10,430 44	9,280 35	16,170 43	9,046 14	11,192 87	13,173 56	10,570 75	79,664 54	45,838	11,380 65	25
Forest		751 43	700 00	560 00	680 00	1,826 06	2,668 52	7,186 01	1,204	1,026 57	85
Grant	2,900 55	3,064 19	3,398 17	2,582 34	5,484 11	5,404 86	6,026 75	28,860 97	37,766	4,122 99	11
Green	14,000 00	13,000 00	4,474 57	3,318 89	1,947 97	4,178 62	4,749 71	45,669 76	22,725	6,524 25	29
Green Lake	3,093 09	4,794 96	4,571 64	5,017 09	5,088 20	4,832 26	4,894 43	32,291 67	15,480	4,613 09	29
Iowa	30 00	943 08	1,283 01	1,239 58	2,911 98	3,441 92	2,511 34	12,360 91	22,615	1,765 84	8
Iron		12,000 00	6,581 04	11,233 91	6,863 09	13,225 58	11,079 82	60,983 44	5,977	8,711 92	1 46
Jackson	5,422 70	4,703 60	2,393 99	3,000 56	1,287 18	2,903 32	3,014 71	22,726 06	16,631	3,246 58	19
Jefferson	6,300 00	9,452 62	10,702 76	4,205 17	10,321 01	11,349 31	7,413 22	59,744 09	34,159	8,534 82	25
Juneau	2,517 20	3,334 75	3,436 25	6,950 97	2,624 12	6,748 50	3,069 90	28,681 69	18,875	4,097 38	22
Kenosha	1,809 65	7,032 55	6,456 92	12,013 88	8,774 78	6,497 24	3,968 87	46,553 89	18,644	6,650 56	36
Kewaunee	3,805 89	3,414 73	3,465 64	2,403 00	4,830 06	4,324 72	3,726 24	25,970 28	16,682	3,710 04	22
La Crosse	19,905 73	21,090 68	20,209 26	13,592 05	13,581 34	12,808 23	9,448 50	110,635 79	40,899	15,805 11	38
Lafayette	5,733 87	5,042 53	3,847 32	3,094 39	4,875 31	6,251 95	5,339 04	34,184 41	20,612	4,883 50	23
Langlade	1,562 31	1,836 80	2,904 16	1,784 84	1,585 00	5,637 62	5,700 00	21,010 73	11,009	3,001 53	27
Lincoln	3,020 21	4,147 00	4,611 82	4,038 61	2,740 27	5,175 61	7,248 61	30,981 53	14,139	4,425 93	31

Statistical Tables.

Manitowoc.	4,574 00	4,674 59	11,147 65	11,191 81	9,500 00	13,009 70	11,437 23	65,534 98	40,046	9,362 14		23
Marathon.	4,807 77	3,861 20	9,529 12	2,684 19	2,185 00	11,609 13	8,232 10	42,908 51	36,812	6,129 79		17
Marinette..	5,079 71	9,620 49	16,148 75	6,180 47	5,850 00	10,815 09	9,297 46	62,991 97	25,563	8,998 85		35
Marquette.	845 95	825 00	1,483 15	1,337 68	1,585 00	1,257 51	1,995 68	9,329 97	10,093	1,332 85		14
Milwaukee	30,277 48	53,816 55	108,332 41	71,180 75	41,940 08	70,633 75	94,897 68	471,078 70	2,83,059	67,296 95		24
Monroe	4,500 00	4,520 48	4,850 25	1,250 00	2,920 93	4,315 78	4,774 13	27,131 57	25,657	3,875 94		14
Oconto	4,743 90	5,070 96	10,275 99	8,250 00	7,639 19	5,731 60	7,705 01	49,416 65	17,941	7,059 52		49
Oneida	500 00	3,277 94	4,089 85	3,620 00	1,763 00	195 30	1,483 31	14,929 40	6,942	2,132 78		30
Outagamie.	5,490 39	15,277 99	12,316 46	8,587 26	3,736 25	12,816 93	13,000 00	71,225 28	42,469	10,175 04		24
Ozaukee....	500 00	500 00	4,567 04	4,260 81	2,833 08	3,042 29	3,068 92	18,772 14	15,653	2,681 73		17
Pepin	1,150 00	956 25	1,703 74	1,042 26	623 81	1,016 46	1,412 33	7,904 85	7,419	1,129 26		75
Pierce	4,786 91	3,703 37	3,567 52	2,348 60	3,652 77	4,487 15	7,604 64	30,150 96	22,164	4,307 28		19
Polk	2,201 96	2,399 24	3,078 45	2,818 58	1,556 17	2,713 23	2,656 69	17,424 32	15,385	2,489 19		16
Portage	1,716 77	5,448 66	7,291 43	8,304 03	7,937 60	4,994 48	4,206 83	39,899 80	27,140	5,699 97		21
Price	5,000 00	2,600 00	6,446 73	2,736 39	4,560 12	5,527 16	4,218 43	31,088 83	7,182	4,441 26		62
Racine.....	4,494 84	4,735 56	3,143 54	2,200 00	2,331 63	7,232 25	14,705 29	38,843 11	40,956	5,263 30		13
Richland...	3,868 00	3,363 39	5,089 54	3,164 85	3,790 46	3,115 80	3,318 67	25,710 71	19,302	3,672 96		19
Rock.....	11,698 21	8,285 19	9,555 16	6,342 50	10,830 43	9,227 64	6,366 43	62,305 56	47,211	8,900 79		19
St. Croix ..	7,542 35	5,681 78	5,613 70	3,170 68	3,850 00	3,204 01	3,400 00	32,462 52	24,984	4,637 50		18
Sauk	8,750 00	14,982 00	4,613 53	3,749 49	6,211 09	5,301 44	7,059 75	56,667 30	31,790	7,238 19		22
Sawyer. ..	3,547 65	2,334 19	2,950 67	4,800 00	4,250 00	4,068 67	3,386 44	25,337 62	3,667	3,619 66		98
Shawano...	2,152 33	2,459 17	5,913 08	2,300 00	4,672 32	4,120 94	4,035 60	25,653 44	23,355	3,664 78		15
Sheboygan.	5,776 11	5,532 32	19,636 86	18,510 78	18,882 19	20,080 84	22,166 17	110,585 27	46,417	15,797 90		34
Taylor .	6,237 49	4,614 62	3,166 37	1,988 92	4,225 75	5,529 42	3,991 41	29,753 98	8,996	4,250 57		47
Trempe'le'u	3,986 58	5,002 89	3,586 16	6,580 31	6,340 14	4,827 50	6,649 06	36,972 64	21,016	5,281 80		25
Vernon.....	3,500 00	3,821 24	3,619 10	4,363 10	4,935 28	4,434 65	4,589 46	29,262 83	26,731	4,180 40		15
Vilas	.....	469 58	1,429 35	3,729 11	2,278 18	7,080 55	7,500 00	22,486 77	2,465	3,212 40		1 30
Walworth..	11,737 12	10,643 31	5,560 39	3,045 09	6,371 18	6,085 79	11,555 31	54,998 19	28,559	7,356 88		27
Washburn .	650 00	900 00	2,753 34	3,119 57	2,600 00	1,917 97	2,200 00	14,140 88	4,223	2,020 13		48
Washingt'n	2,090 00	1,831 00	2,265 15	1,402 35	1,566 71	2,215 31	1,578 57	12,949 09	23,170	1,849 87		8
Waukesha .	5,097 96	9,174 53	9,929 72	2,433 81	8,226 35	7,412 54	5,329 42	47,604 33	34,250	6,800 62		19
Waupaca ..	4,479 99	4,561 98	5,275 87	2,706 94	7,524 82	6,630 16	7,733 88	38,913 64	29,205	5,559 09		19
Waushara .	2,790 76	2,486 92	878 73	1,680 20	2,258 00	2,133 73	2,821 08	15,049 42	14,739	2,149 92		14
Winnebago	17,999 11	14,710 11	12,266 98	6,202 70	15,956 76	14,584 30	22,953 89	104,673 85	54,161	14,953 41		27
Wood	5,160 62	4,941 47	4,560 01	7,263 00	5,780 12	13,526 16	3,966 44	45,197 82	21,996	6,456 98		29
Total...	$367,650 61	$443,676 91	$553,152 10	$399,134 43	$401,371 93	$523,733 32	$529,336 84	3,218,056 14	1,881,491	$459,722 44	$	25

Statistical Tables.

FINANCIAL STATEMENT OF POORHOUSE.

For the biennial period ending June 30, 1904.

EXPENDITURES.	1903	1904.
Salaries of superintendents and matrons	$24,121 77	$25,619 43
Wages of employees	28,637 85	31,544 92
Medical attendance	5,877 79	4,165 92
Groceries and provisions	42,313 02	54,821 69
Fuel and lights	17,982 83	21,472 29
Clothing	9,386 35	10,441 43
Furniture	1,952 90	2,210 52
Ordinary repairs	6,149 64	7,786 14
Other ordinary expenses	27,553 28	19,757 05
Total current expenses	$163,975 43	$177,819 39
RECEIPTS.		
From sale of produce	$15,243 90	$15,405 35
From expense of inmates refunded	1,663 70	1,443 91
Expense of inmates paid by themselves and friends	2,414 49	3,321 46
From other sources	3,871 22	1,087 03
Total receipts	$23,193 31	$21,257 75
The net expenses therefore were	$140,782 12	$156,561 64
Total number of weeks board furnished	83,255	81,864
Average cost of support per week was	1 70	1 91

Statistical Tables.

SUPERINTENDENTS OF POOR HOUSES, JUNE 30, 1904.

Counties.	Name of person in charge of poor house.	Post office address.	Salary.
Ashland	John Hultman	High Bridge	$720 00
Adams	J. W. Gunning	Friendship	400 00
Brown	Joseph A. Dare	Green Bay R. F. D. No 1.	600 00
Barron	Maggie Miller	Barron	700 00
Columbia	B. Miller	Wyocena	450 00
Crawford	C. M. Toney	Seneca	1,100 00
Clark	A. F. Franz	Neillsville	600 00
Chippewa	R. P. Dickinson	Chippewa Falls	300 00
Dane	L. P. Edwin	Verona	320 00
Dodge	Solomon Rudolph	Juneau	800 00
Dunn	E Dorrey	Menomonie	456 00
Eau Claire	D. D. Brown	Eau Claire	750 00
Fond du Lac	L. Manderscheid	Fond du Lac	219 96
Grant	Wm. J. Dyer	Lancaster	420 00
Green	R. C. Whitcomb	Monroe	300 00
Iowa	E J. Perkins	Dodgeville	600 00
Jackson	John C. Tucker	Black River Falls	600 00
Jefferson	W. E. Voigt	Jefferson	360 00
Juneau	Franklin Wilcox	Mauston	600 00
Kewaunee	Henry Schmiling	Alaska	525 00
La Crosse	J. M. Gilfillan	La Crosse	750 00
Lafayette	J. C. Lee	Darlington	700 00
Milwaukee	Ferdinand Bark	Wauwatosa	1,000 00
Monroe	John Anderson	Sparta	425 00
Marathon	John Junk	Wausau	1,000 00
Oneida	E. Iverson	Rhinelander	600 00
Pierce	Geo. W. Shaw	Ellsworth	500 00
Racine	J. H. Hankinson	Union Grove	845 00
Rock	K. Killam	Janesville	300 00
Richland	L. T. Johnson	Richland Center	500 00
Sauk	J. S. Hall	Reedsburg	1,000 00
Sawyer	John Rayburn	Hayward	360 00
St. Croix	T. D. Wheeler	New Richmond	200 00
Taylor	C rl Studinger	Medford	50 00
Vernon	Luther H. Glenn	Viroqua	1,000 00
Washington	John F. Harns	West Bend	850 00
Walworth	D. W. Stanford	Elkhorn	300 00
Waupaca	S. W. Carley	Manawa	500 00
Waukesha	Geo. F. Carroll	Waukesha	500 00
Wood	James Case	Grand Rapids	600 00
Winnebago	C. F. Appley	Winnebago	750 00
CITY POOR HOUSES.			
Appleton	Ed. Finnegan	Appleton	360 00
Kenosha	Robert Grant	Kenosha	350 00
Sheboygan	Louis C. Schneider	Sheboygan	450 00
Stockbridge	Harry Merrill	Stockbridge	325 00

COUNTY JAILS, JUNE 30, 1904.

COUNTIES.	Material of which constructed.	Date of construction	Original cost of jail, including additions.	No. of Cells. For males.	No. of Cells. For females.	How many can properly be accommodated.	REMARKS.
Ashland	Brick	1888	$35,000 00	16	4	40	First class jail, in good condition and well managed. The ventilation and sanitation are good.
Barron	Stone and brick	1892	10,000 00	6	2	26	Cells are of steel, with corridors three feet wide around cage. Water closets in each cell and in outer room. Room for women in sheriff's residence. Considered fire proof.
Bayfield	Stone, brick and iron	1893	28,000 00	7	2	20	This is a new jail and a credit to Bayfield county. Prisoners were moved in November 11th, 1893.
Brown	Brick	1866	.....	6	2	16	Jail is on second floor of court house and is very defective and unsafe. The sanitary condition is bad.
Buffalo	Brick and stone	1888	5,000 00	3	1	6	A very good brick building. Covered buckets are used. Ventilation fair. Room upstairs for female prisoners.
Burnett	Brick and iron	1902	8,500 00	3	1	12	This jail is first class in all respects; has separate apartments for women.
Calumet	Stone and iron	1877	5,000 00	4	2	12	A small jail, but answers fairly well as there are not many prisoners confined therein.
Clark	Stone, brick and iron	1898	18,000 00	12	6	18	New jail of brick and stone. Has all modern improvements, including steam heating and electric light. Is a first class jail.
Columbia	Brick and iron	1887	18,000 00	16	3	38	A well constructed jail, but defective in regard to sewerage. Female cells above sheriff's residence.
Chippewa	Stone and brick	1875	20,000 00	20	2	44	This jail is in fair condition and fairly well kept.
Crawford	Stone and iron	1896	5,500 00	3	1	8	Facilities for separation of sexes. Old fashioned and not secure, but neatly kept.
Dane	Stone and brick	1893	48,000 00	40	4	88	A practically fire proof and very complete jail. One of the best in the state.
Dodge	Stone and brick	1891	20,000 00	10	4	50	A good jail with modern improvements.
Door	Brick and iron	1882	6,000 00	5	1	6	A well built jail with separate cell for women.
Douglas	Brick	1888 [rebuilt]	17,000 00	8	2	32	Of approved construction with steel cage, but too small for the needs of the county.
Dunn	Brick	1893	.....	6	2	8	A very well kept jail.
Eau Claire	Brick	1884	20,000 00	9	1	30	Jail fairly well kept but not well arranged nor large enough. No chance to properly classify prisoners. City uses jail for its prisoners.

Statistical Tables.

Florence	Brick and iron	1889	7,000 00	3	1	12	Sufficiently large for present needs.
Fond du Lac	Stone and brick	1869	40,000 00	48	.....	48	A good jail, lacking however, facilities for the proper separation of sexes
Forest	Wood and iron	1893	5,500 00	2	1	4	Condition fair at last inspection, but needs some repairs.
Grant	Stone and brick	1872	22,000 00	12	1	28	Steel cage with twelve cells. Ventilation poor. A new sheriff's residence contiguous to this jail. was erected in 1894.
Green	Brick and iron	1871	30,000 00	8	1	22	A very good jail and safe.
Green Lake	Stone	1870	6,500 00	3	.....	6	Jail is old and unsafe and poorly ventilated. Should be replaced by new jail.
Iowa	Stone and iron	1875	12,000 00	8	.....	10	A fairly good building, need additional apartments for women.
Iron	Brick	1893	9,500 00	12	.....	30	A first class jail in all appointments. Fine cage and good beds. Well supplied with water and well ventilated.
Jackson	Brick	1878	5,000 00	4	1	10	Ventilation and severage good. City water. Separate rooms for females. New water closets have been installed.
Jefferson	Stone and brick	1874	18,000 00	14	2	32	A fair jail kept in good order, new system of ventilation installed.
Juneau	Stone and brick	1888	12,000 00	15	1	32	This jail is of good construction and fully meets the requirements of the county.
Kenosha	Stone and brick	1885	15,000 00	18	1	24	Two cages, one above the other. Separate room which may be used for females. Fairly well kept.
Kewaunee	Stone and brick	1885	5,600 00	6	.....	6	A good jail, except that there are no facilities for the separation of sexes.
*La Crosse	Stone and brick	1890	50,000 00	24	2	52	A very fine jail, heated by steam and lighted by electricity. Department for females. Finely kept.
Lafayette	Stone brick and iron	1898	12,000 00	12	4	16	New jail with all modern improvements and is a first class jail. Saparate apartments for women.
Langlade	Stone and brick	1885	8,000 00	4	.....	12	Two steel cages on each floor. The jail is too small for the needs of the county and is unsafe. Needs bathing facilities Has many tramps.
Lincoln	Stone and brick	1885	11,500 00	2	1	10	A fair jail with good facilities for the separation of sexes but poor facilities for the classification of offenders.
Manitowoc	Stone and brick	1892	30,000 00	20	4	36	A fine jail furnished with all modern conveniences. Separate cell for females.
Marathon	Brick	1900	25,000 00	18	2	70	A first class jail in every particular. Facilities for separation of sexes. Has new cement floors.
Marinette	Stone and brick	1892	25,000 00	21	5	52	New with all modern improvements, well kept and in good condition. Separate cells for insane.
Marquette	Stone and brick	1866	8,000 00	2	.....	4	Steel cage in one room of basement of courthouse. This jail is not constructed according to law as it is dark, low and unhealthy.

COUNTY JAILS, 1904—Continued.

COUNTIES.	Material of which constructed.	Date of construction	Original cost of jail, including additions.	No. of Cells.		How many can properly be accommodated?	REMARKS.
				For males.	For females.		
Milwaukee.....	Stone and iron.....	1885	.....	69	3	150	This is an excellent jail and its capacity is sufficient. All woman or girl prisoners are confined in what is known as the female ward, which is separate from the part occupied by the males. Capacity of female department is 16.
Monroe.....	Stone and brick.....	1891	$16,500 00	16	6	44	A very satisfactory jail and hithe to has had good management.
Oconto	Stone and brick	1887	9,000 00	7	.....	20	A very good jail, well supplied with water closets and bath rooms Separate room for females.
Oneida.....	Stone and brick.....	1888	15,000 00	6	.....	12	A good building with iron cages. Large room for the temporary detention of women and boys.
Outagamie	Brick and wood.....	1886	30,000 00	23	...	43	This is what is called a rotary cage and is fairly satisfactory, but needs repairing and painting.
Ozaukee	Brick and iron.....	1894	17,500 00	5	2	12	New building having five double cells for males and two single cells for women. Bath tubs. Building heated by steam. Self regulating.
Pepin.....	Stone and brick.....	1895	4,060 20	2	.....	8	Is a good jail and sufficient for needs of the county.
Pierce	Brick	1870	18,000 00	3	.....	9	On the first floor of the court house. Considered safe.
Polk	Stone.....	1881	2,000 00	2	.....	6	Located in basement of stone building, the two upper floors of which are occupied by county offices. The jail part is damp and unsuitable for occupancy.
Portage	Brick and steel.....	1897	17,500 00	22	.....	71	A very good jail with all modern improvements. Facilities for separation of sexes.
Price	Brick, stone and iron	1904	8,000 00	6	....	18	This is a very good little jail and well kept. Has separate cells for females
Richland....	Stone	1904	20,000 00	6	2	12	A new jail with all modern improvements.
Racine	Stone and brick., ...	1893	23,000 00	24	.....	37	This is a new jail, first class in every respect and well kept.
Rock.....	Brick, stone and steel	1900	23,000 00	18	1	60	First class jail but needs ventilation in cell room. Facilities for separation of sexes. Hospital ward over office.

St. Croix	Stone	1900	10,000 00	6	.....	10	A new jail with all modern improvements. Facilities for separation of sexes.
Sauk	Stone and brick	1890	20,000 00	18	3	26	This is a model new jail.
Sawyer	Wood	1884	3,500 00	6	.....	30	Three steel cells for men and one wooden one for women. Answers the purpose and is neatly kept.
Shawano	Brick and stone	1902	20,000 00	10	.....	10	A new jail with all modern improvements, one of the best in the state.
Sheboygan	Stone and brick	1893	21,500 00	18	4	39	Ventilation system perfect. Very good jail.
Taylor	Brick	1892	14,000 00	12	.....	40	Good substantial building.
Trempealeau	Brick and iron	1884	9,000 00	2	1	4	Not large but sufficient for the needs of the county. A very serviceable jail.
Vernon	Stone and brick	1880	5,000 00	8	.....	16	A fair jail with separate apartments for females.
Vilas	Stone and brick	1895	12,000 00	4	1	11	A good substantial jail with modern improvements.
Walworth	Stone and brick	1878	10,000 00	11	3	33	Altogether the jail is creditable to Walworth county, being as it is in every way superior to the average.
Washburn	Brick	1900	10,000 00	8	.....	40	A new jail with modern improvements.
Washington	Stone and brick	1887	14,000 00	5	.....	20	This jail has steel cage and cells. Separate cell for women.
Waupaca	Brick	1896	12,000 00	12	.....	50	New jail with all modern improvements. Facilities for separation of sexes.
Waushara	Brick	1882	2,000 00	5	.....	5	Not very secure and of small proportion. Females kept in cell on upper floor.
Winnebago	Stone and brick	1900	24,000 00	28	.....	50	This is a first class jail, one of the best in the state. Facilities for separation of sexes. Has hospital ward, insane ward and three cells for juveniles.
Wood	Stone and iron	1882	.....	6	.....	6	A basement jail with comparatively few prisoners.
Waukesha	Stone and iron	1885	22,000 00	8	3	18	Very complete. Large enough to accommodate all classes of offenders except tramps.

Statistical Tables.

COUNTY JAILS.

MOVEMENT OF POPULATION.	1903.			1904.		
	Male.	Female.	Total.	Male.	Female.	Total.
Number prisoners in jail July 1st	295	19	314	728	8	736
Number received during year	9,622	455	10,077	11,028	306	11,334
Total number during year	9,917	474	10,391	11,756	314	12,070
Number removed to state prison during year	211	8	219	266	5	271
Number removed to industrial school	125	24	149	154	31	185
Number let out on bail	526	45	571	645	26	671
Number let out on nolle prosequi	158	3	161	107	1	108
Number discharged on writ of habeas corpus	11	3	14	22	1	23
Number escaped and not returned	19	.....	19	26	1	27
Number died in jail	9	1	10	8	.....	8
Number otherwise removed	8,168	384	8,552	10,147	240	10,387
Total number passed out during year	9,227	468	9,695	11,375	305	11,680
Number of prisoners remaining June 30	690	6	696	381	9	390

Proposals for Furnishing Supplies

The following is a sample of the meat proposal adopted by the Board. Previous to the ending of a contract period, the stewards of the different institutions forward to the Board the amount and kinds of meat needed for the following contract period and the Board then sends out blank proposals to the different meat packers and dealers requesting them to bid on all the meats named in the proposal. The lowest bidder gets the contract.

SEALED PROPOSALS for furnishing meats to the various institutions as per enclosed specifications, for the months of May, June, and July, 1904, will be received by the State Board of control at its office, Madison, Wisconsin, until 11 a. m., May 6th, 1904.

On dressed beef, bids are desired on prime native steers (dressed), weighing not less than 600 nor more than 750 lbs. All carcasses to be subject to inspection and acceptance by the officers of the various institutions. Bidders will also quote price on fore quarters and hind quarters, same quality of beef. Bids are also desired on western steers of same weight, and bidders will quote price on same in blank provided for that purpose.

On veal, bids are desired on carcasses weighing from 90 to 120 lbs. Bidders will also quote prices on veal carcasses weighing from 120 to 200 lbs. in blank provided for that purpose.

The quantities of the meats of the various kinds enumerated in the specifications are estimates of the needs for one month, but the contract will be awarded for a period of three months.

On all meats, bids are desired on best quality.

The shipping directions will be given by the stewards of the different institutions, and payments will be made for all meats received up to the 25th of each month on the 12th day of the following month.

Proposals for Furnishing Supplies.

The Board reserves the right to reject any or all proposals if in its judgment the interest of the state will be thereby subserved.

Bids should be indorsed "Proposals for Meat."

STATE BOARD OF CONTROL.

Madison, Wisconsin.

MEAT PROPOSAL.

State Board of Control, Madison, Wis.

GENTLEMEN:—We hereby propose to furnish meats to the several state institutions in accordance with your specifications for the months of May, June and July, 1904, at the prices indicated below:

ESTIMATED AMOUNTS TO BE PURCHASED.	Price	AMOUNT.		TOTAL.	
		Dollars	Cts	Dollars.	Cts
STATE HOSPITAL FOR INSANE, MENDOTA:					
5,000 lbs. Dressed Beef, prime native steers weighing not less than 600 nor more than 750 lbs.					
200 lbs. Beef Loins					
50 lbs. Dried Beef Sets					
150 lbs. Beef Livers					
800 los. Sheeps Breasts					
150 lbs. Spring Lamb					
200 lbs. California Hams					
300 lbs. Best Sugar Cured Hams, 16 to 18 lbs. av.					
600 lbs. Sugar Cured Bacon					
600 lbs. Pork Sausage					
200 lbs. Frankfort Sausage					
300 lbs. Lard, strictly pure					
NORTHERN HOSPITAL FOR INSANE, WINNEBAGO:					
8,000 lbs. Dressed Beef, prime native steers weighing not less than 600 nor more than 750 lbs.					
200 lbs. Dried Beef Sets					
2,000 lbs. Dressed Mutton					
200 lbs. Spring Lamb					
100 lbs. Dressed Veal, 90 to 120 lbs. av.					
50 lbs. Fresh Tongue					
300 lbs. Sugar Cured Hams					
200 lbs. Sugar Cured Bacon, 14 to 16 lbs					
1,400 lbs. Pork Loins, Gov. cut					
100 lbs. Pork Sausage					
100 lbs. Bologna Sausage					
100 lbs. Frankfort Sausage					
500 lbs. Lard, strictly pure					
2 bbls. Salt Pork					
SCHOOL FOR DEAF, DELAVAN:					
2,000 lbs. Dressed Beef, prime native steers weighing not less than 600 nor more than 750 lbs.					
100 lbs. Dried Beef Sets					
200 lbs. Dressed Mutton					
400 lbs. Dressed Veal, 90 to 120 lbs.					
75 lbs. Sugar Cured Hams					
75 lbs. Sugar Cured Bacon					
100 lbs. Pork Loins					
100 lbs. Pork Sausage					
100 lbs. Bologna Sausage					
300 lbs. Lard, strictly pure					
1 bbl. Salt Pork					

Proposals for Furnishing Supplies.

MEAT PROPOSAL—Continued.

ESTIMATED AMOUNTS TO BE PURCHASED.	Price	AMOUNT.		TOTAL.	
		Dollars.	Cts	Dollars.	Cts
SCHOOL FOR BLIND, JANESVILLE:					
1,500 lbs. Dressed Beef, prime native steers weighing not less than 600 nor more than 750 lbs.					
50 lbs. Corned Beef					
100 lbs. Dressed Mutton					
200 lbs. Dressed Veal, 90 to 120 lbs					
150 lbs. Sugar Cured Hams					
75 lbs. Sugar Cured Bacon, 7 to 10 lbs. av					
125 lbs. Pork Loins, Gov. cut					
100 lbs. Pork Sausage					
150 lbs. Lard, strictly pure					
INDUSTRIAL SCHOOL FOR BOYS, WAUKESHA:					
3,000 lbs. Dressed Beef, prime native steers weighing not less than 600 nor more than 750 lbs.					
400 lbs. Dressed Mutton					
600 lbs. Dressed Veal, 90 to 120 lbs					
50 lbs. Liver					
500 lbs. California Hams					
250 lbs. Sugar Cured Hams					
250 lbs. Fresh Hams					
100 lbs. Sugar Cured Bacon					
200 lbs. Pork Loins					
300 lbs. Pork Sausage					
400 lbs. Lard, strictly pure					
2 bbls. Salt Pork					
STATE PRISON, WAUPUN:					
10,000 lbs. Dressed Beef, prime native steers weighing not less than 600 nor more than 750 lbs.					
100 lbs. Dressed Mutton					
200 lbs. Sheeps Breasts					
250 lbs. Spring Lamb					
200 lbs. Liver					
350 lbs. Sugar Cured Hams					
2,000 lbs. Pickled Belly, 14 to 16 lbs. av.					
1,000 lbs. Smoked Belly Bacon, 14 to 16 lbs. av.					
500 lbs. Long Clear Bacon					
150 lbs. Sugar Cured Bacon, 7 to 10 lbs. av.					
500 lbs. Pork Loins					
2,400 lbs. Pork Sausage					
500 lbs. Bologna Sausage					
500 lbs. Frankfurth Sausage					
100 lbs. Liver Sausage					
400 lbs. Lard, strictly pure					
STATE PUBLIC SCHOOL, SPARTA:					
1,500 lbs. Dressed Beef, prime native steers weighing not less than 600 nor more than 750 lbs.					
100 lbs. Sugar Cured Hams					
75 lbs. Sugar Cured Bacon					
100 lbs. Pork Loins					
75 lbs. Pork Sausage					
75 lbs. Frankfurth Sausage					
HOME FOR FEEBLE MINDED, CHIPPEWA FALLS:					
4,000 lbs. Dressed Beef, prime native steers weighing not less than 600 nor more than 750 lbs.					
100 lbs Corned Beef					
400 lbs. Dressed Mutton					
400 lbs. Dressed Veal, 90 to 120 lbs					
75 lbs Beef Livers					
50 lbs. Tongue					
400 lbs. Sugar Cured Hams					
100 lbs. Sugar Cured Bacon					
350 lbs. Pork Loins					
100 lbs. Pork Sausage					
200 lbs. Bologna Sausage					
200 lbs. Frankfurth Sausage					
400 lbs. Lard, strictly pure					
1 bbl. Salt Pork					

Proposals for Furnishing Supplies.

MEAT PROPOSAL—Continued.

ESTIMATED AMOUNTS TO BE PURCHASED.	Price	AMOUNT. Dollars.	AMOUNT. Cts	TOTAL. Dollars.	TOTAL. Cts
STATE REFORMATORY, GREEN BAY:					
3,000 lbs. Dressed Beef, prime native steers weighing not less than 600 nor more than 750 lbs.					
200 lbs. Dressed Mutton					
200 lbs. Dressed Veal, 90 to 120 lbs.					
200 lbs. Beef Livers					
200 lbs. Sugar Cured Hams					
100 lbs. Sugar Cured Bacon					
200 lbs. Pork Loins					
500 lbs. Pork Sausage					
150 lbs. Bologna Sausage					
400 lbs. Frankfurth Sausage					
100 lbs. Lard, strictly pure					
1 bbl. Corned Beef					
1 bbl. Salt Pork					
Total					

Western steers per cwt. $ ..... Hind quarters per cwt. $ ..... Fore quarters per cwt. $ ..... Veal, 120 to 200 lbs., per cwt. $.....

If our bid is accepted on the basis of the above figures, we will enter into a written contract and give bond for its faithful performance if desired.

Name of firm.....

Address.....

Date.....

This Sheet must be Filled in, Dated and Signed.

The following is a sample of the grocery proposal for furnishing groceries to the different institutions. Previous to end of a contract period the stewards of the different institutions forward their needs in the grocery line for the following 3 months. The Board then advertises requesting the different grocery firms to forward bids on the whole amount. The bids are compared, samples tested and the firm having the lowest bid and equally as good if not better samples than the other bidders, is awarded the contract.

The State Board of Control will receive proposals at its office in the Capitol, Madison, Wis., up to 10:00 o'clock A. M., Tuesday, July 5, 1904, for furnishing groceries as per attached schedule, for the months

Proposals for Furnishing Supplies.

of July, August and September, 1904, to the following named institutions:

State Hospital, Mendota.
Northern Hospital, Winnebago.
School for Deaf, Delavan.
School for Blind, Janesville.
Industrial School, Waukesha.
State Prison, Waupun.
State Public School, Sparta.
Home for Feeble Minded, Chippewa Falls.
State Reformatory, Green Bay.

The attached schedule shows an approximate estimate of needs of the institutions, but the contract will be awarded for sufficient quantities of groceries to supply the institutions for the period named.

Contract will be awarded to the lowest bidder on the whole amount of supplies named in accompanying schedule.

All prices must be quoted on a basis of F. O. B. Milwaukee, Wis., subject to the usual trade discounts.

Prices must be quoted on the brands named in Schedule, but, if bidders are desirous of bidding on other brands, such proposals will be considered. All proposals to furnish goods of different brands than those named in schedule attached must be quoted on separate sheet.

All proposals must be accompanied by samples.

All goods must pass test of Pure Food Law.

The Board reserves the right to reject any or all bids, and to award contract for three or six months and to include all or exclude any of the institutions from the contract.

All successful bidders will be required to enter into a written contract to furnish goods in accordance with their bids.

Goods are to be shipped in such quantities and at such times as the stewards of the different institutions shall direct.

Payments will be made on 15th day of each month by State Treasurer's draft for goods furnished previous month.

The price and also the measure, as lb., bbl., cwt., doz., etc., must be inserted in their proper columns. Accurate extensions and footings must be made and total amount placed below last bid in space marked "total."

Contract will not be let before 10:00 o'clock A. M., Wednesday, July 6th, so as to enable the Board to make complete tabulation of bids.

STATE BOARD OF CONTROL.

Madison, Wis., June 23, 1904.

Proposals for Furnishing Supplies.

GROCERY PROPOSAL.

To State Board of Control, Madison, Wis.:

GENTLEMEN:—We hereby propose to furnish groceries for the several state institutions, of the kinds and in the amounts set forth in this schddule at the following prices: For the months of July, August and September, 1904.

ARTICLES.	QUALITY OR BRAND.	Measure.	Quantity.	Price	AMOUNT. Dollars.	Cts.
Apples, dried or evaporated	Fancy No. 1 in boxes	Lb.	4,400			
Apricots, dried or evaporated	Fancy No. 1 in boxes	Lb.	3,600			
Beans	Hand-picked Navy, in bags	Lb.	13,000			
Baking powder	Royal or Price's, in 5, 10 or 1 lb. cans	Lb.	400			
Baking soda	Arm & Hammer, Geo. Washingtod 1 lb. pkg	Lb.	560			
Catsup	Snyder's	Gal.	30			
Chocolate	Walter Baker's	Lb.	225			
Cocoanut	Shepp's	Lb.	75			
Codfish	George's Banks, av. 8 lbs., or bricks	Lb.	1,700			
Cornmeal	In bbls., kiln dried, white or yellow	Lb.	8,300			
Corn Starch	Ottumwa or Kingsford	Lb.	700			
Cracked wheat	Good quality	Lb.	1,100			
Crackers	Best quality	Lb.	2,900			
Currants	Bulk, Firsts	Lb.	1,100			
Gelatine, large size package	Cox's	Doz.	20			
Hominy	Best grade	Lb.	3,800			
Molasses	N. O., 15 to 25c. per gallon	Gal.	775			
Oatmeal	Seel cut or rolled, in bbls. best quality	Lb.	9,800			
Peaches, dried or evaporated	Fancy No. 1 in boxes	Lb.	4,600			
Prunes	60's to 70's in boxes	Lb.	5,900			
Raisins	Loose, Muscatels, best 3 crown	Lb.	1,500			
Raisins (layer)	California layer	Box	1			
Rice	Choice Louisiana	Lb.	5,500			
Sago		Lb.	300			
Salmon, canned, 2 lb. cans	Black Diamond, J. C. Megler & Co., Columbia River	Doz.	40			
Starch, laundry	Kingsford or Ottumwa	Lb.	2,300			
Sugar, granulated		Lb.	39,000			
Sugar, C. and Brown	No. 2	Lb.	17,000			
Sugar, loaf	Best cut loaf	Lb.	600			
Sugar, pulverized	Best quality	Lb.	750			
Syrup	14c. to 24c. per gallon	Gal.	2,600			
Tapioca	Best quality	Lb.	500			
Vinegar	60 grain and 45 grain cidar vinegar	Gal.	1,400			
Honey	Best Clover Honey in small packages	Lb.	245			
	Total					

If our bid is accepted on the basis of the above figures, we will enter into a written contract and give bonds for its faithful performance if desired.

Name of firm .....

Address .....

Date .....

This sheet must be filled in, Dated and Signed.

Proposals for Furnishing Supplies.

The following is a sample of the tea, coffee and spice proposal adopted by the Board. The manner of ascertaining the amount needed and of letting the contract is similar to the method adopted in letting grocery contracts.

The State Board of Control will receive bids at its office in the Capitol, at Madison, Wis., up to Wednesday, July 6, 1904, at 10 o'clock A. M. for furnishing such amounts of tea, coffee and extracts, as will be needed by the State Institutions named in upper left hand corner of this sheet, during the months of July, August and September, 1904.

The accompanying list is an approximate estimate of the needs of the institutions, but the contract will be awarded for amounts more or less than is stated in the estimate. The contract will be awarded to the bidder making the lowest bid for the entire list of goods named in the accompanying estimate.

Goods should be figured on basis of f. o. b. institutions named and prices subject to the usual trade discount.

The quality of supplies is indicated and bidders will please send samples of all goods on which they bid.

The Board reserves the right to reject any or all bids and to award the contract for three or six months. The quality, as well as the price, will be considered, and the Board also reserves the right to include all or exclude any of the institutions from the contract.

All goods must pass test of Pure Food Law.

The following estimate is for three months.

TEA, COFFEE AND SPICES.

Coffee, lbs. 6340. Bidders will submit samples on best grades for 10, 14, 16, 18, 20, 22 24, 30 and 35c. per lb. or less.
Cream Tartar, lbs. 300. Pure cream tartar in 5 lb. cans.
Lemon extract, qts 30. Good quality.
Nutmeg, lbs. 64. Good quality.
Tea, lbs. 2,175 Quote prices on good grades of Japan and Young Hyson.
Vanilla extract, qts. 50. Good quality.

STATE BOARD OF CONTROL.

Madison, Wis., June 23, 1904.

Do not fail to send samples.

Proposals for Furnishing Supplies.

The following form shows the manner in which the Board buys coal for the different institutions. Similar notices are sent to the different dealers requesting them to bid.

PROPOSALS FOR FURNISHING the whole or any part of the following quantities of coal, to be delivered as hereinafter specified, will be received by the State Board of Control of Wisconsin, at its office in Madison, Wis., until 10 o'clock A. M.,

Wednesday, June 15, 1904.

3,500 tons, more or less, of bituminous coal, lump, egg, mine run, nut, pea or screenings, washed or unwashed, and 500 tons, more or less, of gas coal, lump or mine run, for the State Hospital for the Insane, on spur track near coal house, Mendota Station, on side-track of Illinois Central Railway, Madison, Wis., and on side track of C., M. & St. P. Railway, Madison, Wis., and on side-track of C, M. & St. P. Ry., Darwin Station.

4,000 tons, more or less, of bituminous coal, lump, egg, mine run, nut, pea or screenings, washed or unwashed, and 30 tons of anthracite egg coal, for the Northern Hospital for the Insane, on spur track of C. & N. W. Ry. near coal house, State Hospital Station, and on side-track of Wisconsin Central Railway, State Hospital Station.

1,500 tons, more or less, of bituminous coal, lump, egg, mine run, nut, pea or screenings, washed or unwashed, and 50 tons of anthracite egg coal, for the Wisconsin School for the Deaf, on track, Delavan, Wis.

1,500 tons, more or less, of bituminous coal, lump, egg, mine run, nut, pea or screenings, washed or unwashed, and 25 tons of anthracite egg coal, for the Wisconsin School for the Blind, on side-track of C. & N. W. Railway, and on side-track C., M. & St. P. Ry., Janesville, or in coal shed at the institution.

3,000 tons, more or less, of bituminous coal, lump, egg, mine run, nut, pea or screenings, washed or unwashed, and 30 tons of anthracite egg coal, for the Industrial Sschool for Boys, Waukesha, on the C. & N. W. Railway, or C., M. & St. P. Railway spur track at the school grounds, or on the side-track of the Wisconsin Central Railway, Waukesha, Wisconsin.

3,500 tons, more or less, of bituminous coal, lump, egg, mine run, nut, pea or screenings, and 250 tons of anthracite egg or nut coal, for the Wisconsin State Prison, on spur track of C., M. & St. P. Railway, near prison shop, Waupun, Wis.

1,500 tons, more or less, of bituminous coal, lump, egg, mine run, nut, pea or screenings, washed or unwashed, for the State Public

Proposals for Furnishing Supplies.

School, Sparta, Wisconsin, on the side-track of C., M. & St. P. Railway, and on side-track of C. & N. W. Railway, Sparta, Wis.

4,500 tons of bituminous coal, lump, egg, mine run, nut, pea or screenings, washed or unwashed, and 50 tons, more or less, of anthracite egg coal, for the Home for the Feeble Minded, on spur track of Wisconsin Central Railway, or on side-track of C., St. P., M. & O. Railway, Chippewa Falls, Wis.

2,500 tons of bituminous coal, lump, egg, mine run, nut, pea or screenings, washed or unwashed, for the Wisconsin State Reformatory, Green Bay, Wis., on side-track of C., M. & St. P. Ry., near Reformatory, on side-track of C. & N. W. Ry., and on side-track of Green Bay & Western Ry., Green Bay, Wis.

The above amounts are only estimates of the needs of the institutions. In case any institution runs out of coal after receiving the amount of coal called for in the foregoing specifications, the contractor supplying such institution will be required and shall agree to furnish a sufficient additional supply at the contract price, to satisfy contingent needs to the end of July, 1905.

Contractors will be required to furnish the several institutions the following amounts of coal before October 1, 1904:

State Hospital for Insane	1,500 tons.
Northern Hospital for Insane	2,500 tons.
Wisconsin School for Deaf	600 tons.
Wisconsin School for Blind	300 tons.
Industrial School for Boys	1,200 tons.
Wisconsin State Prison	1,800 tons.
Home for the Feeble-Minded	2,500 tons.
Wisconsin State Reformatory	600 tons.
State Public School	500 tons.

The coal must be of the best quality and preparation of the kinds offered. It will be weighed as delivered, by or under the direction of the stewards of the several institutions, and paymnts made the last day of each month in accordance therewith.

Coal to be delivered in such quantities and at such times as the Board of Control shall direct.

Bids must state explicitly the name and location of the mines and the preparation of the coal.

The quality, as well as the price, will be considered in awarding contracts, and the Board reserves the right to reject any or all bids, if in its judgment the interests of the state will be thereby subserved.

STATE BOARD OF CONTROL.

Dated at Madison, Wis., May 20, 1904.

Bids should be indorsed "Proposals for Coal."

Proposals for Furnishing Supplies.

The result of the above notice was that the Board purchased the following grades of coal for the different institutions:

State Hospital for the Insane—Yioughiogheny Nut or Lump, @ $4.15 per ton, from Conklin & Sons, Madison, Wis.

Northern Hospital for Insane—Pocahontas Lump, @ $4.10 per ton, from C. Reiss Coal Co., Sheboygan, Wis.

School for Deaf—Carterville Lump, @ $3.35 per ton, from Conklin & Sons, Madison, Wis.

School for Blind—Wilmington Lump in bin, @ $3.20 per ton, from W. H. H. MacLoon, Janesville, Wis.

Industrial School for Boys—Gaitside Nut No. 3, @ $3.10, from Beloit Lumber Co., Beloit, Wis.

State Prison—Yioughiogheny Lump, @ $4.00, from Conklin & Sons, Madison, Wis.

Washed Screenings, @ $2.60, from Bell & Zoller, Chicago, Ill.

State Public School—Yioughiogheny Screened Lump, @ $4.15, from Conklin & Sons, Madison, Wis.

Home for the Feeble Minded—Pocahontas Lump, @ $4.35, or Pocahontas Mine Run, @ $4.15, from the C. Reiss Coal Co., Sheboygan.

State Reformatory—Hocking run of pile (delivered by team), @ $3.35, from A. G. Wells Co., DePere, Wis.

BIENNIAL REPORT

OF THE

Dairy and Food Commissioner

OF

WISCONSIN

For the Two Years Ending June 30, 1904.

J. Q. EMERY, Dairy and Food Commissioner.

MADISON
DEMOCRAT PRINTING COMPANY, STATE PRINTER

Wisconsin Dairy and Food Commission.

J. Q. EMERY ..... Commissioner

C. W. SWEETING, July 1, 1902, to December 3, 1903, Asst. Commissioner Dairy Expert

U. S. BAER ..... Asst. Commissioner Dairy Expert

A. S. MITCHELL, July 1 to Dec. 31, 1902 ..... Chemist

RICHARD FISCHER, PH. D. ..... Chemist

N. J. FIELD, July, 1902, to Jan., 1904 ..... Dairy Inspector

F. E. CARSWELL ..... Dairy Inspector

FLORENCE Q. NORTON, July 1, 1902, to March 1, 1903, Stenographer and Confidential Clerk

A. T. TORGE ..... Stenographer and Confidential Clerk

F. M. BUZZELL ..... Food Inspector

J. G. MOORE ..... Creamery Inspector

BJARNE LOEVDAL, May 1903, to March, 1904 ..... Asst. Chemist

ANDREW YSTGARD, March to June, 1904 ..... Asst. Chemist

A. E. KUNDERT, from June, 1904 ..... Asst. Chemist

LETTER OF TRANSMITTAL.

MADISON, WIS., Oct. 31, 1904.

To his Excellency, ROBERT M. LA FOLLETTE,

Governor of Wisconsin.

DEAR SIR:—I have the honor, in compliance with section 1410, statutes of 1898 and amendments thereto, to submit herewith the report of this Commission for the biennial period ending June 30, 1904.

J. Q. EMERY,

Commissioner.

COMMISSIONER'S REPORT.

The period of time included in this report is the two years commencing July 1, 1902 and ending June 30, 1904. The present Commissioner was appointed December 24, 1902; so that the work of the Commission for the first six months of the period was done before he entered upon the duties of the office of Dairy and Food Commissioner. The status of the Commission from May 1, to Dec. 24, 1902, is given in the biennial report for 1901–02. Unfortunately the entire records of the work of the Commission for the six months from July 1, 1902, to Jan. 1, 1903, were completely destroyed by the capitol fire of Feb. 27, 1904. The records of the work of the Commission for the months of January and February, 1904, were also destroyed by the capitol fire, which included the records of inspections and about 250 of the chemist's analyses of different food products. It thus becomes apparent that the work herein reported is not the entire work of the Commission for the two years; but is the work accomplished in only about sixteen months.

On assuming the duties of the office, the laboratory was found to be in a dismantled condition, and, as shown by the biennial report for 1901–02, a thousand dollars were deemed necessary to equip it suitably for the service of the Commission. The legislature made no appropriation for that purpose. Steps were taken to put the laboratory in the best condition possible with the apparatus then found in the laboratory. As soon as funds for that purpose became available, the 1st of July, 1903, new apparatus and new chemicals were provided and the laboratory then speedily put into a reasonably good condition for meeting the requirements of the Commission. By the month of August, the laboratory was so well equipped that we were prepared to meet in a reasonably satisfactory way the demands upon us for analysis and the work of analyzing went on very successfully

until Feb. 27, 1904, when as above stated the laboratory and all its contents were destroyed in the capitol fire. However, by the 1st of March, the office and laboratory were re-established and work resumed albeit amid great hindrances and inconveniences. It is not deemed necessary to enlarge upon the inconveniences and hindrances brought upon this Commission in its work by this misfortune. Everything that was possible to do was done to meet and overcome the obstacles encountered. The office of the Commission was re-established March 1 in a room in the Klauber Building, city of Madison, where it remained until June 11, when it was again moved to a room in the capitol. Promptly after the fire, Prof. W. A. Henry, Dean of the College of Agriculture, tendered the use of a laboratory in the new Agricultural Building. This enabled the Chemist Dr. Fischer for the Commission to resume the work of making analyses within a few days after the fire.

NEW LAWS.

By chapter 144 of the laws of 1903 a Food Inspector at three dollars a day and expenses and a Creamery Inspector at the same compensation, and an Assistant Chemist at fifty dollars a month were added to the Commission. Mr. F. M. Buzzell of Chippewa Falls, an experienced grocer, was appointed to the position of Food Inspector. Mr. J. G. Moore of Albion, an expert creamery butter maker, who had been in the employ of the Wisconsin Dairymen's Association for about a year as traveling inspector in creamery butter-making, was appointed to the position of Creamery Inspector. Mr. Bjorne Loevdal was appointed Assistant Chemist. He was succeeded by Andrew Ystgard and he in turn by A. E. Kundert. The addition of these officers increased very materially the effective force of the commission.

By the same statute the Commissioner was authorized to appoint one or more expert agents without pay. Under this statute Mr. E. L. Aderhold of Neenah, was appointed expert agent for the inspection of cheese factories; Mr. J. B. McCready of Menomonie, was appointed expert agent for the inspection of cheese factories and creameries; Mr. Fred Marty of Monroe was appointed expert agent for the inspection of Swiss cheese factories. All these men were in the employ of the Wisconsin Dairymen's

Association as traveling instructors and were paid by that Association.

Another new law was chapter 67 of the laws of 1903 relating to unclean and unsanitary milk, prohibiting the sale of such milk or the manufacture of such milk into food products. The same law requires premises and utensils employed for the manufacture or sale of food products of milk or cream to be kept in good sanitary condition. It also requires that cans, bottles or vessels, which have been transported over any railroad or boat line and which are to be returned, must be promptly emptied and thoroughly cleaned and aired before return shipment. This law as enforced has been effective in improving the cleanliness and sanitary conditions of dairy products.

Another new law that has been highly beneficial in promoting honesty and fair dealings is chapter 43 of the laws of 1903, the fixing standards in the use of the Babcock test and making it a misdemeanor to under-read or over-read the Babcock test or in any way to make false determination by, the Babcock test or otherwise.

The amendment to the proviso of the General Food Law greatly improved and strengthened that general law defining the adulteration of food.

Still another new law is that of chapter 131 of the laws of 1903. This law, which authorized the publication of ten thousand quarterly or semi-annual bulletins, has greatly increased the effectiveness and the work of the commission. The bulletin contains results of inspections, results of analyses made by the chemist with popular explanations of the same, and such other information as may come to him in his official capacity relating to the adulteration of food, drug and drink products and of dairy products so far as he may deem the same of benefit and advantage to the public. These bulletins have been distributed to the cheese factories and creameries, to dealers in food products, meat markets, mills, daily newspapers, etc. The purpose is to give publicity to unlawful adulterations. They are educational in that they guard against unlawful products by furnishing means of knowing the true character of such products. Dealers are coming more and more to value these bulletins and to consult them as to the revelations they make concerning food products. That they have been effective in promoting cleanliness

and good sanitary conditions in creameries and cheese factories does not admit of doubt.

NEEDED LEGISLATION.

Some changes should be made in the dairy and food laws for the purpose in some cases of removing ambiguity, in others of making them more workable, in others of removing all doubt as to their constitutionality and in others to give added powers to the commission to protect the public against the fraud of adulteration.

A law to provide a substantial increase in the working force of this commission is an imperative need. The statutes make it the duty of the dairy and food commissioner to enforce the laws requiring the production, manufacture and sale of dairy products or adulteration of any article of food, drink or of any drug and personally or by his assistants to inspect any milk, butter, cheese, lard, syrup, coffee, tea or other article of food or drink or drug made or offered for sale in this state; also the laws relative to impure ices, colored grains, adulterated linseed oils, etc.

When it is understood that there are nearly three thousand cheese factories and creameries in the state, 6,000 groceries, 2,000 meat markets, 500 mills, 900 drug stores and hundreds of city milk dealers, not to mention the numerous other places where drugs in the form of liquors or beverages are manufactured or sold, the inadequacy of the present force of eight persons to meet the demands of the situation becomes apparent.

The commission was created in 1889 and until 1903 no substantial increase had been made to the working force that was provided by the law when organized. The growth of the commission has not been commensurate with that of the other departments of the state government nor with the vast extent of the interests it was created to protect and promote. The force may have been ample to meet the reasonable demands upon the commission at the time of its establishment, but that force even with the slight augmentation it has since received is too ridiculously small to meet the present needs. It has not kept pace with the growth of corresponding departments in neighboring states, nor with similar lines of work done by our Canadian neighbors. Wisconsin has nearly 3,000 cheese

factories and creameries combined. Minnesota has only about 850, yet the Minnesota Dairy and Food Commission comprises about twenty members while ours comprises only eight. Minnesota has twelve inspectors and Wisconsin has only three. The Province of Ontario has nearly 1,000 cheese factories, employs 16 traveling cheese instructors. The Province of Quebec employs 50 traveling cheese instructors and assigns to each inspector less than 30 factories.

In addition to the Commissioner, assistant Commissioner, chemist and assistant chemist, the Minnesota Commission has 14 inspectors. The Michigan Commission has 7 inspectors and the Illinois Commission has 6. Wisconsin has 3, yet Wisconsin, as has been stated, has nearly 3000 cheese factories and creameries combined; Minnesota, 850; Illinois, 527; and Michigan less than 300.

I strongly recommend and urge that legislative authority be granted to appoint (1) a second assistant commissioner at a salary of $1,600 and expenses. I believe that the law should specify that he be an expect creamery butter maker, skilled in all the technical work of creamery butter making, a practical and competent judge of creamery products, and versed in modern scientific and practical dairy husbandry. (2) Eight cheese factory, dairy and food inspectors at a salary of $1,200 a year each and expenses. I would have the law specify that each of them be an expert cheese maker, skilled in the technical work of cheese making, a competent judge of cheese factory products, and versed in modern scientific and practical dairy knowledge. (3) Six creamery, dairy and food inspectors at a salary of $1,200 a year and expenses. I would have the law require that each one of these possess the qualifications herein specified for the second assistant commissioner. (4) A chief food inspector at a salary of $1,200 a year and expenses. I would have the law specify that the chief food inspector must be a person experienced and skilled in the modern grocery business. (5) An assistant chemist at $1,200 a year.

The general law defining adulteration prohibits the manufacture or sale of foods containing deleterious or poisonous substances. The purpose sought by such a law is wise and just, and laws to secure that purpose have been sustained by the courts. These laws are difficult of enforcement. In my judgment a law should be passed which prohibits the manufacture or sale of any

article of food which contains formaldehyde, sulphurous acid or sulphites, boric acid or borates, salicylic acid or salicylates, saccharin or any other preservatives injurious to health and requiring that the presence of any other chemical preservative in foods other than common salt, salt-petre, wood smoke, sugar, vinegar and the condimental preservatives, tumeric, mustard, pepper and other spices, unless the presence, name and proportionate amount of such added substance, article or ingredient shall be plainly disclosed to the purchaser.

A new law should be enacted defining maple sugar and maple syrup and prohibiting the selling of adulterated products under either of those names.

A stringent law should be passed to regulate the sale of syrups, molasses and glucose mixtures and requiring that glucose mixtures be so labeled as to show the name and percentum by weight of each ingredient and requiring that such mixtures be sold either as glucose mixtures or corn syrup.

A law should be enacted prohibiting the selling of anything under the name of buckwheat flour other than pure buckwheat flour.

A law should be enacted defining lemon and vanilla extracts and making it a misdemeanor to sell an adulterated article under either of those names.

A law should be enacted prohibiting the sale of any product under the name of evaporated or condensed cream other than cream from which a portion of the water has been evaporated.

Some of the existing laws should be amended, to make them plainer or more vigorous or to make their constitutionality clearer, towit:

Chapter 76 of the laws of 1899, relating to the sale of renovated butter.

Chapter 313 of the laws of 1899 so as to make clear what the penalty is.

Chapter 99 of the laws of 1903, relative to the use of the Babcock test.

Section 4601a, relating to packing and selling of canned fruits, vegetables, meats, etc.

Sections 4607 and 4607a of the statutes of 1898, relating to the adulteration of dairy products.

Amendments are needed to the laws relating to unclean milk; explaining or defining of foods to include condiments; relating

to the sale of adulterated honey; relating to the sale of chopped meats and sausages, prohibiting the use of chemical preservatives and artificial coloring in the same; the law relating to vinegar; the number of quarterly bulletins that may be issued should be increased from ten thousand to fifteen thousand and the Commissioner, with the consent of the Governor, should be authorized to employ legal assistance in the prosecution of cases arising under the food laws as well as under the dairy laws.

Specific reasons cannot well be given here for the enactment of these laws and amendments. Bills will be prepared embodying the views of the Commission and will be submitted to the legislature for its action.

DR. RICHARD FISCHER APPOINTED CHEMIST.

As stated in the biennial report for 1901–2, Mr. A. S. Mitchell, declining reappointment as chemist for the Commission, terminated his official connection with this Commission, December 31, 1902, by voluntary resignation.

Dr. Richard Fischer, assistant Professor of Pharmacy in the University of Wisconsin, was appointed chemist to succeed Mr. Mitchell. Dr. Fischer brought to this service rare ability and most excellent training. He is a graduate of the School of Pharmacy and College of Letters and Science of the University of Michigan. He received the degree of Ph. D. from the University of Marburg, Germany, after two years of study at the Universities of Berlin and Marburg, subsequent to his graduation from the University of Michigan. Added to this training was ten years' experience in teaching in the Universities of Michigan and Wisconsin. His services in the Commission have been of the highest order of excellence.

CHEMIST'S ANALYSES.

A summary of the report of the chemist of analyses made by him, as found in the bulletins republished in this report, shows the following results:

Of the 58 samples of baking powder, 43 were either adulterated or not lawfully labeled.

One sample of beeswax was analyzed and no adulteration found.

Of the 10 samples of beverages analyzed, 5 were adulterated.

Of the 31 samples of buckwheat flour, 25 were adulterated.

Of the 62 samples of butter analyzed, 8 were found to be adulterated.

One sample of catsup was analyzed and found to be adulterated.

Nine samples of cream of tartar were analyzed and one was found to be adulterated.

Of the 7 samples of honey analyzed, 5 were adulterated.

11 samples of jellies and preserves were analyzed and 8 of them were adulterated.

4 samples of lard were analyzed and all were adulterated.

Of the 88 samples of lemon extracts analyzed 51 were adulterated.

Of the 3 samples of linseed oil one was adulterated.

Of the 25 samples of maple syrup, 15 were adulterated.

Of the 39 samples of meat, 23 were adulterated.

Of the 68 samples of milk and cream analyzed, 30 were adulterated.

Of the 11 samples of spices analyzed all were adulterated.

One sample of molasses was analyzed and no adulteration found.

Three samples of sugar were analyzed and none adulterated.

Of the 9 samples of vanilla extracts, 7 were adulterated.

Of the 118 samples of vinegar, 61 were adulterated.

26 analyses of water were made, 4 samples of preservatives and 2 of coloring compounds.

Of the 108 samples of olemargarine, 72 were held to be in imitation of yellow butter.

It should be stated in this connection that as a rule, dealers, when informed that the oloemargarine that they were selling did not in the judgment of the inspectors comply with the terms of the law, promptly removed the same and substituted lawful oleomargarine in its place.

352 cheese factories were inspected and 245 creameries. 88 Wisconsin curd tests were made. Of the 2510 samples of milk that were tested for butter fat content, 37 were found to be below the legal standard.

FINANCIAL STATEMENT.

The Disbursements for the Year Ending June 30, 1903.

Emery, J. Q., com. sal. and exp.	$1,350 71
Sweeting C. W., asst. com., sal. and exp.	3,281 54
Mitchell, A. S., chemist, sal. and exp.	1,053 30
Norton, F. O., stenographer and clerk, sal.	625 76
Fischer, Richard, chemist, sal.	842 21
Field, N. J., dairy inspec., sal. and exp.	1,655 55
Lovdal, B., asst. chemist, salary	16 66
Dane County Tel. Co., messages and rental	14 80
Wisconsin Tel. Co., messages	1 49
Western Union Telegraph Co., telegrams	21 99
United States Express Co., expressage	12 37
American Express Co., expressage	35 26
Madison postoffice, postage, etc.	180 00
Creamery Pkg. & Mfg. Co., supplies	30 00
Sargent, E. H., & Co., supplies	399 11
Jerman Pflueger & Kuehmsted Co., supplies	24 39
Hollister's Pharmacy, supplies	4 50
Schwab Stamp & Seal Co., supplies	20 00
Democrat Printing Co., printing	9 53
Nafis, Louis F., & Co., supplies	21 40
Burrows, George, & Son, supplies	12 25
Lovdal, B., refitting laboratory	100 00
Total	$9,712 82

The Disbursements for the Year Ending June 30, 1904.

Emery, J. Q., com., sal. and exp.	$2,573 06
Sweeting, C. W., asst. com., sal. and exp.	1,298 08
Baer, U. S., asst. com., sal. and exp.	1,343 29
Fischer, Richard, chemist, sal. and exp.	2,012 65
Lovdal, Bjorne, asst. chemist, sal. and exp.	603 33
Torge, A. T., stenographer, sal.	914 33
Field, Norton J., inspector, sal. and exp.	1,104 51
Buzzell, F. M., inspector, sal. and exp.	1,388 35
Moore, J. G., inspector sal. and exp.	724 17
Carswell, F. E., inspector, sal. and exp.	671 75
Western Union Tel. Co., telegrams	23 47
American Express Co., express	66 17
C. & N. W. Ry. Co., freight	4 49
Madison postoffice, postage, etc.	1,687 36
Democrat Printing Co., printing	1,800 27
Sargent, E. H., invoice	61 20
Wisconsin Tel. Co., telephones	90
United States Express Co., express	54 22
Blied & Schneider, invoice	40
Eimer & Amend Co., invoice	316 10

Gerhardt, H. P., invoice	15 00
Gerling, H. C., cartage	50
Jarvis, C. W., drayage	4 75
Baker & Co., inc. mdse.	75 08
McCray Refrigerator Co., mdse.	81 64
Creamery Pkg. Mfg. Co., mdse.	10 00
Nafis, Louis, & Co., mdse.	18 45
Total	$16,853 57

J. Q. EMERY,
Dairy and Food Commissioner.

REPORT OF ASSISTANT COMMISSIONER.

HON. J. Q. EMERY, Dairy and Food Commissioner.

SIR—I herewith submit my report of the work performed by myself as Assistant Commissioner and Dairy Expert, during the period of seven months, beginning December 3rd, 1903, the date of my appointment, and ending June 30, 1904.

I have personally and carefully inspected:

44 Cheese factories,
24 Creameries,
6 Cities' milk supply,
5 Skimming stations,
2 Condensing factories,
22 Dairy barns and herds,
57 Grocery stores,
27 Butcher shops,
12 Restaurants and lunch counters,
7 Hotels,
2 Drug stores,
3 Flouring mills,

A total of 231 inspections.

While engaged in the work of inspecting, I have collected and have delivered into the hands of the State Chemist 93 samples of food stuffs for analysis, exclusive of milk samples.

In connection with the work of factory and city dairy inspection, I have tested several hundred samples of milk and cream by means of the Babcock Test, the Lactometer, and the Wisconsin Curd Test.

The inspection of the cheese and butter factories had to do principally with the sanitary conditions of the buildings, utensils, surroundings, and the quality of milk received into them.

A marked change has taken place in factory management. Buildings and utensils are kept more scrupulously clean, and cheese and butter makers are more generally becoming students of their profession rather than imitators of their predecessors. As a rule they are on the alert to catch any idea which may be of value in securing

economy in the manufacture of the product, perfection in caring for it, and intelligence in its sale.

In general the creameries and cheese factories visited, so far as cleanliness and methods of management are concerned, with some exceptions, were in fine sanitary condition, and fully equipped with all modern appliances for cheese and butter making.

On the other hand, while the general condition of the factories has been greatly improved, yet a considerable number of them are still subject to severe criticism; and while there has been great improvement in cheese and butter making in Wisconsin, yet we are a long way from perfection.

There are a number of factories that show negligent management, the buildings, utensils and surroundings being in a dirty, unsanitary condition. When the attention of the manager was called to the condition of his factory, he invariably promised to clean up, and keep clean. As a rule, upon my second visit to such factories, I found that the pledge had been very well kept. In a number of instances the factories had discontinued operation for a time, pending the making of needed repairs or the construction of an entirely new plant.

I found that many of the cheese factories of the state which had formerly received the milk by the quantity, are now using the Babcock Milk Test. A number of the factories of Green and adjoining counties, where a large amount of Swiss, Brick and Limburger cheese is manufactured, although not buying by butter fat test, are equipped so that they may know the quality of each patron's milk, and are refusing to accept milk that does not come up to the standard as prescribed by law.

I find a class of dairymen who are careless with their stables and cows at the time of milking. No particular attention is being given to light and ventilation. Dust and dirt are allowed to accumulate in the stables, and the cows are often-times covered with dirt when they come into the stables. The cans, into which the milk is strained, are quite frequently allowed to stand in the stable until the milking is completed. In the factory districts where the foreign types of cheese are manufactured, the milk is delivered to the factory both morning and evening, the process of cheese making being carried out twice each day. Factorymen, as a rule in this locality, instruct the patrons not to strain the milk at all. No particular attention is given the milk before it is delivered to the factory. Such milk is unfit for use and its sale should be prohibited.

The quality of the milk supply of our cities is certainly improving. The dairymen are, as a rule, taking pride in furnishing their customers with pure milk, and their wagons are quite generally neat, clean, and nicely arranged. Most of the city dairies inspected were provided

with stables, having improved systems of ventilation, light and drainage, thus insuring the health and comfort of the herds.

The line of work carried on by this department during the past year coupled with vigorous prosecutions of offenders against the law, has materially reduced the number of milk producers who deliver milk below the regular legal standard to consumers, creameries, and cheese factories.

Great good could be accomplished if the force at the disposal of the department were sufficient to inspect every factory in the state at short intervals throughout the year, and compel by the strong arm of the law the best sanitary regulations, and suggest through their instruction the best possible management. It would be a wise policy on the part of the state to add to the Dairy and Food Commission a force large enough to give rigid inspection to every creamery, cheese factory, and dairy in the state, and enforce such sanitary regulations as will secure cleanliness and wholesomeness of the products.

It is clear that the patron who delivers clean milk needs protection against his neighbors whose dirty milk goes into the same cream or cheese vat, and the consuming public needs protection against contaminated dairy products.

The patrons of the factories of this state have a direct financial interest in supplying only good pure milk, free from taints or bad flavors. The greatest amount of care and skill, with which the factory operator may do his work, will not enable him to make a superior quality of butter or cheese, or to secure the largest yield of it from milk which is not in good condition.

Whenever a patron delivers tainted or sour milk to the factory it means a direct loss of dollars and cents to him and his neighbors associated with him. It is an imposition upon the consuming public. If a factory of 10,000 pounds of milk per day accepts three or four cans of sour, tainted or gassy milk, at the very lowest estimate it will take one pound more milk to make a pound of cheese than if all the milk had been sweet, clean and well flavored. Suppose cheese to be worth ten cents per pound, the loss to the patrons in this case would be $8.00. Not only is the quantity affected, but the quality of our butter and cheese is impaired and its market value diminished by every can of tainted or defective milk accepted at the factory intake. That butter maker or cheese maker does not exist who can make a first class product from unclean milk. If extra or even good dairy products are to be made, the milk supply of our factories must be obtained from healthy cows, fed on pure food and kept in clean stables. It must not readily undergo fermentation and it must be clean.

In butter and cheese, flavor is the quality most noticed by the consumer and hence is of first importance in market demands. Good flavor in milk, cream, butter and cheese insures a ready market at

remunerative prices; poor flavor condemns them and no one seeks them at any price.

There is no question but that the value of our dairy products would be enhanced to the extent of many thousands of dollars a year if all of the milk delivered to our creameries and cheese factories was uniformly clean and sanitary.

The value of milk when it is delivered to the factory depends largely upon the care it has received previous to delivery and its condition with reference to cleanliness as well as its fat content influences the quality and quantity of the product made from it.

Cleaner methods in our dairies are of the greatest importance to the success and reputation of Wisconsin dairying.

It is to the financial interests of every patron of a creamery or cheese factory that the milk delivered be the best and purest that can be procured. The man who increases his monthly check by skimming or watering his milk, is stealing that amount from others to whom it belongs, but that man who delivers contaminated milk to a factory does infinitely worse, as his milk will injuriously affect the entire production of the day, and thus decrease the returns to every patron, and rob the consuming public of a clean and wholesome product.

The losses in this state caused by taints or changes in the milk due to the lack of proper knowledge or neglect and carelessness are enormous as compared with the losses caused by skimming and watering.

Butter and cheese makers should absolutely refuse to accept milk that is tainted or unfit for use; they should do this in justice to themselves and to patrons who deliver good milk and in obedience to the laws of the state.

Respectfully submitted,

U. S. BAER,

Asst. Dairy and Food Commissioner.

REPORTS OF INSPECTORS.

Hon. J. Q. EMERY, Dairy and Food Commissioner.

DEAR SIR:—In compliance with your request, I submit herewith my report as Food Inspector for the dairy and food commission of Wisconsin, covering the period beginning June, 1903, and ending June 30, 1904.

On assuming the duty of the office, my first work was directed to inspect the so-called box car merchants with the purpose of preventing them, if possible, from placing adulterated and imitation food products in the hands of farmers and other innocent purchasers as pure and wholesome. The efforts made were a gratifying success.

Up to this time, my work with the grocers and dealers has been largly educational in its character. This plan of procedure has been adopted in the belief that such course would yield the best results in securing compliance with the food laws of the state, and compliance with the food laws is the great end for which the commission is maintained. In a very large majority of cases, the dealer is innocent of any intent to violate the law. He has, however, no ready means of knowing whether or not the goods he is carrying are pure. Where it is evident that there is no intent of wrong-doing, it seems fair and reasonable that the dealers should first be informed as to their unlawful transaction before resorting to the courts.

The rule is that as soon as dealers have been informed of any unlawful practices, they have taken steps promptly to comply with the law. I am pleased to report that where a second inspection has been made, a marked improvement in the lawful character of the food products has been found.

In the prosecution of the work, I have, to some extent, had the hearty support of our merchants and of many of the traveling salesmen. Have also received some harsh criticisms from some of the job houses and their agents.

I have inspected about 1,600 grocery stocks and meat markets in the thirteen months, going over some parts of the territory two and three times as the necessity of the work demanded.

Herewith I submit list of samples procured and results of analyses of the same so far as I am able. Many of my samples were burned in the capitol fire of February 27, 1904.

Kind of samples secured.	Total number.
Baking powder	33
Ground spices	42
Lemon extract	65
Honey	11
Cream of tartar	10
Cider	2
Fruit color	2
Jellies	3
Vinegars	45
Vanilla extract	17
Lard	14
Oleomargarine	29
Maple syrup	6
Butter	1
Preserves	6
Molasses	2
Syrup	5
Buckwheat flour	3
Catsup	2
Blackbberry syrup	1
Almond extract	1
Cherry phosphate	1
Coffees	.....
Candles	.....
Sundry samples not reported	12
Total	313

F. M. BUSSELL,
Food Inspector.

Hon. J. Q. EMERY, Dairy and Food Commissioner.

SIR:—Herewith is submitted a report of the work done by me as creamery inspector for the dairy and food commission:

I received my appointment October 5th, 1903, but having promised Prof. E. H. Farrington to act as laboratory instructor at the Dairy School, I had to obtain leave of absence for the three months beginning Nov. 5th.

At the close of the term January 29, I again took up the work, inspecting foods as well as creameries. Up to July 1st I visited 55 creameries, 80 groceries and meat markets and 28 oleo dealers; also procured for analysis by the chemist 182 samples of foods and inspected the milk supplies of 7 cities and made some hundreds of tests of milk delivered to creameries. In order to accomplish the greatest amount of good, it is necessary that the inspector visit all places inspected more than once, to ascertain if his instructions or recommendations are complied with.

The inspection of foodstuffs has shown the fact that the retailer is

usually ready to comply with the laws and regulations of this department so far as his knowledge extends.

The issuing of quarterly bulletins by the commissioner has been of great value to them in obtaining this knowledge, and those bulletins are a necessary complement to the work of inspection.

Every facility for prosecuting the work has been given by the dealers and in most cases gratification expressed that such work was being done. The milk supplied cities, as far as inspected, has proved to be of good quality and to have been produced under fairly good sanitary conditions. In this work the Wisconsin curd test, the Babcock test and tests for the detection of preservatives have been used. No preservatives were found; the milk was of a uniformly high fat content and the flavor and texture of the curds produced by the curd test showed it to have been produced in a cleanly manner.

The inspection of creameries has largely been confined to answering calls for help from creameries in trouble, testing the milk, inspecting the milk supplies and instruction of the makers in better methods of ripening cream.

As a whole the makers are doing as good work as can reasonably be expected under the conditions among which they labor. Conditions should be improved. We find some makers who should not have been placed in charge of a creamery. They have graduated too quickly, but it can be said of them that they are usually more amenable to instruction than some of the old-time makers who are so steeped in the lore of the past that they are unable or unwilling to see anything of value to them in the scientific methods of the present.

Many of the Wisconsin creameries are good substantial buildings, well located and adapted to the work. Too many, however, are old frame buildings, poorly constructed in the first place, poorly located with reference to drainage, and not having sufficient patronage to make them successful and are allowed to run down until it is impossible for a high grade product to be made. A good many such places should be closed.

A good many of the faults in butter come from the poor condition in which the milk is delivered at the creameries. It is a hard task to get some patrons to see that their milk is not of as good quality as some of their neighbors, or to show them why it should be even better.

Milk is too often delivered in cans that are not in a sanitary condition, either from being old and rusty or from not being properly cleaned. Too many women on farms do not know how to keep milk cans clean or fail to appreciate the necessity of having all utensils used in handling milk scrupulously clean.

These evils are intensified to some extent by the introduction of the hand separator into more general use, the separator not being cleaned each time it is used and too often the separation is done in

the barn or stable, exposing the cream to greater contamination. Cream is kept too long before delivery, with a consequent loss in quality.

Patrons of creameries, whether whole milk or hand separator, must wake up to the necessity of better methods or see their markets monopolized by an imitation, bogus product.

If it were possible for the inspector to visit the source of supply, in those cases when milk or cream is delivered in poor condition and after inspection of the premises instruct the patron and his wife in better methods, it would add greatly to the value of the work done in behalf of clean sanitary production of dairy products.

J. G. MOORE,
Creamery Inspector.

To the Hon. J. Q. EMERY, Dairy and Food Commissioner.

DEAR SIR:—I herewith submit my report as dairy and food inspector for the year 1904, commencing with my appointment, January 9th, 1904, and ending June 30, 1904.

My work has been mostly inspecting cheese factories, milk supplies and oleomargarine. In order to economize on expenses, I have also inspected some creameries along the routes. I have taken samples of food, such as syrups, extracts, buckwheat flour, canned milk, and vinegar.

I have inspected during the six months 44 cheese factories, 7 creameries, 3 cities' milk supply, 4 skimming stations, 84 grocery stores, 26 butcher shops, 18 restaurants and lunch counters, 10 hotels, a total of 196 inspections, and have delivered to the state chemist 154 samples of food for analysis, exclusive of milk samples.

In connection with the work of factory and city dairy inspection, I have tested several hundred samples of milk by the Babcock test and the lactometer. As a whole the milk averaged good, both for quality and cleanliness.

Have found some that I have had to instruct the cheese makers not to accept and six cases of adulteration that I have had to prosecute.

I have found most of the cheese factories visited in fairly good condition, and some are kept very neat and clean. I have found others that are very poor, both as to condition of building and sanitary conditions surrounding them. In some of the older dairy sections they have failed to keep up with modern improvements. They are even so far behind that they are not using the Babcock test system at all, and are paying for the milk by the old system of pooling, thereby setting a premium on adulterations.

In some places the very old factories need rebuilding. Others need removing to a better location. The site chosen in the first place was selected more in regard to convenience to patrons than it was in regard to what the drainage and sanitary conditions should be. A few of these factories are located on such low ground that it is impossible to get any drainage. The sanitary conditions of the surroundings necessarily become bad, and the factories should be removed to higher ground.

As a rule, factorymen in the newer dairy sections are constructing better buildings and locating them in good places where the drainage is such as to keep them in first class sanitary condition. This question of good drainage is of vital importance in selecting a site for a cheese factory or creamery, and it is now causing trouble in some localities where it was not considered at the time of building the factory.

In the great majority of places I have visited, the cheese and butter makers were keeping the factories and creameries in as good condition as the buildings would well permit. Have also noted that, with few exceptions, the factories operated or managed by students of the Wisconsin, Canadian or any other dairy school, are kept cleaner, neater and have more tidy surroundings than those operated by makers that have not had the advantages of dairy school training. The dairy education furnished for the past ten years by the state, the Dairy School and the dairy press, has been of great benefit in those sections of the state where the cheese makers, butter makers and factory managers, have grasped it and profited by it.

It shows in bright contrast with those sections that have thought old ways and old methods good enough and are still following in the same old groove.

In those factories that are poorly kept, unclean and unsanitary, I have found that they have almost invariably had trouble with gassy or tainted milk and in some instances the cheese have become either unsalable or sold for less than market prices.

In some sections there is a notable disregard of the way that whey, buttermilk and skim milk tanks should be cared for. Some makers allow their tanks to go two or three months without cleaning, and then complain that their patrons are not taking proper care of their milk, when it is their duty to see that these tanks are cleaned daily. There is, at the present time, such keen competition among factory men to secure and hold patronage, that milk is being taken in at factories all times of the year that should be rejected at the weigh-room. This is being done for fear of offending some patron, or to secure one where some competitor has refused to take the milk. It seems that the only way this serious menace to our dairy industry can be corrected is to have a larger force of inspectors. Then, if a

patron's milk is rejected at one factory for being adulterated, unclean or unsanitary, and it is accepted at another, an inspector can be notified and he can compel the offending party to deliver lawful milk.

There is a growing demand for more state aid to help control the quality of milk delivered at the factories and to enforce the present law requiring all factories and utensils to be kept clean and sanitary.

Very respectfully,

F. E. CARSWELL.

REPORTS OF EXPERT AGENTS.

Hon. J. Q. EMERY, State Dairy and Food Commissioner.

DEAR SIR:—I submit herewith a report of my work as inspector of cheese factories covering two periods of six months each, beginning May 1st, 1903, and May 1st, 1904, respectively:

CONDITIONS AS I FOUND THEM.

A brief outline of the development of the cheese industry of Wisconsin will aid in picturing the conditions that exist at the present time.

The beginning of this great industry was followed by a rapid growth for twenty years, during which time (from 1870 to 1890) probably three-fourths of our factories were built.

At that time we were practically without scientific knowledge of the cheese makers' art and it is but natural that the construction and equipment of factories were inadequate for best results, figuring from the standpoint of the present day. Precautionary measures for maintaining sanitary conditions were too generally ignored and, for some inexplainable reason, many factories were placed upon sites where good drainage was difficult to obtain.

From a few weeks to a few months were considered a sufficient length of time for learning the trade. So, with factories built and equipped cheaply and a profession that was readily acquired, it was an easy matter to "get into the business." It was soon overdone. Factories were placed too near together. The spirit entertained by factory operators for one another was more antagonistic than cooperative. Competition became "cheap." Milk patrons took in the situation and became imbued with the idea that the smaller the cheese maker's compensation the better. Under those circumstances the character of the service at factories suffered and had little show to

improve. This "penny wise and pound foolish" system still has a strong grip on the industry.

Out of this chaos, the modern factory is evolving and we now have some factories that do credit to the industry they represent; but the great majority of them are but partly improved and some of them not at all.

We still have factories with leaky troughs and floors; with whey-soaked soil underneath and surrounding the factory, emitting a stench; where the water supply is contaminated and flies have free access. And the majority of factory operators, from mercenary motives, continue to accept dirty milk, which precludes the possibility of excellence in the quality of the cheese; and it is a fact that even under favorable food and weather conditions, clean flavored cheese are the exception.

During the two seasons mentioned above, I sent reports to your office regarding the sanitary conditions of some ninety factories. Out of that number fifteen were of the extremely filthy type and a like number were more or less unclean.

I believe that if the facts were generally known, many a lover of cheese would be dissuaded from using it on his table, and I can not figure out how the state can afford to permit such disgraceful conditions to menace the welfare of this great industry.

For more than fifteen years, the State Dairymen's Association has furnished instructors (usually two) for cheese factories. These men traveled from factory to factory, worked with the makers, applied the curd test to the milk of the various patrons, called evening meetings and lectured on milk ferments, care of milk and the improvements of the industry in general. This work has been greatly appreciated and there are hundreds of instances where material and lasting improvements were thus effected. The demand for this instruction was far greater than the Association could supply.

UPBUILDING OF THE INDUSTRY.

In order to place the cheese industry upon the plane it should occupy, it will be necessary to draw the attention of the milk producers to the enormous losses, direct and indirect, that are caused by abnormal milk and poor factories; to get them to see that they, in the end, are the ones who pay for all mistakes; to have stables for cows that are reasonably clean, well lighted and ventilated; to effect a general adoption of clean methods of milking instead of careless ones; to create a demand for good factories and for operators who are skillful and who will not accept dirty milk.

A large force of competent inspectors will be needed to carry out this stupendous task. These men will need to work diligently, earnestly, and where education fails to persuade, a workable law will have to be applied. For above all, protection must be assured to those patrons who furnish clean milk, and also to the consuming public.

E. L. ADERHOLD,
Expert Agent.

FOREIGN CHEESE FACTORY INSPECTION.

Hon. J. Q. EMERY, Dairy and Food Commissioner.

SIR:—The manufacture of foreign cheese, including Swiss, Block Swiss, Brick and Limburger, was introduced into Green county, Wisconsin, in the year 1846.

The method of manufacturing these cheese, an intricate art, was brought by immigrants who came from the Alps, where cheese factory construction was of the poorest kind. This probably accounts for the present poor construction of so many cheese factories, as the method of building a cheese factory was a copy of the method employed among the Alps. Individual farmers built factories of their own. These developed into co-operative ownerships and the business was then conducted on a larger scale.

I was appointed to the work of inspecting foreign cheese factories in the opening of the season of 1903. Since that time I have inspected 360 foreign cheese factories. At most of these places a meeting was held with the patrons and cheese maker in which they were encouraged to provide modern improvements. Of the 360 factories, 75 of them today have good cement floors and much improved drainage.

For the distribution of the whey among patrons, large tanks have been provided in many factories to take the place of the so-called whey barrels. This does away with a filth and germ-producing environment.

For the manufacture of whey butter, there are now seven separators in use. The separator improves the quality of whey butter very much and enables the patrons to receive the whey in a much more sanitary condition. By the use of the separator the whey is returned to the patrons within twelve hours, whereas, in those factories where the separator is not in use, the whey is not returned to the patrons in less than twenty-four hours.

The pooling system is employed, whereby each patron receives payment in proportion to the number of pounds of milk delivered, irrespective of its quality. Nevertheless, to overcome the temptation of

fraudulently increasing the amount of milk delivered by watering and to lower its quality by skimming, the Babcock milk tester is now frequently found in factories, whereby the quality of each patron's milk can be determined.

Over fifty old damaged milk cans have been condemned and driven out of use. These fifty cans will not only be replaced by new ones but the condemning of the old cans has had the effect to change and improve the general condition of the other utensils in use.

The sub-earth sewage disposal system has been put into many factories. I cite the following example: In the month of June, 1904, I was called to Darlington, La Fayette county. A few words which the letter contained was sufficient to inform me of the trouble. Upon arrival at this factory, I found the milk was all abnormal. After investigating the matter, I found it was due to the unsanitary condition of the factory. Twenty-two patrons were delivering milk to this factory; so for the distribution of the whey, twenty-two unsanitary whey barrels were used which were partly sunk in the ground. The factory had no drainage. The sewage had gathered under the damaged wooden floor where it had formed a bed of filth. After calling a meeting, I suggested to the patrons that no good result could be expected under these conditions, calling their attention to the same. So the factory was closed by the free will of the patrons who delivered a total of 7,500 pounds of milk per day. The factory was closed one week; the wooden floor was replaced with a good Portland cement floor; a sub-earth sewage disposal system was installed and the whey barrels were removed and in their stead one large whey tank was provided. The factory was again started under better prospects and to the general satisfaction of the patrons. As a result of this transaction another factory only six miles away, and with a capacity of 5,500 pounds of milk a day, closed of their own free will and changed their factory to similar conditions as the factory mentioned. These examples indicate the kind of improvements that have been effected during the past two years.

In general, I find upon my second inspection that good improvements have been made and frequently letters are received inquiring for a new plan for a cheese factory.

Great improvement could be made, if the force of the dairy and food department were sufficient so that every factory could be inspected at short intervals, which in this section is very much needed.

While many improvements have been made, there are yet a large number of cheese factories which have never been inspected and which are in poor and unsanitary condition. When the force of the dairy and food commission is large enough so that each factory may be suit-

ably inspected, we may secure our much needed wants, which are, much better constructed buildings, better sanitary conditions and advanced methods in manufacturing and dairying.

Respectfully submitted,

FRED MARTY,

Inspector.

PART II.

BULLETINS.

SEMI-ANNUAL BULLETIN

OF THE

DAIRY AND FOOD COMMISSION

OF THE

STATE OF WISCONSIN.

J. Q. EMERY, Commissioner,

MADISON, WIS.

By Authority of Law.

No. 1.

JANUARY 1—JULY 1, 1903.

3—D & F.

Organization of the Commission.

J. Q. EMERY .....Commissioner

C. W. SWEETING .....Assistant Commissioner

RICHARD FISCHER, Ph. D. .....Chemist

N. J. FIELD .....Dairy Inspector

FLORENCE Q. NORTON (Resigned March 1) .....Stenographer and Clerk

F. M. BUZZELL .....Food Inspector

BJORNE LOVDAL .....Assistant Chemist

EXPERT AGENTS OF THE COMMISSION.

Paid by the Wisconsin Dairymen's Association.

JAMES G. MOORE, Albion .....Creamery Inspector

E. L. ADERHOLD, Neenah .....Cheese Factory Inspector

INTRODUCTION.

The attention of manufacturers of and dealers in food products is particularly called to the proviso to the general law of the state on adulteration of food products, as amended by the legislature of 1903. That law is herewith published.

As this amendment modifies or changes certain features of the food laws of the state, corresponding modifications of the rulings of the commissioner have thereby been rendered necessary and are published herewith.

Early in July, a copy of the Biennial Report of this Commission for 1901–2, containing the complete dairy and food laws of the state, including those enacted by the legislature of 1903, was mailed to each creamery and cheese factory in the state, and to each dealer in food products,—in all about ten thousand copies.

Information received from inspectors goes to show that many dealers have cast aside, without reading, the dairy and food laws sent to them and have then pleaded lack of knowledge of those laws.

Manufacturers and dealers are estopped from pleading that they have not been notified or warned.

THIS IS NOTICE AND WARNING TO DEALERS

that the dairy and food laws of this state are to be enforced to the fullest extent possible with the available force of this commission. Manufacturers of and dealers in food products in this state will be held responsible for the sale of unlawful food products. When they sell unlawful foods to the public they must expect to adjust their case with the people in the courts established by the laws enacted by the people through their representatives.

CHAPTER 131, LAWS OF 1903.

Published April 30, 1903.

AN ACT to limit the number of copies of the biennial report of the dairy and food commissioner to ten thousand, and provide for the publication of quarterly bulletins by said commissioner.

The people of the State of Wisconsin, represented in senate and assembly, do enact as follows:

Section 1. In lieu of the twenty thousand copies of the biennial report of the dairy and food commissioner, as provided in section 335c, of the statutes of 1898, the number of copies of the said biennial report of the dairy and food commissioner shall be ten thousand, and the said dairy and food commissioner may also, with the consent of the governor, and in accordance with the laws regulating the printing and publication of public documents or bulletins, prepare, print and distribute to such persons as may be interested, or may apply therefor, a quarterly or semi-annual bulletin in suitable paper covers, containing results of inspections, results of analyses made by the chemist for the dairy and food commission, with popular explanations of the same, and such other information as may come to him in his official capacity, relating to the adulteration of food, drug and drink products, and of dairy products, so far as he may deem the same of benefit and advantage to the public; also a brief summary of the work done during the quarter by the commissioner and his assistants in the enforcement of the dairy and food laws of the state, but not more than ten thousand copies of each such quarterly bulletin shall be printed.

Section 2. This act shall take effect and be in force from and after its passage and publication.

Approved April 28, 1903.

ABSTRACT OF THE DAIRY AND FOOD LAWS OF THE STATE OF WISCONSIN.

The term "food" as used in the laws of this state, includes all articles used for food or drink by man, whether simple, mixed or compound.

Manufacturers and dealers are notified that the following is only a brief statement of the scope and salient features of the Wisconsin dairy and food and drug laws. The complete laws are to be found in the closing pages of this bulletin and in the biennial report of this commission for 1901–2. Manufacturers, dealers and consumers of food products should be familiar with these laws.

GENERAL LAW ON ADULTERATION OF FOODS.

Penalty for sale of adulterated articles of food. (Section 4600, Statutes of 1898.) Any person who shall, by himself, his servant or agent or as the servant or agent of any other person, sell, exchange, deliver or have in his possession with intent to sell, exchange, offer for sale or exchange any drug or article of food which is adulterated, shall be fined not less than twenty-five dollars nor more than one hundred dollars or be imprisoned in the county jail not less than thirty days nor more than four months. The term "drug," as used in this section, shall include all medicines for internal or external use, antiseptics, disinfectants and cosmetics. The term "food," as used herein, shall include all articles used for food or drink by man, whether simple, mixed or compound.

What constitutes adulteration of food. (Section 4601, Statutes of 1898, as Amended by Chapter 133, Laws of 1903.) An article shall be deemed to be adulterated within the meaning of the preceding section:

1. In the case of drugs: First, if, when sold under or by a name recognized in the United States pharmacopoeia, it differs from the standard of strength, quality or purity laid down in the latest current edition thereof; second, if, when sold under or by a name not recognized in said pharmacopoeia, but which is found in the pharmacopoeia

of some other country, the national formulary or other standard work on materia medica, it differs materially from the standard of strength, quality or purity laid down in the latest current edition of such work; third, if its strength, quality or purity falls below the professed standard under which it is sold.

2. In the case of food: First, if any substance or substances have been mixed with it, so as to lower or depreciate or injuriously affect its strength, quality or purity; second, if any inferior or cheaper substance or substances have been substituted wholly or in part for it; third, if any valuable or necessary ingredient has been wholly or in part abstracted from it; fourth, if it is an imitation of, or sold under the name of, another article; fifth, if it consists, wholly or in part, of a diseased, infected, decomposed, putrid, tainted or rotten animal or vegetable substance or article, whether manufactured or not; sixth, if it is colored, coated, polished or powdered, whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is; seventh, if it contains any added substance or ingredient which is poisonous, injurious, or deleterious to health, or any deleterious substance not a necessary ingredient in its manufacture;

Provided, That articles of food which are labeled, branded or tagged in a manner showing their exact character and composition and approved by the dairy and food commissioner of the state, and not containing any poisonous or deleterious ingredient, shall not be deemed adulterated in the case of mixtures or compounds sold under their own distinct names or under coined names and which articles, if substitutes, are not in imitation of, or sold under, the name of any other article of food; and

Provided further, That nothing in this act shall be construed as requiring or compelling proprietors or manufacturers of proprietary foods to disclose their trade formulas, except so far as may be necessary to secure freedom from adulteration, imitation or fraud.

RULINGS MADE BY THE COMMISSIONER.

Artificial Coloring.—Artificial coloring though it be harmless must not be used to conceal damage or inferiority or to make food products appear better or of greater value than they really are.

Baking Powder.—Baking powders containing alum in any form or shape must have its presence distinctly shown by a label on the outside and face of which is printed: **"THIS BAKING POWDER CONTAINS ALUM."** The label must be printed in black ink, in legible type, not smaller than brevier heavy gothic caps, and must give the name and address of the manufacturer in type of the same kind.

Buckwheat Flour.—Buckwheat flour if labeled "Buckwheat Flour," must be true to name. Buckwheat flour may be mixed with other flour and sold as "Compound Buckwheat and ———— Flour," using the name of the other flour in place of the blank. The label must disclose the true character and composition of the article. Buckwheat flour may be mixed with self-rising ingredients not injurious to health and sold under a name that discloses the true character and composition of the mixture, such as, "Compound Self-rising Buckwheat Flour."

Candy.—Candy must be free from inert mineral matters and must not be colored with substances deleterious to health.

Catsup.—Catsup must be labeled so as to show its true character and composition, as, "Tomato Catsup," "Mushroom Catsup," "Walnut Catsup," etc., and must not contain preservatives or coloring matter deleterious to health. If harmless preservatives or artificial coloring is used, that fact, and the name or names of the specific substance or substances must be disclosed on the label.

Cheese.—The Dairy and Food Commissioner is authorized to issue to the owner or manager of each factory making **FULL CREAM CHEESE** a stencil containing the number of the factory and the state brand, **"WISCONSIN FULL CREAM CHEESE."**

The manufacture and sale of filled cheese is prohibited.

The manufacture and sale of skimmed cheese is prohibited, except when such cheese is made ten inches in diameter and nine inches in height.

Chocolate and Cocoa. Chocolate and Cocoa when made only from cocoa mass, sugar and glycerine may be sold under the name "Prepared Cocoa" or "Sweet Chocolate."

Coffee.—Coffee sold as such must be true to name. It must not be coated or polished to conceal inferiority. Substitutes containing no coffee cannot be sold as coffee compounds, but may be sold under their true or coined names. Compounds of coffee and chicory, or of coffee and any harmless substitute allied to is in either flavor or strength and not used simply as an adulterant, may be sold when labeled "Coffee and Chicory Compound" or "Coffee and ———— Compound," etc.

Canned Goods.—Canned goods must be distinctly labeled with grade or quality of the goods, together with the name and address of the seller and manufacturer.

Cream of Tartar.—Cream of Tartar must be pure and true to name. All compounds are unlawful.

Extracts.—Artificial extracts can be manufactured and sold only in cases where it is not possible to produce an extract from the fruit itself. Extracts of this class must be distinctly labeled as "Artificial Extracts."

Extract of Lemon, Essence of Lemon or Spirits of Lemon, sold as such, must contain at least five per cent of the pure oil of lemon dissolved in ethyl alcohol.

Such mixtures or compounds as "Water Soluble Lemon Flavor" or "Terpeneless Lemon Flavor," made from lemon peel or from oil of lemon, or from both, **must** not be sold as "Extract of Lemon" or "Essence of Lemon" or "Spirits of Lemon;" but if of equivalent strength and labeled, branded or tagged in a manner showing their exact character and composition and approved by the dairy and food commissioner of the state, and not containing any poisonous or deleterious ingredients will be recognized as legitimate substitutes and when sold as articles of food under their own distinct names as stated above and not under the name of any other article of food, such sale will not be contested by this commission as unlawful.

Extract of Vanilla must be made wholly from vanilla beans, and must contain no artificial coloring. The color of vanilla extract is considered an indication of its strength and artificial coloring in such case would be used for the purpose of concealing inferiority and of making the article appear better than it really is.

When other flavoring substances are used, such as Vanillin, Coumarin or Tonka, the extract must be labeled so as to show the purchaser its true character; As, "Compound Extract of Tonka and Vanillin." The label "Compound Extract of Vanilla" will not be deemed sufficient notice of the character and composition of the article.

In all cases, it is to be understood that when an extract is labeled with more than one name, the type used is to be similar in size, and the name of any one of the articles used is not to be given greater prominence than another.

Farinaceous Goods.—Farinaceous Goods must be true to name. Barley, Hominy, Cracked or Rolled Wheat or Oats, Tapioca and like articles, must be pure and unadulterated. If mixed or compounded with other articles, they must be sold as mixtures or compounds under their true or coined names. Packages containing mixtures or compounds of this kind should be labeled with the name and address of the manufacturer or compounder thereof.

Honey.—Honey adulterated with glucose or any other substance not deleterious to health may be sold if the package or parcel containing the same is labeled "Adulterated Honey," in letters of not less than one-half inch length and proportionate breadth, on the upper portion of the package or parcel containing such honey. The sale of honey is regulated by a special law enacted in 1881. It appears in the last revision of the statutes, the revisers evidently holding that it was not repealed by the pure food law of 1897.

Jellies.—Artificial Fruit Jellies, Jams, Preserves, Fruit Butter, so-called "Pie Filling," or other similar mixtures or compounds, made or composed, in whole or in part, of Glucose, Dextrin, Starch or other substances must not be colored in imitation of natural fruit products; but if uncolored, may be sold for what they are when labeled in a manner showing their exact character and composition and approved by the dairy and food commissioner of the state and when they are free from ingredients deleterious to health. Such artificial mixtures or compounds must be labeled with, (first), the word "Compound;" (second), the word "Glucose" and (third), the name of the fruit or dextrin, or starch, or other substance, entering into the artificial product. To illustrate: In the case of artificial jelly consisting of glucose with an apple base, the label should be "Compound Glucose Apple Jelly." If the fruit is currant, the label should be "Compound Glucose Currant Jelly." If the base is starch, the label should be "Compound Glucose Starch Jelly." In case of other mixtures or compounds, as mentioned above, the label should be "Compound Glucose Starch Pie Filling," "Compound Glucose Apple Jam," etc., according to their true character and composition.

Substitute mixtures or compounds cannot lawfully be sold in imitation of or under the name of any other article of food.

Lard.—Substitutes for lard must not be sold under the name of lards. Compounds containing lard can be sold when labeled in a banner showing their true character and composition and approved by the dairy and food commissioner of the state, such as, "Compound Lard and ———."

Maple Sugar.—Maple Sugar and Maple Syrup must be true to name. A compound of glucose or of cane sugar with maple sugar or maple syrup cannot be lawfully sold even when labeled compound, as the chief element of value in maple sugar is the maple flavor, and any admixture of other sugars is for the sole purpose of cheapening the article, and is a clear case of adulteration which cannot be remedied by a label.

Meat.—Chapter 243 of the laws of 1901, provides that, "Any person who by himself or his agent shall make, manufacture, offer or expose for sale any sausage or chopped meat compound containing any artificial coloring or dye or chemical preservative or antiseptic, shalll be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not less than seventy-five nor more than two hundred dollars."

MILK.—All milk offered for sale or sold or delivered to creameries or cheese factories must be from clean, healthy cows, of clean, pure and wholesome character, free from preservatives or any foreign substance, and must contain not less than three per cent butter fat.

Producers and dealers in milk and cream are especially warned against the use of preservatives.

The preparations for keeping milk and cream sweet that are widely advertised in this state as being harmless, have been condemned by leading authorities, both in this country and inn Europe, as being prejudicial to the public health.

Their use is prohibited by a plain statute which fixes a minimum penalty of $25 for its violation.

Preservatives are used to avoid the effects of careless and unclean methods.

Milk and cream will remain sweet without the use of poisonous drugs long enough for sale and consumption if produced from clean cows, in clean barns by clean men, using clean utensils.

The health of invalids and of children is of more importance to the state than the prosperity of manufacturers and dealers in the make-shifts of uncleanliness.

Mustard.—Dry mustard must be pure.

Prepared mustard must be free from starch or adulterant of any kind, and, if consisting of mustard, vinegar, and spices, may be sold when labeled "Prepared Mustard."

A preparation of mustard, vinegar, spices and enough filling

or starch to make a mustard of mild flavor to meet a legitimate demand which undoubtedly exists, may be sold when labeled "Prepared Mustard Compound." Harmless coloring matter may be used in preparations of mustard only to secure uniformity of appearance.

Oleomargarine.—Oleomargarine which shall be in imitation of yellow butter can not be lawfully sold. Oleomargarine free from coloration or ingredient that causes it to look like butter can be manufactured and sold under its own name when properly labeled. Each tub, package and parcel must be marked by a placard bearing the word "Oleomargarine" printed in plain, uncondensed gothic letters not less than one inch long, and such placard shall contain no other words thereon.

All stores and places of business from which oleomargarine shall be sold must have conspicuously posted a placard to be approved by the dairy and food commissioner, containing the words, printed in letters not less than four inches in length, "Oleomargarine Sold Here"

It is unlawful for hotel, restaurant or boarding-house keepers to furnish their guests with butter substitutes without notifying such guests that the substitutes so furnished are not butter.

A bill of fare furnished guests and containing a statement that oleomargarine is used will be deemed a sufficient notice.

No imitation butter or cheese can be used in any of the charitable or penal institutions of this state.

Renovated Butter.—Renovated Butter which is butter of inferior quality melted, regranulated, churned with milk and worked over into the appearance of fresh creamery butter, must be labeled "Renovated Butter" upon each package and parcel.

Saccharine.—Saccharine in foods is held to be an unlawful adulterant.

Spices.—All spices must be pure. Any mixture of any foreign article with any spice is an adulteration. An adulteration of spices cannot be remedied by the label "Compound."

Sirup.—Sirup is a product obtained from the juice of a sugar (cane sugar) producing plant, such as sugar cane, sorghum and maple. Only such products are lawfully salable under the name "Sirup." Glucose or corn sirup should be sold as such. Though there is little difference in the food value of sirup and glucose or corn sirup, there is a distinct difference in the sweetening power of the two, so that it must be considered that the sale of glucose or corn sirup as and for sirup is a fraud and a violation of law. Compounds or mixtures of sirup and glucose or corn sirup should be labeled and sold as "Glucose Mixture, "Glucose" or "Corn Sirup."

Molasses containing glucose should be labeled and sold as "Glucose Molasses Mixture," as the value of molasses is dependent upon a pungent flavor peculiar to itself, and not found in glucose or corn sirups.

Vinegar.—All vinegar must contain four per centum of acetic acid. Cider vinegar must contain two per cent of apple solids. It is unlawful to label spirit vinegar as fruit vinegar. Spirit vinegars may be colored with harmless coloring matter and sold for what they are.

CIRCULAR LETTER.

Office of the

Dairy and Food Commissioner,

Madison, Wisconsin, May 25, 1903.

The attention of owners or managers of creameries, cheese factories, milk condensing factories, renovated butter factories, city milk dealers and their patrons, is hereby called to the provisions of chapters 43 and 67 of the laws of 1903, hereto appended.

Section 1, of chapter 67, laws of 1903, defines unclean and unsanitary milk. Section 2 prorhibits the sale of, or delivery to, any creamery, cheese factory, etc., of unclean and unsanitary milk Section 3 prohibits the manufacture for sale of articles of food from unclean and unsanitary milk or cream from the same. Section 4 defines unclean and unsanitary conditions of creameries, cheese factories, etc, and requires owners or managers thereof to keep the same in clean condition. Section 5 requires the emptying and cleansing of cans, bottles, etc., in cases therein specified. Section 6 provides penalties for violation of the provisions of the law.

Chapter 43, laws of 1903, prescribes legal standards for the use of the Babcock test, prohibits the over-reading, under-reading or manipulating of the Babcock test, or making any false determinations thereby, and provides penalties for violations of the provisions of this chapter.

Parties in interest are hereby notified and warned that it is the purpose of the Dairy and Food Commission to enforce, to the utmost extent possible, the provisions of these two chapters, as well as the other dairy and food laws of the state. The purposes and provisions are so fair in their relations to consumers of dairy products and as a matter of fair dealing between man and man that all should cheerfully comply with the provisions of the law.

J. Q. EMERY,
Dairy and Food Commissioner.

No. 122, S.] [Published March 30, 1903.

CHAPTER 43.

An Act to prescribe the standard measures for the use of the Babcock test in determining the per cent. of butter fat in milk or cream; to prevent the sale of incorrectly marked implements for use in the said test; and to prescribe the penalty for false determination by said Babcock test or otherwise.

The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:

Section 1. In the use of the Babcock test, the standard milk measures or pipettes shall have a capacity of 17.6 cubic centimeters, and the standard test tubes or bottles for milk shall have a capacity of 2 cubic centimeters for each ten per cent. marked on the necks thereof; cream shall be tested by weight and the standard unit for testing shall be 18 grams, and it is hereby made a misdemeanor to use any other standards of milk or cream measure where milk or cream is purchased by or furnished to creameries or cheese factories and where the value of said milk or cream is determined by the per cent. of butter fat contained in the same or wherever the value of milk or cream is determined by the per cent. of butter fat contained in the same by the Babcock test.

Section 2. Any manufacturer, merchant, dealer or agent in this state who shall offer for sale or sell a milk pipette or measure, test tube or bottle which is not correctly marked or graduated as herein provided, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished as provided in section 4 of this act.

Section 3. It shall be unlawful for the owner, manager, agent or any employee of a cheese factory, creamery, or condenses milk factory to manipulate or under-read or over-read the Babcock test or any other contrivance used for determining the quality or value of milk or cream or to make any false determination by said Babcock test or otherwise.

Section 4. Whoever shall violate any of the provisions of this act shall be guilty of a misdemeanor and upon conviction thereof shall be punished by fine of not less than twenty-five dollars nor more than one hundred dollars for each and every offense, and in default of payment thereof shall be imprisoned in the county jail not less than thirty days nor more than sixty days.

Section 5. This act shall take effect and be in force from and after its passage and publication.

Approved March 27, 1903.

No. 129, S.] [Published April 10, 1903.

CHAPTER 67.

An Act to prevent the sale of unclean and unsanitary milk and the use thereof in the manufacture of food products, and to prohibit unclean and unsanitary conditions of creameries, cheese factories and milk dealers' establishments or outfits.

The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:

Section 1. Milk which shall be drawn from cows that are kept in barns or stables which are not well lighted and ventilated, or that are filthy from an accumulation of animal refuse or from any other cause, or from cows which are themselves in a filthy condition, and milk in or from cans or other utensils that are not kept in a clean and sanitary condition, or milk to which has been added any unclean or unsanitary foreign substance, is hereby declared to be unclean and unsanitary milk; provided, that nothing in this act shall be construed to prohibit the sale of pasteurized milk or cream to which viscogen or sucrate of lime has been added solely for the purpose of restoring the viscosity, if the same be distinctly labeled in such manner as to advise the purchaser of its true character.

Section 2. No person, firm or corporation, shall knowingly offer or expose for sale, or sell, or deliver for sale or consumption, or to any creamery or cheese factory or milk condensing factory, or have in his possession with intent to sell any unclean or unsanitary milk.

Section 3. No person, firm or corporation, shall knowingly manufacture for sale any article of food from unclean or unsanitary milk or from cream from the same.

Section 4. All premises and utensils employed for the manufacture or sale or offering for sale of food products from milk or cream from the same which shall not be kept in clean and good sanitary condition are hereby declared to be unclean and unsanitary. Any milk dealer or any person, firm or corporation furnishing milk or cream to such dealer, or the employee of such milk dealer, and any person, firm or corporation or the employee of such person, firm or corporation, who operates a creamery, cheese factory or milk condensing factory, or manufactures, re-works or packs butter for sale as a food product, shall maintain his premises and utensils in a clean and sanitary condition.

Section 5. Any person, firm or corporation, who receives any milk or cream in cans, bottles or vessels, which has been transported over any railroad, or boat line, where such cans, bottles or vessels are to

be returned, shall cause the said cans, bottles or vessels to be emptied before the said milk or cream contained therein shall become sour, and shall cause said cans, bottles and vessels to be immediately washed and thoroughly cleansed and aired.

Section 6. Whoever violates any provision of this act shall, upon conviction thereof, be punished by fine of not less than twenty-five dollars nor more than one hundred dollars for each and every offense, and, in default of payment thereof, shall be imprisoned in the county jail not less than thirty days nor more than sixty days.

Section 7. This act shall take effect and be in force from and after its passage and publication.

Approved April 3, 1903.

REPORT OF CHEMIST'S ANALYSES.

WATER ANALYSES.

Fall River, Wis., Feb. 7, 1903. Sample of well water collected by F. O. Hunt, M. D., marked "School house well, Fall River, Wis." Nearest source of pollution (outhouse) 10–12 rods.

	Parts per million.
Total residue	520.00
Volatile residue	120.00
Nonvolatile residue (largely ferric oxide)	400.00
Chlorine	3.50
N. as Nitrites	trace
N. as Nitrates	none
N. as ammonia, saline	trace
N. as ammonia, albuminoid	trace

Water was very turbid due to suspended hydrated ferric oxide, but is unobjectionable otherwise.

La Crosse, Wis., March 27, 1903. Sample of tap water of city supply submitted by Edward Evans, La Crosse, Wis.

Water colored and somewhat turbid.

	Parts per million.
Total residue (brown)	86.00
Loss upon ignition (residue chars)	44.00
Non-volatile residue	42.00
Chlorine	1.5
N. as free ammonia	0.06
N. as albuminoid	0.40
N. as nitrites	0.002
N. as nitrates	1.500

Suspicious.

Samples of well water, collected by C. C. Blanchard, M. D., at Delavan, Wis., on May 5th.

	Parts per million.	
	No. 1.	No. 2.
Total solids	490.00	570.0
Loss on ignition	178.00	240.0
Non-volatile residue	312.00	330.0
Chlorine	1.50	31.0
N. as free ammonia	1.80	0.10
N. as albuminoid amm.	0.18	none
N. as nitrites	0.004	0.013
N. as nitrates	none	large amt
Oxygen consumed	6.45	1.35

In sample No. 1, the discrepancy between the high ammonia content and the rest of the analysis, makes an interpretation of the results impossible.

Sample No. 2 shows past pollution.

Sample of well water from Neosho, collected by J. A. Clason, on May 8:

	Parts per million.
Total solids (dried at 100°)	1320 0
Loss on ignition	744.0
Non-vol. residue	576.0
Chlorine	213.0
N. as free ammonia	trace
N. as albuminoid amm.	0.10
N. as nitrites	0.03
N. as nitrates	large amount.
Oxygen consumed	1.2

This water gives evidence of strong past pollution.

Sample of Mississippi River water, collected by Dr. Evans, La Crosse, and received May 15th:

Water contains considerable suspended matter; color, yellowish.

	Parts per million.
Total solids	170 0
Loss on ignition	70.0
Non-volatile residue	100.0
(Residue brownish; chars upon ignition.)	
Chlorine	1.50
N. as free ammonia	0.07
N. as albuminoid ammonia	0.35
N. as nitrites	trace
N. as nitrates	0.20
Oxygen consumed	11.20

This sample is somewhat better than sample from La Crosse received March 27, '03. The water should, however, be freed from suspended matter by sedimentation or filtration before being used.

Sample of water from tap city main, Lake Geneva, collected by C. H. Gardner, May 26:

Water turbid.

	Parts per million.
Total solids	318.0
Loss on ignition (residue darkened slightly)	136.0
Non-vol. residue	182.0
Chlorine	16.0
N. as free ammonia	0.26
N. as albuminoid ammonia	0.14
N. as nitrites	0.003
N. as nitrates	0.250
Oxygen consumed	2.90

The high chlorine and ammonia content makes this water look sus-

picious, but no definite conclusion can be drawn without a knowledge of its history, surroundings etc.

Samples collected by F. H. Thibodo, M. D., Green Bay, on June 10.
Sample No. 1, water from city water supply, Green Bay:

	Parts per million.
Total solids	300.00
Loss on ignition	100.00
Non-volatile residue	200.00
Chlorine	19.00
Free ammonia	none
Albuminoid ammonia	none
Nitrites	trace
Nitrates	trace
Oxygen consumed	0.65

In spite of a high chlorine content, I have no hesitation in pronouncing this water exceptionally pure.

Sample No. 2, water from artesian well.

	Parts per million.
Total solids	296.00
Loss on ignition	86.00
Non-volatile residue	210.00
Chlorine	21.50
N. as free ammonia	0.28
N. as albuminoid ammonia	0.06
Nitrites	none
Nitrates	none
Oxygen consumed	0.525

This water is high in chlorine and rather high in ammonia. Considering the high chlorine content of the other sample, however, the presence of even a slightly larger amount in this would not condemn it. The ammonia is very likely due to the location of the well on the site of an old livery barn and need not be looked upon with suspicion. The water is probably wholesome.

Sample of well water collected by Dr. B. L. Tupper, Marshfield, on June 22;
(Water slightly turbid.)

	Parts per million.
Total residue	558.00
Loss on ignition	284.00
Non-volatile residue	274.00
Chlorine	74.50
N. as free ammonia	none
N. as albuminoid ammonia	0.08
N. as nitrites	0.005
N. as nitrates	10.000
Oxygen consumed	2.925

This water appears free from present organic pollution, but the high chlorine and nitrate content indicate bad pollution in the past.

ANALYSES OF MILK AND CREAM.

Jan. 17, 1903. Sample of milk submitted by W. L. Walker, Dartford. Contained 3.8 per cent. butter fat. Sample was in such a condition that accurate testing was impossible.

Jan. 1903. Sample of skim milk submitted by Geo. Worden, Johnson. Marked No. 1. (Sample was curdled.) Contained 0.05 per cent. butter fat.

Jan. 1903. Sample of skim milk submitted by Geo. Worden, Johnson. Marked No. 2. (Sample was curdled.) Contained 0.04 per cent. of butter fat.

Feb. 5, 1903. Sample of cream submitted by A. M. Farrell, M. D. Two Rivers, Wis.
No preservatives found.

Feb. 9, 1903. Sample of milk submitted by L. E. Maloney. Supposed to have caused poisoning. Bought of A. W. Ballard, Fond du Lac, Wis. Contained 2.8 per cent. of butter fat.

Feb. 1903. Sample of milk submitted by A. H. Koch. Bought of Bertel, Juneau. Dispute as to butter fat. Contained 3.2 per cent of butter fat.

March 5. Sample of milk bought of A. W. Ballard, Fond du Lac, Wis. Sweeting, Ass't Com. Contained 4.2 per cent. of butter fat. No preservatives found.

March 1903. Sample of milk submitted by Gov. R. M. LaFollette. Contained 4.9 per cent. of butter fat.

March 1903. Sample of milk submitted by Gov. R. M. LaFollette

Sp. Gr.	1.029
	%
Albumen	0.25
Butter fat	8.15

March 2. Sample of milk submitted by H. J. Grell. Bought of H. Biedermann, Johnson Creek, Wis.

Sp. Gr.	1.032
	%
Total solids	11.8
Solids not fat	8.6
Butter fat	3.2

March 5. Sample of milk bought by C. W. Sweeting, Ass't Com., of Geo. Sparks, Oshkosh, Wis.

Sp. Gr.	1.034
	%
Total solids	11.76
Solids not fat	8.46
Butter fat	3.3

March 18. Sample of milk bought by C. W. Sweeting, Ass't Com., of C. W. Fuller, Merrill, Wis.

Sp. Gr.	1.032
	%
Total solids	12.75
Solids not fat	8.75
Butter fat	4.00

March 18. Sample of milk bought by C. W. Sweeting, Ass't Com., of C. Hibbard, Merrill, Wis.

Sp. Gr.	1.0345
	%
Total solids	11.17
Solids not fat	8.97
Butter fat	2.20

Skimmed. Below legal standard.

March 18. Sample of milk bought by C. W. Sweeting, Ass't Com., of Wm. Poderweltz, Merrill, Wis.

Sp. Gr.	1.033
	%
Total solids	11.16
Solids not fat	8.76
Butter fat	2.40

Contains formaldehyde. Below standard.

March 31. Sample of milk taken by C. W. Sweeting, Ass't Com., at Willowdale Creamery. Delivered by J. F. Mooney.

Sp. Gr.	1.029
	%
Butter fat	1.3

Below legal standard.

March 31. Sample of milk taken by C. W. Sweeting, Ass't Com., at Willowdale Creamery. Delivered by A. Sprout.

Sp. Gr.	1.033
	%
Butter fat	2.6

Below standard.

April 9. Sample of milk taken by C. W. Sweeting, Ass't Com., at cheese factory of Gronert & Peirick, Columbus, Wis. Delivered by Stencil Hopp.

Sp. Gr.	1.020
	%
Total solids	7.00
Solids not fat	5.10
Butter fat	1.9

Watered.

April 13. Sample of milk submitted by A. H. Raynor, Milton, Wis. Contained 3.9 per cent. butter fat.

April 22. Sample of milk submitted by Mrs. R. Jacobson. Contained 3.6 per cent. of butter fat.

May 2. Sample of milk submitted by J. G. Hillman, Cedarburg, Wis. Contained 3.9 per cent. of butter fat.

May 4. Sample of milk taken by C. W. Sweeting, Ass't Com., at cheese factory of Winkler & Becker, Richfield. Delivered by Frank Wagner.

Sp. Gr.	1.026
	%
Total solids	9.3
Solids not fat	7.0
Butter fat	2.3

Watered.

May 7. Sample of milk taken by C. W. Sweeting, Ass't Com., at Hustisford cheese factory, owned by E. Brainer, Hustisford. Delivered by Aug. Fenske. Marked No. 9.

Sp. Gr.	1.031
	%
Total solids	11.2
Solids not fat	8.4
Butter fat	2.8

Below standard.

May 7. Sample of milk taken by C. W. Sweeting, Ass't Com., at Hartford cheese factory (Winkler & Becker), Hartford. Delivered by G. Rathenbach. Marked No. 10.

Sp. Gr.	1.027
	%
Total solids	9.82
Solids not fat	7.12
Butter fat	2.7

Watered.

May 14. Sample of milk taken by C. W. Sweeting, Ass't Com., at Kneeland Creamery, Kearney, Roessler & Co., Kneeland, Wis. Delivered by F. A. Horton. Marked No. 6.

Sp. Gr.	1.021
	%
Total solids	7.59
Solids not fat	5.19
Butter fat	2.4

Watered.

May 19. Sample of milk taken by C. W. Sweeting, Ass't Com., at Brown Street cheese factory, J. J. Reid, Oconomowoc. Delivered by Wm. Koepke. Marked No. 9.

Sp. Gr.	1.026
	%
Total solids	9.30
Solids not fat	6.70
Butter fat	2.6

Watered.

May 23. Sample of milk submitted by Bentley Bros., Monticello, Wis. Marked No. 2.

Sp. Gr.	1.035
	%
Butter fat	3.5

May 27. Sample of milk taken by C. W. Sweeting, Ass't Com., at Hibernian cheese factory, Washington county, owner M. Murphy, Oconomowoc. Delivered by Hans Nelson. Marked No. 20.

Sp. Gr.	1.032
	%
Butter fat	2.8

Below legal standard.

May 27. Sample of milk taken by C. W. Sweeting, Ass't Com., at Hibernian cheese factory, Washington county, owned by M. Murphy, Oconomowoc. Delivered by C. Fredrickson. Marked No. 8.

Sp. Gr.	1.033
	%
Butter fat	2.8

Below legal standard.

May 27. Sample of milk taken by C. W. Sweeting, Ass't Com., at Hibernian cheese factory, Washington county, owned by M. Murphy, Oconomowoc, Wis. Delivered by N. Weber. Marked No. 23.

Sp. Gr.	1.034
	%
Butter fat	2.8

Below legal standard.

June 3. Sample of milk taken by C. W. Sweeting, Ass't Com., at Wilson Creek cheese factory, Spring Green, owned by A. H. Manwaring. Delivered by F. Frank. Marked No. 17.

Contains formaldehyde.

June 6. Sample of city milk bought of J. P. Neuman, Manitowoc, by C. W. Sweeting, Ass't Com. Contained 3.6 per cent. butter fat.

June 10. Sample of milk taken by C. W. Sweeting, Ass't Com., at cheese factory of C. Gassner, Woodland. Delivered by Fred Braun. Marked No. 3.

Sp. Gr.	1.026
	%
Total solids	9.91
Solids not fat	7.11
Butter fat	2.8

Watered.

June 20. Sample of milk taken by C. W. Sweeting, Ass't Com., at Lime Ledge cheese factory, town of Ashippun, Dodge county. Delivered by Mrs. J. L. Lehmann. Marked No. 11.

Sp. Gr.	1.027
	%
Total solids	10.2
Solids not fat	7.8
Butter fat	2.4

Watered.

June 20. Sample of milk taken by C. W. Sweeting, Ass't Com., at Lime Ledge cheese factory, town of Ashippun, Dodge county. Delivered by Geo. Copothorn. Marked No. 9.

Sp. Gr.	1.028
	%
Total solids	10.3
Solids not fat	7.5
Butter fat	2.8

Below legal standard.

June 23. Sample of milk taken by C. W. Sweeting, Ass't Com., at Central cheese factory, Basco. Delivered by Nelson Bros. Marked No. 9.

Sp. Gr.	1.017
	%
Total solids	6.4
Solids not fat	4.3
Butter fat	2.1

Watered.

June 29. Sample of milk taken at Friendship, by C. W. Sweeting, Ass't Com. Delivered by H. E. Wilbur. Marked No. 32.

Sp. Gr.	1.029
	%
Total solids	10.4
Solids not fat	7.8
Butter fat	2.6

Watered.

EXAMINATION OF BUCKWHEAT FLOUR.

Feb. 3. Sample of buckwheat flour, bought of C. E. Boyington, Merrill, Wis., by C. W. Sweeting, Ass't Com. Marked "Peerless Roller Mills, Alex S. Campbell," and said to be made by Alex S. Campbell, Austin, Minn. Free from wheat flour. Passed.

Feb. 3. Sample of buckwheat flour, bought of W. Wendt, Merrill, Wis., by C. W. Sweeting, Ass't Com. Contains a little wheat flour.

Feb. 3. Sample of buckwheat flour, bought of L. A. Larson, Waupun, Wis., by C. W. Sweeting, Ass't Com. Marked "New Fresh Ground" and said to be made by C. F. Stolzman, Hatton, Wis. Contains wheat flour.

Feb. 3. Sample of buckwheat flour bought at mills, Waupaca, by C. W. Sweeting, Ass't Com. Marked "M. P. Merritts, Waupaca Flour Mills, Fresh Ground B. F." Contains a little wheat flour, probably an accidental contamination.

Feb. 3. Sample of buckwheat flour bought of Brooks & Root, Sherman, Wis., by C. W. Sweeting, Ass't Com. Marked "Star & Crescent," and said to be made by Brooks & Root, Sherman. Contains wheat flour.

Feb.3. Sample of buckweat flour bought of William Kemp, Mt. Morris, Wis., by C. W. Sweeting, Ass't Com. Marked "Pure Buckwheat Flour," and said to be made by Wm. Kemp, Mt. Morris, Wis. Passed.

Feb. 3. Sample of buckwheat flour bought of Patterson & Skinner, Pine River, Wis., by C. W. Sweeting, Ass't Com. Marked "Pure Fresh Ground," and said to be made by Patterson & Skinner, Pine River, Wis. Contains wheat flour.

Feb. 3. Sample of buckwheat flour bought of Willy & Co., Appleton,

Wis., by C. W. Sweeting, Ass't Com. Marked "Willy & Co. Extra Hulled Buckwheat Flour," and said to be made by Willy & Co., Appleton, Wis. Contains wheat flour.

Feb. 3. Sample of buckwheat flour bought of Krueger & Lachmann, Neenah, Wis., by C. W. Sweeting, Ass't Com. Marked "Pure Buckwheat Flour," and said to be made by Krueger & Lachmann, Neenah, Wis. Badly adulterated with wheat flour.

Feb. 3. Sample of buckwheat flour submitted by Whitney Trading Co., Merrilan, Wis. Contains traces of wheat flour, probably accidental contamination.

Feb. 3. Sample of buckwheat flour bought of Otto & Gerlach, Appleton, Wis., by C. W. Sweeting, Ass't Com. Marked "Willy & Co. Extra Hulled Buckwheat Flour," and said to be made by Willy & Co., Appleton, Wis. Contains wheat flour.

March 6. Sample of buckwheat flour procured from Maria Tipple, said to have been bought of Smith, Madison, Wis. Ash 0.45 per cent. Contains wheat flour.

March 6. Sample of buckwheat flour bought of Kleuter Bros., Madison, by C. W. Sweeting, Ass't Com., said to be made by La Valle Roller Mills, La Valle, Wis. Ash 0.72 per cent. Contains wheat flour.

March 10. Sample of buckwheat submitted by Krueger & Lachmann, Neenah, Wis. Passed.

March 10. Sample of buckwheat submitted by Krueger & Lachmann, Neenah, Wis. Marked "M." Contains low grade wheat flour. Identified by starch grains and hairs.

March 23. Sample of buckwheat flour submitted by E. J. Lachmann, Neenah, Wis. Marked "P" Buckwheat Flour and said to be made by Patterson & Skinner, Pine River, Wis. Contains wheat flour. Identified by starch grains.

March 26. Sample of buckwheat flour bought of Krueger & Lachmann, Neenah, Wis., by C. W. Sweeting, Ass't Com. Said to be made by H. E. McEachron Co., Wausau, Wis. Contains wheat flour; identified by starch grains and hairs.

March 26. Sample of buckwheat flour bought of H. E. McEachron Co., Wausau, Wis., by C. W. Sweeting, Ass't Com. Marked "Fresh Ground Buckwheat Flour," and said to be manufactured by H. E. McEachron Co., Wausau, Wis. Contains wheat flour.

March 28. Sample of buckwheat flour submitted by Maria Tipple, Madison, Wis. Lumps found in flour were analyzed. Ash 69.98 per cent., consisting mainly of $CaSO_4$, 98 per cent., with small quantities of iron, magnesium and phosphates.

JELLIES.

Jan. 22. Sample of glucose jelly procured by N. J. Field, Inspector, from E. H. Pahl, Milwaukee. Marked "Glucose Jelly Co.," and said to be made by St. L. Syrup & Preserving Co., St. Louis, Mo. Contains artificial coloring. Not lawful.

Feb. 10. Sample of glucose jelly submitted by St. Louis Syrup & Preserving Co., St. Louis, Mo., made by said company and marked "Glucose Jelly Compound." Contains artificial coloring. Not lawful.

March 19. Sample of "Pie Filling" submitted by E. R. Pahl & Co., Milwaukee, procured from Wellauer & Hoffman, Milwaukee, Jobbers. Marked "Pie Filling." Great Western Brand.

	%
Water	36.7
Ash	0.47
Sulphates in ash (Calc. as K_2SO_4)	0.16
Chlorides in ash (Calc. as NaCl)	0.04
Total acidity (Calc. as sulphuric acid)	0.78
Reducing sugars before inversion	35.09
Reducing sugars after inversion	36.61
Color	artificial.

Imitation fruit jelly, artificially colored. Not lawful.

March. Sample of "Pie Filling" submitted by N. J. Field, Inspector. Marked "Great Western Brand Pie Filling, Absolutely Wholesome, Currant."

	%
Water	35.8
Ash	0.49
Reducing sugar before inversion	36.20
Reducing sugar after inversion	37.51
Color	artificial.

Imitation fruit jelly, artificially colored. Not lawful.

LEMON EXTRACTS.

March 23. Sample submitted by Smith, Thorndike and Brown, Marinette. Marked "Imperial Double Extract of Lemon." Made by De Boe, King & Co., Grand Rapids, Mich.

Sp. Gr.	0.929
	%
Alcohol (by wt.)	45.0
Total solids	0.1
Rotation	none.
Prec. by water	none
Oil of lemon	none.
Color	artificial

Not a true "Extract of Lemon." Not lawful.

March 23. Sample submitted by Smith, Thorndike & Brown, Marinette. Marked "Standard Extract of Lemon." Made by De Boe, King & Co., Grand Rapids, Mich.

Sp. Gr.	0.945
	%
Alcohol (by wt.)	37.00
Total solids	0.1
Rotation	none
Prec. by water	none
Oil of lemon	none
Color	artificial

Not a true "Extract of Lemon." Not lawful.

April 30. Sample submitted by Joannes Bros. Co., Manufacturers. Marked "Round Bottle," not labeled.

	%
Lemon oil (by vol.)	5.6
Alcohol (by wt.)	80..
Total residue	1.56
Color	lemon peel

Passed.

April 30. Sample submitted by Joannes Bros., Green Bay, Manufacturers. Marked "Martha Washington Brand."

	%
Oil of lemon	none
Alcohol (by wt.)	30.1
Total residue	0.08
Color	artificial

Not a true "Extract of Lemon." Not lawful.

EXTRACTS OF VANILLA.

April 1. Sample of Extract of Vanilla and Tonka submitted by Smith, Thorndike & Brown, Marinette. Marked "Cabinet Mills Standard Extract of Vanilla and Tonka." Made by De Boe, King & Co., Grand Rapids, Mich.

	%
Vanillin	0.0228
Coumarin	0.0620
Vanilla resin	trace

Must be labeled "Compound Extract of Vanilla and Tonka."

April 1. Sample of Extract of Vanilla and Tonka submitted by Smith, Thorndike & Brown, Marinette. Marked "Standard Extract of Vanilla and Tonka." Made by De Boe, King & Co., Grand Rapids.

	%
Vanillin	trace
Coumarin	0.0968
Vanilla resin	none

Contains so little vanillin that it cannot be sold under name of "Vanilla" on the label.

April 1. Sample of Extract of Vanilla submitted by Smith, Thorndike & Brown, Marinette. Marked "Imperial Double Concentrated Extract of Vanilla." Made by De Boe, King & Co., Grand Rapids, Mich.

	%
Vanillin	0.2908
Coumarin	none
Resin	a little

Passed.

April 30. Sample of Extract of Vanilla submitted by Joannes Bros., Green Bay, made by them, and marked "Martha Washington Brand."

Sp. Gr.	1.042
	%
Vanillin	0.087
Coumarin	none

Passed.

BAKING POWDER.

1903.

Feb. 2. Sample of baking powder submitted by Tillman & Bendel, San Francisco, Cal., manufacturers. Contains calcium acid phosphate, sodium bicarbonate and starch. Lawful.

June 18. Sample of baking powder bought of C. H. Zilisch, Juneau, by F. M. Buzzell, Inspector. Marked "Quaker Baking Powder," and manufactured by the Quaker Baking Powder Co., Chicago. Contains alum. Not labeled to that effect.. Not lawfully labeled.

June 19. Sample of baking powder bought of J. F. Firestone, agent for H. H. Co., at Juneau, on C. & N. W. Ry. Car No. 62676, by F. M. Buzzell. Marked "Success Pure Baking Powder." Made for Hitchcock, Hill Co., Chicago. Contains soda-alum, calcium acid phosphate, sodium bicarbonate and starch. Label on back states that sulphate of aluminum and soda is one of the ingredients; but label does not conform to Wisconsin law.

June 23. Sample of baking powder bought of C. Nelson & Co., Eau Claire, by F. M. Buzzell, Inspector. Marked "Calumet Baking Powder." Manufactured by Calumet Baking Powder Co., Chicago. Contains alum. Label not approved.

June 29. Sample of yeast (baking) powder, purchased of N. Patten, Durand, by F. M. Buzzell, Inspector. Marked "Columbia Yeast Powder," and said to be manufactured by Corbin, May & Co., Chicago. Contains cream of tartar, sodium bicarboate and starch. Lawful.

BUTTER.

1903.

Jan. 30. Sample of butter submitted by N. J. Field, Inspector. Marked "Chas. W. Burbach, 583 Mitchell street, Milwaukee.

Water	48.6

Adulterated.

Jan. 30. Sample of butter submitted by C. Kaufer, Milwaukee.

	%
Water	49.0
Fat	47.40
Solids not fat	3.57
Butyro-refract.	46.0
Reichert no.	21.4

Adulterated.

Jan. 30. Sample of butter submitted by N. J. Field, Inspector. Marked "P. Lesch, Oklahoma & Howell Ave., Milwaukee."

	%
Fat	46.84
Water	49.00
Casein & Albumen	0.54
Min. matter	2.96
Gum (?)	0.66
Reichert no. of fat	24.3

Adulterated.

Jan. 30. Sample of butter submitted by N. J. Field, Inspector. Marked "D. Kaufer, 696 Forest Home Ave., Milwaukee."

	%
Fat	47.4
Water	49.0

Adulterated.

Feb. Sample of butter submitted by C. Winkler.

Reichert no.	28.2
Butyro-refract.	42.8
Char. of field with polarized light: monochrom.	

Pronounced butter.

Feb. Sample of butter submitted by C. W. Sweeting, Ass't Com. Bought of Rosendale creamery, Fond du Lac, manufacturers.

Monochromatic	
Reichert no.	27.4
Butyro-refract.	43.8

Butter.

March 5. Sample of butter submitted by A. Dahlman & Co., Milwaukee.

Character of field with polarized light: monochromatic	
Butyro-refractometer	42.7
Reichert no.	29.8

Pronounced butter.

March 7. Sample of butter submitted by O. J. Owen, Portage. Bought of Jacob Huber, Portage.

Character of field with polarized light: monochromatic.	
Butyro-refractometer	44.0
Reichert no.	30.0

Pronounced butter.

April 25. Sample of butter submitted by Roach & Seeber Co., Waterloo. Said to have been bought of Hammond Pck. Co.

Character of field with polarized light: monochromatic.
Butyro-refractometer 43.30
Reichert-Meissl no. 28.00

Butter.

May 12. Sample of butter submitted by N. J. Field, Inspector. Marked No. 2. Bought of A. Grossenbach Co., by Col. Wheeler, Gov. of National Home, Milwaukee.

Refraction (butyro-refract. scale) 44.3
Reichert-Meissl no. 28.0
Character of field with polarized light: monochromatic.
Boiled normally.

Butter.

May. 12. Sample of butter submitted by N. J. Field, Inspector. Bought of A. Grossenbach Co., Milwaukee, by Col. Wheeler, Gov. of National Home, Milwaukee.

Refraction (butyro-refract. scale) 43.0
Reichert-Meissl no. 26.7
Character of field with polarized light: monochromatic.
Boiled normally.

Butter.

May 12. Sample of butter submitted by N. J. Field, Inspector. Marked No. 3. Bought of A. Grossenbach Co., by Col. Wheeler, Gov. of National Home, Milwaukee.

Refraction (butyro-refract. scale) 43.0
Reichert-Meissl no. 28.6
Character of field with polarized light: monochromatic.
Boiled normally.

Butter.

CHEESE.

1903.

Feb. 11. Sample of cheese submitted by C. W. Sweeting, Ass't Com. Bought of N. Simon Co., Neenah. Twin cheese 5 x 14½.

	%
Moisture	40.4
Fat	17.1
Total solids	42.5
Ash	3.4

Skimmed milk cheese. Not lawful.

Feb. 11. Sample of cheese submitted by C. W. Sweeting, Ass't Com. Bought of N. Simon Co., Neenah. Size 5 x 14½.

	%
Moisture	36.1
Fat	17.4
Total solids	46.5
Ash	3.67

Skimmed milk cheese. Not lawful.

Feb. 27. Sample of cheese submitted by D. R. Price in behalf of Charlie Scott, Cambria. Supposed to have caused poisoning. Gave reactions for tyrotoxicon.

MEAT.

1903.

Feb. 2. Sample of meat and spinal cord submitted by W. F. Atwell, M. D., Stevens Point. Bought in public market. Suspected to come from cow diseased with hydrophobia. No evidence of hydrophobia.

PORK.

1903.

Feb. 28. Sample of pork submitted by J. C. Huber, Fond du Lac, Wis. Spare ribs which caused symptoms of poisoning. Gave ptomaine reactions.

SUGAR.

1903.

March 27. Sample of sugar submitted by H. C. Miller. Marked "Havemeyer & Co.'s Best," and said to be bought of L. A. Piel Grocery Co., Racine, Wis. Slightly colored with ultramarine blue but otherwise pure.

VINEGAR.

1903.

Jan. 13. Sample of vinegar submitted by N. Paulson, said to be made by N. Paulson, Iola, Wis. Contained 3.15 per cent of acetic acid. Not lawfully salable.

May Sample of vinegar submitted by H. J. Platten, Green Bay, Wis. Marked No. 1. Said to have been bought of Price & Lucas Cider & Vinegar Co., Louisville, Ky. Sold as cider vinegar.

Sp. Gr.	1.007
	%
Total acidity (Calc. as acetic acid) (by wt.)	4.56
Total solids	0.34
Malic acid	none

Not a cider vinegar.

May Sample of vinegar submitted by H. J. Platten, Green Bay, Wis. Marked No. 2. Said to have been bought of Joannes Bros. Co., Green Bay, Wis. Sold as cider vinegar.

Sp. Gr.	1.022
	%
Total acidity (Calc. as acetic acid) (by wt.)	4.55
Total solids	3.63
Malic acid	present

Passed

May 28. Sample of vinegar submitted by G. E. Sanger, Beloit, Wis. Said to have been bought of E. O. Rosenstiel & Co., Freeport, Ill., for 45 grain, pure cider vinegar.

Sp. Gr.	1.007
	%
Total acidity (Calc. as acetic acid) (by wt.)	4.1
Total solids	0.765
Malic acid	absent

Not a cider vinegar.

PRESERVALINE.

1903.

Apr. 30. Sample of preservaline submitted by H. F. Bandford, Plymouth, Wis. Marked No. 24 "Antimould." Said to be made by Preservaline Mfg. Co., New York. Consists of sodium benzoate.

May 6. Sample of preservaline submitted by H. F. Bandford, Plymouth, Wis. Marked "M. Preservaline for Milk and Cream." Said to be made by The Preservaline Mfg. Co. New York. A mixture of borax and boric acid. One package intended for preserving one quart of milk or cream, contains about 45 grains (3 grams) of this mixture.

OLEOMARGARINE.

Sample of oleomargarine submitted by N. J. Field, Inspector. Producer, Swift & Co., Chicago, Ill. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine sold by L. C. Schaffer, Racine, Wis. Producer, G. H. Hammond, Hammond, Ind. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Producer, Swift & Co., Chicago, Ill. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Producer, Armour Packing Co., Kansas City, Mo. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by Swift & Co., Chicago, Ill. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by Swift & Co., Chicago, Ill. Lawful.

Sample of oleomargarine submitted by Friedman Mfg. Co., Chicago, Ill. Lawful.

Sample of oleomargarine submitted by Armour Packing Co., Kansas City, Mo. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by Friedman Mfg. Co., Chicago, Ill. Lawful.

Sample of oleomargarine submitted by Friedman Mfg. Co., Chicago, Ill. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by G. H. Hammond, Hammond, Ind. Lawful.

Sample of oleomargarine submitted by Friedman Mfg. Co., Chicago, Ill. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of olemargarine submitted by Friedman Mfg. Co., Chicago, Ill. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by G. H. Hammond, Hammond, Ind. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by Armour Packing Co, Kansas City, Mo. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by C. W. Sweeting, Ass't Com. Sold by George Deml, Appleton, Wis. Producer, Nelson Morris & Co. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by J. L. Kaufman, Green Bay, Wis. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine, (B. Bonni). Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by N. J. Field, inspector. From wholesale house of Armour Packing Co., Ashland, Wis. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Producer, Swift & Co., Chicago, Ill. Lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Sold by John Berg, Ashland, Wis. Producer, Armour Packing Co., Kansas City, Mo. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Sold by Louis Schneider, Racine, Wis. Producer, Hammond Packing Co., Chicago, Ill. Lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Producer, Harrison Butterine Co. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Producer, Swift & Co., Chicago, Ill. Lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Producer, Braun & Fitts, Chicago, Ill. Lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Producer, Braun & Fitts, Chicago, Ill. Lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Producer, Armour Packing Co., Kansas City, Mo. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by C. W. Sweeting, Ass't Com. Sold by Botz & Son, Oshkosh, Wis. Producer, W. G. Moxley. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Sold by J. S. Johnson, Racine, Wis. Producer, W. G. Moxley. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Producer, Armour Packing Co., Kansas City, Mo. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by C. Pfennig, Kenosha, Wis. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Producer, Nelson Morris Co., Chicago, Ill. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Producer, Swift & Co., Chicago, Ill. Lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Producer, Armour Packing Co., Kansas City, Mo. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Producer, Swift & Co., Chicago, Ill. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Producer, Braun & Fitts, Chicago, Ill. Lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Lawful.

Sample of oleomargarine submitted by Friedman Mfg. Co., Chicago, Ill. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by N. J. Field, Inspector. Producer, Nelson Morris Co., Chicago, Ill. Lawful.

Sample of oleomargarine submitted by C. W. Sweeting, Ass't Com. Sold by John Botts, Manitowoc, Wis. Producer, Swift & Co., Chicago, Ill. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by C. W. Sweeting, Ass't Com. Sold by Schuette Bros. & Co., Manitowoc, Wis. Producer, Swift & Co., Chicago, Ill. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by C. W. Sweeting, Ass't Com. Sold by George Deml, Appleton, Wis. Producer, Nelson Morris Co., Chicago, Ill. Contains coloration or ingredient that causes it to look like butter. Not lawful.

Sample of oleomargarine submitted by Armour Packing Co., Kansas City, Mo. Lawful.

Sample of oleomargarine submitted by Armour Packing Co., Kansas City Mo. Lawful.

MILK TESTS.

Jan. 21. Milford Creamery owned by Dodge Creamery Co.

	% butter fat.
C. Bandry	3.9
C. Shroeder	4.2
E. Warner	3.6
C. Ruglitz	3.8
H. Sanders	3.9
G. Zimmerman	4.0
H. Rohel	3.5
F. Wollin	4.4
C. Trieloff	4.1
J. Henrich	3.9
Aug. Wendt	4.0
E. Yandry	3.7
M. Schafer	3.6
G. Hahn	3.5
F. Hankey	3.7
F. Marshall	3.8
K. Bennett	3.6
P. Hoyt	3.9
O. Deakow	3.8
O. Dettman	3.9
G. Denthemer	3.7
A. Nadler	3.5
F. Newcomb	3.6
E. Schafer	3.7

Jan. 31. Milford Creamery owned by Dodge Creamery Co.

G. Barsh	4.4
F. Strasburg	3.3
F. Strasburg	3.2
Composite sample	3.3
Mrs. Mansfield	4.0
T. Zebell	3.6
Christ Wollin	4.0
F. Rhu	3.5
Aug. Wollin	3.6
Wm. Taves	3.5

Feb. 13. Oakhill creamery.

A. Mules	3.3
D. E. Marsh	4.1
W. Thomas	4.0
A Thompson	4.1
J. Harthey	3.9
L. Getman	3.9
J. Jones	3.8
Geo. Meach	4.2
W. Joliffe	3.6
E. J. Joliffe	4.0
W. A. Hooper	3.6
L. J. Hooper	3.0
W. Stacey	3.6
E. R. Joliffe	4.4
W. Pethok	4.0
C. Ward	3.9
J. Yeo	4.1
J. Lean	4.2
T. Gilbert	4.0
F. Mundschau	3.7
W. Schueber	3.7
S. Smale	3.9
J. Ebbott	4.0
W. Mules	4.1
E. Cohd	3.6
W. Box	3.7
J. Jensen	3.6
J. Lundt	3.8
L. B. Hooper	4.0
J. Mitchell	3.7
O. Romey	3.6
P. Schrader	3.5
H. Vetense	4.0
G. Beider	3.5
H. Ahrens	3.6
C. Helwig	3.8

Feb. 18. Rewey Cheese Factory, owned by N. Simon & Co.

John T. Hughes	4.4
R. R. Hughes	3.6
E. Cushman	3.0
Chas. Nodolf	4.0
John Warne	3.9
C. G. Martin	3.7

Feb. 25. Piperville Creamery, owned by H. J. Grell & Co.

	% butter fat.
H. Harke	3.9
Mrs. Burdick	3.7
T. Helker	3.7
H. Erke	4.2
F. Hallitz	3.8
H. Hallitz	3.8
F. Habek	3.7
C. Henning	3.4
Wm. Bleisner	3.6
F. Gaugert	3.7
P. Alltwise	3.9
O. Strache	3.8
O. Mass	4.4
A. Niere	3.4
J. Owen	3.9
A. Pautz	3.5
Wm. Goetch	3.6
F. Rohloff	3.7
F. Schumacher	3.9
A. Janke	4.0
J. Vergenz	3.8
H. Vergenz	4.1
H. Zeimer	4.0
C. Bauman	3.7
O. Learman	3.7
E. L. Pugh	3.8
J. Perry	4.1
H. Kuester	4.0
H. Olm	5.0
C. Klug	3.6
L. Kuester	4.0
F. Smith	3.7
W. O. Perry	3.6
Wm. Kerberg	3.5
F. Goetch	4.0
H. Humphrey	3.8
J. Stafeil	3.6

March 31. Willdw Dale Creamery, R. F. D. No. 4, Janesville, Wis.

Mrs. O'Learey	4.3
Mr. Palmer	3.6
C. Harnack	3.0
O. Bemersdon	3.4
J. Spoon	3.9
C. Leayow	3.3
J. F. Mooney	below standard
A. Sprout	below standard
J. Crane	3.0
P. McCue	4.0
J. A. Carroll	3.0
Mrs. G. Christensen	3.6
W. Sievert	3.6
C. Splinter	3.0
F. Wulsdorf	3.0
C. Dietrich	4.0
A. Bock	3.0
G. Osgood	4.2
H. Schirmacker	3.1
H. Lentz	3.4
F. Korn	3.4
W. Splinter	4.2
M. A. Bernett	4.1
A. Anderson	3.4
F. Utzig	3.6
W. Bobzien	3.7
P. Conway	3.4

April 2. Berlin Creamery, owned by Berlin Creamery Co.

C. Toll	4.0
W. Jacob	3.8
T. Armstrong	3.5
M. Sobrie	3.6
H. F. Schrader	3.6
M. Perry	4.1
D. Ewald	4.1
S. Weller	4.0
C. Falske	4.1
J. Drover	3.9
E. E. Curtis	3.9
J. Wendt	4.0
H. Fink	4.6
C. M. Walker	3.4
A. Shier	3.6
F. H. Fink	3.3
W. Walker	3.9
F. Woldenhauer	3.1
Ferd. Furstnau	3.8
T. McClelland	4.1
M. Calahan	4.0
R. Perry	below standard
H. Klingbile	3.5
R. Green	3.5
L. Gneiser	3.4

April 8. Starker Creamery, Sun Prairie.

J. V. Starker	4.2
F. Hillenbrand	3.5
L. Weiselsel	3.3
F. Flint	3.2
M. Starker	3.4
C. Brown	3.0
A. Schrell, Sr.	3.3
J. Dushack	3.3
A. Schrell, Jr.	3.8
N. Seltzner	3.6
J. Warmuth	3.6
T. Kraus	3.9
Adam Starker	3.8
Frank Starker	3.7
P. Gross	3.7
F. Maskia	4.0
Mrs. Moreth	3.4

	% butter fat.
A. Moreth	3.6
H. Schey	3.8
J. Schmidt	3.3
R. Schmidt	3.3
H. Holtzman	4.1
A. Holtzman	3.2

April 9. Cheese Factory, owned by Gronert & Peirick, Columbus.

Henry Baer	3.6
Wm. Derge	3.2
Jos. Frank	3.0
Frank Frank	3.2
J. Groft	3.0
Geo. Heimler	3.5
Stencil Hopp	below standard
C. Tischler	3.8
P. Welsh	4.4
F. Lrochinske	3.0
Nelson Boner	3.5
Frank Kleinde	3.5
C. Hemling	3.6

April 14. Samples of milk collected at city of Wausau.

Kline Bros.	4.2
Henry Meuret	4.7
E. E. Means	4.4
J. J. Bean	(sp. gr. 1.033) 3.2
R. E. Golisch	3.4
G. W. Witter	4.2

April 21. Salesville Cheese Factory, near Hartford.

Otto Busch	3.7
John Busch	3.5
C. Busch	3.3
Henry Busch	3.7
Chas. Pusch	3.7
C. Horst	4.0
John Wagner	below standard
H. Leapien	3.5
A. S. Graw	3.4
Wm. Klink	3.5
Aug. Schab	3.9
Wm. Neu	3.5
John Harst	4.0
E. Buchrow	3.7
Wm. Hannon	4.3
B. Meyer	3.4
Mat Scholtis	3.2
Joe Gulben	3.2
R. Barney	3.5
John Leicht	3.8
Nic Wagner	3.0
R. Schniter	3.6
F. Buhrow	3.7
Joe Klink	3.8
Wm. Neu, Jr.	3.4
A. Lambrecht	3.7
Ed. Horst	4.0
John Kelly	3.3
Chas. Behnke	3.6
Wm. Pusch	3.3
Fred Rose	3.3
H. Horst	3.6
Chas. Wittenburg	3.5
Peter Radschlag	4.4
Mat. Grinawald	3.6
Wm. Behringer	3.2
Henry Lapien	3.5
Joe Mayer	3.6
P. Wagner	3.2
H. Manta	3.4
John Horieg	3.8
Rob. Ferguson	3.0

April 24. Big Island Creamery, Berlin:

Delos Hopka	3.8
Geo. Doling	3.4
H. Albel	3.8
P. Petroska	3.2
Albert Miller	3.6
John Kreager	3.6
A. Kerl	3.7
John Stromski	3.5
Paul Hoprosaki	3.5
K. Abel	3.8
Albert Abel	3.8
Chas. Stuffin	3.8
Jas. Kavage	4.0
Gus Brooks	3.5
H. Marion	3.6
Moses Wise	3.4
T. Wisterhoft	4.0
L. Lesnak	3.4
Aug. Trochinaki	3.4
S. Hardy	3.4
A. Hooly	3.3
J. Hazubosky	3.0

April 17. Star creamery, owned by Piper, Thomas & Co., Kenosha.

Geo. Krenscher	3.4
Jacob Krenscher	3.8
J. Murray	3.3
Frank Kreuger	3.8
Mike Gratz	3.7
Chas. Herrman	3.6
Mike Schlitz	3.6
A. Jensen	3.3
John Fouk	3.3

	% butter fat.
Pat Kerns	3.6
John Mich, Jr.	4.0
G. Dorflinger	3.0
Phil Henn	3.8
M. Vandermoon	3.4
John Mich, Sr.,	3.6
M. Frederick	3.1
T. Frederick	3.3
T. Frederick, Jr.	3.1
A. Middlecamp	4.1
P. Prisal	4.4
C. L. Jensen	3.3
Matt. Hensgen	3.9
John Hensgen	3.1
Mike Stollenwerk	4.3
J. M. Hensgen	3.6
Chas. Jensen	3.9
Roy Bullamore	4.0
John Spartz	3.0

May 1. Cheese factory at Richfield, owned by Winkler & Becker, North Lake.

Geo. Graf	3.6
Carl Held	3.4
Chas. Ratdenbach	4.0
Christ Stazer	4.1
H. Wolf	3.8
A. Nob	3.6
Wm. Wolf	3.9
Joe Merton	3.6
Aug. Kaetas	3.8
H. Zanbenheimer	5.0
Peter Reichet	4.4
Frank Wagner	below standard
John Stazer	4.0
Geo. Mentz	3.7
Jake Eimerman	3.4
Pete Becker	3.6
Geo. Whitdmeyer	4.1

May 6. Cheese factory, owned by E. Brainer, Hustisford.

G. Seefeldt	3.2
Wm. Schmidt	3.0
H. Keltner	3.6
R. Kaul	3.4
J. Norton	3.7
H. Schultz	3.4
E. Erdman	3.2
H. Wilde	3.6
Aug. Fenske	below standard
Fred Grulke	3.1

May 7. Cheese factory in the town of Erin, Washington county, owned by Winkler & Becker, North Lake.

T. Lohr	3.5
J. Rode	3.4
H. Buth	4.0
G. Hams	3.8
C. Hoefs	3.8
H. Radke	3.2
M. Mittlestead	3.0
L. Kissling	3.4
C. Roemer	3.9
G. Rathenbach	below standard
C. Lepin	3.0
F. Felske	4.0
C. Tesch	3.8
P. Zorn	3.6
Wm. Schauer	3.4
F. Uber	3.6
Ed. Lepin	4.0
A. Roemer	3.8
C. Mittlestead	3.6
W. Klitzine	3.8
M. Bohan	3.4
J. Lischka	3.4
Mrs. Roemer	3.7
W. Mittlestead	3.4
P. Lohr	3.8
G. Pfefferkorn	3.6
Fred Roemer	3.4
Wm. Lepin	3.9

May 14. Stock Co. creamery, Sun Prairie.

George Atkins	4.1
C. Atkins	3.7
P. Bolzer	3.8
F. Buell	3.5
C. Balk	4.0
A. Beyer	3.7
A. Blaska	3.3
H. Blaska	3.7
J. Blaska	3.8
Burgess Bros.	3.7
J. Gunning	4.0
A. Bucholz	3.9
W. Burtte	3.7
A. Coff	3.7
A. Coles	3.4
F. Griffis	4.2
Wm. Dumphy	3.9
John Yelk	4.0
P. Flower	4.3
L. Duinoska	4.2
F. Gallagher	3.9
J. Stark	4.1
L. Hatch	4.4
J. Funke	3.9
Joe Haney	3.3
J. Hasland	4.3
Wm. Kruse	3.9
F. Wakeman	4.1
George Leaser	3.6
Ross Tree	3.8
J. Lonelise	3.8
H. Englike	3.7

	% butter fat.
F. McPherson	3.8
F. Merck	3.5
Ed. Miller	3.3
M. Manley	3.9
J. Mitchell	4.2
Joe Pirple	4.1
M. Peck	3.6
Wm. Pyburn	3.5
O. Lee	3.6
Wm. Selnone	4.1
Mrs. Schlucker	4.2
Mrs. Rose	3.9
F. Bushy	4.1
F. G. Fores	3.6
W. Manley	4.2
J. Jimbrick	3.2
J. Wapeman	4.1
T. Erkson	3.7
W. Skully	3.5
P. Walbridge	4.1
F. Riege	3.7
M. Yelk	3.6
F. Wasira	4.2
J. Wolf	3.7
W. McWayne	4.1
C. Mergers	4.3
J. Reuege	3.6

May 12. Kneeland creamery, Kneeland.

F. A. Horton	below standard
John Selichowski	3.3
Wm. Helding	3.8
Mrs. Hoffman	3.6
H. Goll	3.5
E. Weissing	3.6
W. Toppnow	3.4
F. Zentgraf	3.9
H. Polzin	3.5
W. Guentzel	3.6
F. C. Wood	4.3
F. Woyeichowski	3.7
W. F. Schwartz	3.4
C. Hearing	3.8
Ben West	3.7
S. West	3.6
Owen West	4.0
John Secring	3.5
H. Asehner	3.5
Wm. Henkel	3.7
John Cross	3.6
George Pheffer	3.7
Jacob Sering	3.3
M. Black	3.5
F. Rinke	3.6
J. Ciessner	3.5
W. A. Schwartz	3.7
S. Messner	3.5
Otto Paap	3.6
S. Mahfaffy	3.3
John Boss	3.6
J. Vyvian	3.7
H. Peterson	3.7
J. Dausar	3.8
T. H. Corwin	3.6
C. Larson	3.4
P. Steffenson	3.6
John Peterson	3.4
Mrs. E. Mahaffy	4.2
Wm. Peterson	3.8
A. Swanson	3.6
R. Hanson	3.8
George Hanson	3.7
C. Gunderson	3.5
George Hay	4.2
E. A. Horton	3.9
T. J. Fish	3.7
J. L. Walker	3.8
John Jonas	3.4
Mrs. Saddler	3.8
H. Christson	3.6
J. Fletcher	3.7
L. Jenson	3.6
J. Roberts	3.5
J. Steffenson	3.6
E. White	3.4
E. Lindeman	3.3
F. Schrubbe	3.4

May 19. Brown street cheese factory, near Oconomowoc.

J. Stark	3.7
Bert Ireland	3.6
H. Radent	3.8
H. Shaw	4.5
B. Skidmore	3.8
A. H. Rowe	3.5
Fred Born	3.0
John Olwell	3.0
Wm. Koepke	below standard
Chas. Prosser	4.0
Mrs. Blankenhagen	3.5
Fred Ackerman	3.6

May 23. Cheese factory, near Brillion, owned by Robt. Manke.

John Klieber	3.6
M. Welsh	3.4
O. Ecker	3.5
F. Deffke	3.8
J. Douchack	3.4
Mrs. Pritzle	4.0
Geo. Reichaedt	4.0
D. Reichaedt	3.8
J. M. Radloff	4.0
F. Maser	3.2
J. Menleck, Jr.	3.6

	% butter fat.
Jake Becker	3.9
J. Manleck, Sr.	3.8
A. Nenahlo	3.2
A. Nagel	3.0
M. Miser	3.7
A. Thurow	4.3
A. Schaubs	3.8
J. Hoyer	3.5
Frank Pritzel	4.0
S. Geiger	3.6
J. Weins	4.0
W. Kabit	3.3
John Buser	3.4
Geo. Neidl	3.6
L. Radloff	3.9
J. Rank	4.0
Chas. Klokow	3.7
S. B. S. Schuh	3.2
John Zarhn	3.8

May 27. Hibernian cheese factory, Oconomowoc.

Wm. Wehlen	3.0
John Flint	3.8
John Wehlen	3.7
B. McConville	3.8
Ed. Benfel	3.4
John Pick	4.2
S. Larson	3.2
C. Fredrickson	below standard
J. Kohler	3.2
John Banner	3.9
C. Sprander	3.7
Mrs. M. Daley	3.4
Ed. Onell	3.4
H. Johnson	3.1
T. Beck	3.9
J. Seres	4.0
Mrs. H. Burke	3.6
J. Burke	3.1
Hans Nelson	below standard
Mrs. Grady	3.6
P. Larson	3.8
N. Weber	below standard
Pat Besten	3.2
Paul Seres	3.6

June 2. Wilson Creek cheese factory, located in the town of Spring Green, Sauk county.

F. Schwartz	3.6
A. Ring	3.5
H. Fronk	3.6
F. Radle	3.5
H. Fingerhuth	3.6
J. Hess	3.6
J. Schlosser	3.5
M. Hetzel	3.7

	% butter fat.
Joe Frank	3.2
Joe Seldner	3.4
C. Aron	3.3
Mrs. Widner	3.8
P. Kramer	3.9
M. Ringlestater	3.6
F. Finer	3.8
E. James	4.0
F. Frank	3.3
T. Schwartz	3.6
M. Jarden	3.4
P. Hess	3.5
A. Ringlestater	3.2
G. Laubmire	3.5
W. Hess	3.7
G. F. Hutter	3.3
J. Widner	3.4
A. Frank	3.6
J. Fischer	3.0
G. Hetzel	4.0
J. Hausladen	3.4
R. Robson	4.0
P. Neuheisel	3.5
J. Jorden	3.5

June 5. Samples of city milk taken from city wagons, Kenosha.

Wm. Pedley	4.0
H. E. Blackmon	4.2
J. Maurer	4.6
W. F. Jornt	3.6
Frank Schafer	3.8
A. H. Falk	5.0
J. E. Hanel	3.7
Wm. Lckter	3.8
J. White	4.4
L. H. French	4.4
A. Gildemeister	3.8
J. M. Thom	3.8

June 9. Cheese factory in the town of Stettin, Marathon county.

Joseph Witbeler	3.4
Mrs. C. Belinke	3.5
Mrs. C. Bislow	3.9
C. Dahkle	3.6
L. Hilmerhauser	3.4
H. Hack	3.8
H. Kruger, Sr.	3.4
H. Kruger, Jr.	3.6
L. Steidinger, Sr.	3.3
F. Steidinger	3.5
J. Hennig	3.9
John Wiberler	3.3
L. Steidinger, Jr.	3.2
A. Sodke	3.4
W. Saunders	3.8
H. Wegner	4.1

	% butter fat.
F. Reiche (morning's milk)..... .... Sample not satisfactory	
F. Reiche (night's milk).	below standard
F. Pyan (morning's milk	4.3
F. Pyan (night's milk)	soured
E. Crochiere	3.8
G. Schuetzler	4.1
J. Vogeds	3.1
F. Oehlke	4.1
A. Dahlke	3.4
A. Kuehn	3.7
H. Patnick	3.8

June 10. Samples of night's milk taken at Woodland cheese factory.

Fred Imme	3.4
Albert Knueppel	3.8
Fred Braun .....below standard	
Fred Schilling	3.9
Aug. Zirbel	3.7
G. Fischer	3.6
Chas. Trittin	3.4
N. O. Peters	3.9
John Peters	3.4
L. Hendel	3.8
Wm. Quandt	3.7
Wm. Gitzinger	3.7
Albert Jeche	3.6
H. Quandt	3.6
Chas. Quandt	3.6
F. Keyser	3.9
Nic Klein	3.8
Ed. Tierney	3.6
Mrs. F. Lehman	3..
Joe Dias	3..
Wm. Grunsky	4..
F. Pieper	3.6
Wm. Pieper	3..
G. Nene	3.8
J. B. Roethle	4.4
Mrs. P. Becker	3.7
Ershen Bros.	3.4
E. Braun	3.7

June 17. Maple Grove cheese factory.

George Coyer	3.8
George	4.0
Henry Bessy	3.8
Aug. Ahlert	4.2
John Low	3.7
F. Trende	4.6
F. Boyer	4.6
F. Hackbart	5.0
A. Low	3.7
H. Zimmerman	4.0
H. Sachs	4.6

June 19. Samples of morning's milk taken of Lime Ledge cheese factory, Woodland, owned by Michael Murphy.

	% butter fat.
Wm. Seefeldt	3.4
H. Uhlmann	3.6
F. Grulke	3.3
E. Miller	3.2
S. Gault	3.3
C. Shafer	3.4
Wm. Weege	3.4
C. Zietlaw	3.5
Geo. Copothorn .....below standard	
A. Wendorf	3.7
Mrs. J. L. Lehmann ....below standard	
J. Miller	3.3
Mrs. A. Lehmann	3.4
Mrs. F. Thurow	3.3

June 20. Hickory Grove cheese factory, Juneau.

Wm. Riske	3.3
F. Zarull	3.8
L. French	4.0
Mrs. J. Dinch	4.1
John Kastenmeyer	3.5
E. Kalding	3.6
John Zepp	3.8
Fred Schumann	3.8
R. Burgess	3.5
G. W. Kenyon	3.8
C. B. Denund	3.8
H. Turck	3.7
H. Hubner	3.8
Fred Dunas	3.4
A. Turck	3.7
Mrs. S. A. Andrews	3.8
L. Clary	3.1
Geo. Zepp	3.6
A. Nelson	3.7
F. Lenz	3.5
H. Lenz	3.2
H. Schantes	3.4
T. Neis	3.8
Aug. Zubke	3.3
J. Brannen	4.3
F. Kaeding	3.5
Wm. Narquardt	3.6
H. Siedow	3.5

June 22. Central cheese factory, Basco, owned by farmers.

Chas. Veney	3.5
Albt. Durst	3.2
John Mielke	4.0
A. Genien	3.9
J. Hefli	3.5
Aug. Francis	4.0
G. Genin	3.9

	% butter fat.
S. Hefty	4.0
Nelson Bros.	below standard
E. Elsner	3.7

June 29. Skimming station in town of Adams, Adams county, near Friendship.

O. Arendsee	4.2
W. Prizibisky	3.5
J. Hodan	3.9
F. Thonn	3.7
J. Wilda	3.6
F. Gosakski	4.4
E. Pease	3.8
M. Pratt	3.9
E. R. Evans	4.0
P. Viktorwski	4.2
J. Seple	4.1
F. Srb	4.2
J. Mikloes	4.2
Geo. Polivka	3.5
J. Frank	3.9
J. J. Polivka	3.8
F. Smutny	4.0
J. Brozek	4.1
J. Nagle	4.0
C. Nagle	4.0
F. Shingler	3.8
Mrs. Burrian	4.1
Fred Miller	4.3
Geo. Lewis	3.9
J. Chat	4.4
J. Plager	3.6
J. H. Piper	4.1
J. Gavinski	3.9
H. E. Wilbur	below standard
R. Rouse	4.5
B. B. Clark	5.4
M. Krejchik	4.0
Mrs. Fryer	4.2
John Burrian	4.1
Mrs. M. Rosypal	4.0
J. Quennill	4.6
B. Hodan	3.2
S. K. Rich	4.8
T. Risk	4.4
C. C. Thompson	3.6
A. J. Voborie	3.5
J. B. Hill	3.6

Oshkosh, March 4, 1903.

George Sparks	3.4

Fond du Lac, March 5, 1903.

A. W. Ballard	4.2

Merrill, March 17, 1903.
Samples city milk, from wagon.

Wm. Poderweltz	below standard
C. W. Fuller	4.0
C. Hibbard	below standard

	% butter fat.
Fond du Lac, April 28, 1903. Samples city milk from dealers.	
Busse Bros.	4.0
S. M. Ingalls	4.2
Boland Bros.	4.2
B. Brown	3.2
Wm. Buddenhagen	3.2
C. J. Folts	3.3
A. F. Ballard	below standard
W. Bolton	below standard
M. Kremer	4.2
S. F. Meyer	3.4
Peterson Bros.	3.2
R. A. McCormick	3.4
T. F. Kelly	3.3
J. R. McMillan	3.3

Manitowoc, May 25, 1903. Samples city milk.

H. Klackner, Sr.	4.0
J. P. Neuman	below standard
S. Morris	3.3
Wm. P. Burkart	3.5
A. Fisher	4.1
H. A. Heise	3.2
S. H. Herrog	4.2
Joe Popp	4.0
Chas. F. Heise	4.1
J. Holtz	4.0
Fischel & Jarr	3.9
Ed. Engelbrecht	3.6

Oshkosh, May 29, 1903. Samples city milk, from wagons.

G. M. Kenfield	3.7
M. J. Ditter	3.5
A. Luebke	3.1
Geo. Wickoski	3.4
Fred Gunning	4.0
G. P. Hotchkiss	3.8
John McKone	3.7
James Hewitt	4.1
Joseph Ruth	3.2
Wm. Schroeder	3.5

Aug. 11, 1903. Oconomowoc. Samples of city milk taken from wagons.

John Leilig	3.6
W. H. Barber	3.0
H. Lewis	4.2
S. E. Turville	4.0

Aug. 12, 1903. Lake Geneva.

R. D. Short (No. 1)	4.4
R. D. Short (No. 2)	4.4
Geo. F. Baumbach	4.1
Cornell Bros.	3.4
Geo. Beamsley	3.4
Wm. Rader	4.5
James White	3.4

CONVICTIONS.

For Sale of Adulterated Milk.

1902.

July 7. R. Wilder, Madison. Pleaded guilty before municipal court. Paid fine of $25.00 and costs $14.30.

July 7. F. Heinman, Madison. Pleaded guilty before municipal court. Paid fine of $25.00 and costs $14.30.

July 10. E. Schmeicel, Manitowoc. Pleaded guilty before Justice J. P. Schoennan. Paid fine of $25.00 and costs.

July 10. Chas. Fellier, Manitowoc. Pleaded guilty before Justice J. P. Schoennan. Paid fine of $25.00 and costs.

Aug. 2. Nic. Puth, Appleton. Pleaded guilty before Justice J. H. Cook. Paid fine of $25.00 and costs.

Aug. 21. Paul Banach, Stevens Point. Pleaded guilty before Justice J. P. Carpenter. Paid finen of $25.00 and costs.

Sept. 23. G. P. Hotchkiss, Oshkosh. Pleaded guilty before Justice A. H. Goss. Fine suspended upon payment of costs $19.24.

Sept. 29. A. Grovener, Sheboygan Pleaded guilty before justice. Paid fine of $25.00 and costs.

Oct. 14. Joseph Feider, Sheboygan Falls. Tried before Justice N. F. Pierce. Fined $25.00 and costs $22.76.

Oct. 14. Frank Lawson, Sheboygan Falls. Tried before justice. Fined $25.00 and costs $16.16.

Nov. 25. J. C. Knapp, Appleton. Pleaded guilty before Justice J. H. Cook. Fined $25.00 and costs $13.00

Dec. 12. Joseph Stingle, Appleton. Pleaded guilty before Justice J H. Cook Fined $25.00 and costs.

1903.

Jan. 6. Louis Boss, Juneau. Pleaded guilty before Justice John Clifford. Fined $25.00 and costs.

March 28. George Patterson, Wautoma. Pleaded guilty before Justice R. W. Hubbell. Fined $25.00 and costs.

March 28. Wm. Poderweltz, Merrill. Pleaded guilty before Justice Mathews. Fined $25.00 and costs.

March 28. C. Hibbard, Merrill. Pleaded guilty before Justice T. J. Wallis. Fined $25.00 and costs.

Apr. 11. J. F. Mooney, Janesville. Pleaded guilty before Justice C. L. Fifield. Fine suspended on payment of costs.

Apr. 11. A. Sprout, Janesville. Pleaded guilty before Justice C. L. Fifield.

Apr. 18. Stencil Hopp, Juneau. Pleaded guilty before Justice John Clifford. Fined $25.00 and costs.

May 6. John Wagner, Juneau. Pleaded guilty before Justice John Clifford. Fined $25.00 and costs.

May 6. W. Bolton, Fond du Lac. Pleaded guilty before Justice Thos. Watson. Fined $25.00 and costs.

May 17. August Fenske, Juneau. Pleaded guilty before Justice John Clifford. Fined $25.00 and costs.

May 20. F. A. Horton, Racine. Pleaded guilty before justice. Fined $25.00 and costs.

May 21. Frank Wagner, Hartford. Pleaded guilty before Justice C. W. Wallis. Fined $25.00 and costs $8.08.

May 21. G. Rathenbach, Hartford. Pleaded guilty before Justice C. W. Wallis. Fined $25.00 and costs $5.00.

June 6. C. Fredrickson, Hartford. Pleaded guilty before Justice C. W. Wallis. Fined $25.00 and costs.

June 6. Hans Nelson, Hartford. Pleaded guilty before Justice C. W. Wallis. Fined $25.00 and costs.

June 8. J. P. Neuman, Manitowoc. Pleaded guilty before Justice J. P. Schoennan. Fined $25.00 and costs.

June 12. N. Weber, Hartford. Pleaded guilty before Justice C. W. Wallis. Fined $25.00 and costs.

June 16. Wm. Koepke, Oconomowoc. Pleaded guilty before B. L. Blanchard. Fined $25.00 and costs.

June 18. F. Reiche, Wausau. Pleaded guilty before Justice J. A. Jones. Fined $25.00 and costs.

June 20. Fred Braun, Juneau. Pleaded guilty before Justice John Clifford. Fined $25.00 and costs.

June 24. Anton Nelson, Madison. Pleaded guilty before municipal court. Fined $25.00 and costs.

For Unlawfully Selling Adulterated Cheese.

Mar. 25, 1903. N. Simon, Oshkosh. Pleaded guilty before Justice A. H. Goss. Fined $50.00 and costs $11.00.

REPORT OF CHEESE FACTORY INSPECTION.

May 13, 1903.—Name of proprietor, Frank A. Fenner; P. O. address, Sheboygan Falls, Wis.; maker's name, Frank A. Fenner; has not attended dairy school at Madison; no. of patrons,31; no. of cows, 317; pounds milk daily, 6,400; pounds cheese daily, 607; style of cheese made, long horns; payments made by pooling; last test of the milk, 3.2 to 3.8¢; milk in thecans, fair; factory was kept clean; tank 100 feet from factory; tank is cleaned twice a week.

May 15, 1903.—Name of factory, Kasson; name of proprietor, W. J. Meyer; P. O. address, Kasson; maker's name, W. J. Meyer; no. of patrons, 27; pounds milk daily, 3,700; pounds cheese daily, 330; style of cheese made, Daisies; Babcock test is used; test of milk, 3.1 to 4.2 per cent.; milk in cans, fair; factory was kept clean; whey tank is 40 feet from factory; tank is not often cleaned out.

May 16, 1903.—Name of proprietor, Fox Bros.; P. O. address, Greenleaf, R. F. D.; maker's name, Mat M. Leick; no. of patrons, 12; pounds milk daily, 2,200; pounds cheese daily, 210; style of cheese made, flats; Babcock test is used; payments are made on fat basis; test of the milk, 3.3 to 4.0 per cent.; whey tank is 40 feet from factory; tank is cleaned out three times a week.

May 18, 1903.—Name of proprietor, Albert Beilke; P. O. address, Potters; maker's name, Albert Beilke; no. of patrons, 28; pounnds milk daily, 5,400; pounds cheese daily, 512; style of cheese made, daisies; Babcock test is used; payments are made on fat basis; test of milk, 3.4 to 4.1 per cent.; milk in the cans, fair; factory was kept clean; whey tank is 15 feet from the factory; tank is cleaned out daily.

May 19, 1903.—Name of proprietor, H. A. Fredrick; P. O. address, Reedsville; maker's name, H. A. Fredrick; has attended dairy school at Madison; no. of patrons, 18; pounds milk daily, 3,000; pounds cheese daily, 293; style of cheese made, daisies and horns; Babcock test is used; payments are made on the fat basis; test of milk, 3.2 to 4.0 per cent.; milk in cans, fair; factory was not kept clean; whey tank is 12 feet from factory; tank is not cleaned out often.

May 22, 1903.—Name of proprietor, Gus. Sampe; P. O. address, Hilbert; maker's name, Gus. Sampe; no. of patrons, 21; pounnds milk daily, 3,500; pounds cheese daily, 330; style of cheese made, Y. A.; Babcock test is used; payments are made on the fat basis; test of milk, 3.1 to 4.0 per cent.; milk in cans, fair.

May 26, 1903.—Name of factory, Highland; name of proprietor, H. H. Graskamp; P. O. address, Van Dyne; maker's name, H. H. Graskamp; no. of patrons, 21; no. of cows, 182; pounds milk daily, 4,000; pounds cheese daily, 380; style of cheese made, twins; Babcock test is used; payments are made on the fat basis; milk in cans, fair; factory was kept clean. It was decided at the meeting that the proprietor get a new whey tank and clean it daily as a rule and to heat the whey frequently to 150°. The patrons agreed to pay 1½ cents instead of 1¼ as in the past.

May 28, 1903.—Name of factory, Mud Creek; name of proprietor, H. A. Olm & Son; P. O. address, Valders; maker's name, Otto Olm; no. of patrons, 26; no. of cows, 164; pounds milk daily, 3,700; pounds cheese daily, 360; style of cheese made, squares and Y. A.; the Babcock Test is used; average per cent. fat in milk, 3.75; payments made on fat basis; test of the milk, 3.5 to 4.2; milk in the cans fair; factory kept fairly clean; whey tank is close to factory; tank is cleaned weekly. The sanitation is not quite what it should be. Proprietors have acquired ownership recently and are improving as fast as they can find time.

June 1, 1903.—Name of proprietor, E. L. Kleist; P. O. address, Seymour; maker's name, E. L. Kleist; no. of patrons, 40; pounds milk daily, 8,300; pounds cheese daily, 800; style of cheese made, flats and daisies; the Babcock Test is used; average per cent. fat in milk, 3.72; payments made on fat basis; test of the milk, 3.1 to 4.4; milk in the cans was fair; the factory was kept clean; tank is cleaned out daily.

June 5.—Name of proprietor, H. Kuchenbecker; P. O. address, Seymour; maker's name, H. Kuchenbecker; no. of patrons, 30; pounds milk daily, 4,700; pounds cheese daily, 451; style of cheese made, daisies; the Babcock Test is used; average per cnt. fat in milk, 3.7; payments made on fat basis; test of the milk, 3.4 to 4.1; milk in the cans was good; the factory was kept clean; whey tank is 41 feet from factory; tank is cleaned out weekly.

June 6, 1903.—Name of factory, Cloverleaf; name of proprietor, A. A. Milhaus; P. O. address, Reedsville; maker's name, Otto Piepenburg; no. of patrons, 21; pounds milk daily, 4,170; pounds cheese daily, 405; style of cheese made, squares; the Babcock Test is used; payments are made on fat basis; test of the milk, 3.1 to 4.1; milk in the cans was fair; factory kept clean all but floor; whey tank is 30 feet from factory; tank is cleaned out occasionally. Very poor floor in make-room.

June 16, 1903.--Name of factory, Lawrence; name of proprietor, G. A. Lusha, Jr.; P. O. address, West Depere, R. F. D.; maker's name, G. A. Lusha, Jr.; no. of patrons, 62; no. of cows, 440; pounds milk daily, 10,100; pounds cheese daily, 985; style of cheese made, flats; the Babcock Test is used; average per cent. fat in milk, May, 3.75; payments are made on fat basis; test of the milk, 3.4 to 4.5; some of the milk in the cans was tainted; the factory was kept fairly clean; whey tank is 40 feet from factory; tank is cleaned out twice a week.

June 23, 1903.—Name of factory, Freedom; name of proprietor, Henry Nabbelfeldt; P. O. address, North Kaukauna, No. 16; maker's name, Henry Nabbelfeldt; no. of patrons, 77; pounds milk daily, 13,000; style of cheese made, flats and cheddars; the Babcock Test is used; payments are made pound for 10; milk in the cans was fair; the factory was kept clean; whey tank is 40 feet from factory. After my lecture on paying by test it was voted by a big majority to begin paying by test July 1st.

June 24, 1903.—Name of proprietor, Nick Schommer; P. O. address, Little Chute; maker's name, Henry Fassbender; no. of patrons, 40; pounds milk daily, 5,700; pounds cheese daily, 555; style of cheese made, flats; the Bacock Test is used; payments are made on fat basis; last test of the milk, 3.2 to 4.0; milk in the cans was fair; the factory was kept clean; whey tank is 30 feet from factory.

June 29, 1903.—Name of factory, West Bloomfield; name of proprietor, Herman Roehler; P. O. address, West Bloomfield; maker's name, George Quade; no. of patrons, 59; no. of cows, 542; pounds milk daily, 11,200; pounds cheese daily, 1,055; style of cheese made, flats; the Babcock Test is not often used; payments are made on per cwt.; no acid on hand to make test of the milk; some of the milk in the cans was tainted; factory was kept clean all but floor; whey tank is 40 feet from factory; tank is cleaned out once a year.

REPORT OF CREAMERY INSPECTION.

May 26, 1903.—Name of creamery, Fennimore Mutual; co-operative or proprietary, co-operative; location, Fennimore, Grant Co.; name of secretary, F. N. Kern; P. O. address, Fennimore; name of buttermaker, S. L. Benson; average pounds of milk daily, 10,000; method of sampling and testing, composite bi-monthly; general condition of building, good; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank is inside and is washed daily; sour milk tank is outside and is not washed; no screen doors and windows; cream vat was covered with screen. These people were testing the cream with a pipette; advised them to get a cream scale which they ordered at once.

May 27, 1903.—Name of creamery, Ideal; co-operative or proprietary, proprietary; location, 6 miles northwest of Fennimore; name of proprietors, Heim Bros.; P. O. address, Fennimore; name of buttermaker, G. W. Morrison; he attended Dairy School; milk in good condition when received; average pounds of milk daily, 6,500; method of sampling and testing, composite, bi-monthly; cream is ripened with commercial starter; Farrington acid test is used; general condition of building, good; drainage was not good, but could be made so; no bad smell in creamery; creamery was clean; skim milk tank is outside and is washed daily; sour milk tank is outside and is not washed; there were screen doors and windows; cream vat was covered with screen. Received a letter signed by four patrons requesting me to come and test the milk. At the evening meeting compared the tests taken by the buttermaker and myself and they seemed to be satisfied with the results.

May 29, 1903.—Name of creamery, Fennimore; co-operative or proprietary, proprietary; location, Fennimore, Grant Co.; name of proprietor, Heim Bros.; P. O. address, Fennimore; name of buttermaker, J. J. Peacock; he attended Dairy School; condition of milk when received, fair; no. of patrons for month of May, 69; average pounds of milk daily, 13,000; per cent. overrun, 18; method of sampling and testing, composite, bi-monthly; cream is ripened with commercial starter; no acid test is used; general condition of building, poor; drainage not good; no bad smell in creamery; creamery was clean; skim milk tank is outside and is washed daily; sour milk tank is outside and is not washed; there were no screen doors or windows; the cream vat was covered with cloth. At this creamery the cream for testing is weighed with a cream scale.

June 1, 1903.—Name of creamery, Boscobel; co-operative or proprietary, proprietary; location, Boscobel, Grant Co.; name of proprietor, Parker-Hildebrand Co.; P. O. address, Boscobel; name of buttermaker, F. A. Chandler; he attended Dairy School; condition of milk when received, good; no. of patrons for month of May, 30; average pounds of milk daily, 3,500; method of sampling and testing, composite, bi-monthly; cream is ripened without starter; acid test is used; general condition of building, good; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank is inside and is washed daily; sour milk tank is outside and is not washed; there were no screen doors or windows; cream vat was covered with cloth;.

June 2, 1903.—Name of creamery, Marion; co-operative or proprietary, proprietary; location, 3 miles south of Boscobel; name of proprietor, F. E. Remington; P. O. address, Boscobel, R. D.; name of buttermaker, F. E. Remington; he attended Dairy School; condition of milk when received, good; no. of patrons for month of May, 16; average pounds of milk daily, 3,000; method of sampling and testing, composite, bi-monthly; cream is ripened by holding it two days; acid test is not used; general condition of building, fair; drainage was good; no bad smell in creamery; cream was clean; skim milk tank is outside and is washed daily; cans for sour milk inside; there were no screen doors or windows; cream vat was covered with cloth. Instructed him how to use commercial starter and alkali test and he is going to get both.

June 3, 1903.—Name of creamery, Wauzeka; co-operative or proprietary, proprietary; location, Wauzeka, Crawford Co.; name of proprietor, Tri-State Creamery Co.; P. O. address, Chicago, Ill.; name of buttermake, M. Proctor; he attended Dairy School; condition of milk when received, good; no. of patrons for month of June, 30; average pounds of milk daily, 3,000; method of sampling and testing, composite, bi-monthly; cream is ripened with commercial starter; Mann's acid test is used; general condition of building, fair; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank is inside and is washed daily; sour milk tank is inside and is washed frequently; there were no screen doors or windows; cream vat was not covered. At this creamery the hand separator cream is being tested with a pipette. Advised them to get a scale.

June 4, 1903.—Name of creamery, Green River Valley Creamery; co-operative or proprietary, proprietary; location, 6 miles southeast of Woodman, Grant Co.; name of proprietor, Heim Bros. ;P. O. address, Fennimore; name of buttermaker, A. J. Baumgartner; he attended Dairy School; condition of milk when received, good; no. of patrons for month of June, 25; average pounds of milk daily, 4,500; method of sampling and testing, composite, bi-monthly; cream is ripened with commercial starter; Farrington acid test is used; general condition of building, fair; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank is outside and is washed daily; sour milk tank is outside and is not washed; there were no screen doors or windows; cream vat was covered with cloth.

June 5, 1903.—Name of creamery, Werley Mutual; co-operative or proprietary. co-operative; location, Werley, Grant Co.; name of secretary, A. Ketterer; P. O. address, Werley; name of buttermaker, E. L. Koch; he attended Dairy School; condition of milk when received, good; no. of patrons for month of June, 37; average pounds of milk daily, 6,500; method of sampling and testing, composite, bi-monthly; cream is ripened without starter; no acid test is used; general condition of building good; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank is outside and is washed daily; sour milk tank is outside and is washed daily; there were no screen doors or windows;; cream vat was covered with cheese cloth.

June 9, 1903.—Name of creamery, Wisconsin Creamery; co-operative or proprietary, co-operative; location, Sauk City, Sauk Co.; name of secretary, S. Babington; post office address, Sauk City, R. F. D.; name of buttermaker, H. S. Bowman; he has not attended Dairy School; no. of patrons for month of June, 184; average pounds of cream daily, 4,715; average test, 18.8; per cent. overrun, 17; method of sampling and testing, composite, bi-monthly; no starter used to ripen cream; no acid test is used; general condition of building, fair; drainage was good; no bad smell in creamery; creamery was clean; sour milk tank is outside in ground, not washed; there were no screen doors or windows; cream vat was not covered.

June 11, 1903.—Name of creamery, West Point Creamery; co-operative or proprietary, proprietary; location, 5 miles west of Pairie du Sac; name of proprietor, H. Drew; P. O. address, Prairie du Sac; name of buttermaker, A. Buelow; he has not attended Dairy School; no. of patrons for month of June, 84; average pounds of cream daily, 2,200; method of sampling and testing, composite, bi-monthly; no starter is used to ripen cream; no acid test is used; general condition of building, good; drainage was good; no bad smell in creamery; creamery was clean; sour milk tank is outside, washed frequently; there were screen doors and windows; cream vat was covered with screen. Advised the buttermaker as to the law on the subject of testing cream and urged the use of the scale at all times.

June 13, 1903.—Name of creamery, Cottage Grove; co-operative or proprietary, co-operative; location, Cottage Grove, Dane Co.; name of secretary, H. G. Clark; P. O. address, Cottage Grove; name of buttermaker, C. J. Heimdal; he has not attended Dairy School; condition of milk when received, fair; no. of patrons for month of June, 53; average pounds of milk daily, 8,000; method of sampling and testing, composite, bi-monthly; cream is ripened with whole milk starter; no acid test is used; general condition of building, good; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank is inside, washed frequently; sour milk tank is inside, washed once in a while; there were no screen doors or windows. This factory hasn't run long enough to get its first dividends out yet.

June 16, 1903.—Name of creamery, Stitzer; co-operative or proprietary, propri etary; location, Stitzer, Grant Co.; name of proprietor, Tri-State Creamery Co.; P. O. address, Chicago, Ill.; name of buttermaker, E. J. Stephens; he has not attended Dairy School; condition of milk when received, fair; no. of patrons for month of June, 19; average pounds of milk daily, 3,000; average test, 3.6; method of sampling and testing, composite, bi-monthly; general condition of building, fair; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank is outside, washed daily; there were no screen doors and windows; use cans for cream, no cream vat. Cream is shipped from here to Montfort.

June 17, 1903.—Name of creamery, Lancaster Creamery; co-operative or proprietary, proprietary; location, Lancaster, Grant Co.; name of proprietor, Baxter & Draper; P. O. address, Lancaster; name of buttermaker, D. W. Kilby; he has not attended Dairy School; condition of milk when received, fair; average pounds of milk daily, 6,000; method of sampling and testing, composite, bi-monthly; no starter used to ripen cream; no acid test is used; general condition of building, good; drainage was not good, use cess pood; no bad smell in creamery; creamery was clean; skim milk tank is outside, washed daily; sour milk tank is outside, washed frequently; there were no screen doors or windows; cream vat was covered with screen.

June 18, 1903.—Name of creamery, Montfort Creamery; co-operative or proprietary, proprietary; location, Montfort, Grant Co.; name of proprietor, Tri-State Creamery Co.; P. O. address, Chicago, Ill.; name of buttermaker, G. S. Wing; he has not attended Dairy School; condition of milk when received, good; no. of patrons for month of June, 200; average pounds of milk daily; 40,000; average test, 3.45; average yield, 4; per cent. overrun, 15; method of sampling and testinf, composite, bi-monthly; cream is ripened with commercial starter; Farrington acid test is used; general condition of building, good; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank is outside; sour milk tank is outside, not washed; no screen doors or windows; cream vat was not covered, in cream room. Very little milk is received here, most of the cream coming from skimming stations and hand separators.

June 19, 1903.—Name of creamery, High Point Creamery; co-operative or proprietary, co-operative; location, 3¼ miles north of Cobb, Grant Co.; name of secretary, J. Delaney; P. O. address, Cobb; name of buttermaker, W. G. Fillbach; he has not attended Dairy School; condition of milk when received, good; no. of patrons for month of June, 35; average pounds of milk daily, 9,500; average test, 3.52; average yield, 4.03; per cent. overrun, 14; method of sampling and testing, composite, bi-monthly; no starter is used to ripen cream; Farrington acid test is used; general condition of building, good; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank is inside, washed daily; use barrels in ground for sour milk, not washed; no screen doors or windows.

June 19, 1903.—Name of creamery, Cobb; co-operative or proprietary, proprietary; location, Cobb, Grant Co.; name of proprietor, E. C. Dodge Creamery Co.; P. O. address, Lake Mills, Wis.; name of buttermaker, H. Wallace; he has not attended Dairy School; condition of milk when received, good; no. of patrons for month of June, 36; average pounds of milk daily, 5,000; average test, 3.43; average yield, 3.84; per cent. overrun, 11; no starter is used to ripen cream; no acid test is used; general condition of building, fair; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank is inside, washed daily; sour milk tank is inside, washed frequently; there were no screen doors or windows; cream vat was not covered.

June 22, 1903.—Name of creamery, Belmont; co-operative or proprietary, proprietary; location, Belmont, Lafayette Co.; name of proprietor, Belmont Creamery Co.; P. O. address, Platteville; name of buttermaker, H. Meyer; he has not attended Dairy School; condition of milk when received, fair; no. of patrons for month of June, 84; average pounds of milk daily, 17,000; method of sampling and testing, composite, bi-monthly; cream is ripened with commercial starter; no acid test is used; general condition of building, good; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank is inside, washed daily; sour milk tank is outside, not washed; there were no screen doors or windows; cream vat was covered.

June 23, 1903.—Name of creamery, Platteville; co-operative or proprietary, proprietary; location, Platteville, Grant Co.; name of proprietor, F. Krog; post office address, Platteville; name of buttermaker, A. C. Schultz; he has not attended Dairy School; condition of milk when received, good; no. of patrons for month of June, 120; average pounds of milk daily, 20,000; method of sampling and testing, 3rd size pipette; cream is ripened with commercial starter; acid test is used; general condition of building, good; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank is inside, washed daily; sour milk tank is outside in ground, washed yearly; there were screen doors and windows; cream vat was covered; Mr. Krog has quite a number of creameries, and they are all in very fine shape.

June 24, 1903.—Name of creamery, Georgetown; co-operative or proprietary, co-operative; location, Georgetown, Grant Co.; name of secretary, J. P. Jones; P. O. address, Georgetown; name of buttermaker, L. E. Richards; he has attended Dairy School; condition of milk when received, fair; no. of patrons for month of June, 53; average pounds of milk daily, 10,500; average test, 3.37; average yield, 3.88; per cent. overrun, 15; method of sampling and testing, 3rd size pipette; cream is ripened with home made starter; Farrington acid test is used; general condition of building, good; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank is outsie, washed daily; have no sour milk tank; there were no screen doors or windows; cream vat was covered with screen.

June 26, 1903.—Name of creamery, Cuba City; co-operative or proprietary, proprietary; location, Cuba City, Grant Co.; name of secretary, H. D. Maloy; P. O. address, Cuba City; name of buttermaker, B. Burnaman; he has not attended Dairy School; condition of milk when received, good; no. of patrons for month of June, 27; average pounds of milk daily, 5,500; method of sampling and testing, composite, bi-monthly; general condition of building, fair; drainage was not good, use a cess pool; no bad smell in creamery; creamery was not clean; skim milk tank is inside, washed daily. Just changed hands; has been used as a skim milk station by the Tri-State Co. Business men have bought it with the idea of making a co-operative out of it.

June 30, 1903.—Name of creamery, Clark Co. Butter Co.; co-operative or proprietary, co-operative; location, 8 miles northwest of Neillsville; name of secretary, W. C. Glason; P. O. address, Neillsville, R. F. D.; name of buttermaker, W. H. Thoma; he has not attended Dairy School; condition of milk when received, fair; no. of patrons for month of June, 90; average pounds of milk daily, 15,000; method of sampling and testing, composite, ten days; no starter is used to ripen cream; no acid test used; general condition of building, good; drainage was not good; no bad smell in creamery; creamery was not clean; skim milk tank is outside, not washed; sour milk tank is outside in ground; there were no screen doors or windows; cream vat was covered with cloth. Buttermaker has had very little experience and allowed pump pipes, etc., to get dirty, and in consequence his butter suffered.

DAIRY AND FOOD LAWS OF WISCONSIN.

OF THE OFFICE AND DUTIES OF THE DAIRY AND FOOD COMMISSIONER.

1. Appointment; term; vacancy; supplies; assistants and report. [Section 1410, Statutes of 1898.] The dairy and food commissioner shall be appointed by the governor, by and with the advice and consent of the senate, for a term of two years from the date of his appointment and until his successor qualifies. Vacancies occurring from any cause shall be filled for the remainder of the term by the governor, with the advice and consent of the senate if it shall be in session, or if it is not in session, subject to approval at the session next held after such appointment is made, if the term for which it was made has not expired. Such commissioner may, with the advice and consent of the governor, appoint an assistant, who shall be an expert in dairy products, and a chemist who shall be a practical analytical chemist; he may also, with such advice and consent, appoint an agent for the inspection of milk dairies, factories and creameries, and to assist in the work of the dairy and food commission at such times and for such periods of time as may be required in the enforcement of the dairy and food laws. The compensation of such agent shall be three dollars per day for each day of actual service, and his expenses, to be audited by the secretary of state on the presentation of accounts approved by the dairy and food commissioner. Said commissioner may also appoint a stenographer and confidential clerk. The commissioner shall be furnished with a suitable office in the capitol, and with such supplies and printing as may be necessary. He shall as soon as practicable after the thirtieth day of September in each even-numbered year make a report to the governor and give therein an itemized statement of all expenses incurred by him, and of all fines collected, with such statistics and other information and suggestions as he may regard of value.

2. His powers and duties; legal assistance. [Section 1410*a*, Statutes of 1898.] It shall be the duty of the commissioner to enforce the laws regarding the production, manufacture and sale of dairy products, the adulteration of any article of food or drink or of any drug, and personally or by his assistants to inspect any milk, butter, cheese, lard, syrup, coffee, tea or other article of food or drink or drug made or offered for sale within this state which he may suspect or have reason to believe to be impure, unhealthful, adulterated or counterfeit, and to prosecute or cause to be prosecuted any person, firm or corporation engaged in the manufacture or sale of any adulterated or counterfeit article or articles of food or drink or drug in violation of law. The district attorney of the county in which a violation of any such law has occurred shall, when called upon by the commissioner or either of his assistants to do so, give all the aid he can to secure the execution of the law and shall prosecute cases arising under the provisions of this chapter or other provisions of these statutes relating to the adulteration of food, drinks and drugs and their sale. Such commissioner shall have power to appoint, with the approval of the governor, special counsel to prosecute or assist in the prosecution of any case arising under the provisions of these statutes imposing a penalty for adulterating dairy products or practicing deception or fraud in the manufacture and sale thereof. All fines collected in prosecutions begun or caused to be begun by the dairy and food commissioner or either of his assistants shall be paid into the state treasury.

3. Appointments; compensation; agents and experts. [Section 1, chapter 144, laws of 1903.] In addition to the provisions of section 1410 of the statutes of 1898, the dairy and food commissioner may, with the advice and consent of the governor, appoint an assistant chemist for the dairy and food commission, when needed, who shall be paid not to exceed fifty dollars per month, in the same manner as the analytical chemist is paid; he may also, with such advice and consent, appoint two agents for the inspection of foods, milk dairies, cheese factories and creameries, and to assist in the work of the dairy and food commission at such times and for such periods of time as may be required in the enforcement of the dairy and food laws. The compensation of each of said agents shall be three dollars per day for each day of actual service and his expenses to be audited by the secretary of state on the presentation of accounts approved by the dairy and food commissioner. In addition to the foregoing, the dairy and food commissioner may appoint one expert agent or more for the special inspection of cheese factories and

creameries and so far as may be deemed practicable their sources of supply, for such times and periods of time as may be deemed necessary, provided that no cost for compensation or traveling expenses of said expert agents shall thereby be incurred by the dairy and food commissioner.

4. Access to buildings; samples of food, etc.; stencils for cheese. [Section 1410*b*, Statutes of 1898.] The commissioner, his agent or assistant shall have free access to any barn or stable where any cow is kept or milked, or to any factory, building, dairy or premises where any dairy product is manufactured, handled or stored, when the milk from such cow or such product is to be sold or shipped, and may enforce such measures as are necessary to secure perfect cleanliness in and around the same and of any utensil used therein, and to prevent the sale of milk from cows diseased or fed upon unwholesome food. Either of them may enter any place or building in which there is reason to believe that any food, drink or drug is made, prepared, sold or offered for sale, and may open any package or receptacle of any kind containing, or which is supposed to contain, any article of food, drink or drug, and examine or analyze the contents thereof. Any such article or a sample thereof may be seized or taken for the purpose of having it analyzed; but if the person from whom it is taken shall so request, at the time of taking, the officer shall then and in the presence of such person securely seal up two samples of such article, one of which shall be for analysis under the direction of the commissioner, the other shall be delivered to the person from whom the sample or article was obtained. Said commissioner shall adopt a uniform stencil, bearing a suitable device or motto, a number and the words "Wisconsin full cream cheese" and a space for a number, and upon proper application therefor and under such regulations as to the custody and use thereof as he may prescribe, issue the same, with the proper number inserted, to the proprietor or manager of any cheese factory in this state; he shall enter in a book kept for that purpose the name, location and number of each factory using such stencil, no number being duplicated, and the name of the person thereat authorized to use the same.

See note to paragraph 5 for rulings on questions of evidence arising under a similar statute.

5. Submission of articles for analysis; evidence. [Section 1410*c*, Statutes of 1898.] The state board of health, medical officers of local boards of health, town and village boards or common councils may submit to the dairy and food commissioner samples of water or other drinks, of food or drugs for analysis,

and the same shall be examined and reports made of the analysis thereof to the body or officer submitting the same as soon as practicable; such reports shall fully specify the results of the analysis and be signed by such commissioner; they shall be accepted in all courts and places as prima facie evidence of the properties or condition of the articles analyzed.

Questions of evidence as to sealing and analysis. If there is contradictory evidence concerning the sufficiency of the seal of a sample, and the credibility of the witnesses for the prosecution is submitted to the jury, the defendant is not injured. If there is evidence that a few drops of carbolic acid were added to a sample of milk, and it is submitted to the jury as a question of fact whether this would change the character of the milk, make the analysis impossible or difficult, or in any way injuriously affect the sample for the purpose of analysis, the defendant has no cause of complaint: Commonwealth v. Spear, 143 Mass., 172.

It is observed of a statute similar to this and the preceding paragraph that it is intended to secure a fair examination and analysis by providing the defendant with the means of making an analysis of a portion of the same specimen which the state has analyzed. If the sample is not saved, or not saved in proper condition, he has no means of showing that his evidence, if any he has as to the quality of the milk, applies to that with reference to which the government witnesses have testified. It cannot be said that a portion reserved is sealed when wax is merely placed on the top of the cork and not extended over the mouth of the bottle, thus making it air-tight, if it is shown that the character of the milk will be affected by the air: Commonwealth v. Lockhardt, 144 Mass., 132.

Where the article analyzed has not been taken under the statute the competency of evidence is to be determined by the common law, and the testimony of any person who had sufficient skill to analyze it, and who has analyzed some which was proven to have been sold by the defendant, is admissible: Commonwealth v. Holt, 146 Mass., 38.

6. Farmers' institutes; expense of analyses. [Section 1410*d*, Statutes of 1898.] The governor may authorize the commissioner or his assistants, when not engaged in the performance of other official duties, to give such aid in farmers' institutes, dairy and farmers' conventions and the agricultural department of the state university as may be deemed advisable. For the necessary expenses of making the analyses contemplated in the foregoing sections the commissioner may incur an annual expense of not to exceed six hundred dollars, the accounts for which, when verified and itemized, and approved by the governor shall be audited by the secretary of state.

7. Obstructing performance of commissioner's duty. [Section 4607*h*, Statutes of 1898.] Any person who shall obstruct the dairy and food commissioner of this state or either of his assistants in the performance of their duty by refusing him entrance to any place he is authorized to enter or by refusing to deliver to him a sample of any article of food, drink or drug made,

sold, offered or exposed for sale by the person to whom request therefor is made, if the value thereof is tendered, shall be punished for the first offense by fine not exceeding twenty-five dollars, and for each subsequent offense by fine not exceeding five hundred dollars nor less than fifty dollars.

8. Biennial report; quarterly bulletins. [Section 1, chapter 131, laws of 1903.] In lieu of the twenty thousand copies of the biennial report of the dairy and food commissioner, as provided in section 335c, of the statutes of 1898, the number of copies of the said biennial report of the dairy and food commissioner shall be ten thousand, and the said dairy and food commissioner may also, with the consent of the governor, and in accordance with the laws regulating the printing and publication of public documents or bulletins, prepare, print and distribute to such persons as may be interested, or may apply therefor, a quarterly or semi-annual bulletin in suitable paper covers, containing results of inspections, results of analyses made by the chemist for the dairy and food commission, with popular explanations of the same and such other information as may come to him in his official capacity, relating to the adulteration of food, drug and drink products, and of dairy products, so far as he may deem the same of benefit and advantage to the public; also a brief summary of the work done during the quarter by the commissioner and his assistants in the enforcement of the dairy and food laws of the state, but not more than ten thousand copies of each such quarterly bulletin shall be printed.

SALE OF IMPURE MILK AND CREAM.

9. Penalty for. [Section 4607, Statutes of 1898.] Any person who shall sell or offer for sale, furnish or deliver, or have in possession with intent to sell or offer for sale or furnish or deliver to any creamery, cheese factory, corporation or person as pure, wholesome and unskimmed any unmerchantable, adulterated, impure or unwholesome milk shall be punished by a fine of not less than twenty-five dollars nor more than one hundred dollars.

Validity. A New York law (ch. 183, 1885, ch. 202, 1884,) providing that "no person or persons shall sell, supply or bring to be manufactured to any butter or cheese factory any milk diluted with water or any unclean, impure, unhealthy, adulterated or unwholesome milk," has been sustained as a valid exercise of legislative power: People v. West, 106 N. Y., 293.

Construction. The New York law does not make fraudulent intent a necessary ingredient of the offense and it would not be a reasonable construction of it to apply it to a dairyman who owns and conducts a butter or cheese factory for the manufacture of those articles from milk furnished exclusively by himself from his own cows. If the defendant is such a person, these facts are matter of defense, and their existence need not be negatived on the face of the indictment: People v. West, 106 N. Y., 293.

Under a Massachusetts law imposing a penalty for selling or offering to sell "adulterated milk, or milk to which any foreign substance has been added," it is immaterial whether the substance added is injurious or not. The indictment need not allege the quantity of such substance: Commonwealth v. Schaffner, 146 Mass., 512.

Under an act which prohibits the sale of milk which is not of a good, standard quality, the fact that the milk was delivered under a contract to furnish the person who bought it with the milk of one dairy is not a defense if that furnished was not of such quality. The contract would be held to contemplate milk which should be bought and sold: Commonwealth v. Holt, 146 Mass., 38.

Sale, what is. A hotel-keeper who sells milk to be drunk by his guests on his premises is liable if the milk so sold is not of the quality prescribed by the next section: Commonwealth v. Vieth, 155 Mass., 442.

The Massachusetts statute uses the language "whoever by himself, or by his servant or agent," etc. Held to include a hotel-keeper's servant who made a sale to a guest, though the master was not present and did not consent to or know of the particular sale: Commonwealth v. Vieth, 155 Mass., 442.

Milk bought by a guest and delivered to him as part of his meal is just as much a sale as if a specific price had been put upon it or it had been bought or paid for by itself: Commonwealth v. Warren, 160 Mass., 533.

Intent to sell, evidence of. Where one is charged with having in his possession, with intent to sell, milk which is not of a good, standard quality, the fact that he was upon a wagon which had his name painted on it, and that therein were cans of milk, and that a sample was given from one of them to one employed by the milk inspector for analysis, is competent evidence to go to the jury upon the question of his intent: Commonwealth v. Rowell, 146 Mass., 128.

10. Standard for pure; evidence. [Section 4607*a*, Statutes of 1898.] In all prosecutions under the preceding section or any other section of these statutes for the sale of unmerchantable, adulterated, impure or unwholesome milk any milk which shall be proven to contain less than three per centum of pure butterfat, when subjected to chemical analysis or other satisfactory test, or that has been diluted, or any part of the cream of which has been abstracted, or that, or any part of it, was drawn from a cow known to the defendant to have been at the time it was drawn within fifteen days before or less than four days after parturition, or which was so known to have any disease, ulcers or other running sores, then and in either such case the milk sold or offered for sale, furnished or delivered or had in possession with intent to sell it, offer it for sale or

furnish or deliver it as pure, wholesome and unskimmed shall be held or found to be unmerchantable, adulterated, impure or unwholesome, as the fact may be. Proof of adulteration or skimming may be made with such standard tests and lactometers as are used to determine the quality of milk or by chemical analysis.

Validity. The supreme court of New York has ruled that a statute which provides that milk which contains less than three percentum of fat shall be declared adulterated is unconstitutional. The ground upon which this was held was that the statute deprived the defendant of his liberty and property without due process of law, in that it barred him of the right upon the trial of the accusation against him to have the issue determined according to what might be the proof, and compelled him to submit to the statutory declaration thereof, without regard to the truth: People v. Cipperly, 37 Hun, 317. This decision was not unanimous, and on appeal was reversed by the court of appeals, without opinion, and on the grounds given by the dissenting judge of the supreme court: People v. Cipperly, 101 N. Y., 634.

A law of New Hampshire (ch. 42, laws of 1883) prohibited the sale of adulterated milk, or milk to which water or any foreign substance has been added, or, as pure, milk from which the cream or a part thereof has been removed. It authorized inspectors of milk to take samples and cause the same to be analyzed, and expressed that in all prosecutions under it if the milk is shown by analysis to contain more than eighty-seven per cent. of watery fluid, or less than thirteen per cent. of milk solids, it shall be deemed for the purposes of the statute to be adulterated. It was contended that the clause fixing the standard was unconstitutional. In answer the court said: "The statute tends to discourage the breeding of a certain class of cattle for the supply of the milk market. The difficulty of guarding against the adulteration of milk may have influenced the legislature in fixing a standard of richness. Practically it makes no difference whether milk is diluted after it is drawn from the cow, or whether it is made watery by giving her such food as will produce milk of an inferior quality, or whether the dilution regarded by the legislature as excessive, arises from the nature of a particular animal or a particular breed of cattle. The sale of such milk to unsuspecting consumers, for a price in excess of its value, is a fraud which the statute was designed to suppress. It is a valid exercise by the legislature of the police power for the prevention of fraud, and protection of the public health, and as such is constitutional:" State v. Campbell, 64 N. H., 402.

In Rhode Island a similar provision has been sustained against an objection to its validity on the ground that it virtually confined the testimony to the analysis of the samples taken by the inspector, which samples were destroyed in making the analysis, so that the testimony could not be controverted. The court was of opinion "that the testimony, though it may not always be practicable to controvert it directly by another analysis, can be controverted by evidence of collateral facts going to prove that the analysis is incorrect, and therefore that the act is not unconstitutional for the reason alleged:" State v. Groves, 1 Atl. Rep., 384. Shivers v. Newton, 45 N. J. L., 469, is to much the same effect.

Intent immaterial. The doing of the act condemned by the law constitutes the offense, if it is silent as to the knowledge or intent of the person who is charged with violating it. People v. Kibler, 106 N. Y., 321, 12 N. E. Rep., 795.

11. Milk of diseased cows, of cows kept in an unsanitary condition or fed on slops from a distillery or a vinegar factory. [Section 1, chapter 313, laws of 1899.] No person by himself or agent shall offer for sale, furnish or deliver, or have in possession with the intent to sell, or offer for sale, or furnish or deliver, milk or cream drawn from sick or diseased cow or cows kept in filthy and unsanitary condition, or cows fed on refuse or slops from distilleries or vinegar factories, unless such refuse or slop be mixed with other dry sanitary grain or food to a consistency of a thick mush.

12. Foreign substance not to be added to milk or cream not pasteurized. [Section 2, chapter 313, laws of 1899.] No person by himself or agent shall offer for sale or furnish or deliver or have in possession with the intent to sell, offer for sale, or furnish or deliver, any milk or cream having therein or containing in any amount any foreign substance or coloring matter or any chemical or preservative, whether for the purpose of increasing the quantity of milk or cream or for improving its appearance, or for preserving the condition of sweetness thereof, or for any purpose whatever, provided that nothing in this act shall be construed to prohibit the sale of pasteurized milk or cream, to which viscogen or sucrate of lime has been added solely for the purpose of restoring the viscosity, if the same be distinctly labeled in such manner as to advise the purchaser of its true character.

The foregoing section probably repeals in part sec. 4607*b*, Statutes of 1898, which reads as follows: "Any person who shall sell or offer for sale, consign or have in possession with intent to sell any milk, cream, butter, cheese or other dairy products, or who shall deliver to any creamery or cheese factory milk or cream to be manufactured into butter or cheese to which milk, cream, butter, cheese or other dairy products, boracic acid, salicylic acid or compounds containing them, or other antiseptics injurious to health have been added, shall be punished by fine not exceeding one hundred dollars nor less than twenty-five dollars."

13. Penalty for violating either of the two preceding sections. [Section 3, chapter 313, laws of 1899.] Any person violating any of the provisions of this act shall, upon conviction, be fined not less than twenty-five nor more than one hundred dollars for each and every offense.

UNCLEAN AND UNSANITARY MILK.

14. Unclean and unsanitary milk. [Section 1, chapter 67, laws of 1903.] Milk which shall be drawn from cows that are

kept in barns or stables which are not well lighted and ventilated or that are filthy from an accumulation of animal refuse or from any other cause, or from cows which are themselves in a filthy condition, and milk in or from cans or other utensils that are not kept in a clean and sanitary condition, or milk to which has been added any unclean or unsanitary foreign substance, is hereby declared to be unclean and unsanitary milk; provided, that nothing in this act shall be construed to prohibit the sale of pasteurized milk or cream to which viscogen or sucrate of lime has been added solely for the purpose of restoring the viscosity, if the same be distinctively labeled in such manner as to advise the purchaser of its true character.

15. Sale of. [Section 2, chapter 67, laws of 1903.] No person, firm or corporation shall knowingly offer or expose for sale, or sell, or deliver for sale or consumption, or to any creamery or cheese factory or milk condensing factory, or have in his possession with intent to sell any unclean or unsanitary milk.

16. Manufacture of food from. [Section 3, chapter 67, laws of 1903.] No person, firm or corporation shall knowingly manufacture for sale any article of food from unclean or unsanitary milk or from cream from the same.

17. Premises and utensils to be kept clean. [Section 4, chapter 67, laws of 1903.] All premises and utensils employed for the manufacture or sale or offering for sale of food products from milk or cream from the same which shall not be kept in clean and good sanitary condition are hereby declared to be unclean and unsanitary. Any milk dealer or any person, firm or corporation, furnishing milk or cream to such dealer, or the employee of such milk dealer, and any person, firm or coporation or the employee of such person, firm or corporation, who operates a creamery, cheese factory or milk condensing factory, or manufactures, re-works or packs butter for sale as a food product, shall maintain his premises and utensils in a clean and sanitary condition.

18. Cans, bottles or vessels to be washed. [Section 5, chapter 67, laws of 1903.] Any person, firm or corporation, who receives any milk or cream in cans, bottles or vessels, which has been transported over any railroad, or boat line, where such cans bottles or vessels are to be returned, shall cause the said

cans, bottles or vessels to be emptied before the said milk or cream contained therein shall become sour, and shall cause said cans, bottles and vessels to be immediately washed and thoroughly cleansed and aired.

19. Penalty for violating either of the preceding five sections. [Section 6, chapter 67, laws of 1903.] Whoever violates any provision of this act shall, upon conviction thereof, be punished by fine of not less than twenty-five dollars nor more than one hundred dollars for each and every offense, and, in default of payment thereof, shall be imprisoned in the county jail not less than thirty days nor more than sixty days.

SALE OF IMITATION CHEESE AND BUTTER.

20. Filled cheese; oleomargarine; penalties. [Section 4607*c* of the Statutes of 1898, as amended by chapter 151, laws of 1901.] Any person who shall by himself, his agent or servant manufacture, buy, sell, offer, ship, consign, expose or have in possession for sale, any cheese manufacured from or by the use of skim milk to which there has been added any fat which is foreign to such milk, or who shall by himself, his agent or servant manufacture, buy, sell, offer, ship, consign, expose or have in possession for sale, within this state, any skimmed-milk cheese or cheese manufactured from milk from which any of the fat originally contained therein has been removed, except such last mentioned cheese is ten inches in diameter and nine inches in height, or who shall, by himself, his agent or servant, render or manufacture, sell or solicit or accept orders for, ship, consign, offer or expose for sale or have in possession, with intent to sell, any article, product or compound made wholly or partly out of any fat, oil or oleaginous substance or compound thereof, not produced from unadulterated milk or cream from the same, and without the admixture or addition of any fat foreign to said milk or cream, which shall be in imitation of yellow butter produced from such milk or cream with or without coloring matter, shall for the first offense be punished by fine of not more than five hundred dollars, nor less than fifty dollars, and for each subsequent offense, by imprisonment in the county jail not to exceed sixty days nor less than ten days, or by fine of not more than five hundred dollars nor less than one hundred dollars, or by both such fine and imprisonment.

Nothing in this section shall be construed to prohibit the manufacture or sale of oleomargarine in a separate and distinct form and in such manner as will advise the consumer of its real character, and free from coloration or ingredient that causes it to look like butter.

Origin. So much of the foregoing as relates to butter is almost an exact copy of sec. 1, ch. 5, acts of Mass., 1891. The words "ship, consign," "and without the admixture or addition of any fat foreign to said milk or cream," "or solicit or accept orders for," found in the section, are not in the Massachusetts act.

Validity. A state may lawfully prohibit the manufacture out of oleaginous substances, or out of any of its compounds other than that produced from unadulterated milk or cream from such milk, of an article designed to take the place of butter or cheese produced from unadulterated milk: People v. Arensberg, 105 N. Y., 123, Commonwealth v. Huntley, 156 Mass., 236; State v. Marshall, 64 N. H., 549; State v. Addington, 77 Mo., 110; Butler v. Chambers, 36 Minn., 69; McAllister v. State, 72 Md., 390; Weideman v. State, 56 N. W. Rep., 688; State v. Horgan, 55 Minn., 183. It may also prohibit the manufacture or sale, or the offering for sale, of any imitation or adulterated butter or cheese, or the having of it in possession with intent to sell the same as an article of food: Powell v. Pennsylvania, 127 U. S., 678.

Though it may be severe to punish those who unintentionally sell the article prohibited, the legislature has power to so provide in order that the much larger number may be protected: State v. Newton, 14 Atl. Rep., 604.

Such an act is not void though the oleomargarine sold was brought into the state where the sale was made from another state and was sold in the original package: Commonwealth v. Huntley, 156 Mass., 236; State v. Newton, 14 Atl. Rep., 604. The power of the state to enact such a law is not affected by the legislation of congress imposing special taxes upon manufacturers and wholesale and retail dealers in oleomargarine: Plumley v. Massachusetts, 155 U. S., 461.

The ruling of the United States supreme court. The validity of the Massachusetts statute, so far as it was affected by the clause of the federal constitution giving congress power over commerce, came before the supreme court of the United States in Plumley v. Massachusetts, 155 U. S., 461. It was there held, by a majority of the judges (three dissenting), that the federal statute imposing special taxes upon manufacturers and wholesale and retail dealers in oleamargarine does not restrict the power of the states over the manufacture and sale thereof within their respective limits. "The taxes prescribed by that act were imposed for national purposes, and their imposition did not give authority to those who paid them to engage in the manufacture or sale of oleomargarine in any state which lawfully forbade such manufacture or sale, or to disregard any regulation which a state might lawfully prescribe in reference to that article. . . . Nor was the act of congress relating to oleomargarine intended as a regulation of commerce among the states. Its provisions do not have special application to the transfer of oleomargarine from one state of the union to another. They relieve the manufacturer or seller, if he conforms to the regulations prescribed by congress or by the commissioner of internal revenue, under the authority conferred upon him in that regard, from penalty or punishment so far as the general government is concerned,

but they do not interfere with the exercise by the states of any authority they possess of preventing deception or fraud in the sales of property within their respective limits."

The opinion of the court then proceeds to discuss the validity of the statute of Massachusetts as affected by the commerce clause of the federal constitution. "It will be observed," said Justice Harlan, "that the statute of Massachusetts which is alleged to be repugnant to" that clause "does not prohibit the manufacture or sale of all oleomargarine, but only such as is colored in imitation of yellow butter produced from pure unadulterated milk or cream of such milk. If free from coloration or ingredient that causes it to look like butter, the right to sell it 'in a separate and distinct form, and in such manner as will advise the consumer of its real character,' is neither restricted nor prohibited. It appears, in this case, that oleomargarine, in its natural condition, is of a 'light yellowish color,' and that the article sold by the accused was artificially colored 'in imitation of yellow butter.' Now the real object of coloring oleomargarine so as to make it look like genuine butter is that it may appear to be what it is not, and thus induce unwary purchasers, who do not closely scrutinize the label upon the package in which it is contained, to buy it as and for butter produced from unadulterated milk or cream from such milk. The suggestion that oleomargarine is artificially colored so as to render it more palatable and attractive can only mean that customers are deluded, by such coloration, into believing that they are getting genuine butter. If any one thinks that oleomargarine, not artificially colored so as to cause it to look like butter, is as palatable or wholesome for purposes of food as pure butter, he is, as already observed, at liberty under the statute of Massachusetts to manufacture it in that state or to sell it there in such manner as to inform the customer of its real character. He is only forbidden to practice, in such matters, a fraud upon the general public. The statute seeks to suppress false pretenses and to promote fair dealing in the sale of an article of food. It compels the sale of oleomargarine for what it really is, by preventing its sale for what it is not."

After reviewing many of the cases cited by the supreme court of the United States and relied upon by counsel for the defendant to support his contention that the statute was void, the opinion uses this language: "In none of the above cases is there to be found a suggestion or intimation that the constitution of the United States took from the states the power of preventing deception and fraud in the sale, within their respective limits, of articles in whatever state manufactured, or that that instrument secured to any one the privilege of committing a wrong against society. . . . If there be any subject over which it would seem that states ought to have plenary control, and the power to legislate in respect to which it ought not to be supposed was intended to be surrendered to the general government, it is the protection of the people against fraud and deception in the sale of food products. Such legislation may, indeed, indirectly or incidentally affect trade in such products transported from one state to another state. But that circumstance does not show that laws of the character alluded to are inconsistent with the power of congress to regulate commerce among the states. For, as said by this court in Sherlock v. Alling, 93 U. S., 99, 103: 'In conferring upon congress the regulation of commerce, it was never intended to cut the states off from legislating on all subjects relating to the health, life and safety of their citizens, though the legislation might indirectly affect the commerce of the country. Legislation, in a great variety of ways, may affect commerce and persons engaged in it without constituting a regulation of it within the meaning of the constitution. . . . And it may be said generally, that the legislation of a state, not directed against commerce or

any of its regulations, but relating to the rights, duties, and liabilities of citizens, and only indirectly and remotely affecting the operations of commerce, is of obligatory force upon citizens within its territorial jurisdiction, whether on land or water, or engaged in commerce, foreign or interstate, or in any other pursuits.

The opinion of the court then proceeds to point out that the case of Leisy v. Hardin, 135 U. S., 100, in which it was held that ardent spirits, distilled liquors, ale and beer, were subjects of exchange, barter and traffic, and, being articles of commerce, their sale while in the original packages in which they are carried from one state to another, could not, without the assent of congress, be forbidden by the state into which they were transported, was not conclusive of the case before it, because the articles sold in that case were what they purported to be. The opinion of the majority of the court on the Massachusetts statute concluded thus: "We are of opinion that it is within the power of a state to exclude from its markets any compound manufactured in another state, which has been artificially colored or adulterated so as to cause it to look like an article of food in general use, and the sale of which may, by reason of such coloration or adulteration, cheat the general public into purchasing that which they may not intend to buy. The Constitution of the United States does not secure to any one the privilege of defrauding the public. The deception against which the statute of Massachusetts is aimed is an offense against society; and the states are as competent to protect their people against such offenses or wrongs as they are to protect them against crimes or wrongs of more serious character. And this protection may be given without violating any right secured by the national constitution, and without infringing the authority of the general government. A state enactment forbidding the sale of deceitful imitations of articles of food in general use among the people does not abridge any privilege secured to citizens of the United States, nor, in any just sense, interfere with the freedom of commerce among the several states."

Expose for sale. Under the English statute regulating the sale of margarine it has been held that margarine kept for sale upon the counter of a shop, but behind a screen hiding it from the view of customers, is not exposed for sale (Crane v. Lawrence, 25 Queen's B. Div., 152), and that parcels of margarine placed upon a counter or shelf, in view of customers, are exposed for sale, although so wrapped in paper that the margarine cannot be seen. Wheat v. Brown, [1892] 1 Queen's B., 418.

In Massachusetts, from whence this section was borrowed (see first sentence of note), the court has said, in a case decided in 1893, that whenever goods are placed for convenient delivery upon expected sales they are put out and in one sense exposed for sale. But in our opinion, the words are not so used in the statute under consideration. The prohibited articles are designed and adapted to deceive the eye, and because their appearance is likely to induce those who see them to buy them as the genuine of butter of which they are in imitation, there is special reason for prohibiting their exposure to view. It was held that oleomargarine colored in imitation of yellow butter and kept for sale in a shop, so long as it was in a closed and covered refrigerator and could not be seen by customers, was not exposed for sale, notwithstanding there was a sign in the shop to the effect that oleomargarine was sold there. Commonwealth v. Byrnes, 158 Mass., 172.

Sale, what is. A restaurant keeper who furnishes oleomargarine to a customer, as part of a meal ordered by the latter, sells the same, notwithstanding the meal is paid for as a whole and the oleomargarine is not eaten, but carried away: Commonwealth v. Miller, 131 Pa., 118. See note to paragraph 21.

A foreign manufacturer who puts up oleomargarine in packages evi-

dently adapted for and intended to meet the requirements of an unlawful retail trade in another state, sending them to an agent there for sale to consumers, is not engaged in interstate commerce, but in an effort to carry on a forbidden business: Commonwealth v. Paul, 170 Pa., 284.

21. Notice of sale of imitation butter. [Section 4607*d*, Statutes of 1898.] Any person who shall sell or offer for sale to any person who asks, sends or inquires for butter, any oleomargarine, butterine or any similar substance made in imitation or semblance of pure butter, not made entirely from the milk of cows, with or without coloring matter, or who shall expose for sale oleomargarine, butterine, or any similar substance not marked and distinguished on the outside of each tub, package or parcel thereof by a placard with the word "oleomargarine," and not having also upon every open tub, package or parcel thereof a placard with the word "oleomargarine," such placard in each case to be printed in plain, uncondensed gothic letters not less than one inch long, and not containing any other words thereon, or who shall sell oleomargarine, butterine or any similar substance from any dwelling, store, office or public mart, without having conspicuously posted thereon the placard or sign, in letters not less than four inches in length, "oleomargarine sold here," or "butterine sold here," which placard or sign shall be approved by the dairy and food commissioner of this state, or who shall sell or deliver from any cart, wagon or other vehicle, upon the public streets or ways, oleomargarine, butterine or any similar substance, without having on the outside of both sides of said cart, wagon or other vehicle a placard, in uncondensed gothic letters not less than three inches in length, "licensed to sell oleomargarine," or who shall furnish or cause to be furnished in any hotel, boarding-house, restaurant or at any lunch counter, oleomargarine, butterine or any similar substance to any guest or patron thereof, without first notifying such guest or patron that the substance so furnished is not butter, shall be punished as provided in the last preceding section.

Validity. See note to paragraph 36. It is "within the undoubted power of the legislature to prohibit the sale of substances having the semblance of butter or cheese, but not wholly made from pure cream or milk, unless each package of such substance should have printed, stamped or marked thereon, in the manner prescribed by the statute, the name of each article used in, or entering into, the composition of such substance, and this power is possessed by the legislature over the sale of articles protected by letters patent as well as of those not protected:" Palmer v. State, 39 Ohio St. 237.

Expose for sale. See note to paragraph 20.

Notice. The provisions requiring notice are much like the corresponding clauses in ch. 412, Mass. acts, 1891, and have been held not to

be in conflict with the federal statute authorizing the sale of oleomargarine: Commonwealth v. Crane, 158 Mass., 218.

Notice given by printed signs and on the bills of fare satisfies the statute; it need not be given, either orally or in writing, to each guest on every occasion when he is furnished with oleomargarine or butterine in the stead of butter: Commonwealth v. Stewart, 159 Mass., 113.

Sale by agent. The Massachusetts statute in terms provides that the penalty imposed for the sale of oleomargarine which is not labeled as it prescribes shall be imposed whether the sale is made by the vendor or his agent. It is held not to be a defense to show that the sale by the agent of an unmarked package or quantity was made through inadvertence; a guilty intent is not an element in the offense: Commonwealth v. Gray, 150 Mass., 327.

Oleomargarine. The defendant in a prosecution for selling oleomargarine from a wagon without having the placard required cannot escape liability because that sold by him is usually known as oleomargarine, looks like pure butter and is not easily distinguished therefrom, and the other kind is dishonestly and designedly made in imitation of the best pure butter. The statute applies to all kinds: Commonwealth v. Crane, 162 Mass., 506.

22. Imitation butter and cheese in state institutions. [Section 4607*e*, Statutes of 1898.] Any person who shall knowingly or negligently buy or procure for use as food in any of the charitable, correctional or penal institutions of this state any butter or cheese not made wholly and directly from pure milk or cream, salt and harmless coloring matter, shall be fined not exceeding fifty dollars nor less than twenty-five dollars for the first offense, and for each subsequent offense shall be punished by imprisonment in the county jail not more than ninety days nor less than ten days, or by fine not exceeding one hundred dollars nor less than fifty dollars, or by both fine and imprisonment.

RENOVATED BUTTER.

23. How marked. [Section 1, chapter 76, laws of 1899.] No person by himself or agent shall sell, exchange or deliver, or expose for sale, or offer for sale renovated butter, or butter which has been melted and its rancidity removed or masked, and which has been regranulated, colored and prepared in imitation or in semblance of genuine creamery butter, unless the substance be marked distinctly on the outside of each and every package or parcel thereof by a label printed with the words "Renovated Butter," and without having on each and every open tub, package or parcel thereof a placard with the words

"Renovated Butter," such placard or brand in each case to be printed in plain, uncondensed gothic capitals not less than one inch long, and such placard shall contain no other words thereon.

24. Penalty. [Section 2, chapter 76, laws of 1899.] Any person who shall violate any of the provisions of this act [the preceding paragraph] shall be guilty of a misdemeanor, and upon conviction thereof, be fined not less than twenty-five nor more than one hundred dollars.

FRAUD IN LABELING CHEESE.

25. Penalty for. [Section 4438*g*, Statutes of 1898.] Any person who shall sell, offer for sale, ship or consign cheese labeled with a false brand or label as to the quality of the article, or shall use any stencil or label furnished by the dairy and food commissioner of this state and bearing the words "Wisconsin full cream cheese," otherwise than upon the bandage on the side of full cream cheese and upon the package containing the same, shall be punished by at fine of not more than fifty dollars nor less than twenty-five dollars.

CLEANLINESS OF DAIRY COWS AND UTENSILS.

26. Penalty for violating law. [Section 4607*j*, Statutes of 1898.] Any person owning or managing a dairy, the product of which is sold for family use, who shall feed his cows upon unwholesome food or keep them in unclean stables or handle the milk with unclean utensils shall be deemed guilty of a misdemeanor and upon conviction thereof be fined not less than twenty-five dollars nor more than one hundred dollars for the first offense, and not less than one hundred dollars nor more than two hundred dollars for each subsequent offense.

FRAUD IN DAIRY MANUFACTORIES.

27. Wrongful use of milk, etc.; fraudulent accounts. [Section 1494a, Statutes of 1898.] Any butter or cheese manufacturer who shall knowingly use or allow any other person to use for the benefit of himself or any other person than he who is entitled to the benefit thereof any milk or cream from the milk brought to him, without the consent of the owner thereof, or who shall refuse or neglect to keep or cause to be kept a correct account (which shall be open to the inspection of any person furnishing milk to him) of the amount of milk daily received, or of the number of pounds of butter, and the number and aggregate weight of cheese made by him each day, or of the number of cheese cut or otherwise disposed of and the weight of each, shall for each and every offense forfeit not less than twenty-five nor more than one hundred dollars, one-half of which shall be paid to the person upon whom any such fraud has been committed and who first made complaint thereof; the remainder shall be paid to the school fund.

28. Standard measures adopted for Babcock test. [Section 1, chapter 43, laws of 1903.] In the use of the Babcock test, the standard milk measures or pipettes shall have a capacity of 17.6 cubic centimeters, and the standard test tubes or bottles for milk shall have a capacity of 2 cubic centimeters for each 10 per cent., marked on the necks thereof; cream shall be tested by weight and the standard unit for testing shall be 18 grams, and it is hereby made a misdemeanor to use any other standards of milk or cream measure where milk or cream is purchased by or furnished to creameries or cheese factories and where the value of said milk or cream is determined by the per cent. of butter fat contained in the same, or wherever the value of milk or cream is determined by the per cent. of butter fat contained in the same by the Babcock test.

29. Sale of false measure a misdemeanor. [Section 2, chapter 43, laws of 1903.] Any manufacturer, merchant, dealer or agent in this state who shall offer for sale or sell a milk pipette or measure test tube or bottle which is not correctly marked or graduated as herein provided shall be guilty of a misdemeanor, and upon conviction thereof shall be punished as provided in section 4 of this act.

30. To under-read or over-read unlawful. [Section 3, chapter 43, laws of 1903.] It shall be unlawful for the owner, manager, agent or any employee of a cheese factory, creamery, or condensed milk factory, to manipulate or under-read or over-read the Babcock test or any other contrivance used for determining the quality or value of milk or cream or to make any false determination by said Babcock test or otherwise.

31. Penalty for violating either of the preceding sections. [Section 4, chapter 43, laws of 1903.] Whoever shall violate any of the provisions of this act shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than twenty-five dollars nor more than one hundred dollars for each and every offense, and in default of payment thereof shall be imprisoned in the county jail not less than thirty days nor more than sixty days.

ADULTERATION OF FOOD, DRUGS, LIQUORS, ETC.

32. Sale of unwholesome provisions. [Section 4599, Statutes of 1898.] Any person who shall knowingly sell any kind of diseased, corrupted or unwholesome provisions, whether for meat or drink, without making the same fully known to the buyer, shall be punished by imprisonment in the county jail not more than six months or by fine not exceeding one hundred dollars.

33. Sale of adulterated articles; definitions. [Section 4600, Statutes of 1898.] Any person who shall, by himself, his servant or agent or as the servant or agent of any other person, sell, exchange, deliver or have in his possession with intent to sell, exchange, offer for sale or exchange any drug or article of food which is adulterated, shall be fined not less than twenty-five dollars nor more than one hundred dollars or be imprisoned in the county jail not less than thirty days nor more than four months. The term "drug," as used in this section, shall include all medicines for internal or external use, antiseptics, disinfectants and cosmetics. The term "food," as used herein,

shall include all articles used for food or drink by man, whether simple, mixed or compound.

Origin. This and the next paragraph are modeled after paragraphs 8805–8807, R. S. of Ohio (6th ed.), first enacted in that state in 1884.

Agent. An agent who sells for a non-resident principal is within the statute: Meyer v. State, 54 Ohio St., 242.

Pleading; ignorance. It need not be alleged that the article sold was to be used as food. Ignorance of the adulteration is not a defense: State v. Kelly, 54 Ohio St., 166.

34. Adulteration, what is. [Section 4601, Statutes of 1898, as amended by chcapter 133, laws of 1903.] An article shall be deemed to be adulterated within the meaning of the preceding section:

1. In the case of drugs: First, if, when sold under or by a name recognized in the United States pharmacopœia, it differs from the standard of strength, quality or purity laid down in the latest current edition thereof; second, if when sold under or by a name not recognized in said pharmacopœia, but which is found in the pharmacopœia of some other country, the national formulary or other standard work on materia medica, it differs materially from the standard of strength, quality or purity laid down in the latest current edition of such work; third, if its strength, quality or purity falls below the professed standard under which it is sold.

2. In the case of food: First, if any substance or substances have been mixed with it, so as to lower or depreciate or injuriously affect its strength, quality or purity; second, if any inferior or cheaper substance or substances have been substituted wholly or in part for it; third, if any valuable or necessary ingredient has been wholly or in part abstracted from it; fourth, if it is an imitation of, or sold under the name of, another article; fifth, if it consists, wholly or in part, of a diseased, infected, decomposed, putrid, tainted or rotten animal or vegetable substance or article, whether manufactured or not; sixth, if it is colored, coated, polished or powdered, whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is; seventh, if it contains any added substance or ingredient which is poisonous, injurious, or deleterious to health, or any deleterious substance not a necessary ingredient in its manufacture;

Provided, THAT ARTICLES OF FOOD WHICH ARE LABELED, BRANDED OR TAGGED IN A MANNER SHOWING THEIR EXACT CHARACTER AND COMPOSITION AND APPROVED BY THE DAIRY AND

FOOD COMMISSIONER OF THE STATE, AND NOT CONTAINING ANY POISONOUS OR DELETERIOUS INGREDIENT, SHALL NOT BE DEEMED ADULTERATED IN THE CASE OF MIXTURES OR COMPOUNDS SOLD UNDER THEIR OWN DISTINCT NAMES OR UNDER COINED NAMES AND WHICH ARTICLES, IF SUBSTITUTES, ARE NOT IN IMITATION OF, OR SOLD UNDER, THE NAME OF ANY OTHER ARTICLE OF FOOD; AND

Provided further, THAT NOTHING IN THIS ACT SHALL BE CONSTRUED AS REQUIRING OR COMPELLING PROPRIETORS OR MANUFACTURERS OF PROPRIETARY FOODS TO DISCLOSE THEIR TRADE FORMULAS, EXCEPT SO FAR AS MAY BE NECESSARY TO SECURE FREEDOM FROM ADULTERATION, IMITATION OR FRAUD.

Imitation. The sale of liquid chicory and coffee as "liquid coffee" is within the statute: State v. Dreher, 55 Ohio St., 115.

Pharmacopœia. The reference is to the edition in use when statute enacted; a higher standard required by a later edition will not render a sale unlawful: State v. Emery, 55 Ohio St., 364.

Scope of statute. Whisky, being recognized as a drug in the pharmacopœia and its strength and purity being there given, is a drug within the meaning of the statute. The law is not limited in its application to the sale of drugs by druggists and pharmacists, nor to sales for medicinal or pharmaceutical use, but extends to all persons without regard to their vocations, and makes no distinctions on account of the use intended to be made of the article: State v. Hutchinson, 56 Ohio St., 82.

"A sale of beer, as food, containing salicylic acid, without a label on the package notifying the purchaser that it contains such an ingredient, is, when found to be poisonous or deleterious to health by its continuous or indiscriminate use as a food," an offense against the law: State v. Hutchinson, 55 Ohio St., 573.

Pleading. The proviso in the preceding paragraph applies to it and the next preceding one, and is not limited to any particular offense defined in them. Hence, a negative averment of the facts within the proviso need not be made in charging an offense; the facts may be proven under a plea of not guilty: State v. Hutchinson, 55 Ohio St., 573.

35. Canned Goods, labels on. [Section 4601a, Statutes of 1898.] Any person who shall, by himself, his servant or agent or as the servant or agent of any other person, pack, can or preserve fruits, vegetables or other articles of food, or sell, exchange, deliver or have in his possession with the intent to sell or exchange, or expose for offer for sale or exchange such canned articles, with the exception of goods brought from foreign countries, unless such articles be distinctly labeled with the grade or quality of the same, together with the name and address of the person, firm or corporation packing, canning or preserving the same, or the dealer who sells the same, shall be fined not less than twenty-five dollars nor more than one

hundred dollars, or be imprisoned in the county jail not less than thirty days nor more than four months.

Expose for sale. See note to paragraph 20.

36. Label on baking powder. [Section 4601b, Statutes of 1898.] Any person who shall, by himself, his servant or agent or by the servant or agent of any other person, make or manufacture baking powder or any mixture or compound intended for use as a baking powder, or sell, exchange or deliver, or have in his possession with the intent to sell or exchange, or expose or offer for sale or exchange such baking powder, or any mixture or compound intended for use as a baking powder, which contains alum in any form or shape, unless the presence of the same be distinctly shown by a label on the outside and face of which is printed with black ink in legible type, not smaller than brevier heavy gothic caps, the name and residence of the manufacturer and the words:

"THIS BAKING POWDER CONTAINS ALUM."

shall be punished as provided in the preceding section.

Validity. A statute which provides that no person shall sell any lard or any article intended for use as lard which contains any ingredient but the pure fat of healthy swine, under any label bearing the words "refined," "pure," "family," unless every package in which the article is sold is marked "compound lard," has been sustained as valid by the supreme court of Iowa: State v. Snow, 47 N. W. Rep., 777.

In Minnesota a statute which makes it a misdemeanor to manufacture for sale within that state, or to sell or offer to do so, baking powder containing alum, unless each package thereof is labeled, "This baking powder contains alum," has been sustained: Stoltz v. Thompson, 46 N. W. Rep., 410.

Expose for sale. See note to paragraph 20.

37. Label on poisonous medicine. [Section 4601*c*, Statutes of 1898.] Any person who shall, by himself, his servant or agent or as the servant or agent of any other person, sell, exchange, deliver, or have in his possession with intent to sell or exchane, or expose or offer for sale or exchange any medicine known as patent or proprietary, or of which the formula is kept secret by the manufacturer, which contains morphine, strychnine, cocaine or poisonous or narcotic alkaloid or drug, in any quantities which the state board of health shall deem harmful to the life or health of the public, unless the presence of the same be distinctly shown by a label upon the bottle or package and upon the outer wrapper thereof, shall be punished as provided in section 4601a.

38. Sale of imitation honey. [Section 4607*f*, Statutes of 1898.] Any person who shall sell or offer for sale honey or any imitation of honey which is adulterated with glucose or any other substance, without marking the package or parcel containing the same with the words "adulterated honey" in letters of not less than one-half inch length and proportionate breadth, and placing said words on the upper portion of the package or parcel containing such honey or imitation thereof, shall be punished by fine not exceeding one hundred dollars nor less than ten dollars, or by imprisonment in the county jail not more than six months nor less than ten days.

39. Sale of diseased apiary, honey therefrom or appliances used therein. [Section 4605*a*, Statutes of 1898.] Any owner of a diseased apiary, of honey made or taken from such an apiary or appliances taken from such an apiary who shall sell, barter or give away any such apiary, honey, appliances or bees from such apiary, expose other bees to the danger of contracting such disease or refuse to allow the inspector of apiaries to inspect such apiary, honey or appliances, shall be fined not less than fifty dollars nor more than one hundred dollars, or be imprisoned in the county jail not less than one month nor more than two months.

40. Sale, etc., of diseased meat; killing diseased animal, etc. [Section 4607*g*, Statutes of 1898.] Any person who shall sell or expose for sale, or give away for use as food, or can or pack for the purpose of transportation to and sale in any market or place any unwholesome, stale, emaciated, blown, tainted, putrid or measly meat, or the flesh of any diseased animal or of any animal not slaughtered for the purpose of food, knowing or having good reason to believe that such meat is as above described, or that such flesh is the flesh of a diseased animal or of an animal not slaughtered for such purpose, and any person or corporation owning or operating any slaughter-house or packing establishment in this state who shall receive for the purpose of killing, or kill, any diseased animal, or render the carcass of any animal that shall die by disease or in consequence of exposure, or that shall not have been slaughtered for food, knowing or having good reason to believe that such animal was diseased, or had died from disease or in consequence of exposure, or had not been slaughtered for food, such person shall be punished by imprisonment in the county jail not exceeding six months nor less than ten days, or by fine of not more than

one hundred dollars nor less than ten dollars, or both, and such corporation shall be fined not more than five hundred dollars nor less than ten dollars.

41. Standard for vinegar; sale of impure. [Section 4607*i*, Statutes of 1898.] Any person who manufactures for sale or offers or exposes for sale as cider vinegar any vinegar which is not the sole product of pure apple juice, known as apple cider, or vinegar not made exclusively of said cider, or vinegar into which foreign substances, drugs or acids have been introduced, or which contains any preparation of lead, copper, sulphuric acid, artificial coloring matter or other ingredient injurious to health, or who, by himself, his servant or agent, or as the servant or agent of any other person, shall sell, exchange, deliver or have in his custody or possession with intent so to do any adulterated vinegar, or who shall label, brand or sell as cider or apple vinegar any vinegar not the legitimate product of pure apple juice, or not made exclusively from apple cider, or any vinegar which shall not have an acidity equivalent to the presence of not less than four per centum by weight of absolute acetic acid, and in addition, in the case of cider vinegar, not less than two per centum by weight of cider vinegar solids upon full evaporation over boiling water at two hundred and twelve degrees fahrenheit, and any manufacturer of vinegar in this state, and any person who reduces or re-barrels vinegar therein or who handles vinegar in quantities of one barrel or more who shall fail to stencil or otherwise mark in black figures, at least one inch in length, on the head of each barrel or package of vinegar manufactured, reduced, re-barreled, bought or sold by him, the standard strength of the vinegar contained in such barrel or package, which shall be denoted by the per centum of acetic acid therein, or who shall falsely mark such barrel or package shall be punished by fine not exceeding one hundred dollars nor less than ten dollars.

Coloring matter. It is competent for the legislature to make it a misdemeanor to add artificial coloring matter to vinegar, regardless of whether the matter added is injurious to the health of the consumer or not: People v. Girard, 73 Hun (N. Y.), 457.

Where, in the manufacture of vinegar, low wine, formed from fermented grain, is, previously to its acetification, passed through roasted malt, not for the purpose of adding any substantial ingredient to the vinegar, but for the purpose of giving it color as well as aroma and flavor, and without such treatment the vinegar would be colorless, the vinegar so produced contains artificial coloring matter: Weller v. State, 53 Ohio St., 77.

Stamp the strength. See note to paragraph 36.

Validity. It is provided by a Michigan law (Public Acts of 1897, No. 71), "that no person shall manufacture for sale, offer or expose for sale, sell or deliver, or have in his possession with intent to sell or deliver, any vinegar not in compliance with the provisions of this act. No vinegar shall be sold as apple, orchard or cider vinegar which is not the legitimate product of pure apple juice, known as apple cider or vinegar not made exclusively of said apple cider or vinegar into which foreign substance, drugs or acids have been introduced, as may appear upon proper tests, and upon said tests shall contain not less than one and three-fourths per cent., by weight, of cider vinegar solids upon full evaporation at the temperature of boiling water." That "all vinegar made by fermentation and oxidation without the intervention of distillation, shall be branded 'fermented vinegar,' with the name of the fruit or substance from which the same is made. And all vinegar made wholly or in part from distilled liquor shall be branded 'distilled vinegar,' and all of such distilled vinegar shall be free from coloring matter added during or after distillation, and from color other than imparted to it by distillation. And all fermented vinegar not distilled shall contain not less than one and three-fourths per cent., by weight, upon full evaporation (at the temperature of boiling water) of solids, contained in the fruit or grain from which said vinegar is fermented, and said vinegar shall contain not less than two and a-half-tenths of one per cent. ash or mineral matter, the same being the product of the material from which said vinegar is manufactured. And all vinegar shall be made wholly from the fruit or grain from which it purports to be or is represented to be made, and shall contain no foreign substance, and shall contain not less than four per cent., by weight, of absolute acetic acid."

Under that law it was held, 1. That cider vinegar must contain the required quantity of ash or mineral matter as well as the stated per cent. of cider vinegar solids. 2. That the act could not be declared void as beyond the police power of the state because it imposed an unreasonable and arbitrary test, that being a question for the legislature. 3. That it was not for the jury or the court to determine from expert chemical testimony whether the act was unreasonable. 4. That a person convicted of violating the act was not deprived of property without due process of law because he could not obtain a sample of the vinegar in question for analysis, he not being so prevented by any person connected with the prosecution, and the law not requiring that the accused be furnished with a sample. 5. That the law was violated by the sale of vinegar below the standard, though the seller was not aware of the fact that the vinegar sold was of that character: People v. Worden Grocer Co., 77 N. W. Rep., 315.

42. Sale of impure ice; notice of place where ice was cut. [Section 4607*k*, Statutes of 1898.] No person or corporation shall sell or offer for sale or cause the same to be done within this state, for domestic, culinary or drinking purposes, any ice which contains mud, decayed vegetation, animal or foreign matter or malarial substance. Every person or corporation offering ice for sale shall have posted on his or its wagons, in a conspicuous manner, the name of the place from which the ice so offered for sale was cut, harvested or manufactured, and all persons or corporations dealing in or handling impure ice, to be used for cooling purposes only, shall have their wagon so labeled. Any person who or corporation which violates any of

the provisions of this section shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not less than fifty dollars or more than one hundred dollars.

43. Penalty for use of antiseptics, etc., in meat products. [Section 1, chapter 243, laws of 1903.] Any person who by himself or his agent shall make, manufacture, offer or expose for sale, take order for or sell any sausage or chopped meat compound containing any artificial coloring or dye, or chemical preservative or anticeptic, shall be deemed guilty of a misdemeanor, and upon conviction therefor shall be fined not less than seventy-five, nor more than two hundred dollars.

44. Coloring grain. [Section 4606, Statutes of 1898.] Any person who shall fumigate any barley, wheat or other grain by the use of surphur or other substance, or shall in any way or by the use of any chemical, material or process affect the color or healthfulness of such grain, or who shall sell or offer for sale any such grain knowing that the same has been so fumigated or the color or the healthfulness thereof so affected shall be punished by imprisonment in the county jail not more than one month or by fine not exceeding fifty dollars.

ADULTERATION OF FLAXSEED OR LINSEED OIL.

45. Pure, standard of. [Section 1, chapter 234, laws of 1899.] No person, firm, association or corporation shall manufacture for sale, offer or expose for sale in this state, any flaxseed or linseed oil for other than food purposes, unless the same answers a chemical test for purity recognized in the United States pharmacopœia, or any flaxseed or linseed oil as "boiled linseed oil" unless the same shall have been put, in its manufacture, to a temperature of two hundred and twenty-five degrees Fahrenheit.

46. Package containing oil to be stamped. [Section 2, chapter 234, laws of 1899.] No person, firm, association or corporation shall at any time, personally or by clerk or agent, sell, expose or offer for sale, dispose of or attempt to dispose of, any flaxseed or linseed oil unless so done under the true name of such oil, and unless each tank car, tank, barrel, keg, can or

other vessel containing such oil has, at such time, distinctly and durably painted, stamped, stenciled or marked thereon, in ordinary full-faced capital letters, not less than five line pica in size, the true name thereof in the words "pure linseed oil raw" or "pure linseed oil boiled," as the fact may be, and also the name and address of the manufacturer or dispenser thereof.

47. Adulteration and false stamping. [Section 3, chapter 234, laws of 1899.] No person, firm, association or corporation shall, at any time, personally or by any clerk or agent, adulterate any "pure linseed oil raw" or "pure linseed oil boiled," by adding thereto any other oil or substance or thing whatever, for the purpose or with the intent to sell, expose or offer for sale, such mixture or compound as the pure article, nor shall any person, firm, association or corporation, personally or by any clerk or agent, paint, stamp, stencil or mark any tank car, tank, barrel, keg, can or other vessel so as to falsely represent that it contains either "pure linseed oil raw" or "pure linseed oil boiled," nor so as to falsely represent the manufacturer thereof, nor permit or suffer any such false painting, stamping, stenciling or marking.

48. Penalty for violation of law. [Section 4, chapter 234, laws of 1899.] Any person, firm, association or corporation who shall violate any of the provisions of this act shall be punished by a fine of not less than fifty dollars, nor more than five hundred dollars, or by imprisonment in the county jail for not more than six months.

49. Duty of dairy and food commissioner. [Section 5, chapter 234, laws of 1899.] It is hereby made the duty of the dairy and food commissioner to see that the provisions of this act are enforced, and personally or by his assistants, to inspect any flaxseed or linseed oil, made or offered for sale in this state, and any tanks, barrels, kegs, cans or other vessels containing the same in this state which he may suspect or have reason to believe, fails to comply with the provisions of this act, and to prosecute or cause to be prosecuted, any person, firm, association or corporation, whom he may suspect or have reason to believe, has violated any of the provisions of this act, which prosecution shall be conducted by the district attorney in the same manner as is now provided in case of the violation of the laws relating to the sale of impure, adulterated or counterfeit articles of food, or drink, or drug.

REGULATION OF CONCENTRATED FEEDING STUFFS.

50. Prosecutions for violations; notice to manufacturers, etc. [Section 8, chapter 377, laws of 1901.] Whenever the director aforesaid becomes cognizant of the violation of any of the provisions of this act, he shall report such violations to the dairy and food commissioner, and said commissioner shall prosecute the party or parties thus reported; but it shall be the duty of said commissioner upon thus ascertaining any violation of sections two, three or four of this act, to forthwith notify the manufacturer, importer or dealer in writing and give him not less than thirty days thereafter in which to comply with the requirements of this act, but there shall be no prosecution in relation to the quality of any concentrated commercial feeding stuff if the same shall be found substantially equivalent to the certified statement named in section two of this act.

QUARTERLY BULLETIN

OF THE

DAIRY AND FOOD COMMISSION

OF THE

STATE OF WISCONSIN.

J. Q. EMERY, Commissioner,

MADISON, WIS.

By Authority of Law.

No. 2.

JULY 1—OCTOBER 1, 1903.

Organization of the Commission.

J. Q. EMERY ..... Commissioner

C. W. SWEETING ..... Assistant Commissioner

RICHARD FISCHER, Ph. D. ..... Chemist

N. J. FIELD ..... Dairy Inspector

A. T. TORGE ..... Stenographer and Confidential Clerk

F. M. BUZZELL ..... Food Inspector

BJORNE LOVDAL ..... Assistant Chemist

EXPERT AGENTS OF THE COMMISSION.

Paid by the Wisconsin Dairymen's Association.

JAMES G. MOORE, Albion ..... Creamery Inspector

E. L. ADERHOLD, Neenah ..... Cheese Factory Inspector

J. B. McCREADY, Menomonie ..... Cheese Factory and Creamery Inspector

FRED MARTY, Monroe ..... Swiss Cheese Factory Inspector

By sec. 10, ch. 30, laws of 1895, re-enacted in the revised statutes of 1898, the commissioner is authorized to appoint, with the approval of the governor, special counsel to prosecute or assist in prosecuting cases involving adulteration of dairy products.

INTRODUCTORY.

By Chapter 131, Laws of 1903, it is made the duty of the dairy and food commissioner to prepare, print and distribute not to exceed ten thousand semi-annual or quarterly bulletins, containing results of inspections, results of analyses made by the chemist for the commission and other information that may come to him in his official capacity, relating to the adulteration of food, drug and drink products, so far as he may deem the same of benefit to the public. This is the second bulletin issued under the provisions of the statute mentioned. Other quarterly bulletins are to be issued in successive order.

Dealers in food products of all kinds should note the reports of the analyses of various food products as published in these bulletins, and should refuse to purchase from manufacturers or jobbers food products that do not strictly conform to the laws of the state. These bulletins should materially aid all dealers who sincerely wish to comply with the pure food laws. The law does not permit the plea of ignorance of the statute to excuse the violator of law from the penalties imposed by statute. After a law has been published, knowledge of its provisions is presumed. These remarks are as true in their applications to the proprietors or operators of creameries and cheese factories and their patrons and to dealers in all dairy products as to dealers in other foods. The laws require that creameries and cheese factories must be kept in a clean and sanitary condition and that no unclean or unsanitary milk or cream from the same be manufactured into food products. The laws of the state hold creamerymen, cheese-factory-men, and other dealers in dairy products, responsible for the clean and sanitary character of the food products that they put upon the public's table.

Violators of law must expect prosecution. Wisconsin creameries and cheese factories must be kept in a clean and sanitary condition. The public must have the benefit of the enforcement of the laws designed to protect them from adulteration of food products to the fullest extent that can be given by the force employed in this commission. All dealers in food products of every description should be alert in informing themselves as to what the laws are, and should be aggressive in their efforts to comply with those laws and to escape being deluded by those who may seek to impose unlawful goods upon them.

CHEMIST'S ANALYSES.

BAKING POWDER.

1903.

July 7. Sample submitted by F. M. Buzzell, Inspector. Marked "Superb Baking Powder." Bought of N. Heineman, Wausau, manufacturers. Contains alum. Not lawfully labeled.

July 11. Sample submitted by N. J. Field, Inspector. Marked "Clark's Pure Cream of Phosphate Baking Powder." Bought of C. C. Clark, Milwaukee. Made by C. A. Clark, Milwaukee. Contains calcium acid phosphate, sodium bicarbonate and starch. Lawful.

July 11. Sample submitted by N. J. Field, Inspector. Marked "Egg Baking Powder." Bought of C. G. Neuman, Milwaukee. Made by Egg Baking Powder Co., New York. Contains calcium acid phosphate, sodium bicarbonate and starch. Lawful.

July 11. Sample submitted by N. J. Field, Inspector. Marked "Rumford Baking Powder." Bought of C. G. Neuman, Milwaukee. Made by Rumford Chemical Works, Providence, R. I. Contains calcium acid phosphate, sodium bicarbonate and starch. Lawful.

July 11. Sample submitted by N. J. Field, Inspector. Marked "White Star Baking Powder." Bought of Amsterdam Coffee Co., Milwaukee. An alum phosphate powder. Not lawfully labeled.

July 27. Sample submitted by F. M. Buzzell, Inspector. Marked "Atlas Baking Powder." Bought of Nesseth Grocery Co., Menomonie. Made by Atlas Baking Powder Co., Chicago. Reid, Murdock & Co., Chicago, jobbers. Contains soda-alum, calcium acid phosphate, sodium bicarbonate and starch. Not lawfully labeled.

August 7. Sample submitted by F. M. Buzzell, Inspector. Marked "Hunt's Perfect." Bought of F. J. Andrews Co., West Superior. Made by The Philip B. Hunt Co., Minneapolis, Minn. Contains calcium acid phosphate, sodium bicarbonate and starch. Lawful.

August 7. Sample submitted by F. M. Buzzell, Inspector. Marked "Grant's Bon Bon." Bought of E. Larson, West Superior. Made by J. C. Grant Chemical Co., E. St. Louis. An alum powder. Not lawfully labeled.

August 11. Sample submitted by F. M. Buzzell, Inspector. Bought of A. C. Dixon, Kilbourn. Made by E. Metzenauer, St. Louis. Marked "Vision." Contains alum. Not lawfully labeled.

August 12. Sample submitted by F. M. Buzzell, Inspector. Marked "Double Strength." Bought of Marachowsky, Mauston. Manufactured by Wabash Baking Powder Co., Wabash, Ind. An alum phosphate powder. Not lawfully labeled.

August 12. Sample submitted by F. M. Buzzell, Inspector. Marked "One Spoon." Bought of Schroeder Bros., Mauston. Manufactured by The Canby, Ach & Canby Co., Dayton, Ohio. An alum powder. Not lawfully labeled.

August 13. Sample submitted by F. M. Buzzell, Inspector. Marked "Spot Cash." Bought of M. Wolf, Tomah. Manufactured by J. C. Grant Chemical Co. Contains alum. Not lawfully labeled.

August 13. Sample submitted by N. J. Field, Inspector. Marked "Schmidt's Baking Powder." Bought of B. F. Leuben, Appleton. Made by Schmidt Bros., Manitowoc. Contains cream of tartar, sodium bicarbonate and starch. Lawful.

August 29. Sample submitted by F. M. Buzzell, Inspector. Marked "Gopher." Bought of J. T. Kelly, Spooner. Made by Griggs, Cooper & Co., St. Paul, Minn. Contains sodium bicarbonate, calcium acid phosphate and starch. Lawful.

Sept. 11. Sample submitted by F. M. Buzzell, Inspector. Bought of Torgeson & Steig, Whitehall. W. H. Gill & Co., Chicago, Jobbers. Brand "Strong." Contains alum. Not lawfully labeled.

Sept. 25. Sample of phosphate baking powder submitted by F. M. Buzzell, Inspector. Bought of Dan McKinzie, Cadott. Kenton Baking Powder Co., manufacturers, Cincinnati, O. Brand "Alderney." Contains alum, calcium acid phosphate, sodium bicarbonate and starch. Not lawfully labeled.

Sept. 30. Sample submitted by F. M. Buzzell, Inspector. Bought of Osseo Mercantile Co., Osseo. Franklin McVeigh & Co., Jobbers, Chicago, Ill. Brand "Klondike." Contains alum. Not lawfully labeled.

Sept. 30. Sample of Alum Baking Powder submitted by F. M. Buzzell, Inspector. Bought of Jacob Levy, Augusta. Brand "Levy's Best." An alum, phosphate powder. Not lawfully labeled.

Sept. 30. Sample submitted by N. J. Field, Inspector. The Cream Tartar Baking Powder Co., manufacturers, New York. Brand "Delicatesse." Contains alum. Labeled so as to deceive the ordinary purchaser.

Sept. 30. Samples submitted by N. J. Field, Inspector. Chapman & Smith Co., Chicago, manufacturers. Brand "The Original Chicago Yeast Powder." Three packages with different labels. Contain alum, acid calcium phosphate, sodium bicarbonate and starch. Not lawfully labeled.

CREAM OF TARTAR.

Aug. 12. Sample submitted by F. M. Buzzell, Inspector. Bought of W. Earle & Co., Tomah. Made by Sprague, Warner & Co., Chicago. Commercially pure.

Aug. 13. Sample submitted by F. M. Buzzell, Inspector. Bought of W. H. Reynolds, Tomah. Made by Sprague, Warner & Co., Chicago. Commercially pure.

Aug. 13. Sample submitted by F. M. Buzzell, Inspector. Marked "Gauntlet." Bought of King Bros., Tomah. Made by E. R. Durker & Sons, New York. Contains trace of starch. Commercially pure.

Aug. 27. Sample submitted by F. M. Buzzell, Inspector. Bought of H. Phillips, Amery, Wis. Foley Bros. & Kelly, Minneapolis, Minn., jobbers. Contains no cream of tartar. It is a mixture of calcium acid phosphate, calcium sulphate and starch. Not lawful.

Sept. 30. Sample submitted by F. M. Buzzell, Inspector. Bought of Osseo Mercantile Co., Osseo, Wis. Made by Ried, Murdock & Co., Chicago. Commercially pure.

LEMON EXTRACTS.

1903.

July 6. Sample submitted by F. M. Buzzell, Inspector. Marked "Pure Conc. Extract of Lemon, Fruit Brand." Bought of Hans Peterson, Eau Claire. Made by McCormick, Behnke Co., St. Paul.

	%
Lemon oil (by vol.)	5.2
Alcohol (by weight)	82.6
Total residue	0.12
Color	none

Passed.

July 6. Sample submitted by F. M. Buzzell, Inspector. Marked "Ideal Extract of Lemon." Bought of O. A. Anstad Co., Eau Claire. Made by Ideal Extract & Bottling Co., Eau Claire.

	%
Oil of lemon (by vol.)	4.0
Alcohol (by weight)	80.3
Total residue	0.7
Color	artificial

Deficient in oil.

July 6. Sample submitted by F. M. Buzzell, Inspector. Marked "Imperial Extract of Lemon." Bought of Theodore Moan, Chippewa Falls. Made by Chippewa Valley Mercantile Co., Chippewa Falls.

	%
Lemon oil (by vol.)	3.2
Alcohol (by weight)	70.8
Total residue	0.07
Color	artificial

Deficient in oil.

July 10. Sample submitted by F. M. Buzzell, Inspector. Marked "Robin Brand." Bought of Hanson, Olson Co., Rice Lake, Wis. Made by J. H. Allen & Co., St. Paul, Minn.

	%
Lemon oil	none
Alcohol (by weight)	28.3
Total residue	0.1
Color	artificial

Not a true "Extract of Lemon."

Aug. 7. Sample submitted by F. M. Buzzell, Inspector. Marked "Bengal Extract of Lemon." Bought of G. L. Pettingill Co., Iron River, Wis. Made by Griggs, Cooper & Co., St. Paul.

	%
Lemon oil	none
Alcohol (by weight)	34.1
Total residue	0.04
Color	artificial

Not a true "Extract of Lemon."

Aug. 11. Sample submitted by F. M. Buzzell, Inspector. Marked "Argyle." Bought of B. Spero, Portage. Made by Crescent Chemical Works, Chicago.

	%
Lemon oil	none
Alcohol (by wt.)	15.8
Total residue	0.07
Color	artificial

Not a true "Extract of Lemon."

Aug. 12. Sample submitted by F. M. Buzzell, Inspector. Marked "A." Bought of I. L. Alsbacher, Mauston, Wis. Made by J. P. Deiter & Co., Chicago.

	%
Lemon oil	trace
Alcohol (by wt.)	42.4
Total residue	0.05
Color	artificial

Not a true "Extract of Lemon."

Aug. 20. Sample "Compound" Extract submitted by F. M. Buzzell, Inspector. Marked "Fruit Brand." Bought of Farmers Store Co., Chippewa Falls. Made by McCormick, Behnke & Co., St. Paul, Minn.

	%
Lemon oil	none
Alcohol (by wt.)	35.8
Total solids	0.06
Color	artificial

Not lawful.

Aug. 26. Sample submitted by F. M. Buzzell, Inspector. Marked "Princess." Bought of John Hogan, Turtle Lake. Made by Green, DeLaittre Co., Minneapolis.

	%
Alcohol (by wt.)	30.3
Total solids	0.07
Lemon oil	none
Color	artificial

Not a true "Extract of Lemon."

Aug. 26. Sample submitted by F. M. Buzzell, Inspector. Marked "Gold Seal." Bought of M. H. McKee, Barron. Made by Anthony Kelly & Co., Minneapolis.

	%
Alcohol (by wt.)	34.0
Total solids	0.07
Lemon oil	none
Color	none

Not a true "Extract of Lemon."

Aug. 27. Sample submitted by F. M. Buzzell, Inspector. Marked "Gopher." Bought of H. Phillips, Amery. Foley Bros. & Kelly, jobbers, St. Paul.

	%
Alcohol (by wt.)	20.5
Total solids	0.05
Oil of lemon	none
Color	artificial

Not a true "Extract of Lemon."

Aug. 27. Sample submitted by F. M. Buzzell, Inspector. Marked "Crescent." Bought of John G. Bannan, Amery. Made by Minnesota Mercantile Co., Stillwater, Minn.

	%
Alcohol (by wt.)	36.0
Total solids	0.50
Oil of lemon	trace
Color	artificial

Not a true "Extract of Lemon."

Aug. 29. Sample submitted by F. M. Buzzell, Inspector. Marked "S." Bought of Spooner Lumber & Mercantile Co., Spooner. Made by McCormick, Behnke & Co., St. Paul.

	%
Alcohol (by wt.)	39.1
Total residue	0.05
Lemon oil	trace
Color	artificial

Not a true "Extract of Lemon."

Sept. 2. Sample submitted by F. M. Buzzell, Inspector. Marked "Imperial." Bought of Chippewa Valley Mercantile Co., Chippewa Falls, manufacturers. Claimed to be a new formula.

	%
Alcohol (by wt.)	70.6
Total residue	0.08
Lemon oil (by vol.)	3.00
Color	artificial

Deficient in lemon oil.

Sept. 11. Sample submitted by F. M. Buzzell, Inspector. Marked "Martha Washington." Bought of Adams & Taylor, Whitehall. Made by Joannes Bros. & Co., Green Bay.

	%
Alcohol (by wt.)	32.1
Lemon oil	0.2
Total residue	0.1
Color	artificial

Not a true "Extract of Lemon."

Sept. 12. Sample submitted by F. M. Buzzell, Inspector. Bought of Nolop & Stemble, Alma Center. Made by Joannes Bros., Green Bay. Marked "Martha Washington."

	%
Alcohol (by wt.)	73.2
Lemon oil	3.9
Total residue	0.45
Color	lemon peel

Deficient in oil.

Sept. 12. Sample submitted by F. M. Buzzell, Inspector. Marked "Seal." Bought of J. S. Holmbeck & Sons, Alma Center. Made by Kenwood Preserving Co., Chicago.

	%
Total residue	0.18
Alcohol (by wt.)	28.0
Lemon oil	trace
Color	none

Not a true "Extract of Lemon."

Sept. 25. Sample submitted by F. M. Buzzell, Inspector. Marked "Pure." Bought of S. E. Keyser, Cadott, Wis. Made by Columbia Chemical Co., St. Paul, Minn.

	%
Total residue	0.08
Alcohol (by wt.)	28.0
Lemon oil	none
Color	artificial

Not a true "Extract of Lemon."

Sept. 25. Sample submitted by F. M. Buzzell, Inspector. Marked "Wares." Bought of S. E. Keyser, Cadott, Wis. Made by Wares Coffee Co., Dayton, O.

	%
Total residue	0.09
Alcohol (by wt.)	28.0
Lemon oil	none
Color	artificial

Not a true "Extract of Lemon."

Sept. 30. Sample submitted by P. M. Parker Mercantile Co., Rice Lake. Marked "Ideal." Ideal Extract & Bottling Co., Eau Claire, manufacturers.

	%
Alcohol (by wt.)	23.1
Total residue	0.07
Lemon oil	none
Color	artificial

Not a true "Extract of Lemon."

VANILLA EXTRACTS.

1903.

July 7. Sample submitted by F. M. Buzzell, Inspector. Marked "Pure Extract of Vanilla, Fruit Brand." Bought of Farmers' Produce Co., Chippewa Falls. Made by McCormick, Behnke Co., St. Paul. Paul.

	%
Vanillin	0.064
Coumarin	0.053
Color	caramel
Resin	none

An artificial preparation of vanillin and coumarin, colored with caramel. Not lawful.

Aug. 8. Sample submitted by F. M. Buzzell, Inspector. Marked "Extract of Vandella."

	%
Vanillin	0.148
Coumarin	0.066
Resin	none
Color	caramel

An artificial preparation of vanillin and coumarin, colored with caramel. Not an "Extract." Not lawful.

Sept. 18. Sample of Vanilla and Tonka submitted by P. M. Parker Mercantile Co., Rice Lake. Marked "Badger." Ideal Extract & Bottling Co., Eau Claire, manufacturers.

	%
Vanillin	0.108
Coumarin	0.064
Resin	none
Color	caramel

An artificial extract of vanillin and coumarin, colored with caramel. Unlawful under above name.

VINEGARS.

July 6. Sample submitted by F. M. Buzzell, Inspector. Bought of A. Nelson & Co., Eau Claire. Made by Benton Harbor Cider Co., Benton Harbor, Mich. Sold as cider vinegar.

Sp. gr.	1.022
	%
Total acidity (cal. as acetic acid)	4.93
Total solids	4.85
Ash	0.10
Malic acid	present

Not a true cider vinegar.

July 6. Sample submitted by F. M. Buzzell, Inspector. Bought of Kauer & Bachman, Eau Claire. Made by American Vinegar & Pickling Co., Milwaukee. Sold as cider vinegar.

Sp. gr.	1.013
	%
Total acidity (cal. as acetic acid)	4.06
Total solids	3.05
Ash	0.32
Malic acid	present

Passed.

July 6. Sample submitted by F. M. Buzzell, Inspector. Bought of A. E. Fritz, Durand. Made by Burlington Vinegar Works, Burlington, Ia. Sold as cider vinegar.

Sp. gr.	1.011
	%
Total acidity (cal. as acetic acid)	5.00
Total solids	2.58
Ash	0.29
Malic acid	present

Passed.

July 10. Sample submitted by F. M. Buzzell, Inspector. Bought of Streveler & Meidl, Marshfield. Made by A. M. Richter, Manitowoc. Sold as spirit vinegar.

Sp. gr.	1.003
	%
Total acidity (cal. as acetic acid)	4.29
Total solids	0.12
Ash	0.02

Passed.

July 10. Sample submitted by F. M. Buzzell, Inspector. Bought of H. Lemke, Jr., Wausau. Made by Petrie Fruit Co., Rochester, N. Y. Sold as cider vinegar.

Sp. gr.	1.014
	%
T. A. (cal. as acetic acid)	4.18
Total solids	2.6
Ash	0.19
Malic acid	present

Passed.

July 10. Sample submitted by F. M. Buzzell, Inspector. Bought of Max Boehm, Wausau. Made by Milwaukee Vinegar Co., Milwaukee. Sold as cider vinegar.

Sp. gr.	1.013
	%
T. A. (cal. as acetic acid)	4.1
Total solids	2.6
Ash	0.2
Malic acid	present

Passed.

July 13. Sample submitted by N. J. Field, Inspector. Bought of Louis Steiner, Milwaukee. Made by Squire Dingee, Benton Harbor, Mich. Sold as cider vinegar.

Sp. gr.	1.015
	%
T. A. (cal. as acetic acid)	4.58
Total solids	2.6
Ash	0.26
Malic acid	present

Passed.

July 13. Sample submitted by N. J. Field, Inspector. Bought of C. G. Neuman, Milwaukee. Brand: "Van Houten's." Sold as cider vinegar.

Sp. gr.	1.013
	%
T. A. (cal. as acetic acid)	5.1
Total solids	1.9
Ash	0.2
Malic acid	present

Slightly deficient in cider vinegar solids.

July 13. Sample submitted by N. J. Field, Inspector. Bought of Fr. L. Sieberlich, Milwaukee. Paul & Elfers, jobbers. Sold as cider vinegar. Contained a large amount of sediment. Odor and taste bad.

Sp. gr.	1.013
	%
Total acidity (cal. as acetic acid)	3.9
Total solids	2.2
Ash	0.28
Malic acid	present

Deficient in acetic acid; also in bad condition.

July 13. Sample submitted by N. J. Field, Inspector. Bought of D. C. Adams, Milwaukee. Brand: "Rediske Vinegar." Sold as cider vinegar.

Sp. gr.	1.012
	%
Total acidity (cal. as acetic acid)	4.0
Total solids	1.8
Ash	0.3
Malic acid	present

Deficient in cider vinegar solids.

July 13. Sample submitted by N. J. Field, Inspector. Bought of Economical Grocery Co., Milwaukee. Made by Milwaukee Vinegar Co. Sold as cider vinegar.

Sp. gr.	1.0135
	%
Total acidity (cal. as acetic acid)	
Total solids	4.4
Ash	2.4
Malic acid	0.10
	small amount

Not a pure cider vinegar.

July 20. Sample submitted by G. E. Sanger. Barrett & Barrett, jobbers, Chicago.

Sp. gr.	1.017
	%
Total acidity (cal. as acetic acid)	
Total solids	4.33
Ash	3.1
Malic acid	0.31
	large amount

Passed.

July 27. Sample submitted by F. M. Buzzell, Inspector. Received from H. L. Singlman, Hudson. Sprague, Warner & Co., jobbers, Chicago. Sold as cider vinegar.

Sp. gr.	1.012
	%
Total acidity (cal. as acetic acid)	
Total solids	4.38
Malic acid	1.9
	present

Slightly deficient in cider vinegar solids.

July 27. Sample submitted by F. M. Buzzell, Inspector. Bought of F. M. Hanzlik, Chippewa Falls. Made by F. C. Johnson, Kiswaukee, Ill. Sold as cider vinegar.

Sp. gr.	1.009
	%
Total acidity (cal. as acetic acid)	
Total solids	4.1
Ash	1.5
Malic acid	0.26
	present

Deficient in cider vinegar solids.

Aug. 18. Sample submitted by Knauf & Tesch, Chilton.

Sp. gr.	1.009
	%
Total acidity (cal. as acetic acid)	
Total solids	4.00
Ash	2.00
Malic acid	0.37
	present

Passed

Aug. 7. Sample submitted by S. V. Reynolds, Ashland. Mathews Bros., jobbers, Ashland. Brand: "Duffy's Pure Cider Vinegar."

Sp. gr.	1.015
	%
Total acidity (cal. as acetic acid)	4.7
Total solids	2.1
Ash	0.25
Malic acid	present

Passed.

Aug. 10. Sample submitted by N. J. Field, Inspector. Marked "Pure Cider Vinegar." Bought of McLeod & Froonu Grocery Co., Milwaukee. Milwaukee Vinegar Co., Milwaukee, manufacturers. Sold as cider vinegar.

Sp. gr.	1.017
	%
Total acidity (cal. as acetic acid)	7.31
Total solids	1.8
Ash	0.07
Malic acid	slight amount

Ash gives strong sodium flame. This is not a pure cider vinegar.

Aug. 10. Sample submitted by N. J. Field, Inspector. Marked "Pure Cider Vinegar." Bought of Carles Harms & Son, Milwaukee. Made by Milwaukee Vinegar Co. Sold as cider vinegar.

Sp. gr.	1.016
	%
Total acidity (cal. as acetic acid)	4.4
Total solids	2.7
Ash	0.12
Malic acid	slight amount

Ash gives strong sodium flame. This is not a pure cider vinegar.

Aug. 22. Sample submitted by Nejedlo Bros., Green Bay. Said to have been bought of Carpenter, Cook Co., Menomonie, Mich.

Sp. gr.	1.013
	%
Total acidity (cal. as acetic acid)	4.14
Total solids	2.2
Ash	0.34
Malic acid	large amount

Passed.

Aug. 28. Sample of apple vinegar submitted by F. M. Buzzell, Inspector. Marked "Alpine." Bought of G. Genger, Osceola. Made by M. A. Gedney, Minnesota Mercantile Co., Stillwater, Minn.

Sp. gr.	1.013
	%
Total solids	2.3
Total acidity (cal. as acetic acid)	4.74
Ash	0.33
Malic acid	present

Passed.

Sept. 19. Sample submitted by J. Martin, Beloit. Made by New York Cider Vinegar Co., St. Louis.

Sp. gr.	1.005
	%
Total acidity (cal. as acetic acid)	4.00
Total solids	0.24
Ash	0.03
Malic acid	none
Color	artificial

Not a cider vinegar.

Sept. 25. Sample submitted by F. M. Buzzell, Inspector. Marked "Pure Apple Vinegar." Bought of Lund & Lund, Boyd. Made by American Vinegar & Pickling Co., Milwaukee.

Sp. gr.	1.015
	%
Total solids	2.25
Ash	0.30
Total acidity (cal. as acetic acid)	4.1
Malic acid	large amount

Passed.

Sept. 29. Sample submitted by F. M. Buzzell, Inspector. Marked "Pure Cider Vinegar." Bought of John Carson, Osseo. Made by Lewis & VanHolton, Milwaukee.

Sp. gr.	1.016
	%
Total solids	2.6
Ash	0.07
Total acidity (cal. as acetic acid)	4.00
Malic acid	trace

Not a pure cider vinegar.

Sept. 28. Sample of distilled vinegar submitted by F. M. Buzzell, Inspector. Marked "Brown." Bought of J. M. Revord, Fairchild. Made by Charles E. Meyers & Co., Freeport, Ill.

Sp. gr.	1.010
	%
Total solids	0.9
Ash	0.07
Total acidity (cal. as acetic acid)	4.40

Passed.

Sept. 30. Sample of malt vinegar submitted by Geo. M. Harris, Union Center. Made by Milwaukee Vinegar Co., Milwaukee.

Sp. gr.	1.006
	%
Total acidity (cal. as acetic acid)	5.90
Total solids	0.30
Ash	0.03

Not a pure malt vinegar.

JELLIES.

July 8. Sample submitted by Chicago Concentrating Co., Chicago. Labeled "Imitation Strawberry Jelly."

Artificially colored, not lawful.

June 30. Sample submitted by F. M. Buzzell, Inspector. Bought of Lind & Co., Eau Claire. Made by Griggs, Cooper & Co., St. Paul, Labeled: "Currant Jelly."

N. reading of a 20% solution.

Before inversion	16.4°
After inversion	16.7°
Starch	present

Artificial glucose jelly. Not lawful.

HONEY.

Aug. 13. Sample submitted by F. M. Buzzell, Inspector. Marked "Wild Flower." Bought of J. J. Mason, Sparta. Sprague, Warner & Co., jobbers, Chicago.

	%
Total solids	70.0
Water	30.0
Ash	0.15
Sucrose (by polarization)	1.1

Passed.

Aug. 26. Sample submitted by F. M. Buzzell, Inspector. Marked "Ideal." Bought of John Hagan, Turtle Lake. Made by Ideal Extract & Bottling Co., Stillwater, Minn.

	%
Total solids	79.1
Water	20.9
Ash	0.15
Sucrose (by polarization)	26.4

Color, odor and taste of molasses; also gives qualitative tests for molasses.

Adulterated. Not lawful.

Aug. 31. Sample submitted by Wm. Steinmeyer Co., Milwaukee.

	%
Total solids	
Water	75.5
Ash	24.5
Sucrose (by polarization)	0.3
	7.9

Passed.

BEES WAX.

July 14. Sample of yellow bees' wax submitted by L. H. Baldwin. Said to have been bought of Aug. Utech, Random Lake.

Sp. gr.	
M. P.	0.9623
Refraction (Zeiss' Butyro-refractometer reading at 66° C.)	63°C.
Corr. for 40° C.	29.25
Paraffine, fats and other waxes absent.	43.55

Passed as pure.

BEVERAGES.

CIDER.

July 10. Sample submitted by F. M. Buzzell, Inspector. Bought of Fred Adler, Bloomer. Made by Bergstadt Bros., St. Paul. Sold as cider.

Contains sugar, water, artificial raspberry flavor, colored with an aniline dye and preserved with about 0.2 per cent. salicylic acid. Not lawful.

Aug. 26. Sample submitted by F. M. Buzzell, Inspector. Marked "Cider." Bought of F. C. Wickenburg, Turtle Lake. Made by McKusick, Towle Co., Minneapolis.

Contains sugar, water, artificial raspberry flavor. It is preserved with a large amount of salicylic acid and colored a bright red with coal-tar dye.

Not a cider. Not lawful.

Sept. 8. Sample submitted by C. W. Sweeting, Ass't Com. Bought of W. G. Taylor, at State Fair Grounds, Milwaukee, as apple cider.

	%
Total solids	
Ash	6.16
Malic acid	0.15
Color	large amount
Somewhat diluted, but otherwise pure.	natural

Passed.

Sept. 8. Sample submitted by N. J. Field, Inspector. Bought of of J. P. Brewer, State Fair Grounds, Milwaukee, as apple cider.

	%
Total solids	3.62
Ash	0.09
Malic acid	trace
Color	artificial

Not an apple cider. Not lawful.

Sept. 8. Sample submitted by C. W. Sweeting, Ass't Com. Bought of J. P. Brewer, State Fair Grounds, Milwaukee, as apple cider.

	%
Total solids	4.44
Ash	0.07
Malic acid	trace
Color	artificial, coal-tar dye

Not an apple cider. Not lawful.

CHERRY PHOSPHATE.

Aug. 19. Sample submitted by F. M. Buzzell, Inspector. Marked "Cherry." Bought of Christ Chrishotter, Auburn. Manufactured by Eau Claire Grocery Co., Eau Claire. Submitted to ascertain coloring. Colored with coal-tar dye.

MALT EXTRACT.

Aug. 19. Sample submitted by Chas. Hosmer, Westfield. Made by J. H. Kurth & Co., Columbus.

Sp. gr.	1.006
	%
Alcohol (by wt.)	2.891
Alcohol (by vol.)	3.562

WHISKEY.

July 8. Sample submitted by J. Sullivan, Ashland, by request of Geo. M. Harrison, M. D.

Sp. gr. (25° C.)	0.9076
(Corresponding to 118.5 proof.)	
	%
Total solids	0.18
Fusel oil	absent
Tannic acid	considerable

Aside from containing a rather excessive amount of tannic acid, this whiskey corresponds with the requirements of the United States pharmacopoeia.

GINGER.

July 24. Sample of powdered ginger submitted by F. M. Buzzell, Inspector. Marked "Puritan Spices." Bought of Geo. E. Seldon, West Superior. Made by Wright-Clarkson Mercantile Co., Duluth, Minn. Adulterated. Labeled: Mixture and adulterated, but not lawfully salable in Wisconsin.

ALLSPICE.

July 24. Sample submitted by F. M. Buzzell, Inspector. Marked "Puritan Spices." Bought of Geo. E. Seldon, West Superior. Made by Wright-Clarkson Mercantile Co., Duluth.

Adulterated. Labeled: "Mixture and Adulterated," but not lawfully salable in Wisconsin.

PEPPER.

Aug. 13. Sample submitted by F. M. Buzzell, Inspector. Bought of J. J. Mason, Sparta. Made by J. P. Deitter & Co., Chicago.

Adulterated. Not lawful.

LARD.

Eight samples of lard were analyzed, of which the following two were found to be adulterated:

July 10. Sample submitted by F. M. Buzzell, Inspector. Bought of Johnson & Hill Co., Grand Rapids. Said to have been manufactured by Cudahy Bros. Co., Cudahy, Wis.

Contains cottonseed oil.

Adulterated. Not lawful.

Sept. 29. Sample submitted by F. M. Buzzell, Inspector. Bought of Thomas Market, Mondovi, manufacturer.

Contains a large amount of cottonseed oil.

Adulterated. Not lawful.

SYRUP.

Sept. 14. Sample of maple syrup submitted by M. C. French, Madison. Made by Spicer-Fanning Co., West Superior.

Glucose absent.

COLORING COMPOUNDS.

Aug. 20. Sample submitted by Chippewa Valley Mercantile Co., Chippewa Falls. Coloring compound for soft drinks and fruit vinegars.

A solution of a red coal-tar dye.

Sept. 30. Sample submitted by F. M. Buzzell, Inspector. Used in coloring white vinegar brown.

Consists essentially of caramel.

LINSEED OIL.

July 11. Sample of boiled linseed oil submitted by N. J. Field, Inspector. Bought of Gimbel Bros., Milwaukee.

Passed.

July 15. Sample of boiled linseed oil submitted by J. A. Hagen, Janesville. Said to have been bought of Chicago Linseed Oil Mills Co., Chicago.

Contains about 20 per cent. of hydrocarbons.

Adulterated. Not lawful.

Sept. 11. Sample of boiled linseed oil submitted by Wm. Schuetz, Verona.

No adulteration found.

OLEOMARGARINE.

Sept. 28. Sample submitted by N. J. Field, Inspector. Marked "Swift's 'Jersey.'" Free from coloration or ingredient that causes it to look like butter.

Passed.

Aug. 14. Sample submitted by N. J. Field, Inspector. Marked "Swift's Premium." Contains coloration or ingredient that causes it to look like butter.

Unlawful.

MILK.

July 1. Sample submitted by C. W. Sweeting, Ass't Com. Taken at South Survey Cheese Factory, J. Regez, Prop. Delivered by T. E. Phillips.

Sp. gr.	1.022
	%
Butter fat	2.4
Total solids	8.74
Solids not fat	6.34

Watered.

July 7. Eight samples submitted by C. W. Sweeting, Ass't Com. Taken at cheese factory of I. J. Sanderson, Black Earth.

No formaldehyde found.

July 8. Sample submitted by C. W. Sweeting, Ass't Com. Taken at cheese factory of Jacob Regez, Dodgeville. Delivered by Chas. Brennan.

Sp. gr.	1.028
	%
Butter fat	2.3
Total solids	9.75
Solids not fat	7.45

Watered.

July 8. Sample submitted by C. W. Sweeting, Ass't Com. Taken at cheese factory of J. Regez. Delivered by Martin Barry.

Sp. gr.	1.029
	%
Butter fat	2.6
Total solids	10.35
Solids not fat	7.75

Watered.

July 8. Sample submitted by C. W. Sweeting, Ass't Com. Taken at cheese factory of J. Regez. Delivered by Geo. Potterton.

Sp. gr.	1.029
	%
Butter fat	2.6
Total solids	10.6
Solids not fat	8.0

Below legal standard.

July 9. Sample submitted by C. W. Sweeting, Ass't Com. Bought from John Schwantke, Spring Green, village milk dealer.

	%
Butter fat	3.9

Contains formaldehyde.

July 28. Sample submitted by C. W. Sweeting, Ass't Com. Taken at Mapleton Dairy Company Cheese Factory, Oconomowoc. Delivered by J. Fitzgerald.

Sp. gr.	1.027
	%
Butter fat	3.5
Total solids	11.2
Solids not fat	7.7

Watered.

July 29. Fifteen samples submitted by C. W. Sweeting, Ass't Com. Taken at Wilson Creek Cheese Factory. Manwaring, Prop.

No formaldehyde found.

Aug. 3. Sample submitted by Ed Wedel, Richford.

Butter fat	4.6

Aug. 11. Two samples submitted by C. W. Sweeting, Ass't Com. Collected at Oconomowoc. Above legal standard and free from preservatives.

Aug. 12. Seven samples submitted by C. W. Sweeting, Ass't Com. Taken at Lake Geneva, from city milk supply.

All above legal standard; no preservatives found.

Aug. 20. Twenty-nine samples of milk and ten samples of cream submitted by N. J. Field, Inspector, and C. W. Sweeting, Ass't Com. Taken from city supply, Madison.

All above legal standard. No formaldehyde or other preservatives found.

Aug. 25. Sample submitted by C. W. Sweeting, Ass't Com. Taken at Rock River Side Cheese Factory, owned by Fred Bartschy, Mayville. Delivered by Mrs. A. Machmuller.

Sp. gr.	1.021
	%
Butter fat	3.00
Total solids	8.50
Solids not fat	5.50

Watered.

Aug. 28. Eleven samples of milk and ten samples of cream submitted by C. W. Sweeting, Ass't Com. Taken from city supply, Beloit, Wis.

No formaldehyde or other preservatives found. One sample watered.

Aug 28. Sample of milk submitted by C. W. Sweeting, Ass't Com. Bought of Chas. Peterson. Taken from city milk supply, Beloit.

Sp. gr.	1.026
Butter fat	3.1
Total solids	10.47
Solids not fat	7.37

Watered.

Sept. 3, 1903. Five samples of milk submitted by G. F. Messer, M. D., city physician and health officer, Beaver Dam, Wis.:

Sample of milk No. 1, F. J. Roedl, contains 4.4 per cent. butter fat. Contains formaldehyde.

Sample of milk No. 2, Oswald Lehner, contains 4.7 per cent. butter fat. No preservative found.

Sample of milk No. 3, O. Lehner, contains 4.6 per cent. butter fat. No preservative found.

Sample of milk No. 4, F. J. Roedl, contains 3.4 per cent. butter fat. Contains formaldehyde.

Sample No. 5, Herman Grosse, contains 4.3 per cent. butter fat. No preservative found.

Sept. 5. Sample submitted by C. W. Sweeting, Ass't Com. Taken at Durand Cheese Factory. Delivered by D. Bahm.

Sp. gr.	1.016
Butter fat	%
Total solids	2.1
Solids not fat	6.0
	3.9

Badly watered.

CREAM.

Aug. 27. Sample submitted by F. Kelly, Wausau. No preservatives found.

Sept. 11. Sample submitted by H. T. Thompson, Elroy. Butter fat, 34.0 per cent.

Sept. 16. Sample submitted by Wm. Schindler, Wilton. Butter fat 31.0 per cent.

Sept. 3. Two samples of cream submitted by G. F. Messer, M. D., Beaver Dam, Wis.:

Sample No. 1, F. J. Roedl, contains 24.5 per cent. butter fat. Contains formaldehyde.

Sample No. 2, Oswald Lehner, contains 21.5 per cent. butter fat. No preservatives found.

ANALYSES OF WATER.

July 25. Sample submitted by C. D. Nelson, deputy fish and game warden. Said to have been collected by Wm. Faslow, game warden, from drainage of Chilton Malting Co.

Reaction	acid
Sulphurous acid	present
Sulphate	present in large amount

I consider the entrance of this water in considerable quantities into a small stream as injurious or destructive to fish life in that stream.

Samples of water, No. 1 and 2, collected on July 2, 1903, at Ripon City, by A. Mitchell, M. D., health officer.

Sample No. 1, well water:

	Parts per million.
Total solids	510.0
Loss on ignition	230.0
Non-volatile residue	280.0
Chlorine	21.0
N. as free ammonia	none
N. as albuminoid ammonia	trace
N. as nitrites	none
N. as nitrates	6.0
Oxygen consumed	1.5

Sample No. 2, spring water:

	Parts per million.
Total solids	560.0
Loss on ignition	305.0
Non-volatile residue	255.0
Chlorine	38.0
N. as free ammonia	none
N. as albuminoid ammonia	0.06
N. as nitrites	trace
N. as nitrates	20.0
Oxygen consumed	1.15

Both samples are free from present organic pollution, but seem to have been badly polluted in the past; this is especially true of No. 2.

Village of Cudahy, intake 1,300 feet from shore; collected July 3, 1903.

Sample No. 1, water taken directly from pipe:

	Parts per million.
Total solids	166.0
Loss on ignition (blackened)	72.0
Non-volatile residue	94.0
Chlorine	5.0
N. as free ammonia	0.02
N. as albuminoid ammonia	0.19
N. as nitrites	trace
N. as nitrates	trace
Oxygen consumed	1.75

Sample No. 2, taken from filter:

	Parts per million.
Total solids	156.0
Loss on ignition	60.0
Non-volatile residue	96.0
Chlorine	5.0
N. as free ammonia	none
N. as albuminoid ammonia	0.15
N. as nitrites	trace
N. as nitrates	trace
Oxygen consumed	1.75

Of the two samples, No. 2 is the better, but both are very high in chlorine for Lake Michigan water, and No. 1 especially contains a large amount of albuminoid ammonia. The filtration removes only a small amount of this.

Sample of city water, Sparta, collected by D. C. Beebe, health officer, received July 10, 1903:

	Parts per million.
Total solids	230.0
Loss on ignition	70.0
Non-volatile residue	160.0
Chlorine	6.0
N. as free ammonia	0.23
N. as albuminoid	0.15
N. as nitrites	0.07
N. as nitrates	0.90
Oxygen consumed	1.65

This water is high in ammonia, both free and albuminoid, but an in-

terpretation of results is impossible for lack of information concerning the source.

Samples of water collected by M. C. Trayser and A. R. Margraf, New London, on July 24, 1903.

Sample No. 1. Water from Kliner fountain.

	Parts per million.
Appearance	clear and colorless
Total solids	215.00
Loss on ignition	70.00
Non-volatile residue	145.00
Chlorine	2.0
N. as free ammonia	0.13
N. as albuminoid	0.05
N. as nitrites	none
N. as nitrates	none
Oxygen consumed	0.8

Sample No. 2. Water from Ramm fountain.

	Parts per million.
Appearance	clear and colorless
Solids	285.0
Loss on ignition	115.0
Non-volatile residue	170.0
Chlorine	1.5
N. as free ammonia	0.10
N. as albuminoid ammonia	0.04
N. as nitrites	none
N. as nitrates	none
Oxygen consumed	0.48

Sample No. 3. Water from Wolf river.

	Parts per million.
Appearance	Yellowish with some sediment
Total solids	205.0
Loss on ignition (blackened upon ignit.)	110.0
Non-volatile residue	95.0
Chlorine	2.0
N. as free ammonia	0.05
N. as albuminoid ammonia	0.39
N. as nitrites	none
N. as nitrates	0.20
Oxygen consumed	12.80

Samples 1 and 2 appear to be excellent drinking waters, of about equal quality. Sample 3 is very high in organic matter and albuminoid ammonia, but this seems to be mostly of vegetable origin and is probably harmless. This water should, however, be purified by filtration through sand filters or by some other efficient method before being used for drinking purposes.

Sample of spring water, collected by A. G. Peterson, health officer, Wood Lake, on July 23, 1903:

	Parts per million.
Appearance	slightly opalescent; considerable sediment
Total solids	240.0
Loss on ignition (darkened slightly)	85.0
Non-volatile residue	155.0
Chlorine	4.0
N. as free ammonia	0.15
N. as albuminoid ammonia	0.10
N. as nitrites	trace
N. as nitrates	none
Oxygen consumed	2.90

Since this water was not packed in ice during shipment and as five days elapsed between the collection of the sample and its analysis, it is impossible to accurately judge its character from the analytical results. There seems to be no reason, however, for looking upon the water with suspicion.

Sample of drinking water from the drilled well of J. Helm, Waterloo, collected by G. W. Davies and received August 14, 1903:

	Parts per million.
Appearance	Clear, except for numerous large white flakes
Total solids	1860.0
Loss on ignition (copious nitrous fumes were evolved upon ignit.)	930.0
Non-volatile residue	930.0
Chlorine	201.0
N. as free ammonia	trace
N. as albuminoid ammonia	00.37
N. as nitrites	very large amount
N. as nitrates	very large amount
Oxygen consumed	6.0

This water is very badly contaminated and wholly unfit for consumption.

Sample of water collected by F. M. Bailey, M. D., at Mineral Point, on the 5th of September.

Sample No. 1. Tap water from city supply:

	Parts per million.
Appearance	clear and colorless
Total solids	520.00
Loss on ignition	220.00
Non-volatile residue	300.00
Chlorine	12.50
N. as free ammonia	none
N. as alb. ammonia	trace
N. as nitrites	trace
N. as nitrates	2.40
Oxygen consumed	1.65

Though rather high in chlorine and nitrates, I consider this a wholesome water, free from present organic pollution.

Sample No. 2. From cistern of C. C. Hutchinson:

	Parts per million.
Appearance	yellowish with slight sediment
Total solids	190.00
Loss of ignition (blackened)	95.00
Non-volatile residue	95.00
Chlorine	1.50
N. as free ammonia	trace
N. as alb. ammonia	0.21
N. as nitrates	trace
N. as nitrates	0.80
Oxygen consumed	12.50

This water contains a large amount of organic matter, which, however, seems to be mainly of vegetable origin and not necesarily dangerous. Suspicious.

MILK TESTS.

July 1. Samples of milk taken July 2d at Barrel Town Limberger Cheese factory, owned by Glauser & Ehrat, near Mineral Point:

	% fat.
John Francois	4.0
R. J. Mitchell	3.8
B. M. Richards	3.6
Wm. Geye	4.0
Ed. Mitchell	4.6
J. Dolan	3.6
J. Woldenfeller	3.5
Ward Grange	4.2
Ben Mitchell	3.8

July 1. Samples of milk taken at the South Survey Swiss cheese factory, July 1, town of Dodgeville, Iowa county:

	% fat.
J. Joestgen	4.0
P. Delles	3.4
J. Esch	3.3
W. Lay	3.3
F. W. Phillips	3.9
P. Theno	3.8
P. Weidenfeller	3.6
T. E. Phillips	below standard

July 7. Samples of milk taken at the Blatz brick cheese factory, in town of Dodgeville, Iowa county:

	% fat.
Wenger Bros.	3.0
Chas. Brennan	below standard
George Potterton	below standard
Sam Martin	3.2
Wm. Jones	3.1
Peter Zanders	3.0
Joe Phillips	3.2
John Simons	3.3
Martin Barry	below standard
L. Simons	3.2

July 10. Samples of morning's milk taken at Spring Creek cheese factory, in the town of Black Earth, Dane county, July 7:

	% fat.
E. S. Sanderson	4.0
E. Schultz	4.0
Wm. Radke	4.0
Wm. Danz	4.1
Wm. Willie	4.0
Wm. Heydon	4.2
L. Miller	4.1
Henry Pauls	4.8

July 10. Samples of night's milk taken at Ducherschein cheese factory, Juneau, R. F. D. No. 2:

	% fat.
August Ducherschein	3.8
Wm. Schultz	4.0
August Bartelt	3.6
Frank Thilme	3.6
Pat Manohow	3.4
Chas. Thieme	3.6
Albert Schwandes	4.0
Henry Rickert	3.2
Frank Falkendahl	3.8
Aug. Schwensow	3.3
Aug. Affelt	3.8
Fritz Leuche	3.3

July 13. Samples of mixed milk, taken at Town Line cheese factory, near Manitowoc:

	% fat.
H. Burmeister	3.8
J. Stueck	4.0
H. Schultz	4.2
J. Schultz	3.9
F. Rausch	4.0
F. Beck	3.8
Carl Willert	3.6
F. Koldoff	3.4
Alex. Batz	3.8
H. Schroeder	4.0
Carl Burmeister	3.5

	% fat.
C. Albrecht	4.4
A. Liest	3.4
John Rhode	3.6
H. Harstman	3.8
John Ruethmond	3.7
H. Johnsrud	4.0
Wm. Timpert	3.8
M. Schiemmel	3.6
W. Smazal	4.1
A. Franz	3.8
A. Mohr	3.6
Joe Holly	3.8
G. Sladka	below standard
A. Pfefferkorn	4.4
Carl Marquardt	3.8
H. Willert	3.9
J. Marquardt	4.0

July 28. Samples of morning's milk taken July 28, from Mapleton Dairy Company cheese factory, located in town of Oconomowoc, Waukesha county:

	% fat.
M. Flagan	4.0
F. Mainz	3.9
S. W. Counsell	3.8
E. Dalton	3.4
J. Kenney	3.8
J. Bonney	4.4
T. Delaney	4.2
H. Baker	4.2
B. Kearnes	3.6
W. Denman	4.4
W. Byrnes	3.8
J. Fitzgerald	3.5
L. Pagenkotf	3.5
F. Ferris	3.6

July 29. Sample of night's milk taken at the Alderly Dairy Association company's cheese factory, July 27, located in town of Ashippun, Dodge county:

W. A. Reid	3.3
Geo. Miller	3.4
J. J. Reid	3.8
E. Webster	3.7
N. J. Shannon	3.2
W. J. Cox	3.3
A. Voigt	3.7
A. Borchardt	3.7
L. Larson	3.4
S. Hays	4.0
T. Vincent	3.6
S. Leslie	3.6
F. D. Gunderson	4.0

Aug. 3. The samples of mixed milk, taken Aug. 3 from factory located in town of Newton, near Manitowoc, owned by E. A. Duveneck:

	% fat.
G. Naumann	4.0
Chas. Jacob	3.9
H. Waack, Jr.	4.2
Wm. Fruhriefs	3.6
R. Borgwardt	4.3
A. Duveneck	4.2
Geo. Leucjke	4.8
John Clasen	3.8
E. Grosshuesch	3.5
F. Lemke	4.1
H. Sonnenburgh	4.0
Carl Eberhardt	3.8
M. Reden	3.2
H. Lehmkuhl	3.8
Wm. Kolb	4.3
C. Beckman	4.7
P. Ahl	3.5
Wm. Buck	3.4
Chas. Speath	4.0
H. Mundt	4.0
C. Brick	3.9
E. Ensarge	4.4
Jas. Luebke	4.2
H. Waack, Sr.	4.0
Mrs. John Vogt	3.8
Mrs. C. Huebner	3.9
Mrs. H. Ansarge	4.2
O. Zappfer	3.0

Aug. 6. Samples of mixed milk taken August 5 from Ridgeway Creamery:

	% fat.
J. Torphy	3.4
Geo. Russell	3.2
F. Farwell	3.5
E. Schoenaman	3.1
J. Ternes	3.2
Irvin Paull	3.2
Thos. Paull	3.4
J. Cretney	3.3
Mrs. D. Collins	3.8
Sam Moon	3.6
Dick Yapp	3.3
Wm. Buckingham	3.2
T. Stonier	3.3
Abe Buckingham	3.3
H. Lewis	3.4
J. Higgon	3.4
T. H. Buckingham	3.6
Mrs. John Moon	3.3
Frank Yapp	3.7

Aug. 14. Samples of mixed milk taken Aug. 14, at Dale's Creamery, Dale:

	% butter fat.
Dan Leppla	4.0
J. H. Leppla	4.2
R. Boenner	4.0
D. H. Balliet	3.4
A. Summers	4.0
A. Hoffman	3.6
Wm. Degel	4.0
Wm. Gritzmacher	3.6
O. Vaughn	3.4
John Hoffman	3.9
Mrs. N. Balliet	3.0
H. J. Strelow	3.5
H. C. Heuer	3.6

Aug. 19. Samples of night's milk taken Aug. 19 at cheese factory situated in the town of Fountain Prairie, Columbia county:

	% butter fat.
G. Wodell	3.3
Chas. Lange	4.6
Chas. Pahl	4.0
John Tiedt	4.2
A. Leisman	4.0
Chas. Hamling	4.0
A. Kruschke	3.0
J. Bronk	3.8
F. Hanf	3.2
A. Dehnert	3.6
F. Banman	3.7
H. Dickoff	3.8
Otto Miller	3.5
W. Buckholtz	4.9
Ed. Hughes	3.5
G. Hamling	3.8
E. Pahl	3.4
C. Crinions	3.4
M. Paske	3.0
F. Hepp	3.8
C. Mulvaney	4.0

Aug. 22. Samples of mixed milk taken August 22 at the Lime Lake Creamery, in the town of Amherst, Portage county:

	% butter fat.
P. Peterson	3.9
P. Oleson	4.1
A. Trihlowski	3.9
J. Andrews	3.9
L. M. Jelda	3.8
G. Hoffman	4.1
J. Miller	3.9
L. Skuglund	4.2
J. Stadtmuller	3.9
A. G. Peterson	3.8
Wm. Thom	3.9
C. Glinsky	3.9
Wm. Johnson	4.0
Wm. Miller	4.2
F. Modeen	4.2
C. Swenson	3.9
J. Trihtowski	3.9
E. Moss	4.2
P. Gladowski	3.8
G. Marx	4.0
Fred Nevs	4.0
J. Kussman	4.1
M. Dusel	4.4
C. Prondsenski	3.9
A. Ringoolski	4.0
L. Cary	4.2
Wm. Leary	4.0
A. Kunne	3.9
L. Brondzynski	3.9
A. Swenson	4.0
A. P. Peterson	4.5
J. Dusel	4.0
Wm. Bistow	4.0
R. Hidompski	3.9
Wm. Milcheltree	4.0
Wm. Keef	4.0
K. Paderewski	3.9
A. Tritline	3.9
C. Velund	4.1
H. Lumbard	4.5
J. Een	4.3
D. Barden	4.0
Joe Reader	3.9
M. Blisky	4.0
A. Trechel	3.8
Andrew Polly (sample taken Aug. 23)	below standard
Joe Morgan	4.8
Nic. Trihtowski	4.0
R. Wilson	4.2
J. Jwanski	3.9
J. Lea, Jr.	4.7
J. Lea, Sr.	4.3

Aug. 25. Samples of mixed milk taken August 25 from the Rock River Side Cheese Factory, near Mayville:

	% butter fat.
Mrs. A. Machmuller (watered)	below standard
H. Gentz	3.6
Wm. Machell	3.8
H. Schwarze	4.0
John Bromant	4.3
C. Gramlow	3.7
John Slommel	3.7
A. Bosin	4.0
C. Machell	4.0
B. Fusing	4.3

	% butter fat.
F. Lisco	3.8
L. Ericksen	4.2
H. Baabe	4.3
J. Seering	4.4
G. Nietschke	4.1
Wm. Muche	4.0
F. Marahl	3.8
F. Helling	4.4
F. Luepke	3.7
P. Moericke	4.0
F. Opperman	4.2
L. Krause	3.8
E. Black	4.8
A. Schrab	3.6
Otto Fischer	4.0
F. Dehn	3.6
Wm. Klemf	3.7
G. Steinbach	4.2
E. Steinbach	3.9
Otto Steinbach	4.0
B. Steinbach	3.9
G. Brawalachke	3.8
F. Muche	3.6
Geo. Lauerenz	4.0
Albt. Butz	3.7
John Bartosch	4.5
Robt. Marohl	3.8
F. Machel	4.3
B. Sonentag	4.0
Aug. Malzahn	4.2
M. B. Kruger	3.8
F. A. Fischer	3.9
Aug. Fischer	4.0
Mrs. C. Maaske	3.8
J. Lisco	3.6
J. Kundertmarkt	4.0
R. Machell	4.2
L. Machell	3.7
F. C. Luepke	3.4
G. Steinhorst	4.7
F. Neumann	3.2
Ed. Steinhorst	4.0
Frank Helling	4.6
C. Fischer	4.4
Albt. Degner	4.0
Mrs. Nic Hoffman	4.4

Sept. 2. Samples of mixed milk taken Sept. 2 from cheese factory situated in town of Exile, Pepin county:

	% butter fat.
F. Brimmer	3.6
F. Weisinger	3.8
F. Braatz	4.4
W. Bundy	4.3
F. Blair	3.9
J. Grumprey	3.8
A. Woods	4.6
A. Anderson	3.8
L. Hopeker	4.2
W. Dailey	3.7
M. Sagstetter	4.6
T. Kearnes	4.4
A. Peas	3.2
W. Rodewald	4.6
J. Sperger	3.5
J. Mulheron	3.6
P. Persons	3.8
H. Andrews	4.3
L. Littlefield	5.0
H. Evens	4.8

Sept. 3. Samples of mixed milk taken by N. I. Lowery, Irvington:

	% butter fat.
Thos. Biles	3.6
James Shaw	4.2
Wm. Shaw	3.8
S. Livingston	3.9
C. Regett	4.0
J. Miller	3.8
F. Knaack	3.9
G. King	4.0
G. Henry	4.5
E. Sinerright	3.8
D. Bignell	4.4

Sept. 4. Samples of mixed milk taken Sept. 4 at Durand Cheese Factory:

	% butter fat.
Spencer Dewitt	3.4
E. Warner	4.5
Nick. Schmaker	4.2
Nic Powers	4.0
C. Newsburger	3.8
A. Shaw	3.8
A. Gillmore	4.8
J. Ketner	4.7
John Fost	3.2
John Debois	4.6
N. Plummer	3.7
F. Stanton	4.2
H. Stanton	4.2
Fred Kellar	4.0
C. Bour	3.6
S. Goodrich	3.8
D. Bahm	below standard
W. Gordon	3.8
M. Barnes	4.0
G. Ridgeway	4.6

Sept. 3 at cheese factory situated in town of Frankford, Pepin county.

Sept. 22. Samples of night's milk taken Sept. 21 at Holum cheese factory, situated in the town of Springdale, Dane county:

	% butter fat.
A. Miller	4.0
F. Stuse	3.4
C. Zurbuchen	3.9
O. Geiger	3.6
D. O'Connor	4.0
F. Klute	4.0
W. O'Connor	3.8
P. Rue	3.1
H. Stugart	3.8
B. Hefty	3.8
J. Clow	3.8
O. Densen	4.0

Sept. 22. Samples of morning's milk taken Sept. 22 at Goodwin cheese factory, Verona:

	% butter fat.
J. L. Stussy	3.6
C. Rhiner	4.2
S. Meyer	3.8
G. Zink	4.0
E. Erfurth	4.8
T. Steward	4.4
Mrs. E. Rollo	3.8
D. Patton	3.6

Sept. 24. Samples of morning's milk taken Sept. 24 at Oak Grove cheese factory:

	% butter fat.
G. Foley	4.2
Main Bros.	4.8
Aug. Rohrschneider	4.8
Aug. Wersonskee	4.4
Aug. Rupnow	4.9
H. Wersonskee	4.4
Wm. Wersonskee	4.1
H. Richard	4.0
H. Baker	4.0
H. Drake	4.4
H. Kant	4.8
R. Schrap	4.0
F. Mekleburg	4.3
G. H. Wilson	4.0
C. L. Clark	4.2
Ed. Prinzlow	3.7
H. Rupnow	4.6
Mrs. Lindemann	3.1
C. L. Corwith	4.4
Aug. Goetsch	4.0
A. Gentz	4.3
F. Nell	4.1
E. Richard	4.4
F. Ohnsteadt	4.6
Wm. Smidt	3.3
Wm. Miller	4.0
H. Sgert	3.5
Wm. Tesch	3.8
John Paepkee	4.8

REPORT OF CHEESE FACTORY INSPECTION.

July 2, 1903.—Name of factory, Rappel No. 2; name of proprietor, J. F. Rappel; P. O. address, Clark's Mills; maker's name, Herman Knuth; has not attended Dairy School at Madison; no. of patrons, 20; no. of cows, 192; pounds milk daily, 4,162; pounds cheese daily, 383; style of cheese made, daisies; Babcock test is not used; payments are made pound for 10; have no tester; milk in the cans was fair; factory was kept clean; no screens yet to keep flies out.

July 6, 1903.—Name of factory, Neosho; name of proprietor, Neosho Cheese & Butter Co.; P. O. address, Neosho; maker's name, Louis Hasse; has not attended Dairy School at Madison; no. of patrons, 37; no. of cows, 425; pounds milk daily, 10,000; pounds cheese daily, 1,000; style of cheese made, brick; payments are made per cwt.; no acid in milk; some milk in cans was bad; the factory was kept clean; there were screens to keep flies out; whey tank is inside; explained the Babcock Test; explained the Wisconsin Curd Test.

July 8, 1903.—Name of factory, Wolf Hill; name of proprietor, H. T. Timm; P. O. address, Metz; maker's name, H. T. Timm; he attended Dairy School at Madison; no. of patrons, 40; pounds milk daily, 7,700; pounds cheese daily, 726; style of cheese made, flats; Babcock Test is used; average per cent. fat in milk, 3.7; payments are made on fat basis; test of the milk, 3.3 to 4.2; some milk in the cans was off flavor and gassy; no screens yet to keep flies out; whey tank is close up to factory; tank is cleaned out monthly.

July 10, 1903.—Name of factory, Boyson Cheese Factory; name of proprietor, Boyson Cheese Co.; P. O. address, Fremont, R. F. D. No. 17; maker's name, Ferdinand Grimm; he attended Dairy School at Madison; no. of patrons, 21; no. of cows, about 220; pounds milk daily, 5,300; pounds cheese daily, 495; style of cheese made, flats; Babcock Test is used; average per cent. fat in milk, 3.75; test of the milk, 3.5 to 4.0; some milk in the cans was very gassy; factory kept fairly clean; there will be screens to keep flies out; whey tank is 6 feet from factory; tank is cleaned every week or two.

July 10, 1903.—Name of factory, Raub factory; name of proprietor or manager, Gapen & Hartwick; P. O. address, Monroe, Green Co., R. 5; maker's name, John Rindlisback; has not attended Dairy School; no. of patrons, 9; no. of cows, 148; kind of cheese made, Swiss; fire kettle used; Babcock Test is not used; payments are made per hundred; milk in the cans was poor; factory kept clean; no screens to keep flies out; whey tanks and barrels 15 feet from factory; whey barrels and tanks cleaned every week.

July 13, 1903.—Name of factory, Johnson; name of proprietor or manager, D. Anderson; P. O. address, Browntown, Green Co.; maker's name, Fred Weiss; has not attended Dary School; no. of patrons, 13; no. of cows, 140; pounds milk daily, 3,750; pounds cheese daily, 352; kind of cheese made, Swiss; Babcock Test is not used; milk in the cans was fair; factory kept fairly clean; no screens to keep flies out.

July 13, 1903.—Name of factory, Millhome; name of proprietor, W. G. Streblow; P. O. address, Millhome; maker's name, W. G. Streblow; has not attended Dairy School at Madison; no. of patrons, 24; pounds milk daily, 4,100; pounds cheese daily, 388; style of cheese made, Y. A. and daisies; Babcock Test is used; payments are made on fat basis; some milk in the cans was gassy; factory kept fairly clean; whey tank is 25 feet from factory; tank is cleaned monthly.

July 14, 1903.—Name of factory, Blanchardville; name of proprietor or manager, E. Regez; P. O. address, Blanchardville, Lafayette Co.; maker's name, Andrew Hoesler; has not attended Dairy School; no. of patrons, 9; no. of cows, 150; pounds milk daily, 3,327; pounds cheese daily, 308; kind of cheese made, block; fire kettle used; Babcock Test is used; average per cent. fat in milk, 3.5; milk in the cans was fair; factory was kept fairly clean; no screens to keep flies out; whey tanks and barrels join factory; whey barrels and tanks cleaned every week.

July 15, 1903.—Name of factory, Corry; name of proprietor or manager, Wm. Corry; P. O. address, Argyle, Lafayette Co.; maker's name, Christ Ubert; he has not attended Dairy School; no. of patrons, 9; no. of cows, 170; pounds of milk daily, 3,720; pounds cheese daily, 332; kind of cheese made, Swiss; Babcock Test is not used; payments are made per hundred; milk in cans was fair; the factory kept fairly clean; no screens to keep flies out; whey tanks and barrels are 8 feet from factory; whey barrels and tanks cleaned every week.

July 15, 1903.—Name of factory, Schwarzwald; name of proprietor, Aug. Ebeling; P. O. address, Haven, R. F. D.; maker's name, Aug. Ebeling; has not attended Dairy School at Madison; no. of patrons, 19; pounds milk daily, 5,500; pounds cheese daily, 514; style of cheese made, Y. A. and long horns; Babcock Test is used; payments are made per cwt.; some of the milk in the cans was poor; the factory was kept fairly clean; whey tank is 30 feet from factory; tank is cleaned out weekly.

July 17, 1903.—Name of factory, Legler factory; name of proprietor or manager, P. Legler; P. O. address, Argyle, Lafayette Co.; maker's name, Christ Strauss; he has not attended Dairy School; no. of patrons, 8; no. of cows, 140; pounds milk daily, 2,735; pounds cheese daily, 248; kind of cheese made, Swiss; fire kettle used; Babcock Test not used; payments are made per hundred; milk in the cans was fair; the factory was kept clean; no screens to keep flies out; whey tanks and barrels join factory; whey barrels and tanks are cleaned out every week.

July 20, 1903.—Name of factory, Klondike; name of proprietor or manager, Jac. Bluser; P. O. address, Monroe, Green Co.; maker's name, Louis Urfer; he has not attended Dairy School; no. of patrons, 5; no. of cows, 124; pounds milk daily, 3,355; pounds cheese daily, 300; kind of cheese made, Swiss, fire kettle used; Babcock Test is not used; payments are made per hundred; the factory was kept clean; whey tanks and barrels joining factory; whey barrels and tanks are cleaned out every week.

July 21, 1903.—Name of factory, Kleckner; name of proprietor or manager, Chas. Kleckner; P. O. address, Monroe, Green Co.; maker's name, Fred Roder; he attended dairy school in Switzerland; no. of patrons, 13; no. of cows, 270; pounds milk daily, 5,893; pounds cheese daily, 604; kind of cheese made, brick; steam vat used; Babcock Test sinot used; no curd test is used; payments are made per hundred; the milki n the cans was fair; the factory was kept clean; there were no screens to keep flies out; whey tanks and barrels joining factory; whey barrels and tanks are cleaned out every week.

July 22, 1903.—Name of factory, Meythaler; name of proprietor or manager, Ed. Meythaler; P. O. address, Jordan Center; maker's name, Jac. Schusted; he has not attended Dairy School; no. of patrons, 9; no. of cows, 165; pounds milk daily, 4,335; pounds cheese daily, 427; kind of cheese made, Swiss; fire kettle used; Babcock Test is not used; no curd test is used; the factory is kept fairly clean; there were no screens to keep flies out; whey tanks and barrels were 4 feet from factory; whey barrels and tanks are cleaned our every week. The factory is in poor condition in regard to sanitary surroundings.

July 22, 1903.—Name of factory, Rock River; name of proprietor, Rock River Cheese Factory; P. O. address, Mayville; maker's name, Chas. Muenzmaier; he has not attended Dairy School at Madison; no. of patrons, 19; no. of cows, 288; pounds milk daily, 7,000; pounds cheese daily, about 700; style of cheese made, brick; Babcock Test is not used; payments are made per cwt.; the milk in the cans was gassy; whey tank is inside; tank is cleaned out twice a week. Make-room floor is not what it should be. A new cement floor will be put in next fall. An open ditch is used for drainage purposes and it is foul. Have advised them to put in a tile drain with trap.

July 22, 1903.—Name of factory, Rubicon; name of proprietor, Aug. Westphal; P. O. address, Neosho; maker's name, Adelbert Hagen; he has not attended Dairy School at Madison; no. of patrons, 43; pounds milk daily, 9,600; pounds cheese daily, about 960; style of cheese made, brick; Babcock Test is not used; payments are made per cwt.; have no tester; the milk in the cans was fair; the factory was kept fairly clean; whey tank is 40 feet from factory; tank is cleaned out very often.

July 23, 1903.—Name of factory, Johnson; name of proprietor or manager, Wm. Johnson; P. O. address, So. Wayne; maker's name, Christ Frei; he has not attended Dairy School; no. of patrons, 8; no. of cows, 150; pounds milk daily, 3,042; pounds cheese daily, 292; kind of cheese made, Swiss; fire kettle used; Babcock Test is not used; no curd test is used; payments are made per hundred; the milk in the cans was fair; the factory was kept fairly clean; there were no screens to keep flies out; whey tanks and barrels are 8 feet from factory; whey barrels and tanks are cleaned out every week.

July 24, 1903.—Name of factory, Farley; name of proprietor or manager, Chas. Hartwick; P. O. address, So. Wayne, Lafayette Co.; maker's name, Jac. Gempeler; he has not attended Dairy School; no. of patrons, 18; no. of cows, 240; pounds milk daily, 5,735; pounds cheese daily, 540; kind of cheese made, Swiss; fire kettle used; Babcock Test is not used; Wis. curd test is used; payments are made per hundred; the milk in the cans was fair; the factory was kept clean; there were no screens to keep flies out; whey tanks and barrels are 8 feet from factory; whey barrels and tanks are cleaned out every week.

July 24, 1903.—Name of factory, Murphy; name of proprietor or manager, Joe Fooley; P. O. address, So. Wayne, Lafayette Co.; maker's name, Ulrich Nofer; he has not attended Dairy School; no. of patrons, 10; no. of cows, 154; pounds milk daily, 3,525; pounds cheese daily, 326; kind of cheese made, Swiss; fire kettle used; Babcock Test is not used; payments are made per hundred; the milk in the cans was fair; the factory was kept clean; there were no screens to keep flies out; whey tanks and barrels are 10 feet from factory; whey barrels and tanks are cleaned out every week.

July 24, 1903.—Name of factory, West Side; name of proprietor, Aug. Westphal; P. O. address, Neosho; maker's name, Jacob Wenger; he has not attended Dairy School at Madison; no. of patrons, 24; pounds milk daily, 4,800; pounds cheese daily, about 480; style of cheese made, brick; Babcock Test

is not used; payments are made per cwt.; have no tester; the milk in the cans was fair; the factory was kept fairly clean; there were no screens to keep flies out; whey tank is inside; tank is cleaned out weekly or better.

July 26, 1903.—Name of factory, Baldwin; name of proprietor, ————————; P. O. address, Baldwin; maker's name, ————————; he has not attended Dairy School at Madison; no. of cows, 160; pounds milk daily, 3,500; pounds cheese daily, 320; Babcock Test is used; payments are made by pooling by test; milk test is 3.85; the milk in the cans was fair; the factory was kept clean; there were screens to keep flies out.

July 27, 1903.—Name of factory, Rhine Center; name of proprietor, Geo. Horneck; P. O. address, R. F. D., Elkhart; maker's name, Geo. Horneck; he has not attended Dairy School at Madison; no. of patrons, 49; pounds milk daily, 10,000; style of cheese made, daisies and picnic; the Babcock Test is used; average per cent. fat in milk, 3.61; payments are made on fat basis; test of the milk is 3.2 to 4.0; some of the milk in the cans was gassy; the factory was kept fairly clean; there were screens to keep flies out; whey tank is 30 feet from factory; tank is cleaned out weekly.

July 27, 1903.—Name of factory, Martin; name of proprietor or manager, D. E. Martin; P. O. address, Brodhead, R. 2; maker's name, John Lenenberger; he has not attended Dairy School; no. of patrons, 12; no. of cows, 180; pounds milk daily, 3,400; kind of cheese made, Swiss; fire kettle used; the Babcock Test is not used; the milk in the cans was fair; the factory was kept clean; there were no screens to keep flies out; whey tanks and barrels are 25 feet from factory; whey barrels and tanks are cleaned out every week.

July 29, 1903.—Name of factory, Stanton; name of proprietor, M. O'Malley; P. O. address, Stanton; maker's name, M. O'Malley; he has attended Dairy School at Madison; no. of patrons, 34; no. of cows, 310; pounds milk daily, 5,600; pounds cheese daily, 500; the Babcock test is used; average per cent. fat in milk, 3.7; payments are made by test; test of the milk is 3.7; the milk in the cans was good; the factory was kept clean; there were no screens to keep flies out.

July 30, 1903.—Name of factory, Ryan; name of proprietor or manager, Jim Connell; P. O. address, Janesville, R. F. D. 4; maker's name, John Bauman; he has not attended Dairy School; no. of patrons, 9; no. of cows, 128; pounds milk daily, 1,900; pounds cheese daily, 175; kind of cheese made, block; fire kettle used; Babcock Test is not used; the milk in the cans was fair; the factory was not kept clean; there were no screens to keep flies out; whey tanks and barrels join factory; whey barrels and tanks are not cleaned out very often. In regard to sanitary surrounding this factory is in a poor condition.

July 31, 1903.—Name of factory, Darboy; location, 5 miles southeast of Appleton; township, Buchanan; owner or manager, Darboy Cheese & Butter Co.; P. O. address, Appleton, R. R. No. 8; name of maker, Ed. A. Row; he has attended Dairy School at Madison; no. of patrons, 48; no. of cows, 319; pounds o milk daily, 6,400; pounds of cheese daily, 609; style of cheese flats; Babcock Test is used; Wisconsin Curd Test is seldom used; payments are made per cwt.; weight of milk, 177,427; average test, 3.70; pounds of cheese, 16,897, at last payment, June; there were screen doors and windows; tile drain below surface; location and condition of whey tank, 40 feet away, cleaned twice a month, whey is notheated; condition of building, good; condition of apparatus, fair except cheese hoops, which are not in perfect repair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, usually fair, some gassy lately; building is painted outside.

Aug. 1, 1903.—Name of factory, East Seymour; location, Seymour, 1 mile east; township, Seymour, section 27; owner or manager, Henry Melchert; P. O. address, Seymour; name of maker, Henry Melchert; he has not attended Dairy School at Madison; no. of patrons, 41; pounds of milk daily, 6,000; pounds of cheese daily, 595; style of cheese, flats; the Babcock Test is used; Wisconsin Curd Test is not used; inspector's test of composite milk sample for day, 3.2 to 5.4; payments are made on fat basis; wt. of milk, 76,263; av. test, 3.75; pounds of cheese, 7,437 at last payment; there were screen doors and windows; will soon put in a tile drain; location and condition of whey tank, close to building, cleaned often; condition of building, good; condition of apparatus, good; condition of surroundings, fair; condition of patrons' milk cans, usually good; condition of milk in cans, clean; building is painted outside.

Aug. 4, 1903.—Name of factory, Center Valley; location, Dorchester, 4 miles N. W.; township, Little Black, sec. 26; owner or manager, H. Laabs; P. O. address, Dorchester; name of maker, A. G. Laabs; he has not attended Dairy School at Madison; no. of patrons, 44; no. of cows, 302; pounds of milk daily, 4,800; puonds of cheese daily, 455; style of cheese, square prints; the Babcock Test is used: Wisconsin Curd Test is not used; payments are made on fat basis; weight of milk, 134,212; average test, 3.77; pounds of cheese, 13,232 at last payment, June; there were no screen doors or windows; drainage, trough leading to open ditch; location and condition of whey tank, 10 feet away from building, clean; condition of building, fair, make-room not sealed inside, will build new make-room; condition of apparatus, good except curd mill; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, some too ripe, some gassy; building is not painted outside.

Aug. 4, 1903.—Name of factory, Deronda; name of proprietor, J. G. Aune; P. O. address, Deronda; maker's name, J. G. Aune; he attended Dairy School at Madison; no. of patrons, 29; no. of cows, 125; pounds milk daily, 2,500; pounds cheese daily, 240; the Babcock Test is used; average per cent. fat in milk, 4.0; payments are made by test; inspector's test of the milk, 4.0; the milk in the cans was good; the factory was kept clean; there were screens to keep flies out; whey tank is near factory; tank is cleaned out every day.

Aug. 7, 1903.—Name of factory, Greenleaf; location, Greenleaf; owner or manager, L. L. Clark; P. O. address, Greenleaf; name of maker, L. L. Clark; he has not attended Dairy School at Madison; no. of patrons, 48; pounds of milk daily, 9,840; pounds of cheese daily, 947; style of cheese, flats and cheddars; the Babcock Test is used; the Wisconsin Curd Test is used; payments are made on fat basis; weight of milk, 328,020; average test, 3.56; pounds of cheese, 31,933 at last payment, June; there were screen doors and windows; tile drain; location and condition of whey tank, 15 feet away, cleaned monthly; condition of building, good; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, good; condition of milk in cans, some gassy ad not too clean; building is painted outside.

Aug. 7, 1903.—Name of factory, Cedar Bend; name of proprietor, co-operative; P. O. address, Osceola; maker's name, E. E. Bales; he has attended Dairy School at Madison; no. of patrons, 28; no. of cows, 220; pounds milk daily, 4,000; pounds cheese daily, 420; the Babcock Test is used; average per cent. fat in milk, 4.2; how are payments made, by test; inspector's test of the milk, 4.25; the milk in the cans was good; the factory was kept clean; there were screens to keep flies out; whey tank is 120 feet from factory; tank is cleaned out once a week.

Aug. 8, 1903.—Name of factory, East Farmington; name of proprietor, W. T. Koch; P. O. address, East Farmington; maker's name, H. Youmans; he has not attended Dairy School at Madison; no. of patrons, 46; no. of cows, 460; pounds milk daily, 9,000; pounds cheese daily, 920; the Babcock Test is used; average per cent. fat in milk, 3.8; payments are made by test; the milk in the cans was good; the factory was kept fairly clean; there were no screens to keep flies out; whey tank is 10 feet from factory; tank is cleaned once a week.

Aug. 10, 1903.—Name of factory, Lagrandeur No. 4; location, East Farmington, Polk county; owner or manager, H A.. Lagrandeur; P. O. address, Somerset; name of maker, E. L. Davis; he has attended Dairy School at Madison; no. of patrons, 34; no. of cows, 265; pounds of milk daily, 5,000; pounds of cheese daily, 500; the Babcock test is used; the Wisconsin Curd Test is used; inspector's test of composite milk sample for day, 3.8; payments are made by test; there were screen doors and windows; drainage, good, underground to a creek; location and condition of whey tank, 25 feet away in good shape; condition of building, good, brick and basement curing room; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good, mostly all small cans; condition of milk in cans, fair; the building is not painted outside.

Aug. 10, 1903.—Name of factory, Lagrandner No. 3; location, East Farmington, Polk county; owner or manager, H. Lagrandeur; P. O. address, Somerset; name of maker, C. L. Walker; he has not attended Dairy School at Madison; no. of patrons, 23; no. of cows, 3200; pounds of milk daily, 3,000; pounds of cheese daily, 320; the Babcock test is used; the Wisconsin Curd Test is used; inspector's test of composite milk sample for day, 3.8; payments are made by test; there were screen doors and windows; drainage underground, good; whey tank is 35 feet off in good shape; condition of building, good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, fair; condition of milk cans, fair; building is painted outside.

Aug. 11, 1903.—Name of factory, Sand Hill; location, Somerset, St. Croix county; owner or manager, W. F. Koch; P. O. address, East Farmington; name of maker, C. F. Raush; he has not attended Dairy School at Madison; no. of patrons, 47; no. of cows, 475; pounds of milk daily, 4,800; pounds of cheese daily, 475; the Babcock Test is used; inspector's test of composite milk sample for day, 4.0; payments are made by test; there were no screen doors or windows; drainage good; whey tank 20 feet away, not clean; condition of building, poor; condition of apparatus, fair; condition of surroundings, good; condition of patrons' milk cans, fair; condition of milk cans, fair; building is painted outside.

Aug. 11, 1903.—Name of factory, Lagrandeur No. 1; location, Somerset, St. Croix county; owner or manager, H. Lagrandeur; P. O. address, Somerset; name of maker, C. W. Kuehne; he has not attended Dairy School at Madison; no. of patrons, 33; no. of cows, 175; pounds of milk daily, 3,300; pounds of cheese daily, 310; the Babcock test is used; the Wisconsin Curd Test is used; inspector's test of composite milk sample for day, 3.8; payments are made by test; there were screen doors and windows; drainage underground, good; whey tank 20 feet underground; condition of building, fair; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, fair; the building is not painted on the outside.

Aug. 12, 1903.—Name of factory, Starr; location, Somerset; owner or manager, H. Lagrandeur; P. O. address, Somerset; name of maker, C. Utrmark; he has attended Dairy School at Madison; no. of patrons, 32; no. of cows, 179; pounds of milk daily, 3,500; pounds of cheese daily, 370; the Babcock test is

used; the Wisconsin Curd Test is used; inspector's test of composite milk sample for day, 4.1; payments are made by test; there were screen doors and windows; drainage underground to river; whey tank 15 feet away, good; condition of building, good, brick and basement curing room; condition of surroundings, good; condition of patrons' milk cans, fair; condition of milk in cans, good.

Aug. 12, 1903.—Name of factory, Cedar Lake; location, East Farmington; owner or manager, W. F. Koch; P. O. address, E. Farmington; name of maker, Aug. Euberg; he has not attended Dairy School at Madison; no. of patrons, 25; no. cows, 225; pounds of milk daily, 4,500; pounds of cheese daily, 440; the Babcock test is used; the Wisconsin Curd Test is not used; inspector's test of composite milk sample for day, 3.8; payments are made by test; there were screen doors and windows; drainage good; whey tank 65 feet away, good; condition of building, fair; condition of apparatus, fair; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, overripe; the building is painted outside.

Aug. 12, 1903.—Name of factory, no name; location, 5 miles sw Columbus, twp. Columbus, sec. 19; owner or manager, F. C. Westphal; P. O. address, R. F. D., Columbus; name of maker, F. C. Westphal; he has not attended Dairy School at Madison; no. of patrons, 24; pounds of milk daily, 2,850; pounds of cheese daily, 295; the Babcock test is used; the Wisconsin Curd Test is not used; payments are made per cwt.; weight of milk, 93,196; and pounds of cheese, 9,312, at last payment, May; there were screen doors and windows; tile drain; whey tank 20 feet from factory, clean, whey not heated; condition of building, very good; condition of apparatus, all good; condition of surroundings, good; condition of patrons' milk cans, fair; condition of milk in cans, some gassy; building is painted outside; an exceptionally clean factory and well kept.

Aug. 14, 1903.—Name of factory, Pine Grove; owner or manager, R. C. Behnke; P. O. address, Hayton R. F. D.; name of maker, Wm. Strodhoff; he has not attended Dairy School at Madison; no. of patrons, 41; pounds of milk daily, 4,423; pounds of cheese daily, 460; style and quality of cheese, square prints, good; the Babcock test is used; the Wisconsin Curd Test is not used; payments are made on fat basis; figures for weight of milk not available at factory; there were no screen doors and windows; everything drained into whey tank; whey tank 20 feet from building, cleaned seldom; condition of building, fair, except creamery room; condition of apparatus, fair, except hoops, which were not clean; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted on outside.

Aug. 14–15, 1903.—Name of factory, Granton; location, Granton; owner or manager, R. Paulson; P. O. address, Granton; name of maker, Aug. Allwardt; he has attended Dairy School at Madison; no. of patrons, 15; no. of cows, 95; pounds of milk daily, 1,800; pounds of cheese daily, 182; the Babcock test is used; the Wisconsin Curd test is used; inspectors' test of composite milk sample for day, 3.7; payments are made by test; there were screen doors and windows; open drain to creek, good; whey tank overhead, good; condition of building, fair; condition of apparatus, good; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair.

Aug. 18, 1903.—Name of factory, Junction; location, Wrightstown, town Buchanan, sec. 8; owner or manager, Wm. C. Kono; P. O. address, South Kaukauna, No. 14; name of maker, Wm. C. Kono; he has not attended Dairy School at Madison; no. of patrons, 23; no. of cows, 185; pounds of milk daily, 4,000; pounds of cheese daily, 365; the Babcock test is used; the Wis-

consin Curd Test is not used; payments are made per cwt.; there were no screen doors or windows, but soon will be; no provisions for drainage; whey tank 35 feet from building, clean; condition of building, new, not yet finished, fairly clean; condition of apparatus, good; condition of patrons' milk cans, some cans are not perfectly clean; condition of milk in cans, some gassy and bad flavor; building is not yet painted outside; new factory; started making cheese July 28.

Aug. 20, 1903.—Name of factory, King; owner or manager, Carl King; P. O. address, Brodhead; name of maker, D. Eberhart; he has not attended Dairy School at Madison; no. of patrons. 12; no. of cows, 100; pounds of milk daily, 1,900; pounds of cheese daily, 190; the Babcock test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; fire-kettle used; there were no screen doors or windows; drainage poor condition; condition of building, poor; condition of apparatus, poor, not in very clean condition; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; the building is not painted outside.

Aug. 21, 1903.—Name of factory, Pigeon River; location, Marion, Dupont, twp., sec. 23; owner or manager, Geo. E. Bonick; P. O. address, Marion, R. F. D.; name of maker, Geo. E. Bonick; he has attended Dairy School at Madison; no. of patrons, 26; no. of cows, 150; pounds of milk daily, 2,530; pounds of cheese daily, 250; the Babcock test is used; the Wisconsin Curd Test is not often used; payments are made on fat basis; weight of milk, 67,750; average test, 3.7; pounds of cheese, 6,177, at last payment, June; only one screen door; no provisions yet but will put in tile drainage; whey tank 15 feet from building, clean; condition of building, fair; condition of apparatus, fair; condition of surroundings, good; condition of patrons' milk cans, fair; condition of milk in cans, some wild food flavor and gassy; the building is painted outside; a new factory, started up in May, this year.

Aug. 22, 1903.—Name of factory, Pengra; location, country, town Sylvester, sec. 23; owner or manager, W. A. Pengra; P. O. address, Monroe, R. 2; name of maker, Emil Hofen; he has not attended Dairy School at Madison; no. of patrons, 10; no. of cows, 187; pounds of milk daily, 4,100; pounds of cheese daily, 372; the Babcock test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; fire-kettle used; there were no screen doors and windows; drainage enters about 10 feet from building; whey tank in not very good condition; condition of building, old; condition of apparatus, fair, in clean condition; condition of surroundings, poor; condition of patrons' milk cans, fair; condition of milk in cans, fair; the building is painted outside; the drainage enters into a filthy hole next to building, which makes it very bad.

Aug. 22-23, 1903.—Name of factory, Granton; location, Granton; owner or manager, R. Paulson; P. O. address, Granton; name of maker, Aug. Allwardt; he has attended Dairy School at Madison; no. of patrons, 18; no. of cows, 105; pounds of milk daily, 1,900; pounds of cheese daily, 190; the Babcock test is used; inspector's test of composite milk sample for day, 3.9; payments are made by test; weight of milk, 37,200; average test, 3.8; there were no screen doors or windows; drainage open but good; whey tank upstairs in store room, good; condition of building fair, creamery and cheese factory combined; condition of apparatus, good, new; condition of surroundings, fair; condition of patrons' milk cans, good; condition of milk cans, mostly good; the building is painted on the outside.

Aug. 24-25, 1903.—Name of factory, Christie; location, near Greenwood, town Weston, sec. 3; owner or manager, R. Paulson; P. O. address, Granton; maker, F. Vicktora; has not attended Dairy School at Madison; no. patrons,

21; no. cows, 175; pounds of milk daily, 3,400; pounds of cheese daily, 320; Babcock test is used; the Wisconsin test is not used; inspector's test of composite milk sample for day, 3.9; payments are made by test; weight of milk, 110,690; average test, 3.8; and pounds of cheese, 10,560 at last payment; there were no screen doors or windows; drainage open and not very good; location and condition of whey tank close to factory, but in good shape; condition of building, good, new, built this spring; condition of apparatus, good, new; condition of surroundings, good; condition of patrons' milk cans, mostly all new and good; condition of milk in cans, only fair, overripe; the building is not painted on outside, but will be painted very soon.

Aug. 25, 1903.—Name of factory, Evanswood; owner or manager, Evanswood Cheese Ass'n; P. O. address, Weyauwega; name of maker, Frank Young; he has not attended Dairy School at Madison; no. of patrons, 30; no. of cows, 220; pounds of milk daily, 3,440; pounds of cheese daily, 350; the Babcock test is used; the Wisconsin Curd Test is not used; payments are made on fat basis; weight of milk, 110,749; average test, 3.66; and pounds of cheese, 10,065 at last payment, July; there were screen doors and windows; no drainage provisions, whey tank two feet from building, fairly clean; condition of building, fair; condition of apparatus, fair; condition of surroundings, good; condition of patrons' milk cans, fair; condition of milk in cans, some off flavor and gassy; the building is painted outside.

Aug. 25, 1903.—Name of factory, Crinnells; location, country, town Washington, sec. 34; owner or manager, Lois Dodge; P. O. address, Monroe, R. 4; name of maker, Arnold Bruegger; he has not attended Dairy School at Madison; no. of patrons, 11; no. of cows, 180; pounds of milk daily, 3,700; pounds of cheese daily, 336; the Babcock test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; fire-kettle is used; there were no screen doors or windows; drainage enters a building, bad condition; whey tank fair, barrels in poor condition; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, one who has very old cans; condition of milk in cans, fair; building is painted on outside; remarks, whey barrels were in a filthy condition.

Aug. 25, 1903.—Name of factory, Nick Freiday; location, country, twp. Washington; owner or manager, Nick Friday; P. O. address, Monticello; name of maker, Robert Octerli; he has not attended Dairy School at Madison; no. of patrons, 5; no. of cows, 140; pounds of milk daily, 3,800; pounds of cheese daily, 342; the Babcock test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; fire-kettle used; there were no screen doors and windows; drainage, fair; whey tank joins building, poor condition; condition of building, poor and old; condition of apparatus, fair; condition of surroundings, poor.

Aug. 26, 1903.—Name of factory, Altman, Jac; location, country town Mt. Pleasant; owner or manager, Jac. Altman; P. O. address, Monticello; name of maker, Jac. Altman; he has not attended Dairy School at Madison; no. of patrons, 1; no. of cows, 40; pounds of milk daily, 1,200; pounds of cheese daily, 109; the Babcock test is not used; no Curd Test is used; payments are made per hundred; fire kettle used; there were no screen doors or windows; no drainage; no tank nor barrels for whey; condition of building, fair; condition of apparatus, fair; condition of surroundings, very poor, near barn yard and hog pen; condition of patrons' milk cans, fair; condition of milk in cans, fair.

Aug. 26, 1903.—Name of factory, Freiday, John; location, country, Exeter; owner or manager, John Freiday; P. O. address, Monticello; name of maker, Eugene Reider; he has not attended Dairy School at Madison; no. of patrons, 3; no. of cows, 140; pounds of milk daily, 3,400; pounds of cheese daily, 301; the Babcock test is not used; the Wisconsin Curd Test is not used;

payments are made per hundred; fire kettle is used; there were no screen doors or windows; drainage enters about 10 feet from building; whey barrels in poor condition; condition of building, poor; condition of apparatus, fair, not very clean; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Aug. 27, 1903.—Name of factory,·——; location, Weyauwega, town Fremont, sec. 28; owner or manager, Wm. Stange; P. O. address, Weyauwega; name of maker, Wm. Stange; he has not attended Dairy School at Madison; no. of patrons, 25; no. of cows, 227; pounds of milk daily, 3,767; pounds of cheese daily, 376; the Babcock Test is used; the Wisconsin Curd Test is seldom used; payments are made per cwt.; weight of milk, 126,029; and pounds of cheese, 11,976, at last payment, July; there were screen doors and windows; drainage trough 75 feet long, leading to open ditch; whey tank 100 feet from building, cleaned monthly, not sufficiently clean; condition of building, good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, some dirty; the building is painted on outside.

Aug. 27, 1903.—Name of factory, Ellis; location, country, town So. Wayne, sec. 23; owner or manager, Madrells; P. O. address, So. Wayne, La Fayette county; name of maker, H. W. Wenger; he has not attended Dairy School at Madison; no. of patrons, 10; no. of cows, 156 pounds of milk daily, 2,800; pounds of cheese daily, 255; the Babcock test is not used; no Curd Test is used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage, poor condition; whey barrels in very poor condition; condition of building, poor very old; condition of apparatus, fair; condition of surroundings, poor, drainage has no fall; building painted outside; remarks, whey barrels are in a very filthy condition, as they have never been cleaned for this season.

Aug. 28–29, 1903.—Name of factory, Lone Rock; location, Camp Douglas, town Orange, sec. 14; owner or manager, Wm. Bires; P. O. address, New Lisbon; name of maker, A. E. Macklin; P. O. address, New Lisbon; he has not attended Dairy School at Madison; no. of patrons, 37; no. of cows, 280; pounds of milk daily, 4,300; pounds of cheese daily, 450; the Babcock Test is used; the Wisconsin Curd Test is used; inspector's test of composite milk sample for day, 4.0; payments are made by test; weight of milk, 141,503; average test, 4.0; and pounds of cheese, 13,520 at last payment; there were no screen doors or windows; drainage open and poor; condition of building, only fair, floor needs fixing; condition of apparatus, good; condition of surroundings, fair; condition of patrons' milk cans, good mostly, one or two nasty; condition of milk in cans, good; the building is not painted on outside.

Aug. 28, 1903.—Name of factory, Lowver; location, country, town Cadiz, sec. 18; owner or manager, Geo. Lowver; P. O. address, Browntown, Green Co.; name of maker, Gottfr. Burkhatter; has attended Dairy School in Switzerland; no. of patrons, 15; no. of cows, 156; pounds of milk daily, 3,800; pounds of cheese daily, 345; the Babcock test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; steam kettle used; there were no screen doors and windows; drainage fair; whey tank, fair condition; condition of building, poor, very old; condition of apparatus, fair; condition of surroundings, fair; condition of milk in cans, fair; the building is painted on outside.

Aug. 29, 1903.—Name of factory, Brant; location, 4 miles northwest Chilton; owner or manager, John Snyder; P. O. address, Chilton, R. F. D. No. 3; name of maker, John Snyder; he has not attended Dairy School at Madison; no. of patrons, 24; pounds of milk daily, 3,600; pounds of cheese daily, 337; the Babcock Test is used; the Wisconsin Curd Test is not used; payments

are made on fat basis; weight of milk, 88,218; average test, 3.6; and pounds of cheese, 7,705, at last payment, July 1st to 20th; there were no screen doors and windows; drainage slops drop through floor on the ground, which slopes away; whey tank 60 feet from building, cleaned only twice a year, unclean; condition of building, unclean inside, decidedly so; condition of apparatus, fair, most of it; condition of surroundings, fair; condition of patrons' milk cans, fair; building once painted, but worn away; remarks, I told the proprietor that I considered his factory unclean and unsanitary and called his attention to the laws of 1903.

Aug. 29, 1903.—Name of factory, ——; location, 4 miles northeast of Chilton; owner or manager, August Kreuger; P. O. address, Chilton; name of maker, August Krueger; he has not attended Dairy School at Madison; no. of patrons, about 30; pounds of milk daily, about 4,700; the Babcock Test is not much used; the Wisconsin Curd Test is not used; payments are made per hundred; there were no screen doors or windows; no provisions for drainage, whey stands under factory on the ground; whey tank 10 feet from building, not clean; condition of building, neglected inside; condition of apparatus, some unclean; condition of surroundings, filthy, ground soaked with whey; condition of patrons' milk cans, did not see milk or cans; building is painted outside.

Aug. 30, 1903.—Name of factory, York; location, Granton; owner or manager, J. Daughatter; P. O. address, Thorp; name of maker, James Steller; he has not attended Dairy School at Madison; no. of patrons, 20; pounds of milk daily, 3,600; pounds of cheese daily, 380; the Babcock Test is used; the Wisconsin Curd Test is used; inspector's test of composite milk sample for day, 4.2; payments are made by test; weight of milk, 117,252; average test, 3.89; and pounds of cheese, 11,670, at last payment; there were no screen doors and windows; drainage, open, not good; whey tank 45 feet, fair; condition of building, new, but not yet finished, only fair; condition of apparatus, good, new this spring; condition of surroundings, good; condition of patrons' milk cans, mostly all good; condition of milk in cans, good; building is not painted on outside.

Aug. 31, 1903.—Name of factory, Rockwell; location, country, town Wayne, sec. 34; owner or manager, Aug. Stackpole; P. O. address, So. Wayne, La Fayette county; name of maker, Anton Huber; he has not attended Dairy School at Madison; no. of patrons, 11; no. of cows, 148; pounds of milk daily, 3,004; pounds of cheese daily, 272; the Babcock Test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage enters about 20 feet from building, but has no fall; whey tank 14 feet from building; condition of building, poor; condition of apparatus, not very clean; condition of surroundings, bad, as it is surrounded by hog pens; condition of patrons' milk cans, some have very poor cans; condition of milk in cans, one patron has very poor milk; building is painted on outside.

Sept. 1, 1903.—Name of factory, Hollyhead; location, country, town Dodgeville; co-operative; P. O. address, Ridgeway, Iowa county; name of maker, Ad. Yoss; he has not attended Dairy School at Madison; no. of patrons, 7; no. of cows, 95; pounds of milk daily, 1,750; pounds of cheese daily, 159; the Bacbock Test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage in poor condition; whey tank in poor condition; condition of building, fair; condition of apparatus, fair; condition of surroundings, drainage forms a filthy hole; condition of patrons' milk cans, fair; condition of milk in cans, fair; the building is not painted outside.

Sept. 2, 1903.—Name of factory, ——; location, Sheboygan Falls, twp. Sheboygan Falls, sec. 33; owner or manager, Frank A. Fenner; P. O. address, Sheboygan Falls, R. F. D.; name of maker, Frank A. Fenner; he has not attended Dairy School at Madison; no. of patrons, 30; no. of cows, 330; pounds of milk daily, 6,500; pounds of cheese daily, 625; the Babcock Test is used; the Wis. Curd Test is not used; payments are made per cwt.; weight of milk, 237,079; and pounds of cheese, 21,801, at last payment; there were screen doors and windows; tile drain; whey tank 60 feet from building, fairly clean; condition of building, good; condition of apparatus, good: condition of surroundings, good; condition of patrons' milk cans, some rusty; condition of milk in cans, some dirty; the building is painted on the outside.

Sept. 3, 1903.—Name of factory, Riverside; location, Elkhart Lake, twp. Rhine, sec. 13; owner or manager, Henry Horneck; P. O. address, Elkhart Lake, R. F. D. No. 34; name of maker, Henry Horneck; he has not attended Dairy School at Madison; no. of patrons, 26; no. of cows, 223; pounds of milk daily, 6,000; pounds of cheese daily. 587; the Babcock Test is used; the Wisconsin Curd Test is not used; payments are made on fat basis; weight of milk, 193,900; average test, 3.35; and pounds of cheese, 17,450, at last payment, June; there were screen doors and windows; drainage, creek running close to building; whey tank 25 feet from building, clean; condition of building, fair; condition of apparatus, good except whey pipes, should be open troughs instead; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, usually fair; the building is not painted outside.

Sept. 3, 1903.—Name of factory, Barreltown; location, country, Mineral Point, Iowa Co., sec. 20; owner or manager, J. Mitchell; P. O. address, Mineral Point, Iowa Co.; name of maker, Fred Schuler; he has not attended Dairy School at Madison; no. of patrons, 9; no. of cows, 118; pounds of milk daily, 2,800; pounds of cheese daily, 311; the Babcock test is not used: the Wisconsin curd test is not used; payments are made per pound; steam vats are used; no screen doors or windows; drainage enters into road, poor condition; whey barrels in very poor condition; condition of building, fair, cellar is quite poor; condition of apparatus, fairly clean; condition of surroundings, poor drainage, forming into a filthy hole; condition of patrons' milk cans, some were old and rusty, which should not be used; condition of milk in cans, poor on account of unsanitary condition of barrels; building is painted outside.

Sept. 4, 1903.—Name of factory, Ridgeway; location, Ridgeway; owner or manager, Wm. Kraemer; P. O. address, Ridgeway, Iowa Co.; name of maker, Karl Messuli; he has not attended Dairy School at Madison; no. of patrons, 10; no. of cows, 200; pounds of milk daily, 4,000; pounds of cheese daily, 363; style of cheese, Swiss; the Babcock test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; steam kettle is used; there were no screen doors or windows; drainage enters into a filthy hole next to building; location and condition of whey tank, joining to factory, fair condition; condition of building, poor; apparatus in fair, clean condition, but very old tools; condition of surroundings, poor, hog pen next to building; patrons' milk cans in fair condition; condition of milk in cans, fair; building is painted outside.

Sept. 4, 1903.—Name of factory, Millbrick; location, Ridgeway; owner or manager, John Swenson; P. O. address, Ridgeway, Iowa Co.; name of maker, Fred Hawerder; he has not attended Dairy School; no. of patrons, 12; no. of cows, 250; pounds of milk daily, 4,700; pounds of cheese daily, 427; style of cheese, Swiss; the Baccock Test is not used; no Wis. curd test used; payments made per cwt.; steam kettle used; were no screen doors or windows;

drainage is good; whey tank joining to building; condition of building, poor; condition of apparatus, fair, good steam outfit, in clean condition; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, fair; building is painted outside.

Sept. 5, 1903.—Name of factory, Hide; location, Ridgeway, Iowa Co.; owner or manager, John Johnson; P. O. address, Barneveld, Iowa Co.; name of maker, John Schultz; he has not attended Dairy School at Madison; no. of patrons, 16; no. of cows, 212; pounds of milk daily, 3,700; pounds of cheese daily, 336; style of cheese, Swiss; the Babcock Test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; fire kettle is used; there were no screen doors and windows; drainage enters near to building; location and condition of whey tank, fair; condition of building, fair; condition of apparatus, fair; condition of surroundings, poor, drainage forms a filthy place; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Sept. 7, 1903.—Name of factory, Severtson; location, Lindon, sec. 26; owner or manager, P. A. Peterson; P. O. address, Edmund; name of maker, Milt. Zinflueh; he has not attended Dairy School at Madison; no. of patrons, 11; no. of cows, 200; pounds of milk daily, 3,400; style of cheese, Swiss; the Babcock Test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; steam kettle is used; there were no screen doors or windows; drainage enters 70 feet from building; location and condition of whey tank, barrels 40 feet from building; condition of building, very good; condition of apparatus, very good, clean; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good; building is painted outside. This is one of the best factories which I have yet seen; very good in all respects.

Sept. 8, 1903.—Name of factory, Burr Oak; location, Dodgeville; owner or manager, Thom Thomas; P. O. address, Dodgeville, Iowa Co.; name of maker, August Regez; he has not attended Dairy School at Madison; no. of patrons, 9; no. of cows, 140; pounds of milk daily, 3,400; pounds of cheese daily, 340; style of cheese, block; the Babcock Test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage enters 24 feet from building; location and condition of whey tank, 10 feet from building, fair condition; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk cans, fair; building is not painted outside.

Sept. 9, 1903.—Name of factory, Blotz; location, Dodgeville; owner or manager, Jno. Blotz; P. O. address, Dodgeville, Iowa Co.; name of maker, Wm. Wenger; he has not attended Dairy School at Madison; no. of patrons, 10; no. of cows, 170; pounds of milk daily, 3,080; pounds of cheese daily, 342; style of cheese, brick; the Babcock Test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; fire kettle is used; there were no screen doors or windows; drainage is 30 feet from building;; location and condition of whey tank, poor; condition of building, very poor; condition of apparatus, poor, and not very clean; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Sept. 10, 1903.—Name of factory, Patterson; location, Mineral Point; owner or manager, D. Patterson; P. O. address, Mineral Point, Iowa Co.; name of maker, Peter Steuri; he has not attended Dairy School at Madison; no. of patrons, 6; no. of cows, 130; pounds of milk daily, 2,400; pounds of cheese daily, 266; style of cheese, limburger; the Babcock Test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; steam

vat used; there were no screen doors or windows; drainage enters 40 feet from building; location and condition of whey tanks, barrels in very poor condition; condition of building, poor, very old; condition of apparatus, fairly clean; condition of surroundings, poor, very low; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Sept. 11, 1903.—Name of factory, North Survey; location, Dodgeville; owner or manager, C. H. Berryman; P. O. address, Dodgeville, Iowa Co.; name of maker, Cap. Meyer; he has not attended Dairy School at Madison; no. of patrons, 10; no. of cows, 220; pounds of milk daily, 4,400; pounds of cheese daily, 323; style and quality of cheese, Swiss; the Babcock Test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage enters 30 feet from building; location and condition of whey tank, barrels 8 to 10 feet; condition of building, fair; condition of apparatus, fair; condition of surroundings, poor; condition of patrons' milk cans, some cans are old and rusty; condition of milk in cans, fair; building is painted outside.

Sept. 12, 1903.—Name of factory, Adell; location, Adell; owner or manager, S. Aigner; P. O. address, Adell; name of maker, S. Aigner; he has not attended Dairy School at Madison; no. of patrons 21; pounds of milk daily, 4,100; pounds of cheese daily, 370; style of cheese, daisies and long horns; the Babcock Test is used; the Wisconsin Curd Test is not used; payments are made on fat basis; weight of milk, 132,264; average test, 3.5; pounds of cheese, 12,024 at last payment; there were screen doors and windows; box drain underground; location and condition of whey tank, 40 feet from building, not cleaned often; condition of building, good; condition of apparatus, fair; condition of surroundings, ground whey soaked; condition of patrons' milk cans, rusty; condition of milk in cans, some dirty; building not yet painted outside, it is new and hardly completed.

Sept. 14, 1903.—Name of factory, Foegeli; location, Sylvester; owner or manager, A. Foegeli; P. O. address, Monroe; name of maker, G. Steinman; he has not attended Dairy School at Madison; no. of patrons, 3; no. of cows, 120; pounds of milk daily, 1,970; style of cheese, limburger; the Babcock Test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; steam vat is used; there were no screen doors or windows; drainage in very poor condition; location and condition of whey tank, barrels in poor condition; condition of building fair; condition of apparatus, fair; condition of surroundings, poor; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Sept. 15, 1903.—Name of factory, Blumer; location, Jefferson, sec. 18; owner or manager, Anna Blumer; P. O. address, Monroe; name of maker, John Blumer; he has not attended Dairy School at Madison; no. of patrons, 5; no. of cows, 85; pounds of milk daily, 1,500; style of cheese, limburger; the Babcock test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; steam vat used; there were no screen doors or windows; drainage in poor condition; location and condition of whey tank, joining to building; condition of building, poor, very old; condition of apparatus, poor; condition of surroundings, poor; building is not painted outside.

Sept. 15, 1903.—Location, Cecil; Washington township, sec. 11; owner or manager, A. J. Natzke; P. O. address, Cecil; name of maker, A. J. Natzke; he has not attended Dairy School at Madison; no. of patrons, 22; pounds of milk daily, 2,600; pounds of cheese daily, 279; style of cheese, flats; quality, fair; the Babcock Test is used; the Wisconsin Curd Test is not used; payments are made on fat basis; weight of milk, 75,118; average test, 3.92; pounds of cheese, 7,350 at last payment, July; there were no screen doors or

windows; no provisions for drainage; location and condition of whey tank, 30 feet from building, cleaned two to four times a month; condition of building, good; condition of apparatus; good; condition of surroundings, good; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Sept. 16, 1903.—Name of factory, Franklin; location, Glarus, sec. 6; owner or manager, D. Hogan; P. O. address, Monroe; name of maker, Ulrich Rami; he has not attended Dairy School at Madison; no. of patrons, 14; no. of cows, 140; pounds of milk daily, 3,5000; style of cheese, Swiss; the Babcock Test is not used; the Wisconsin Curd Test is used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage in fair condition; location and condition of whey tank, tanks in building, barrels fair distance; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair, with ecxeption of one patron; building is painted outside.

Sept. 16-17, 1903.—Name of factory, Iron Creek; location, Menomonie, Spring Brook township, sec. 1; owner or manager, Jacob Martinsen; P. O. address, Menomonie; he attended Dairy School at Madison; no. of patrons, 30; pounds of milk daily, 3,500; pounds of cheese daily, 380; style and quality of cheese, twins; the Babcock Test is used; the Wisconsin Curd Test is used; inspector's test of composite milk sample for day, 4.3; payments are made by test; weight of milk, 158,642; average test, 3.8; pounds of cheese, 1.,320 at last payment, June; there were screen doors and windows; drainage opens out on ground, very bad; location and condition of whey tank, up stairs, good; condition of building, good, fine curing room, sub-earth duct; condition of apparatus, good; condition of surroundings, only fair, drainage makes it bad; condition of patrons' milk cans, good; condition of milk in cans, good; building is painted outside.

Sept. 19, 1903.—Location, Sheboygan, Wilson township, sec. 16; owner or manager, H. C. Gartman; P. O. address, Sheboygan No. 5; name of maker, H. C. Gartman; he has not attended Dairy School at Madison; no. of patrons, 30; no. of cows, 263; pounds of milk daily, 4,900; pounds of cheese daily, 475; style and quality of cheese, flats, fair; the Babcock Test is not used; the Wisconsin Curd Test is used; payments are made per cwt.; weight of milk, 170,954; pounds of cheese, 15,937 at last payment, July; there were screen doors and windows; drainage pipe leading to ditch 80 feet away; location and condition of whey tank, 50 feet from building, cleaned weekly; condition of building, old, fairly clean; condition of apparatus, clean; condition of surroundings, good; condiiton of patrons' milk cans, some rusty; condition of milk in cans, some dirty, gassy; building is painted outside.

Sept. 21, 1903.—Name of factory, Raub; location, Jefferson, sec. 5; owner or manager, W. F. Hartwig; P. O. address, Monroe, Green Co.; name of maker, John Rindlisback; he has not attended Dairy School at Madison; no. of patrons, 9; no. of cows, 148; pounds of milk daily, 3,000; style of cheese, Swiss; the Babcock Test is not used; the Wisconsin Curd Test is used; payments are made per hundred; fire vats used; there were no screen doors or windows; drainage enters good distance from building; location and condition of whey tank, in building, barrels 15 feet from building; condition of building, poor, old; condition of apparatus, fair; condition of surroundings, whey barrels in poor condition; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Sept. 22, 1903.—Location, Cecil, Washington township, sec. 32; owner or manager, Theo. W. Natzke; P. O. address, Bonduel; name of maker, Theo. W. Natzke; he has not attended Dairy School at Madison; no. of patrons, 39;

pounds of milk daily, 4,500; pounds of cheese daily, 465; style of cheese, daisies; the Babcock Test is used some; the Wisconsin Curd Test is not used; payments are made per cwt.; weight of milk, 155,350; pounds of cheese, 15,009 at last payment, July; there were no screen doors or windows; no provisions for drainage; location and condition of whey tank, 15 feet from building, cleaned once a week or two; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, some gassy; building is not painted outside.

Sept. 23, 1903.—Name of factory, Johnson; location, country; owner or manager, Johnson; P. O. address, So. Wayne, Lafayette Co.; name of maker, Christ Frei; he has not attended Dairy School at Madison; no. of patrons, 8; no. of cows, 150; pounds of milk daily, 2,500; style of cheese, Swiss and block; the Babcock Test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; fire vats used; there were no screen doors or windows; drainage very poor; location and condition of whey tank, poor; condition of building, old and poor; condition of apparatus, not clean; condition of surroundings, poor, hog pen next to building; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Sept. 24, 1903.—Name of factory, White; location, Clarno; owner or manager, Frank Corb; P. O. address, Monroe; name of maker, Rordlisberger; he has not attended Dairy School at Madison; no. of patrons, 9; no. of cows, 140; pounds of milk daily, 2,600; style of cheese, Swiss; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage fair distance from building; location and condition of whey tank, barrels 10 feet from building, fair condition; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Sept. 25, 1903.—Name of factory, Elmer & Wild; location, Mt. Rose; owner or manager, Elmer & Wild; P. O. address, Belleville, R. 59; name of maker, Otto Vogel; he has not attended Dairy School at Madison; no. of patrons, 4; no. of cows, 125; pounds of milk daily, 2,100; style of cheese, limburger; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made per hundred; steam vats used; there were no screen doors or windows; drainage enters good distance from building; condition of whey barrels fair; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Sept. 25, 1903.—Name of factory, Fritz; location, Mt. Rose; owner or manager, John Fritz; P. O. address, Belleville; name of maker, Emil Roeder; he has not attended Dairy School at Madison; no. of patrons, 10; no. of cows, 220; pounds of milk daily, 3,300; style of cheese, limburger; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made per hundred; steam vats used; there were no screen doors and windows; drainage 16 feet from building; whey barrels in very poor condition; condition of building, poor, very old; condition of apparatus, fair; condition of surroundings, poor, whey barrels producing bad odor as they are next to building: condition of patrons' milk cans, fair; condition of milk in cans, fair at present; building is not painted on outside.

Sept. 26, 1903.—Name of factory, Mud Creek; location, Valders, Eaton township, sec. 12; owner or manager, H. A. Olm & Son; P. O. address, Valders, R. F. D.; name of maker, Otto Olm; he has not attended Dairy School at Madison; no. of patrons, 30; pounds

of milk daily, 3,800; pounds of cheese daily, 380; style of cheese, Y. A. and squares; Babcock Test is used; Wisconsin Curd Test is not used; payments are made on fat basis; weight of milk, 105,896; average test, 3.84; pounds of cheese, 10,501 at last payment, August; there were no screen doors or windows; drainage box under ground, leads across road to ditch; location and condition of whey tank, near building, not cleaned often; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside. Sanitary conditions better than on first visit.

Sept. 26, 1903.—Name of factory, Peerless; location, Primrose; owner or manager, H. Hoffman; P. O. address, Belleville, Dane Co.; name of maker, G. Langacker; he has not attended Dairy School at Madison; no. of patrons, 13; no. of cows, 300; pounds of milk daily, 4,700; style of cheese, limburger; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made per hundred; steam vats used; there were no screen doors or windows; drainage 35 feet from building; whey barrels in poor condition; condition of building, poor, very old; condition of apparatus, fair; condition of surroundings, poor, whey barrels joining to building; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Sept. 26, 1903.—Name of factory, Standard; location, Primrose; owner or manager, Joseph Fjellstadt; P. O. address, R. F. D. 70, Mt. Horeb; name of maker, H. Elmer; he has not attended Dairy School at Madison; no. of patrons, 13; no. of cows, 250; pounds of milk daily, 4,700; style of cheese, limburger; Babcock Test is not used; the Wisconsin Curd Test is used; payments are made per hundred; steam vats are used; there were no screen doors or windows; drainage 12 feet from building, poor condition; whey barrells in very poor condition; condition of building, poor, old; condition of apparatus, fair; condition of surroundings, poor, account barrels producing bad odor; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

September 26, 1903.—Name of factory, Holland; location, Primrose; owner or manager, Holland Cheese Co.; P. O. address, Mt. Horeb, R. 70; name of maker, Christ Baller; he has not attended Dairy School at Madison; no. of patrons, 4; no. of cows, 100; pounds of milk daily, 1,800; style of cheese, limburger; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made per hundred; steam vats used; there were no screen doors or windows; drainage poor; whey barrels poor; condition of building, poor, old; condition of apparatus, poor; condition of surroundings, very poor; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Sept. 26, 1903.—Name of factory, Petterson; location, Primrose; owner or manager, Wm. Petterson; P. O. address, Mt. Vernon; name of maker, Fritz Erb; he has not attended Dairy School at Madison; no. of patrons, 6; no. of cows, 120; pounds of milk daily, 2,300; style of cheese, block; the Babcock Test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; fire vats used; there were no screen doors or windows; drainage poor; whey barrels in poor condition; condition of building, poor; condition of apparatus, not very clean; condition of surroundings, poor; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Sept. 26, 1903.—Name of factory, Rock Hill Cheese Co.; location, Primrose; owner or manager, A. Becker; P. O. address, Mt. Horeb, R. 71; name of maker, Carl Bieri; he has not attended Dairy School at Madison; no. of patrons, 8; no. of cows, 200; pounds of milk daily, 3,100; style of cheese, limburger; the

Babcock Test is not used; the Wisconsin Curd Test is not used; payments are made per pound; steam vat used; there were no screen doors or windows; drainage 10 feet from building, poor condition; whey barrels, 30 feet from building; condition of building, fair; apparatus, good, clean; condition of surroundings, poor account of drainage; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Sept. 26, 1903.—Name of factory, Primrose Union Cheese Co.; location, Primrose; owner or manager, Ole Barton; P. O. address, Primrose; name of maker, Fred Indermill; he has not attended Dairy School at Madison; no. of patrons, 10; no. of cows, 180; pounds of milk daily, 3,300; style of cheese, limburger; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made per hundred; steam vat used; there were no screen doors or windows; drainage poor; whey barrels in good location; condition of building, good, new; condition of apparatus, fair; condition of surroundings, poor on account of drainage; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Sept. 26, 1903.—Name of factory, Harker; location Primrose; owner or manager, J. Harker; P. O. address, Mt. Vernon; name of maker, Christ Baumgerden; he has not attended Dairy School at Madison; no. of patrons, 12; no. of cows, 150; pounds of milk daily, 2,800; style of cheese, limburger; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made per hundred; steam vat used; there were no screen doors and windows; drainage 10 feet from building; whey barrels in poor condition; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Sept. 26, 1903.—Name of factory, Batcher Hill; location, Primrose; owner or manager, D. Conner; P. O. address, Mt. Vernon; name of maker, Christ Gerber; he has not attended Dairy School at Madison; no. of patrons, 6; no. of cows, 126; pounds of milk daily, 1,600; style of cheese, block; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage in very poor condition; whey barrels in poor condition; condition of building, poor.

Sept. 26, 1903.—Name of factory, Cadott Cheese Factory; location, Cadott; owner or manager, F. L. Munroe; P. O. address, Cadott; name of maker, John Wilson; he attended Dairy School at Madison; no. of patrons, 40; no. of cows, 120; pounds of milk daily, 2,500; pounds of cheese daily, 270; style and quality of cheese, twins and brick, granular, good quality; the Babcock Test is used; the Wisconsin Curd Test is used; inspector's test of composite milk sample for day, 4.3; payments are made by test; weight of milk, 79,720; average test, 4.3; pounds of cheese, 802 at last payment; there were no screen doors or windows; drainage underground to creek, good; location and condition of whey tank, up stairs, good; condition of building, good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, mostly all good; condition of milk in cans, good; building is painted outside.

Sept. 27, 1903.—Name of factory, North Star; location, Edson; owner or manager, F. C. Orth; P. O. address, Edson; name of maker, F. C. Orth; he attended Dairy School at Madison; no. of patrons, 48; no. of cows, 284; pounds of milk daily, 5,800; pounds of cheese daily, 610; style and quality of cheese, twins, good; the Babcock Test is used; the Wisconsin Curd Test is used; inspector's test of composite milk sample for day, 4.1; payments are made by pooling system; weight of milk, 118,400; pounds of cheese, 11,775 at last payment; there were screen doors and windows; drainage open to a pond; location and

condition of whey tank, upstairs, good; condition of building, fair; condition of apparatus, fair; condition of surroundings, good; condition of patrons' milk cans, mostly all good; condition of milk in cans, good; building is painted outside.

Sept. 27, 1903.—Name of factory, Hamon; location, Sylvester, sec. 29; owner or manager, S. M. Hamon; P. O. address, Monroe; name of maker, And. Alplanalp; he has not attended Dairy School at Madison; no. of patrons, 7; no. of cows, 15; pounds of milk daily, 2,400; style of cheese, block; the Babcock Test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage in poor condition; location and condition of whey tank, dug in ground, poor condition; condition of building, fair; condition of apparatus, fairly clean; condition of surroundings, poor, hog pen near building; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Sept. 28, 1903.—Name of factory, West; location, Monroe; owner or manager, Frank Zerbel; P. O. address, Monroe; name of maker, H. Teller; he has not attended Dairy School at Madison; no. of patrons, 12; no. of cows, 180; pounds of milk daily, 3,600; style of cheese, Swiss; Babcock Test is not used; foreign curd test is used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage in good condition; whey barrels in fair condition; condition of building, fair; condition of apparatus, good; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Sept. 28, 1903.—Name of factory, Boyd; location, Boyd; owner or manager, E. Korb; P. O. address, Boyd; name of maker, E. Korb; he has not attended Dairy School at Madison; no. of patrons, 44; no. of cows, 245; pounds of milk daily, 4,800; pounds of cheese daily, 545; style of cheese, daisies; the Babcock Test is used; the Wisconsin Curd Test is used; payments are made by pooling system; weight of milk, 132,980; pounds of cheese, 12,856 at last payment, 10.34 lb. milk for 1 lb. cheese; no screen doors or windows; drainage underground to creek; location and condition of whey tank, outside underground, fair; condition of building, fair, curing room poor; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, mostly all good, about 6 unfit for use; condition of milk in cans, good; building is painted outside.

Sept. 29, 1903.—Name of factory, Half Way; location, Chippewa Co., Edson township, sec. 3; owner or manager, A. P. Grieger; P. O. address, Stanley; name of maker, A. P. Grieger; he has attended Dairy School at Madison; no. of patrons, 29; pounds of milk daily, 2,500; pounds of cheese daily, 310; style of cheese, twins; the Babcock Test is not used; the Wisconsin Curd Test is used; inspector's test of composite milk sample for day, 4.2; payments are made by pooling system; there were no screen doors and windows; drainage open, runs out near road; location and condition of whey tank, upstairs, good; condition of building, fair, good basement curing room; condition of apparatus, good; condition of surroundings, fair; condition of patrons' milk cans, two of them rusty, balance good; condition of milk in cans, good; building is painted outside.

Sept. 29, 1903.—Name of factory, Island; location, Medina Junction, Greenville township, sec. 31; owner or manager, Island Cheese & Butter Co.; P. O. address, Appleton, R. R. No. 1; name of maker, Robert Wohld; P. O. address, Larson, R. R. No. 13; he has attended Dairy School at Madison; no. of patrons, 14; no. of cows, 147; pounds of milk daily, 2,200; pounds of cheese daily, 220; style and quality of cheese, flats; the Babcock Test is used; the Wisconsin Curd Test is seldom used; payments are made on fat basis;

weight of milk, 71,700; average test, 3.77; there were not many screen doors and windows; tile drain; location and condition of whey tank, 3 feet from building, cleaned weekly; condition of building, good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, some gassy and sweetish in flavor; building is painted outside.

Sept. 29, 1903.—Name of factory, Theehn; location, Washington; owner or manager, Herman Schmerse; P. O. address, Monroe; name of maker, Fred Wenger; he has not attended Dairy School at Madison; no. of patrons, 8; no. of cows, 160; pounds of milk daily, 3,200; style of cheese, block; the Babcock Test is not used; foreign curd test is used; payments are made per hundred; fire kettle used; there were no screen doors and windows; drainage in poor condition, 12 feet from building; whey barrels in poor condition; condition of building, fair; condition of apparatus, fair; condition of surroundings, poor, account of drainage; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Sept. 29, 1903.—Name of factory, Robert Theiler; location, Washington; owner or manager, Robert Theiler; P. O. address, Monticello; name of maker, Fred Rieser; he has not attended Dairy School at Madison; no. of patrons, 6; no. of cows, 160; pounds of milk daily, 2,900; style of cheese, limburger; the Babcock Test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; steam vats are used; there are no screen doors or windows; drainage in good condition; whey barrels in poor condition; condition of building, fair; condition of apparatus, fair; condition of surroundings, poor, account of drainage; condition of patrons' milk cans; fair; condition of milk in cans, poor; building is painted outside.

Sept. 30, 1903.—Name of factory, H. Theiler; location, Washington; owner or manager, H. Theiler; P. O. address, Monticello; name of maker, John Krebs; he has not attended Dairy School at Madison; no. of patrons, 2; no. of cows, 73; pounds of milk daily, 1,600; style of cheese, limburger; the Babcock Test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; steam vat used; there were no screen doors and windows; drainage in poor condition; whey barrels in very poor condition; condition of building, poor; condition of apparatus, fair; condition of surroundings, poor; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Sept. 30, 1903. Name of factory, Karlin; location, country, twp. Washington; owner or manager, Jno. Dick; P. O. address, Monticello; name of maker, Jno. Wahlen; he has not attended Dairy School at Madison; no. of patrons, 4; no. of cows, 130; pounds of milk daily, 2,400; style of cheese, block; the Babcock Test is not used; the Wisconsin Curd Test is not used; payments are made per hundred; fire kettle is used; there were no screen doors or windows; drainage, poor condition; whey barrels in very poor condition; condition of building, poor; condition of apparatus, poor, not very clean; condition of surroundings, poor; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Sept. 30, 1903.—Name of factory, Bohemian; location, near Boyd, twp. Edson; owner or manager, Orth & Borin; P. O. address, Juneau; name of maker, H. J. Haskins; he has not attended Dairy School at Madison; no. of patrons, 27; no. of cows, 118; pounds of milk daily, 2,100; pounds of cheese daily, 220; style of cheese, Twins; the Babcock Test is not used; the Wisconsin Curd Test is not used; inspector's test of composite milk sample for day, 4.1; payments are made by pooling system; there were no screen doors or windows; drainage, underground to creek; whey tank upstairs, good; condition of building, good, almost new, basement curing room; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good; building is painted outside.

REPORT OF CREAMERY INSPECTION.

Note.—In creameries where both milk and farm separator cream are received the inspector's report of test for butter fat, unless specifically stated otherwise, refers to milk.

July 1, 1903.—Name of creamery, Neillsville; proprietary; location, Neillsville, Clark county; name of proprietor, H. B. J. Andrus; P. O. address, Neillsville, R. D.; condition of milk when received, good; no. of patrons for month of July, 106; average pounds of milk daily, 15,000; average test, 4.06; method of sampling and testing, composite, ten days; there was 2-100 per cent. loss of fat in skim milk; 4-10 per cent. loss of fat in buttermilk; general condition of building, good; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank inside, washed daily; sour milk tank inside, washed when empty; there were no screen doors or windows; the cream vat was covered with boards.

July 2, 1902.—Name of creamery, Merrillan; proprietary; location, Merrillan; name of proprietor, A. W. Lehman; P. O. address, Merrillan; name of buttermaker, A. W. Lehman; no. of patrons for month of July, 40; average pounds of cream daily, 1,000; average test, 26; average yield, 30.5; per cent. overrun, 17; method of sampling and testing, composite, bi-monthly; 1.5 per cent. loss of fat in buttermilk; general condition of building, good; drainage good; no bad smell in creamery; creamery was clean, sour milk tank is outside, washed weekly; there were no screen doors or windows; cream vat was covered with cloth.

July 6, 1903.—Name of creamery, Turtle Lake; co-operative; location, Turtle Lake, Barron county; name of secretary, C. H. Coler; P. O. address, Turtle Lake; name of buttermaker, J. H. Grady; he has attended Dairy School; condition of milk when received, good; no. of patrons for month of July, 35; average pounds of milk daily, 4,000; average test, 3.9; method of sampling and testing, composite, bi-monthly; 65-100 per cent. loss of fat in skim milk; 11-100 per cent. loss of fat in buttermilk; general condition of building, good; drainage, cesspool, in good shape; no bad smell in creamery; creamery was clean; skim milk tank inside, washed daily; sour milk tank inside, washed daily; there were screen doors and windows.

July 6, 1903.—Name of creamery, Apple River and Beaver creamery; co-operative; location, 7 miles west of Turtle Lake, Polk county; name of secretary, L. Bergstadt; P. O. address, Range; name of buttermaker, A. Carswell; he has attended Dairy School; condition of milk when received, good; no. of patrons for month of July, 109; average pounds of milk daily, 15,000; average test, 3.81; average yield, 4.42; per cent. overrun, 16; method of sampling and testing, composite, bi-monthly; 2-100 per cent. loss of fat in skim milk; 5-100 per cent. loss of fat in buttermilk; general condition of building, good;

drainage good, no cesspool; there was bad smell in creamery; caused by leakage under floor; creamery was clean; skim milk tank inside, washed daily; sour milk tank inside, washed daily; there were screen doors and windows; cream vat covered with cloth.

July 7, 1903.—Name of creamery, Volga; co-operative; location, 5 miles north of Amery, Polk country; name of secretary, G. A. Lindgren; P. O. address, Volga; name of buttermaker, A. Erickson; he has attended Dairy School; condition of milk when received, good; no. of patrons for month of July, 80; average pounds of milk daily, 9,000; average test, 4; average yield, 4.6; per cent. overrun, 16; method of sampling and testing, composite, bi-monthly; 4-100 per cent. loss of fat in skim milk; 5-100 per cent. loss of fat in buttermilk; general condition of building, good; drainage not good, use cesspools; no bad small in creamery; creamery was clean; skim milk tank inside, washed daily; sour milk tank inside, washed daily; there were screen doors and windows; cream vat was covered with oil cloth.

July 8, 1903.—Name of creamery, Amery; co-operative; location, Amery, Polk county; name of secretary, J. P. Peterson; P. O. address, Amery; name of buttermaker, P. C. Peterson; he has attended Dairy School; condition of milk when received, good; no. of patrons for month of July, 52; average pounds of milk daily, 5,500; average test, 3.5; average yield ,4.06; per cent. overrun, 16; method of sampling and testing, composite, bi-monthly; 5-100 per cent. loss of fat in skim milk; 15-100 per cent. loss of fat in buttermilk; general condition of building, good; drainage good; no bad smell in creamery; creamery was clean; skim milk tank inside, washed daily; sour milk tank inside, washed daily; there were no screen doors or windows.

July 13, 1903.—Name of creamery, Ideal; co-operative; location, 5 miles northwest Sun Prairie; name of secretary, H. M. Rood; P. O. address, R. F. D., Sun Prairie; name of buttermaker, W. H. Brebs; he has not attended Dairy School; condition of milk when received, good; no. of patrons for month of July, 29; average pounds of milk daily, 4,500; method of sampling and testing, composite, bi-monthly; 2-100 per cent. loss of fat in skim milk; 4-10 per cent. loss of fat in buttermilk; general condition of building, good; drainage good; no bad smell in creamery; creamery was clean, skim milk tank inside, washed daily; use barrels for sour milk; there were no screen doors and windows; cream vat was covered with cloth.

July 14–15, 1903.—Name of creamery, Union Center; proprietary; location, Union Center, Juneau county; name of proprietor, H. Borg & Son; P. O. address, Reedsburg; name of buttermaker, L. E. Claflin; he has not attended Dairy school; no. of patrons for month of July, 66; average pounds of milk daily, 11,000; per cent. overrun, 13; method of sampling and testing, composite, bi-monthly; 35-100% loss of fat in buttermilk; general condition of building, poor; drainage not good; no bad smell in creamery; creamery was not clean; there were no screen doors or windows; cream vat was covered with boards.

July 15, 1903.—Name of creamery, Hillsboro; proprietary, location, Hillsboro, Vernon county; name of proprietor, W. C. Aulsbrook; P. O. address, Hillsboro; name of buttermaker, J. M. Doten; he has not attended Dairy School; condition of milk when received, good; no. of patrons for month of July, 83; average pounds of milk daily, 11,000; average test, 3.9; average yield, 4.3; per cent. overrun, 12; method of sampling and testing, composite, bi-monthly; 18-100 per cent. loss of fat in skim milk; 25-100 loss of fat in buttermilk; general condition of building, good; drainage good; no bad smell in creamery; creamery was clean; skim milk tank inside, washed daily; sour milk tank inside, washed once a week; there were no screen doors or windows; cream vat covered with board.

July 15, 1903.—Name of creamery, Fairchild; proprietary; location, Fairchild; name of proprietor, Thos. McCurdee; P. O. address, Fairchild; name of buttermaker, Thos. McCurdee; he has not attended Dairy School; condition of milk when received, good; no. of patrons for month of June, 42; no. of cows, 250; average pounds of milk dinly, 4,500; average test, 3.8; average yield, 4.5; per cent. overrun, 12 per cent.; general condition of building, fair; drainage was very good; no bad smell in creamery; creamery was clean; skim milk tank overhead, good; no sour milk tank, buttermilk is sold; there were no screen doors or windows; cream vat was covered with fly screen.

July 16, 1903.—Name of creamery, Eleva Co-op.; co-operative; location, Eleva; name of secretary, J. B. Meyer; P. O. address, Eleva; name of buttermaker, H. Halvorsen; he has attended Dairy School; all farm separators; condition of cream from them, good; no. of patrons for month of July, 101; average pounds of cream daily, 2,800; average test, 2; average yield, 23; per cent. overrun, 15; general condition of building, good; drainage good; no bad smell in creamery; creamery was clean; sour milk tank overhead, good; there were no screen doors or windows; cream vat was covered with lid.

July 16, 1903.—Name of creamery, Dilly; proprietary; location, 6 miles north of Hillsboro; name of proprietor, E. D. Kuhn; P. O. address, Dilly; name of buttermaker, ——; he has attended Dairy School; condition of milk when received, good; no. of patrons for month of July, 85; average pounds of milk daily, 15,000; method of sampling and testing, composite, bi-monthly; 2-100 per cent. loss of fat in skim milk; general condition of building, good; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank outside, under cover, washed daily; sour milk tank outside, under cover, washed frequently; there were no screen doors or windows; cream vat was not covered.

July 17, 1903.—Name of creamery, Wonewoc; proprietary; location, Wonewoc, Juneau county; name of proprietor, E. A. Winter; P. O. address, Wonewoc; name of buttermaker, E. A. Winter; he has not attended Dairy School; condition of milk when received, good; no. of patrons for month of July, 57; average pounds of milk daily, 5,000; average test, 3.8; average yield, 4.4; per cent. overrun, 16; method of sampling and testing, composite, bi-monthly; 2-100 per cent. loss of fat in skim milk; 5-100 per cent. loss of fat in buttermilk; general condition of building, fair; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank inside, washed daily; sour milk tank inside, washed daily; there were no screen doors or windows; cream vat was not covered.

July 17, 1903.—Name of creamery, Unity Co-op.; co-operative; location, Sturm; name of secretary, H. M. Robbe; P. O. address, Sturm; name of buttermaker, E. Johnson; he has attended Dairy School; all farm separators; condition of cream from them, fairly good; no. of patrons for month of June, 140; average pounds of cream daily, 3,000; average test 18 per cent; per cent. overrun, none; method of sampling and testing, oil test; general condition of building, good; drainage was good; no bad smell in creamery; creamery was clean; sour milk tank outside underground, bad shape, dirty; there were screen doors and windows; cream vat had wood covers.

July 18, 1903.—Name of creamery, Osseo; proprietary; location, Osseo; name of proprietor, J. C. Dodge; P. O. address, Osseo; name of buttermaker, J. E. Hanson; he has not attended Dairy School; condition of milk when received, good; average pounds of milk daily, 27,000; average test, 3.8; average yield, 4.3; per cent. overrun, 12–14 per cent.; general condition of building, only fair; drainage was good; no bad smell in creamery; creamery fairly clean; skim milk tank overhead, good; sour milk tank overhead, good; there were no screen doors or windows; cream vat was not covered.

July 19, 1903.—Name of creamery, Mondovi Farmers; co-operative; location, Mondovi; name of secretary, A. Rohrship; P. O. address, Mondovi; name of buttermaker, H. B. Woldt; he has attended Dairy School; condition of milk when received, good; average pounds of milk daily, 1,300; cream, 3,500; average test, 4.3; average yield, 4.7; per cent. overrun, 11; method of sampling and testing, by measure; general condition of building, good; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank overhead in churn room, good; sour milk tank inside, not cleaned every day; there were no screen doors or windows; cream vat was not covered.

July 19, 1903.—Name of creamery, Mondovi Dairymen's; co-operative; location, Mondovi; name of secretary, J. L. Brownlee; P. O. address, Mondovi; name of buttermaker, A. Hyslop; he has not attended Dairy School; condition of milk when received, good; no. of patrons for month of June, 191; average pounds of milk daily, 1,200; average pounds cream daily, 5,000; average test, 4.2; average yield, 4.9; per cent. overrun, 16; method of sampling and testing, by weight; general condition of building, good; drainage is fine; no bad smell in creamery; creamery was clean; skim milk tank upstairs, good; sour milk tank upstairs, fair; there were screen doors and windows; cream vat was not covered.

July 21, 1903.—Name of creamery, Knapp; proprietary; location, Knapp; name of proprietor, C. M. McFletcher; P. O. address, Knapp; name of buttermaker, A. Sheldon; he has not attended Dairy School; condition of milk when received, good; average pounds of milk daily, 800; cream, 3,000; average test, 3.8; average yield, 4.3; per cent. overrun, 15; method of sampling and testing, composite; general condition of building, poor; drainage was very bad; no bal smell in creamery, all outside; creamery fairly clean; skim milk tank overhead, only fair; sour milk tank outside, underground; there were no screen doors or windows; cream vat was covered.

July 22, 1903.—Name of creamery, Wilson; co-operative; location, Wilson; name of secretary, N. Swanson; P. O. address, Wilson; name of buttermaker, J. B. Heath; he has not attended Dairy School; condition of milk when received, only fair; no. of patrons for month of June, 80; average pounds of milk daily, 3,000; cream, 3,000; average test, 3.8; average yield, 4.3; per cent. overrun, 13; method of sampling and testing cream, by weight; general condition of building, good; drainage was good; no bad smell in creamery; skim milk tank overhead, good; sour milk tank overhead, good; there were no screen doors or windows; cream vat not covered. This is a new creamery building, and a very neat and clean one.

July 23, 1903.—Name of creamery, Husey; co-operative; location, Husey; name of secretary, G. L. Lamport; P. O. address, Husey; name of buttermaker, Olaf Waller; he has not attended Dairy School; condition of milk when received, good; average pounds of milk daily, 1,500; cream, 1,800; average test, 4.0; average yield, 4.5; per cent. overrun, 15; method of sampling and testing, composite; general condition of building, good; drainage was poor; no bad smell in ceamery; skim milk tank overhead, good; sour milk tank overhead, good; there were no screen doors and windows; cream vat was covered. Drainage here very bad; a new creamery, just built.

July 24, 1903.—Name of creamery, Woodville; proprietary; location, Woodville; name of proprietors, Stockman & Hurd; P. O. address, Woodville; name of buttermaker, B. T. Hurd; he has not attended Dairy School; condition of milk when received, good; no. of patrons for month of June, 95; average pounds of milk daily, 1,200; cream, 300; average test, 4.1; average yield, 4.6; per cent. overrun 12; general condition of building, only fair; drainage was good; bad smell in creamery; creamery was clean, skim milk tank up stairs,

good; sour milk tank outside, good; there were screen doors and windows; cream vat was covered. Have been testing cream by measurement; have been warned and promise to get scales.

July 24, 1903.—Name of creamery, Stone Bank; co-operative; location, 3 miles north of Nashotah, Waukesha county; name of secretary, J. Christopherson; P. O. address, R. D. 24, Oconomowoc; name of buttermaker, C. Larsen; he has attended Dairy School; no. of patrons for month of July, 39; average pounds of milk daily, 5,500; average test, 3.83; average yield, 4.53; per cent. overrun, 18; method of sampling and testing, composite, bi-monthly; 4-100 per cent. loss of fat in skim milk; 7-10 per cent. loss of fat in buttermilk; general condition of building, good; drainage not good, use cesspool for drainage; bad smell in creamery; cause, from weigher; creamery was clean; skim milk tank inside, washed daily; sour milk tank inside, washed when empty; there were screen windows.

July 24, 1903.—Name of creamery, Oak View; proprietary; location, Oconomowoc, Waukesha county; name of proprietor, G. H. Barber; P. O. address, Oconomowoc; name of buttermaker, G. H. Barber; he has not attended Dairy School; condition of milk when received, good; no. of patrons for month of July, 31; average pounds of milk daily, 4,500; method of sampling and testing, composite, bi-monthly; 2-100 per cent. loss of fat in skim milk; 4-10 per cent. loss of fat in buttermilk; general condition of building, good; drainage good; no bad smell in creamery; creamery was clean; skim milk tank inside, washed daily; have no sour milk tank; there were no screen doors or windows; cream vat covered with board.

July 25, 1903.—Name of creamery, Forsyth & Sabin; proprietary; location, Fairchild; names of proprietors, Forsyth & Sabin; P. O. address, Baldwin; name of buttermaker, Sebin; he has attended Dairy School; condition of milk when received, fair; no. of patrons for month of June, 25; average pounds of milk daily, 2,500; average test, 3.9; per cent. overrun, none; method of sampling and testing, composite; general condition of building, only fair; drainage, good; no bad smell in creamery; creamery only fairly clean, no skim milk tank, farmers get it at separator; farmers have cans and get sour milk in creamery; there were no screen doors or windows; creamery vat not covered. Are testing cream by measure; have been warned and will put in scales.

July 27, 1903.—Name of creamery, Gower Creamery Co.; proprietary; location, Hammond; name of proprietor, A. A. Gower; P. O. address, Hammond; name of buttermaker, O. Gailid; he has attended Minnesota Dairy School; condition of milk when received, fair; no. of patrons for month of June, 173; average pounds of milk daily, 2,500; cream, 2,300; average test, 3.8; average yield, 4.3; per cent. overrun, 12%; method of sampling and testing, composite; general condition of building, fair; drainage was good; no bad smell in creamery; creamery was clean; farmers take skim milk from separator; sour milk tank overhead, good; there were no screen doors or windows; cream vat was covered.

July 28, 1903.—Name of creamery, Superior; proprietary; location, New Richmond; name of proprietor, Superior Creamery Company; P. O. address, Sun Prairie; name of buttermaker, John Schield; he has attended Dairy School in Minnesota and Iowa; condition of milk when received, good; no. of patrons for month of June, 48; average pounds of milk daily, 6,000; cream, 180; average test, 3.9; method of sampling and testing cream, by weight; general condition of building, good; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank overhead, good; there were no screen doors or windows.

July 28, 1903.—Name of creamery, Reliance; co-operative; location, 3½ miles southeast of Whitewater; name of secretary, H. Halvorson; P. O. address, R. D., Whitewater; name of buttermaker, T. Kiernan; he has not attended Dairy School; condition of milk when received, fair; no. of patrons for month of July, 22; average pounds of milk daily, 5,000; average test, 3.69; average yield, 421; per cent. overrun, 14; method of sampling and testing, average yield, 4.21; per cent. overrun, 14; method of sampling and testing, B 2d size pipette; 13-100 per cent. loss of fat in skim milk; 35-100 per cent. loss of fat in buttermilk; general condition of building, good; drainage was not good; there was a bad smell in creamery; cause, poor floor; creamery was clean; skim milk tank inside, washed daily; sour milk tank inside, washed frequently; there were no screen doors or windows; cream vat was covered with board and cloth.

July 30, 1903.—Name of creamery, Grove Creamery Co.; co-operative; location, 5 miles west of Elkhorn; name of secretary, M. B. Ranney; P. O. address, Bowers; name of buttermaker, C. Schenk; he has attended Dairy School; condition of milk when received, poor; no. of patrons for month of July, 94; average pounds of milk daily, 24,000; average test, 3.81; average yield, 4.26; per cent. overrun, 12; method of sampling and testing, composite, ten days; 4-100 per cent. loss of fat in skim milk; 4-100 per cent. loss of fat in buttermilk; general condition of building, good; drainage not good, use cesspool; no bad smell in creamery; creamery was clean; no skim milk tank; sour milk tank inside, always full; there were no screen doors or windows; cream vat in cold room, not covered.

July 31, 1903.—Name of creamery, Turtle Lake; co-operative; location, Turtle Lake; name of secretary, T. H. Coler; P. O. address, Turtle Lake; name of buttermaker, J. H. Grady; he has attended Dairy School; condition of milk when received, fair; no. of patrons for month of June, 35; no. of cows, 250; average pounds of milk daily, 4,500; average test, 3.9; average yield, 4.4; per cent. overrun, 13; method of sampling and testing, composite; general condition of building, good; drainage good; no bad smell in creamery; creamery clean; skim milk tank overhead, good; sour milk tank overhead, good; there were screen doors and windows; cream vat was covered.

Aug. 1, 1903.—Name of creamery, Garfield; proprietary; location, Ubet; name of proprietors, Mathon & Fredland; P. O. address, Ubet; buttermaker, J. I. Fredland; he has not attended Dairy School; condition of milk when received, good; no. of patrons for month of June, 106; no. of cows, 520; average pounds of milk daily, 13,000; average test, 3.85; average yield, 4.46; per cent. overrun, 16; method of sampling and testing, composite; general condition of building, good; drainage was good; no bad smell in creamery; creamery was clean; skim milk tank outside, good; sour milk tank overhead, good; there were no screen doors or windows; cream vat was covered.

Aug. 3, 1903.—Name of creamery, Amery; co-operative; location, Amery; name of secretary, J. P. Peterson; P. O. address, Amery; name of buttermaker, P. C. Peterson; he has attended Dairy School; condition of milk when received, fair; 12 farm separators used; condition of cream from them, good; no. of patrons for month of June, 52; no. of cows, 315; average pounds of milk daily, 6,000; average test, 4.0; average yield, 4.6; per cent. overrun, 15; method of sampling and testing, composite; general condition of building, good; drainage good; bad smell in creamery; cause, skim milk tank leaks; creamery was clean; skim milk tank overhead, good; sour milk tank overhead, good; there were no screen doors or windows; cream vat covered with lid. Some composite samples in bad shape, thick and sour; advised use of a diferent preservative.

Aug. 3, 1903.—Name of creamery, Deerfield; co-operative; location, Deerfield, Dane county; manager, A. Brictson; P. O. address, Deerfield; name of buttermaker, J. T. Lundeberg; he has not attended Dairy School at Madison; no. of patrons, 37; no. of pounds milk daily, 5,800; no. of pounds of butter daily, 275; average test, 3.48; butter yield, 4.05; and overrun, 16, at last payment; quality of butter, good; sampling and testing, composite, bi-monthly; 2-100 per cent. loss of fat in skim milk; 5-10 per cent. loss of fat in buttermilk; inspector's test of composite milk sample for day, 4.2; there were no screen doors or windows; cream vat covered with oil cloth; drainage, cesspool just completed, works O. K.; no bad odor in creamery; skim milk tank inside, work room washed daily; buttermilk tank outside on ground, not washed; condition of building, fair; building is painted outside; condition of apparatus, good; condition of patrons' milk cans, generally clean, most of them being 30-gal. cans; condition of milk in cans, fairly clean, some sediment, and three cans painted. Two pipettes, both incorrect.

Aug. 18, 1903.—Name of creamery, Westfield; proprietary; location, Westfield, Marquette county; owners, Jones & Klamer; P. O. address, Lake Mills; name of buttermaker, R. Klamer; he has not attended Dairy School at Madison; no. of patrons, 104; no. of pounds of milk daily, 8,500; no. of pounds of butter daily, 550; sampling and testing, composite, bi-monthly; 5-10 per cent. loss of fat in skim milk; 1 pound loss of fat in buttermilk; inspector's test of composite milk sample for day, 4.2; there were no screen doors or windows; cream vat was not covered; drainage good, short distance to a mill pond; no bad odor in creamery; skim milk tank upstairs, washed daily; buttermilk tank upstairs, not washed, always some left; condition of building, good, cement floor; building is painted outside; condition of apparatus, good, churn pipes and pump dirty, had them taken down and cleaned; condition of surroundings, good; condition of patrons' milk cans, generally dirty, all small cans; condition of milk in cans, clean and generally well cooled, but some tainted and smothered. Books kept at Lake Mills.

Aug. 19, 1903.—Name of creamery, Coloma Co-operative; co-operative; location, Coloma Station, Waushara county; manager, J. D. Hollister; P. O. address, Coloma Station; name of buttermaker, T. Netland; he has attended Dairy School at Madison; no. of patrons, 61; no. of pounds of milk daily, 3,000; no. of pounds of butter daily, 157; average test, 3.9; butter yield, 4.7; and overrun 21% at last payment; quality of butter, good; sampling and testing, composite, bi-monthly; 7-100 per cent. loss of fat in skim milk; there were no screen doors or windows; cream vat was covered with oilcloth; for drainage have cesspool and have tank to drain away when full; no bad odor in creamery; skim milk tank upstairs over boiler, washed daily, pasteurize skim milk; buttermilk tank upstairs over boiler, not washed; condition of building, good, nearly new, cement floor in engine room and where churn stands, rest of it wood; building is painted outside; condition of apparatus, good, vats O. K.; tester O. K.; condition of surroundings, would be better if weeds were cut; condition of patrons' milk cans, clean, pasteurized skim milk helps; condition of milk cans, clean, but showed effects of heat and washing with dish cloths. Two pipettes here and both had points broken.

Aug. 19, 1903.—Name of creamery, Hudson Road; co-operative; location, town of Lucas, Dunn county; manager, L. Miring, secretary; P. O. address, Menomonie; buttermaker, W. Cook; he has not attended Dairy School at Madison; no. of patrons, 35; no. of pounds of milk daily, 3,000; no. of pounds of butter milk sample for day, 4.0 per cent.; there were not all screen doors or win- butter, good; sampling and testing, composite; 2 per cent. loss of fat in skim milk; .08 per cent. loss of fat in buttermilk; inspector's test of composite daily, 320; average test, 4.0; overrun, 12 per cent. at last payment; cream vat covered with lid; drainage underground, good; some bad odor in creamery; skim milk tank overhead in churn room; buttermilk tank

outside, good; condition of building, fair, but floors in bad shape, leaks all over; building is painted outside; condition of apparatus, only fair, a coat of paint would do it good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good. Farm separator cream in good shape; have not been testing cream by weight.

Aug. 20, 1903.—Name of creamery, Hancock; co-operative; location, Hancock, Waushara county; manager, C. C. Hayward; P. O. address, Hancock; name of buttermaker, H. E. Griffins; he has attended Dairy School at Madison; no. of patrons, 196; no. of pounds of milk daily, 12,000; no. of pounds of butter daily, 612; average test, 4.03; butter yield, 4.80; ad overrun 19, at last payment; quality of butter good; sampling and testing, composite bi-monthly; 2-100 per cent. loss of fat in skim milk; 7-100 per cent. loss of fat in buttermilk; there were screen doors and windows; cream vat covered with oil cloth; drainage runs into near-by marsh, smells somewhat, lake near by could make splendid drainage; no bad odor in creamery; skim milk tank upstairs, washed daily; buttermilk tank upstairs, washed daily; condition of building, good, about two years old, well kept; building is painted outside; condition of apparatus, good; condition of surroundings, all right, flower beds in front of building set it off in good shape; condition of patrons' milk cans, very clean, shows effect of buttermaker's preaching; condition of milk in cans, very good. Pipettes O. K., bottles O. K.; called their attention to the fact that the overrun was too big.

Aug. 21, 1903.—Name of creamery, Deerfield; co-operative; location 4½ miles east of Hancock, sec. 9, town E. 19; manager, F. L. Parkinson; P. O. address, Hancock; name of buttermaker, B. E. Reid; he has not attended Dairy School at Madison; no. of patrons, 47–20; no. of pounds of milk daily, 1,300 to 3,000; no. of pounds of butter daily, 200; quality of butter good; sampling and testing, composite, bi-monthly; 2-100 per cent. loss of fat in skim milk; 25-100 per cent. loss of fat in buttermilk; inspector's test of composite milk sample for day, 4.4; there were screen doors and windows; cream vat was covered with oilcloth; drainage runs across a field about 80 rods into a ravine; no bad odor in creamery; skim milk tank upstairs, washed daily; buttermilk tank upstairs, not used, use a barrel outside; condition of building, good, only built two years ago; building is painted outside; condition of apparatus, good; condition of surroundings, O. K.; condition of patrons' milk cans, clean, pasteurized skim milk keeps them clean; condition of milk in cans, clean, but could be better cooled and aerated. Have one cream patron and no cream scale.

Aug. 22, 1903.—Name of creamery, Plainfield; proprietary; location, Plainfield, Waushara county; owner, J. W. Benson; P. O. address, Plainfield; name of buttermaker, J. W. Benson; he has not attended Dairy School at Madison; no. of patrons, 95 to 70; no. of pounds of milk daily, 10,500; no. of pounds of butter daily, 500; average test, 4.4; butter yield, 4.95; and overrun, 13, at last payment; quality of butter, good; sampling and testing, composite, bi-monthly; 2-100 per cent. of fat in skim milk; 1-10 per cent. loss of fat in buttermilk; inspector's test of composite milk sample for day, 4.4; there were no screen doors or windows; cream vat was covered with cloth; drainage allowed to run into a lot, plowed every week, and new furrows left in it, seems to work all right; no bad odor in creamery; skim milk tank inside, washed daily; barrels used for buttermilk, washed daily; condition of building, good, just been painted; building is painted outside; condition of apparatus, fair except separator shaking a little, run at 7,200 revolutions; condition of surroundings, could be neater; condition of patrons' milk cans, generally clean, some few dirty; condition of milk in cans, some tainted account of dirty cans. Pipettes in use were trifle large. Couldn't test bottles as they were at skimming station.

Aug. 25, 1903.—Name of creamery, New Lisbon; proprietary; location, New Lisbon; owner, F. Steiner; P. O. address, Mauston; name of buttermaker, G. Steiner; no. of patrons, 44 to 10; no. of pounds of milk daily, 4,600; no. of pounds of butter daily, 225; average test, 3.93; butter yield, 4.30; and overrun 9 at last payment; sampling and testing, composite, bi-monthly; loss of fat in skim milk, 5-100 per cent.; loss of fat in buttermilk, 4-10 per cent.; there were no screen doors or windows; cream vat was not covered; creamery built on banks of a mill pond; no bad odor in creamery; location and condition of skim milk tank, inside on floor, cleaned daily; use a barrel for buttermilk; condition of building, fair, floor getting poor; building is not painted outside; condition of apparatus, new, good tester; condition of surroundings, O. K.; condition of patrons' milk cans, some few were trifle dirty.

Aug. 25, 1903.—Name of creamery, Necedah; proprietary; location, Necedah, Juneau Co.; name of proprietor, N. H. Westman; P. O. address, Necedah; name of buttermaker, N. H. Westman; he has not attended Dairy School; condition of milk when received, good; no. of patrons for month of August, 37; average pounds of milk daily, 1,600; average test, 3.85; average yield, 4.3; per cent. overrun, 12; method of sampling and testing, single tests at intervals; loss of fat in skim milk, 11-100 per cent.; loss of fat in buttermilk, 25-100 per cent.; general condition of building, good, was an old store; drainage, cess pool, works all right; no bad smell in creamery; creamery was clean; fill cans with skim milk direct from separators; use a can for sour milk, washed daily; there were screen doors and windows; cream vat was not covered.

Aug. 27, 1903.—Name of creamery, Shennington; co-operative; location, Shennington, Monroe county; name of manager, F. Hahn; P. O. address, Shennington; buttermaker, G. W. Beavis; he has not attended Dairy School at Madison; no. of patrons, 52; no. of pounds of milk daily, 3,200; no. of pounds of butter daily, 180; overrun, 17 per cent. at last payment; sampling and testing, composite, bi-monthly; loss of fat in skim milk, 1-10 per cent.; loss of fat in buttermilk, 2-10 per cent.; there were screen windows; cream vat was covered with board; river flows within two rods of creamery; no bad odor in creamery; location and condition of skim milk vat, in a building back of creamery built for the purpose, washed daily; have no buttermilk tank, man who buys buttermilk furnishes barrels; condition of building, good, built about 6 years ago, wood floor; building is painted outside; condition of apparatus, good, good tester; condition of surroundings, O. K.; condition of patrons' milk cans, clean; condition of milk in cans, good. Use a 17.6 pipette for testing cream. Warning given.

Aug. 28, 1903.—Name of creamery, Warren; proprietary; location, Warren, Monroe Co.; owner, W. R. Wigginton; P. O. address, Warren; name of buttermaker, W. O. Titus; he has not attended Dairy School at Madison; no. of patrons, 116; no. of pounds of butter daily, 600; overrun, 17 per cent. at last payment; quality of butter, good; sampling and testing, composite, bi-monthly; there were screen doors and windows; cream vat was covered with oil cloth; drainage runs into a creek about 20 rods away; no bad odor in creamery; have no skim milk tank; use a can inside for buttermilk, washed daily; condition of building, good; building is painted outside; condition of apparatus, good vats, tester poor; condition of surroundings, O. K.; condition of patrons' milk cans, clean, all cans washed at factory; condition of milk in cans, cream comes in in good condition.

Sept. 1, 1903.—Name of creamery, North Lake; proprietary; location, North Lake, Waukesha Co.; owner, Winkler & Becker; P. O. address, North Lake; name of buttermaker, J. Winkler; he has not attended Dairy School at Madison; no. of patrons, 49; no. pounds of milk daily, 6,000; no. of pounds of butter daily, 270; average test, 3.94; butter yield, 4.5; overrun, 14 at last

payment; sampling and testing, single samples; loss of fat in skim milk, 2-100 per cent.; loss of fat in buttermilk, 4-10 per cent.; inspector's test of composite milk sample for day, 3.8; there were no screen doors or windows; cream vat was not covered; drainage, creek within two rods of building; no bad odor in creamery; location and condition of skim milk tank, upstairs, washed weekly; have no buttermilk tank, patrons leave cans; condition of building, fair, needs new floor and painting inside; building is painted outside; condition of apparatus, separator new, tester good; condition of surroundings, quite a little odor outside where patrons spill milk; condition of patrons' milk cans, generally clean, some of them need cleaning in seams; condition of milk in cans, a good many flies in some, otherwise fair.

Sept. 1, 1903.—Name of creamery, Merton; proprietary; location, Merton; owner, T. M. Champney; P. O. address, Sussex; name of buttermaker, P. M. Hepler; he has not attended Dairy School at Madison; no. of patrons, 20; no. of pounds of milk daily, 2,500; cream vat was covered with netting; drainage, creek within a couple of rods; bad odor in creamery; location and condition of skim milk tank, upstairs, very bad; location and condition of buttermilk tank, inside, not clean; condition of building, stone building, cement floor, in bad shape, very bad smell; building is not painted outside, stone building; condition of apparatus, poor and very dirty, not washed when I was here at 2 p. m.; condition of surroundings, O. K.

Sept. 2, 1903.—Name of creamery, Sussex; proprietary; location, Sussex, Waukesha Co.; owner, C. G. Daniels; P. O. address, Sussex; name of buttermaker, E. Pyburn; he has not attended Dairy School at Madison; no. of patrons, 32; no. of pounds of milk daily, 5,000; no. of pounds of butter daily, 225; sampling and testing, don't test; loss of fat in skim milk, 8-100, 25-100 per cent.; there were no screen doors and windows; cream vat was not covered; drainage, an abandoned cellar retains most of it as drain seems filled; no bad odor in creamery; location and condition of milk tank, upstairs, not very clean; location and condition of buttermilk tank, upstairs, not very clean; condition of building, poor; building not painted outside, stone; condition of apparatus, poor; condition of surroundings, poor, need cleaning up; condition of patrons' milk cans, fairly clean; condition of milk in cans, good.

Sept. 3, 1903.—Name of creamery, Crystal Springs; proprietary; location, 1½ miles N. W. of Lannon, township 8, sec. 12; owner, J. D. Salmon; P. O. address, Menomonie Falls, R. D.; name of buttermaker, H. M. Salmon; he has not attended Dairy School at Madison; no. of patrons, 27; no. of pounds of milk daily, 3,000; no. of pounds of butter daily, 150; quality of butter, good; sampling and testing, weekly, single samples; loss of fat in skim milk, 2-100 per cent.; loss of fat in buttermilk, 12-100 per cent.; inspector's test of composite milk sample for day, 4; there were no screen doors or windows; cream vat was covered with cloth; drainage, creek about 60 feet away from building; no bad odor in creamery; location and condition of skim milk tank, in shed over coal room, washed weekly; location and condition of buttermilk tank, have none, taken away in cans; condition of building, good new stone building, cement floor; condition of apparatus, good; good vats and tester; condition of surroundings, O. K.; condition of patrons' milk cans, generally clean; condition of milk in cans, clean.

Sept. 4, 1903.—Name of creamery, Osseo; proprietary; location, Osseo, Trempealeau Co.; owner or manager, J. C. Dodge; P. O. address, Osseo; name of buttermaker, John E. Hanson; he has not attended Dairy School at Madison; no. of patrons, 97; no. of pounds of milk daily, 1,500; 4,900 pounds of cream; no. of pounds of butter daily, 1,373; average test, 4.0; butter yield, 4.4; overrun, 12 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .04 per cent.; inspector's test of composite milk sample for day,

4.0; there were no screen doors and windows; cream vat was not covered; drainage, tile to creek; no bad odor in creamery; location and condition of skim milk tank, in make room, good; location and condition of buttermilk tank, overhead, in boiler room; condition of building, old, only fair; building is painted outside; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, pretty fair; condition of milk in cans, pretty good.

Sept. 7, 1903.—Name of creamery, Fall Creek; co-operative; location, Fall Creek, Eau Claire Co.; secretary, J. E. Zetzman; P. O. address, Fall Creek; name of buttermaker, Wm. Bevine; he has not attended Dairy School at Madison; no. of patrons, 82; no. of pounds of milk daily, 12,000; no. of pounds of butter daily, 500; average test, 3.8; overrun, 15 at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .02 per cent.; drainage undergraund to creek, good; no bad odor in creamery, location and condition of skim milk tank, overhead, good; buttermilk tank is outside; condition of building, fairly good, floor poor, gutter bad; building is painted outside; condition of apparatus, good; condition of surroundings, fair; condition of patrons' milk cans, mostly all in good shape; condition of milk in cans, good. Only 2 cream patrons, cream good. There are 2 skimming stations connected with this plant.

Sept. 11, 1903.—Name of creamery, Diamond Valley; proprietary; location, Augusta, Bridge Creek township, sec. 15; owner or manager, Dodge & Campbell; P. O. address, Augusta; name of buttermaker, A. Campbell; he has attended Dairy School at Madison; no. of patrons, 60; no. of pounds of milk daily, 8,000; no. of pounds of butter daily, 380; average test, 4.1; butter yield, 4.75; overrun, 16 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .025 per cent.; inspector's test of composite milk sample for day, 4.2; there were no screen doors and windows; cream vat was covered with canvas; drainage underground to a creek, good; no bad odor in creamery; location and condition of skim milk tank, upstairs, good; location and condition of buttermilk tank, upstairs, good; condition of building, good, built three years ago; building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, mostly good; condition of milk in cans, good.

Sept. 12, 1903.—Name of creamery, North Star; proprietary; location, Clark Co., Grant township, sec. 4; owner or manager, Dodge Creamery Co.; P. O. address, Lake Mills; name of buttermaker, F. Merryfield; he has attended Dairy School at Madison; no. of patrons, 30; no. of pounds of milk daily, 4,000; no. of pounds of butter daily, 184; average test, 4.0; butter yield, 4.6; overrun, 20 per cent. at last payment; sampling and testing, composite; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .13 per cent.; inspector's test of composite milk sample for day, 4.1; there were screen doors and windows; cream vat was covered with lid; drainage open to small creek, good at present; no bad odor in creamery; location and condition of skim milk tank, upstairs, good; farmers take buttermilk from churn; condition of building, very good, cement floor, part basement; building is painted outside; condition of apparatus, good and clean; condition of surroundings, good; condition of patrons' milk cans, good mostly, found two dirty; condition of milk in cans, mostly all good.

Sept. 14, 1903.—Name of creamery, Elk Lake Farm; proprietary; location, Menomonie, Spring Brook township, sec. 16; owner or manager, E. C. Jacobs; P. O. address, Menomonie; name of buttermaker, F. S. Whitney; he has attended Dairy School at Madison; no. of patrons, 40; no. of pounds of cream daily, 600; no. of pounds of butter daily, 225; average test, 30; butter yield, 34.8; overrun, 16 at last payment; quality of butter, good; sampling

and testing, composite; loss of fat in buttermilk, .22 per cent.; there were screen doors and windows; cream vat was covered with lid; drainage open, runs out on ground; no bad odor in creamery; condition of building, good, small; building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good. All farm separator cream, excepting milk delivered here on farm.

Sept. 15, 1903.—Name of creamery, Sparta Co-operative; co-operative; location, Sparta; manager, J. E. Lloyd; P. O. address, Sparta; name of buttermaker, W. H. Chapman; he has not attended Dairy School at Madison; no. of patrons, 470; no. of pounds of butter daily, 1,800; quality of butter, good; sampling and testing, composite monthly; loss of fat in buttermilk, 1½ per cent.; there were no screen doors or windows; cream vat was covered with cloth; a creek about 5 rods away affords good drainage; no bad odor in creamery; buttermilk tank is outside, away from building; condition of building, good, just been painted inside and outside; condition of apparatus, vats good, good tester; condition of surroundings, O. K.; condition of patrons' milk cans, all gathered cream, comes in sour. Everything in good order.

Sept. 16, 1903.—Name of creamery, Cashton; proprietary; location, Cashton, Monroe Co.; owner, Tri State Creamery Co.; P. O. address, Chicago, Ill.; name of buttermaker, C. N. Thompson; he has not attended Dairy School at Madison; no. of patrons, 438; no. of pounds of butter daily, 2,000; quality of butter, good, cream here is pasteurized; sampling and testing, composite bi-monthly; loss of fat in skim milk, 25-100 per cent.; loss of fat in buttermilk, 1½ per cent.; inspector's test of composite milk sample for day, 4.1; there were no screen doors or windows; cream vat was not covered; drain pipe 160 rods into a slough, stopped up at present; location and condition of skim milk tank, upstairs, not very clean; location and condition of buttermilk tank, upstairs, washed when empty; condition of building, fair, needs cleaning and painting inside, and butter room rather musty; building is painted outside; condition of apparatus, pasteurizer, milk cooler and ice machine good; vats and churn rather poor; condition of patrons' milk cans, fairly clean.

Sept. 16, 1903.—Name of creamery, Enterprise; co-operative; location, Cashton; manager, Geo. Bates; P. O. address, Cashton; name of buttermaker, W. W. Wigginton; he has not attended Dairy School at Madison; no. of patrons, 129; no. of pounds of cream daily, 2,200; no. of pounds of butter daily, 600; average test, 30; overrun, 18 at last payment; quality of butter, good; sampling and testing, composite bi-monthly; there were no screen doors or windows; cream vat was covered with galvanized iron; drainage, about ten rods from building empties into a ravine; no bad odor in creamery; location and condition of buttermilk tank, inside, washed daily; condition of building, good brick building not a year old; condition of apparatus, good. Everything in good condition.

Sept. 17, 1903.—Name of creamery, Leon Co-operative Association; co-operative; manager, J. H. Gilliand; P. O. address, Leon; name of buttermaker, S. Dufner; he has attended Dairy School at Madison; no. of patrons, 67; no. of pounds of milk daily, 5,500; cream, 800; no. of pounds of butter daily, 500; sampling and testing, composite bi-monthly; loss of fat in skim milk, 3-100 per cent.; inspector's test of composite milk sample for day, 4.2; there were no screen doors or windows; cream vat was covered with canvas; drainage good, about four rods to a small river; location and condition of skim milk tank, inside, washed daily; location and condition of buttermilk tank, outside on ground, not washed; condition of building, fair, part of floor poor; building is painted outside; condition of apparatus, churn very dirty, pump and hose for milk dirty; condition of surroundings, needs grad-

ing, old ice house about to fall down; condition of patrons' milk cans, good generally, just a few trifle dirty; condition of milk in cans, generally good. Pipette in use and two new ones not correct. Dirty pump and churn and factory generally.

Sept. 18, 1903.—Name of creamery, Norwalk; co-operative; location, Norwalk, Monroe Co.; manager, F. Leutke; P. O. address, Norwalk; name of buttermaker, H. B. Oakes; he has attended Dairy School at Madison; no. of patrons, 106; no. of pounds of milk daily, 1,900; cream, 2,000; no. of pounds of butter daily, 700; overrun, 10.8 at last payment; quality of butter, good; sampling and testing, composite bi-monthly; loss of fat in skim milk, 1 4-10 per cent.; inspector's test of composite milk sample for day, 4.5; there were no screen doors or windows; cream vat was covered with board; drainage, have been using a cess pool but have now got right of way across railroad tracks to a creek; bad odor in creamery from drain as it is at present; location and condition of skim milk tank, outside in a house, washed daily; location and condition of buttermilk tank, outside in house, washed every other day; condition of building, new, good, built last winter; building is painted outside; condition of apparatus, good, with the exception of the separator which is losing too much fat; condition of surroundings, good; condition of patrons' milk cans, O. K.; condition of milk in cans, O. K. New creamery, everything in good condition.

Sept. 18, 1903.—Name of creamery, Fairchild; proprietary; location, Fairchild, buttermaker, T. McCready: he has not attended Dairy School; no. of patrons, 40; no. of pounds of butter daily, 3,000; average test, 4.0; butter yield, 4.4; overrun, 12 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, only a trace; loss of fat in buttermilk, .15 per cent.; inspector's test of composite milk sample for day, 4.3; there were no screen doors or windows; cream vat was covered with net; drainage underground to creek; no bad odor in creamery; location and condition of skim milk tank, upstairs, good; buttermilk sold from churn; condition of building, good; building is painted outside; condition of apparatus, fair, new cream vat to be put in now; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good. Three farmers furnish cream, first class and sweet.

Sept. 19, 1903.—Name of creamery, Wilton; proprietary; location, Wilton, Monroe Co.; manager, F. J. Hammond; P. O. address, Wilton; name of buttermaker, O. A. Nelson; he has not attended Dairy School at Madison; no. of patrons, 222; no. of pounds of milk daily, 30,000; no. of pounds of butter daily, 1,500; quality of butter, good; sampling and testing, composite bimonthly; loss of fat in skim milk, 2-100 per cent.; loss of fat in buttermilk, 1-10 per cent.; inspector's test of composite milk sample for day, 4.5; there were no screen doors and windows; cream vat was not covered; drainage about ten rods to a small river; no bad odor in creamery; location and condition of skim milk tank, inside, washed every other day; location and condition of buttermilk tank, inside, washed every other day; condition of building, brick building, good shape except some few repairs needed inside; condition of apparatus, fair, good tester; condition of surroundings, old machinery, etc., lying around, not very neat; condition of patron's milk cans, fairly clean, a few dirty; condition of milk in cans, good.

Sept. 22, 1903.—Name of creamery, Kickapoo Valley; co-operative; location, Steuben, Crawford Co.; manager, J. J. Hulbert; P. O. address, Steuben; name of buttermaker, T. N. Nelson; he has not attended Dairy School at Madison; no. of patrons, 46; no. of pounds of milk daily, 6,000; no. of pounds of butter daily, 250; average test, 3.7; quality of butter, good; sampling and testing, composite monthly; loss of fat in skim milk, 2-100 per cent.; loss of fat in buttermilk, 12-100 per cent.; inspector's test of composite

milk sample for day, 4; there were screen doors and windows; cream vat was covered with cloth; drainage, about twenty rods into a river; no bad odor in creamery; location and condition of skim milk tank, inside, washed daily; location and condition of buttermilk tank, use one side of cream vat, washed daily; building is painted outside; condition of apparatus, good; condition of surroundings, O. K.; condition of patrons' milk cans, some were rather dirty; condition of milk in cans, otherwise good. Where the skim milk was taken by patrons at side of building, a bad smell from milk spilled.

Sept. 24, 1903.—Name of creamery, La Crosse B. & C. Co.; proprietary; location, La Crosse, La Crosse Co.; manager, W. J. Ennisson; P. O. address, La Crosse; name of buttermaker, N. C. Jensen; he has attended Dairy School at Madison; no. of patrons, 360; no. of pounds of cream daily, 5,000; no. of pounds of butter daily, 1,200; quality of butter, good; sampling and testing, composite bi-monthly; there were screen doors and windows; cream vat was not covered; drainage empties into city drain about 30 rods from river; no bad odor in creamery; have no skim milk tank; location and condition of buttermilk tank, upstairs in cooler, washed twice a week; condition of building, good brick building, basement with cement floor used as creamery; building not painted outside, brick; condition of apparatus, good vats, churn and tester; condition of surroundings, O. K.; condition of patrons' milk cans, cans are all washed here before returning, cream comes in fair to good; condition of milk in cans, most all of it by rail from noon till midnight.

Sept. 24, 1903.—Name of creamery, Chippewa Valley; proprietary; location, Chippewa Falls; owner, P. H. Bolton & Co.; P. O. address, Chicago; name of buttermaker, C. E. Van Slyke; he has attended Dairy School at Madison; no. of patrons, 237; no. of pounds of cream, 3,200; no. of pounds of butter daily, 1,308; average test, 29.2; butter yield, 33; overrun, 14-16 at last payment; quality of butter, good; sampling and testing, composite; loss of fat in buttermilk, .05 per cent.; there were screen doors and windows; cream vat was not covered; drainage, city sewerage, good; no bad odor in creamery; location and condition of buttermilk tank, upstairs, good; condition of building, good; stone basement, not painted; condition of apparatus, good; condition of surroundings, good; condition of patron's milk cans, good; condition of milk in cans, mostly all good. All cream is from hand separators, mostly all good, but small lots are kept too long.

Sept. 25, 1903.—Name of creamery, Cadott; co-operative; location, Cadott; secretary, F. Wilhelm; P. O. address, Cadott; name of buttermaker, H. S. Hagen; he has not attended Dairy School at Madison; no. of patrons, 70; no. of cows, 243; no. of pounds of milk daily, 4,400; no. of pounds of butter daily, 219; average test, 4.46; butter yield, 4.89; overrun 11 per cent. at last payment; quality of butter, good, made for Boston; sampling and testing, composite; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .10 per cent.; there were screen doors and windows; cream vat was covered with canvas; drainage underground to a creek, good; no bad odor in creamery; location and condition of skim milk, overhead in cheese room, good; location and condition of buttermilk tank, in churn room, good; condition of building, good, built June, 1902; building is painted outside; condition of apparatus, good, all new last year; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good. Cream from 18 farm separators. All two days old.

Sept. 25, 1903.—Name of creamery, West Salem Co-operative; co-operative; location, West Salem, town of Hamilton, sec. 33; manager, W. W. Leete; P. O. address, West Salem; name of buttermaker, E. N. Waite; he has not attended Dairy School at Madison; no. of patrons, 450; no. of pounds of cream daily, 32,000; no. of pounds of butter daily, 3,500; quality of butter, good;

sampling and testing, composite monthly; there were no screen doors or windows; cream vat was covered with board; drainage about 80 rods into river; no bad odor in creamery; location and condition of buttermilk tank, about 8 rods away in the ground; condition of building, good; building is painted outside; condition of apparatus, good; four box churns and seven large vats, all in good shape; condition and surroundings, O. K., this creamery is situated on a farm owned by the association. Mr. Waite, the buttermaker, has been here seventeen years and has his patrons well educated.

Sept. 26, 1903.—Name of creamery, Bangor Dairying Assn.; co-operative; location Bangor, La Crosse Co., sec. 4, town 17, range 5 W.; manager, Wm. Smith; name of buttermaker, F. Handy; P. O. address, Bangor; he has not attended Dairy School at Madison; no. of patrons, 40; no. of pounds of cream, 1,500; no. of pounds of butter daily, 300; average test, 18½; butter yield, 22; overrun, 18 at last payment; sampling and testing, composite bi-monthly; loss of fat in buttermilk, 25-100 per cent.; there were no screen doors and windows; cream vat was covered with board; drainage about 4 rods to a creek; no bad odor in creamery; location and condition of buttermilk tank, 150 feet away from building, not washed very often; condition of building, poor, floor needs repairing, also roof, refrigerator very poor; building is painted outside; condition of apparatus, vats, box churn, worker and tester in fair shape; condition of surroundings, O. K. Have no cream scale, but have had one ordered.

Sept. 30, 1903.—Proprietary; location, Millville, Grant Co., sec. 1, town 6 N., of range 5; owner, J. B. Beadle; P. O. address, Millville, Grant Co.; name of buttermaker, J. B. Beadle; he attended Dairy School at Madison; no. of patrons, 56; no. of pounds of milk daily, 5,200; no. of pounds of butter daily, 240; sampling and testing, composite ten days; loss of fat in skim milk, 2-100 per cent.; loss of fat in buttermilk, 28-100 per cent.; inspector's test of composite milk sample for day, 4.2; there were no screen doors and windows; cream vat was covered with cloth; drainage, small creek about two rods from building; no bad odor in creamery; location and condition of skim milk tank, upstairs, washed daily; location and condition of buttermilk tank, outside on ground, not washed; condition of building, fair, except floor needs repairing; building is painted outside; condition of apparatus, nothing extra, old hand tester ought to be condemned; condition of surroundings, O. K.; condition of patrons' milk cans, generally dirty around seams; condition of milk in cans, clean.

QUARTERLY BULLETIN

OF THE

DAIRY AND FOOD COMMISSION

OF THE

STATE OF WISCONSIN.

J. Q. EMERY, Commissioner,

MADISON, WIS.

By Authority of Law.

No. 3.

OCTOBER 1—DECEMBER 31, 1903.

Organization of the Commission.

J. Q. EMERY ..... Commissioner

U. S. BAER (since Dec. 3) ..... Assistant Commissioner, Dairy Expert

RICHARD FISCHER, Ph. D. ..... Chemist

N. J. FIELD ..... Dairy Inspector

A. T. TORGE ..... Stenographer and Confidential Clerk

F. M. BUZZELL, Chippewa Falls ..... Food Inspector

JAMES G. MOORE, Albion ..... Creamery Inspector

BJARNE LOVDAL ..... Assistant Chemist

EXPERT AGENTS OF THE COMMISSION.

Paid by the Wisconsin Dairymen's Association.

E. L. ADERHOLD, Neenah ..... Cheese Factory Inspector

J. B. McCREADY, Menomonie ..... Cheese Factory and Creamery Inspector

FRED MARTY, Monroe ..... Swiss Cheese Factory Inspector

By sec. 10, ch. 30, laws of 1895, re-enacted in the revised statutes of 1898, the commissioner is authorized to appoint, with the approval of the governor, special counsel to prosecute or assist in prosecuting cases involving adulteration of dairy products.

INTRODUCTORY.

By authority of law, ten thousand copies of this bulletin are issued. Six thousand copies are mailed to grocers and general store keepers who deal in food products, one thousand copies are furnished to a miscellaneous list, and three thousand are mailed to operators of creameries and cheese factories.

It has been a common practice for many proprietors of cheese factories and creameries to make application to the dairy and food commission for an inspector to take samples of milk to be tested for determining the butter fat content, with a view to prosecuting patrons who furnish milk below the legal standard of three per cent. of butter fat.

Factory-men and creamery-men have it within their own power, by use of the Babcock test, to determine for themselves whether or not milk below three per cent. fat is being furnished them. There is apparently no necessity, therefore, for requesting the services of this commission to do this kind of work, merely in the private interest of creamery or cheese factory proprietors.

It is the judgment of the dairy and food commissioner that there are other dairy laws of even greater importance to the dairy and public interests than the one above referred to, and which demand their due share of the time of the limited force of this commission. Accordingly, the inspectors who are sent hereafter to cheese factories and creameries on the request of their owners to take samples of milk to test for butter fat, will be directed by the commissioner not to be content with merely gathering samples of milk and testing them for butter fat and prosecuting the luckless patron that may be found furnishing milk below the legal standard of three per cent. butter fat, but they will be instructed not to omit the weightier matters of the law relative

to clean factories and creameries, clean pipes and tanks, clean milk, clean men, suitable drainage and sanitary conditions and surroundngs, and accurate testing for butter fat; and if these conditions be found unsuitable and unlawful, then to cause the offending factory-men to bear the penalties of violated law as determined by the court, equally with the patron who delivers milk below the legal standard.

Dealers in food products of all kinds should examine with care the analyses of foods as reported herein, and are requested to familiarize themselves with the laws pertaining to the same. Laws relating to the sale and manufacture of food products of all kinds require as punctilious observance as any others. This commission places reliance on the law-abiding spirit of Wisconsin dealers as among the potent forces in making effective the food laws of the state. The co-operation of all citizens is solicited in the forming and maintaining of public sentiment to support the enforcement of the laws enacted by the people represented in the legislature.

CHEMIST'S ANALYSES.

BAKING POWDER.

Oct. 2. Sample submitted by F. M. Buzzell, inspector. Purchased of Torgerson & Steig, White Hall. W. H. Gill & Co., Chicago, said to be jobbers. Brand, "Strong." Contains alum. Not lawfully labeled.

Oct. 2. Sample submitted by F. M. Buzzell, inspector. Purchased of Dan McKinzie, Cadott. Manufactured by Kenton Baking Powder Co., Cincinnati, Ohio. Brand, "Alderney." Contains alum, calcium acid phosphate, sodium bicarbonate and starch. Not lawfully labeled.

Oct. 2. Sample submitted by F. M. Buzzell, inspector. Purchased of Hagen & Waller, Osseo. Sprague, Warner & Co., Chicago, jobbers. Brand, "Eagle." Contains alum, calcium acid phosphate, sodium bicarbonate and starch. Not lawfully labeled.

Oct. 2. Sample submitted by F. M. Buzzell, inspector. Purchased Sept. 30, 1903, of Osseo Mercantile Co., Osseo. Franklin McVeigh & Co., Chicago, jobbers. Brand, "Klondike." Contains alum. Not lawfully labeled.

Oct. 2. Sample submitted by F. M. Buzzell, inspector. Purchased of Jacob Levy, Augusta. Brand, "Levy's Best". An alum, phosphate powder. Not lawfully labeled.

Oct. 15. Sample submitted by Miss Crowe, matron Chadbourne Hall, Madison. Brand, "Table d'Hote." Contains alum, calcium acid phosphate, sodium bicarbonate and starch.

Oct. 30. Sample submitted by F. M. Buzzell, inspector. Purchased of C. A. Anderson, Medford. Manufactured by Sherer Bros., Chicago. Brand, "Globe." Contains soda-alum, sodium bicarbonate and starch. Not lawfully labeled.

Oct. 30. Sample submitted by F. M. Buzzell, inspector. Purchased of C. A. Anderson, Medford. Brand, "Pride of Medford." Contains soda-alum, sodium bicarbonate and starch. Not lawfully laveled.

Nov. 7. Sample submitted by Albert Stoller, Monticello. Brand, "Stoller's Pure." Contains alum. Not lawfully labeled.

Dec. 21. Sample submitted by F. M. Buzzell, inspector. Purchased of Livingston Mercantile Co., Merrill. Reid, Murdock & Co., Chicago, jobbers. Brand, "Picnic." Contains alum. Not lawfully labeled.

Dec. 24. Sample submitted by F. M. Buzzell, inspector. Purchased of G. R. Warden, Ladysmith. Manufactured by Schneider & Co., Cleveland, Ohio. Brand, "White Cross." Contains alum. Not lawfully labeled.

PRESERVATIVES.

"PRESERVO."

Nov. 6. Sample of "Preservo" submitted by N. J. Field, inspector. Manufactured by Preservo Mfg. Co., 1117 Wells street, Milwaukee. Essentially sodium sulphite.

MAPLE SYRUP.

Oct. 30. Sample submitted by F. M. Buzzell, inspector. Purchased of J. W. Sharff, Abbotsford. Manufactured by McNeil, Higgins & Co., Chicago. Brand, "Blossom." Adulterated. Not lawful.

Nov. 5. Sample submitted by W. R. Fanning, West Superior. Manufactured by J. D. Graham, Superior. Not a true maple syrup. Not lawful.

Nov. 7. Sample submitted by Spicer-Fanning Co., West Superior. Not a true maple syrup. Not lawful.

CREAM OF TARTAR.

Oct. 2. Sample submitted by F. M. Buzzell, inspector. Purchased of Osseo Mercantile Co., Osseo. Reid, Murdock & Co., jobbers. Commercially pure.

Nov. 4. Sample submitted by F. M. Buzzell, inspector. Purchased of C. A. Anderson, Medford. Hoyt & Co., Chicago, jobbers. Brand, "Hoyt's Cream Tartar." Commercially pure.

Nov. 21. Sample submitted by F. M. Buzzell, inspector. Purchased of N. Narstead, La Crosse. Heilker & Belsch, Minneapolis, jobbers. Commercially pure.

Dec. 18. Sample submitted by F. M. Buzzell, inspector. Purchased of George Shapiro, Neillsville. Herman Lang, Eau Claire, jobber. Commercially pure.

LARD.

Of six samples of lard analyzed, the following two were found to be adulterated:

Dec. 19. Sample submitted by F. M. Buzzell, inspector. Purchased of Lowe Bros., Neillsville. Contains a large amount of cottonseed oil. Adulterated. Unlawful.

Dec. 28. Sample submitted by F. M. Buzzell, inspector. Purchased of A. J. Storm, Merrill. Manufactured by Cudahy & Co. Brand, "Clover Leaf." Contains cottonseed oil. Adulterated. Unlawful.

SPICES.

PEPPER.

Out of eighteen samples of species submitted for analyses, the following were found to be adulterated:

Oct. 2. Sample of pepper submitted by N. J. Field, inspector. Purchased of Dane Bros., Oshkosh. Adulterated. Not lawful.

Oct. 2. Sample of ground pepper submitted by F. M. Buzzell, inspector. Purchased of Jacob Levy, Augusta. Adulterated. Not lawful.

Oct. 16. Sample of ground pepper submitted by Slater & Walker, Hudson. Said to be manufactured by Chapman, Smith Co., Chicago. Adulterated. Not lawful.

Oct. 30. Sample of ground pepper submitted by F. M. Buzzell, inspector. Purchased of J. Theus, Medford. Adulterated. Not lawful.

Oct. 31. Sample of ground pepper submitted by Otto Steckling, Merrill. Adulterated. Not lawful.

Nov. 19. Sample of black pepper submitted by F. M. Buzzell, inspector. Purchased of Tragsdorf, Zimmerman & Co., Neillsville. Manufactured by J. P. Deitter & Co., Chicago. Badly adulterated. Not lawful.

CINNAMON.

Nov. 20. Sample submitted by F. M. Buzzell, inspector. Purchased of John Koller, La Crosse. Adulterated. Not lawful.

GINGER.

Nov. 20. Sample of ground ginger submitted by F. M. Buzzell, inspector. Purchased of John Koller, La Crosse. Adulterated. Not lawful.

HONEY.

Oct. 28. Sample submitted by F. M. Buzzell, inspector. Purchased of Carlstrom & Bakke, Mellen. Brand, "Ideal." Said to be manufactured by Ideal Extract & Bottling Co., Eau Claire.

	%
Total solids	73.1
Moisture	26.9
Ash	0.3
Sucrose	56.3

Badly adulterated with cane sugar. Not lawful.

Nov. 9. Sample submitted by F. M. Buzzell, inspector. Purchased of Otto Johnson, Eau Claire. Wm. McMurray & Co., St. Paul, jobbers.

	%
Total solids	82.8
Ash	0.05
Polarization before inversion	—16.1°
Polarization after inversion	—20.0°

Either honey is from bees fed on cane sugar or the honey is adulterated with invert sugar.

Dec. 7. Sample submitted by Arnt Arneson, Canton. Griggs, Cooper & Co., St. Paul, jobbers.

	%
Total solids	75.0
Ash	0.11
Polarization before inversion	—18.0°
Polarization after inversion	—20.8°

Either honey is from bees fed on cane sugar or the honey is adulterated with invert sugar.

JELLIES AND PRESERVES.

Nov. 19. Sample of Red Raspberry Jelly submitted by F. M. Buzzell, inspector. Purchased of Charles Kellman, Galesville. Brand, "Priscilla." Said to be manufactured by Franklin McVeigh, Chicago.

Polarization before inversion	+67.8°
Polarization after inversion	+66.2°
Color	artificial

Not a pure raspberry jelly. Not lawful.

Nov. 23. Sample of Strawberry Preserves submitted by F. M. Buzzell, inspector. Purchased of Vollmar & Jost, La Crosse. Brand, "Buffalo." Said to be manufactured by D. B. Scully Syrup Co., Chicago.

Polarization before inversion	+101.2°
Polarization after inversion	+86.7°
Color	artificial

Not a pure strawberry preserve. Not lawful.

Nov. 23. Sample of Strawberry Preserves submitted by F. M. Buzzell, inspector. Purchased of F. R. Hickisch & Son, La Crosse. Brand, "Puritan." Said to be manufactured by Manierre Yoe Syrup Co., Chicago.

Polarization before inversion	+133.8°
Polarization after inversion	+132.4°
Color	artificial

Not a pure strawberry preserve. Not lawful.

VINEGAR.

Oct. 2. Sample of Cider Vinegar submitted by F. M. Buzzell, inspector. Purchased of Lund & Lund, Boyd, Sept. 25, 1903. American Vinegar & Pickling Co., Milwaukee, manufacturers.

Specific gravity	1.015
	%
Total solids	2.25
Ash	0.30
Total acidity (calculated as acetic acid)	4.1
Malic acid	large amount

Passed.

Oct. 2. Sample of Distilled Vinegar submitted by F. M. Buzzell, in-

spector. Purchased Sept. 28, 1903, of J. M. Revord, Fairchild. Charles E. Meyers & Co., Freeport, Ill., manufacturers.

Specific gravity	1.010
	%
Total solids	0.90
Ash	0.07
Total acidity (calculated as acetic acid)	4.40

Passed.

Oct. 2. Sample of Cider Vinegar submitted by F. M. Buzzell, inspector. Purchased of John Carson, Osseo, Sept. 29, 1903. Lewis & Van Holton, Milwaukee, manufacturers.

Specific gravity	1.016
	%
Total solids	2.6
Ash	0.07
Total acidity (calculated as acetic acid)	4.00
Malic acid	trace

Not a pure cider vinegar. Not lawful.

Oct. 15. Sample of Cider Vinegar submitted by Chesbrough, Moss Co., Beloit. Barrett & Barrett, Chicago, manufacturers. Brand, "Monroe County."

Specific gravity	1.012
	%
Total acidity (calculated as acetic acid)	4.4
Total solids	1.6
Ash	0.32
Malic acid	present

Deficient in cider vinegar solids. Not lawful.

Nov. 16. Sample of Cider Vinegar submitted by F. M. Buzzell, inspector. Purchased of A. Nelson & Co., Eau Claire. Burlington Vinegar & Pickling Co., Burlington, Ia., manufacturers.

Specific gravity	1.013
	%
Total solids	2.3
Ash	0.15
Total acidity (calculated as acetic acid)	4.1
Malic acid	present
Polarization in 200 mm. tube	+3.5°

Not a pure cider vinegar. Not lawful.

Nov. 17. Sample of Cider Vinegar submitted by Rabb Bros., village of Strum. F. C. Johnson, Kishwaukee, Ill., manufacturer.

Specific gravity	1.011
	%
Total solids	1.5
Ash	0.28

Total acidity (calculated as acetic acid)	4.46
Malic acid	present
Polarization in 200 mm. tube	—0.5°

Deficient in cider vinegar solids. Not lawful.

Nov. 17. Sample of Cider Vinegar submitted by F. M. Buzzell, inspector. Purchased of Flitcraft & Thompson, village of Colfax. Brand, "Edko." Green De Laittre Co., Minneapolis, jobbers.

Specific gravity	1.019
	%
Total solids	3.4
Ash	0.4
Total acidity (calculated as acetic acid)	4.75
Malic acid	present

Passed.

Nov. 17. Sample of Cider Vinegar submitted by F. M. Buzzell, inspector. Purchased of Julius Myrvold, Spring Valley. Minnesota Mercantile Co., Stillwater, Minn., jobbers.

Specific gravity	1.013
	%
Total solids	2.0
Ash	0.06
Total acidity (calculated as acetic acid)	4.8
Malic acid	trace
Polarization in 200 mm. tube	—2.5°

Not a true cider vinegar. Not lawful.

Nov. 17. Sample of Cider Vinegar submitted by F. M. Buzzell, inspector. Purchased of S. J. Fox & Son, Spring Valley. Brand, "Edko." O. L. Gregory Vinegar Co., Paducah, Ky., manufacturers.

Specific gravity	1.019
	%
Total solids	3.3
Ash	0.39
Total acidity (calculated as acetic acid)	4.65
Malic acid	present
Polarization in 200 mm. tube	—1.0°

Passed.

Nov. 17. Sample of Cider Vinegar submitted by F. M. Buzzell, inspector. Purchased of Nordman Bros., Spring Valley. Brand, "Blue Ribbon." O. L. Gregory Vinegar Co., Paducah, Ky., manufacturers.

Specific gravity	1.016
	%
Total solids	2.6
Ash	0.28
Total acidity (calculated as acetic acid)	4.8
Malic acid	present
Polarization in 200 mm. tube	—0.5°

Passed.

Nov. 17. Sample of Cider Vinegar submitted by F. M. Buzzell, inspector. Purchased of Joseph Sokup, Chippewa Falls. Chippewa Valley Mercantile Co., jobbers.

Specific gravity	1.015
	%
Total solids	2.60
Ash	0.25
Total acidity (calculated as acetic acid)	4.24
Malic acid	none

Not a true cider vinegar. Not lawful.

Nov. 17. Sample of Cider Vinegar submitted by F. M. Buzzell, inspector. Purchased of E. Gross, Chippewa Falls. M. A. Gedney Pickling Co., Minneapolis, manufacturers.

Specific gravity	1.016
	%
Total solids	2.7
Ash	0.27
Total acidity (calculated as acetic acid)	4.93
Malic acid	present
Polarization in 200 mm. tube	—2.0°

Passed.

Nov. 17. Sample of Cider Vinegar submitted by F. M. Buzzell, inspector. Purchased of E. Gross, Chippewa Falls. Lewis & VanHolton, Milwaukee, manufacturers.

Specific gravity	1.014
	%
Total solids	2.4
Ash	0.17
Total acidity (calculated as acetic acid)	3.83
Malic acid	present
Polarization in 200 mm. tube	—2.0°

Deficient in acetic acid. Not lawful.

Nov. 17. Sample of Cider Vinegar submitted by F. M. Buzzell, inspector. Purchased of F. W. Hanzlik, Chippewa Falls. F. C. Johnson, Kishwaukee, Ill., manufacturer.

Specific gravity	1.013
	%
Total solids	1.8
Ash	0.32
Total acidity (calculated as acetic acid)	5.20
Malic acid	present
Polarization in 200 mm. tube	—0.5°

Deficient in cider vinegar solids. Not lawful.

Nov. 24. Sample of Cider Vinegar submitted by F. M. Buzzell, inspector. Purchased of E. Shilling, La Crosse. Cushing & McFadden Co., jobbers.

Specific gravity	1.012
	%
Total solids	1.6
Ash	0.13
Total acidity (calculated as acetic acid)	4.7
Malic acid	present
Polarization in 200 mm. tube	—0.8°

Not a pure cider vinegar. Not lawful.

Dec. 18. Sample of Cider Vinegar submitted by Tragsdorf, Zimmerman & So., Neillsville. Charles E. Meyer & Co., Freeport, Ill., manufacturers.

Specific gravity	1.013
	%
Total solids	2.0
Ash	0.27
Total acidity (calculated as acetic acid)	4.14
Malic acid	present
Polarization in 200 mm. tube	—0.5°

Passed.

Dec. 18. Sample of Distilled Vinegar submitted by Tragsdorf, Zimmerman & Co., Neillsville. Charles E. Meyer & Co., Freeport, Ill., manufacturers.

Specific gravity	1.005
	%
Total solids	0.3
Ash	0.03
Total acidity (not calculated as acetic acid.)	3.35

Deficient in acetic acid. Not lawful.

Dec. 22. Sample of Cider Vinegar submitted by John Oelhafen, Tamahawk. Lewis & VanHolton Co., Milwaukee, manufacturers.

Specific gravity	1.016
	%
Total solids	3.02
Ash	0.095
Total acidity (calculated as acetic acid)	4.02
Polarization in 200 mm. tube	—4.2°

Not a pure cider vinegar. Not lawful.

CATSUP.

Oct. 1. Sample of Catsup submitted by F. M. Buzzell, inspector. Purchased of George V. Signer, Spooner. Griggs, Cooper & Co., jobbers. Brand, "Colonial." Artificially colored with coal-tar dye. Not lawful.

EXTRACTS.

"VANILLAX."

Oct. 10. Sample of "Vanillax" submitted by N. J. Field, inspector. Purchased by W. A. Anger & Co., Milwaukee.

	%
Vanillin	0.18
Coumarin	0.18
Resin	none
Color	caramel

An artificial vanillin and coumarin preparation, colored with caramel.

VANILLA.

Oct. 28. Sample submitted by F. M. Buzzell, inspector. Purchased of C. W. Taylor, Mellen. Joannes Bros. Co., Green Bay, jobbers. Contains coumarin. Not a pure extract of vanilla. Not lawful.

LEMON.

Oct. 2. Sample submitted by Griggs, Cooper & Co., manufacturers, St. Paul. Brand, "Lagneb."

	%
Lemon oil (by vol.)	6.7
Alcohol (by wt.)	84.0
Total solids	0.3
Color	artificial

Passed.

Oct. 2. Sample submitted by F. M. Buzzell, inspector. Purchased of J. S. Holmbeck & Son, Alma Center. Manufactured by Kenwood Preserving Co., Chicago. Brand, "Seal."

	%
Total residue	0.18
Alcohol	28.0
Lemon oil	trace
Color	none

Not a true "Extract of Lemon." Not lawful.

Oct. 2. Sample submitted by F. M. Buzzell, inspector. Purchased of

S. E. Keyser, Cadott. Manufactured by Wares Coffee Co., Dayton, Ohio. Brand, "Wares."

	%
Total residue	0.09
Alcohol	28.0
Lemon oil	none
Color	artificial

Not a true "Extract of Lemon." Not lawful.

Oct. 2. Sample submitted by F. M. Buzzell, inspector. Purchased of S. E. Keyser, Cadott. Manufactured by Columbia Chemical Co., St. Paul.

	%
Total residue	0.08
Alcohol	28.0
Lemon oil	none
Color	artificial

Not a true "Extract of Lemon." Not lawful.

Oct. 2. Sample submitted by F. M. Buzzell, inspector. Purchased of J. M. Revord, Fairchild. Manufactured by National Extract Works, Milwaukee. Brand, "Perfecto."

	%
Total residue	0.15
Alcohol (by wt.)	78.0
Lemon oil (by vol.)	6.3
Color	artificial

Passed.

Oct. 2. Sample submitted by F. M. Buzzell, inspector. Purchased of G. A. Young & Co., Eagle Point. Eau Claire Grocery Co., jobbers, Eau Claire. Brand, "Colon."

	%
Total residue	0.15
Alcohol (by wt.)	77.0
Lemon oil (by vol.)	5.6
Color	artificial

Passed.

Oct. 12. Sample submitted by N. J. Field, inspector. Purchased of W. A. Anger, & Co., Milwaukee. Brand, "Lemonola," sold as lemon flavor.

		%
Consists essentially of cotton-seed oil	about	85.0
Robbed oil of lemon	about	15.0
Odor		faint
Taste		none

Cannot be sold as a lemon flavor. Not lawful.

Oct. 12. Sample submitted by F. M. Buzzell, inspector. Purchased

of James Arons, Lake Nebagamon. Twohy Eimon Mer. Co., jobbers. Brand, "Golden Rod."

	%
Lemon oil	none
Alcohol (by wt.)	28.0
Total solids	0.05
Color	artificial

Not a true "Lemon Extract." Not lawful.

Nov. 13. Sample submitted by F. M. Buzzell, inspector. Purchased of Gaarden & Anderson, Spring Valley. Green De Laittre Co., jobbers. Minneapolis. Brand, "Leader."

	%
Lemon oil	trace
Alcohol (by wt.)	33.5
Total solids	0.47
Color	artificial

Not a true "Lemon Extract." Not lawful.

Nov. 14. Sample submitted by F. M. Buzzell, inspector. Purchased of E. Wagner, Hammond. Seabury & Co., jobbers, St. Paul. Brand, "Crown."

	%
Lemon oil	trace
Alcohol (by wt.)	33.0
Total solids	0.4
Color	artificial

Not a true "Extract of Lemon." Not lawful.

Dec. 23. Sample submitted by F. M. Buzzell, inspector. Purchased of W. A. Carroll, Bruce. Manufactured by Winston, Harper, Fisher Co., Minneapolis. Brand, "Climax."

	%
Lemon oil	none
Alcohol	28.0
Total solids	0.45
Color (deep yellow)	artificial
Odor	poor

Not lawful.

MEATS.

1903.

Nov. 9. Three samples of sausages submitted by N. J. Field, inspector. Purchased of F. Usinger, Milwaukee, manufacturer. Free from sulphites.

Nov. 9. Three samples of sausages submitted by N. J. Field, in-

spector. Purchased of Weisel & Co., Milwaukee, manufacturers. Free from sulphites.

Nov. 9. Sample of sausage submitted by N. J.Field, inspector. Purchased of E. H. Palm, Milwaukee. Free from sulphites.

Nov. 9. Sample of sausage submitted by N. J. Field, inspector. Purchased of W. J. Herb, Milwaukee. Free from sulphites.

Nov. 9. Sample of hamburger steak and sausage submitted by N. J. Field, inspector. Purchased of Chas. Mueller, Milwaukee. Hamburger steak contains sulphite. Sausage free from sulphites.

Nov. 11. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of Emil Steinhagen, Milwaukee. Contains sulphite.

Nov. 11. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of Wm. Sander, Milwaukee. Contains sulphite.

Nov. 12. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased by John Mueller, manufacturer, Milwaukee. Contains sulphite.

Nov. 12. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of John Jaap, Milwaukee. Contains large amount of sulphite.

Nov. 12. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of J. Phalen, Milwaukee. Contains large amount of sulphite.

Nov. 12. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of Jos. Waldhuetter, Jr., Milwaukee. No sulphites present.

Nov. 12. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of John Burbach, Milwaukee. Contains sulphite.

Nov. 12. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of Fred Hambach, Jr., Milwaukee. No sulphites present.

Nov. 12. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of A. J. Baum, Milwaukee. Contains sulphite.

Nov. 12. Sample of hamburger steak submitted by N. J. Field, in-

spector. Purchased of Alfred A. Grunitz, Milwaukee. Contains sulphite.

Nov. 12. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of C. W. Adams, Milwaukee. No sulphites present.

Nov. 12. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of G. Erdmann, Milwaukee. Contains sulphite.

Nov. 12. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of Amann & McCabe, Milwaukee. Contains sulphite.

Nov. 12. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of Schulz Bros., Milwaukee. Contains sulphite.

Nov. 12. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of John L. Daly, Milwaukee. No sulphites present.

Nov. 13. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of H. Weidemeir, Milwaukee. No sulphites present.

Nov. 13. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of W. J. Elsner, Milwaukee. Contains sulphite.

Nov. 13. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of L. Dropp & Son, Milwaukee. No sulphites present.

Nov. 13. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of A. J. Scheible, Milwaukee. No sulphites present.

Nov. 13. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of Jos. Hundt, Milwaukee. Contains sulphite.

Nov. 13. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of Robert Hoyer, Milwaukee. No sulphites present.

Nov. 13. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of Chas. Mueller, Milwaukee. Contains sulphite.

Nov. 13. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of John Karker, Milwaukee. Contains sulphite.

Nov. 13. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of Louis Zoeller, Milwaukee. Contains sulphite.

Nov. 13. Sample of hamburger steak submitted by N. J. Field, inspector. Purchased of C. T. Grass & Co., Milwaukee. Contains sulphite.

Nov. 14. Sample of hamburger steak submitted by James McNair. Purchased of George and F. Soelch, Madison. Artificially colored; contains borax.

Nov. 14. Sample of hamburger steak submitted by James McNair. Purchased of Scheler Bros., Madison. Contains sulphite.

Nov. 14. Sample of sausage submitted by James McNair. Purchased of William Roesch, Madison. No sulphites present.

Nov. 14. Sample of hamburger steak submitted by James McNair. Purchased of Cudahy Meat Market, Madison. Contains sulphite.

Nov. 14. Sample of hamburger steak submitted by James McNair. Purchased of Hoven Meat Market, Madison. Contains sulphite.

Nov. 14. Sample of hamburger steak submitted by James McNair. Purchased of Walter & Schultz, Madison. Contains sulphite.

Dec. 18. Sample of hamburger steak submitted by F. M. Buzzell, inspector. Purchased of Lowe Bros., Neillsville. Free from sulphites.

MILK.

Oct. 2. Sample submitted by Wm. Heinrich, DePere.

	%
Butter fat	3.8

Oct. 2. Sample submitted by Frank Stevens, Wilton.

	%
Butter fat	5.2

Oct. 26. Sample submitted by A. H. Ohm, Pipersville.

	%
Butter fat	3.5

Oct. 26. Sample submitted by A. H. Ohm, Pipersville.

	%
Butter fat	3.0
Sp. gr.	1.030

Oct. 30. Sample submitted by C. W. Sweeting, ass't com. Taken at Centerville Brick Cheese Factory, Columbia county. H. Garbber, patron.

Sp. gr.	1.027
	%
Butter fat	3.3
Total solids	10.7
Solids not fat	7.4

Watered. Not lawful.

Nov. 18. Sample submitted by Paul Disch, Monroe.

	%
Butter fat	4.8
Sp. gr.	1.032

Nov. 18. Sample submitted by C. W. Sweeting, asst. com. Taken at Wayne and Addison Cheese Factory, Washington county, J. Schwartz, patron.

Sp. gr.	1.021
	%
Butter fat	1.6
Total solids	7.3
Solids not fat	5.7

Watered. Not lawful.

Nov. 18. Sample submitted by A. Lally, Madison. Purchased of Gay Stock Dairy Farm, Madison.

	%
Butter fat	5.2
Sp. gr.	1.031

No preservatives found.

Nov. 30. Sample submitted by Wm. Kickhaefer, Juneau.

	%
Butter fat	5.7

Dec. 10. Sample submitted by James G. Moore, inspector. Marked "Cardinal."

Sp. gr.	1.032
	%
Butter fat	4.4
Total solids	13.3
Solids not fat	8.9

Dec. 10. Sample submitted by James G. Moore, inspector. Marked "Oldenberg."

Sp. gr.	1.030
	%
Butter fat	4.5
Total solids	12.96
Solids not fat	8.46

Dec. 10. Sample submitted by James G. Moore, inspector. Marked "Model Creamery."

Sp. gr.	1.031
	%
Butter fat	4.4
Total solids	13.10
Solids not fat	8.70

Dec. 11. Sample submitted by U. S. Baer, asst. com. Purchased from New Superior Creamery Co., Andy Hawskins, driver, Superior.

Sp. gr.	1.027
	%
Butter fat	3.8
Total solids	11.6
Solids not fat	7.8

Watered.

Dec. 11. Sample submitted by U. S. Baer, asst. com. Purchased of Adam Schmidt, city milk dealer, Superior.

	%
Butter fat	3.3
Total solids	12.1
Solids not fat	8.8

Dec. 11. Sample submitted by U. S. Baer, asst. com. Purchased of John J. Paulson, city milk dealer, Superior. (Night's milk.)

	%
Butter fat	3.0
Total solids	11.3
Solids not fat	8.3

Probably skimmed.

CREAM.

Oct. 14. Sample submitted by W. E. Blumenstein, Sullivan.

	%
Butter fat	33.2

Nov. 2. Sample submitted by Parker, Hildebrand Co., Boscobel.

	%
Butter fat	22.3

Dec. 4. Sample submitted by J. A. Renè, M. D., health officer, Superior.

Butter fat	8.5
Gelatin	present

Adulterated. Not lawful.

Dec. 11. Sample submitted by U. S. Baer, asst. com. Purchased of New Superior Creamery Co., Superior.

Butter fat	16.0

Colored with annatto.

Adulterated. Not lawful.

Dec. 23. Sample submitted by U. S. Baer, asst. com. Purchased of Racine Pure Milk Co., Racine.

	%
Butter fat	26.0

No artificial coloring matter found.

CITY MILK SUPPLIES.

Oct. 23. Samples of milk taken by J. G. Moore, inspector, from city milk supply, Oconomowoc.

	% butter fat.
H. Lewis, from can	3.9
S. E. Turville, from bottle	4.9
N. C. Potter & Son, from bottle	5.2
Mr. Lillge, from bottle	4.5
W. H. Barber, from bottle	4.0

Dec. 10. Samples of milk collected by U. S. Baer, asst. com., from Superior city milk supply

		Sp. Gr.	% B. F.	Remarks.
1.	Russell Cream. Co. mixed milk	1.034	3.7	
2.	Hans Kofford, mixed milk	1.030	4.8	
3.	Jensen & Hansen, morning's milk	1.030	4.0	
4.	Jensen & Hansen, night's milk	1.031	4.4	
5.	Fr. Rasmusson, morning's milk	1.029	4.6	
6.	Fr. Rasmusson, night's milk	1.032	3.9	
7.	F. C. Johnson, morning's milk	1.031	4.5	
8.	F. C. Johnson, night's milk	1.031	3.9	
9.	T. J. Paulson, morning's milk	1.029	4.4	
10.	T. J. Paulson, night's milk	1.030	3.0	probably skimmed
11.	Peter Sorensen, morning's milk	1.031	4.0	
12.	Peter Sorensen, night's milk	1.031	3.9	
13.	New Superior Cream. Co.	1.027	3.8	watered
14.	New Superior Cream. Co.	1.030	4.6	
15.	Chas. Geringer	1.030	3.4	
16.	Chas. Geringer	1.030	4.2	
17.	Adam Schmidt, morning's milk	1.029	4.7	
18.	Adam Schmidt, night's milk	1.030	3.3	
19.	Peter Hetebrügge, from full can	1.031	3.6	
20.	Peter Hetebrügge, from peddling can	1.031	3.7	
21.	Augner McArthgner, mixed milk	1.031	4.4	
22.	John Sorensen	1.031	3.8	
23.	John Sorensen	1.030	3.8	
24.	G. M. Lung	1.030	3.8	
25.	Ed. Kamler, mixed milk	1.027	7.7	
26.	Ed. Kamler, mixed milk	1.030	5.2	

Dec. 10. Sample of cream collected by U. S. Baer, asst. com., from Superior city milk supply.

		% B. F.
1.	Russell Creamery Co.	23.5
2.	Hans Kofford	21.0
3.	Jensen & Hansen	27.0
4.	F. C. Johnson	21.0
5.	T. J. Paulson	20.5
6.	Peter Sorensen	17.5
7.	New Superior Creamery Co.	21.5
8.	Adam Schmidt	21.0
9.	Peter Hetebrügge	16.0
10.	Augner McArthgner	20.5
11.	New Superior Cream. Co. (artificially colored)	16.0

Dec. 23. Samples of milk and cream taken from city supply, Racine.

	% butter fat.
Racine Pure Milk Co.	4.5
Racine Pure Milk Co.	4.6
Racine Pure Milk Co.	4.5
Racine Pure Milk Co. (cream)	26.0
Chas. A. Crane	3.9
Nels Madson	4.2
Gus Lidren	4.1
A. B. Crane	4.2
C. Nelson	4.9
R. M. Walker (night's milk)	4.6
R. M. Walker (morning's milk)	4.6
Roy Phelps	3.8
G. Griffith's (morning's milk)	4.6
G. Griffith's (night's milk)	4.2
George VanWie	4.2
Byron C. Reed	4.5

BUTTER.

Oct. 20. Sample submitted by James G. Moore, inspector, from Lomira Creamery, C. F. Meyer, prop..

	%
Index of refraction (40° C.)	1.4560
Character of field with polarized light	plain
Reichert Meissl No.	27.4

Pronounced butter.

Oct. 28. Sample submitted by Henry Fink, Int. Rev. Col., Milwaukee.

	%
Water	9.53
Index of re raction (40° C.)	1.4556
Character of field with polarized light	plain
Reichert Meissl No.	28.0

Pronounced butter.

Oct. 30. Sample of whey butter submitted by N. J. Field, inspector. Purchased of J. H. Jannsen, Beechwood, Sheboygan county, manufacturer.

	%
Moisture	18.1
Fat	80.1
Casein	1.1
Salt	0.7

Nov. 4. Sample submitted by Mrs. Cunningham, Madison.

	%
Index of refraction (40° C.)	1.4552
Reichert Meissl No.	28.1
Character of field with polarized light	mottled
Sputters upon heating.	
Fat, turbid upon melting.	
Curd, granular.	

Pronounced renovated butter.

Nov. 4. Sample submitted by J. H. Bell, Medford.

	%
Index of refraction (40° C.)	1.4551
Character of field with polarized light	plain
Melts	clear
Foams upon heating.	

Pronounced genuine butter.

Nov. 6. Sample bought for dairy butter, submitted by N. J. Field, inspector, of Findlay & Co., Madison.

	%
Index of refraction (40° C.) of fat	1.4544
Character of field with polarized light	plain
Albumins	none
Melts	clear
Foams upon heating.	
Curd, ropy.	

Pronounced genuine butter.

Nov. 6. Sample submitted by N. J. Field, inspector. Bought for dairy butter of H. O. Bigelow, Madison.

	%
Index of refraction (40° C.) of fat	1.4550
Reichert Meissl No.	27.55
Character of field with polarized light	mottled
Albumins	large amount
Sputters upon heating.	
Fat, turbid upon melting.	
Curd, granular.	

Pronounced renovated butter.

Nov. 6. Sample submitted by N. J. Field, inspector. Bought for dairy butter. Purchased of Piper Bros., Madison.

	%
Index of refraction (40° C.)	1.4553
Reichert Meissl No.	26.9
Character of field with polarized light	mottled
Albumins	large amount
Sputters upon heating.	
Fat, turbid upon melting.	
Curd, granular.	

Nov. 6. Sample submitted by N. J. Field, inspector. Bought for dairy butter. Purchased of Mills Bros., Madison.

	%
Index of refraction of fat (40° C.)	1.4543
Character of field with polarized light	plain
Fat, clear upon melting.	
Foams upon heating.	

Pronounced genuine butter.

Nov. 6. Sample submitted by N. J. Field, inspector. Purchased of C. H. Marks, Madison.

	%
Index of refraction of fat (40° C.)	1.4551
Character of field with polarized light	plain
Fat, clear upon melting.	
Foams upon heating.	

Pronounced genuine butter.

Nov. 6. Sample submitted by N. J. Field, inspector. Purchased of R. McKay, Madison.

	%
Index of refraction of fat (40° C.)	1.4551
Reichert Meissl No.	28.2
Character of field with polarized light	mottled
Albumins	large amount
Sputters upon heating.	
Fat, turbid upon melting.	
Curd, granular.	

Nov. 6. Sample submitted by N. J. Field, inspector. Purchased of Olson & Jacobson, Madison.

	%
Index of refraction of fat (40° C.)	1.4557
Character of field with polarized light	plain
Fat, clear upon melting.	
Foams upon heating.	

Pronounced genuine butter.

Nov. 6. Sample submitted by N. J. Field, inspector. Purchased of F. Verberkmoes, Madison.

	%
Index of refraction of fat (40° C.)	1.4555
Character of field with polarized light	plain

Fat, clear upon melting.
Foams upon heating.

Pronounced genuine butter.

Nov. 6. Sample submitted by N. J. Field, inspector. Purchased of N. Weber, Madison.

Index of refraction of fat (40° C.)	1.4553
Character of field with polarized light	plain
Albumins	none
Curd	ropy
Melts	clear

Foams upon heating.

Pronounced genuine butter.

Nov. 10. Sample submitted by N. J. Field, inspector. Purchased of M. Diederich, Madison.

	%
Index of refraction of butter fat (40° C.)	1.4555
Character of field with polarized light	plain

Melts clear.
Foams upon heating.

Pronounced genuine butter.

Nov. 10. Sample submitted by N. J. Field, inspector. Purchased of John M. Ries, Madison. (Sold as renovated butter.)

	%
Index of refraction of butter fat (40° C.)	1.4552
Reichert Meissl No.	27.3
Character of field with polarized light	mottled

Sputters upon heating.
Fat, turbid upon melting.
Curd, granular.

Pronounced renovated butter.

Nov. 10. Sample submitted by N. J. Field, inspector. Purchased of C. C. Kane, Madison.

	%
Index of refraction of fat (40° C.)	1.4552
Character of field with polarized light	plain

Fat melts clear.
Foams upon heating.

Pronounced genuine butter.

Nov. 10. Sample submitted by N. J. Field, inspector. Purchased of H. C. Foltz, Madison.

Index of refraction of butter fat (40° C.)	1.4553
Character of field with polarized light	plain
Fat melts clear.	
Foams upon heating.	

Pronounced genuine butter.

Nov. 10. Sample submitted by N. J. Field, inspector. Purchased of Dan Trainor, Madison.

Index of refraction of butter fat (40° C.)	1.4550
Character of field with polarized light	plain
Foams upon heating.	
Fat melts clear.	

Pronounced genuine butter.

Nov. 10. Sample submitted by N. J. Field, inspector. Purchased of H. F. Tiedeman, Madison.

Index of refraction of butter fat (40° C.)	1.4539
Character of field with polarized light	plain
Foams upon heating.	
Fat melts clear.	

Pronounced genuine butter.

Nov. 10. Sample submitted by N. J. Field, inspector. Purchased of Klueter Bros., Madison.

Index of refraction of butter fat (40° C.)	1.4548
Character of field with polarized light	plain
Foams upon heating.	
Fat melts clear.	

Pronounced genuine butter.

Nov. 10. Sample submitted by N. J. Field, inspector. Purchased of Soehle Bros., Madison.

Index of refraction of butter fat (40° C.)	1.4552
Character of field with polarized light	mottled
Reichert Meissl No.	26.8
Curd, granular.	
Sputters upon heating.	
Fat, turbid upon melting.	

Pronounced renovated butter.

Nov. 10. Sample submitted by N. J. Field, inspector. Purchased of Aug. Haak, Madison.

Index of refraction of fat (40° C.)	1.4553
Character of field with polarized light	plain
Foams upon heating.	
Fat melts clear.	

Pronounced genuine butter.

Nov. 10. Sample submitted by N. J. Field, inspector. Purchased of Gustave Haack, Madison.

	%
Index of refraction of fat (40° C.)	1.4552
Character of field with polarized light	plain
Foams upon heating.	
Fat melts clear.	

Pronounced genuine butter.

Dec. 1. Sample submitted by James G. Moore, inspector. From Zink's boarding house, 709 University Ave.

Pronounced renovated butter.

Dec. 21. Sample of whey butter submitted by J. M. Steiner, Milwaukee.

	%
Butter fat	86.3
Moisture	11.2
Casein	1.0
Salt	1.5

Dec. 21. Sample of whey butter submitted by J. & M. Steiner, Milwaukee.

	%
Butter fat	85.0
Moisture	12.9
Casein	0.9
Salt	1.2

OLEOMARGARINE.

Oct. 12. Sample submitted by N. J. Field, inspector. Purchased of Swift & Co., Milwaukee, manufacturer. Brand, "Jersey." Passed.

Oct. 12. Sample submitted by N. J. Field, inspector. Purchased of Chas. D. Gross, Milwaukee. Manufactured by Swift & Co., Chicago. Brand, "Jersey." Passed.

Oct. 12. Sample submitted by N. J. Field, inspector. Purchased of Louis Zoeller, Milwaukee. Manufactured by Braun & Fitts, Chicago. Brand, "Holstein." Not approved.

Oct. 12. Sample submitted by N. J. Field, inspector. Purchased of D. C. Adams, Milwaukee. Manufactured by Braun & Fitts, Chicago. Not approved.

Oct. 12. Sample submitted by N. J. Field, inspector. Purchased of Findlay & Co., Madison. Manufactured by Braun & Fitts, Chicago. Brand, "Holstein." Not approved.

Oct. 12. Sample submitted by N. J. Field, inspector. Purchased of A. A. Mayers, Madison. Manufactured by Armour & Co., Chicago. Brand "Eastlake." Not approved.

Oct. 13. Sample submitted by N. J. Field, inspector. Purchased of Hawley & Son, Madison. Manufactured by Braun & Fitts, Chicago. Brand, "Holstein." Not approved.

Oct. 14. Sample submitted by N. J. Field, inspector. Purchased of Chas. Pfennig, Kenosha. Manufactured by Friedman Mfg. Co. Brand, "Perfection." Not approved.

Oct. 14. Sample submitted by N. J. Field, inspector. Purchased of C. G. Gilles, Kenosha. Manufactured by Nelson, Morris & Co., Chicago. Passed.

Oct. 14. Sample submitted by N. J. Field, inspector. Purchased of Otto Jemm, Kenosha. Manufactured by G. H. Hammond & Co., Hammond, Ind. Brand, "Calumet." Not approved.

Oct. 14. Sample submitted by N. J. Field, inspector. Purchased of Thos. English, Kenosha. Manufactured by Braun & Fitts, Chicago. Brand, "Union." Not approved.

Oct. 14. Sample submitted by N. J. Field, inspector. Purchased of Leonard Bros., Kenosha. Manufactured by Armour & Co., Chicago. Brand, "Helmet." Passed.

Oct. 21. Sample submitted by N. J. Field, inspector. Purchased of S. H. McCullom, Pewaukee. Manufactured by Armour & Co., Chicago. Brand, "Helmet." Passed.

Oct. 22. Sample submitted by F. M. Buzzell, inspector. Purchased of George E. Selden, West Superior. Manufactured by Swift & Co., Chicago. Brand, "Atlas." Not approved.

Oct. 22. Sample submitted by F. M. Buzzell, inspector. Purchased of Martin Saunters, West Superior. Said to be manufactured by Armour Packing Co., Duluth, Minn. Brand, "Lotus." Not approved.

Oct. 24. Sample submitted by F. M. Buzzell, inspector. Purchased of Nebagamen Lumber Co., Nebagamen. Said to be manufactured by Cudahy Bros. Co, Dulutn, Minn. Not approved.

Oct. 26. Sample submitted by J. G. Moore, inspector. Purchased of A. A. Mayers, Madison. Brand, "Helmet." Not approved.

Oct. 26. Sample submitted by J. G. Moore, inspector. Purchased of

Soehle Bros., Madison. Manufactured by Swift & Co., Chicago. Brand, "Jersey." Passed.

Oct. 26. Sample submitted by F. M. Buzzell, inspector. Purchased of Raamp Bros., Washburn. Manufactured by Swift & Co. Brand, "Lincoln." Not approved.

Oct. 26. Sample submitted by F. M. Buzzell, inspector. Purchased of Krongfelder Bros., Bayfield. Manufactured by Swift & Co. Brand, "Lincoln." Not approved.

Oct. 27. Sample submitted by F. M. Buzzell, inspector. Purchased of Hanson Co., Ashland. Manufactured by Swift & Co. Brand, "Lincoln." Not approved.

Oct. 27. Sample submitted by F. M. Buzzell, inspector. Purchased of John Berg Grocery Co., Ashland. Manufactured by Armour & Co. Brand, "Lotus." Not approved.

Oct. 27. Sample submitted by F. M. Buzzell, inspector. Purchased of Moon Groc. Co., Ashland. Manufactured by Armour Packing Co. Brand, "Lotus." Not approved.

Oct. 27. Sample submitted by F. M. Buzzell, inspector. Purchased of Joseph Borecky, Ashland. Manufactured by Armour Packing Co. Brand, "Lotus." Not approved.

Oct. 28. Sample submitted by F. M. Buzzell, inspector. Purchased of J. J. McGeehan, Highbridge. Manufactured by Armour Packing Co. Brand, "Lotus." Not approved.

Oct. 28. Sample submitted by F. M. Buzzell, inspector. Purchased of United States Leather Co., Mellen. Manufactured by Swift & Co. Brand, "Lincoln." Not approved.

Oct. 29. Sample submitted by F. M. Buzzell, inspector. Purchased of Westboro Lumber Co., Westboro. Manufactured by Armour Packing Co. Brand, "Lotus." Not approved.

Nov. 2. Sample submitted by N. J. Field, inspector. Purchased of J. B. Godfiron, Appleton. Manufactured by G. H. Hammond & Co. Brand, "Banquet." Not approved.

Nov. 7. Sample submitted by Swift & Co., Chicago. Brand, "Lincoln." Not approved.

Nov. 20. Sample submitted by F. M. Buzzell, inspector. Purchased of H. N. Hegge, North La Crosse. Manufactured by Armour Packing Co, Brand, "Magnolia." Not approved.

Nov. 24. Sample submitted by F. M. Buzzell, inspector. Purchased of E. N. Schultze, North La Crosse. Manufactured by Armour Packing Co. Brand, "Magnolia." Not approved.

Nov. 21. Sample submitted by F. M. Buzzell, inspector. Purchased of E. D. Beese, La Crosse. Manufactured by Braun & Fitts. Not approved.

Nov. 30. Sample submitted by F. M. Buzzell, inspector. Purchased of J. P. Meyer, Eau Claire. Manufactured by Armour Packing Co. Brand, "Silver Churn." Not approved.

Dec. 7. Sample submitted by N. J. Field, inspector. Purchased of Harry Parker & Co., Kenosha. Brand, Friedman's "Oak Grove." Passed.

Dec. 7. Sample submitted by N. J. Field, inspector. Purchased of Wm. Steinmeyer Co. Brand, Braun & Fitts "Holstein." Not approved.

Dec. 7. Sample submitted by N. J. Field, inspector. Purchased of Wm. Steinmeyer Co., Milwaukee. Brand, Armour's "East Lake." Not approved.

Dec. 7. Sample submitted by N. J. Field, inspector. Purchased of J. C. Thiele, Milwaukee. Brand, "Swift's Jersey." Passed.

Dec. 7. Sample submitted by N. J. Field, inspector. Purchased of R. Koronowski, Milwaukee. Brand, Swift's "1 lb. Roll." Passed.

Dec. 7. Sample submitted by N. J. Field, inspector. Purchased of J. C. Birk, Milwaukee. Brand, Braun & Fitts "1 Lb. Roll." Passed.

Dec. 7. Sample submitted by N. J. Field, inspector. Purchased of C. Rostad, Milwaukee. Brand, Braun & Fitts "Gilt Edge." Passed.

Dec. 8. Sample submitted by N. J. Field, inspector. Purchased of C. S. Bassindale, Racine. Brand, Swift's "Lincoln." Passed.

Dec. 8. Sample submitted by N. J. Field, inspector. Purchased of Lou. Schneider, Racine. Brand, Friedman's "Red Heart." Not approved.

Dec. 8. Sample submitted by N. J. Field, inspector. Purchased of C. C. Gilles, Kenosha. Brand, Nelson, Morris & Co.'s "Supreme."

Dec. 8. Sample submitted by N. J. Field, inspector. Purchased of Chas. Pfennig, Kenosha. Brand, Friedman's "Perfection." Passed.

Dec. 8. Sample submitted by N. J. Field, inspector. Purchased of Otto Jerum, Kenosha. Brand, Hammond's "Calumet." Not approved.

Dec. 8. Sample submitted by N. J. Field, inspector. Purchased of J. P. Meyer, Eau Claire. Brand, Armour Packing Co.'s "Lotus." Not approved.

Dec. 9. Sample submitted by N. J. Field, inspector. Purchased of R. Komorowski, Milwaukee. Brand, G. H. Hammond's "Excelsior." Not approved.

Dec. 9. Sample submitted by F. M. Buzzell, inspector. Purchased of Joseph Borecky, Ashland. Brand, Armour Packing Co.'s "Lotus." Not approved.

Dec. 9. Sample submitted by Braun & Fitts, manufacturer. Passed.

Dec. 9. Sample submitted by F. M. Buzzell, nspector. Purchased of G. & A. Stenz, Ashland. Brand, Braun & Fitt's "Union." Passed.

Dec. 9. Sample submitted by F. M. Buzzell, inspector. Purchased of A. C. McDonald, Ashland. Brand, Swift & Co.'s "Lincoln." Passed.

Dec. 9. Sample submitted by F. M. Buzzell, inspector. Purchased of H. E. Walters & Co., Ashland. Brand, Swift & Co.'s "Jersey." Passed.

Dec. 9. Sample submitted by F. M. Buzzell, inspector. Purchased of Frank S. Dhrage, Ashland. Brand, Braun & Fitts' "Gilt Edge." Passed.

Dec. 21. Sample submitted by N. J. Field, inspector. Purchased of A. L. Brosius & Co., Milwaukee. Brand, Swift's "Premium." Not approved.

Dec. 21. Sample submitted by N. J. Field, inspector. Purchased of George Bailey, Milwaukee. Brand, Swift's "Jersey." Not approved.

Dec. 28. Sample submitted by F. M. Buzzell, nspector. Purchased of George T. Rolland, Grand Rapids, Wis. Brand, Swift's "Premium." Not approved.

Dec. 28. Sample submitted by F. M. Buzzell, inspector. Purchased of Julius Thielman Meat & Grocery Co., Merrill. Brand, G. H. Hammond & Co.'s "Coine." Not approved.

Dec. 28. Sample submitted by F. M. Buzzell, inspector. Purchased of D. C. Jones, Tomahawk. Brand, Swift & Co. "Atlas." Not approved.

Dec. 28. Sample submitted by F. M. Buzzell, inspector. Purchased

of Bruce Mercantile Co., Bruce. Brand, Armour Packing Co. "Magnolia."

Dec. 28. Sample submitted by F. M. Buzzell, inspector. Purchased of Babcock Bros., Bruce. Brand, Armour Packing Co. "Lotus." Not approved.

Dec. 28. Sample submitted by F. M. Buzzell, inspector. Purchased of G. R. Warden, Ladysmith. Brand. Swift & Co. "Lincoln." Not approved.

BUCKWHEAT FLOUR.

Nov. 21. Sample submitted by E. R. Hicks, Oshkosh. Manufactured by Prehn & Sons, Omro. Passed.

Dec. 16. Sample of "flour" submitted by G. F. Messer, M. D., Beaver Dam. Said to have been manufactured by J. D. Figor, Wyocena.

	%
Ash	2.06
Ash ins. in hydrochl. acid (Sand)	0.63

The microscopical examination shows it to be buckwheat flour adulterated with low grade wheat flour. The sand can scarcely be regarded as a distinct intentional adulteration.

Dec. 16. Sample of "flour" submitted by G. F. Messer, M. D., Beaver Dam. Said to have been manufactured by J. D. Figor, Wyocena.

	%
Ash	1.61
Ash insoluble in hydrochloric acid	0.03

The microscopical examination shows it to be buckwheat flour, containing a small amount of wheat flour, probably an accidental contamination.

WATER ANALYSES.

1903.

Oct. 1. Sample of well-water sent by J. P. McMahon, M. D., Deputy Health Officer, Union Grove, Wis. Well forty feet deep and near toilet closet. Only small sample sent which contained 143 p. of chlorine per million and was apparently badly polluted.

Oct. 24. Sample of well water procured by S. M. Smith, M. D., health officer, at the Western Hotel, South Milwaukee, on Oct. the 15th, and received at this laboratory on October the 20th.

	Parts per million
Total solids	1050.00
Loss on ignition (nitrous fumes upon ignition)	506 00
Non-volatile residue	544.00
Chlorine	117.50
N. as free ammonia	0.10
N. as albuminoid ammonia	0.18
N. as nitrites	none
N. as nitrates	1.30
Oxygen consumed	3.2

This water is very badly polluted and unfit for human consumption.

Oct. 14. Sample of well water from Eagle River, Vilas county, Wisconsin, procured by Brown Bros., Rhinelander.

Appearance, clear and colorless.

	Parts per million
Total solids	160.00
Loss on ignition*	74.00
Non-volatile residue	86.00
Chlorine	25.50
N. as free ammonia	0.45
N. as albuminoid ammonia	0.23
N. as nitrites	0.015
N. as nitrates	1.30
Oxygen consumed	5.50

Though little is known of the history of the water, its chemical analysis seems to indicate considerable pollution.

*Blackened on ignition.

Oct. 30. Sample of well-water collected by J. M. Brophy, Lone Rock. Appearance: colorless, slight sediment.

	Parts per million
Total solids	164.00
Loss on ignition	68.00
Non-vol. residue	96.00
Chlorine	5.50
N. as free ammonia	none
N. as alb. ammonia	trace
N. as nitrites	trace
N. as nitrates	6.00
Oxygen consumed	0.65

Past pollution.

Oct. 30. Sample of well-water from Randolph Public School. Collected by J. R. Jones, M. D.

Appearance: yellowish with considerable sediment, mostly hydrated ferric oxide.

	Parts per million
Total solids	450.00
Loss on ignition	170.00
Non-vol. residue	280.00
Chlorine	20.00
N. as free ammonia	0.11
N. as alb. ammonia	0.13
N. as nitrites	0.01
N. as nitrates	0.75
Oxygen consumed	5.10

Dec. 23. Sample of well-water collected by Dr. Sauerhering, Wausau, Dec. 21.

	Parts per million
Total solids	130.0
Loss on ignition	54.0
Non-vol. residue	76.0
Chlorine	3.0
N. as nitrites	none
N. as nitrates	small am't
N. as free ammonia	small am't

PROSECUTIONS.

1903.

July 7. T. E. Phillips, Dodgeville, for selling adulterated milk to cheese factory. Brought before E. P. Roach, justice. No conviction.

July 9. John Schwantke, Spring Green, for selling adulterated milk. Fined by W. M. Hathaway, justice, $25.00 and costs.

July 22. G. Sladka, Manitowoc, for selling adulterated milk. Fined $25.00 and costs by J. P. Schoennan, justice.

July 30. F. Frank, Spring Green, for selling adulterated milk. Fined $25.00 and costs by W. M. Hathaway, justice.

Aug. 17. Chas. Brennan, Dodgeville, for selling adulterated milk to cheese factory. Fined $25.00 and costs by C. W. Mabbott, justice, Arena. Case reviewed on writ of certiorari by circuit court and dismissed because of technical errors in justice's docket.

Aug. 26. Joseph Copothorn, Ashippun, Dodge county, for selling adulterated milk to cheese factory. Brought before W. D. Stacy, justice. No conviction.

Sept. 1. Mrs. A. Machmueller, Mayville, for selling adulterated milk to cheese factory. Fined $25.00 and costs by W. D. Stacy, justice.

Sept. 18. Andrew Polly, Amherst, for selling adulterated milk. Fined $25.00 and costs by W. B. Minat, justice.

Sept. 23. Mrs. J. L. Lehman, Watertown, for selling adulterated milk to cheese factory. Fined $25.00 and costs by W. D. Stacy, justice.

Oct. 2. D. Boehm, Durand, for selling adulterated milk to cheese factory. Fined $25.00 and costs by Bert Harmer, justice.

Oct. 8. Chas. Peterson Egtvedt, Beloit, city milk dealer, for selling adulterated milk. Fined $25.00 and costs by J. B. Booth, police justice.

Oct. 12. S. P. Johnson, Stone Bank, for furnishing milk to creamery in dirty milk cans. Brought before municipal court, Oconomowoc. No conviction.

Oct. 16. George Potterton, Dodgeville, for selling adulterated milk to cheese factory. Brought before C. W. Mabbott, justice, Arena; change of venue to Fred Brown. No conviction.

Oct. 16. Martin Barry, Dodgeville, for selling adulterated milk to cheese factory. Brought before C. W. Mabbott, justice, Arena; change of venue to Fred Brown. No conviction.

Nov. 5. J. P. Etten, Greenleaf, for keeping unclean and unsanitary cheese factory. Fined $25.00 and costs by J. P. McGowan, justice.

Nov. 12. H. Garbber, town of Scott, Columbia county, for selling adulterated milk to cheese factory. Fined $25.00 and costs by Peter Williams, justice.

Nov. 13. J. Schwartz, Allenton, for selling adulterated milk to cheese factory. Fined $25.00 and costs by Andrew Foss, justice.

Nov. 16. Hiram O. Bigelow, Madison, for selling "renovated butter" without being lawfully labeled as such. Fined $25.00 and costs, in municipal court, Dane county.

Nov. 17. R. McKay, Madison, for selling "renovated butter" without being lawfully labeled as such. Fined $25.00 and costs in municipal court, Dane county.

Nov. 27. Aug. Krueger, Brillion, for operating an unclean and unsanitary cheese factory. Brought before Wm. McMullen, justice. Change of venue. No conviction.

Dec. 3. C. L. Thomas, Mondovi, for selling adulterated lard. Brought before municipal court, Buffalo county. No conviction.

MILK TESTS.

Oct. 13.—The samples of mixed milk taken at cheese factory in the town of Newton:

	% fat.
A. McNulty	3.8
A. Taugher	3.6
A. Taugher	4.0
W. Lubke	3.6
P. H. McNulty	4.4
Ed. Gallagher	4.2
P. McNulty	4.3
T. Morris	4.0
J. Taugher	4.8
P. O'Neil	4.4
J. Scherer	4.8
J. Wagner	5.2
Wm. Morris	4.1
J. Vandoskie	4.4
M. Dunbar	3.7
Joe Finch	4.0
E. Barner	3.8
J. Walsh	4.4
A. Otto	4.8
P. Brady	3.6
G. Garry	4.2
Ed Burns	3.8
D. Sulliman	3.8
M. Bonde	4.4
Wm. Hartman	4.5
P. J. White	4.2
J. Stevenson	4.3
J. J. Kelley	4.0
Wm. Otto	3.9
M. Taugher	4.2
J. E. Kelley	3.8
Wm. Heiman	3.5
A. Neilitz	4.0
O. Murphy	6.1
Wm. Kelley	3.2
C. Krueger	3.8
Mik. Kelley	3.7
C. Smelter	3.4
A. Heiman	3.6

Oct. 23.—Samples of composite milk taken at Rockland cheese factory:

	% fat.
Wm. Klann	4.6
Albert Behnke	4.6
John Krueger	4.2
Chas. Wunch	4.1
E. Klann	4.6
Gus. Seehauer	4.4
Chas. Vallesky	4.3
Wm. Tetzloff	4.2
C. J. Haese	4.3
Wm. Beilke	4.3
Wm. Schwanke	4.2
T. Krueger	4.3
Aug. Seehauer	4.5
Aug. Schwanke	4.2
J. Kunth	4.2
L. Krueger	4.6
G. Krueger	4.1
Fred Krause	4.0
D. Sonnabend	4.3
T. Lau	4.2
Robert Lau	4.4
J. Krueger	4.4
E. Deffke	4.3
Wm. Krueger	4.0
L. Kriplen	4.2

Oct. 24.—Samples of mixed milk taken at Rockland cheese factory, town of Rockland:

	% fat.
Wm. Klann	4.6
Albt. Behnke	4.7
John Krueger	4.2
Chas. Wunch	4.1
E. Klann	4.4
Gus Seehauer	4.5
Chas. Vallesky	4.4

	% fat.
Wm. Tetzlaff	4.3
C. J. Haese	4.2
Wm. Beilke	4.2
Wm. Schwanke	4.3
T. Krueger	4.4
Aug. Seehauer	4.4
J. Kunth	4.3
L. Krueger	4.7
G. Krueger	4.2
Fred Krause	3.9
D. Sonnabend	4.3
T. Lau	4.2
Robt. Lau	4.4
J. Krueger	4.3
E. Deffke	4.4
Wm. Krueger	4.0
L. Kriplen	4.2

Oct. 27.—Sample of morning's milk taken at Robert Manke cheese factory, town of Brillion:

John Klieber	4.1
M. Welch	3.9
O. Ecker	4.1
F. Deffke	4.1
J. Dovachack	3.9
Mrs. Pritzle	4.5
Geo. Reichaedt	4.6
D. Reichaedt	4.3
J. M. Radloff	4.5
J. Menleck, Jr.	4.1
Jake Becker	4.4
J. Menleck, Sr.	4.5
A. Nagel	3.5
M. Moser	4.2
A. Schaubs	4.3
J. Hoyer, Jr.	4.0
Frank Pritzl	4.5
S. Geiger	4.1
J. Weins	4.4
W. Kabot	3.9
John Buser	4.0
J. Rank	4.5
Chas. Klokow	4.2
John Zorhn	4.3
Joe Drexler	4.1
Joe Hoyer, Sr.	3.9

Oct. 28.—Samples of mixed milk taken at Spring cheese factory, town of Trenton, Dodge county:

F. Brunn	4.0
C. Krueger	3.9
M. Heublin	3.8
A. Kolell	4.0
J. Dinkel	3.8
C. Haas	5.3
H. Heppner	3.6
Wm. Deering	4.0
A. Woock	4.0
A. Zastraw	3.8
Wm. Steinhorst	4.0
J. White	4.0
Wm. Schwefel	3.9
A. Machkodech	4.0
F. Hoppler	4.4
Robert Steinkraus	3.6

Oct. 29.—Samples of mixed milk taken at Centerville brick cheese factory, town of Scott, Columbia county:

E. P. Jones	4.8
J. P. Jones	3.8
J. Sanderson	4.0
Joe Sanderson	5.0
John Rhein	4.8
H. Garbber	3.3
C. Scharf	4.4
Wm. Bartelt	4.0
Hugh Williams	3.3
Wm. Nehring	4.6
J. J. Daniel	3.7
F. Koebke	3.2
R. Smith	3.6
L. Scharf	4.4
D. O. Jones	4.3
Adolph Berger	4.2
J. A. Sanderson	4.1
Dan Williams	4.6
Morris & Jones	3.6
C. Fredrick	4.0
J. D. Jones	3.8
Wm. L. Jones	4.4
G. Vandercook	4.0
F. W. Abendroth	3.7

Nov. 3.—Samples of mixed milk taken, at Zeither brick cheese factory town of Hustisford, Dodge county:

G. Lindert	4.0
L. Braemer	4.2
F. Moritz	3.4
J. Bergerman	4.2
Wm. Bonelstengel	4.5
A. Dewitz	3.9
W. Haak	4.2
F. Lichtenberg	4.1
H. Schindelauer	4.3
F. Henkel	4.4
H. Sell	4.0
J. Beyer	4.1
Fred Schultz	4.4
W. Henkel	3.8
F. Zeithler	4.2
H. Thalke	3.8

	% fat.
Wm. Schwand	4.6
W. Jeick	4.1
H. Schwan	4.0

Nov. 10.—Samples of mixed milk taken at Wayne & Addison cheese factory, town of Wayne, Washington county:

Geo. Schleicher	4.3
John Hose	4.2
Chas. Pamperin	4.1
Jas. Umbs	4.0
P. Klumb	3.6
P. Martin	4.8
P. Johann	4.2
Aug. Meyer	4.0
H. Goenering	4.3
H. Bachman	4.4
P. Benedum	4.1
Chas. Wolf	4.2
H. Basler	4.8
Geo. Basler	4.0
H. Ensenbach	4.0
John Wolf	4.1
Mrs. C. Dwyer	4.7
Con. Dwyer	4.3
J. Schwartz	below standard
Wm. Dahm	4.2
Mike Ruffing	4.3
C. Gutjahr	4.6
Mrs. J. Gutjahr	5.2
H. Gritzmacher	4.3
P. Gritzmacher	3.8
L. Bauer	4.2
S. Endlich, Jr.	3.2
John Endlich	4.1
Wm. Kibbel	4.1
A. Endlich, Sr.	4.5
Joan Illian	4.0
J. Endlich	4.0
Wm. Luecke	4.4
Jas. Huhn	3.4
P. Emmer	3.9
Jos. Martin	4.8
Geo. Endlich	3.8
A. Schweitzer	5.4
Mrs. J. Endlich	4.0
J. Ritger	4.6
John Meister	4.0
A. Sauer	4.1
Wm. Schweitzer	3.8

Nov. 11.—Samples of mixed milk taken at Klink round cheese factory, town of Lomira, Dodge county:

Carl Lawrence	4.0
F. Klink	4.2
Robert Wenzel	4.1
Fred Bartelt	5.0
Ed Guetzlaff	3.8
Chas. Geschke	3.9
Mrs. M. Thelen	4.2
Otto Krueger	4.4
Carl Priest	3.8
H. Priest	4.2
Carl Mann	3.8
Carl Kuehn	4.0
Wm. Bartelt	4.4
Wm. Grandman	4.0
Fred Grandman	4.0
Bartle Fink	3.6
Wm. Steinhaus	4.0

Dec. 28.—Samples of milk taken at White Oak cheese factory, Hustisford, Dodge county, Wis.:

C. Erdman	4.0
L. C. Erdman	3.8
Fred. Rex	4.2
Chas. Eaker	4.0
Aug. Hoefs	5.6
Chas. Stark	4.0
Chas. Schmiling	4.4
Chas. Steffen	4.2
Anton Empke	4.3
Mixed milk in cheese vat	4.3

REPORT OF CHEESE FACTORY INSPECTION.

Oct. 1, 1903.—Name of factory, Legler, P.; location, Argyle; owner or manager, John Legler; P. O. address, Argyle, Lafayette County; name of maker, Christ Strauss; he has not attended Dairy School at Madison; no. of patrons, 8; no. of cows, 110; pounds of milk daily, 1,700; style, Swiss, good; Babcock test is not used; no Wisconsin curd test used; payments made per hundred; steam or self-heating vats used, fire kettles; screen doors and windows not used; drainage in fair condition; whey kept in barrels joining to factory; building in good condition; apparatus in good condition; surroundings in fair condition; some of patrons' milk cans are old and damaged; milk in cans in fair condition; buildings is painted outside. This factory is in fair condition in regard to sanitary surroundings; made lactometer test, but found milk fair following the test.

Oct. 3, 1903.—Name of factory, Flanery; location, Jordan; owner or manager, Flanery and Jones; P. O. address, Jordan Center; name of maker, Fred. Brune; has not attended dairy school at Madison; no. of patrons, 7; no. of cows, 160; pounds of milk daily; 3,200; style of cheese, Swiss; Babcock test not used; no Wisconsin curd test used; payments made per hundred; fire kettle used; screen doors and windows not used; drainage very poor; whey tank in vrey poor condition; building worst of any I have ever yet seen; apparatus in fair condition; surroundings in poor condition; some of patrons' milk cans not very clean; milk in cans in fair condition; building is not painted outside. This factory is in poor condition, violating the law in regard to sanitary surroundings and condition of whey barrels.

Oct. 5, 1903.—Name of factory, Silver; location Mt. Pleasant; owner or manager, Silas Lewis; P. O. address, Albany; name of maker, John Oberli; has not attended dairy school at Madison; no. of patrons, 11; no. of cows, 220; pounds of milk daily, 3,400; style of cheese, Swiss; Babcock test not used; Wisconsin curd test not used; payments made per hundred; fire kettle used; no screen doors and windows; drainage in poor condition; whey tanks and barrels not in very good condition; building in poor condition; apparatus in fair condition; surroundings in poor condition; patrons' milk cans are fair, but one is rusty; milk in cans is in fair condition; outside of building not painted. This factory is not in up-to-date condition, but cheese is working fair; barrels are joining to building and are in a filthy condition.

Oct. 5, 1903.—Name of factory, Rhymer and Freitag; location, Mt. Pleasant; owner or manager, Jac Rhymer; P. O. address, Albany, R. F. D.; name of maker, Jac Lieberherr; has not attended dairy school at Madison; no. of patrons, 9; no. of cows, 130; pounds of milk daily, 190; style of cheese, Swiss and Block; Babcock test not used; foreign curd test used; payments made per hundred; fire kettle used; no screens on doors or windows; drainage in poor condition; whey tank and barrels in poor condition;

condition of building, poor; condition of apparatus, fair; condition of surroundings, poor; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Oct. 6, 1903.—Name of factory, Woolen Mill Cheese factory; location, Mt. Pleasant; owner or manager, O. Zentner; P. O. address, Monticello; name of maker, Karl Pulver; has not attended dairy school at Madison; no. of patrons, 10; no. of cows, 240; pounds of milk daily, 3,800; style of cheese, Swiss; Babcock test not used; Wisconsin curd test not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage in good condition; location and condition of whey tank, barrels not in very good condition; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct. 6, 1903.—Name of factory, Saenger; location, Lark; owner or manager, F. C. Saenger; P. O. address, Lark; name of maker, Otto Planert; has not attended dairy school at Madison; no. of patrons, 50; pounds of milk, 6,500; pounds of cheese daily, 650; style of cheese, flats; quality, good; Babcock test is used; Wisconsin curd test not used; inspector's test of composite milk sample for day, 3.3 to 4.6; payments are made on fat basis; weight of milk, 231,531; average test, 3.71; pounds of cheese, 222,522; self-heating vats used; screen doors and windows used; tile drainage leading across road; whey tank 20 feet from building; cleaned seldom; building and apparatus in fair condition; surroundings in fair condition; patrons' milk cans in fair condition; milk in cans mostly in fair condition; building is painted outside.

Oct. 7 1903.—Name of factory, Kubly; location, Mt. Pleasant; owner or manager, H. Kubly; P. O. address, Monticello; name of maker, John Wiess; has not attended dairy school at Madison; no. of patrons, 6; no. of cows, 149; pounds of milk daily, 2,800; style of cheese, block; Babcock test not used; Wisconsin curd test not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage in good conditon; location and condition of whey tank, barrels 72 feet from building; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct. 7, 1903.—Name of factory, Baebler; location, Mt. Pleasant; owner or manager, John Baebler; P. O. address, Albany, R. F. D.; name of maker, Gottlieb Zimmerls; has not attended dairy school at Madison; no. of patrons, 7; no. of cows, 140; pounds of milk daily, 2,200; style of cheese, Swiss and block; Babcock test is not used; Wisconsin curd test not used; payments made per hundred; fire kettle used; there were no screen doors or windows; drainage in fair condition; location and condition of whey tanks, barrels in poor condition; condition of building, good, new; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, good; building is painted outside.

Oct. 7, 1903.—Name of factory, Joe Zweifel; location, Mt. Pleasant; owner or manager, J. Y. Elmer; P. O. address, Albany, R. F. D.; name of maker, John Lanz; he has not attended dairy school at Madison; no. of patrons, 3; pounds of milk daily, 1,100; pounds of cheese daily, 70; style of cheese, block; Babcock test is not used; Wisconsin curd test not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; spring in factory to carry filth away; condition of whey tank, bar-

rels in poor condition; condition of building, poor; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Oct. 8, 1903.—Name of factory, Schubert and Becker; location, Washington; owner or manager, John Becker; P. O. address, Monticello; name of maker, Christ Guggisberg; he has not attended dairy school at Madison; no. of patrans, 5; no. of cows, 140; pounds of milk daily, 2,200; style of cheese, Limburger; Babcock test is not used; Wisconsin curd test not used; payments are made per hundred; steam vats used; there were no screen doors or windows; drainage in poor condition; condition of whey tank, barrels in poor condition; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, poor, some are old and rusty; condition of milk in cans, fair; building is painted outside.

Oct. 8, 1903.—Name of factory, J. C. Marty; location, Washington, sec. 9; owner or manager, J. C. Marty; P. O. address, Monticello; name of maker, J. C. Marty; he has not attended dairy school at Madison; no. of patrons, 1; no. of cows, 55; pounds of milk daily, 1,100; style of cheese, Limburg; Babcock test is not used; Wisconsin curd test not used; payments are made with his own milk; steam vats used; there were no screen doors or windows; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct. 9, 1903.—Name of factory, Widdenweller; location, Washington township, sec. 2; owner or manager, Matt. Wittenwyller; P. O. address, Monticello; name of maker, W. Blatter; he has not attended dairy school at Madison; no. of patrons 1; no. of cows, 40; pounds of milk daily, 800; style of cheese, block; Babcock test is not used; Wisconsin curd test not use; payments are made with his own milk; fire kettle used; there were no screen doors or windows; drainage in good condition; condition of building, good; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, good; condition of milk in cans, fair; building is painted outside.

Oct. 10, 1903.—Name of factory, Broughton; location, Albany township; owner or manager, T. Broughton; P. O. address, Albany, R. F. D.; name of maker, Jac. Rhyner; he has not attended dairy school at Madison; no. of patrons, 16; no. of cows, 200; pounds of milk daily, 3,200; style of cheese, Swiss; Babcock test is not used; Wisconsin curd test not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage in not very good condition; condition of whey tank, barrels in poor condition; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, some not in good condition; condition of milk in cans, fair; building is painted outside.

Oct. 10, 1903.—Name of factory, Anson; location, Anson; owner or manager, La Fayette Dairy Co.; P. O. address, Chippewa Falls; name of maker, J. T. Snyder; he has not attended dairy school at Madison; no. of patrons, 23; no. of cows, 135; pounds of milk daily, 2,000; pounds of cheese daily, 228; style of cheese, twins; Babcock test is used; Wisconsin curd test is not used; inspector's test of composite milk sample per day, 4.5 per cent.; payments are made by test; weight of milk, 78,820; average test, 4.3; pounds of cheese, 812, at last payment; steam vats used; there were no screen doors or windows; drainage, runs out on open; location and condition of whey tanks, 15 feet from factory underground, bad; condition of building, fair; sub-earth duct; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, some old, one rusty; condition of milk in cans, fair; building is painted outside.

Oct. 10, 1903.—Name of factory, Decatur; location, country; owner or manager, Chas. Zuncher: P. O. address, Brodhead; name of maker, John Burkhalter; he has not attended dairy school at Madison; no. of patrons, 10; no. of cows, 160; pounds of milk daily, 3,600; style of cheese, Swiss; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage in fair condition; location and condition of whey tanks, barrels joining building; condition of building, good; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Oct. 10, 1903.—Name of factory, Calumet; location, Chilton township, sec. 21; owner or manager, Aug. Krueger; P. O. address, Chilton; name of maker, Aug. Krueger; he has not attended dairy school at Madison; no. of patrons, 30; pounds of milk daily, 4,200; pounds of cheese daily, 440; style and quality of cheese, Daisies. good; Babcock test not used; Wisconsin curd test not used; payments are made every two weeks; weight of milk, 25,900; pounds of cheese, 2,648, at last payment; self-heating vats used; there were no screen doors or windows; small ditch emptying in a pond about 80 feet from factory; location and condition of whey tank, about 12 feet from factory, very bad; condition of building, bad; condition of apparatus, fair; condition of surroundings, bad; building is painted outside.

Oct. 12, 1903.—Name of factory, Town Line; location, Argyle, La Fayette Co.; owner or manager, Oscar Johnson; P. O. address, Blanchardville; name of maker, John Hildebrand; P. O. address. Blanchardville; he has not attended dairy school at Madison; no. of patrons, 8; no. of cows, 175; pounds of milk daily, 3,000; style of cheese, Swiss; Babcock test is not used; Wisconsin curd test not used; payment are made per hundred; fire kettle used; there were no screen doors or windows; drainage in fair condition; condition of whey tank, barrels in poor condition; condition of building, poor; condition of apparatus. fair; condition of surroundings, fair; some of patrons' milk cans are old and in poor condition; condition of milk in cans, fair; building is painted outside.

Oct. 12, 1903.—Name and location of factory, La Fayette; owner or manager, Thos. Roycroft; P. O. address, Chippewa Falls; name of maker, A. B. Helm; he has attended dairy school at Madison; no. of patrons, 32; no. of cows, 180; pounds of milk daily, 3,500; pounds of cheese daily, 380; style and quality of cheese, twins, good; Babcock test is used; Wisconsin curd test is used; payments are made by test; weight of milk, 109,200; average test, 4.05; pounds of cheese, 2,024, at last payment; stem-heating vats used; there were screen doors and windows; drainage closed to ditch 100 feet from factory; location and condition of whey tank, 25 feet from building; condition of building, good; fine basement curing room; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, fair; building is painted outside.

Oct. 13, 1903.—Name of factory, Stark; location, Morrison township, sec. 12; owner or manager, James H. Smith; P. O. address, Stark; name of maker, Alfred Saenger; he has not attended dairy school at Madison; no. of patrons, 29; pounds of milk daily, 3,840; pounds of cheese daily, 420; style and quality of cheese, twins, fair; Babcock test is used; Wisconsin curd test is not used; payments are made on fat basis; weight of milk, 124,149; agerage test, 3.68; pounds of cheese, 11,891, at last payment; self-heating vats used; there were no screen doors or windows; drainage bad and neglected; location and condition of whey tank, 4 feet from building, bad shape; condition of building, bad; condition of apparatus, vat in bad shape; condition of surroundings, very foul; condition of patrons' milk cans, mostly fair; condition of milk in cans, some gassy; building is not painted outside.

Oct. 13, 1903.—Location of factory, Newton township, sec. 30; owner or manager, Wm. Vogel-sang; P. O. address, Osman; name of maker, Wm. Vogel-sang; P. O. address, Osman; he has not attended dairy school at Madison; no. of patrons, 40; pounds of milk daily, 4,600; pounds of cheese daily, 480; style of cheese, Daisies; Babcock test is not used; Wisconsin curd test not used; weight of milk, 4,600; pounds of cheese, 480, at last payment; self-heating vats used; there were no screen doors or windows; drainage, good, underground; location of whey tank, 70 feet from factory; condition of building, good; condition of apparatus, good; condition of surroundings, good; milk in cans all good excepting one tainted; building is painted outside.

Oct. 13, 1903.—Name of factory, Gunderson; Location, Argyle; owner or manager, Ole Gunderson; P. O. address, Argyle; name of maker, M. Haldman; he has not attended dairy school at Madison; no. of patrons, 12; no. of cows, 200; pounds of milk daily, 3,800; style and quality of cheese, Swiss. good; Babcock test is not used; Wisconsn curd test not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage in poor condition; condition of whey tank, barrels in poor condition; condition of building, fair; condition of apparatus, fair; condition of surroundings, poor; some of patrons' milk cans are very bad; condition of milk in cans, fair; building is not painted outside.

Oct. 14, 1903.—Name of factory, Mudbranch; location, country; owner and manager, Christ Marty; P. O. address, Argyle, La Fayette Co.; name of maker, Matt Weidemann; has not attended dairy school at Madison; no. of patrons, 12; no. of cows, 200; pounds of milk daily, 4,200; style and quality of cheese, limburger, fair; Babcock test is not used; Wisconsin curd test not used; payments are made per hundred; steam-heating vats used; there were no screen doors or windows; drainage in good condition; condition of whey tank, barrels poor; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct. 14, 1903.—Name of factory, East Lemond; location, Lemond; owner or manager, John Larson; P. O. address, Lemond; name of maker, Gottfried Strauss; he has not attended dairy school at Madison; no. of patrons, 7; no. of cows, 150; pounds of milk daily, 2,500; style and quality of cheese, Limburger, fair; Babcock test is not used; Wisconsin curd test is not used; payments are made per hundred; steam-heating vats used; there were no screen doors or windows; fair drainage; condition of whey tanks, barrels poor; condition of building, poor; condition of apparatus, poor, clean, but old; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct. 14, 1903.—Location of factory, Wrightstown; owner or manager, Paul Etten; P. O. address, Wrightstown; name of maker, Paul Etten; he has not attended dairy school at Madison. Second inspection: Stopped only a few minutes at this factory; flies are still mixed into the curd; the stench in and about the factory is very strong, and no disposition is shown to improve the conditions. Report of first inspection was made Aug. 6.

Oct. 15, 1903.—Name of factory, Lion; Location, Yellowstone; owner or manager, Thos. Darrow; P. O. address, Blanchardville; maker, A. Linder; he has not attended dairy school at Madison; no. of patrons, 7; no. of cows, 125; pounds of milk daily, 2,000; style and quality of cheese, block and Swiss, fair; Babcock test not used; Wisconsin curd test not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage in poor condition; condition of whey tanks, barrls not i..

good condition; condition of building, fair; apparatus not very clean; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Oct. 15, 1903.—Name of factory, McClandic; location, Yellowstone; owner or manager, A. Hanson; P. O. address, Blanchardville; name of maker, Fred Wenger; he has not attended dairy school at Madison; no. of patrons, 7; no. of cows, 160; pounds of milk daily, 2,700; style and quality of cheese, Swiss and block, fair; Babcock test not used; Wisconsin curd test not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage in poor condition; condition of whey tank, barrels poor; condition of building, fair; apparatus not very clean; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct. 15, 1903.—Name of factory, Olson; location, country; owner or manager, Ole Olson; P. O. address, Blanchardville; name of maker, Carl Haehlen; he has not attended dairy school at Madison; no. of patrons, 12; no. of cows, 200; pounds of milk daily, 3,400; style and quality of cheese, Swiss, fair; Babcock test is not used; Wisconsin curd test not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage in fair condition; condition of whey tank, barrels in poor condition; condition of building, good; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Oct. 16, 1903.—Name of factory, Moscow Mill Pond; location, Moscow; owner or manager, Wm. Lese; P. O. address, Hollandale; name of maker, Karl Aebersold; has not attended dairy school at Madison; no. of patrons, 11; no. of cows, 120; pounds of milk daily, 2,000; style and quality of cheese, block, good; Babcock test is not used; Wisconsin curd test not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; no drainage; condition of whey tank, barrels in poor condition; condition of building, poor; apparatus not very clean; surroundings poor on account of whey barrels and drainage; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct. 16, 1903.—Name of factory, Schindler; location, Moscow; owner or manager, Thos. Schindler; P. O. address, Hollandale; name of maker, F. Marty; he has not attended dairy school at Madison; no of patrons, 5; no. of cows, 150; pounds of milk daily, 2,400; style and quality of cheese, block and brick, fair; Babcock test not used; Wisconsin curd test not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage poor; condition of whey tank, barrels in poor conidtion; building poor, very old; condition of apapratus, fair; condition of surroundings, poor; condition of patrons' milk cans, fair; condition of milk in cans, fair; building not painted outside.

Oct. 16, 1903.—Name of factory, River Lost; location, Moscow; owner or manager, Ed. Lenmark; P. O. address, Hollandale; name of maker, Jac. Flockiger; he has not attended dairy school at Madison; no. of patrons, 13; no. of cows, 200; pounds of milk daily, 4,400; style and quality of cheese, Swiss, fair; Babcock test not used; Wisconsin curd test not used; payments are made per hundred; steam kettle used; there were no screen doors or windows; drainage in poor condition; condition of whey tank, barrels in poor condition; condition of building, fair; condition of apparatus, good; surroundings poor on account of drainage; conditoin of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct. 16, 1903.—Location of factory, Angelica; owner or manager, W. R. Mills: P. O. address, Bonduel; name of maker, W. R. Mills; he has attended dairy school at Madison; no. of patrons, 33; pounds of milk daily, 3,200; pounds of cheese daily, 365; style and quality of cheese, flats, good; Babcock test is used; Wisconsin curd test not used; payment are made on fat bass; weight of milk, 134,415; average test, 4.0; pounds of cheese, 13,891, at last payment, August; steam vats used; there were screen doors and windows; ditch running to creek; location and condition of whey tank, 20 feet from building, good condition; condition of building, good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good; building is painted outside.

Oct. 17, 1903.—Name of factory, Gole; location, Perry; owner or manager, Ole Paulson; P. O. address, Mt. Horeb, R. F. D,, 69; name of maker, Christ Schmid; he has not attended dairy school at Madison; no. of patrons, 8; no. of cows, 200; pounds of milk daily, 2,645; style and quality of cheese, Limburger, fair; Babcock test is not used; Wisconsin curd test not used; payments are made per hundred; steam vats used; there were no screen doors or windows; drainage in good condition; condition of whey tank, barrels in fair condition; condition of building, fair; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted on outside.

Oct. 18, 1903.—Name of factory, Geigel M.; location, Mt. Pleasant; owner or manager, Martin Geigel; P. O. address, Schultz; name of maker, Jac. Strasser; he has not attended dairy school at Madison; no. of patrons, 9; no. of cows, 160; pounds of milk daily, 2,700; style and quality of cheese, block, good; Babcock test is not used; Wisconsin curd test not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage in poor condition; location of whey tank; barrels adjoining bulding; building old and in poor condition; condition of apparatus, fair; condition of surroundings, poor; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct. 19, 1903.—Name of factory, Rudy Freitag; location Mt. Pleasant; owner or manager, R. Freitag; P. O. address, Monticello; name of maker, Edward Kuenzi; he has not attended dairy school at Madison; no. of patrons, 5; no. of cows, 130; pounds of milk daily, 1,300; style and quality of cheese, Limburger, fair; Babcock test is not used; Wisconsin curd test not used; payments are made per hundred; steam vats used; there were no screen doors or windows; drainage in poor condition; condition of whey tank, barrels in poor condition; condition of building, poor; apparatus fair, old, but clean; surroundings poor on account of drainage; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted on outside.

Oct. 20, 1903.—Name of factory, H. Altman; location, New Glarus; owner or manager, H. Zweifel; P. O. address, New Glarus; name of maker, Gottfried Althaus; he has not attended dairy school at Madison; no. of patrons, 6; no. of cows, 115; pounds of milk daily, 1,900; style and quality of cheese, block, fair; Babcock test not used; Wisconsin curd test not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage in poor condition; condition of whey tank, barrels in poor condition; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct. 20, 1903.—Name of factory, Nick Duerst; location, New Glarus; owner or manager, Jac. Ott; P. O. address, New Glarus; name of maker, Sam. Erb;

he has not attended dairy school at Madison; no. of patrons, 7; no. of cows, 200; pounds of milk daily, 3,100; style and quality of cheese, Swiss and block, fair; Babcock test is not used; foreign curd test used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage in poor condition; condition of whey tank, barrels in poor condition; building old and in poor condition; apparatus not very clean; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct. 21, 1903.—Name of factory, H. Duerst; location, New Glarus; owner or manager, H. Duerst; P. O. address, New Glarus; name of maker, Adolf Aru; he has not attended dairy school at Madison; no. of patrons, 4; no. of cows, 130; pounds of milk daily, 1,900; style and quality of cheese, block, fair; Babcock test not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage not in very good condition, enters near to wall or spring; location and condition of whey tank, barrels are dug in ground and are in very poor condition; building in fair condition; apparatus not in very clean condition; surroundings not very good on account of whey barrels and drainage; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Oct. 21, 1903.—Name of factory, Miller Hollow; location, Primrose; owner or manager, G. S. Eugene; P. O. address, Mt. Vernon; maker, Fred Zysset; he has not attended dairy school at Madison; no. of patrons, 6; no. of cows, 140; pounds of milk daily, 1,800; style and quality of cheese, Limburger, good; Babcock test not used; Wisconsin curd test not used; payments are made per hundred; steam vats used; there were no screen doors or windows; drainage in poor condition; condition of whey tank, barrels in poor condition; building old and in poor condition; apparatus not very clean; surroundings poor on account of drainage; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct., 1903.—Name of factory, Stone Hill; location Primrose; owner or manager, Jac. Marty; P. O. address, Belleville, R. F. D., 59; name of maker. John Ming; he has not attended dairy school at Madison; no. of patrons, 13; no. of cows, 200; pounds of milk daily, 3,500; style and quality of cheese, block, fair; Babcock test is not used; Wisconsin curd test not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage in good condition; condition of whey tank, barrels in fair condition; building not in very good condition; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct. 22, 1903.—Name of factory, Spring Valley; location New Glarus; owner or manager, Nick Elmer; P. O. address, New Glarus; name of maker, John Zeller; he has not attended dairy school at Madison; no. of patrons, 12; no. of cows, 320; pounds of milk daily, 5,000; style and quality of cheese, Limburger, good; Babcock test is not used; foreign curd test is used; payments are made per hundred; steam vats used; there were no screen doors or windows; drainage in fair condition; condition of whey tank, barrels not in very good condition; building old and not in good condition; condition of apparatus, good; condition of surroundings, good; some of patrons' milk cans are old; condition of milk in cans, fair; building is not painted outside.

Oct. 22, 1903.—Name of factory, Merritt; location, Naples; owner or manager, Merritt Dairy Assn.; P. O. address, Meridan; name of maker, J. W. Leyforth; he has not attended dairy school at Madison; no. of patrons, 18; no. of cows, 100; pounds of milk daily, 1,500; pounds of cheese, 165; style

of cheese, twins, now making prints; Babcock test is used; Wisconsin curd test is used; inspector's test of composite milk sample for day, 4,1 per cent.; payments are made on pooling system; steam vats used; there were no screen doors or windows; drainage opens into road, poor; location and condition of whey tank, outside. only fair; building in good condition, fine basement curing room; condition of apparatus, fair; condition of surroundings good; condition of patrons' milk cans, good; condition of milk in cans, good; building is painted on outside.

Oct. 23, 1903.—Location of factory, three and one-half miles east of Chilton; owner or manager, Aug. Krueger; P. O. address, Chilton; he has not attended dairy school at Madison; no. of patrons, 30; pounds of milk daily, 3,800; pounds of cheese daily, 440; style and quality of cheese. Daisies; Babcock test is not use; Wisconsin curd test not use; no screen doors and windows; describe drainage, small open ditch; location and condition of whey tank, two tanks, one 12 ft. from factory, one 17 ft. from factory; condition of apparatus, dirty; condition of surroundings, good if kept clean; building is painted on outside. Remarks: Visited this factory on Oct. 10th, and found it in bad condition. Ordered it cleaned up, but find the factory today with no improvement with the exception of the weighing stand having been washed.

Oct. 23, 1903.—Name of factory, Lookout; location, Lookout; owner or manager, Ed Jackson; P. O. address, Lookout; name of maker. R. Southard; he has attended dairy school at Madison; no. of patrons, 36; no. of cows, 185; pounds of milk daily, 3.000; pounds of cheese daily, 325; style and quality of cheese, Twins, good; Babcock test is used; Wisconsin curd test is used; inspector's test of composite milk sample for day, 3.9 per cent.; payments are made by test; weight of milk, 60,225; average test, 3.8; and pounds of cheese, 6,580, at last payment; steam-heating vats used; there were no screen doors and windows; location and condition of whey tank, outside, good; building is in good condition, fine basement and curing room; condition of apparatus, good; surroundings in good condition; condition of patrons' milk cans, good; condition of milk cans, good; building is painted outside.

Oct. 23, 1903.—Name of factory, Elmer Mathias; location, New Glarus; owner or manager, Matt. Elmer; style and quality of cheese, Limburg; payments are made by hundred; steam-heating vats are used; there were no screen doors and windows; drainage in poor condition; location and condition of whey tank; no barrels and no tank; condition of building, poor, in barn yard; apparatus fair, clean condition; condition of surroundings, poor in barn yard; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside. Remarks: This factory is in poor condition as to sanitary surrounding, as it is standing in barn yard and surrounded by hog pen.

Oct. 23, 1903.—Name of factory, Babler & Co.; location, New Glarus; owner or manager, Bable, Jno.; name of maker, Fred Zeller; he has not attended dairy school at Madison; no. of patrons, 3; no. of cows, 130; pounds of milk daily, 2,000; style and quality of cheese, brick, good; the Babcock test is not used; Wisconsin curd test is not used; payments are made per hundred; steam kettle used; there are no screen doors and windows; drainage in fair condition; location and condition of whey tank, barrels dug in ground; condition of building, good; condition of surroundings, good; condition of patrons' milk cans, fair; condition of milk in cans, one not very good; building is pointed outside.

Oct. 23, 1903.—Name of factory, Brant; location, 4 miles northwest of Chilton; owner or manager, John Snyder; P. O. address, Chilton, R. F. D. No. 9; name of maker, John Snyder; he has not attended dairy school at

Madison; no. of patrons, 25; pounds of milk daily, 2,800; pounds of cheese daily, 2,900; style of cheese, 20-lb. prints; Babcock test is used; Wisconsin curd test is not used; payments are made by fat test; self-heating vats are used; there were no screen doors and windows; drainage good; location and condition of whey tank, good, about 60 ft. from factory; condition of apparatus, good, excepting vat, will get new next season; condition of surroundings, good; building is painted outside.

Oct. 23, 1903.—Name of factory, Aug. Krause; location, Brooklyn; owner or manager, Aug. Krause; P. O. address, Albany, R. D. No. 2; name of maker, Albert, Aeby; he has not attended dairy school at Madison; no. of patrons, 12; pounds of milk daily, 1,600; pounds of cheese daily, 135; style and quality of cheese, Brick and Swiss, good; Babcock test is not used; Wisconsin curd test is used; payments are made per hundred; fire kettle is used; there were no screen doors and windows; drainage in fair condition; barrels in fair condition; condition of building, good; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, some old and rusty; condition of milk in cans, fair; building is painted outside.

Oct. 24, 1903.—Name of factory, Legler, F.; location, New Glarus; owner or manager, F. Legler; P. O. address, New Glarus; he has not attended dairy school at Madison; no. of patrons, 5; no. of cows, 130; pounds of milk daily, 2,200; style of cheese, Swiss, Block and Brick; quality fair; Babcock test is not used; Wisconsin curd test is not used; payments are made per hundred; steam kettle used; there were no screen doors or windows; drainage in fair condition; location and condition of whey tank, barrels in ground, poor condition; building old, condition not good; condition of apparatus, fair; condition of surroundings poor; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct. 24, 1903.—Name of factory, Rockland; location, Collins; township, Rockland; owner or manager, H. A. Sonnabend; P. O. address, Hayton, R. F. D. No. 1; name of maker, H. A. Sonnabend; he has attended dairy school at Madison; no. of patrons, 25; pounds of milk daily, 4,400; pounds of cheese daily, 513; style of cheese, 10-lb. prints; Babcock test is used; Wisconsin curd test is not used; payments are made by butter fat; self-heating vats are used; there were no screen doors and windows; plank outlet about 70 ft. from factory; location and condition of whey tank, good about 35 ft. from factory; condition of building, good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good; building is painted outside. Remarks: This factory is in very clean condition.

Oct. 25, 1903.—Name of factory, Sylvester; location, Sylvester; owner or manager, Cas. Pengra; P. O. address, Monroe, R. D. No. 2; name of maker, Rudy Kaderli; he has not attended dairy school at Madison; no. of patrons, 12; no. of cows, 245; pounds of milk daily, 2,900; style of cheese, Swiss; quality, fair; Babcock test is not used; payments are made per hundred; fire kettle is used; there were no screen doors and windows; drainage in poor condition; location and condition of whey tank, barrels in poor condition; condition of building, fair; condition of apparatus, fair; condition of surroundings, poor on account of drainage; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct. 25, 1903.—Name of factory, Prim; location, Sylvester; owner or manager, Aug. Prim; P. O. address, Monroe, R. 2; name of maker, Jno. Quobersteg; he has not attended dairy school at Madison; no. of patrons, 8; no. of cows, 150; pounds of milk daily, 2,200; style and quality of cheese, Block, fair; Babcock test not used; Wisconsin curd test not used; payments are made per hundred; fire kettle used; there were no screen doors and win-

dows; drainage in poor condition; location and condition of whey tank, barrels in poor condition; condition of building, old, poor; condition of apparatus, clean; condition of surroundings, poor on account of drainage; condition of patrons' milk cans, some old and rusty; condition of milk in cans, fair; building is painted outside.

Oct. 25, 1903.—Name of factory, Griffin; location, Griffin; owner or manager, Griffin Dairy Ass'n; P. O. address, Griffin; name of maker, John Lerum; he has not attended dairy school at Madison; no. of patrons, 19; no. of cows, 155; pounds of milk daily, 2,200; pounds of cheese daily, 239; style and quality of cheese, twins, good; Babcock test is not used; Wisconsin curd test is not used; payments are made by pooling system; weight of milk, 81,212; pounds of cheese, 8,310 at last payment; steam-heating vats used; there were no screen doors and windows; drainage underground to creek, good; location and condition of whey tank, 25 ft. away, only fair; condition of building, good; basement curing room; condition of apparatus, fair; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good; building is painted outside. Remarks: Cheese, fine.

Oct. 26, 1903.—Location, Wrightstown; owner or manager, J. P. Etten; P. O. address, Wrightown; name of maker, J P. Etten; he has not attended dairy school at Madison; no. of patrons, 32; pounds of milk daily, 4,000; pounds of cheese daily, 480; style of cheese, flats; Babcock test is used; Wisconsin curd test is not used; payments are made by test; steam-heating vats are used; there are no screen doors and windows; no drainage; location and condition of whey tank, 24 ft. from factory, in very poor condition; condition of building, good, except as to cleanliness; condition of apparatus, fair; condition of surroundings, good; building is painted outside. Remarks: This factory is in a No. 1 location, but in very dirty condition.

Oct. 27, 1903.—Location, 2 miles northeast of Brillion; owner or manager, Robt. Manke; P. O. address, Brillion; name of maker, Robt. Manke; he has not attended dairy school at Madison; no. of patrons, 35; pounds of milk daily, 4,900; pounds of cheese daily, 504; style and quality of cheese, Y. A., fine; Babcock test is used; Wisconsin curd test is not used; payments are made by pooling; self-heating vats are used; there were no screen doors and windows; location and condition of whey tank, 40 ft. from factory, good; condition of building, good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good; building is not painted outside. Remarks: Very clean and tidy; whey tank cleaned out every week.

Oct. 27, 1903.—Name of factory, Tell; location, Tell; owner or manager, G. Meier; P. O. address, Tell; name of maker, G. Meier; he has attended dairy school at Madison; no. of patrons, 24; no. of cows, 228; pounds of milk daily, 4,500; pounds of cheese daily, 490; style and quality of cheese, brick, good; Babcock test is not used; Wisconsin curd test is used; buys milk by cwt.; kettle used; there were no screen doors or windows; drainage, underground to creek, good; location and condition of whey tank, 25 ft. away, good; condition of building, fair; condition of apparatus, fair; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good; building is painted outside.

Oct. 27, 1903.—Name of factory, Asmus; location, Brooklyn; owner or manager, Frank Asmus; P. O. address, Albany, R. D. No. 2; name of maker, Christ Blaser; he has not attended dairy school at Madison; no. of patrons, 14; no. of cows, 140; pounds of milk daily, 2,000; style and quality of cheese, block, fair; Babcock test is not used; Wisconsin curd test is not used; payments are made per hundred; fire kettle used; there were no screen doors and windows; drainage in fair condition; location and condi-

tion of whey tank, barrels in poor condition, dug in ground; condition of building, poor; condition of apparatus, fair, clean; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted on outside.

Oct. 28, 1903.—Name of factory, Davis, J.; location, Glarno; owner or manager, Davis, J.; P. O. address, Monroe; name of maker, Gottfr. Seiser; he has not attended dairy school at Madison; no. of patrons, 7; no. of cows, 150; pounds of milk daily, 2,000; style and quality of cheese, Swiss, good; Babcock test not used; fire kettle used; there were no screen doors or windows; drainage in fair condition; location and condition of whey tank, barrels in poor condition; condition of building, fair; condition of apparatus, fair; condition of surroundings, poor on account of drainage; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Oct. 28, 1903.—Name of factory, Trenton Spring Cheese Factory; location, Trenton; owner or manager, Martin Hueblein; P. O. address, Fox Lake; name of maker, Martin Hueblein; he has not attended dairy school at Madison; no. of patrons, 18; pounds of milk daily, 2,500; pounds of cheese daily, 280; style of cheese, brick; Babcock test is not used; Wisconsin curd test is not used; payments are made per hundred; steam-heating vats used; there were no screen doors and windows; drainage is good; location and condition of whey tank, 40 ft. from factory, good; condition of building, good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good; building is painted outside.

Oct. 29, 1903.—Name of factory, Centerville Brick Cheese Factory; location, 3 miles northwest of Cambria; township, Scott; owner or manager, Gronert & Peirick; P. O. address, Columbus; name of maker, Henry Berg; he has not attended dairy school at Madison; no. of patrons, 27; pounds of milk daily, 2,300; pounds of cheese daily, 508; style and quality of cheese, brick, good; Babcock test is not used; Wisconsin curd test is not used; payments are made when milk is brought; steam-heating vats used; there were no screen doors and windows; drainage is good; location and condition of whey tank; connected with building from tank, good; condition of building, good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good; building is painted outside.

Oct. 29, 1903.—Name of factory, Hermanson; location, country; owner or manager, Herman Hermanson; P. O. address, Blanchardville; he has not attended dairy school at Madison; no. of patrons, 7; no. of cows, 130; pounds of milk daily, 1,600; style and quality of cheese, block and brick, fair; Babcock test is not used; foreign curd test used; payments are made per hundred; fire kettle used; there were no screen doors and windows; drainage in fair condition; location and condition of whey tank, barrels in poor condition, dug in ground; condition of building, fair; apparatus in not very clean condition; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Oct. 29, 1903.—Name of factory, Everson; location, Argyle; owner or manager, Herman Homer; P. O. address, Argyle; he has not attended dairy school at Madison; no. of patrons, 12; no. of cows, 160; pounds of milk daily, 2,200; style and quality of cheese, Swiss and block, fair; Babcock test is not used; Wisconsin curd test is not used; payments are made per hundred; fire kettle used; there were no screen doors or windows; drainage in not very good condition; location and condition of whey tank, barrels in poor condition; condition of building, fair; condition of apparatus, fair,

could have been cleaner; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct. 30, 1903.—Name of factory, Yankee Hollow; location, York; owner or manager, Clamce, Devoe; P. O. address, Argyle; name of maker, Alfr. Bilang; he has not attended dairy school at Madison; no. of patrons, 7; no. of cows, 110; pounds of milk daily, 1,100; style of cheese, Limburger; Babcock test is not used; Wisconsin curd test used; steam-heating vat used; there were no screen doors and windows; drainage in very poor condition; location and condition of whey tank, barrels in poor condition; condition of building, poor, very old; condition of apparatus, fair; condition of surroundings, poor; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct. 30, 1903.—Name of factory, Stroman Cheese Factory; location, York; owner or manager, A. D. Stroman; P. O. address, Blanchardville; name of maker, Christ Orb; he has not attended dairy school at Madison; no. of patrons, 12; no. of cows, 200; pounds of milk daily, 2,500; style and quality of cheese, Swiss and brick, good; Babcock test is not used; Wisconsin curd test is not used; payments are made per hundred; fire kettle used; there were no screen doors and windows; drainage fair; location and condition of whey tank, barrels in fair condition; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Oct. 30, 1903.—Name of factory, Wenger; location, York; P. O. address, E. Peterson; name of maker, Alfr. Gack; he has not attended dairy school at Madison; no. of patrons, 7; no. of cows, 166; pounds of milk daily, 2,400; style and quality of cheese, Limburg; fair; Babcock test is not used; Wisconsin curd test is not used; payments are made per hundred; steam-heating vats used; there were no screen doors and windows; drainage not in good condition; location and condition of whey tank, barrels in poor condition; condition of building, poor, very poor; condition of apparatus, fair; condition of surroundings, poor on account of drainage; condition of patrons' milk can, not very good, some whey in them too long; condition of milk in cans, fair; building is not painted outside.

Oct. 31, 1903.—Name of factory, Saw Mill Cheese Co.; location, York; owner or manager; Anton Stuman; P. O. address, Blanchardville; he has not attended dairy school at Madison; no. of patrons, 10; no. of cows, 170; pounds of milk daily, 2,700; style and quality of cheese, Limburg, fair; Babcock test is not used; Wisconsin curd test is not used; payments are made per hundred; steam-heating vats used; there were no screen doors and windows; drainage, fair; location and condition of whey tank, barrels in very poor condition; condition of building, old; condition of apparatus, fair; condition of surroundings, poor on account of drainage; condition of patrons' milk cans, some old; condition of milk in cans, fair; building is not painted outside.

Oct. 31, 1903.—Name of factory, York Center; location York; owner or man- Rieder, Sr.; he has not attended dairy school at Madison; no. of patrons, Rieder, Sr.; he has not attended dairy school at Madison; no. of patrons, 13; no. of cows, 200; pounds of milk daily, 2,700; style and quality of cheese, brick, fair; Babcock test is not used; Wisconsin curd test is not used; payments are made per hundred; steam-heating vats used; there were no screen doors and windows; drainage in very poor condition; location and condition of whey tank, barrels in very poor condition; condition of building, poor, very old; condition of apparatus, fair, clean; condi-

tion of surroundings, poor; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct. 31, 1903.—Name of factory, Hay Hollow; location York; owner or manager, Chas. Walker; P. O. address, Blanchardville; name of maker, Jac. King; he has not attended dairy school at Madison; no. of patrons, 14; no. of cows, 280; pounds of milk daily, 4,200; style and quality of cheese, Swiss and brick, good; Babcock test not used; Wisconsin curd test not used; payments are made per hundred; fire kettle used; there were no screen doors and windows; drainage in fair condition; location and condition of whey tank, tank in fair condition, barrels old; condition of building, old, not up to date; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

Oct. 31, 1903.—Name of factory, Bragger; location, York; owner or manager, Oscar Olson; P. O. address, Blanchardville; he has not attended dairy school at Madison; no. of patrons, 11; no. of cows, 250; pounds of milk daily, 3,400; style and quality of cheese, Swiss and brick, fair; Babcock test not used; Wisconsin curd test not used; payments are made per hundred; fire kettle used; there were no screen doors and windows; drainage in fair condition; location and condition of whey tank, barrels dug in ground; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

Nov. 2, 1903.—Name of factory, Woodland; location, Woodland; owner or manager, C. Gassner; P. O. address, Woodland; name of maker, E. Indermuehle; he has attended dairy school at Madison; no. of patrons, 33; pounds of milk daily, 5,000; pounds of cheese daily, 608; style of cheese, brick; Babcock test used; Wisconsin curd test not used; payments are made when milk is brought; steam-heating vats used; there were no screen doors and windows; drainage, tile outlet about 250 ft. from factory; location and condition of whey tank, outside of factory, good; condition of building, good; condition of apparatus, fine; condition of surroundings, fine; condition of patrons' milk cans, good; condition of milk in cans, good; building is painted outside.

Nov. 3, 1903.—Name of factory, Humbird; location, Humbird; owner or manager, G. Murty; P. O. address, Humbird; name of maker, Jake Baitsche; he has not attended dairy school at Madison; no. of patrons, 28; no. of cows, 200; pounds of milk daily, 2,600; style of cheese, brick; Babcock test used; Wisconsin curd test used; inspector's test of composite milk sample for day, 4.3 per cent.; payments are made by pooling system; steam-heating vats used; there were no screen doors and windows; drainage, away off in ditch to roadside; location and condition of whey tank, underground 15 ft. away, fair; condition of building, good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, 2 not very clean; building is painted outside.

Nov. 3, 1903.—Name of factory, Zeither, location, Hustisford; owners or managers, Glauser & Ehrat; P. O. address, S. Water St., Chicago; name of maker, Sam. Wuethrich; he has not attended dairy school at Madison; no. of patrons, 19; pounds of milk daily, 3,359; pounds of cheese daily, 364; style of cheese, brick; Babcock test not used; Wisconsin curd test not used; payments are made when milk is bought; steam-heating vats used; there were no screen doors and windows; drainage is good; location and condition of whey tank, 10 ft. from building, good; condition of building, good; condition of apparatus, fine; condition of surroundings, fine; condition of patrons' milk cans, good; condition of milk in cans, good; building is painted outside.

Nov. 5, 1903.—Location, Wrightstown; owner or manager, J. P. Etten; P. O. address, Wrightstown; name of maker, J. P. Etten; he has not attended dairy school at Madison; no. of patrons, 32; pounds of milk daily, 4,000; Babcock test is used; Wisconsin curd test not used; payments are made according to butter fat; steam-heating vats used; there were no screen doors and windows; no drainage; location and condition of whey tank. 20 ft. from factory, very dirty; condition of building, good but very dirty; condition of apparatus, fair, all apparatus very dirty; condition of surroundings, good except under factory whey has settled and badly tainted; building is painted outside. Remarks: This factory at this date is in a very dirty and unsanitary condition.

Nov. 10, 1903.—Name of factory, Wayne & Addison; location, Wayne; owner or manager, Farmer Stock Co.; P. O. address, Kohlsville; name of maker, A. Weber; he has not attended dairy school at Madison; no. of patrons, 60; pounds of milk daily, 5,600; pounds of cheese daily 570; style and quality of cheese, twins, good; Babcock test not used; Wisconsin curd test not used; payments are made on pooling system; steam-heating vats used; there were screen doors and windows; no drainage; location and condition of whey tank, 30 ft. from factory, good and clean; condition of building, good; condition of apparatus, good; condition of surroundings, fine; condition of patrons' milk cans, good; condition of milk in cans, good; building painted outside. Remarks: This factory is in a good, clean condition.

Nov. 11, 1903.—Name of factory, Klink; location, Lomira; owner or manager, Glauser & Ehart; P. O. address, 267 S. Water St., Chicago; name of maker, Aug. Bock; he has not attended dairy school at Madison; no. of patrons, 22; pounds of milk daily, 1,900; pounds of cheese daily, 224; style and quality of cheese, round, cream, good; Babcock test is not used; Wisconsin curd test used; payments made when milk purchased; steam-heating vats used; there were screen doors and windows; drainage good, outlet 40 ft. from factory; location and condition of whey tank, inside of factory clean and good; condition of building, good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good; building painted outside.

Nov. 12, 1903.—Name of factory, Pine Valley; location, township 24, Sec. 7; owner or manager, H. A. Martin; P. O. address, Marshfield; name of maker, Robt. Buss; he has not attended dairy school at Madison; no. of patrons, 16; pounds of milk, 1,400 every second day; pounds of cheese daily, 165; style and quality of cheese, square prints, good; Babcock test used; Wisconsin curd test used; inspector's test of composite milk sample for day, 4.2 per cent.; payments are made according to test; self-heating vats used; there were no screen doors and windows; drainage, open into field; location and condition of whey tank, 15 ft. away, fair; condition of building, good; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, good; condition of milk in cans, good; building is painted outside.

Nov. 16, 1903.—Name of factory, Martin's No. 5; location, Clark county; owner or manager, H. A. Martin; P. O. address, Marshfield; name of maker, A. Martin; he has not attended dairy school at Madison; no. of patrons, 24; no. of cows, 75; pounds of milk daily, 1,300; pounds of cheese daily, 145; style and quality of cheese, square prints, good; Babcock test used; Wisconsin curd test used; payments made by testing; steam-heating vats used; there were no screen doors and windows, drainage, open into field; location and condition of whey tank, 8 ft. away, fair; condition of building, poor; condition of apparatus, fair; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good; building is painted outside.

Nov. 17, 1903.—Name of factory, Martin's; location, near Neillsville: owner or manager, H. A. Martin; P. O. address, Marshfield; name of maker, A. W. Buss; he has not attended dairy school at Madison; no. of patrons, 40; pounds of milk daily, 2,900; pounds of cheese daily, 155; style and quality of cheese, Twins and Daisies, good; Babcock test used; Wisconsin curd test used; payments are made by testing; steam-heating vats used; there were no screen doors and windows; drainage, open into road; location and condition of whey tank, 10 ft. away, fair; condition of building, good, basement curing room; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good; building is painted outside.

Nov. 20, 1903.—Name of factory, York Center; location, town of York; owner or manager, John Daughter; P. O. address, Granton; name of maker, Jas. Hickman; he has not attended dairy school at Madison; no. of patrons, 19; no. of cows, 96; pounds of milk daily, 1,650; pounds of cheese daily, 181; style and quality of cheese, square prints, good; Babcock test used; Wisconsin curd test not used; inspector's test of composite milk sample for day, 4.3 per cent.; payments made by testing; steam-heating vats used; there were no screen doors and windows; drainage, opens into road; location and condition of whey tank, 25 ft. away, fair; condition of building, poor, too cold for cheese-making; condition of apparatus, fair; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good; building is painted outside.

Nov. 22, 1903.—Name of factory, Christie; location, town of York; owner or manager, R. Paulson; P. O. address, Granton; name of maker, F. Victora; he has not attended dairy school at Madison; no. of patrons, 14; no. of cows, 65; pounds of milk daily, 2,200; pounds of cheese daily, 240; style and quality of cheese, twins, good; Babcock test used; Wisconsin curd test not used; inspector's test of composite milk sample for day, 4.3 per cent.; payments are made by testing; steam-heating vats used; there were no screen doors and windows; drainage, open into road; location and condition of whey tank, 8 ft. away, good; condition of building, good, new; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk cans, only fair, poor flavor; building not painted outside.

Dec. 28, 1903.—Name of factory, White Oak; location, Hustisford; owner or manager, F. Thielke; P. O. address, Hustisford; name of maker, G. T. O'Keefe; he has attended dairy school at Madison; no. of patrons, 9; no. of cows, 225; pounds of milk daily, 1,500; pounds of cheese daily, 200; style and quality of cheese, brick, splendid quality of goods; Babcock test not used; Wisconsin curd test used; inspector's test of composite milk sample for day, 4.2 per cent.; payments are made by pooling system; weight of milk, 75,620; pounds of cheese, 8,900 at last payment; steam-heating vats used; there were no screen doors and windows; drainage, into small stream about 15 yards from factory; location and condition of whey tank, in upper story over make room, clean and sanitary; condition of building, superstructure of wood, basement curing rooms of stone with brick floors; condition of apparatus, in good repair, not new but clean and well taken care of; condition of surroundings, neat and orderly, fence and drive in good condition, wood arranged in neat piles; condition of patrons' milk cans, clean, large open delivery cans used; condition of milk in cans, good, night's and morning's milk mixed in all cases; building is painted outside.

REPORT OF CREAMERY INSPECTION.

Oct. 1, 1903.—Name of creamery, Wheaton; co-operative; location, Wheaton; owner or manager, T. W. Bartingale; P. O. address, Chippewa Falls; name of buttermaker, H. W. Vandyke; he has not attended dairy school at Madison; no. of patrons, 44; no. of cows, 175; no. of pounds of milk daily, 3,300; no. of pounds of butter daily, 150; average, test, 3.95; butter yield, 4.54, and overrun 15% at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .03 per cent.; inspector's test of composite milk sample for day, 4.1 per cent.; drainage, underground, emptying on field, bad where empties; no bad odor in creamery; location and condition of skim milk tank, overhead in churn room, not cleaned today; location and condition of buttermilk tank, outside dirty; condition of building, good, a new plant a year ago; building is painted outside; condition of apparatus, good, cheese-making apparatus here, too; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good.

Oct. 1, 1903.—Name of creamery, Mt. Hope; proprietary; location, Mt. Hope, Grant county; owner, Heim Bros.; P. O. address, Fennimore; name of buttermaker, C. E. Button; he has attended dairy school at Madison; no. of patrons, 89; no. of pounds of milk daily, 12,500; no. of pounds of butter daily, 600; sampling and testing, composite bi-monthly loss of fat in skim milk, 15-100 per cent.; loss of fat in buttermilk, 3-10 per cent.; there were screen windows but no screen doors; cream vat was not covered; drainage runs into dry ravine about 30 rods away; bad odor in creamery; location and condition of skim milk tank, inside washed daily, but overflows on floor and walls, smells bad; location and condition of buttermilk tank, outside in ground, not washed; condition of building, fair, except floor and drain; building is painted outside; condition of apparatus, fairly good, except vats and tester; condition of surroundings, O. K.; condition of patrons' milk cans, some dirty ones; condition of milk in cans, good.

Oct. 2, 1903.—Name of creamery, Clear Lake; co-operative; location, Clear Lake, Polk county; manager, Thos. Stout, Jr.; P. O. address, Clear Lake; name of buttermaker, R. M. Ward; he has not attended dairy school at Madison; no. of patrons, 115; no. of pounds of milk daily, 5,000; no. of pounds of butter daily, 250; quality of butter, good; sampling and testing, composite, bi-monthly; there were no screen doors and windows; cream vat was covered by board; drainage, underground along side of road and empties into field; no bad odor in creamery; location and condition of skim milk tank, elevated, washed daily; location and condition of buttermilk tank, inside washed once in a while; condition of building, poor wood floor, needs replacing; building is painted outside; condition of apparatus, all in good shape; condition of surroundings, O. K.; condition of patrons' milk cans, said to be in very good condition; condition of milk in cans, fairly good. Remarks: Method of testing cream not correct; had them order new scale; pipettes too small.

Oct. 2, 1903.—Name of Creamery, Lone Rock; proprietary; location, Lone Rock, Richland county; owners, Tri-State Creamery Co.; P. O. address, Chicago; name of buttermaker, J. F. Moscrip; he has not attended dairy school at Madison; no. of patrons, 70; no. of pounds of milk daily, 25,000; no. of pounds of butter daily, 1,100; quality of butter, good; sampling and testing, composite, weekly; loss of fat in buttermilk, 2-10 per cent.; there were screen doors and windows; no cream room; drainage, cess-pool back of building; no bad odor in creamery; location and condition of buttermilk tank; outside washed twice a week; condition of building, good, an old school house fixed over; building is painted outside; condition of apparatus, good; condition of surroundings, O. K.; condition of patrons' milk cans, cans are washed at creamery. Remarks: New creamery used as central churning point, everything in first class shape.

Oct. 2, 1903.—Name of creamery, Tilden; co-operative; location, Tilden, owner or manager, E. Walter, Sec'y; P. O. address, Tilden; name of buttermaker, R. O. Sill; he has attended dairy school at Madison; no. of patrons, 75; no. of cows, 525; no. of pounds of milk daily, 9,500; no. of pounds of butter daily, 470; average test 4.5, butter yield 5.62; and overrun 12.5 at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .03 per cent.; inspector's test of composite milk sample for day, 4.5 per cent.; there were no screen doors and windows; cream vat was covered with canvas; drainage, good, tiled to creek; no bad odor in creamery; location and condition of skim milk tank, overhead in churn room, good; location and condition of buttermilk tank, overhead inside, good; condition of building, good, built four years; building is painted ouside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good.

Oct. 3, 1903.—Name of creamery, Cross Plains Dairy Co.; co-operative; location, Cross Plains; manager, M. H. Esser; P. O. address, Cross Plains; he has not attended dairy school at Madison; no. of patrons, 44; no. of pounds of milk daily, 40,000; no. of pounds of butter daily, 180; quality of butter, good; sampling and testing, composite, bi-monthly; loss of fat in skim milk, 5-100 per cent.; loss of fat in buttermilk, 15-100 per cent.; inspector's test of composite milk sample for day, 4.3 per cent.; there were no screen doors and windows; cream vat covered with cloth; drainage, cess-pool about 5 rods away; no bad odor in creamery; location and condition of skim milk tank, upstairs, washed daily; location and condition of buttermilk tank, outside washed frequently; condition of building, fair, part stone basement, wood floor; building is painted outside; condition of apparatus, good, except tester; condition of surroundings, part of drainage overflows the road, could be remedied; condition of patrons' milk cans, with a few exceptions fairly good; condition of milk in cans, with a few exceptions very good.

Oct. 3, 1903.—Name of creamery, Eagle Point; co-operative; location, Eagle Point; owner or manager, J. H. Kelly; P. O. address, Eagle Point; name of buttermaker, B. J. Lobdell; has attended dairy school at Madison; no. of patrons, 25; no. of cows, 160; no. of pounds of milk daily, 2,500; average test 4.2. butter yield, 5.05, and overrun 12 at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .03 per cent.; inspector's test of composite milk sample for day, 4.2 per cent.; there were no screen doors or windows; cream vat was not covered; drainage, tile drain to creek; no bad odor in creamery; location and condition of skim milk tank. upstairs, good; location and condition of buttermilk tank, none; condition of building, good, built 3 years; building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good, a few poor.

Oct. 4, 1903.—Name of creamery, Eagleton; co-operative; location, Eagleton, Eagle Point; owner or manager, Chas. Lee, Sec'y; P. O. address, Eagleton; name of buttermaker, C. F. Bragg; he has not attended dairy school at Madison; no. of patrons, 30; no of cows, 160; no. of pounds of milk daily, 3,000; no. of pounds of butter daily, 210; average test 4.3, and overrun 16 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .04 per cent.; loss of fat in buttermilk, .04 per cent.; inspector's test of composite milk sample for day, 4.3 per cent.; there were no screen doors and windows; cream vat was covered with lid; drainage, tiled to creek, good; no bad odor in creamery; location and condition of skim milk tank, upstairs, good; location and condition of buttermilk tank, upstairs, good; condition of building, good; building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good.

Oct. 5, 1903.—Name of creamery, Farmers' Store; co-operative; location, Bloomer; owner or manager, W. Larson; P. O., address, Bloomer; name of buttermaker, Ole Esker; he has attended dairy school at Madison; no. of patrons 235; no. of cows, 1,150; no. of pounds of milk daily, 20,000; no. of pounds of butter daily, 980; average test 4.2, butter yield 4.8, and overrun 15 at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .04 per cent.; loss of fat in buttermilk, .05 per cent.; inspector's test of composite milk sample for day, 4.2 per cent.; there were no screen doors and windows; cream vat was covered with lid; drainage, tile to creek, good; no bad odor in creamery; location and condition of skim milk tank, upstairs, good; location and condition of buttermilk tank, in boiler room, good; condition of building, only fair, old, some talk of building a new one; building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, mostly all good; condition of milk in cans, fair.

Oct. 6, 1903.—Name of creamery, Stanley; proprietary; location, Stanley; manager, W. F. Crane; name of buttermaker, E. A. Hamilton; he has attended dairy school at Madison; no. of patrons, 49; no. of cows, 265; no. of pounds of milk daily, 5,000; no. of pounds of butter daily, 320; average test, 4.0 per cent., and overrun 16 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .1 per cent.; loss of fat in buttermilk, .03 per cent.; there were no screen doors and windows; cream vat was not covered; drainage, underground to creek; no bad odor in creamery; location and condition of buttermilk tank, have none, each farmer gets his own; condition of building, good; building is painted outside; condition of apparatus, good; condition of surroundings, fair, rather low, at present muddy; condition of patrons' milk cans, good; condition of milk in cans, good.

Oct. 7, 1903.—Name of creamery, Abbotsford; proprietary; location, Abbotsford, Clark county; owner or manager, F. E. Wiggins; P. O. address, Weyauwega; name of buttermaker, L. A. Wiggins; he has attended dairy school at Madison; no. of patrons, 44; no. of pounds of milk daily, 3,000; average test, 4.0 per cent.; and overrun 14 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .03 per cent.; loss of fat in buttermilk. .03 per cent.; inspector's test of composite milk sample for day, 4.0 per cent.; there were screen doors and windows; cream vat was not covered; drainage, opens out on flats; no bad odor in creamery; location and condition of skim milk tank, upstairs, good; location and condition of butermilk tank, farmer leaves cans for B. milk; condition of building, fair; building is painted outside; condition of apparatus, good; condition of surroundings, fair, low and

muddy; condition of patrons' milk cans, good; condition of milk in cans, good.

Oct. 8, 1903.—Name of creamery, Withee; proprietary; location, Withee; owner or manager, Casper and Bluemenstein; P. O. address, Withee; name of buttermaker, John Boinheimee; he has not attended dairy school at Madison; no. of patrons, 70; no. of cows, 220; no. of pounds of milk daily, 4,000; no. of pounds of butter daily, 268; average test, 4.2; butter yield, 6.7; and overrun 16 at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk. .02 per cent.; loss of fat in buttermilk, .03 per cent.; inspector's test of composite milk sample for day, 4.2 per cent.; there were no screen doors or windows; cream vat was covered with cloth; drainage, opens out to road, not very good; no bad odor in creamery; location and condition of buttermilk tank, upstairs. good; condition of building, good; building is painted outside; condition of apparatus, good; condition of surroundings. fair, rather low and muddy; condition of patrons' milk cans, good; condition of milk in cans, good.

Oct. 9, 1903.—Name of creamery, Thorp,; co-operative; location, Thorpe; owner or manager, F. Albert Dairy Co.; P. O. address, Thorpe; name of buttermaker, A. Albert; he has not attended dairy school at Madison; no. of patrons, 68; no. of pounds of milk daily, 3,000; average test, 4.33; and overrun 15 at last payment; quality of butter, good; sampling and testing, composite; loss of fat n skim milk. .02 per cent.; loss of fat in buttermilk, .025 per cent.; inspector's test of composite milk sample for day, 4.4 per cent.; there were screen doors and windows; cream vat was covered with canvas; drainage good, runs away out in swamp; no bad odor in creamery; location and condition of skim milk tank, overhead in churn room, good; location and condition of buttermilk tank, outside, underground. dirty; condition of building, fair, floor worn in places; building is painted outside; condition of apparatus, good; condition of surroundings, fair, rather low; condition of patrons' milk cans, good; condition of milk in cans, good.

Oct. 9, 1903.—Name of creamery, Bark River Creamery Co.; co-operative; location, Hebron, Jefferson Co.; manager, A. J. Carmen; P. O. address, Fort Atkinson, R. F. D.; name of buttermaker, J. VanDusen; he has attended dairy school at Madison; no. of patrons, 42; no. of cows. 611; no. of pounds of milk daily, 8,000; no. of pounds of butter daily, 360; average test, 3.63; butter yield, 4.36; and overrun 20 at last payment; sampling and testing, composite, bi-monthly; loss of fat in skim milk, .1 per cent; loss of fat in buttermilk, .15 per cent; inspector's test of composite milk sample for day, 4.2 per cent; there were no screen doors or windows; cream vat was covered with cloth; drainage, short distance to a mill pond; no bad odor in creamery; location and condition of skim milk tank, elevated on outside of building, washed daily; location and condition of buttermilk tank, outside on ground, washed once in a while; condition of building, good; building is painted outside; condition of surroundings, good; condition of patrons' milk cans, many dirty; condition of milk in cans, quantity of sediment in bottom.

Oct. 10, 1903.—Name of creamery, Hebron; proprietary; location, Hebron, Jefferson Co.; owner, Mielke and Hillyer; P. O. address, Jefferson; name of buttermaker, W. E. Hillyer; he has not attended dairy school at Madison; no. of patrons, 11; no. of pounds of milk daily, 2,000; no. of pounds of butter daily, 125; sampling and testing, composite, bi-monthly; loss of fat in buttermilk. 1-10 per cent; there were no screen doors or windows: cream vat was covered with cloth; drainage, short distance to river; no bad odor in creamery; location and condition of skim milk tank, outside, a couple of rods from building, washed daily; location and condition of

buttermilk tank, outside, connected with skim milk tank, washed monthly; building is in fair condition, but floor is poor, needs replacing; building is painted outside; apparatus in good condition, churn could be cleaner, milk vat gate dirty and pump and pipes filthy; condition of milk in cans, good deal of sediment.

Oct. 12, 1903.—Name of creamery, Colfax; proprietary; location, Colfax; owner or manager, A. A. Anderson; P. O. address, Colfax; name of buttermaker, G. Hammer; he has attended dairy school at Madison; no. of patrons, 104; no. of pounds of milk daily, 1,000; average test, 24.6; butter yield, 27.3; and overrun 11 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in buttermilk, .02 per cent.; inspector's test of cream sample for day, 24.6 per cent.; there were no screen doors or windows; cream vat was covered with canvas; drainage, underground to river, good;; no bad odor in cramery; location and condition of buttermilk tank, inside creamery, good; condition of building, good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, cream mostly all good.

Oct. 14, 1903.—Name of creamery, Glenwood; proprietary; location, Glenwood; owner or manager, Montauge and McLellan; P. O. address, Downing; name of buttermaker, H. Casper; he has not attended dairy school at Madison; no. of patrons, 86; no. of pounds of milk daily, 2,000; no. of pounds of butter daily, 500; average test, 4.3 per cent.; and overrun 15 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .03 per cent.; inspector's test of composite milk sample for day. 4.35 per cent.; there were no screen doors or windows; cream vat was not covered; underground drainage to ditch, good; no bad odor in creamery; location and condition of skim milk tank, outside, dirty; location and condition of buttermilk tank, outside, fair; condition of building, good; building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, all clean; condition of milk in cans, good.

Oct. 14, 1903.—Name of creamery, Brown Street Creamery; proprietary; location, 4 miles northeast of Oconomowoc; owner, D. Reik; P. O. address, 360 Grove street, Milwaukee; name of buttermaker, E. O. Garity; he has not attended dairy school at Madison; no. of patrons, 27 + 21; no. of pounds of milk daily, 3,500 + 2.800; no. of pounds of butter daily, 290; sampling and testing, composite, bi-monthly; loss of fat in skim milk, .1 per cent.; loss of fat in buttermilk, 1.3 per cent.; there were screened windows; cream vat was covered with cloth; drainage, cess pool about 8 rods away, filled up and in poor shape; bad odor in creamery; location and condition of skim milk tank, inside, washed daily; location and condition of buttermilk tank, inside, washed daily; condition of building, fair, with the exception of floor, which is in very bad shape, inside drain very dirty; building is painted outside; condition of apparatus, sep. churn and tester in good condition, vats are rather poor; condition of surroundings, good; condition of patrons' milk cans, good, many dirty in seams; condition of milk in cans, fairly good. Have no scale for testing cream.

Oct. 15, 1903.—Name of creamery, Delafield; proprietary; location, Delafield, Waukesha Co.; owner, C. J. Beute; P. O. address. Delafield; name of buttermaker, C. J. Beute; he has not attended dairy school at Madison; no. of patrons, 43; no. of pounds of milk daily, 4,200; no. of pounds of butter daily, 185; average test, 3.8 per cent.; butter yield. 4.7 per cent.; and overrun 23 per cent.; at last payment; quality of butter, good; sampling and testing, composite, weekly; loss of fat in skim milk, .05 per cent.; loss of fat in buttermilk, .07 per cent.; inspector's test of composite milk sample for day, 4.2 per cent.; there were no screen doors or windows; cream vat

was covered with cloth; drainage, about two rods to a creek; no bad odor in creamery; location and condition of skim milk tank, have none, runs direct to cans and over floor, runs into buttermilk tank; location and condition of buttermilk tank, inside, washed once or twice weekly; condition of building, good, and making improvements, taking out old floor and putting in cement instead; building is painted outside; condition of apparatus, good; condition of surroundings, O. K.; condition of patrons' milk cans, with two exceptions, generally good; condition of milk in cans, good. Have no cream scale for testing cream.

Oct. 15, 1903.—Name of creamery, Downing; proprietary; location, Downing; owner or manager, Muntayne and McLellan; P. O. address, Downing; name of buttermaker, W. J. Dougherty; he has not attended dairy school at Madison; no. of patrons, 88; no. of pounds of milk daily, 2,000; no. of pounds of butter daily, 5,000; average test, 4.0 per cent.; butter yield, 4.44 per cent.; and overrun 11 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .03 per cent.; loss of fat in buttermilk, .025 per cent.; inspector's test of composite milk sample for day, 4.1 per cent.; no starter used; there were no screen doors or windows; cream vat was covered with lid; drainage, under ground to creek, good; no bad odor in creamery; location and condition of skim milk tank, inside churn room, good; location and condition of buttermilk tank, inside churn room, good; condition of building. good; building is painted outside; condition of apparatus, good; condition of surroundings, fair, rather low and muddy; condition of patrons' milk cans, good; condition of milk in cans, good.

Oct. 16, 1903.—Name of creamery, Emerald; proprietary; location, Emerald, St. Croix Co.; owner or manager, F. L. Richer; P. O. address, Emerald; name of buttermaker, F. G. Recker; he has not attended dairy school at Madison; no. of patrons, 43; no. of cows, 228; no. of pounds of milk daily, 4,000; no. of pounds of butter daily, 195; average test, 41.35; butter yield, 4.82; and overrun 11 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .03 per cent.; loss of fat in buttermilk, .02 per cent.; inspector's test of composite milk sample for day, 4.5; no starter used; there were no screen doors or windows; cream vat was covered with lid; drainage, underground to ditch, good; no bad odor in creamery; location and condition of skim milk tank, outside, only fair; location and condition of buttermilk tank, utside, fair; condition of building, good; building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, a few not good; condition of milk in cans, good.

Oct. 16, 1903.—Name of creamery, Merton; proprietary; location, Merton, Waukesha county; owner, Winkler and Becker; P. O. address, North Lake; name of buttermaker, H. Becker; he has not attended dairy school at Madison; no. of patrons, 35; no. of pounds of milk daily, 4,300; average test, 3.9; butter yield, 4.5; and overrun, 15 at last payment; sampling and testing, composite, bi-monthly; there were no screen doors or windows; used cans instead of cream vat; drainage, short distance to a creek; no bad odor in creamery; location and condition of skim milk tank, upstairs, washed every other day; location and condition of buttermilk tank, use a barrel not washed; condition of building, good, wood floor on main room, cement in boiler room, kept clean; building is painted outside; condition of apparatus, good, separator vat O. K., use direct steam to heat milk; condition of surroundings, O. K.; condition of patrons' milk cans, generally good; condition of milk in cans, good. Ship cream to North Lake. Could not test as there is no tester here; samples are carried to North Lake.

Oct. 17, 1903.—Name of creamery, Waukesha Milk Co.; proprietary; location, Menomonee, Waukesha Co.; owner, Seybold Bros; P. O. address, 342 Sixth

street, Milwaukee; name of buttermaker, H. Schubert; he has not attended dairy school at Madison; no. of patrons, 36; no. of pounds of milk daily, 3,300; quality of butter, good; sampling and testing. 3d size samples; loss of fat in skim milk, .03 per cent.; loss of fat in buttermilk, .4 per cent.; inspector's test of composite milk sample for day, 4.5 per cent.; no starter is used; there were no screen doors or windows; cream vat was covered with board; drainage, across the road to the river; no bad odor in creamery; location and condition of skim milk tank, have none, fill cans from separator; location and condition of buttermilk tank, have none, ship all in cans to Milwaukee; condition of building, good, wooden floor; building is painted outside; condition of apparatus, good; condition of surroundings, O. K.; condition of patrons' milk cans, generally clean; condition of milk in cans, good. Books had been sent to Milwaukee; amount of butter varies as a great deal of milk and cream is shipped.

Oct. 19, 1903.—Name of creamery, Massee; proprietary; location, Downsville; owner or manager, N. Massee; P. O. address, Menomonie; name of buttermaker, A. K. Rollay; P. O. address, Downsville; he has not attended dairy school at Madison; no of patrons, 90; no. of pounds of milk daily, 3,000; average test, 3.8; butter yield, 4.33; and overrun 14 per cent. at last payment; quality of butter fair; sampling and testing, composite; loss of fat in skim milk, .03 per cent.; loss of fat in buttermilk, .025 per cent.; inspector's test of composite milk sample for day, 3.9 per cent.; there were no screen doors or windows; cream vat was covered with lid; drainage, underground to river; no bad odor in creamery; location and condition of skim milk tank, outside under roof, good; location and condition of buttermilk tank, outside, fair; condition of building, poor, small and crowded, also dirty; building is painted outside; condition of apparatus, fair; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, fair.

Oct. 20, 1903.—Name of creamery, Elwood Creamery; proprietary; location, three miles northeast of Lomira; owner, C. F. Meyer; P. O. address, Lomira; name of buttermaker, I. W. Stryker; he has not attended dairy school at Madison; no. of patrons, 47; no. of pounds of milk daily, 6,500; no. of pounds of butter daily, 700; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .07 per cent.; inspector's test of composite milk sample for day. 4 per cent.; Douglas starter is used; there were no screen doors or windows; cream vat was not covered; drainage, runs alongside road for about 20 rods; no bad odor in creamery; location and condition of skim milk tank, inside, washed daily; location and condition of buttermilk tank, outside, elevated, cleansed about twice a year; condition of building, good; building is freshly painted outside; condition of apparatus, good separator vats, churn and tester; condition of surroundings, O. K.; condition of patrons' milk cans, fairly clean; condition of milk in cans, quite a little sediment, otherwise all right.

Oct. 20, 1903.—Name of creamery, Dunnville; Co-operative; location, Dunnville; owner or manager, F. A. Vasey; P. O. address, Menomonie; name of buttermaker, W. J. Flick; he has not attended dairy school at Madison; no. of patrons, 34; no. of cows, 185; no. of pounds of milk daily, 3,700; no. of pounds of butter daily, 176; average test, 4.3; butter yield, 4.73; and overrun 10 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .025 per cent.; inspector's test of composite milk sample for day, 4.3; Douglas starter is used; there were no screen doors or windows; cream vat was not covered; drainage, underground to river, good; no bad odor in creamery; location and condition of skim milk tank, upstairs, good; location and condition of buttermilk tank, outside, fair; condition of building, fair, an old building; building needs more paint on outside; condi-

tion of apparatus, fair, old but clean; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, fair.

Oct. 21, 1903.—Name of creamery, Trenton; proprietary; location, four miles west of Waupun; owner, G. H. Downey; P. O. address Waupun; name of buttermaker, M. H. Hilyar; he has not attended dairy school at Madison; no. of patrons, 40 + 46; no. of pounds of milk daily, 7,000; no. of pounds of butter daily, 300; sampling and testing, single samples 3d size pipette; loss of fat in skim milk, .03 per cent.; loss of fat in buttermilk, .2 per cent.; inspector's test of composite milk sample for day, 4.10 per cent.; there were no screen doors or window; cream vat was covered with cloth; drainage, covered drain about eight rods and then runs down side of road; no bad odor in creamery; location and condition of skim milk tank, inside, washed daily; location and condition of buttermilk tank, outside under ground, not washed; condition of building, fair, cement floor; building has been painted outside, but it needs it again; condition of apparatus, good; condition of surroundings, O. K.; condition of patrons' milk cans, generally clean; condition of milk in cans, good. Pipette too small; using too little acid in testing as they had trouble with cloudy tests and thought that the acid was too strong.

Oct. 22, 1903.—Name of creamery, Monteray; proprietary; location, Monteray, Waukesha Co.; owner, G. W. Bente; P. O. address. Oconomowoc, R. F. D.; name of buttermaker, G. Bente; he has not attended dairy school at Madison; no. of patrons, 36; no. of pounds of milk daily, 4,000; quality of butter, showed effects of dirty pipes and pumps; sampling and testing. composite, bi-monthly; loss of fat in skim milk, .07 per cent.; inspector's test of composite sample for day. 4.30 per cent.; no starter used; there were no screen doors or windows; cream vat was covered with paper; drainage, about ten rods to river; no bad odor in creamery; location and condition of skim milk tank, upstairs, washed about once a week; location and condition of buttermilk tank, use one side of twin cream vat; condition of building, good, cement floor; building is painted outside; condition of apparatus, good; condition of surroundings, O. K.; condition of patrons' milk cans, some few dirty; condition of milk in cans, clean. Was called here on account of low tests; found milk pump and pipes also gate to milk vat in bad condition; had then taken apart and cleaned.

Oct. —, 1903.—Name of creamery, Gilmanton; co-operative; location, Gilmanton; owner or manager, A. Roosheep; P. O. address, Gilmanton; name of buttermaker, C. O. Dell; he has attended dairy school at Madison; no. of patrons, 112; no. of pounds of milk daily, 3,500; no. of pounds of butter daily, 500; average test, 4.5; butter yield. 5.31; and overrun 18 at last payment; quality of butter, good; sampling and testing, composite; inspector's test of composite milk sample for day, 4.45; no starter is used; there were screen doors and windows; cream vat was covered with lid; drainage, underground to creek, good; no bad odor in creamery; location and condition of skim milk tank, upstairs, good; location and condition of buttermilk tank, upstairs, good; condition of building, fair, cement floor, poor refrigerator; stone building; condition of apparatus, fair; condition of surroundings, good; condition of patrons' milk cans, fair; condition of milk in cans, mostly all good. Seventy-two separator patrons' cream fair; not testing cream by weight.

Oct. 26, 1903.—Name of factory, Modena; co-operative; location, Modena; owner or manager, Modena Creamery Co.; P. O. address, Modena; name of buttermaker, H. H. Moats; he has attended dairy school at Madison; no. of patrons, 108; no. of pounds of milk daily, 3,500; no. of pounds of butter daily, 500; average test, 4.4; butter yield, 5.2; and overrun 18 per cent. at last payment; sampling and testing, composite; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .021 per cent.; inspector's test of

composite milk sample for day, 4.35; there were screen doors and windows; cream vat was covered; drainage, underground to creek; no bad odor in creamery; condition of building, very good; building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good. Not testing cream by weight.

Oct. 27, 1903.—Name of creamery, Hammond; proprietary; location, Hammond, St. Croix Co.; owner, Gower Creamery Co.; P. O. address, Hammond; name of buttermaker, O. Garlid; he has not attended dairy school at Madison; no. of patrons, 150; no. of pounds of milk daily, 2,500 + 2,000 cream; no. of pounds of butter daily, 500; quality of butter, good; sampling and testing, composite weekly; no starter used; drainage, runs about 70 feet to a drilled well, very satisfactory; no bad odor in creamery; location and condition of skim milk tank, have none; location and condition of buttermilk tank, upstairs, washed once in a while; condition of building, good, wood floors; building is painted outside; condition of apparatus good; condition of surroundings, O. K. Everything in good shape here; pipette trifle short.

Oct. 28, 1903.—Name of factory, Amery; co-operative; location, Amery, Polk Co.; manager, J. C. Peterson; P. O. address, Amery; name of buttermaker, P. C. Peterson; he has attended dairy school at Madison; no. of patrons, 50; no. of pounds o milk, 2 days, 3,000 + 200 pounds cream; no. of pounds of butter daily, 160; overrun 14 per cent. at last payment; quality of butter, good; sampling and testing, composite. bi-monthly; loss of fat in skim milk, .05 per cent.; inspector's test of composite milk sample for day, 4.7 per cent.; Douglas starter is used; there were no screen doors or windows; drainage, about eight rods to a small stream; no bad odor in factory; location and condition of skim milk tank, elevated in engine room, washed daily; location and condition of buttermilk tank, elevated in work room, washed daily; condition of building, good, wood floor; building is painted outside; condition of apparatus, everything new last spring; condition of surroundings, O. K.; condition of patrons' milk cans, clean; condition of milk in cans, very good.

Oct. 28, 1903.—Name of creamery, Independence; co-operative; location, Independence; ownr or manager, J. Jackson; P. O. address, Independence; name of buttermaker, H. J. Back; he has attended dairy school at Madison; no. of patrons, 300; no. of pounds of cream daily, 3,000; no. of pounds of butter daily 750; quality of butter. good; sampling and testing, oil test; no starter used; there were no screen doors or windows; cream vat was not covered; drainage, underground to river, good; no bad odor in creamery; location and condition of buttermilk tank, 100 feet away, underground, dirty; condition of building, will be good, cyclone tore down part of it Oct. 3d; building will be painted outside; condition of apparatus. good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, fair. Mostly separator cream pays by oil test.

Oct. 29, 1903.—Name of creamery, Clayton Co-op.; co-operative; location, Richardson, Polk Co.; manager, C. Lunstrum; P. O. address, Richardson; name of buttermaker, Wm. Plahn; he has not attended dairy school at Madison; no. of patrons, 131; no. of pounds of milk daily, 6,000; no. of pounds of butter daily ,420; sampling and testing. composite, monthly; no starter is used; there were no screen doors or windows; drainage, about 6 rods to a pond; no bad odor in creamery; location and condition of skim milk tank, on top of refrigerator; location and condition of buttermilk tank, on top of refrigerator, washed out three times weekly; condition of building, fair, wood floor, refrigerator is very poor; building is painted outside; condition of apparatus, good; condition of surroundings, O. K.

Oct. 29, 1903.—Name of creamery, Arcadia; co-operative; location, Arcadia; owner or manager, Geo. Schueler; P. O. address, Arcadia; name of buttermaker, Geo. Meier; he has attended dairy school at Madison; no. of patrans, 330; no. of pounds if cream daily, 4,500; no. of pounds of butter daily, 1,115; average test, 20 per cent.; butter yield. 23 per cent.; and and testing, composite; loss of fat in buttermilk, .21 per cent.; inspector's test of composite milk sample for day. 20.2 per cent.; no starter used; overrun 15 per cent. at last payment; quality of butter, good; screen doors were provided; drainage, underground to ditch, open to river; no bad odor in creamery; condition of building, fair; building not painted outside; condition of apparatus, good; condition of surroundings, fair; condition of patrons' milk cans, mostly all fair, all washed here before returned; condition of cream in cans, fair but not over-ripe. All farm separator cream.

Oct. 30, 1903.—Name of creamery, Whitehall; co-operative; location, Whitehall; manager, L. D. Parson; P. O. address, Whitehall; name of buttermaker, Thos. Johnson; he has not attended dairy school at Madison; no. of patrons, 475; no of pounds of cream daily, 5,600; quality of butter, good; sampling and testing, oil test; no starter is used; drainage open; bad odor in factory; location and condition of buttermilk tank, outside, 10 feet, fair; condition of building, poor; building is painted outside; condition of apparatus, will be good; condition of surroundings, fair; condition of patrons' milk cans, good; condition of milk in cans, good. A new creamery is built by this company and will be ready to occupy in about a week.

Oct. 31, 1903.—Name of creamery, Blair; co-operative; location, Blair; secretary, W. T. Hyslop; P. O. address, Blair; name of buttermaker, B. O. Sather; he has not attended dairy school at Madison; no. of patrons, 425; no. of pounds of milk daily, 4,400; no. of pounds of butter daily, 1.100; quality of butter, good; sampling and testing. oil test; no starter is used; there were no screen doors and windows; cream vat was not covered; drainage, underground to river, fair; no bad odor in creamery; location and condition of buttermilk tank, feed hogs near factory; condition of building, good; building is painted outside; condition of apparatus, good; condition of surroundings, fair, hog pens too close; condition of patrons' milk cans, good all washed here; condition of milk in cans, good. Hog pens close to factory.

Nov. 2, 1903.—Name of factory, Alma Center; proprietary; location, Alma Center; owner or manager, Rosenberg and Son; P. O. address, Alma Center; name of buttermaker, W. C. Rosenberg; he has not attended dairy school at Madison; no. of patrons, 67; no. of pounds of milk daily, 1,5000 + 600 cream; no. of pounds of butter daily, 300 to 400; average test, 4.2; butter yield, 4.53; and overrun 9.0 at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .05 per cent.; loss of fat in buttermilk, .03 per cent.; inspector's test of composite milk sample for day, 4.3 per cent.; no starter is used; there were no screen doors or windows; cream vat was not covered; drainage, underground to creek good; bad odor in creamery; location and condition of skim milk tank upstairs good. Forty-eight patrons furnish separator cream, all good. Factory not light, very neat.

Nov. 4. 1903.—Name of creamery, Merrillan; proprietary; location, Merrillan; owner or manager, A. W. Lehmann; P. O. address, Merrillan; name of buttermaker, A. W. Lehmann; he has attended dairy school at Madison; no. of patrons, 30; no. pounds of cream per week, 3,500; no. pounds of butter per week, 1,085; average test, 27; butter yield, 31.0; and overrun 15 at last payment; sampling and testing, composite; loss of fat in buttermilk, .02 per cent.; no starter is used; there were screen doors and windows; cream

vat was not covered; drainage, underground to river, good; no bad odor in creamery; location and condition of buttermilk tank, outside, fair; condition of building, good, built last spring; building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good.

Nov. 5, 1903.—Name of creamery, Silver Mound; proprietary; location, Sechlerville; owner or manager, Sechler and Sons; P. O. address, Sechlerville; name of buttermaker, G. A. Laing; he has not attended dairy school at Madison; no. of patrons, 120; no. of pounds of cream daily, 1,500; no. of pounds of butter daily, 388; average test, 22.7; butter yield, 25.9; and overrun 15 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in buttermilk, .025 per cent.; no starter used; there were screen doors and windows; cream vat was covered with lid; drainage, iron pipe to creek, good; no bad odor in creamery; location and condition of buttermilk tank, in hog pen 200 feet away; condition of building, good; building is painted outside; condition of apparatus, good; condition of surroundings, good; conditon of patrons' milk cans, good; condition of milk in cans, fair.

Nov. 6, 1903.—Name of creamery, York; co-operative; location, York; owner or manager, G. .....; P. O. address, York; name of buttermaker, C. Hanson; he has attended dairy school at Madison; no. of patrons, 125; no. of pounds of milk daily, 2,250+; no. of pounds of cream daily, 2,000; average test, 4.0; butter yield, 4.6; and overrun 15 perr cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .015 per cent.; inspector's test of composite milk sample for day, 4.05 per cent.; no starter is used; there were no screen doors or windows; cream vat was not covered; drainage, underground to creek, fair; no bad odor in creamery; location and condition of skim milk tank, up stairs, good; location and condition of buttermilk tank, outside underground, poor; condition of building, good; building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, some old and rusty; condition of milk in cans, fair.

Nov. —, 1903.—Name of creamery, Pigeon Falls; co-operative; location, Pigeon Falls; owner or manager, B. M. Shettlund; P. O. address, Pigeon Falls; name of buttermaker, John A. Hankorn; he has attended dairy school at Madison; no. of patrons, 98; no. of pounds of milk daily, 2,000; no. of pounds of cream daily, 1.000; average test, 4.2; butter yield, 4.7; and overrun, 12, at last payment; quality of butter good; sampling and testing, composite; loss of fat in skim milk, .015 per cent.; loss of fat in buttermilk, .02 per cent.; inspector's test of composite milk sample for day, 4.2+ per cent.; there were no screen doors or windows; cream vat was covered with canvas; drainage, underground to creek, good; no bad odor in creamery; location and condition of skim milk tank, outside in house, good; condition of building, fair; building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, some old and rusty; condition of milk in cans, fair.

Nov. —, 1903.—Name of creamery, Wilson; co-operative; location, Wilson; owner or manager, N. Swanson; P. O. address, Wilson; name of buttermaker, J. Dotseth; he has not attended dairy school at Madison; no. of patrons, 63; no. of pounds of milk daily, 1,800; no. of pounds of cream daily, 700; average test, 4.75; butter yield, 5.5; and overrun, 16 per cent., at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .015 per cent.; loss of fat in buttermilk, .021 per cent; inspector's test of composite milk sample for day, 4.7 per cent.; no starter used; there were screen doors and windows; cream vat was not covered;

drainage, underground into creek, good; no bad odor in creamery; location and condition of skim milk tank, over refrigerator, good; location and condition of buttermilk tank. same place, good; condition of building, good; building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good.

Nov. 9, 1903.—Name of creamery, Knapp; proprietary; location, Knapp; owner or manager, Knapp Mer. Co.; P. O. address, Knapp; name of buttermaker, A: Sheldon; he has not attended dairy school at Madison; no. of patrons, 63; no. of pounds of milk daily, 300, 800 pounds cream; average test, 25.0; butter yield, 28.7; and overrun, 15 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .025 per cent.; loss of fat in buttermilk, .02 per cent.; no starter is used; there were no screen doors and windows: cream vat was not covered; drainage, open onto field, poor, was bad in summer; no bad odor in creamery; location and condition of skim milk tank, skim milk taken directly away; location and condition of buttermilk tank, outside underground, dirty; condition of building, poor, floors rotten; building is painted outside; condition of apparatus, only fair; condition of surroundings, not good, hog pen near by; condition of patrons' milk cans, good; condition of milk in cans, fair.

Nov. 9, 1903.—Name of creamery, Taylor; proprietary; location, Taylor, owner or manager, C. E. Mower, P. O. address, Black River Falls; name of buttermaker, C. W. Bradley; he has not attended dairy school at Madison; no. of patrons, 58; no. of pounds of cream, 2,200 every second day; average test, 20.5; butter yield, 22.5, and overrun, 81.2 at last payment; quality of butter, good; sampling and testing, composite; loss of fat in buttermilk, .03 per cent.; inspector's test of composite cream sample for day, 21.0 per cent.; no starter is used; there were screen doors and windows; cream vat was not covered; drainage, underground to creek; no bad odor in creamery; location and condition of buttermilk tank, inside, good; condition of building, fair, old; building is painted outside; condition of apparatus, very good; condition of surroundings, good; condtion of patrons' milk cans, good; condition of milk in cans, good.
in cans, good.

Nov. 11, 1903.—Name of creamery, Andrus; proprietary; location, township 24, sec. 16, range 2 w.; owner or manager, H. B. J. Andrus; P. O. address, Neillsville; name of buttermaker, H. B. J. Anchus; he has not attended dairy school at Madison; no. of patrons, 108; no. of cows, 460; no. of pounds of milk daily, 7,000; no. of pounds of butter daily, 360; average test, 4.51; butter yield, 5.1, and overrun 13 at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .01 per cent.; loss of fat in buttermilk, .012 per cent; inspector's test of composite milk sample for day, 4.5 per cent.; no starter is used; there were no screen doors and windows; cream vat is covered with lid; drainage, underground to creek; no bad odor in creamery; location and condition of skim milk tank, upstairs, good; location and condition of buttermilk tank, upstairs, good; condition of building, good; building is partially painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good.

Nov. 13, 1903.—Name of creamery, Clark Co. Co.; co-operative; location, town of Weston; owner or manager, Wm. Glasow, Sec'y; P. O. address, Neillsville; name of buttermaker, C. Pyburn; he has not attended dairy school at Madison; no. of patrons, 77; no. of cows, 450; no. of pounds of milk daily, 8,000; no. of pounds of butter daily, 368; average test, 4.2; butter yield, 4.6, and overrun, 12 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .1 per

cent.; loss of fat in buttermilk, .025 per cent.; inspector's test of composite milk sample for day, 4.2 per cent.; home-made starter is used; there were no screen doors and windows; cream vat was not covered; dainage, underground to woods; no bad odor in creamery; location and condition of skim milk tank, outside, good; location and condition of buttermilk tank, in part of cream vat; condition of building, only fair; building is painted outside; condition of apparatus, fair; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, only fair.

Nov. 14, 1903.—Name of creamery, Pleasant Ridge; proprietary; location, town of Grant, Clark county; owner or manager, W. G. Hyslop; P. O. address, Blair; name of buttermaker, J. T. Hyslop; he has not attended dairy school at Madison; no. of patrons, 62; no. of cows, 315; no. of pounds of milk daily, 9,500 every second day; no. of pounds of butter daily, 240; average test, 4.4 per cent.; butter yield, 5.0 per cent., and overrun, 13 per cent. at last payment; quality of butter, good; sampling and testing, composite; no starter is used; there were no screen doors and windows; cream vat was not covered; drainage, underground, into ravine; no bad odor in creamery; location and condition of skim milk tank, upstairs; location and condition of buttermilk tank, upstairs; condition of building, good, cement floor; building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good.

Nov. 18, 1903.—Name of creamery, Day; co-operative; location, town of Levis, Clark county; owner or manager, C. E. Austin, Sec'y; P. O. address, Neillsville; name of buttermaker, Jay Dudley; he has attended dairy school at Madison; no. of patrons, 54; no. of cows, 245; no. of pounds of milk daily, 4,500; no. of pounds of butter daily, 235; average test, 4.6 per cent.; butter yield, 5.2 per cent., and overrun, 14 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .03 per cent.; inspector's test of composite milk sample for day, 4.6 per cent; no starter is used; there were no screen doors and windows; cream vat was covered by canvas; drainage, underground for 6 rods, empties into field; no bad odor in creamery; location and condition of skim milk tank, upstairs, good; location and condition of buttermilk tank, down stairs, good; condition of building, good; building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good.

Nov. 19, 1903.—Name of creamery, Granton; proprietary; location, Granton; owner or manager, R. Paulson; P. O. address, Granton; name of buttermaker, C. Mansted; he has not attended dairy school at Madison; no. of patrons, 37; no. of pounds of milk daily, 5,000; no. of pounds of butter daily, 260; average test, 4.4 per cent.; butter yield, 5.1 per cent., and overrun, 14 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .025 per cent.; inspector's test of composite milk sample for day, 4.4 per cent.; no starter is used; there were screen doors and windows; cream vat was not covered; drainage, open into ravine, fair; no bad odor in creamery; location and condition of skim milk tank, upstairs, good; condition of building, fair; building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good.

Nov. 21, 1903.—Wilcox; proprietary; location, town of York; owner or manager, R. Paulson; P. O. address, Granton; name of buttermaker, Max Koenig; he has attended dairy school at Madison; no. of patrons, 20; no. of cows, 85; no. of pounds of milk daily, 1,050; no. of pounds of butter

adily, 60; average test, 4.4 per cent.; butter yield, 5.2 per cent., and overrun, 16 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .03 per cent.; inspector's test of composite milk sample for day, 4.45 per cent.; buttermilk is used as starter; there were no screen doors and windows; cream vat covered with canvas; drainage, open into road; no bad odor in creamery; location and condition of skim milk tank, upstairs, good; location and condition of buttermilk tank, in cans; condition of building, only fair; building is not painted outside; condition of apparatus, fair; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good.

Nov. 24, 1903.—Name of creamery, Rusk; co-operative; location, Rusk; owner or manager, Rusk Co-op. Creamery Co.; P. O. address, Rusk; name of buttermaker, Thos. Wittig; he has attended dairy school at Madison; no. of patrons, 120; no. of cows, 550; no. of pounds of milk daily, 10,000; no. of pounds of butter daily, 525; average test, 4.4 per cent.; butter yield, 5.1 per cent., and over, 16 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .01 per cent.; loss of fat in buttermilk, .02 per cent.; inspector's test of composite milk sample for day, 4.4+ per cent.; Hansen's starter is used; there were no screen doors and windows; cream vat was covered with lid; drainage, underground, emptying into field; no bad odor in creamery; location and concondition of skim milk tank, outside, good; location and condition of buttermilk tank, overhead in churn room, good; condition of building, good; building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, mostly all good; condition of milk in cans, good.

Nov. 25, 1903.—Name of creamery, Elk Mound; co-operative; location, Elk Mound; owner or manager, A. Ausman, Sec'y; P. O. address, Elk Mound; name of buttermaker, W. L. Stavrum; he has attended dairy school at Madison; no. of patrons, 80; no. of cows, 450; no. of pounds of milk daily, 8,800; no. of pounds of butter daily, 425; average test, 4.2 per cent.; butter yield, 4.8 per cent., and overrun, 16 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .022 per cent.; inspector's test of composite milk sample for day, 4.3 per cent.; buttermilk starter is used; there were no screen doors or windows; cream vat was covered with lid; drainage, tiled 50 ft., empties onto field, poor; no bad odor in creamery; location and condition of skim milk tank, upstairs in engine room, good; location and condition of buttermilk tank, overhead in engine room, good; condition of building, fair; building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good.

Nov. 27, 1903.—Name of creamery, Hersey; co-operative; location, Hersey; owner or manager, S. L. Lampoil, Sec'y; P. O. address, Husey; name of buttermaker, O. J. Waller; he has not attended dairy school at Madison; no. of patrons, 50; no. of pounds of milk daily, 300; 800 pounds of cream; average test, 29.0 and 4.3 per cent.; butter yield, 5.0 per cent, and overrun, 15 per cent. at last payment; quality of butter, good; sampling and testing, composite; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .03 per cent.; inspector's test of composite milk sample for day, 4.35 per cent.; no starter is used; drainage, underground out to hole in field; no bad odor in creamery; location and condition of skim milk tank, overhead in churn room, good; location and condition of buttermilk tank, same place, good; condition of building, good; building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good.

Dec. 15, 1903.—Cardinal Creamery; proprietary; location, 704 University Ave., Madison (Cardinal Block); owner or manager, L. H. Kleindreing; P. O. address, Madison, Wis.; no. of patrons, 11; no. of cows about 160; no. of pounds of milk daily, 2,000; average test, 4.5 per cent.; quality of butter, good; drainage, city sewer; no bad odor in creamery; condition of building, first class brick structure; condition of apparatus, good; condition of surroundings, clean; condition of patrons' milk cans, clean; condition of milk in cans, clean and free from any objectionable odors. Remarks: No butter manufactured. Cream and butter supplied to customers is purchased of the State University Creamery. Two wagons employed in distributing milk, cream, butter and eggs to city trade. Confectionery store and milk depot in connection.

Dec. 30, 1903.—Name of creamery, West Salem Creamery Co.; co-operative; location, village of West Salem; owner or manager, W. W. Leete, president; P. O. address, West Salem, Wis.; name of buttermaker, E. N. Waite; he has not attended dairy school at Madison; no. of patrons, 452; no. of pounds of butter daily, 3,000; average test, 18 per cent. cream, and overrun 13 per cent. at last payment; quality of butter, fair from 4 vats, poor from 1, no extras; loss of fat in buttermilk, .2 per cent. butter fat; cream is used as starter, not good; there were no screen doors and windows; cream vat was not covered; drainage, buttermilk and factory washing run off into cistern; no bad odor in creamery; condition of building, good, well built and properly located; building is painted outside; condition of apparatus, first class; condition of surroundings, neat and tidy; condition of patrons' milk cans, gathered cream cans washed by haulers at creamery; condition of milk in cans, work done by haulers was good, cans were properly washed and steamed.

CURD TEST REPORT.

West Salem Co-operative Creamery Co., West Salem, Wis.

Sample No. 1.—Name of patron, Carl Brandt; flavor, not clean; texture, mushy.
Sample No. 2.—Name of patron, D. Krucke; flavor, not clean; texture, weak, mealy.
Sample No. 3.—Name of patron, W. F. Wehrs, flavor, badly off flavor; texture, sticky, pasty. Remarks: Gas, pinholes, vinegar sour.
Sample No. 4.—Name of patron, H. F. Hemker; flavor, off flavor; texture, watery, whey soaked. Remarks: Some gas present.
Sample No. 5.—F. Fenighok; flavor, off flavor; texture, loose, open. Remarks: Many fine pinholes, very gassy.
Sample No. 6.—Name of patron, Herman Meyer; flavor, musty, old, very bad; texture, fair. Remarks: Some gas.
Sample No. 7.—Name of patron, Tim Dudley; flavor, fairly good; texture, weak, sticky. Remarks: Vinegar slightly sour.
Sample No. 8.—Name of patron, Anton Johnson; flavor, not clean, smothered; texture, good. Remarks: Slightly bitter.
Sample No. 9.—Name of patron, Fred Stelloh; flavor, fair; texture, wet, mushy.
Sample No. 10.—Name of patron, W. Deutrich; flavor, high, good; texture, fair.
Sample No. 11.—Name of patron, Geo. Knudson; flavor, clean; texture, good.
Sample No. 12.—Name of patron, Fred Weiking; flavor, not clean; texture, short, mushy. Remarks: Some gas.
Sample No. 13.—Name of patron, W. F. McEldowney; flavor, off flavor; texture, loose, open. Remarks: Full of pin holes.
Sample No. 14.—Name of patron, Herman Horman; flavor, fair; texture, good.
Sample No. 15.—Name of patron, A. Lovejoy; flavor, off flavor; texture, open. Remarks: Vinegar sour.
Sample No. 16.—Name of patron, Henry Horman; flavor, bad; texture, mushy, whey soaked.

Sample No. 17.—Name of patron, Henry Schoncht; flavor, fair; texture, loose. Remarks: Small pin holes.
Sample No. 18.—Name of patron, H. F. Meider; flavor, good; texture, good.
Sample No. 19.—Name of patron, F. Garben; flavor, fair; texture, fair.
Sample No. 20.—Name of patron, W. C. Shaft; flavor, not clean; texture, weak body.
Sample No. 21.—Name of patron, Fred Miller; flavor, bad; texture, short, poor.
Sample No. 22.—Name of patron, W. W. Leete; flavor, off flavor; texture, fair. Remarks: Slightly vinegar.
Sample No. 23.—Name of patron, Walter Smith; flavor, fair; texture, meaty, close. Remarks: Firm body.
Sample No. 24.—Name of patron, H. Cronk; flavor, fair; texture, fair. Remarks: Slight vinegar acid.
Sample No. 25.—Name of patron, W. I. Smith; flavor, clean; texture, good.
Sample No. 26.—Name of patron, Jay Ranney; flavor, perfect; texture, perfect. Remarks: Close, meaty body.
Sample No. 27.—Name of patron, Jno. M. Coburn; flavor, low, but clean; texture, perfect.
Sample No. 28.—Name of patron, D. F. Miller; flavor, barn yard, very bad; texture, open, loose. Remarks: Fermentive odor; full of gas holes.
Sample No. 29.—Name of patron, W. I. Dudley; flavor, clean; texture, good.
Sample No. 30.—Name of patron, H. D. Griswold; flavor, not clean; texture, fair. Remarks: Moldy odor.
Sample No. 31.—Name of patron, W. J. Meyer; flavor, not clean; texture, poor. Moldy odor.
Sample No. 32.—Name of patron, J. Sykes; flavor, not clean; texture, slightly open, fair. Remarks: Flavor, old can taint.
Sample No. 33.—Name of patron, Henry Jewett; flavor, good; texture, good.
Sample No. 34.—Name of patron, Jno. Barclay; flavor, smothered, musty; texture, loose. Remarks: Moldy odor.
Sample No. 35.—Name of patron, Leu F. Atwater; flavor, good; texture, good.
Sample No. 36.—Name of patron, Wm. Horstman; flavor, good; texture, good.
Sample No. 37.—Name of patron, Martin Mingelat; flavor, off flavor; texture, open, loose. Remarks: Some gas.
Sample No. 38.—Name of patron, W. R. Ruland; flavor, clean; texture, good.
Sample No. 39.—Name of patron, Henry Garves; flavor, fair; texture, loose. Remarks: Some gas; slightly barny.
Sample No. 40.—Name of patron, Geo. Capper; flavor, fair; texture, mushy.
Sample No. 41.—Name of patron, Geo. Campbell; flavor, high, good; texture, good.
Sample No. 42.—Name of patron, Mrs. Rodenburg; flavor, low, clean; texture, good.
Sample No. 43.—Name of patron, W. H. Cassel; flavor, good; texture, good.
Sample No. 44.—Name of patron, H. Becker; flavor, not clean; texture, loose, open. Remarks: Few pin holes.
Sample No. 45.—Name of patron, Fritz Schomberg; flavor, fair; texture, fair. Remarks: Few pin holes.
Sample No. 46.—Name of patron, Matt Becker; flavor, off flavor; texture, very spongy. Remarks: Huffed; full of pin holes.
Sample No. 47.—Name of patron, Deed Walters; flavor, not clean; texture, poor. Remarks: Spongy, gassy.
Sample No. 48.—Name of patron, Fred Holer; flavor, not clean; texture, fair.
Sample No. 49.—Name of patron, Gus. Rhodes; flavor, barn yard; texture, fair.
Sample No. 50.—Name of patron, Henry Hoppman; flavor, fair; texture, good.
Sample No. 51.—Name of patron, Carl Becker; flavor, not clean; texture, poor. Remarks: Rough, gritty texture.
Sample No. 52.—Name of patron, G. Hanson; flavor, vinegar acid; texture, fair.
Sample No. 53.—Name of patron, F. Nuttelman; flavor, bad; texture, bad. Remarks: Spongy, full of gas.
Sample No. 54.—Name of patron, Joe Greene; flavor, not clean; texture, fair. Remarks: Vinegar acid.

SEMI-ANNUAL BULLETIN

OF THE

DAIRY AND FOOD COMMISSION

OF THE

STATE OF WISCONSIN.

J. Q. EMERY, Commissioner,

MADISON, WIS.

By Authority of Law.

No. 4.

JANUARY 1—JUNE 30, 1904.

Organization of the Commission.

J. Q. EMERY ..... Commissioner

U. S. BAER ..... Assistant Commissioner, Dairy Expert

RICHARD FISCHER, Ph. D. ..... Chemist

A. T. TORGE ..... Stenographer and Confidential Clerk

F. M. BUZZELL ..... Food Inspector

JAMES G. MOORE ..... Creamery Inspector

F. E. CARSWELL ..... Dairy Inspector

A. E. KUNDERT ..... Assistant Chemist

EXPERT AGENTS OF THE COMMISSION.

Paid by the Wisconsin Dairymen's Association.

E. L. ADERHOLD, Neenah ..... Cheese Factory Inspector

FRED MARTY, Monroe ..... Swiss Cheese Factory Inspector

F. CORNELIUSON, Belleville ..... Creamery Inspector

By sec. 10, ch. 30, laws of 1895, re-enacted in the revised statutes of 1898, the commissioner is authorized to appoint, with the approval of the governor, special counsel to prosecute or assist in prosecuting cases involving adulteration of dairy products.

INTRODUCTORY.

The office and laboratory of the Dairy and Food Commission and all their contents, except a portion of the file of letters that had been received, were destroyed by the capitol fire of Feb. 27. This loss has since been a serious handicap upon the work of the Commission. The records of the work done during the months of January and February were burned, including the records of inspections and about two hundred fifty of the chemist's analyses of different food products.

It is unnecessary to enlarge upon the inconveniences and hindrances brought upon this Commission by this misfortune. Everything seemingly possible has been done to meet and overcome the obstacles, and the records of this bulletin will bear witness that these efforts have met with reasonable success, although only about half the work done during the period can be published, owing to loss of records, as above stated.

The office of the Commission was re-established March 1, in a room in the Klauber building, city of Madison, where it remained until July 11, when it was again moved to a room in the capitol. Promptly after the fire, Prof. W. A. Henry, Dean of the College of Agriculture of the University of Wisconsin, very courteously tendered the use of a laboratory in the new Agricultural building. This enabled the chemist for the Commission to resume the work of making analyses within a few days after the fire. A new laboratory is being fitted up and will soon be fully equipped with a complete new outfit.

CHEMIST'S ANALYSES.

BAKING POWDERS.

Note.—See Commissioner's ruling on Baking Powder, page 7. See also special law on Baking Powder, section 4601b, Wisconsin Statutes of 1898.

March 8. Sample of baking powder purchased of Brictson Mercantile Co., Deerfield. Manuactured by J. C. Grant Chemical Co., East St. Louis. Brand, "Bon Bon." Contains alum. Not lawfully labeled.

March 8. Sample of baking powder purchased of Sullivan Clery, Kenosha. Manufactured by Red Cross Baking Powder Co., Chicago, Ill. Brand, "Red Cross." Contains alum. Not lawfully labeled.

March 8. Sample of baking powder purchased of C. Anderson, Deerfield. Manufactured by Sherer Bros., Chicago. Brand, "Globe." Contains alum. Not lawfully labeled.

March 22. Sample of baking powder purchased of Nesseth Grocery Co., Menomonie. Manufactured by Philip B. Hunt Co., Minneapolis. Brand, "Hunt's Perfect." A phosphate powder; contains no alum. Lawful.

March 22. Sample of baking powder purchased of E. A. Feldt. Menominee. Manufactured by McCormick,Behnke & Co., St. Paul. Minn. Brand, "Palace." Alum-phosphate powder. Lawfully labeled.

March 22. Sample of baking powder purchased of A. J. Josephson, Menomonie. Manufactured by Sprague, Warner & Co., Chicago. Brand, "Unrivaled. Contains alum. Not lawfully labeled.

March 23. Sample of baking powder purchased of Everson & Co., Hudson. Manufactured by Eddy & Eddy, St. Louis. Brand, "Great Bargain." Contains alum. Unlawful as labeled.

March 23. Sample of baking powder purchased of Everson & Co., Hudson. Manufactured by J. W. La Bau & Co., St. Paul. Brand, "Marvel." Contains no alum. Lawful.

March 29. Sample of baking powder purchased of Lorrig Bros., Mattoon. Manufactured by Sprague, Warner & Co., Chicago. Brand, "Monsoon." Contains no alum. Lawful.

March 30. Sample of baking powder purchased of H. C. Schumann, Wittenberg. Manufactured by Kenton Baking Powder Co., Cincinnati, O. Brand, "Alderney." An alum-phosphate powder. Not lawful as labeled.

March. 30. Sample of baking powder purchased of H. C. Schumann, Wittenberg. Manufactured by Walsh, Lange & Co., Chicago. Brand, "Holly." Contains alum. Not lawful as labeled.

April 1. Sample of cream tartar baking powder submitted by The Ideal Extract & Bottling Co., Eau Claire, Wis. Manufactured by The Ideal Extract & Bottling Co., Eau Claire, Wis. Brand, "Ideal." Contains no alum. Lawful.

April 4. Sample of baking powder purchased of Lewis Severson, Cambridge. Manufactured by McNeil & Higgins Co., Chicago. Brand, "New Chicago." Contains no alum. Lawful.

April 6. Sample of baking powder submitted by J. S. Parkinson, Windsor. Manufactured by Western Manufacturing Co., Madison. Brand, "Crescent." Contains alum. Not lawful as labeled.

April 7. Sample of baking powder purchased of N. L. Dahl, De Forest. Manufactured by J. P. Deiter Co., Chicago. Brand, "Crown." An alum-phosphate powder. Not lawful as labeled.

April 9. Sample of baking powder purchased of Mitchell & Co., Fennimore. Manufactured by Geo. P. Bosbrink, Chicago. Brand, "Bosbrink's." Contains alum. Not lawful as labeled.

April 12. Sample of yeast powder purchased of N. Henning, Platteville. Manufactured by Chapman & Smith Co., Chicago. Brand, "Chicago Yeast Powder." An alum-phosphate powder. Not lawful as labeled.

April 12. Sample of baking powder purchased of J. L. Mitchell, Platteville. Manufactured by Franklin McVeagh & Co., Chicago.

Brand, "Snow Ball." An alum-phosphate powder. Not lawful as labeled.

April 30. Sample of baking powder purchased of J. C. Hocking, Dodgeville. Manufactured by Delaware Baking Powder Co., Philadelphia. Brand, "Delaware." Contains alum. Not lawful as labeled.

May 12. Sample of baking powder purchased of Forseth Strand Co., Menomonie. Manufactured by Sprague, Warner & Co., Chicago. Brand, "Unrivaled." An alum-phosphate powder. Not lawful as labeled.

May 13. Sample of baking powder purchased of Westerdahl Bros., Hersey. Manufactured by P. B. Hunt & Co., Minneapolis. Brand, "Hunt's Perfect." A phosphate powder. Contains no alum. Lawful

Sample of baking powder submitted by Dodsworth & Britt, Elroy. Manufactured by Philip B. Hunt Co., Minneapolis. Brand, "Hunt's Perfect." A phosphate powder. Lawfully labeled.

BUCKWHEAT FLOUR.

Note.—See general law on adulteration of foods, pp. 3-4; also, ruling of the Commissioner on Buckwheat Flour, page 5.

February 26. Sample of buckwheat flour submitted by G. B. Godfrnon, Appleton. Jobber, Marshall & Hammel, Appleton. Contains traces of wheat flour, probably an accidental contamination.

March 3. Sample of buckwheat flour purchased of Murry & Johnson, Beloit. Manufactured by J. F. Flinn, Beloit. Contains a large amount of wheat flour. Adulterated.

March 9. Sample of buckwheat flour purchased of The Grange Store, Evansville. Manufactured by La Valle Roller Mills, La Valle. Brand, "Pure Fresh Ground Buckwheat." Contains a large amount of wheat flour. Adulterated.

June 1. Sample of buckwheat flour submitted by C. A. Dorr, Wyeville. Manufactured by Tomah Roller Mills. Badly adulterated with wheat flour.

Sample of buckwheat flour submitted by C. A. Greene, Grantsburg. Passed.

Sample of buckwheat flour submitted by C. A. Dorr, Wyeville (Sent to Prof. Henry). Contains over 50 per cent. of wheat flour.

Sample of buckwheat flour submitted by C. A. Dorr, Wyeville. Manufacturer said to be Tomah Roller Mills, Tomah. Said to have been received in exchange for pure buckwheat. Badly adulterated with wheat flour (about 50 per cent.).

Sample of buckwheat flour submitted by H. L. Mills, Appleton. Contains a large amount of low grade wheat flour.

Sample of buckwheat flour submitted by G. S. Lashier, Fall River.

March 18. Sample of buckwheat flour purchased of G. S. Lashier, Fall River. Contains a large amount of wheat flour. Adulterated. Not lawfully salable as buckwheat flour.

BUTTER.

Note.—See special law on renovated butter, sections 1 and 2, chapter 76, laws of 1899; also, law on "Imitation Butter," sections 4607d and 4607e, Wisconsin statutes of 1898.

February 24. Sample of butter purchased at Palmer House, Fond du Lac. Pronounced genuine butter.

February 24. Sample of butter purchased of Justens Cafe, Fond du Lac. Pronounced genuine butter.

February 25. Sample of butter purchased of Kind & Hoheisel, Menasha. Pronounced genuine butter.

February 25. Sample of butter purchased of Menasha Lunch Room, C. Felch, proprietor, Menasha. Pronounced genuine butter.

February 25. Sample of butter purchased of McCanna's Restaurant, Neenah. Pronounced genuine butter.

February 25. Sample of butter purchased of Kasson's Restaurant, Neenah. Pronounced genuine butter.

February 25. Sample of butter purchased of the Russell House, Neenah. Pronounced genuine butter.

February 26. Sample of butter served at lunch counter in restaurant of Ed. Gernay, Superior, Wis., 720 Tower avenue. Pronounced genuine butter.

February 26. Sample of butter taken from dinner table at the Great Northern Hotel, Superior, Wis. Pronounced genuine butter.

February 26. Sample of butter purchased of Fefferley's Elm Tree Restaurant, Appleton. Pronounced genuine butter.

February 26. Sample of butter purchased of Humphrey's Lunch Room, Appleton. Pronounced genuine butter.

February 26. Sample of butter purchased of Brill's Restaurant, Appleton. Pronounced genuine butter.

February 26. Sample of butter purchased of Kutler's Restaurant, Appleton. Pronounced genuine butter.

February 26. Sample of butter served on lunch counter at cheap eating house of Wm. Woodon, colored, Superior, Wis., 1805 Third street. Butyro-refract, 50.0. Reichert Meissl, No. 1.0. Sputters upon heating. Contains cottonseed oil. Pronounced oleomargarine.

February 26. Sample of butter purchased of Sherman House, Appleton, Wis. Pronounced genuine butter.

February 28. Sample of butter taken from dinner table of Blue Front Hotel, restaurant department. Pronounced genuine butter.

February 28. Sample of butter taken from lunch counter in the Rockaway Restaurant, Spooner, Wis. Pronounced genuine butter.

February 28. Sample of butter taken from breakfast table of the Depot Hotel and R. R. Eating House, C., St. P., M. & O. Ry., Spooner, Wis. Pronounced genuine butter.

March 29. Sample of butter purchased of Hotel Carley, Aniwa. Pronounced butter.

March 30. Sample of butter purchased of Hotel Rand, Wittenberg. Served with meal. Pronounced butter.

Sample of butter submitted by Mills Brothers, Madison. Pronounced genuine butter.

Sample of butter submitted by Geo. C. Mansfield Co., Johnson's Creek. Pronounced genuine butter.

Sample of butter submitted by N. H. Westman, Necedah. Pronounced genuine butter.

CHEESE.

Note.—See law on filled cheese and skimmed-milk cheese, section 4607c, Wisconsin Statutes of 1898.

May 21. Sample of brick cheese submitted by Bibbs' Grocery, Madison, 446 W. Main street. Butter fat, 33.75 per cent.

Sample of cheese submitted by Fond du Lac Cheese & Butter Co., Fond du Lac. Butter fat, 33.84 per cent.

Sample of cottage cheese submitted by W. H. Payne, M. D., Beloit. Suspected of containing salicylic acid. No salicylic acid or other preservatives present.

EXTRACTS.

Note.—See general law on adulteration of foods, pp. 5–6 and Commissioner's ruling on "Extracts," page 7.

February 25. Sample of lemon extract purchased of A. Eastlund, Superior, Wis., 412 Thompson Ave. Manufactured by Wright, Clarkson Merc. Co., Duluth, Minn. Oil of lemon (by vol.) 5.3 per cent. Passed.

February 26. Sample of lemon extract purchased of Grant & Ash, Superior, Wis., 1324 Tower Ave. Manufactured by Eddy & Eddy, chemists, St. Louis, Mo. Brand, "Eddy's Triple Flavoring Extracts, Lemon 2 oz. full weight." Lemon oil (by vol.) 8.0 per cent. Passed.

February 26. Sample of lemon extract purchased of William O'Conners, 1229 Tower avenue, Superior, Wis. Manufactured by Joseph

Burnett Co., Boston. Brand, "Burnett's warranted pure Extract Lemon." Oil of lemon (by vol.) 8.5 per cent. Passed.

February 26. Sample of lemon extract purchased of T. J. Anderson's Cash Grocery Co., 618 Tower avenue, Superior, Wis. Manufactured by Sprague, Warner & Co., Chicago. Brand, "Richelieu." Lemon oil (by vol.) 6.4 per cent. Passed.

February 26. Sample of lemon extract purchased of Martin Sauter, 308–310 Tower avenue, Superior, Wis. Manufactured by Twohy, Eimon Mer. Co., West Superior, Wis. Brand, "Golden Rod Concentrated." Lemon oil, 5.7 per cent. Passed.

February 26. Sample of lemon extract purchased of Julius Kerth, Appleton. Manufactured by The S. C. Shannon Co., Appleton, Wis. Brand, "High Grade." Lemon oil (by vol.), 5.0 per cent. Passed.

February 26. Sample of lemon extract purchased of Martin Sauter, 308–310 Tower avenue, Superior, Wis. Manufactured by National Extract Works, Milwaukee, Wis. Brand, "Calumet Pure Extract Lemon." Lemon oil, 3.5 per cent. Deficient in lemon oil. Held not to be lawfully salable as "Extract of Lemon."

March 3. Sample of lemon extract purchased of W. M. Vanlone, Beloit. Manufactured by Willsons, Edgerton, Brand, "Monarch." Lemon oil (by vol.), 6.2 per cent. Passed.

March 8. Sample of lemon extract purchased of Sullivan & Cleary, Kenosha. Manufactured by Roads Brothers, Chicago. Brand, "Roads." Lemon oil (by vol.) 7.1 per cent. Passed.

March 8. Sample of lemon extract purchased of Peter Elsen, Kenosha. Manufactured by J. P. Dieter Co., Chicago. Lemon oil (by vol.) 6.8 per cent. Passed.

March 8. Sample of lemon extract purchased of Brictson Mercantile Co., Deerfield. Manufactured by E. W. Gillett, Chicago. Brand, "Gillett's Extract." Lemon oil (by vol.), 5.4 per cent. Passed.

March 8. Sample of lemon extract purchased of D. Anderson, Deerfield. Manufactured by Wellauer & Hoffman, Milwaukee. Brand, "Acme." Lemon oil (by vol.) 5.2 per cent. Passed.

March 8. Sample of lemon extract purchased of D. M. Jessner, Deerfield. Manufactured by W. M. Hoyt & Co., Chicago. Brand, "Revolution." Lemon oil (by vol.), 5.0 per cent. Passed.

March 9. Sample of lemon extract purchased of The Grange Store, Evansville. Manufactured by Corbin, Sons and Co., Chicago. Brand, Clear Quill Extracts Lemon. Lemon oil (by vol.), 5.8 per cent. Methyl alcohol present. Adulterated, not lawful.

March 9. Sample of lemon extract purchased of The Grange Store, Evansville, Wis. Manufactured by Walsh, Boyle & Co., Chicago, Ill. Brand, "Holly Triple Strength Extract of Lemon." Lemon oil (by vol.), 5.5 per cent. Passed.

March 9. Sample of lemon extract purchased of C. A. Patterson Grocery, Evansville, Wis. Manufactured by Ontario Preserving Co., Middleport, N. Y. Brand, "Ferndell." Lemon oil (by vol.), 5.8 per cent. Passed.

March 9. Sample of lemon extract purchased of J. W. Calkins Grocery, Evansville, Wis. Manufactured by Chapman & Smith Co., Chicago, Ill. Brand, "Chicago." Lemon oil (by vol.), 6.9 per cent. Passed.

March 9. Sample of lemon extract purchased of The Economy Grocery, Evansville, Wis. Manufactured by Steele-Wedeles Co., Chicago, Ill. Brand, "Lakeside Double Strength Extract Lemon." Lemon oil (by vol.), 0.7 per cent. Deficient in lemon oil. Held not to be lawfully salable as "Lemon Extract."

March 9. Sample of lemon extract purchased of Clark's Grocery, Pure Food Groceries, Evansville Wis. Manufactured by the Winter Spice and Extract Co., 13 Randolph Street, Chicago. Brand, "Favorite." Lemon oil, trace. Held not to be lawfully salable as "Extract of Lemon."

March 9. Sample of extract of lemon purchased of The Grange Store, Evansville, Wis. Manufactured by B. M. Codman, Milton Junction, Wis. Brand, "Codman's Pure Extract of Lemon." Lemon oil (by vol.), 1.9 per cent. Deficient in lemon oil. Held not to be lawfully salable as "Extract of Lemon."

March 22. Sample of lemon extract purchased of Nesseth Grocery Co., Menomonie. Manufactured by Reid, Murdoch & Co., Chicago. Brand, Atlas. Lemon oil (by vol.), 1.2 per cent. Deficient in lemon oil. Held not to be lawfully salable as "Extract of Lemon."

March 22. Sample of lemon extract purchased of A. J. Josephson, Menomonie. Manufactured by Sprague, Warner & Co., Chicago.

Brand, "Favorite." Lemon oil, none. Held not to be lawfully salable as "Extract of Lemon."

March 22. Sample of lemon extract purchased of A. J. Josephson, Menomonie. Manufactured by Winter Spice & Extract Co., Chicago. Brand, "Winter." Lemon oil, none. Held not to be lawfully salable as "Extract of Lemon."

March 22. Sample of lemon extract purchased of E. A. Feldt, Menomonie. Manufactured by Ontario Preserving Co., Middleport, N. Y. Brand, "Ferndell." Lemon oil (by vol.), 7.2 per cent. Passed.

March 23. Sample of lemon extract purchased of Everson & Co., Hudson. Manufactured by Minnesota Mercantile Co., Stillwater, Minn. Brand, "Dells Brand." Lemon oil (by vol.), 7.6 per cent. Passed.

March 29. Sample of lemon extract purchased of A. Goldberg, Mattoon. Manufactured by J. A. Tolman Co., Chicago, Brand, "Trojan." Lemon oil, none. Held not to be lawfully salable as "Extract of Lemon."

March 29. Sample of lemon extract purchased of A. Goldberg, Mattoon. Manufactured by Walsh, Boyle & Co., Chicago. Brand, "Silver Seal." Lemon oil (by vol.), 6.6 per cent. Passed.

March 29. Sample of lemon extract purchased of J. McMaster, Mattoon. Manufactured by Durand & Kasper, Chicago. Brand, "Rival Extract." Wrongly labeled. Bottle contained vanilla flavoring.

March 29. Sample of lemon extract purchased of Fred Hanson, Chetek, Wis. Manufactured by The Ideal Extract and Bottling Co., Eau Claire, Wis. Brand, "Ideal." Lemon oil (by vol.), 4.2 per cent. Slightly deficient in lemon oil.

March 30. Sample of lemon extract purchased of D. Slepyan, Wittenberg. Manufactured by A. J. Hilbert Co., Milwaukee. Brand, "Pure Food." Lemon oil (by vol.), 5.8 per cent. Passed.

March 30. Sample of lemon extract purchased of Mrs. G. L. Woodcock, Cumberland, Wis. Manufactured by Minnesota Mer. Co., Stillwater, Minn. Brand, "Eclips." Lemon oil (by vol.) 4.8 per cent. Wood-alcohol, present. Adulterated, not lawful.

March 31. Sample of lemon extract purchased of Hottman & Powell, 729 University avenue, Madison, Wis. Manufactured by Kenwood Pre-

serving Co., Chicago, Ill. Brand, "Seal." Lemon oil, none. Held not to be lawfully salable as "Extract of Lemon."

March 31. Sample of lemon extract purchased of J. M. Reis, 32 N. Bassett street, Madison, Wis. Manufactured by Kenwood Preserving Co., Chicago, Ill. Brand, "Seal." Lemon oil, none. Held not to be lawfully salable as "Extract of Lemon."

April 1. Sample of lemon extract submitted by The Ideal Extract & Bottling Co., Eau Claire, Wis. Manufactured by The Ideal Extract and Bottling Co., Eau Claire, Wis. Brand, "Ideal." Alcohol (by wt.) 81.0 per cent. Lemon oil (by vol.) 4.4 per cent. Slightly deficient in lemon oil.

April 2. Sample of lemon extract purchased of A. M. Anderson, Oregon, Wis. Manufactured by Reed, Walsh & Lange, Chicago, Ill. Brand, "Silver Seal." Lemon oil (by vol.) 5.0 per cent. Contains methyl alcohol. Adulterated. Not lawful.

April 2. Sample of lemon extract purchased of B. M'Dermott & Sons, Oregon, Wis. Manufactured by Kenwood Preserving Co., Chicago, Ill. Brand, "Seal." Lemon oil, none. Held not to be lawfully salable as "Extract of Lemon."

April 4. Sample of lemon extract purchased of Albert Reuth, Sun Prairie, Wis. Manufactured by Corbin Sons & Co., Chicago, Ill. Brand, "Clear Quill." Alcohol (by wt.) 77.0 per cent. Lemon oil (by vol.) 5.2 per cent. Passed.

April 7. Sample of lemon extract purchased of N. L. Dahl, De Forest. Manufactured by Meissner-Bergwall Co., Milwaukee. Brand, "M. B." Alcohol (by wt.) 85.0 per cent. Lemon oil (by vol.) 6.8 per cent. Passed.

April 9. Sample of lemon extract purchased of F. N. Kern & Co., Fennimore. Manufactured by Eddy & Eddy, St. Louis. Brand, "Eddy's Double Strength." Alcohol (by wt.) 75.0 per cent. Lemon oil (by vol.) 4.7 per cent. Slightly deficient in lemon oil.

April 12. Sample of lemon extract purchased of J. L. Mitchell, Platteville. Manufactured by Franklin McVeagh & Co., Chicago. Alcohol (by wt.) 83.0 per cent. Lemon oil (by vol.) 7.4 per cent. Passed.

April 12. Sample of lemon extract purchased of J. S. Brixton, Platteville. Manufactured by Chapman, Smith & Co. Brand, "Fine

Flavor." Alcohol (by wt.) 74.0 per cent. Lemon oil (by vol.) 6.5 per cent. Passed.

April 13. Sample of lemon extract purchased of D. Morrissey, Bagley. Manufactured by R. Barrett, Galena, Ill. Brand, "Standard." Alcohol (by wt.) 83.0 per cent. Lemon oil (by vol.) 5.7 per cent. Passed.

April 13. Sample of lemon extract purchased of H. F. Stayman, Bagley, Wis. Manufactured by Boerner–Fry Co., Iowa City, Iowa. Alcohol (by wt.) 10.0 per cent. Lemon oil, none. Not lawfully salable as "Extract of Lemon."

April 28. Sample of lemon extract purchased of H. Sherman, Richland Center. Manufactured by Sprague, Warner & Co., Chicago. Alcohol (by wt.) 85 per cent. Lemon oil (by vol.) 6.8 per cent. Passed.

April 30. Sample of lemon extract purchased of Mrs. J. C. Hocking, Dodgeville. Manufactured by McNeil & Higgins, Chicago. Brand, "Empire." Alcohol (by wt.) 86.0 per cent. Lemon oil (by vol.) 5.0 per cent. Passed.

May 11. Sample of lemon extract purchased of H. W. Gibson, Roberts. Manufactured by McCormick, Behnke & Co., St. Paul, Minn. Brand, "Palace." Alcohol (by wt.) 86.0 per cent. Lemon oil (by vol.) 5.4 per cent. Passed.

May 28. Sample of lemon extract purchased of George Post, Barron, Wis. Jobber, Minnesota Mer. Co., Stillwater, Minn. Brand, "Crescent." Lemon oil (by vol.) 6.5 per cent. Passed.

Sample of lemon extract submitted by State Board of Control. Marked (a). Alcohol (by wt.) 81.0 per cent. Lemon oil (by vol.) 6.5 per cent. Total residue, 0.14 per cent. Passed.

Sample of lemon extract submitted by State Board of Control. Marked (b). Alcohol (by wt.) 81.2 per cent. Lemon oil, 5.4 per cent. Total residue 0.15 per cent. Passed.

CORRECTION.

On page 24 of Bulletin No. 3, the record of a sample of "Leader" brand of Lemon Extract sold by Gaarden & Anderson, Spring Valley, should show Minnesota Mercantile Co., as manufacturers instead of Green, De Laittre Co., jobbers, Minneapolis.

March 23. Sample of "true extract of raspberry" purchased of Everson & Co., Hudson. Manufactured by Wm. McMurry & Co., St. Paul, Minn. Brand, "Honest Bottle." An artificial extract, artificially colored. Not lawfully labeled.

March 23. Sample of "strawberry extract" purchased of Birkmose, Wiberg & Co., Hudson. Manufactured by Griggs, Cooper & Co., St. Paul. Brand, "Home Brand." An artificial extract, artificially colored. Not lawfully labeled.

Sample of vanilla extract submitted by State Board of Control. Marked (x). Passed as lawful.

Sample of vanilla extract submitted by State Board of Control. Marked (y). Passed as lawful.

HONEY.

Note.—See special law on honey, sections 4607f and 4605a Wisconsin Statutes, 1898; also ruling of the Commissioner on page 7.

March 29. Sample of honey purchased of Fred Hanson, Chetek, Wis. Manufactured by The Ideal Extract & Bottling Co., Eau Claire, Wis. Brand, "Clarified Honey."

Polarization before inversion .....(21°C.)+50.6°
Polarization after inversion .....(21°C.)—24.2°
Sucrose .....56.24 per cent.
Ash .....0.13 per cent.

Adulterated. Not lawfully labeled.

JELLIES AND PRESERVES.

Note.—See general law on adulteration of foods, pp. 5-6; also Commissioner's ruling on Jellies on page 9.

March 23. Sample of jelly purchased of Birkmose, Wiberg & Co., Hudson. Manufactured by Griggs, Cooper & Co., St. Paul. Brand. "Home Brand Quince."

Polarization before invertion.....(22°C.)—21.0°
Polarization after invertion. ..... —26.2°
Sucrose ..... 4.0 per cent.
Acidity (calc. as sulphuric acid)..... 0.33 per cent.

Passed.

March 21. Sample of black raspberry preserves purchased of Joseph Sokup, Bridge street, Chippewa Falls, Wis. Manufactured by Mauerre, Yoe Syrup Co., Chicago, Ill. Brand, "Puritan." "Imitation." A compound glucose preserve. Not lawful as labeled.

LARD.

Note.—See general law on adulteration of foods, pp. 5-6; also Commissioner's ruling, page 10.

March 15. Sample of lard submitted by H. Hilton, Chippewa Falls, Wis. Manufactured by Peter Mani, Chippewa Falls. Passed.

Sample of lard submitted by C. McManman & Sons, Kilbourn. Manufactured by Cudahy & Co. No adulterants found.

MAPLE SYRUP.

Note.—See general law on adulteration of foods, pp. 5-6; also Commissioner's ruling on page 10.

February 6. Sample of maple syrup purchased of J. Russell Brown, Sabin, Wis. Manufactured by J. Russell Brown, Sabin. Passed.

February 8. Sample of maple syrup purchased of J. Russell Brown, Sabin, Wis. Manufactured by J. Russell Brown, Sabin, Wis. Passed.

February 8. Sample of maple syrup purchased of H. J. Turnipseed, Sabin, Wis. Manufactured by H. J. Turnipseed, Sabin, Wis. Passed.

February 8. Sample of maple syrup submitted by H. J. Turnipseed, Sabin, Wis. Manufactured by H. J. Turnipseed, Sabin, Wis. Passed.

February 24. Sample of maple syrup purchased of G. F. Finger, Fond du Lac. Manufactured by Curtice Bros., Rochester, N. Y. Brand, "Sap." Passed.

February 24. Sample of maple syrup purchased of Joseph Steuz, Fond du Lac. Manufactured by Huntington Maple Syrup & Sugar Co., Providence, R. I. Brand, "Gold Leaf." Not a pure maple syrup. Not lawfully salable as such.

February 24. Sample of maple syrup purchased of Robbins Bros., Fond du Lac. Manufactured by Towle Maple Syrup Co., Burlington, Vt. and St. Paul, Minn. Brand, "Log Cabin." Not a pure maple syrup. Not lawfully salable as such.

February 24. Sample of maple syrup purchased of Robbins Bros., Fond du Lac. Manufactured by Pierre Viaus, Quebec, Canad. Brand, "P. V." Not a pure maple syrup. Not lawfully salable as such.

February 24. Sample of maple syrup purchased of Robbins Bros., Fond du Lac. Manufactured by Sprague, Warner & Co., Chicago, Ill. Brand, "St. Croix." Not a pure maple syrup. Not lawfully salable as such.

February 24. Sample of maple syrup purchased of Conley Grocery Co., Fond du Lac. Manufactured by Travis & Co., Middlefield, Ohio. Brand, "White Label." Passed.

February 24. Sample of maple syrup purchased of A. P. Fleishman, Fond du Lac. Manufactured by The Maple Forest Syrup Co., Maple Groves, Vt. Brand, "Maple Forest." Not a pure maple syrup. Not lawfully salable as such.

February 24. Sample of maple syrup purchased of M. Washbush, Fond du Lac. Manufactured by the Mauierre-Yoe Syrup Co., Chicago Ill. Brand, "Royal." Not a pure maple syrup. Not lawfully salable as such.

March 3. Sample of maple syrup purchased of G. Sanger, Beloit. Manufactured by Reed, Murdock & Co., Chicago, Ill. Brand, "Monarch." Not a pure maple syrup. Not lawfully salable as such.

March 3. Sample of maple syrup purchased of Murry & Johnson, Beloit. Manufactured by Mauierre-Yoe Syrup Co., Chicago. Brand, "Manse." Not a pure maple syrup. Not lawfully salable as such.

March 8. Sample of maple syrup purchased of Brictson Mercantile Co., Deerfield. Manufactured by Berry, Mayburn Co., Chicago. Brand, "Ohio Sap." Not a pure maple syrup. Not lawfully salable as such.

March 11. Sample of maple syrup purchased of H. B. Schwan, Kenosha. Manufactured by Edward Dewey & Co., Milwaukee, Wis. Brand, "Vermont Maple." Not a pure maple syrup. Not lawfully salable as such.

April 7. Sample of maple syrup purchased of N. L. Dahl, De Forest. Manufactured by W. J. Quan & Co., Chicago. Brand, "Royal Blue." Not a pure maple syrup. Not lawfully salable as such.

April 12. Sample of maple syrup purchased of H. B. Allen, Richland Center, Wis. Manufactured by Chas. Ingmire, Gillingham, Wis. Passed.

April 12. Sample of maple syrup purchased of Geo. Unhaffey, Richland Center, Wis. Manufactured by Sid. Caddell, Gillingham, Wis. Passed.

Sample of maple syrup submitted by Wm. O'Connor, 1221-1223 Tower avenue, West Superior. The Towle Syrup Co., St. Paul, Jobbers. Brand, "Franklin County, Vt." Not a pure maple syrup. Not lawfully salable as such.

Sample of maple syrup submitted my Wm. S. Marshall, Madison. Passed.

MILK.

Note.—See page 10.

Sample of milk submitted by Geo. C. Mansfield Co., Johnson Creek. Patron: Mrs. C. Trachte, Ebenezar, Wis. Marked No. 1. Delivered by patron February 22, 1904. Butter fat, 2.8 per cent.

Sample of milk submitted by Geo. C. Mansfield Co., Johnson Creek. Patron: Mrs. C. Trachte, Ebenezar, Wis. Marked No. 2. Delivered by patron February 29, 1904. Butter fat, 3.9 per cent.

Sample of milk submitted by C. Joss, Grand Rapids, Wis. Butter fat, 3.1 per cent. Sample in bad condition for accurate testing.

March 24. Sample of milk submitted by Cambridge Creamery (Otto Bilstad), Cambridge, Wis. Taken from composite milk sample bottle at Cambridge creamery. Butter fat, 3.5 per cent.

March 24. Sample of morning's milk submitted by Otto Bilstad, Cambridge, Wis. Sample taken from mixed milk of three cows at barn.

Sp. gr. 1.0306
Butter fat ..... 3.6 per cent.
Total solids .....12.12 per cent.
Solids not fat..... 8.52 per cent.

March 24. Sample of milk submitted by The Cambridge Creamery (R. Prescott), Cambridge, Wis. Sample taken from O. Prescott's composite milk sample bottle at creamery. Butter fat, 3.2 per cent.

March 24. Sample of milk submitted by Cambridge Creamery (Prescott's), Cambridge, Wis. Taken from pail of milk delivered to creamery by an agent of M. P. Prescott. Butter fat, 3.2 per cent.

March 23. Sample of night's milk submitted by Otto Bilstad, Cambridge, Wis. Sample taken from mixed milk of three cows at barn.

Sp. gr. .....1.0304 per cent.
Butter fat. .....4.2 per cent.
Total solids .....12.78 per cent.
Solids not fat.....8.58 per cent.

Sample of milk submitted by Mrs. Thos. Ward & Son, Appleton. Butter fat, 3.3 per cent.

Sample of milk submitted by J. G. Moore.

Butter fat .....2.4 per cent.
Sp. gr. 1.034

Three samples of milk submitted by G. F. Oesau, Chilton.

No. 1, butter fat.....3.6 per cent.
No. 2, butter fat. .....3.8 per cent.
No. 3, butter fat.....3.7 per cent

Four samples of milk submitted by C. O. Black, Syene.

No. 4, J. Garry.....3.3 per cent.
No. 13, J. Sholtz.....3.2 per cent.
No. 3, J. Fahey.....3.6 per cent.
No. 11, Williams & Fox.....3.1 per cent.

Pipette tested and found to be practically correct.

Sample of milk submitted by O. G. Rewey, Madison.

Sp. gr. 1.033
Butter fat .....4.1 per cent.

April 16. Sample of mixed milk delivered by Mrs. Clements at Davis Cheese Factory, Lone Rock.

Sp. gr. 1.034
Butter fat .....3.05 per cent.

Sample of milk submitted by Dr. W. H. Payne, M. D.., Beloit. Marked "Mr. Gayton."

Sp. gr. 1.026
Butter fat .....2.6 per cent.
Watered.

Sample of night's milk delivered by Fred Schoonover at Davis Cheese Factory, Lone Rock. Butter fat 3.0 per cent.

April 16. Sample of night's milk delivered by Fred Schoonover at Davis Cheese Factory, Lone Rock.

Sp. gr. 1.0265
Butter fat.. .....3.0 per cent.
Total solids .....9.6 per cent.
Solids not fat .....6.6 per cent.
Watered.

April 16. Sample of morning's milk delivered by Fred Schoonover at Davis Cheese Factory, Lone Rock.

Sp. gr. 1.031
Butter fat .....4.15 per cent.
Total solids .....13.0 per cent.
Solids not fat .....8.85 per cent.

April 16. Sample of mixed milk delivered by Fred Schoonover, Lone Rock at Davis Cheese Factory, Lone Rock.

Butter fat .....3.4 per cent.
Total solids .....11.38 per cent.
Solids not fat .....7.98 per cent.
Watered.

Sample of milk submitted by D. K. Barker, Oconto. Butter fat, 3.0 per cent.

Sample of milk submitted by F. S. Bartelt, Juneau. Butter fat, 3.6 per cent.

May 17. Sample of milk taken from E. Anderson Husse, Rockdale. Butter fat, 3.85 per cent.

June 17. Sample of milk submitted by J. Fritchner, No. 10, Union Grove. R. D. Delivered June 17th at Ives Grove creamery.

Sp. gr. 1.031
Butter fat .....3.4 per cent.
Total solids .....11.91 per cent.
Solids not fat .....8.51 per cent.

June 17. Sample of milk submitted by L. Heminfield, No. 11, Union Grove, R. D. Delivered at Ives Grove creamery June 17.

Sp. gr. 1.0262
Butter fat .....3.35 per cent.
Total solids .....10.7 per cent.
Solids not fat .....7.35 per cent.

Watered.

Sample of milk submitted by M. L. Lueck, Juneau, Wis., Butter fat, 3.65 per cent. Contained a large amount of dirt.

Sample of milk submitted by David Boelter, Almond, Wis. (R. F. D., No. 1). Butter fat, 4.3 per cent.

CREAM.

February 26. Sample of cream submitted by Otto Rogers, Superior City Milk Inspector, 1721 Banks avenue, Superior, Wis. Butter fat, 16.5 per cent. Sample was in poor condition for accurate testing.

Sample of cream submitted by Mrs. E. M. Andrus, Madison. Dealer, Kleinheinz, Madison. Butter fat, 17.0 per cent. Free from preservatives, gelatin, viscogen and coloring matter.

MISCELLANEOUS.

March 30. Sample of iceline submitted by Martin, Santer, Santer & Co., 308-310 Tower avenue, Superior, Wis. Essentially sodium sulphite, colored pink.

SYRUP.

Note.—See general law on adulteration of foods, pp. 5-6; also ruling of the Commissioner on page 11.

March 3. Sample of Syrup purchased of Murry & Johnson, Beloit. Manufactured by the Rockford Wholesale Grocery Co., Rockford, Ill. Brand, "Rockford Drips." A glucose syrup containing 7.2 per cent of cane sugar. Not lawfully labeled.

Sample of syrup submitted by State Board of Control. A glucose syrup containing 8.3 per cent. of cane sugar.

March 3. Sample of corn syrup purchased of Murry & Johnson, Beloit. Manufactured by Corn Products Co., Chicago, Ill. Brand, "Karo." A glucose syrup containing 7.5 per cent of cane sugar.

March 8. Sample of table syrup purchased of H. B. Schwan, Kenosha. Manufactured by A. Dahlman & Co., Milwaukee. A glucose syrup. Not lawfully labeled.

March 23. Sample of fruit syrup purchased of Brikmose, Wiberg & Co., Hudson. Manufactured by Griggs, Cooper & Co., St. Paul. Brand, "Home Brand Vanilla."

Sucrose .....70.5 per cent.
Ash .....0.02 per cent.

A cane sugar syrup, flavored with vanilla.

March 30. Sample of rock candy syrup purchased of The Company's Store, Cumberland, Wis. Manufactured by the Towle Syrup Co., St. Paul, Minn. Brand, "Towle Rock Candy Syrup." A glucose syrup. Not a rock candy syrup and not lawfully salable as such.

April 4. Sample of rock candy syrup purchased of Northwestern Lumber Co., Stanley, Wis. Manufactured by the Towle Syrup Co., St. Paul, Minn. Brand, "Towles Rock Candy Syrup." A glucose syrup. Not a rock candy syrup and not lawfully salable as such.

SUGAR.

February 26. Sample of powdered sugar purchased of G. B. Godfirnon, Appleton. Manufactured by Havermeyer & Eldred. Commercially pure.

Sample of granulated sugar submitted by W. P. Massuere Co., Arcadia, Wis. Colored with a considerable amount of ultra-marine blue but otherwise commercially pure.

MOLASSES.

Note.—See general law on adulteration of foods; also, Commissioner's ruling, page 12.

Sample of molasses submitted by the State Board of Control.

Polarization before invertion .....(18°C.)+29.0°
Polarization after invertion .....(18°C.)—15.4°
Sucrose ..... 32.9°

VINEGAR.

Note.—See specific law on vinegar, section 4607i, Wisconsin Statutes of 1898, also ruling of the Commissioner on page 10.

February 24. Sample of cider vinegar submitted by A. P. Fleishman, Fond du Lac. Manufactured by Heinz, Pittsburgh.

T. A. (calc. as acetic acid).....4.8 per cent.
Total solids .....2.8 per cent.
Passed.

February 24. Sample of cider vinegar purchased of G. F. Finger, Fond du Lac. Manufactured by F. C. Johnson, Kishwaukee, Ill.

Total acidity (calc. as acetic acid).....5.0 per cent.
Total solids .....2.5 per cent.
Passed.

February 25. Sample of cider vinegar purchased of J. J. Lentenegger, Neenah. Manufactured by A. M. Richter & Son, Manitowoc.

Total acidity (calc. as acetic acid).....4.1 per cent.
Total solids .....2.4 per cent.
Passed.

February 25. Sample of cider vinegar purchased of B. V. McDermott, Neenah. Manufactured by Lewis & Van Holton, Milwaukee.

T. A. (calc. as acetic acid).....4.0 per cent.
Total solids .....1.58 per cent.

This is not a pure cider vinegar. Adulterated.

February 26. Sample of cider vinegar purchased of W. L. Rhodes, Appleton. Manufactured by Brackenbauer, Plymouth. Mr. Rhodes claims he is not selling same as a pure and cider vinegar.

Total acidity (calc. as acetic acid).....4.3 per cent.
Total solids .....1.75 per cent.

Below legal standard in cider vinegar solids.

Sample of cider vinegar submitted by J. Lehman & Son, Tigerton, Wis. Jobbers said to be Sprague, Warner & Co., Chicago.

T. A. (calc. as acetic acid).....4.0 per cent.
Total solids .....2.6 per cent.

Passed.

March 3. Sample of cider vinegar purchased of E. J. Evans, Beloit. Manufactured by New York Cider Co.

Total acidity (calc. as acetic acid).....5.2 per cent.
Total solids .....0.33 per cent.

Not a cider vinegar. Adulterated.

March 3. Sample of cider vinegar purchased of G. E. Sanger, Beloit, Beloit. Chesbrough Moss Co., Beloit, jobbers.

T. A. (calc. as acetic acid).....3.8 per cent.
Total solids .....1.9 per cent.

Below legal standard in acidity and in cider vinegar solids.

March 3. Sample of cider vinegar purchased of Bull & Goodman, Beloit. Manufactured by Barrett & Barrett, South Haven Mich.

Total acidity (calc. as acetic acid).....4.6 per cent.
Total solids .....2.1 per cent.

Passed.

March 3. Sample of cider vinegar purchased of Stiles & Rogers, Beloit. Chesbrough Moss Co., Beloit, jobbers.

Total acidity (calc. as acetic acid).....5.7 per cent.
Total solids .....2.2 per cent.

Passed.

March 3. Sample of cider vinegar purchased of Stiles & Johnson, Beloit. Manufactured by F. C. Johnson, Kishwaukee.

T. A. (calc. as acetic acid).....4.6 per cent.
Total solids .....2.06 per cent.

Passed.

March 8. Sample of vinegar purchased of Meyer Jessner, Deerfield. Manufactured by the American Vinegar Co., Milwaukee.

T. A. (calc. as acetic acid).....5.3 per cent.

Passed.

March 8. Sample of cider vinegar submitted by F. E. Carswell, Lone Rock.

Total acidity (calc. as acetic acid).....4.6 per cent.
Total solids .....1.9 per cent.

Slightly below legal standard in cider vinegar solids.

March 8. Sample of white wine vinegar purchased of Brictson Mercantile Co., Deerfield. Manufactured by the American Vinegar & Pickle Co., Milwaukee.

T. A. (calc. as acetic acid).....6.0 per cent.
Total solids .....0.22 per cent.
Ash .....0.05 per cent.

Not a white wine vinegar. Not lawfully salable as such.

March 8. Sample of cider vinegar purchased of C. Schwan, Kenosha. Jobber, Henry Horner & Co., Chicago. Manufactured by the American Fruit Produce Co., Rochester.

T. A. (calc. as acetic acid).....4.1 per cent.
Total solids .....2.8 per cent.

Passed.

March 8. Sample of vinegar purchased of Brictson Mercantile Co., Deerfield. Jobber, Franklin McVeagh, Co., Chicago.

Total acidity (calc. as acetic acid).....5.7 per cent.
Total solids .....0.5 per cent.
Color ..... artificial.

Spirit vinegar, artificially colored.

March 8. Sample of cider vinegar purchased of Brictson Mercantile Co., Deerfield. Jobber, Barrett & Barrett, Chicago.

Total acidity (calc. as acetic acid).....4.9 per cent.
Total solids .....1.7 per cent.

Below legal standard in cider vinegar solids.

March 9. Sample of cider vinegar purchased of F. A. Harbridge Co., Racine. Manufactured by the Prussing Cider Co., Chicago.

Total acidity (calc. as acetic acid).....4.6 per cent.
Total solids .....2.1 per cent.

This is not a pure cider vinegar. Adulterated.

March 12. Sample of cider vinegar purchased of C. T. Slagg, Cambridge. Manufactured by Barrett & Barrett, Chicago.

Total acidity (calc. as acetic acid).....5.2 per cent.
Total solids .....2.6 per cent.

This is not a pure cider vinegar. Adulterated.

March 11. Sample of cider vinegar purchased of G. A. Mogensen, Racine. Manufactured by Dahinden & Gallash, Milwaukee.

Total acidity (calc. as acetic acid).....4.9 per cent.
Total solids .....2.2 per cent.

Passed.

March 14. Sample of pure cider vinegar purchased of R. S. Waterson, Knapp, Wis. Jobber, Minnesota Mercantile Co., Stillwater Minn.

Total acidity (calc. as acetic acid).....4.6 per cent.
Total solids .....2.5 per cent.

Passed.

March 22. Sample of pure cider vinegar submitted by F. W. Hanzlik, Bridge street, Chippewa Falls, Wis. Manufactured by F. C. Johnson, Kishwaukee, Ill.

Total acidity (calc. as acetic acid).....4.04 per cent.
Total solids .....3.56 per cent.

Passed.

March 22. Sample of cider vinegar purchased of A. J. Josephson, Menomonie. Manufactured by Sprague, Warner & Co., Chicago.

Total acidity (calc. as acetic acid).....4.4 per cent.
Total solids .....2.4 per cent.

Passed.

March 22. Sample of cider vinegar submitted by Nesseth Grocery Co., Menomonie. Manufactured by F. F. Meyers Vinegar Co., Freeport, Ill.

Total acidity (calc. as acetic acid).....4.5 per cent.
Total solids .....2.15 per cent

Passed.

March 23. Sample of cider vinegar purchased of Birkmose, Wiberg & Co., Hudson. Manufactured by the Minnesota Mercantile Co., Stillwater.

Total acidity (calc. as acetic acid).....4.5 per cent.
Total solids .....1.9 per cent.

Not a pure cider vinegar. Adulterated.

March 23. Sample of cider vinegar purchased of Everson & Co., Hudson. Manufactured by Minnesota Mercantile Co., Stillwater.

Total acidity (calc. as acetic acid).....4.7 per cent.
Total solids .....1.4 per cent.

Below legal standard in cider vinegar solids.

March 23. Sample of white wine vinegar purchased of Birkmose, Wiberg & Co., Hudson. Manufactured by the Minnesota Mercantile Co., Stillwater.

Total acidity (calc. as acetic acid).....4.8 per cent.
Total solids .....0.16 per cent.

Not a white wine vinegar. Not lawfully salable as such.

March 29. Sample of vinegar purchased of Lorrig Bros., Mattoon. Manufactured by Sprague, Warner & Co., Chicago.

Total acidity (calc. as acetic acid).....4.84 per cent.
Total solids .....2.87 per cent.

Passed.

March 29. Sample of cider vinegar purchased of A. Goldberg, Mattoon Manufactured by the Red Cross Vinegar Co., St. Louis.

Total acidity (calc. as acetic acid).....4.1 per cent.
Total solids .....2.1 per cent.

Passed.

March 29. Sample of cider vinegar purchased of J. McMaster, Mattoon. Manufactured by Durand & Kasper, Chicago.

Total acidity (calc. as acetic acid).....9.3 per cent.
Total solids. .....0.48 per cent.
Color ..... artificial.

Spirit vinegar, artificially colored.

March 29. Sample of vinegar purchased of J. McMaster, Mattoon. Manufactured by Durand & Kaper, Chicago.

Total acidity (calc. as acetic acid).....5.95 per cent.
Total solids .....0.49 per cent.

This is not a cider vinegar. Adulterated.

March 30. Sample of vinegar purchased of L. Paul, Wittenberg. Manufactured by Joannes Bros. & Co., Green Bay.

Total acidity (calc. as acetic acid).....4.3 per cent.

Passed.

March 30. Sample of cider vinegar purchased of L. Paul, Wittenberg. Manufactured by Joannes Bros. & Co., Green Bay.

Total acidity (calc. as acetic acid).....4.16 per cent.
Total solids .....1.84 per cent.

Below legal standard in cider vinegar solids.

March 30. Sample of cider vinegar submitted by D. Slepyan, Wittenberg. Manufactured by Genessee Fruit Co., Lansing, Mich.

Total acidity (calc. as acetic acid).....4.5 per cent.
Total solids .....1.88 per cent.

Below legal standard in cider vinegar solids.

March 30. Sample of cider vinegar purchased of Heins Bros. Co., Wittenberg. Manufactured by Albion Cider & Vinegar Co., Albion, N. J.

Total acidity (calc. as acetic acid).....4.7 per cent.
Total solids .....2.3 per cent.

Passed.

Sample of cider vinegar submitted by State Board of Control. Johannes Bros., jobbers, Green Bay.

Sp. gr. 1.020
Total acidity (calc. as acetic acid).....4.7 per cent.
Total solids .....3.53 per cent.

Passed.

Sample of cider vinegar submitted by A. M. Richter & Son, Manitowoc.

Total acidity (calc. as acetic acid).....4.6 per cent.
Total solids .....2.4 per cent.

Passed.

April 6. Sample of cider vinegar submitted by J. S. Parkinson, Windsor. Manufactured by F. C. Johnson, Kishwaukee, Ill.

Total acidity (calc. as acetic acid).....3.6 per cent.
Total solids .....1.7 per cent.

Below legal standard in acetic acid and in cider vinegar solids.

April 7. Sample of white wine vinegar purchased of Farness & Husebo, De Forest. Manufactured by H. J. Heinz Co., Chicago.

Total acidity (calc as acetic acid) .....4.17 per cent.

Not a "white wine vinegar." Not lawfully salable as such.

April 7. Sample of cider vinegar purchased of Farness & Husebo, De Forest. Manufactured by H. J. Heinz Co., Chicago.

T. A. (calc. as acetic acid).....4.8 per cent.
Total solids .....3.2 per cent.

Passed.

April 9. Sample of cider vinegar purchased of F. N. Kern & Co., Fennimore. Country made.

Total acidity (calc. as acetic acid).....7.7 per cent.
Total solids .....1.3 per cent.

Below legal standard in cider vinegar solids.

April 9. Sample of cider vinegar purchased of F. N. Kern & Co., Fennimore. Manufactured by Sprague, Warner & Co., Chicago.

Total acidity (calc. as acetic acid).....4.23 per cent.
Total solids .....2.13 per cent.

Passed.

April 9. Sample of vinegar purchased of C. J. Lomis & Co., Fennimore. Manufactured by the American Vinegar & Pickle Co., Milwaukee.

Total acidity (calc. as acetic acid).....4.55 per cent.
Total solids .....2.74 per cent.

Passed.

April 9. Sample of vinegar purchased of H. B. Lewis, Fennimore. Manufactured by Roundy, Peckham & Dexter, Milwaukee.

Total acidity (calc. as acetic acid).....4.0 per cent.
Total solids .....2.29 per cent.

Passed.

April 9. Sample of vinegar purchased of C. E. Shaw, Fennimore. Manufactured by S. R. & J. C. Mott, 501 West St., New York.

Total acidity (calc. as acetic acid).....4.17 per cent.
Total solids .....2.00 per cent.

Passed.

April 9. Sample of cider vinegar purchased of Heim Bros. Co., Fennimore. Manufactured by Barrett & Barrett, Chicago.

Total acidity (calc. as acetic acid).....3.67 per cent.
Total solids .....1.92 per cent.

Slightly below legal standard in acetic acid and in total solids.

April 9. Sample of vinegar purchased of Heim Bros. & Co., Fennimore. Brand, "White Wine." Manufactured by Barrett & Barrett, Chicago.

Total acidity (calc. as acetic acid).....3.73 per cent.
Total solids .....0.11 per cent.

Not a "White Wine Vinegar." Below legal standard in acetic acid.

April 9. Sample of vinegar purchased of Mitchell & Co., Fennimore. Brand, "White Wine." Didn't know who manufacturer was. Had just bought stock.

Total acidity (calc. as acetic acid).....4.23 per cent.
Total solids .....0.31 per cent.

Not a white wine vinegar. Not lawfully salable as such.

April 9. Sample of cider vinegar purchased of Mitchell & Co., Fennimore.

Total acidity (calc. as acetic acid).....4.16 per cent.
Total solids .....2.65 per cent.

Not a pure cider vinegar. Adulterated.

April 12. Sample of white wine vinegar purchased of J. S. Brixton, Platteville. Manufactured by the American Vinegar & Pickle Co., Milwaukee.

Total acidity (calc. as acetic acid).....5.6 per cent.
Total solids .....0.3 per cent.

Not a white wine vinegar. Not lawfully salable as such.

Sample of cider vinegar purchased of J. S. Brixton, Platteville. Manufactured by the American Vinegar & Pickle Co., Milwaukee.

Total acidity (calc. as acetic acid).....4.08 per cent.
Total solids .....2.00 per cent.

Passed.

April 12. Sample of cider vinegar purchased of H. Sander, Platteville. Manufactured by E. O. Rosenthal, Freeport, Ill.

Total acidity (calc. as acetic acid).....4.6 per cent.
Total solids .....1.93 per cent.

Slightly below legal standard in cider vinegar solids.

April 12. Sample of cider vinegar purchased of J. L. Mitchell, Platteville. Manufactured by Lewis & Van Houten, Milwaukee.

Total acidity (calc. as acetic acid).....3.93 per cent.
Total solids .....2.6 per cent.

Not a pure cider vinegar. Adulterated.

April 13. Sample of cider vinegar purchased of H. F. Slayman, Bagley. M. M. Walker, Dubuque, Iowa, jobber.

Total acidity (calc as acetic acid).....4.4 per cent.
Total solids .....2.1 per cent.

Passed.

April 13. Sample of cider vinegar submitted by A. Calkins & Son, Bagley. Manufactured by the Jackson Vinegar Co., Dubuque, Iowa.

Total acidity (calc. as acetic acid).....4.5 per cent.
Total solids .....3.4 per cent.

Passed.

April 13. Sample of cider vinegar submitted by Dr. Morrissey, Bagley. Manufactured by R. Barrett, Galena, Ill.

Total acidity (calc. as acetic acid).....4.3 per cent.
Total solids .....1.9 per cent.

Not a pure cider vinegar. Adulterated.

April 30. Sample of cider vinegar purchased of Mrs. Rose Jones, Dodgeville. Manufactured by H. J. Heinz, Chicago.

Total acidity (calc. as acetic acid).....4.6 per cent.
Total solids .....2.5 per cent.

Passed.

April 30. Sample of cider vinegar purchased of J. O. Griffiths, Dodgeville. Manufactured by Rosenthal, Freeport, Ill.

Total acidity (calc. as acetic acid).....3.6 per cent.
Total solids .....0.49 per cent.

Not a cider vinegar. Not lawfully salable as such.

April 30. Sample of cider vinegar purchased of J. O. Griffiths, Dodgeville. Manufactured by the American Vinegar Co., Milwaukee.

Total acidity (calc. as acetic acid).....4.25 per cent.
Total solids .....2.2 per cent.

Passed.

April 30. Sample of cider vinegar purchased of Jones & Owen, Dodgeville. Manufactured by Lewis & Van Houten, Milwaukee.

Total acidity (calc. as acetic acid).....4.2 per cent.
Total solids .....2.4 per cent.
Passed.

April 30. Sample of white wine vinegar purchased of V. J. Rogers, Dodgeville. Manufactured by C. E. Meyer, Freeport, Ill.

Total acidity (calc. as acetic acid).....5.2 per cent.
Not a white wine vinegar and not lawfully salable as such.

April 30. Sample of cider vinegar purchased of V. P. Rogers, Dodgeville. Manufactured by Lewis & Van Houten, Milwaukee.

Total acidity (calc. as acetic acid).....4.48 per cent.
Total solids .....2.5 per cent.
Passed.

April 30. Sample of cider vinegar purchased of J. H. Stevenson & Co., Dodgeville. Manufactured by H. J. Heinz Co., Chicago.

Total acidity (calc. as acetic acid).....5.0 per cent.
Total solids .....2.88 per cent.
Passed.

April 30. Sample of pure rye malt vinegar purchased of J. H. Stevenson & Co., Dodgeville. Manufactured by Cushing & McFadden, Dubuque, Ia.

Total acidity (calc. as acetic acid).....5.0 per cent.
Not a malt vinegar. Not lawfully salable as such.

May 11. Sample of cider vinegar purchased of H. W. Gibson, Roberts. Manufactured by M. A. Gedney Pickling Co., Minneapolis, Minn.

Total acidity (calc. as acetic acid).....4.8 per cent.
Total solids .....2.65 per cent.
Passed.

May 11. Sample of white wine vinegar purchased of H. W. Gibson, Roberts. Manufactured by the Chippewa Valley Mercantile Co., Chippewa Falls.

Total acidity (calc. as acetic acid).....5.3 per cent.
Not a white wine vinegar. Not lawfully salable as such.

May 11. Sample of cider vinegar purchased of Wm. Graham, Roberts. Manufactured by J. C. Johnson, Kishwaukee, Ill.

Total acidity (calc. as acetic acid).....4.0 per cent.
Total solids .....2.17 per cent.
Passed.

Sample of cider vinegar submitted by Dodsworth & Britt, Elroy. Manufactured by H. J. Heinz Co., Pittsburg, Pa.

Total acidity (calc. as acetic acid).....4.5 per cent.
Total solids .....2.7 per cent.

Passed.

Sample of cider vinegar submitted by Dodsworth & Britt, Elroy. Manufactured by F. C. Johnson, Kishwaukee, Ill.

Total acidity (calc. as acetic acid).....3.75 per cent.
Total solids .....1.6 per cent.

Below legal standard in acidity and in cider vinegar solids. Not lawful.

Sample of cider vinegar submitted by A. M. Anderson, Oregon. Manufacturer said to be Walsh–Boyle & Co., Chicago.

Sp. gr. 1.014
Total acidity (calc. as acetic acid).....4.6 per cent.
Total solids .....1.85 per cent.

Not a pure cider vinegar. Badly adulterated.

Sample of cider vinegar submitted by A. M. Anderson, Oregon. Manufacturer said to be Walsh–Boyle & Co., Chicago.

Sp. gr. 1.018
Total acidity (calc. as acetic acid).....5.0 per cent.
Total solids .....3.02 per cent.

Not a pure cider vinegar. Adulterated.

MILK TESTS.

Jan. 15. Samples of milk and cream taken by U. S. Baer, Assistant Commissioner, at the Van Wyk Branch Creamery, 696 College Ave., Appleton, Wis., owned by Van Wyk Bros.:

	% butter fat.
Otto Croell, morning	4.2
Otto Croell, evening	4.6
Martin Joosten, morning	4.2
Martin Joosten, evening	4.2
Henry Bissing, morning	4.3
Henry Bissing, evening	4.0
Henry Vanden-Henvel, morning	5.6
Henry Vanden-Henvel, evening	5.6
Henry Schaffer, morning	4.4
Henry Schaffer, evening	3.8
Wm. Ohlrogge, morning	3.9
Wm. Ohlrogge, evening	4.0
Wm. Knutte, morning	3.8
Wm. Knutte, evening	4.3
Theo. Scheffler, mixed	4.4
Walter Tyson, morning	5.0
Walter Tyson, evening	5.0
Wm. Miskinmens, morning	4.2
Wm. Miskinmens, evening	3.4
Pete Schamacker, morning	5.4
Pete Schamacker, evening	4.7
Geo. Hanond, morning	4.0
Geo. Hanond, evening	3.8
John Verhagen, morning	3.8
John Verhagen, evening	4.2

Van Wyk Bros., cream, 29.0 per cent.

Jan. 15, 1904. Milk inspection at Van Wyk Creamery, located at Appleton, Wis., by U. S. Baer, Asst. Com.:

	% butter fat.
F. Baruth, morning	3.4
F. Baruth, evening	3.6
George Gref, morning	3.7
George Gref, evening	4.0
A. Kloes, morning	*3.7
A. Kloes, evening	*3.4
A. Kloes, morning	*3.9
A. Kloes, evening	*3.4

*Separate cans.

Jan. 16, 1904. Milk inspection at D. E. Wood Butter Co. Creamery, Evansville:

F. Cushman, mixed	4.2
John McDermott, mixed	3.6
John McDermott, mixed	3.6
John McDermott, mixed	3.4
J. H. Brink	3.8
J. H. Brink	3.9
E. & M. Shaw	4.0
E. & M. Shaw	3.8
A. D. Bullard	3.8
A. D. Bullard	4.1
C. E. Brooks	4.2
C. E. Brooks	3.2
Stevens & Ross, mixed	3.8
Roy Robinson	4.1
Roy Robinson	3.9
Bert Lay	3.8
Bert Lay	3.9
Wm. Klinesmith, mixed	3.8
C. E. Moore	3.8
J. G. Babcock	4.2
E. Whipple, mixed	3.6
Ed. Rasmussen	*2.4
Ed. Rasmussen	3.5
Ed. Rasmussen	4.7

*Sample from can frozen into slush ice.

Jan. 30, 1904. Milk inspection at Kohlsville Cheese Factory, located at Kohlsville:

	% butter fat.
Chas. Sell	4.8
Otto Moritz	5.6
Jacob Hamm	3.9
Chas. L. Jung	4.4
Joseph Hefter	4.8
Mary Meyer	4.4
Wm. Bartlett	3.8
Henry Kohl	3.8
John Yogert	4.3
Matt Yogert	4.4
M. Peanoske	4.1
Mrs. J. Pamperin	4.0
Aug. Kichner	3.7
John Stehler	4.1
J. M. Billirig	3.7
Lor Guth	4.0
Hy. Wolf	3.4
Aug. Brinkmann	3.6
John Gales	4.0
Ad. Foss	4.1
Rich Freidemann	4.3
Henry Conrad	3.6
John Sauer	3.5
John Bingen	4.5
Theo. Steger	4.2
Paul Wolf	3.8
Henry Klumb	4.5
John Pamperin	4.4
Frederick Baumgartner	4.2
Mrs. M. Hiller	4.5
Peter Hiller	3.8
Wm. Patton	4.4

Feb. 25, 1904. Milk inspection at De Forest B. & C. Co. Creamery, De Forest:

Peter Larson	4.5
J. E. Johnson	3.9
Lars Eggum	3.8
Joe Johnson	3.5
M. Myhre	4.1
E. O. Robinson	3.6
H. Gest & W. Ohnstad	4.0
A. J. Dustin	4.0
Rovert & Monson	4.3
Severt Engesether	4.2
A. P. Linde	3.7
McFarland & Folk	3.5
L. S. Grinde	3.3
H. Blifernecht	4.0
C. Legreid	3.9
F. Breggeman	4.1

Strength of acid, 1.84.

March 5, 1904. Milk inspection at Lyndina Cheese Factory, located at Lyndina:

	% butter fat.
E. P. Vandusen	4.0
W. H. Hale	4.5
Harry Hale	3.9
Mike Hogen	4.0
Osman Larson	4.0
Mert Sullivan	4.3
A. O. Robinson	4.3
E. H. Robinson	4.2
F. A. Robinson	3.8
Frank Schmidt	4.2
C. C. Remington	4.8
A. A. Fuller	3.7
T. G. Chadwick	4.3
Marie Curtis	4.0
Riley Robinson	4.3
Fred Wicks	3.8
Mike Murry	4.1
A. Ruhland	4.7
O. A. Babcock	4.1
Dan Robinson	3.7
C. W. Hale	4.0
Ole Stembroe	5.1
H. Wormuth	4.1
W. H. Sullivan	4.1
H. Stanforth	3.8
Kate Powers	5.1

March 27, 1904. Milk inspection at Klondike Creamery, located near Marshfield:

J. Fleischmann	3.8
F. Basl	4.0
Fred Roder	3.2
F. Solton	4.4
Geo. Baners	3.6
B. Severson	4.1
Jacob Hanson	4.0
Wm. Kosa	3.5
E. Noble	2.2
L. Bohmann	3.4
E. Everson	3.8
H. Swenson	4.0
Oliver Roland	4.1
Fred Schultz	4.7
Frank Belton	4.0
L. Roberson	3.6
E. Krause	4.0
Wm. Burhoff	3.8
G. Roder	3.1
Solen Hanson	3.1
A. Heimbuck	4.0
M. M. Travis	3.8
A. M. Guernsey	4.0

	% butter fat.
John Matson	4.1
A. Bradley	5.0
Sam Demoss	3.3
Frank Cady	4.1
A. Goldbach	3.4
Ole Haygon	4.5

March 27. Report of milk inspection at Maple Grove Skimming Station:

A. Katzenberger	4.3
Geo. Morehouse	4.1
Wait Hurd	4.7
J. R. Schwartz	3.3
Wm. Riechart	4.0
Fred Heiking	3.5
Wenddin David	3.9
J. M. Hamiston	3.6
Geo. Offord	2.9
Frank Haden	2.9
Joe David	3.8

March 27. Report of milk inspection at Richfield Skimming Station:

Joe Brey	4.5
John Klumb	3.7
Will Belton	5.3
Phil Bolkey	4.2
Fred Zehn	4.1
Frank Schuster	4.2
Wm. Doll	4.3
Chas. Kauhn	4.1
Wm. Krampin	4.2
John Trachte	3.5
J. R. Brey	3.6
Frank Telhofer	3.8

April 5, 1904. Milk inspection at the Syene Creamery, located at Syene, Dane Co.:

Wm. Fockmer	3.6
W. Williamson	3.3
J. Fahey	3.4
J. Garry	3.4
M. Whalen	3.0
F. McSlister	4.0
Geo. Kenison	4.2
M. Madson	3.3
H. Sutherland	3.9
Henry Walsh	2.9
Williams & Fox	2.8
M. Caine	3.6
J. Sholth	3.1
S. McGraw	3.7
E. J. McKee	3.0
Haight & Caine	4.1
Buttermilk	.2
Skim milk	Trace

April 23, 1904. Cream inspection at Marcellon Creamery, located 3 miles east of Pardeeville:

	No. 1	No. 2
Mrs. Wilkins	20.0	20.5
H. Roberts	21.5	26.0
G. Fondrager	27.5	27.5
J. Moran	27.0	27.5
G. Steiner	26.0	32.5
Keiffer Bros.	29.0	29.5
D. Mallon	32.0	32.5
C. Kamrath	22.5	24.5
A. Monthil	29.0	27.5
C. Smith	31.0	30.5
T. Mallon	20.0	21.5
W. McElroy, Sr.	26.0	30.5
G. Heath	29.0	31.5
A. Monthil	29.0	30.0
H. Scott	35.0	30.0
M. Ross	19.5	22.0
E. Stancer	25.0	26.5
M. Simmons	25.0	25.5
H. Fuller	25.5	28.0
A. W. Allison	36.0	36.0
J. Heath	37.0	39.5
J. R. Hamilton	23.0	24.0
C. Quinn	25.0	25.0
R. Dalton	29.5	29.0

Test No. 1 is buttermaker's; test No. 2 is inspector's.

April 25, 1904. Samples of milk and cream collected by U. S. Baer, Assistant Dairy and Food Commissioner, from Beloit city supply:

MILK.

Chas. E. Moore	3.8
R. E. Shumaker	4.15
Mert Peck	3.8
Gus Royce	2.7
M. Helgerson	3.8
Chas. Lathers	3.9
A. E. Buckeridge	3.8
Chas. N. Nye (mixed milk)	3.9

	% butter fat.
Chas. N. Nye (night's milk) ...	3.4
Chas. N. Nye (morning's milk)..	4.5
S. Sorensen	4.3
A. T. Hallett	3.9
N. C. Hansen	4.2
Newton Ellis (morning's milk)..	3.5
Newton Ellis (night's milk)	3.2
E. J. Gayton	4.4
E. D. Wheeler	3.6
H. Ward (can No. 5)	4.1
H. Ward (can No. 6)	3.7

No preservatives found in any of above samples.

CREAM.

Chas. E. Moore	24.0
Mert Peck	19.5
Gus Royce	20.0
Chas. Lathers	16.5
A. E. Buckeridge	17.7
H. Knill	21.0
E. J. Gayton	18.0

No preservatives found.

May 11, 1904. Milk inspection at Blue Label Cheese Factory, located at Monroe:

Pat Grady	4.00
Pat Grady	3.10
J. Omeare	3.05
A. Ott	3.9
J. Burkhardt	3.3
A. Akermann	4.2
A. Akermann	3.6
Bayrhoffer	4.35
Bayrhoffer	3.6
R. Maski	3.8
J. Fuchs	3.8
Jac. Meinen	3.6
R. M. Lust	3.2
Ed. Drummy	3.9
J. H. Gisher	4.2
D. Haren	3.8
D. Thomm	3.3
J. Grunnerwald	3.4

May 11, 1904. Milk inspection at Brick Cheese Factory, located at Clarno:

C. W. Kleckner	3.45
Paul Knoll	3.3
Henry Trumpy	3.0
Aug. Maas	3.6
Doherty Bros.	3.0

	% butter fat.
Geo. Kochner	3.35
Geo. Walters	4.0
Oliver Walters	3.8
Chas. Grant	4.0
Ed. Niffenegger	3.2
Mrs. H. Heinslman	3.8
Wm. Sommerfeld	3.6
H. McElligott	3.6
Gale Dreibelleis	3.9
Jos. Huber	4.3

May 16–17, 1904. Milk inspection at Englewood Creamery, Englewood:

CREAM.

E. Schreiber	3.8
F. Schreiber	4.2
J. Tramberg	4.2
Wm. Miller	3.8
E. Kaston	3.8
C. M. Gullickson	3.5
Wm. Ritzke	4.3
F. Brown	4.0
E. Iwert	3.8
C. F. Britzman	4.1
J. Waterworth	3.4
W. Hubbard	4.2
Ed. Fields	3.8
Wm. Lucknow	4.0
R. R. Danchne	4.0
A. Laisman	3.2
Fred Noller	4.0
C. Liepke	3.9
W. Tomey	3.8
Wm. Pickrihn	4.8
G. Lucknow	4.4
G. Hemling	3.8
J. Paine	4.0
P. Neuhoff	4.6
Wm. Kumm	3.6
C. Zumm	3.8
J. Robins	4.0
F. Robins	3.4

May 16–17, 1904. Milk inspection at Englewood Creamery, located at Englewood. Manager, F. C. Westphal; P. O., Columbus, Wis.

Cream—

P. Durr	24
A. Patrick	33
J. Hallen	34
W. Zumm	33
F. Krumm	28

	% butter fat.
C. Cowgill	26
P. Reak	27

Milk inspection at Englewood Creamery, located at Englewood. Manager, F. C. Westphal; P. O., Columbus, Wis.

Skimming Station No. 1.

H. Shaw	3.8
B. Crother	4.0
H. Hoefer	4.0
E. Broederdorf	3.6
E. Foley	4.0
E. Iwert	3.2
J. Broederdorf	4.0
F. Reak	3.7
W. R. Sugden	4.0
E. Crowther	4.0
A. Bancroft	4.0
Wm. McDonald	4.0
J. Schion	3.8
H. Bobholdz	3.4
J. Waterworth	3.6
John Devaloe	3.4
C. Groelle	3.5
Wm. Foley	3.6
F. W. Chapen	3.6

May 16–17, 1904. Milk inspection at Englewood Creamery, located at Englewood:

Skimming Station No. 2.

G. Wodell	3.4
Chas. Pahl	3.7
John Tiedt	3.6
Alb. Leisemann	3.6
Christ Hemlig	3.6
Aug. Kruschke	3.1
Jul Brunk	3.4
Alb. Delmert	3.6
F. Banmann	3.2
Otto Miller	3.6
Wm. Buckholtz	4.4
Ed Hughes	3.7
G. Hemling	3.7
Chas. Crusons	4.0
M. Carlin	3.4
Chas. Lange	3.8
J. Carlin	3.8
J. Frantz	4.0
F. Heppe	3.8
E. Pahl	4.0
N. Peske	4.1
Wm. Henbuer	3.4
John Lange	3.3
S. Bronard	4.2
W. Crossman	4.8
Fred Pickrulin	4.0
Fred Hiensmann	3.6
Jul Petrich	3.5
Theo. Heinsmann	3.8

May 17, 1904. Milk inspection at Rockdale Creamery, located at Rockdale:

C. Mathison	4.0
J. Vaage	3.8
Torgerson Bros.	4.6
S. Brounty	4.0
P. Svenson	3.7
Halvorson & Herrid	4.0
A. Pepper	3.5
S. Severson	3.7
Olson & Tollefson	4.0
J. Johnson	4.3
H. Kampstad	4.0
Nelson & Peterson	3.3
G. Moen	3.5
Severson & Monson	4.0
Severson & Crump	3.8
H. J. Tellefson	4.2
H. Hanson	3.6
A. P. Fladtland	4.1
C. Dregny	3.1
B. Ingerbrickson	3.7
L. Haman	4.4
G. G. Moen	4.8

May 24, 1904. Milk inspection at Marxville Creamery, located at Marxville:

A. Annen	3.8
J. Bollenback	3.6
W. Bollig	3.3
J. Breinig	4.1
H. Corniel	4.1
C. Corniel	4.5
W. Evert	4.5
W. Evert	3.6
F. Evert	3.7
J. Evert	4.0
E. Ferge	4.2
P. Gier	3.7
G. Hoessel	4.0
G. Hawley	3.3
Jas. Hawley	3.7
F. Hawley	3.0
Fred Hawley	3.7

	% butter fat.
W. Karberg	3.7
P. Ketelboerter	3.5
C. Ketelboerter	4.0
J. Lockner	4.0
J. Lamberty	4.4
W. Matz	4.3
H. Matz	4.3
M. Marx	3.9
H. Martin	3.8
P. Mier	3.5
N. Miller	4.2
A. Martin	3.5
M. Peschor	3.6
Th. Parr, cream	9.5
J. Stapleman	3.2
J. Schaehte	3.4
R. Schwaner	4.0
W. Seston	4.6
J. Statz	4.0
E. Schumann	4.0
A. Statz	3.7
H. Schuman	3.6
G. Schuman	4.6
H. Sanftleben	3.7
F. Schaehte	3.4
M. Theis, Sr.	3.8
M. Theis, Jr.	3.7
G. Uselman	3.4
R. Voss	3.8
P. Walser	4.2
A. Walser	4.2
C. Westphal	3.9
Zimmerman	3.7
O. Seiler	4.8
C. Hilgendorf	3.2
A. Henning	4.0
Keppel	2.9
M. Ballirig	3.4
M. Ballirig	3.4

May 25. Milk inspection at Mazomanie Creamery, Mazomanie:

R. Foulks	3.9
E. Batty	4.4
J. C. Denniston	3.6
W. Hammersly	3.6
M. Broderick	4.3
J. B. King	4.1
G. Wilson	3.6
J. Blake	4.0
Billig Bros.	3.5
J. Hotman	3.6
M. Colderell	3.8
J H. Greening	3.7
T. Higgins	4.3
M. Hodson	3.9

	% butter fat.
E. M. Hazeltine	3.7
W. Holcomb	3.9
Willis Holcomb	3.7
J. Hogan	3.1
W. J. Jordan	3.6
C. Kerr	3.4
J. W. Kester	3.7
J. Koenig	4.3
H. Linley	3.5
D. V. Lynch	4.3
H. Lynch	3.9
T. Morrow	3.3
G. McKenzie	3.6
J. Orcutt	3.1
C. F. Paulls	3.8
Mrs. Parell	4.2
E. W. Race	3.7
Mrs. H. B. Reeve	4.0
T. Reeve	3.5
T. Royston	3.8
J. Schlew	3.7
Joe Schlew	4.1
F. Schlew	3.9
I. Sheldon	4.2
C. Shakelton	4.0
J. Sharett	3.9
A. J. Sheldon	3.3
Mrs. J. Tyler	3.6
M. Werner	3.8
E. Winch	3.5
W. Winch	4.0

May 26, 1904. Milk inspection at Blue Mounds Creamery located at Blue Mounds:

C. I. Brigham	4.7
C. R. Collins	3.8
O. Loker	3.9
A. Dokken	3.9
A. Esker	3.5
T. Riley	3.9
J. W. Hilmenstide	4.0
Mrs. Cunneen	4.3
M. R. Walsh	3.9
K. K. Kyorlie	3.1
G. Hilmenslade	3.9
J. Tulland	3.9
Mrs. Grebener	3.8
A. B. McElwee	3.4
W. M. Mahoney	3.5
H. Arnold	3.7
J. Howery	3.5
A. Olson	4.0
Mrs. Drivdoll	4.0
T. Topper	3.8

June 1. Samples of milk submitted by J. Helmenstein, Blue Mounds, from Blue Mounds Creamery:

	% butter fat.
T. Riley	4.2
O. Lokkan	3.8
Annie Grebner	4.0
Drivdoll	3.9
J. Tulland	4.0
C. I. Brigham	4.7
William Mahoney	3.4
Mrs. Cunneen	4.15
Anthony Dokken	4.0
Mike Walsh	4.2
Henry Arnold	3.8
Olaf Topper	3.8
A. B. McClwee	3.6
J. Helmenstein	4.2
George Helmenstein	3.8
K. K. Kjorlie	3.65
Charles Collins	3.75
Andrew Olsen	3.8

June 1. Samples of milk submitted by Fred Marty, Monroe, Wis:

J. W. Finley	3.9
J. A. Ryan	4.1
F. A. Ryan	3.95
William Drew	4.0
John Doss	4.5
J. Connell	4.5
H. Huggett	4.4
W. L. Finley	4.3
J. Donahoe	4.3
Guy Newman	3.6
George Hatton	4.8
P. Mooney	3.8
Louis Bowls	4.5
Frank Connell	4.25

June 2, 1904. Milk inspection at Yellow River Cheese Factory:

M. Schmidt	3.6
O. Bruhn	3.8
H. Johnson	4.0
V. Morrison	3.8
L. Morrison	3.8
Mrs. Olson	4.0
I. Morrison	3.5
L. Youngmith	4.0
C. R. Nelson	3.8
A. Bosch	4.0
F. Haderer	3.9
C. Dix	3.9
C. Schafer	4.[illegible]

June 6, 1904. Milk inspection at Hewitt Station Creamery, located at Hewitt, Wood county:

	% butter fat.
Aug. Butke	4.1
F. Schweder	3.9
W. Redig	3.9
J. Seidle	4.0
W. Trap	3.6
M. Schiferl	4.0
M. Wenzel	4.0
J. Eberhardy	4.0
B. Kampshover	3.7
F. Hasselberger	3.9
C. Boehning	3.7
J. Hoffman	4.7
F. X. Hasselberger	3.7
F. Durst	3.8
F. Schoeder	3.4
C. Heise	3.8
G. Hasselberger	4.0
A. Kotenbentel	4.1
J. Silk	3.9
C. Sidel	3.9
A. Maidenwald	3.2
W. Pantzer	3.9
F. Krall	3.8
P. J. Klink	4.3
J. Newman	4.0
A. Arndt	4.3
F. Liepke	4.0
C. Kitzron	4.3
L. Krall	4.2
F. Boehming	3.7
C. Hass	3.7
A. Hoffman	3.5

June 7, 1904. Milk inspection at Hewitt Cheese Factory, located at Hewitt:

	% butter fat.
W. Hornick	3.8
J. Kollbeck	4.2
G. Durst	4.2
J. Reinerl	4.5
K. J. Beidle	3.6
J. Bowen	4.3
E. Behniger	4.2
F. X. Durst	4.1
M. Strupp	3.9
J. P. Heinz	3.6
H. Daniels	3.9
G. Huber	3.6
J. Hams	3.9
M. Moldenhauer	4.5
M. Kautzer	3.7
W. F. Smith	3.7

	% butter fat.
P. Eberhardy	4.0
C. Hackbarth	3.9
J. Pongratz	3.8
J. Gournig	4.4
F. Seidel	3.9

June 8, 1904. Milk inspection at North Hewitt Creamery, located at North Hewitt:

E. Weigel	3.3
J. Roecklein	3.4
W. Wendt	3.9
C. Wichman	3.5
J. Witt	3.8
A. Witt	3.9
A. Wendt	4.0
S. Sauerherring	3.5
A. Beck	3.6
J. Truhler	3.8
M. Kohlbeck	3.8
J. Freidel	3.4
A. Zinthefer	3.7
J. A. Webber	3.4
A. Meichelbeck	3.6
A. Reinwand	3.8
J. Merkel	3.6
J. Habel	3.6
Margolowfskey Bros.	3.5
Mrs. Beal	3.7
A. Hornick	3.7
J. Merkel	3.2
A. Haas	3.4
J. O. Brucker	3.8
H. Weister	3.8
B. Wagner	3.4
C. Mandt	3.4
B. Kolb	3.5
F. Schadel	3.4
J. Paleck	3.3
L. Fehrenback	4.0
W. Schmidt	3.6
J. Ertle	3.4
C. Wederard, Sr.	3.4
F. Fleischner	3.7
J. Kohlbeck	3.6
M. Merkel	4.0
G. Millbauer	3.6
L. Hornick	3.8
F. Fach	3.6
C. Strupp	3.4
G. Stowell	3.6
H. G. Weister	3.7
L. Schneider	3.6
G. Schneider	3.6
J. Henzen	3.3
F. Addinger	3.6
A. Schlagenhaft	3.5
W. Kohlbeck	3.6
T. Johnson	3.1
C. Wedured	3.1
J. Bauer	3.8
C. Taves	3.7
J. Peil	3.4
A. Wunnert	3.2
T. Colbeck	3.4
W. Hasenberl	3.9
J. Andreas	3.9
E. Bloom	3.3
J. Fleisner	3.7
J. Docks	4.4
J. Mukel	2.9
R. Dewrby	3.6

June 9, 1904. Milk inspection at Nasonville Creamery, located at Nasonville:

W. Dix	3.9
H. J. Hanson	4.2
P. Hanson	3.5
H. Sherman	4.0
F. Fisher	3.7
Mrs. J. P. Hanson	3.5
P. Morson	3.7
A. Anderson	3.2
E. Roder	3.6
P. Jenson	4.1
H. P. Hanson	3.7
M. Hanson	3.9
P. Peterson	3.7
G. Eyers	3.7
P. N. Hanson	3.7
P. C. Johnson	3.6
A. Fischer	4.1
T. Hanson	3.7
S. Christianson	3.9
C. S. Missner	4.1
H. Jenson	3.7
N. Christianson	3.7
R. Jacobson	3.8
H. Gepner	3.7
E. D. Babcock	4.4
A. Robertson	3.4
R. Morson	4.2
H. Stebtenpohl	3.8
P. N. Christianson	4.3
A. Peterson	3.5
M. Fischer	3.7
H. Filner	3.6
P. Dewey	3.5
L. Larson	3.6

	% butter fat.
J Kohl	3.9
W. Peterson	3.9
T. Thompson	4.2
H. Paulson	3.3
T. Hart	3.8
O. Peterson	3.9
J. Bodah	3 5
H. Oleson	4.6
R. Christiansen	3.7
R. Ebbie	3.4
H. Ebbie	4.0
R. Block	3.8
H. Lenhart	3.7
V. Mason	3.7
F. Boyd	4.1
L. Ristad	4.0
H. Jurgensen	3.5
C. Tangleman	3.8
L. Donerbauer	3.6
O. Peterson	3.6
H. Brooks	4.4
J. Oldenberg	3.8
A. Hansen	3.4
A. McGinnis	3.8
A. McTavish	4.0
F. Kidder	3.3
J. Anderson	3.8
F. Florence	4.2
P. Peterson	3.9

June 11, 1904. Milk inspection at Roeder Cheese Factory, located at Wausau:

C. J. Auklam	4.1
W. J. Roeder	3.8
G. Bartlett	3.5
C. Tranton	3.8
A. Bahr	4.0
Mrs. A. Zuman	4.1
C. Zuman	3.7
F. Schultz	3.9
A. Meilke	3.6
J. Suhafer	3.9
L. Hasch	4.3
A. Boemke	3.8
H. Klochzein	3.9
F. Foritz	4.2
O. Redetzke	3.6

June 17, 1904. Milk inspection at Ives Grove Creamery, located at Ives Grove:

C. O. Olson	3.3
Wm. Vove	3.2

	% butter fat.
A. Creplan	3.5
J. Lugg	3.5
Wm. Birchell	3.7
L. Baumeister	3.7
C. Johnson	3.0
T. Peehn	3.7
W. Fritchner	3.3
J. Fritchner	3.1
L. Hemingfield	3.1
D. Hancock	3.7
W. Horner	3.9
W. Dibble	3.3
J. Peterson	4.0
N. C. Nelson	4.6
T. Henryhan	3.4
A. Jones	3.5
L. Jones	3.4
Kinnie & George	3.8
H. P. Olson	3.3
J. Osenga	4.0
F. Shotner	3.6
H. Schraeder	3.4
C. Boettcher	4.3
Mrs. Ortell	3.9
F. Wendt	3.4
G. Dibble	4.0
W. Shotner	3.4
F. Herman	4.0
M. O. Hanson	3.5
J. McDonald	3.2
H. Frank	4.2
P. M. Nelson	3.5
G. Olson	4.0
J. Christianson	3.5
C. Segar	3.4
C. Skakson	4.1
J. Bowers	4.6
T. Paddock	3.5
O. P. Johnson	3.7
G. Gillett	3.7
H. P. Hanson	4.0
F. Nindeman	3.1
E. Frank	3.4
A. Beach	3.3
Racine Co. Asylum	3.7
P. Hanson	3.6
T. Birchell	3.7
Mrs. Howarth	3.8
C. Hedeisdorf	3.7
Mrs. Hall	4.3

Samples of milk from Blue Mounds Creamery, owned by Roach & Seeber, of Waterloo, delivered to this Commission

June 15th, by D. P. Meyers of Blue Mounds:

	% butter fat.
A. Olson	3.6
K. Friman	4.4
Chas Collins	3.6
Anna Grebner	3.7
C. I. Brigham	4.4
E. Riley	4.1
A. Esker	3.4
I. Fullan	4.0
J. Helmenstein	3.9
H. Arnold	3.6
O. Lakken	3.5
O. Tupper	3.6
M. K. Walsh	3.8
A. B. McSwee	3.8
J. Howery	3.5
G. Helmenstein	3.5
William Mahoney	3.3

June 23, 1904. Milk inspection at Yorkville Creamery, located in town of York: Racine Co.:

C. Moyle	5.7
G. Hocking	4.5
Wm. Vyvyan	3.4
W. J. Vyvyan	3.8
J. Vyvyan	3.6
E. Shephard	4.4
A. Sorenson	4.0
W. H. Shanley	4.0
A. Jacobson	3.6
W. Vorspal	3.7
M. Sorenson	3.8
H. Markison	4.0
W. Shunk	3.4
J. Clemmens	3.5
W. Gosmire	3.4
Smale & Peterson	3.4
J. F. Peterson	3.5
A. A. Fritchen	3.9
F Fritchen	3.4
D. Fritchen	3.4
N. Nelson	4.7
A. Sheldon	4.0
P. Markison	3.6
E. G. Kime	3.7
C. Christianson	3.7
P. George	3.4
L. Markison	3.4
J. H. Rickhoff	3.6
W. Gonsky	3.5
F. Gonsky	3.8
W. Cooper	4.0
Hocking Bros.	3.4
S. Smeizer	3.5
S. O. Christianson	3.7
S. M. Christianson	4.0
H. Jorgenson	3.5
M. Jorgenson	3.8
A. Jacobson	3.8
R. T. Bosustow	3.7
S. H. Osborn	3.9
C. Stallman	4.0
F. Hemingfield	3.4
F. Vorphal	4.1
E. Ball	3.8
A. Jennins	3.5
J. Russell	3.6
L. P. Anderson	3.8
A. M. Wilson	3.9
J. Chives	3.8
E. Sorenson	3.4
J. A. Anderson	4.0
E. Pierce	4.1
Bennett Bros.	3.8
J. Morgenson	4.1
P. Ludwig	3.3
J. Walsh	3.6
P. Gosmire	3.9
M. Johnson	3.7
W. W. Hunter	3.6
C. Waite	3.7
H. Overson	3.7
C. Peterson	3.4
R. George	4.0

June 29, 1904. Milk inspection at Sun Rise Creamery, located at Medford, Taylor Co.:

J. Kress	4.1
J. Rophammer	4.1
F. Stolp	4.5
A. Draik	4.1
L. Boilksilker	4.0
T. Kastner	4.6
J. Hartman	3.8
F. Moses	3.9
Mrs. M. Glasow	4.4
J. Sauer	4.6
C. Luddinger	3.9
C. Graff	4.0
A. Barkow	4.9
N. Tomson	4.5
C. Brink	5.1
F. Rothammer	4.5
A. Myers	4.4
E. Kraegier	5.0
J. Schaff	4.1
M. Shineider	4.1

	% butter fat.
R. Bolts	3.8
F. N. Smith	4.5
E. Knickrehm	4.0

June 30, 1904. Milk inspection at Omro Jc. Creamery, located six miles west of Oshkosh:

J. Kiel	4.0
J. Mueller	3.6
K. Volker	4.0
M. Mudel	3.6
C. Fischer	3.1
N. Sheppard	3.8
G. O'Kron	3.5
C. Raasch	3.7
P. Kopersteen	3.5
H. Brandt	3.6
P. Pernes	4.4
A. Speich (night's)	2.5
J. Rilling	3.4
Mrs. Maracel	4.1
W. Fischer	3.6
J. Schultz	3.5
B. Harrows	3.6
A. Philip	3.7
A. Kamp	3.8
B. Dunham	4.2
—— Klinger	3.4

May 12, 1904. Milk inspection at Swiss Cheese Factory, located in town of Wayne, Green Co.:

A. L. Andrews	3.2
C. J. McKnight	3.6
J. M. Usher	3.6
J. W. Hartsough	3.6
W. Usher	3.6
Thorp & Bennett	3.4
Fred Schumacher	3.8
Andrew Hanson	3.6
M. L. Hendel	3.5
F. Kurth	3.0
J. W. Conley	3.4

May 26, 1904. Milk inspection at Prairie Hill Brick Cheese Factory, located at Beaver Dam:

Aug. Buttorhardt	3.7
Albert Buttorhardt	4.0
W. Muhle	4.6
A. Muhle	4.0
F. Olliger	3.3
F. Knaht	4.0

	% butter fat.
A. Schumntzler	3.9
W. Hammer	3.2
George Dinkob	watered
C. Kayser	3.0
H. Albrecht	4.0
Geo. Erway	below standard
Geo. Panger	4.0
F. Boyer	3.6
A. Hofmann	3.05
M. Davis	4.45
F. Colter	3.5
D. Tracy	3.5
F. Pegelow	3.1
Chas. Halhoway	3.8
A. Shumtzler	4.0
Wm. Ford	watered
Wm. Kunzonbach	3.25
Paul Normdorf	3.5
F. Blyer	4.9
Aug. Balin	4.2
Wm. Nadolski	4.6
Frank Hoy	4.3
Herman Koch	3.6

May 29, 1904. Milk inspection at Swiss Cheese Factory, located at Stan-

Babcock Test.

John Schintz	3.80
Fred Schintz	4.25
Jacob Yahler	4.25
Albert Lentz	4.00
Gerald Emerson	4.40
Chas. Bodetted	3.85
Geo. Hart	3.65
Alek Peck	3.70
Fred Preis	4.10

Curd Test.

John Schintz—Clean flavor; mushy texture; no gas.

Fred Schintz—Clean flavor, firm texture; no gas.

Jacob Yahler—Not quite clean flavor; firm texture; no gas.

Albert Lentz—Clean flavor; firm texture; no gas.

Gerald Emerson—Clean flavor; firm texture; no gas.

Chas. Bodetted—Fair flavor; firm texture; no gas.

Geo. Hart—Fair flavor; O. K. texture; slightly gasy.

Aleck Peck—Not clean flavor; slimy texture; no gas.

Fred Preis—Fair flavor; firm texture; no gas.

June 9, 1904. Milk inspection at Frammay Swiss Cheese Factory, located at Knapp:

	% butter fat.
Antson Brod	3.6
G. Stakke	4.1
Aug. Hoge	3.9
H. Kikhoffer	4.5
C. J. Mier	5.1
Fred Wyss	4.1
J. Kollman	4.7
Mrs. Nicton	3.9
Ole Wold	4.0
H. Hollendrung	3.9
Ole Freseth	4.7
J. Schut	4.0
Ole Larson	3.3
P. Propper	3.0
Mrs. H. Clark	3.6
Mr. H. Scott	3.2
Hans Averly	3.1
Ed. Peterson	3.7
Mrs. Schuntz	4.2
H. W. Offeroske	3.5

Milk inspection at Yellow River Cheese Factory:

M. Schmidt	3.6
O. Brulm	3.8
H. Johnson	4.0
V. Morrison	3.8
L. Morrison	3.8
Mrs. Olson	4.0
I. Morrison	3.5
L. Youngsmith	4.0
A. Bosch	4.0
C. R. Nelson	3.8
F. Hardner	3.9
C. Dix	3.9
C. Schafer	4.3

June 7, 1904. Milk inspection at Hewitt Cheese Factory, located at Hewitt:

W. Hornick	3.8
J. Kollbeck	4.2
G. Durst	4.2
J. Reineral	4.5
K. J. Beidle	3.6
J. Bowen	4.3
E. Behringer	4.2
F. X. Durst	4.1
M. Strupp	3.9
J. P. Heinz	3.6
H. Daniels	3.9
G. Huber	3.6
J. Hams	3.9
M. Moldenhauer	4.5
M. Kantzer	3.7
W. F. Smith	3.7
P. Eberharty	4.0
C. Hardbart	3.9
J. Pongratz	3.8
J. Gournig	4.4
F. Seidel	3.9

June 11, 1904. Milk inspection at Roeder Cheese Factory, located near Wausau:

C. J. Anklam	4.1
W. J. Roeder	3.8
G. Bartlett	3.5
C. Tranton	3.8
A. Bahr	4.0
Mrs. A. Zuman	4.1
C. Zuman	3.7
F. Schultz	3.9
A. Meilke	3.6
J. Suhafer	3.9
L. Hosch	4.3
A. Boemke	3.8
H. Klochzein	3.9
F. Foritz	4.2
O. Redetzke	3.6

April 25, 1904. Milk inspection, Beloit City Supply:

Charles E. Moore	3.8
R. E. Shumaker	4.15
Mer Peck	2.7
Gus Royce	2.7
M. Helgerson	3.8
Chas. Lathers	3.9
A. E. Buckeridge	3.8
Chas. N. Nye (mixed)	3.9
Chas. N. Nye (night's)	3.4
Chas. N. Nye (morning's)	4.5
S. Sorensen	4.3
A. T. Hallett	3.9
N. C. Hansen	4.2
Nemton Ellis (morning's)	3.5
Nemton Ellis (night's)	3.2
E. J. Gayton	4.4
E. D. Wheeler	3.6
H. Ward (can No. 5)	4.1
H. Ward (can No. 6)	3.7

	% butter fat.
No preservatives were found in any of the above samples.	
Cream.	
Chas. E. Moore	24.0
Mert Peck	19.5
Gus Royce	20.0
Chas. Lathers	16.5
A. E. Buckeridge	17.7
H. Knill	21.0
E. J. Gayton	18.0
No preservatives found.	

CHEMIST'S ANALYSES OF MILK.

May 27. Sample of milk collected at Prairie Hill Cheese Factory, Beaver Dam, Wis. Patron: Wm. Ford, No. 22. Delivered to chemist, May 27, 1904. Delivered by Mr. Moore in sealed milk case.

Sp. gr. (15°C.) 1.0225
Butter fat ..... 3.05 per cent.
Total solids ..... 9.22 per cent.
Solids not fat ..... 6.17 per cent.
Watered.

May 27. Sample of milk collected at Prairie Hill Cheese Factory, Beaver Dam, Wis. Patron: George Erway, No. 12. Delivered to chemist May 27. 1904. Delivered by Mr. Moore in sealed milk case.

Sp. gr. 1.033
Butter fat ..... 2.5 per cent.
Total solids ..... 11.39 per cent.
Solids not fat ..... 8.89 per cent.
Below legal standard.

May 27. Sample of milk collected at Prairie Hill Cheese Factory, Beaver Dam, Wis. Patron: George Dinkol, No. 9.

Sp. gr. 1.027
Butter fat ..... 3.35 per cent.
Total solids ..... 10.67 per cent.
Solids not fat ..... 7.32 per cent.
Watered.

June 2. Sample of evening milk submitted by George Dinkol, Beaver Dam, Wis. One pint sample taken at barn from mixed milk of sixteen cows. Refused payment.

Sp. gr. 1.032
Butter fat ..... 4.35 per cent.
Total solids ..... 13.36 per cent.
Solids not fat ..... 9.01 per cent.

June 3. Sample of evening milk submitted by William Ford, Beaver Dam, Wis. One pint sample taken from mixed milk of five cans at barn. Refused payment.

Sp. gr. 1.0315
Butter fat ..... 4.4 per cent.
Total solids ..... 13.3 per cent.
Solids not fat ..... 8.9 per cent.

June 3. Sample of morning's milk purchased of George Erway, Beaver Dam, Wis. One pint sample purchased at barn from mixed milk of seven cows.

Sp. gr. 1.031
Butter fat ..... 3.85 per cent.
Total solids ..... 12.61 per cent.
Solids not fat ..... 8.76 per cent.

REPORT OF CHEESE FACTORY INSPECTION.

Jan. 30, 1904.—Name of factory, Kohlsville; location, Kohlsville, Washington Co.; owner or manager, W. P. Hamm; P. O. address, Kohlsville, Wis; name of maker, W. P. Hamm; he attended Dairy School at Madison in 1896; pounds of milk every other day, 5,400; pounds of cheese daily, 558; style of cheese, daisies; Babcock Test is not often used; Wisconsin Curd Test is not often used; payments are made by pooling system; weight of milk, 75,078; pounds of cheese at last payment, 7,952; steam vats used; drainage flows down a steep hill to large drainage ditch some 800 feet from factory; whey tank about 30 feet from factory, in fair condition; building old brick and stone structure, but in fair repair; apparatus clean and in good repair; surroundings clean, or appeared to be so, everything under cover of snow; patrons' milk cans clean and in good order, quite a number of new cans; condition of milk in cans good with reference to flavor and cleanliness; building is not painted outside, brick walls.

March 5, 1904.—Name of factory, Lyndina; location, town of Lyndina; owner or manager, J. W. Cross; P. O. address, Mauston, Wis., R. F. D.; name of maker, J. W. Cross; he has not attended Dairy School at Madison; no. of patrons, 26; no. of cows, 235; pounds of milk daily, 3,470; pounds of cheese daily, 350; style of cheese, uncolored flats, well made, neatly bandaged; Babcock Test is used; Wisconsin Curd Test is used; inspector's test of composite milk sample for day, 4.0; payments are made on the fat basis; weight of milk, 44,421; average test, 4.11; pounds of cheese at last payment, 4,502; steam vats used; drainage, two sewage boxes under ground, liquid sewage drained into marsh one-half mile from factory; whey tank is inside the factory building; whey tank washed daily; whey pasteurized; building is first class, large, roomy and well built; apparatus is first class in every respect, new, clean and well constructed; surroundings clean, neat and well taken care of; good drive around building; patrons' milk cans clean; milk in cans good, clean; building is painted outside. This factory is a large, well constructed frame building, kept up in most excellent condition. No odors whatever within or without the factory building. strictly sanitary.

March 16, 1904.—Name of factory, Walter Davis; location, Richland Co., Buena Vista township; owner or manager, Walter Davis; P. O. address, Lone Rock; name of maker, Theo. Recter; he has not attended Dairy School at Madison; no. of patrons, 10; no. of cows, 150; pounds of milk daily, 3,000; pounds of cheese daily, 300; style of cheese, prints; Babcock Test is used; Wisconsin Curd Test is used; payments are made monthly by test; steam vats used; screen windows; drainage fair, surface; whey tank is outside; washed every week; building is fair; apparatus is fair; surroundings fair; patrons' milk cans most all good; milk in cans most all good; building is not painted outside.

April 13, 1904.—Name of factory, Sherwood; location, country, Spring Green township; owner or manager, J. H. Howe; P. O. address, Spring Green, Wis.; name of maker, Walter Powers; he has attended Dairy School at Madison; no. of patrons, 7; no. of cows, about 85; pounds of milk every

other day, 1,600; pounds of cheese every other day, 165; style of cheese, 10-lb. print cheese, nicely made; Babcock Test is used; Wisconsin Curd Test is used; payments are made on fat basis; steam vats used; drainage, whey in tank, water on ground back of factory; location and condition of whey tank, 15 feet from building; tank about 2 feet in ground, clean, washed out daily; building is old, in fairly good condition, clean; apparatus is good, clean; surroundings clean and tidy; patrons' milk cans reported clean; milk in cans reported good; building is painted outside.

April 13, 1904.—Name of factory, Big Hollow; location, country, Bear Creek township; owner or manager, J. H. Howe; P. O. address, Spring Green, Wis.; name of maker, J. H. Howe; he has attended Dairy School at Madison; no. of patrons, 12; no. of cows, about 125; pounds of milk every other day, 2,000; pounds of cheese every other day, 215; style of cheese, 10 lb. prints; Babcock Test is used; Wisconsin Curd Test is not used; Test of last composite milk sample, 3.7 per cent.; payments are made on fat basis; steam vats used; drainage, wash water run off into large ditch some distance from factory building; whey tank about 20 feet from factory, under ground, covered and kept clean; good new building, constructed of wood, clean; apparatus first class, clean; surroundings clean, well cared for; patrons' milk cans reported clean; milk in cans reported good; building is painted on outside. Neat little factory.

April 13, 1904.—Name of factory, Howe; location, country, Franklin township; owner or manager, J. H. Howe; P. O. address, Spring Green, Wis.; name of maker, G. W. Kreul; he has attended Dairy School at Madison; no. of patrons, 20; no. of cows, about 150; pounds of milk every other day, 2,800; pounds of cheese daily, 295; style of cheese, daisies; Babcock Test is used; Wisconsin Curd Test is used; Last test of composite milk sample, 3.3 per cent.; payments are made on fat basis; steam vats used; drainage, wash water carried long distance from factory into drainage ditch; whey tank is 25 feet from factory, above ground, clean; first class frame building, clean; apparatus first class, clean; surroundings O. K.; patrons' milk cans reported clean; milk in cans reported good; building is painted outside. First class factory in all respects.

April 13th, 1904.—Name of factory, Plain; location, Plain, Wis., Franklin township; owner or manager, Mrs. A. Schoenmann; P. O. address, Plain, Wis.; name of maker, Frank Wismer; he has attended Dairy School at Madison; no. of patrons, 39; no. of cows, over 400; pounds of milk daily, 5,400; pounds of cheese daily, 550; style of cheese, daisies; Babcock Test is used; Wisconsin Curd Test is used; payments are made on fat basis; weight of milk, 126,000; average test, 3.8; and pounds of cheese, 13,200 at last payment; steam vats used; drainage good, carried off through underground drain ditch; whey tank is 25 feet in rear of make room, above ground, cleaned daily; condition of building, first class, 2 curing rooms, one stone basement, one frame above ground; condition of apparatus, splendid, up to date machinery, clean and in good repair; condition of surroundings, neat and attractive; condition of patrons' milk cans, clean, new and well cared for; condition of milk in cans, good, clean; building is painted outside. Fine large cheese factory. Well built and equipped with all the latest and most modern machinery.

April 13, 1904.—Name of factory, Cedar Grove; location, country; Franklin township; owner or manager, W. B. Constantine; P. O. address, Plain, Sauk Co., Wis.; name of maker, W. B. Constantine; he has not attended Dairy School at Madison; no. of patrons, 39; no. of cows, about 300; pounds of milk daily, 4,500; pounds of cheese daily, 485; style of cheese, daisies, 20 pounds each; Babcock Test is used; Wisconsin Curd Test is not used; last test of composite milk sample, 3.4 per cent.; payments are made on fat basis; steam vats used; drainage run out on field near factory, to install sub-surface system sewage; whey tank near factory wall,

clean and new; condition of building, first class, not finished, new frame building, to be bricked on the outside; condition of apparatus, new and well arranged, power curd mill and pump; condition of surroundings, clean, free from all bad odors, building materials scattered about factory site; condition of patrons' milk cans, reported good and clean; condition of milk in cans, reported O. K.; building to be brick veneered. Former factory recently destroyed by fire. Splendid new building and equipment in process of construction. Sub-surface system sewage to be installed as per Baer's suggestions.

April 14, 1904.—Name of factory, Popular Grove; location, country, Franklin township; owner or manager, W. B. Constantine; P. O. address, Plain, Sauk Co., Wis.; name of maker, J. H. Witzel; he has not attended Dairy School at Madison; no. of patrons, 14; no. of cows, about 150; pounds of milk every other day, 3,400; pounds of cheese every other day, 354; style of cheese, daisies; Babcock Test is used; Wisconsin Curd Test is not used; last test of composite milk sample, 3.8 per cent.; payments are made on fat basis; steam vats used; drainage not good, in bad condition, management intends improving same at once; whey tank about 25 feet from factory, above ground; condition of building, fair, making extensive improvements, building stone basement curing room; condition of apparatus, O. K.; condition of surroundings, fair, management will soon make them better; condition of patrons' milk cans, reported good and clean; condition of milk in cans, reported good; building is painted outside.

April 14, 1904.—Name of factory, White Mound; location, country, Franklin township; owner or manager, W. B. Constantine; P. O. address, Plain, Sauk Co., Wis.; name of maker, J. Schlosser; he attended Dairy School at Madison in 1904; no. of patrons, 8; no. of cows, about 75; pounds of milk every other day, 1,500; pounds of cheese daily, 150; style of cheese, daisies; Babcock Test is used; Wisconsin Curd Test not yet used; payments are made on fat basis; steam vats used; drainage is poor, system to be changed and improved; whey tank about 25 feet from factory building, clean, above ground; condition of building, fair, curing room small; condition of apparatus, cheese maker getting it in good condition; condition of surroundings, O. K.; condition of patrons' milk cans, reported clean; condition of milk in cans, reported good; building is painted outside.

April 20, 1904.—Name of factory, Mt. Ida Cheese Co.; location, village of Mt. Ida; owner and manager, Thomas Bolchen; P. O. address, Mt. Ida, Grant Co., Wis.; name of maker, Thomas Bolchen; he has attended Dairy School at Madison; no. of patrons, 10; no. of cows, about 100; pounds of milk every other day, 2,000; pounds of cheese every other day, 200; style of cheese, daisies and flats; Babcock Test is used; Wisconsin Curd Test is used; payments are made on fat basis; steam vats used; drainage, 300 feet of tile laid under ground; whey tank 40 feet from factory, elevated; tank clean; condition of building, good frame building, good stone basement curing room; condition of apparatus, O. K., clean; condition of surroundings, O. K., clean; condition of patrons' milk cans, maker reported cans clean and in good shape; condition of milk cans, maker reports that the milk supply has been fine for two years past; building is painted white outside.

April 20, 1904.—Name of factory, Badger State; location, country, Hickory Grove township; owner or manager, John Clarson; P. O. address, Boscobel, Grant Co., Wis., R. F. D. No. 1; name of maker, John Clarson; he has attended Dairy School at Madison; no. of patrons, 15; no. of cows, about 200; pounds of milk daily, 2,440; pounds of cheese daily, 245; style of cheese, daisies; Babcock Test is used; Wisconsin Curd Test is not used; last test of composite milk sample, 3.35 per cent.; payments are made on fat basis; steam vats used; drainage, wash water carried off on surface of field long distance from factory; whey tank 20 feet from factory, above

ground, clean; condition of building, first class frame building, clean; condition of apparatus, good, clean; condition of surroundings, good, well cared for; condition of patrons' milk cans, reported clean and in good order; condition of milk in cans, reported clean, but complaints of general low test; building is painted outside.

April 20, 1904.—Name of factory, Oak Ridge; location, country, Watertown township; owner or manager, H. J. Noyes; P. O. address, Muscoda; name of maker, Vandy W. Pipal; he has not attended Dairy School at Madison; no. of patrons, 12; no. of cows, 125; pounds of milk daily, 1,700; pounds of cheese daily, 155; style of cheese, flats; Babcock Test is used; Wisconsin Curd Test is not used; payments are made by test mostly; steam vats are used; there were no screen doors and windows; drainage, good facilities for same, but at present not in good condition; why tank outside factory about 40 feet from building; condition of building, good; condition of apparatus, fair; condition of surroundings, good; condition of patrons' milk cans, reported in good condition; condition of milk in cans, reported good; building is painted outside.

April 20, 1904.—Name of factory, Muscoda Butter & Cheese Co.; location, country, Muscoda township; owner or manager, McIntyre & Elston; P. O. address, Muscoda; name of maker, Chas. Pickard; he has not attended Dairy School at Madison; no. of patrons, 28; no. of cows, 500; pounds of milk daily, 9,500; pounds of cheese daily, 900; style of cheese, daisies; Babcock test is used; Wisconsin Curd Test is not used; payments are made by Babcock Test mostly; steam vats used; drainage first class; whey tank 100 feet from factory, condition good; condition of building, good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, reported good; condition of milk in cans, reported good; building is painted outside.

April 29, 1904.—Name of factory, Ithaca; location, Ithaca, Richland Co.; owner or manager, C. B. Luenschloss; P. O. address, Ithaca; name of maker, Anthon N. Finstod, Ithaca; he has attended Dairy School at Madison; no. of patrons, 6; no. of cows, 65; pounds of milk daily, 1,300; pounds of cheese daily, 120; style of cheese, prints, 10 lb.; Babcock test is used; payments made monthly by test; steam heating vats used; no screen doors and windows; good surface drainage with good fall to small creek; whey tank outside factory in good condition; condition of building good; condition of apparatus, good; conditions of surroundings, good condition of patrons' milk cans, all reported fairly good; condition of milk in cans, good, making up milk every day; building is painted outside.

April 29, 1904.—Name of factory, Butternut Cheese Factory; location, Richland Co., Willow township; owner or manager, Wm. Salisbury; P. O. address, Neptune; name of maker, Robert Smith; P. O. address, Lloyd; he has attended Dairy School at Madison; no. of patrons, 22; no. of cows, 200; pounds of milk daily, 3,000; pounds of cheese daily, 270; style of cheese, prints; the Babcock test is used; payments made monthly by test; steam vats used; there were screen doors and windows; good underground drainage, leading to creek; whey tank located outside factory, in good condition; condition of building, good; condition of apparatus, good; condition of surroundings, fair; condition of patrons' milk cans, fairly good; condition of milk in cans, good; building is painted outside.

April 30, 1904.—Name of factory, Cazenovia Cheese & Creamery Association; location, Cazenovia, Richland Co.; manager, J. C. Anderson; P. O. address, Cazenovia; maker, Bert Hurley; P. O. address, Cazenovia; he has attended Dairy School at Madison; no. of patrons, 15; pounds of milk daily, 1,500; pounds of cheese daily, 140; style of cheese, flats; the Babcock test is used; the Wisconsin curd test is not used; steam vats are used; there were no screen doors and windows; drainage good, factory on elevation short discondition of patrons' milk cans, farly good; conditon of mlk n cansETSSS

tance from river; location and condition of whey tank, fair; condition of building, fair; condition of apparatus, fair; conditions of surroundings, good; condition of patrons' milk cans, fairly good; condition of milk in cans, not very good; building is painted outside.

April 30, 1904.—Name of factory, Buck Creek Factory; location, Rockbridge, Richland county; owner or manager, Ned Brewer; P. O. address, Rockbridge; name of maker, Walter Sands; P. O. address, Rockbridge; he has not attended Dairy School at Madison; no. of patrons, 17; pounds of milk daily, 1,500; pounds of cheese daily, 140; style of cheese, flats; the Babcock test is used; the Wisconsin curd test is not used; payments are made monthly by test; steam vats are used; there were screen doors and windows on curing room; drainage fair, part underground, part surface; location and condition of whey tank, outside factory, washed twice per week; condition of building, good; condition of apparatus, fair; condition of surroundings, good; condition of patrons' milk cans, mostly good; condition of milk in cans, good; building is painted outside.

April 30, 1904.—Name of factory, Hub City Cheese Factory; location, Richland Co.; township, Henrietta; owner or manager, W. U. Waddell; P. O. address, Hub City; name of maker, W. U. Waddell; he has not attended Dairy School at Madison; no. of patrons, 8; pounds of milk daily, 900; style of cheese, flats; the Babcock test is used; the Wisconsin curd test is used; payments are made monthly by test; steam vats used; surface drainage, fair; location and condition of whey tank outside, washed daily; condition of building, good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, some good and some poor; condition of milk in cans, fairly good; the building is painted outside.

May 2, 1904.—Name of factory, Zabel; location, country; owner or manager, F. Zabel; P. O. address, Monroe; name of maker, Henry Feller; P. O. address, Monroe; he has not attended Dairy School at Madison; no. of patrons, 13; no. of cows, 210; pounds of milk daily, 2,600; pounds of cheese daily, 255; style of cheese, block Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle is used; there were no screen doors and windows; drainage in fair condition; whey tank barrels in fair condition; condition of building, fair; condition of apparatus, good, clean; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good; building is painted outside.

May 3, 1904.—Name of factory, A. Davis; location, country; owner or manager, A. Davis; P. O. address, Monroe; name of maker, Emil Steffen; P. O. address, Monroe; he has not attended Dairy School at Madison; no. of patrons, 10; no. of cows, 160; pounds of milk daily, 1,500; pounds of cheese daily, 140; style of cheese, block cheese; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle is used; there were no screen doors and windows; drainage is in good condition; location and condition of whey tank, poor; condition of building, fair; condition of apparatus, good; condition of surroundings, not the best; condition of patrons' milk cans, fair, some old and rusty; condition of milk cans, not very good; the building is painted outside; remarks, whey barrels are dug in the ground.

May 3, 1904.—Name of factory, Ash Creek; location, Richland Co.; township, Orion; owner or manager, Benjamin Radel; P. O. address, Richland Center; name of maker, Benjamin Radel; P. O. address, Richland Center; he has not attended Dairy School at Madison; no. of patrons, 13; no. of cows, 160; pounds of milk daily, 2,400; pounds of cheese daily, 220; style of cheese, Prints; the Babcock test is used; the Wisconsin curd test is used; payments are made monthly by test; steam vats used; there were no

screen doors and windows; drainage passes through pipe under road somewhat out of order; location and condition of whey tank, outside factory, made of galvanized iron and washed twice a week; condition of building, getting somewhat out of order; condition of apparatus, rather old but in fair running order; condition of surroundings, fair; condition of patrons' milk cans, most all good, a few a little rusty; condition of milk in cans, fair; building is painted outside.

May 3, 1904.—Name of factory, Indian Creek Cheese Association; location, Richland Co.; township, Orion; owner or manager, H. L. Barnhart; P. O. address, Beach; name of maker, Philip Swingle; P. O. address, Beach; he has attended Dairy School at Madison; no. of patrons, 11; no. of cows, 100; pounds of milk daily, 1,500; style of cheese, twins; the Babcock test is used; the Wisconsin curd test is used; payment is made monthly by test; steam vats used; there were screens on doors and windows; surface drainage, not very good; location and condition of whey tank, outside, 40 feet from factory, washed every two days; condition of building, good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, majority good, but a few rather rusty; condition of milk cans, good; building is painted outside.

May 3, 1904.—Name of factory, Pleasant Hill; location, Richland Co., township, Eagle; owner or manager, Chas. Manning; P. O. address, Richland Center; he has not attended Dairy School at Madison; no. of patrons, 16; no. of cows, 150; pounds of milk daily, 2,100; style of cheese, flats; the Wisconsin curd test is used; payments are made monthly by test; steam vats are used; there were screen doors and windows; drainage good, open trough and surface; location and condition of whey tank, outside, 30 feet from factory; condition of building, good, well kept curing room; condition of apparatus, new vat and other apparatus in good condition; condition of surroundings, good; condition of patrons' milk cans, nearly all good; the building is painted outside.

May 3, 1904.—Name of factory, Fancy Creek; location, country; township, Rockbridge, Richland Co., Wis.; owner and manager, Howard Huffman; P. O. address, Richland Center, Wis., R. F. D. No. 1; name of maker, Howard Huffman; P. O. address, Richland Center, Wis., R. F. D., No. 1; he has attended Dairy School at Madison; no. of patrons, 24; no. of cows, 250; pounds of milk daily, 4,000; pounds of cheese daily, 400; style of cheese; twins or flats; the Babcock test is used; the Wisconsin curd test is used; payments are made on fat basis; steam vats are used; there were screen doors and windows; drainage, underground to running stream of water; location and condition of whey tank, elevated, 20 feet from factory, clean, washed out twice each week; condition of building, good frame structure, clean; condition of apparatus, clean, in good order; condition of surroundings, clean, O. K.; condition of patrons' milk cans, reported all right; condition of milk, fine quality; building is painted outside.

May 3, 1904.—Name of factory, Peckham; location, country; township, Marshall; manager, Leon Doudna; P. O. address, Gillingham, Richland Co., Wis.; name of maker, Leon Doudna; P. O. address, Gillingham, Wis.; has attended Dairy School at Madison; no. of patrons, 11; no. of cows, about 70; pounds of milk daily, 1,000; pounds of cheese daily, 100; style of cheese, flats; the Babcock test is used; the Wisconsin curd test is used; payments are made on fat basis; steam vats are used; there were screen doors and windows; underground drain to running stream of water one-fourth mile from factory; location and condition of whey tank, elevated, near building, washed out daily, clean; condition of building, good, new frame building, clean; condition of apparatus, first-class, clean, neatly and conveniently arranged; condition of surroundings, clean and orderly; condition of patrons' milk cans clean; condition of milk in cans, clean and of good quality.

May 3, 1904.—Name of factory, Woodstock; location, village of Woodstock; township, Henrietta, Richland Co., Wis.; owner and manager, D. W. Bender; P. O. address, Woodstock, Wis.; name of maker, D. W. Bender, P. O. address, Woodstock, Wis.; has not attended Dairy School at Madison; no. of patrons, 25; no. of cows, about 150; pounds of milk every other day, 3,000; pounds of cheese every other day, 300; style, daisies; the Babcock test is used; the Wisconsin curd test is not used; payments are made on the fat basis; steam vats used; there were no screen doors and windows; drainage, blind ditch, down to running stream of water near factory; location and condition of whey tank, near factory, elevated, clean; condition of building, good, clean; condition of apparatus, first-class, clean; condition of surroundings, neat and orderly; condition of patrons' milk cans reported clean and perfectly satisfactory; condition of milk in cans, clean and of good quality; building is painted outside.

May 4, 1904.—Name of factory, West Lima; location, village of West Lima; township, Bloom, Richland Co., Wis.; owner and manager, Edgar Lepley; P. O. address, West Lima, Wis.; name of maker, Edgar Lepley; P. O. address, West Lima, Wis.; he has not attended Dairy School at Madison; no. of patrons, 12; no. of cows, about 100; pounds of milk, 1,300; pounds of cheese, 125; style of cheese, flats; the Babcock test is used; the Wisconsin curd test is used; payments are made on fat basis; steam vats used; there were screen doors and windows; drainage, blind ditch to running stream of water; location and condition of whey tank, near factory, cleaned out daily, O. K.; condition of building, good frame building, clean and well constructed; condition of apparatus, first-class, clean; condition of surroundings, good, clean, O. K.; condition of patrons' milk cans, reported first-class; condition of milk in cans, reported good; building is painted outside.

May 4, 1904.—Name of factory, Yuba; location, village of Yuba; township, Bloom, Richland Co., Wis.; manager, Robert Murray; P. O. address, Yuba, Wis.; name of maker, Robert Murray; P. O. address, Yuba, Wis.; he has attended Dairy School at Madison; no. of patrons, 25; no. of cows, about 200; milk, daily, 3,000 pounds; cheese, 300 pounds; style of cheese, flats; the Babcock test is used; the Wisconsin curd test is used; payments are made on fat basis; steam vats used; there were screen doors and windows; drainage, tile drain to running stream of water near factory; location and condition of whey tank, galvanized iron tank, above ground, clean; condition of building, good, large frame building, extensive repairs in process at time of inspection; condition of apparatus, first-class, up to date, clean; condition of surroundings, good, O. K.; condition of patrons' milk cans, good; building is painted outside.

May 4, 1904.—Name of factory, Bloom City; location, village of Bloom City; township, Bloom, Richland Co.; manager, E. F. Snyder; P. O. address, Bloom City, Wis.; name of maker, E. F. Snyder; P. O. address, Bloom City, Wis.; he has not attended Dairy School at Madison; no. of patrons, 20; no. of cows, about 100; pounds of milk daily, 1,500; pounds of cheese daily, about 150; style of cheese, flats; the Babcock test is used; the Wisconsin curd test is not used; payments are made on the fat basis; steam vats used; drainage, underground tile to running stream of water; whey tank close up to building, above ground, clean; condition of building, good frame building, one good curing room, one basement curing room not good; condition of apparatus, good, O. K., clean; condition of surroundings, neat, O. K.; condition of patrons' milk cans, reported O. K., clean; condition of milk in cans, reported good, clean; building is painted outside.

May 4, 1904.—Name of factory, Viola; location, village of Viola, Forest township, Richland Co.; owner or manager, John A. Warner; P. O. address, Viola, Wis.; name of maker, John A. Warner; he has not attended Dairy School at Madison; no. of patrons, 8; no. of cows, about 100; pounds of

milk daily, 1,200; pounds of cheese daily, 120; style of cheese, 20 lb. prints; Babcock Test is used; Wisconsin Curd Test is not used; payments are made on the fat basis; steam vats used; underground drain through tile washed to running stream of water by force of flow of large spring; whey tank close up to factory building, above ground, clean; condition of building, very good frame structure, clean; condition of apparatus, O. K., clean and in good order; condition of surroundings, O. K., clean; condition of patrons' milk cans, reported in excellent condition; condition of milk in cans, reported good; building is not yet painted outside.

May 4, 1904.—Name of factory, Maple Grove; location, country, Forest township, Richland Co.; owner or manager, Dolph Simmons; P. O. address, Viola, Wis., R. F. D. No. 2; name of maker, L. A. Warner; he has not attended Dairy School at Madison; no. of patrons, 18; no. of cows, about 250; pounds of milk daily, 2,900; pounds of cheese daily, 290; style of cheese, flats; Babcock Test is used; Wisconsin Curd Test is used; last test of composite milk sample, reported 3.70 per cent.; payments are made on fat basis; steam vats used; there were no screen doors and windows; drainage, open ditch out to marsh, clean, free from foul odors; whey tank about 25 feet from factory, above ground, clean; condition of building, fine new frame building, clean; condition of apparatus, first class, new, clean; condition of surroundings, O. K., clean and free from all odors; condition of patrons' milk cans, reported clean and satisfactory; condition of milk in cans, reported good and clean; building is painted outside, very neat and attractive.

May 4, 1904.—Name of factory, Eagle; location, Richland Co., Eagle township; owner or manager, Thomas Day; P. O. address, Muscoda; name of maker, Hancock Logue; he has not attended Dairy School at Madison; no. of patrons, 13; no. of cows, 100; pounds of milk daily, 1,500; style of cheese, twins; Babcock Test is used; Wisconsin Curd Test is not used; payments are made monthly by test; steam vats used; surface drainage, fair; whey tank is outside, 30 feet from factory, cleaned once per month; condition of building, rather old and getting out of condition; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, reported mostly good; condition of milk in cans, reported good; building is painted outside.

May 4, 1904.—Name of factory, Basswood; location, Richland Co., Eagle township; owner or manager, Chas. Sobek; P. O. address, Muscoda; name of maker, Chas. Sobek; he has not attended Dairy School at Madison; no. of patrons, 11; no. of cows, 100; pounds of milk daily, 1,600; style of cheese, twins; Babcock Test is used; Wisconsin Curd Test is not used; payments are made monthly by test; steam vats used; drainage, fair; whey tank outside, washed daily, good; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, reported nearly all good; condition of milk in cans, reported good; building is painted outside.

May 4, 1904.—Name of factory, Gault Hollow Factory; location, Richland Co., Eagle township; owner or manager, Schmitt Bros.; P. O. address, Byrds Creek; name of maker, C. J. Schmitt; he has not attended Dairy School at Madison; no. of patrons, 10; no. of cows, 80; pounds of milk daily, 1250; style of cheese, daisies; Babcock Test is used; Wisconsin Curd Test is used; payments are made monthly by test; steam vats used; surface drainage, not good but will be improved; whey tanks outside, 30 feet away, washed once a week; building was in bad condition, but present owner is fixing it as fast as he can; condition of apparatus, same as building; condition of surroundings, same as building; condition of patrons' milk cans, reported mostly good; condition of milk in cans, reported good; building is painted outside.

May 4, 1904.—Name of factory, Fox Hollow; location, Richland Co., Dayton township; owner or manager, Robison & Shoemaker; P. O. address, Richland Center; name of maker, Pirl Daly; he has not attended Dairy School at Madison; no. of patrons, 11; no. of cows, 100; pounds of milk daily, 1,600; style of cheese, twins; Babcock Test is used; Wisconsin Curd Test is not used; payments are made monthly by test; steam vats used; drainage is part under ground but somewhat out of order; whey tank 30 feet outside, cleaned twice a week; condition of building, was left dirty last fall, present maker cleaning and fixing things; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, reported good; condition of milk in cans, reported good; building is painted outside.

May 4, 1904.—Name of factory, F. Faeser; location, country, Monroe township; owner or manager, F. Faeser; P. O. address, Monroe, R. 4; name of maker, Arnold Zurbmegg; he has not attended Dairy School at Madison; no. of patrons, 9; no. of cows, 150; pounds of milk daily, 1,650; style of cheese, block Swiss; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made per hundred; fire kettle used; drainage in good condition; whey tank in fair condition; condition of building, old, out of repairs; condition of apparatus, clean; condition of surroundings, good; condition of patrons' milk cans, fair; condition of milk in cans, good; building is painted outside.

May 5, 1904.—Name of factory, Kleckner, C. M.; location, country, Clarno township; owner or manager, C. M. Kleckner; P. O. address, Monroe; name of maker, Fritz Roder; he has not attended Dairy School at Madison; no. of patrons, 15; no. of cows, 260; pounds of milk daily, 3,400; pounds of cheese daily, 338; style of cheese, brick; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made per hundred; steam vat is used; drainage is fair; whey tank 4 feet from building; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, very good, all new cans; condition of milk in cans, good; building is painted outside. This factory has improved since last summer's visit. They have all new cans, and have done away with whey barrels.

May 5, 1904.—Name of factory, Boaz Factory; location, Richland Co., Dayton township; owner or manager, C. H. Hamilton; P. O. address, Boaz; name of maker, C. H. Hamilton; he has not attended Dairy School at Madison; no. of patrons, 27; no. of cows, 250; pounds of milk daily, 3,500; style of cheese, prints and daisies; Babcock Test is used; Wisconsin Curd Test is not used; payments are made monthly by test; steam vats used; drainage is first class, underground, leading to river; whey tank outside, 20 feet from building; washed daily; condition of building, good; condition of apparatus, good; condition of surroundings, fair; condition of patrons' milk cans, good; condition of milk in cans, good; one-half of building has been painted.

May 4, 1904.—Name of factory, Union Cheese Factory; location, Richland Co., Eagle township; owner or manager, Frank Gile, Sec.; P. O. address, Basswood; name of maker, James Loyd; he has not attended Dairy School at Madison; no. of patrons, 7; no. of cows, 75; pounds of milk daily, 900; style of cheese, twins; Babcock Test is used; Wisconsin Curd Test is not used; payments are made monthly by pooled system; steam vats used; drainage good, underground, carried a long distance in tile; condition of whey tank good, washed daily; condition of building, new, good; condition of apparatus, new, good; condition of surroundings will be good as soon as building is completed; condition of patrons' milk cans, reported good; condition of milk in cans, reported good; building will be painted soon. This is a new factory, just started. This is the first day it has received milk.

May 5, 1904.—Name of factory, West Branch; location, Richland Co., Akan township; owner or manager W. J. Conkle; P. O. address, Boaz; name of

maker, Gerald Fitzgerald; he has attended Dairy School at Madison; no. of patrons, 14; no. of cows, 125; pounds of milk daily, 1,800; pounds of cheese daily, 170; Babcock Test is used; Wisconsin Curd Test is used; payments are made monthly by test; steam vats used; drainage is underground, out of order, will be repaired; whey tank outside, washed once a week; condition of building, good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, reported nearly all good; condition of milk in cans, good.

May 5, 1904.—Name of factory, Sabin; location, village of Sabin, Sylvan township, Richland Co., Wis.; owner, P. E. Cranston; P. O. address, Sabin, Wis.; name of maker, P. E. Cranston; he has not attended Dairy School at Madison; no. of patrons, 7; no. of cows, about 100; pounds of milk daily, 1,222; pounds of cheese daily, 120; style of cheese, flats; Babcock Test is used; Wisconsin Curd Test is not used; last test of composite milk sample, reported 3.70 per cent.; payments are made on fat basis; steam vats used; drainage, 150 feet of tile underground; galvanized iron whey tank close up to building, above ground, clean; condition of building, good frame building, clean; condition of apparatus, good, O. K., clean; condition of surroundings, good, clean, O. K.; condition of patrons' milk cans, reported good; condition of milk in cans, reported clean and of good quality.

May 5, 1904.—Name of factory, Gays Mills; location, village of Gays Mills, Clayton township, Crawford Co., Wis.; owner and manager, F. J. Merwin; P. O. address, Gays Mills, Wis.; name of maker, F. J. Merwin; he has attended Dairy School at Madison; no. of patrons, 3; no. of cows, about 50; pounds of milk daily, 600; pounds of cheese daily, 60; style of cheese, flats; Babcock Test is used; Wisconsin Curd Test is used; payments are made on fat basis; steam vats used; drainage through open troughs to running spring water, which flushes sewerage to river near factory, O. K., clean; whey tank above ground, near building, clean, O. K.; condition of building, old creamery building, fairly clean; condition of apparatus, very good, new and clean; condition of surroundings, clean, O. K., spring water supply to factory; condition of patrons' milk cans, reported O. K.; condition of milk in cans, reported O. K.; building is painted outside.

May 6, 1904.—Name of factory, Excelsior; location, Richland Co., Richwood township; owner or manager, H. H. Davis; P. O. address, Excelsior; name of maker, Henry Joslin; he has not attended Dairy School at Madison; no. of patrons, 9; no. of cows, 100; pounds of milk daily, 1,500; pounds of cheese daily, 140; style of cheese, twins; Babcock Test is used; Wisconsin Curd Test is used; payments are made every month by test; steam vats used; drainage underground to cess pool; whey tank outside, underground, washed once a week; condition of building, good; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, reported nearly all good; condition of milk in cans, reported fair; building is painted outside.

May 6, 1904.—Name of factory, Byrds Creek; location, Richland Co., Richwood township; owner or manager, Schmitt Bros.; P. O. address, Byrds Creek; name of maker, Karl Schmitt; he has not attended Dairy School at Madison; no. of patrons, 8; no. of cows, 75; pounds of milk daily, 1,000; style of cheese, daisies; Babcock Test is used; Wisconsin Curd Test is used; payments are made every month by test; steam vats used; surface drainage, fair; whey tank outside, fair, washed twice a week; condition of building, good; condition of apparatus, good; condition of surroundings, fair; condition of patrons' milk cans, reported good; condition of milk in cans, reported good; building is painted outside.

May 6, 1904.—Name of factory, Hawthorn; location, country, Clarno township; owner or manager, J. Hawthorn; P. O. address, Monroe; name of maker, Ernest Schures; he has not attended Dairy School at Madison;

no. of patrons, 11; no. of cows, 158; pounds of milk daily, 1,500; pounds of cheese daily, 148; style of cheese, block Swiss; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made per hundred; fire kettle is used; drainage in not very good condition; whey barrels 12 feet from building; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, good; building is painted outside.

May 7, 1904.—Name of factory, John Elmer; location, country; owner or manager, John Elmer; P. O. address, Monroe, R. 4; name of maker, Gottlieb Losberger; he has not attended Dairy School at Madison; no. of patrons, 6; pounds of milk daily, 1,300; style of cheese, brick; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made per hundred; fire kettle is used; drainage enters into a small creek; whey tank is connected with building; condition of building, old and poor; condition of apparatus, fair; condition of surroundings, very poor, cow yard next to factory; condition of patrons' milk cans, not very good; condition of milk in cans, good; building is painted outside. Remarks: This is a small farm factory and not in very good condition.

May 9, 1904.—Name of factory, Stearn's Factory; location, country, Monroe township, R. 6; owner or manager, Marty & Stauffacher; P. O. address, Monroe; name of maker, Peter Baatschen; he has not attended Dairy School at Madison; no. of patrons, 3; no. of cows, 140; pounds of milk daily, 1,600; pounds of cheese daily, 155; style of cheese, block; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made per hundred; fire kettle is used; drainage is in good condition; tanks for whey butter in building; condition of building, good; condition of apparatus good; condition of surroundings, good; condition of patrons' milk cans, fair; condition of milk in cans, good; building is not painted outside.

May 9, 1904.—Name of Factory, Sam. Nafszger; location, country, Monroe township; owner or manager, Sam. Nafszger; P. O. address, Monroe; name of maker, Adolf Zurflueh; he has not attended Dairy School at Madison; no. of patrons, 2; no. of cows, 120; pounds of milk daily, 1,300; pounds of cheese daily, 130; style of cheese, brick; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made per hundred; fire kettle is used; drainage is in poor condition; whey tank is in poor condition; condition of building, very poor; condition of apparatus, poor, clean, but old tools; condition of surroundings, very poor, barn yard next to factory; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is of rock. Remarks: This is one of the poorest constructed factories I have visited. It is violating the law as to sanitary condition in curing and making room. Have warned of same.

May 10, 1904.—Name of factory, Jenney Factory; location, country, Clarno township; owner or manager, Anton Jenney; P. O. address, Monroe, R. 1; name of maker Frank Schuerman; he has not attended Dairy School at Madison; no. of patrons, 10; no. of cows, 162; pounds of milk daily, 2,400; pounds of cheese daily, 238; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made per hundred; fire kettle is used; drainage in good condition; whey barrels 10 feet from building, fair condition; condition of building, good; condition of apparatus, good, in very clean condition; condition of surroundings, good; condition of patrons' milk cans, good, some little rusty; condition of milk in cans, good; building is painted outside.

May 11, 1904.—Name of factory, Blue Label; location, city, Monroe twp.; owner or manager, Jacob Karlen; P. O. address, Monroe; name of maker, August Odermatt; he has not attended Dairy School at Madison; no. of patrons, 16; no. of cows, 200; pounds of milk daily, 3,900; pounds of cheese daily, 400; style of cheese, limburger, cream, skimmed neufchatel, camerbert, Fromage D'Isigny, Roquefort, brick; Babcock Test is used; Wisconsin Curd Test is not

used; payments are made per hundred; steam vat is used; drainage is fair; whey tank joining, fair condition; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, some in very filthy condition; condition of milk in cans, not very good; building is painted outside.

May 11, 1904.—Name of factory, Blue Label; location, City of Monroe, Monroe township; manager, F. J. Karlen; P. O. address, Monroe, Wis.; name of maker, C. H. J. Baumert; he has not attended Dairy School at Madison; no. of patrons, 16; no. of cows, 250; pounds of milk daily, 4,000; style of cheese, Neufchatel, miniature, cream, square cream, Fromage D'Isigny, Fromage De Brie and Camembert (brick, limburger and Swiss); Babcock Test is used; Wisconsin Curd Test is not used; payments are made as contracted for milk; steam vats used; there were no screen doors and windows; drainage, city sewage, O. K.; galvanized iron whey tank, above ground, clean, O. K.; condition of building, large, roomy building, stone cellar, O. K.; condition of apparatus, clean and in good working order; condition of surroundings, O. K.; condition of patrons' milk cans, dirty, not properly washed; condition of milk in cans, fair; building is painted outside.

May 11, 1904.—Name of factory, Kleckner; location, country, Clarno township, Monroe Co.; owner or manager, C. W. Kleckner; P. O. address, Monroe, Wis.; name of maker, Fritz Roder; he has not attended Dairy School at Madison; no. of patrons, 15; no. of cows, about 300; pounds of milk daily, 4,453; pounds of cheese daily, 500; style of cheese, brick; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made as per contracted milk at 85 cents per 100 lbs.; steam vats used; drainage runs off into lot some distance from factory, no objectionable odors; whey tank twelve feet from building, above ground, washed daily, clean; old frame building, stone curing cellar not in good shape; condition of apparatus, O. K., steam boiler, power cream separator, clean and in first class running order; condition of surroundings, good, O. K.; condition of patrons' milk cans, fair, some not clean; condition of milk in cans, good, fresh from the cows every night and morning; building is painted outside. Clean whey tank. Did away with the individual barrels. Will put in Babcock Tester at once. Hansen's Commercial starter will be used in the making of brick cheese.

May 12, 1904.—Name of factory, McKnight; location, country, Wayne township, Green Co.; manager, C. J. McKnight; P. O. address, South Wayne, Wis.; name of maker, Rindilsbacher; he has attended Dairy School at Madison; no. of patrons, 11; no. of cows, 200; pounds of milk daily, 3,000; pounds of cheese daily, 300; style of cheese, block Swiss and brick; the Babcock test is used; the Wisconsin curd test is used; vats used, copper kettle, heated by wood fire underneath; lumber and other material all ready for new drainage leading down to running stream of water; location and condition of whey tank, individual barrels, on elevated platform, kept clean, O. K.; condition of building, fairly good, clean, cellar a little too damp; condition of apparatus, O. K., clean, gasoline engine, new, to assist in factory work; condition of surroundings, O. K., clean, no objectionable odor; condition of patrons' milk cans, good, clean; condition of milk in cans, good, clean; building is painted outside.

May 12, 1904.—Name of factory, Ellis; location country; township, So. Wayne; owner or manager, Ellis; P. O., So. Wayne; name of maker, Otto Matter; he has not attended Dairy School at Madison; no. of patrons, 11; no. of cows, 153; pounds of milk daily, 2,500; pounds of cheese daily, 245; style of cheese, block; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; vats used, fire kettle; drainage, not in good condition; location and condition of whey tank, barrels in poor condition, joining to building; condition of building, old and out of repairs; condition of apparatus, fair, in clean condition; condition of surroundings, poor, barrels next to building and dug in ground; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

May 12, 1904.—Name of factory, Rockwell; location, country; township, So. Wayne; owner or manager, Wm. Stockpole; P. O. address, Winslow, Ill., R. 1.; name of maker, Wm. Berger; he has not attended Dairy School at Madison; no. of patrons, 10; no. of cows, 140; pounds of milk daily, 2,260; pounds of cheese daily, 258; style of cheese, block Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; vats used, fire kettle; drainage, fair condition; location and condition of whey tank, barrels fair condition, 10 feet from building; condition of building, old and in very neglected condition; condition of apparatus, fair, some old; condition of surroundings, hog pen not very far from factory; condition of patrons' milk cans, fair, according to cheesemaker's word, did not see them; condition of milk in cans, fair, cheese working good; building is painted outside. Remarks: A new cement floor has been put in this factory.

May 12, 1904.—Name of factory, Grahm factory; location, country; township, Wayne; owner or manager, Grahm; P. O. address, Warren, Ill.; name of maker, Peter Jackley; he has not attended Dairy School at Madison; no. of patrons, 10; no. of cows, 200; pounds of milk daily, 3,400; pounds of cheese daily, 335; style of cheese, drum Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle used; drainage, enters into ditch 20 feet from building; location and condition of whey tank, barrels 25 feet from building, good condition; condition of building, fair; condition of apparatus, fair, clean; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, good, cheese is working good; building is painted outside.

May 12, 1904.—Name of factory, McKnight, C. J.; location, country; township, Wayne; owner or manager, C. J. McKnight; P. O. address, So. Wayne; name of maker, Jno. Rindlisbacher; he has attended Dairy School at Madison; no. of patrons, 11; no. of cows, 200; pounds of milk daily, 3,000; pounds of cheese daily, 300; the Babcock test is used; the Wisconsin curd test is used; payments are made per hundred; vats used, fire kettle; drainage, at present not in good condition, but will be changed; location and condition of whey tank, in building, good condition; condition of building, fair; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside. Remarks: There have been good improvements made since my last call. Maker and helper attended the Dairy School at Madison last winter.

May 14, 1904.—Name of factory, Marty Jac.; location, town; township, Cadiz; owner or manager, Jacob Marty; P. O. address, Kettle Falls, Mass.; name of maker, Geo. Bernath; he has not attended Dairy School at Madison; no. of patrons, 24; no. of cows, 220; pounds of milk daily, 4,500; pounds of cheese daily, 445; style of cheese, drum Swiss; the Babcock test is used; the Wisconsin curd test is usd; payments are made per hundred; vats used, steam kettle; drainage, fair condition, enters 20 feet from building; location and condition of whey tank, in and joining building, fair; condition of building, good; condition of apparatus, good; condition of surroundings, good oondition of patrons' milk cans, fair; condition of milk in cans, good; building is painted outside. Remarks: Ths is a well constructed factory in all respects, with the exception of the whey barrels, which are dug in ground.

May 16, 1904.—Name of factory, Franklin; location, country; township, Clarno; owner or manager, Dan Hogan; P. O. address, Monroe; name of maker, Jno. Lederman; he has not attended Dairy School at Madison; no. of patrons, 11; no. of cows, 160; pounds of milk daily, 3,400; pounds of cheese daily, 335; style of cheese, drum Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; vats used, fire kettle; drainage, open ditch from building; location and condition of whey tank, barrels joining to factory, fair condition; condition of building, fair, cement floor has been put in since last year; condition of apparatus, fair, could be somewhat cleaner; condition of surroundings, fair;

condition of patrons' milk cans, some little dirty and rusty; condition of milk in cans, fair; building is painted outside.

May 17, 1904.—Location, Hofa Park; township, Maple Grove, sec. 18; owner of manager, Town Line Co-operative Cr. Co.; P. O. address, Hofa Park; name of maker, M. Valentine; he has not attended Dairy School at Madison; no. of patrons, 27; pounds of milk daily, 3,000; pounds of cheese daily, 282; style of cheese, daisies; the Babcock test is used; the Wisconsin curd test is not used; inspector's test of composite milk sample for day, 3.3 to 4.1; payments are made on fat basis; steam vats used; no drainage yet; location and condition of whey tank, near factory, fair; condition of building, good; condition of apparatus, good; condition of surroundings, good yet; condition of patrons' milk cans, good; condition of milk in cans, some leeky flavor; building is not yet painted outside.

May 17, 1904.—Name of factory, Five Korner; location, country; township, Jefferson; owner or manager, Otto Rubin; P. O. address, Monroe; name of maker, Chr. Stauffer; he has not attended Dairy School at Madison; no. of patrons, 11; no. of cows, 175; pounds of milk daily, 3,600; pounds of cheese daily, 355; style of cheese, drum Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle used; drainage, good condition; location and condition of whey tank, barrels, not very good condition, dug in ground; condition of building, fair; condition of apparatus, fair; condition of surroundings, good, with the exception of whey barrels; condition of patrons' milk cans, some were very dirty, others good and clean; condition of milk in cans, some good, others dirty; building is painted outside.

May 18, 1904.—Name of factory, Lee Factory; location, country; Avon township, Rock Co.; owner or manager, Hans Gilbert; P. O. address, Brodhead, R. 22; name of maker, Dutries Speics; he has not attended Dairy School at Madison; no. of patrons, 16; no. of cows, 250; pounds of milk daily, 4,000; pounds of cheese daily, 395; style of cheese, block Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle is used; drainage in poor condition, but they intend to change same; location and condition of whey tank, barrels, very poor condition, dug in ground; condition of building, fair, good cement floor; condition of apparatus, good, neat and clean, curing room could be somewhat cleaner; condition of surroundings, could be very good were it not for the barrels and drainage; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

May 19, 1904.—Name of factory, Austin Factory; location, country; township, Spring Grove; owner or manager, D. Austin; P. O. address, Brodhead, R. 2; name of maker, Jno. Hafliger; he has not attended Dairy School at Madison; no. of patrons, 8; no. of cows, 160; pounds of milk daily, 3,200; pounds of cheese daily, 325; style of cheese, drum Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle is used; drainage, poor condition, enters into filthy hole; location and condition of whey tank, barrels, poor condition; condition of building, not very good, old and out of repairs; condition of apparatus, fair, could be some cleaner; condition of surroundings, poor, filthy holes, where water from rain gathers; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

May 20, 1904.—Name of factory, Giese factory; location, country; township, Spring Grove, section 9; owner or manager, H. Giese; P. O. address, Brodhead, R. 2; name of maker, Jno. Lederman; he has not attended Dairy School at Madison; no. of patrons, 12; no. of cows, 190; pounds of milk daily, 4,000; pounds of cheese daily, 395; style of cheese, drum Swiss; the Babcock test is not used; no curd test is used; payments are made per hundred; fire kettle is used; drainage, good condition; location and condition of whey tank, barrels in poor condition, dug in ground; condition of

building, old, not up to date; condition of apparatus, fair, clean condition; condition of surroundings, fair; condition of patrons' milk cans, poor, some old, rusty and dirty; condition of milk in cans, fair; building is painted outside. Remarks: There have been good improvements made on the drainage since my last visit.

May 20, 1904.—Name of factory, Medina; location, Medina; owner or manager, Medina Co-operative Cheese Co.; P. O. address, Medina; name of maker, I. A. Hackett; he has not attended Dairy School at Madison; no. of patrons, 38; pounds of milk daily, 8,500; pounds of cheese daily, 800; style of cheese, flats; the Babcock test is used; the Wisconsin curd test is used; payments are made per hundred; self-heating vats used; drainage, tile leading to creek; location and condition of whey tank, 10 feet from building, fair condition; condition of building, fair; condition of apparatus, fair; condition of surroundings, good; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

May 21, 1904.—Name of factory, Mackville; location, Mackville; township, Center, section 35; owner or manager, M. J. Gregorius; P. O. address, R. R. No. 4, Appleton; name of maker, M. J. Gregorius; he has not attended Dairy School at Madison; no. of patrons, 29; pounds of milk daily, 4,600; pounds of cheese daily, 434; style of cheese, flats; the steam test is used; the Wisconsin curd test is not used; inspector's test of composite milk sample for day, 3.1 to 4.2; payments are made on fat basis; steam vats are used; drainage, sewer tile leading to ditch, fair; location and condition of whey tank, 30 feet from building, condition fair; condition of building, fair; condition of apparatus, good; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

May 21, 1904.—Name of factory, Spring Valley; location, country; township, Spring Valley, sec. 23; owner or manager, T. Everson; P. O. address, Brodhead, R. 24; name of maker, Rudy Lengacher; he has not attended Dairy School at Madison; no. of patrons, 8; no. of cows, 160; pounds of milk daily, 2,500; pounds of cheese daily, 255; style of cheese, limburger; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; steam vats are used; drainage, fair condition; location and condition of whey tank, barrels, poor condition; condition of building, poor and old, out of repairs; condition of apparatus, old, could be some cleaner; condition of surroundings, poor, account of whey barrels; condition of patrons' milk cans, fair, clean, but some not well aired; condition of milk in cans, fair; building is not painted outside. Remarks: The condition of the whey barrels is very bad, dug in ground, and can not be cleaned; called attention to same.

May 23, 1904.—Name of factory, Scotch Hill; location, country; township, Spring Valley; owner or manager, Jno. Glanzmann; P. O. address, Brodhead, R. F. D., 1; name of maker, Jno. Glanzmann; he has not attended Dairy School at Madison; no. of patrons, 15; no. of cows, 210; pounds of milk daily, 4,100; pounds of cheese daily, 405; style of cheese, drum Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle is used; drainage, fair condition, enters good distance from building; location and condition of whey tank, in building, barrels 30 feet from building, dug in ground; condition of building building is in fair condition; condition of apparatus, in very clean condition, neat in all respects; condition of surroundings, very good, building stands off alone; nothing connected with building to produce a bad odor; condition of patrons' milk cans, some were rusty and a few not very clean; condition of milk in cans, fair, although some had lot of dirt settled in bottom of cans; building is painted outside.

May 25, 1904.—Name of factory, Decatur; location, country; township, Decatur, sec. 22; owner or manager, Chas. Zuercher; P. O. address, Brodhead; name of maker, Jno. Burkhalter; he has not attended Dairy School at

Madison; no. of patrons, 13; no. of cows, 175; pounds of milk daily, 4,300; style of cheese, drum Swiss; the Babcock test is not used; no curd test is used; payments are made per hundred; fire kettle is used; drainage, fair condition, enters into ditch, good distance from factory; location and condition of whey tank, barrels joining to building on platform; condition of building, fair; condition of apparatus, good, clean condition; condition of surroundings, fair; condition of patrons' milk cans, fair, some little rusty; condition of milk in cans, fair; building is painted outside.

May 26, 1904.—Name of factory, Syndegard; location, country; township, Avon; owner or manager, Sam Syndegard; P. O. address, Brodhead, R. 22; name of maker, Conrad Franenfelder; he has not attended Dairy School at Madison; no. of patrons, 13; no. of cows, 200; pounds of milk daily, 3,600; pounds of cheese daily, 355; style of cheese, block Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle is used; drainage, good condition, enters into ditch good distance from building; location and condition of whey tank, tank in factory, no barrels used; condition of building, good, cement floor; condition of apparatus, clean and in good condition; condition of surroundings, good, no barrels, factory stands out by itself; condition of patrons' milk cans, good; condition of milk in cans, fair; building is painted outside. Remarks: This factory has a good plan for distributing the whey. No barrels are used but whey is pumped directly out of tank, where whey is kept to raise cream for butter.

May 26, 1904.—Name of factory, Sunrise; location, Medford; owner or manager, Otto Eggert; P. O. address, Medford; name of maker, Otto Eggert; he has attended Dairy School at Madison; no. of patrons, 78; the Babcock test is used; the Wisconsin curd test is not used; payments are made on fat basis; steam vats are used; drainage, not good, will soon be improved; location and condition of whey tank, outside, washed weekly; condition of building, fair; condition of apparatus, fair; condition of surroundings, will be all right, when drainage is improved; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not yet painted outside.

May 26, 1904.—Name of factory, Prairie Hill; location, country; township, Beaver Dam, Dodge Co.; manager, Fred Kuentze; P. O. address, Beaver Dam, Wis.; name of maker, Fred Kuentze; he has not attended Dairy School at Madison; no. of patrons, 29; no. of cows, 250; pounds of milk daily, 3,975; pounds of cheese daily, 400; style of cheese, small round, cream and brick; quality, good; the Babcock test is not used; the Wisconsin curd test is not used; payments are made on pooling system; steam vats are used; drainage, underground drain, no objectionable odor; location and condition of whey tank, 20 feet from factory, tank sunk into the ground, whey pumped out, not clean; condition of building, fair, clean; condition of apparatus, good clean; condition of surroundings, O. K., clean, no bad odors; condition of patrons' milk cans, not all good, some rusty and dirty; condition of milk in cans, not clean, was not strained; building is painted outside.

May 27, 1904.—Name of factory, Wolton Factory; location, country; township, Avon, sec. 10; owner or manager, Peter H. Woldon; P. O. address, Brodhead, R. 22; name of maker, Ben Zweifel; he has not attended Dairy School at Madison; no. of patrons, 10; no. of cows, 140; pounds of milk daily, 2,300; pounds of cheese daily, 230; style of cheese, brick cheese; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; steam vat is used; drainage, good condition, enters into a box; location and condition of whey tank, barrels, in very bad condition, dug in ground; condition of building, very good, cement floor in making and curing room; condition of apparatus, vat is old, the wood part is giving away, other both clean and in good condition; condition of surroundings, regard to drainage good, but barrels are producing

bad odor; condition of patrons' milk cans, cans were not in clean condition, most of them old and rusty; condition of milk in cans, fair, not very well aerated; building is painted outside.

May 28, 1904.—Name of factory, Oak Hill; location, country; township, Decatur, sec. 5; owner or manager, F. Maylord; P. O. address, Albany; name of maker, Gotfr. Mayer; he has not attended Dairy School at Madison; no. of patrons, 12; no. of cows, 180; pounds of milk daily, 3,400; style of cheese, drum Swiss; the the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle used; drainage, not in the best of condition, but patrons agree to change same; location and condition of whey tank, tank in building, fair, clean condition; condition of building, old, but in good repairs; condition of apparatus, clean and good tools, good modern improvements; condition of surroundings, little bad, caused by drainage; condition of patrons' milk cans, some old and rusty; condition of milk in cans, fair; building is not painted outside. Remarks: An old building, but well kept in repair; tools used are of modern improvement.

May 29, 1904.—Name of factory, Amis Creek; location, country; township, Stanton, Dunn; manager, Geo. H. Hart; P. O. address, Boyceville, R. D., Wis.; name of maker, Adrian Tisiner; he has not attended Dairy School at Madison; no. of patrons, 9; no. of cows, 150; pounds of milk daily, 1,682; pounds of cheese daily, 160; style of cheese, block Swiss, brick; the Babcock test is not used; the Wisconsin curd test is not used; payments are made on pooling system; vats used, fire under copper kettle; drainage, poor, out onto road in front of building; location and condition of whey tank, 9 barrels and tubs above ground, fairly clean; condition of building, not first class, damp, dark cellar; condition of apparatus, O. K., clean; condition of surroundings, fairly clean, no objectionable odors; condition of patrons' milk cans, clean, O. K.; condition of milk in cans, very fair as per curd test; building is painted outside. Remarks: Held meeting of patrons and arranged for system of sewage to carry factory washings to running stream of water.

May 31, 1904.—Name of factory, J. Finley; location, country, township, Rock, Rock Co.; owner or manager, J. Finley; P. O. address, Janesville, R. F. D.; name of maker, John Banman; he has not attended Dairy School at Madison; no. of patrons, 11; no. of cows, 130; pounds of milk daily, 2,300; style of cheese, block Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle used; drainage, very poor condition, open; location and condition of whey tank, barrels dug in ground, very poor condition; condition of building, fair; condition of apparatus, not very clean; condition of surroundings, poor, caused by drainage; condition of patrons' milk cans, poor, not very clean; condition of milk in cans, not very good; building is not painted outside.

June 1, 1904.—Name of factory, Hare factory; location, country; township, Washington; owner or manager, St. Hare; P. O. address, Monroe, R. F. D. 4; name of maker, Jac. Rothenbuehler; no. of patrons, 8; no. of cows, 164; pounds of milk daily, 3,376; style and quality of cheese, block Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle is used; drainage, poor condition; location and condition of whey tank, tanks in building, very poor and filthy; condition of building, old and out of repairs; condition of apparatus, in filthy condition; condition of surroundings, poor, account whey barrels; condition of patrons' milk cans, some old and rusty; condition of milk in cans, fair; building is not painted outside.

June 2, 1904.—Name of factory, H. Schmerce; location, country; township, Washington; owner or manager, Herman Schmerce; P. O. address, Monroe, R. F. D. 4; name of maker, Fred Wenger; he has not attended Dairy School at Madison; no. of patrons, 7; no. of cows, 180; pounds of milk daily, 4,100; style of cheese, drum Swiss; the Babcock test is not used; the Wiscon-

sin curd test is not used; payments are made per hundred; fire kettle used; drainage, open drainage in very poor condition; location and condition of whey tank, barrels dug in ground, tanks in and out of building; condition of building, fair, wooden floor in making room; condition of apparatus, fair, clean condition, with exception of whey tank outside, which is filthy; condition of surroundings, poor on account of drainage, which forms a very filthy hole next to factory; condition of patrons' milk cans, very poor, old, rusty and damaged, in general in poor condition; condition of milk in cans, fair, not very well aired; building is painted on outside. Remarks: This factory is in very poor condition as to sanitary surrounding, which is caused by the drainage and whey barrels. Called attention to same. Change is promised.

June 2, 1904.—Name of factory, Yellow River; location, 7 m.; owner, Mrs. O. Bruhn; P. O. address, Marshfield R. D.; name of maker, L. Bruhn; he has not attended Dairy School at Madison; no. of patrons, 13; pounds of milk daily, 1,600; style of cheese, prints; the Babcock test is used; the Wisconsin curd test is not used; inspector's test of composite milk sample for day, 3.9; steam vats used; drainage, river 2 or 3 rods away; location and condition of whey tank, about two rods from building, clean; condition of building, good, cement floor in curing room; condition of apparatus, good; condition of surroundings, O. K.; condition of patrons' milk cans, fairly good; condition of milk in cans, clean; building is painted outside.

June 2, 1904.—Name of factory, Angelica; location, country; township, Angelica; owner or manager, J. B. Lingsmeyer; P. O. address, Laney; name of maker, W. Jeske; he has not attended Dairy School at Madison; no. of patrons, 31; no. of cows, 200; pounds of milk daily, 4,070; style of cheese, daisies; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made every two weeks; steam vats used; drainage is poor, some odor from same; whey tank outside, 30 feet from building, condition, good; condition of building, fair; condition of apparatus, good; condition of surroundings, dirt removed from cellar needs leveling down to improve drainage; condition of patrons' milk cans, reported fair, some rusty; condition of milk in cans, reported fair, some leaky; building is painted outside.

June 2, 1904.—Name of factory, Uecher factory; location, Shawano Co., Lessor township; owner or manager, A. E. Uecher; P. O. address, Rose Lawn; name of maker, A. E. Uecher; he has not attended Dairy School at Madison; no. of patrons, 17; no. of cows, 150; pounds of milk daily, 3,100; pounds of cheese daily, 300; style of cheese, twins; payments are made monthly, pooled; self-heating vats used; drainage is poor, level about factory, will be improved; whey tank outside, 10 feet from factory, cleaned three times per week; condition of building, fair, stands on posts; condition of apparatus, good; condition of surroundings, clean, but ground rather level to be first class location; condition of patrons' milk cans, good; condition of milk in cans, fair; building is painted outside.

June 2, 1904.—Name of factory, Frazer; location, Shawano Co., Maple Grove township; owner or manager, Johnson Lyons; P. O. address, Frazer; name of maker, D. A. Frazer; he has attended Dairy School at Madison; no. of patrons, 35; no. of cows, 300; pounds of milk daily, 6,200; pounds of cheese daily, 600; style of cheese, twins; Babcock Test is used; Wisconsin Curd Test is used; payments are made every two weeks by test; weight of milk, 38,432; average test, 3.9; pounds of cheese, 3,584, at last payment; steam vats used; drainage is fair; whey tank outside, cleaned twice per week; condition of building, good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, reported good; condition of milk in cans, reported good; building is painted outside.

June 2, 1904.—Name of factory, Laney Cheese Factory; location, Shawano Co., Maple Grove township; owner or manager, John Leonard; P. O. address, Laney; name of maker, J. B. Linzmeyer; he has attended Dairy School at

Madison; no. of patrons, 46; no. of cows, 350; pounds of milk daily, 7,028; pounds of cheese daily, 715; style of cheese, daisy; Babcock Test is used; Wisconsin Curd Test is not used; payments are made every two weeks, pooled; steam vats used; surface drainage, fair; whey tank outside, in front of factory, washed every week; condition of building, good; condition of apparatus, good; condition of surroundings, fair; condition of patrons' milk cans, reported fair; condition of milk in cans, reported good; building is painted outside.

June 2, 1904.—Name of factory, Rose Lawn; location, Shawano Co., Maple Grove township; owner or manager, Wm. M. Armitage; P. O. address, Rose Lawn; name of maker, Wm. M. Armitage; he has not attended Dairy School at Madison; no. of patrons, 39; no. of cows, 280; pounds of milk daily, 5,615; pounds of cheese daily, 520; style of cheese, daisy; Babcock Test is used; Wisconsin Curd Test is used; payments are made every two weeks by test; weight of milk, 41,600; average test, 3.6; pounds of cheese, 3,300, at last payment; steam vats used; drainage poor, but is going to change location; whey tank outside, 20 feet from factory; condition of building, old, but kept fairly good; condition of apparatus, good; condition of surroundings, fair; condition of patron's milk cans, reported fairly good; condition of milk in cans, reported good.

June 2, 1904.—Name of factory, Kreyger; location, Shawano Co.; Maple Grove township; owner or manager, T. Kryger; P. O. address, Hofa Park; name of maker, Ignatz Brandl; he has not attended Dairy School at Madison; no. of patrons, 40; no. of cows, 250; pounds of milk daily, 5,000; style of cheese, daisy; Wisconsin Curd Test is not used; payments are made every two weeks, pooled; steam vats used; whey tank outside, condition fair, washed once a week; condition of apparatus, fair; condition of surroundings, fair; conditon of patrons' milk cans, reported mostly good, a few old cans; condition of milk in cans, reported fair; building is painted outside.

June 2, 1904.—Name of factory, Kleist Factory; location, Outagamie, Seymore township; owner or manager, E. L. Kleist; P. O. address, Seymore, R. F. D. 36; name of maker, E. L. Kleist; he has not attended Dairy School at Madison; no. of patrons, 41; no. of cows, 450; pounds of milk daily, 9,048; pounds of cheese daily, 900; style of cheese, twins; Babcock Test is used; Wisconsin Curd Test is used; payments are made every two weeks by test; weight of milk, 73,080; average test, 3.7; pounds of cheese, 6,372, at last payment; steam vats used; drainage fair, part surface; whey tank inside boiler room, whey sterilized, tank washed daily; condition of building, good; condition of apparatus, good; condition of surroundings, fair; condition of patrons' milk cans, reported good; condition of milk in cans, reportcd good; building is painted outside.

June 3, 1904.—Name of factory, Calamus; location, country, Calamus township, Dodge Co., Wis.; owner and manager, G. W. Scott; P. O. address, Columbus, R. F. D., Wis.; name of maker, G W Scott; he has not attended Dairy School at Madison; no. of patrons, 29; no. of cows, 300; pounds of milk daily, 5,000; pounds of cheese daily, 500; style of cheese, white and colored flats; Babcock Test is used occasionally; Wisconsin Curd Test is not used; payments are made by pooling system; weight of milk, 60,000; average test, 3.80; pounds of cheese, 6,000, at last payment; steam vats used; drainage, ditch down to marsh lot below factory, level, clean, no bad odors; whey tank about 30 feet from factory, clean; condition of building, good, clean; condition of apparatus, good, clean; condition of surroundings, O. K.; condition of patrons' milk cans, reported O. K., clean; condition of milk in cans, reported very good; no complaint at all; building is painted outside.

June 3, 1904.—Name of factory, Elba; location, country, Elba township, Dodge Co., Wis.; owner and manager, Schivers & Randall; P. O. address, Columbus, R. F. D., Wis.; name of maker, G. F. Randall; he has attended Dairy School at Madison; no. of patrons, 22; no. of cows, 225; pounds of milk

daily, 3,700; pounds of cheese daily, 370; style of cheese, flats and daisies; Babcock Test is used once in a while; Wisconsin Curd Test is not used; payments are made by pooling system; weight of milk, 30,290; average test, 3.60; pounds of cheese, 2,953, at last payment; steam vats used; drainage poor, not sanitary, whey and water in road; whey tank near factory, fair condition, fairly clean; condition of building, good frame building, not clean; condition of apparatus, machinery all right, not clean; condition of surroundings, not clean, poor sewage; condition of patron's milk cans, reported clean and in good shape; condition of milk in cans, reported all right, clean and good flavor; building is painted outside.

June 3, 1904.—Name of factory, Leader; location, country, Calamus township, Dodge Co.; owner and manager, R. F. Gronert; P. O. address, Columbus, R. F. D., Wis.; name of maker, R. F. Gronert; he has not attended Dairy School at Madison; no. of patrons, 13; no. of cows, 180; pounds of milk daily, 2,600; pounds of cheese daily, 260; style of cheese, Bondort, Sweedish or farmer cheese, Munster, brick; Babcock Test is not often used; Wisconsin Curd Test is not used; payments are made by pooling system; weight of milk, 70,000; average test, 3.4; pounds of cheese, 7,000, at last payment; steam vats used; underground drainage, good; whey tank near factory, clean, Moldenhauer automatic whey pump; condition of building, fine, large building, good stone cellar, clean; condition of apparatus, first class, clean; condition of surroundings, clean, O. K.; condition of patrons' milk cans, good, clean; condition of milk in cans, fine, clean; building is painted outside. Remarks: Fine, fancy cheese of several different kinds. Splendid good building. Fine cheese cellar.

June 3, 1904.—Name of factory, Thomas; location, country, Calamus township, Dodge Co.; owner or manager, Farmers' Co-operative, Jacob Bachlear; P. O. address, Beaver Dam, Wis.; name of maker, Jacob Bachlear; he has not attended Dairy School at Madison; no. of patrons, 16; no. of cows, 150; pounds of milk daily, 2,755; pounds of cheese daily, 275; style of cheese, brick, limburger, Munster, Sweedish; Babcock Test is not often used; Wisconsin Curd Test is not used; payments are made by pooling system; weight of milk, about 70,000; pounds of cheese, about 7,000, at last payment; steam vats used; drainage underground, O. K., clean, no objectionable odors; whey tank 25 feet from factory, clean, Moldenhauer whey pump; condition of building, good, clean; condition of apparatus, good, new and clean; condition of surroundings, O. K., clean; condition of patrons' milk cans, clean and well cared for; condition of milk in cans, reported first class all the spring season; building is painted outside. Remarks: A first class cheese factory. Good cement floors. Clean, good cellars.

June 3, 1904.—Name of factory, South Kaukauna; location, 2 miles south of Kaukauna; owner or manager, S. Kaukauna Cheese Co.; P. O. address, R. F. D. No. 15, S. Kaukauna; name of maker, John Paliwada; he has attended Dairy School at Madison; no. of patrons, 28; pounds of milk daily, 4,600; pounds of cheese daily, 464; style of cheese, flats; Babcock Test is used, Wisconsin Curd Test is not used; payments are made per hundred; steam vats used; drainage, no arrangements, waste matter runs on top of ground adjacent to building; whey tank 15 feet from building, new, not cleaned often; condition of building, poor and crowded; condition of apparatus, good; condition of surroundings, good except lack of drainage; condition of patrons' milk cans, fair; condition of milk in cans, fair; old house changed into factory.

June 4, 1904.—Name of factory, Krausse Factory; location, country, Monroe township, R. F. D. 4; name of maker, Ernst Pauli; P. O. address, Monroe, R. F. D. 4; he has not attended Dairy School at Madison; no. of patrons, 9; pounds of milk daily, 6,300; style of cheese, Drum Swiss and Block Swiss; Babcock Test is not used; Wisconsin Curd Test is not used;

payments are made per hundred; fire kettle is used; drainage in poor condition but will change it; whey barrels in fair condition, on platform; condition of building, good, well kept in repairs; condition of apparatus, good, in clean condition, whey tank for butter is in bad place; condition of surroundings, good, with the exception of drainage; condition of patrons' milk cans, some very old and rusty; condition of milk in cans, fair, some not very well aired; building is painted outside.

June 7, 1904.—Name of factory, Blanchardville—La Fayette Co.; location, city, Blanchardville township; owner or manager, Ernst Regez; P. O. address, Blanchardville; name of maker, Ulrich Gumbach; he has not attended Dairy School at Madison; no. of patrons, 13; no. of cows, 200; pounds of milk daily, 5,000; style of cheese, block and brick; Babcock Test is not used; Wisconsin curd Test is not used; payments are made per hundred; fire kettle is used; drainage in good condition, enters river; whey tank joining building, fair condition; condition of building, well kept in repairs; condition of apparatus, good, clean; condition of surroundings, good; condition of patrons' milk cans, some very poor; condition of milk in cans, fair, some not very well aerated; building is painted outside.

June 7, 1904.—Location, one mile east of Maple Grove; owner or manager, J. D. Nate; P. O. address, Maple Grove; name of maker, Wm. A. Deering; he has not attended Dairy School at Madison; no. of patrons, 32; pounds of milk daily, 7,700; pounds of cheese daily, 750; style of cheese, daisies; Babcock Test is used; Wisconsin Curd Test is seldom used; last test of composite milk sample, 3.2-3.9; payments are made on fat basis; self-heating vats used; drainage, open ditch; whey tank across the road, bad; condition of building, good, except floor in make room; condition of apparatus, good; condition of surroundings, good, except near whey tank; condition of patrons' milk cans, mostly fair; condition of milk in cans, some dirty, mostly good; building is painted outside.

June 7, 1904.—Name of factory, Hewitt; location, Hewitt, section 13; owner, M. Ley; P. O. address, Hewitt; name of maker, L. Ley; he has attended Dairy School at Madison; no. of patrons, 22; pounds of milk daily, 3,000; pounds of cheese daily, 290; style of cheese, longhorn and squares; Babcock Test is used; Wisconsin Curd Test is not used; payments are made monthly; weight of milk, 29,420; average test, 3.8; pounds of cheese, 2,842, at last payment; steam vats used; drainage runs alongside of road; whey tank outside of building, washed weekly; condition of apparatus, O. K.; condition of surroundings, O. K.; condition of patrons' milk cans, O. K.; condition of milk in cans, O. K., except some sediment; building painted outside.

June 8, 1904.—Name of factory, Yankee Hollow; location, country; owner or manager, Jno. Keins; P. O. address, Blanchardville; name of maker, Emil Loertscher; he has not attended Dairy School at Madison; no. of patrons, 8; no. of cows, 140; pounds of milk daily, 2,300; style of cheese, limburger; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made per hundred; steam vat used; no drainage, very poor condition; whey barrels dug in ground, filthy condition; condition of building, old, very poor, not kept up in repairs; condition of apparatus, old, fairly well kept, clean; condition of surroundings, poor on account drainage and whey barrels; condition of patrons' milk cans, fair, some old and rusty and two patrons' cans were dirty; condition of milk in cans, fair, some not well aired; building is not painted outside.

June 9, 1904.—Name of factory, Clay Hill; location, country, Brigham township; owner or manager, E. Orinon; P. O. address, Dayleville; name of maker, Emil Fridll; he has not attended Dairy School at Madison; no. of patrons, 11; no. of cows, 175; pounds of milk daily, 4,300; style of cheese, Drum Swiss; Babcock Test is not used; Wisconsin Curd Test is not used;

payments are made per hundred; fire kettle is used; drainage in poor condition; whey tank fair, 10 feet from factory; condition of building, poor, old and out of repairs, poor floor in making room; condition of apparatus, fair, clean condition, tools mostly new; condition of surroundings, poor on account of drainage and whey tank; condition of patrons' milk cans, good, with the exception of one patron whose can was dirty; condition of milk in cans, fair; building is not painted outside. Remarks: Cheese was working off for some time; think it due to the unsanitary condition about the factory.

June 9, 1904.—Name of factory, Trammay; location, country, Sherman township, Dunn Co.; manager, Jacob Wyss; P. O. address, Boyceville, Wis., R. F. D.; name of maker, Jacob Wyss; he has not attended Dairy School at Madison; no. of patrons, 20; no. of cows, 225; pounds of milk daily, 2,350; pounds of cheese daily, 235; style of cheese, Block Swiss, brick; Babcock Test is not often used; Wisconsin Curd Test is not used; payments are made by pooling system; fire under copper kettle; drainage, drain down embankment to running water, clean; whey tank in factory make room, clean, O. K.; condition of building, good, except cellar curing room floor; condition of apparatus, clean, good; condition of surroundings, O. K., clean, no objectionable odors; condition of patrons' milk cans, O. K., good, clean; condition of milk in cans, splendid, clean, good flavor, well strained; building is painted outside. Remarks: Co-operative Swiss factory. Factory very clean. Cheese fancy. No whey barrels used. Cans filled out of nice clean wood tank in make room.

June 10, 1904.—Name of factory, Moscow; location, country, Moscow township; owner or manager, A. Mellum; P. O. address, Blanchardville; no. of patrons, 11; no. of cows, 130; pounds of milk daily, 3,000; style of cheese, block; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made per hundred; fire kettle is used; drainage in good condition, enters into ditch 20 feet from building; whey barrels on platform, good condition; condition of building, fair; condition of apparatus, fair, in clean condition; condition of surroundings, good, no bad odor from barrels and drainage; condition of patrons' milk cans, some old and rusty to which I called attention; condition of milk in cans, good, all well aerated; building is not painted.

June 11, 1904.—Name of factory, Roeder; location 9 miles west of Wausau, section 6, township 29; owner, R. Roeder; P. O. address, Wausau, R. D.; name of maker, R. Roeder; he has attended Dairy School at Madison; no. of patrons, 15; pounds of milk daily, 1,900; style of cheese, daisy; Babcock Test is used once in a while; Wisconsin Curd Test is not used; payments are made monthly by hundred; weight of milk, 23,513; pounds of cheese, 1,828½, at last payment; self-heating vats used; drainage, a few rods to river; location and condition of whey tank, 43 feet from building, fair; condition of building, good, cement floor; condition of apparatus, O. K.; condition of surroundings, O. K.; condition of patrons' milk cans, O. K.; condition of milk in cans, O. K.; building is painted outside.

June 11, 1904.—Location, Rantoul township, section 25; owner or manager, Bernhard Zahn; P. O. address, Hayton, R. F. D. No. 1; name of maker, Bernhard Zahn; he has not attended Dairy School at Madison; no. of patrons 11; pounds of milk daily, 2,600; pounds of cheese daily, 258; style of cheese, daisies and Y. A.; Babcock Test is used; Wisconsin Curd Test is not used; inspector's test of composite milk sample for day, 3.1 to 4.1; payments are made on fat basis; weight of milk, 14,452; average test, 3.6; pounds of cheese, 1,133, at last payment; self-heating vats used; drainage, waste water carried to ditch; whey tank 20 feet from building, cleaned monthly; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, good, except several patrons' milk is muddy; building is painted outside.

June 12, 1904.—Name of factory, Gunderson; location, country, Argyle township; owner or manager, Ole Gunderson; P. O. address, Argyle, La Fayette Co.; name of maker, Matt. Haldiman; he has not attended Dairy School at Madison; no. of patrons, 13; no. of cows, 210; pounds of milk daily, 5,800; style of cheese, Drum Swiss; Babcock Test is not used; Wisconsin Curd Test is not used; payments are made per hundred; fire kettle is used; drainage in fair condition, enters into ditch 35 feet from factory; whey tank for butter in building, tank for return whey 25 feet from factory; condition of building, old, fair in repairs; condition of apparatus, fair, in clean condition; condition of surroundings, good, no barrels, drainage in good condition; condition of patrons' milk cans, good, with the exception of two patrons whose cans were old and rusty; condition of milk in cans, fair, some not well aired; building is not painted. Remarks: Good improvements have been made at this factory in the condition of whey barrels and drainage, where in place of barrels there has been put in a tank, and drainage has been carried further from building.

June 13, 1904.—Name of factory, Yellowstone; location, country, township, Yellowstone; owner or manager, Geo. Frank; P. O. address, Blanchardville, R. 2; name of maker, Gottfried Brum; he has not attended Dairy School at Madison; no. of patrons, 14; no. of cows, 150; pounds of milk daily, 4,800; style of cheese, drum Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; steam kettle used; drainage, good condition, enters into ditch 30 feet from building; location and condition of whey tank, barrels poor condition, dug in ground; condition of building, good, new building, well built; condition of apparatus, good, clean, and all modern improvements, two kettles used, both heated by steam; condition of surroundings, poor, account of whey barrels, which were dug in ground and were never cleaned; condition of patrons' milk cans, poor; condition of milk in cans, fair; building is painted outside. Remarks: This factory is well put up in all respects, only the whey barrels are in very filthy and dirty condition; promised to change the condition.

June 13, 1904.—Name of factory, Brennan; location, Morrison township, sec. 29; owner or manager, M. Brennan; P. O. address, Wayside; name of maker, Otto Planert; he has not attended Dairy School at Madison; no. of patrons, 24; pounds of milk daily, 5,800; pounds of cheese daily, 561; style of cheese, flats; the Babcock test is used; the Wisconsin curd test is not used; last test of composite milk sample for day, 3.2 to 3.8; payments are made on fat basis; self-heating vats used; drainage, stuff all runs on ground; location and condition of whey tank, 40 feet from building, bad condition; condition of building, poor; condition of apparatus, fair; condition of surroundings, bad; condition of patrons' milk cans, fair; condition of milk in cans, fair, some gassy; building is not painted outside. Remarks: There is too much whey spilled under the factory and from troughs leading to whey tank.

June 14, 1904.—Name of factory, Hermanson; location, country; township, Blanchardville; owner or manager, H. Hermanson; P. O. address, Blanchardville; name of maker, Carl Erk; he has not attended Dairy School at Madison; no. of patrons, 6; no. of cows, 130; pounds of milk daily, 3,000; style of cheese, block Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle used; drainage, fair condition; location and condition of whey tank, barrels, poor condition, dug in ground; condition of building, fair, new building; condition of apparatus, fair; condition of surroundings, poor account of drainage, which produces a bad odor; condition of patrons' milk cans, fair condition; condition of milk in cans, fair; building is painted outside.

June 14, 1904.—Name of factory, Stromman Cheese Co.; location, country township, York; owner or manager, A. T. Stromman; P. O. address, Blanchard-

ville; name of maker, Christ Erb; he has not attended Dairy School at Madison; no. of patrons, 10; no. of cows, 200; pounds of milk daily, 5,000; style of cheese, drum and block Swiss; the Babcock test is not used; no curd test is used; payments are made per hundred; fire kettle used; drainage, 10 feet from building, fair condition; location and condition of whey tank, barrels, on platform, fair condition; condition of building, old but well kept in repairs; condition of apparatus, fair, in clean condition; condition of surroundings, good drainage, has good slope, whey barrels on platform; condition of patrons' milk cans, in good condition, all mostly new; condition of milk in cans, fair; building is painted outside.

June 15, 1904.—Name of factory, Wenger; location, country; township, York; owner or manager, E. G. Wenger; P. O. address, Blanchardville; name of maker, Conrad Blank; he has not attended Dairy School at Madison; no. of patrons, 7; no. of cows, 150; pounds of milk daily, 4,000; style of cheese, limburger; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; steam vat used; drainage, fair condition, enters into creek, open drainage; location and condition of whey tank, barrels in very poor condition, dug in ground; condition of building, old and out of repairs; condition of apparatus, fair, in clean condition; condition of surroundings, poor, account of whey barrels, which produce a bad odor; condition of patrons' milk cans, fair, one patron's cans rusty; condition of milk in cans, fair; building is not painted outside.

June 15, 1904.—Name of factory, Law Mill Cheese Co.; location, country; township, York; owner or manager, Gust Olson; P. O. address, Blanchardville, R. 1; name of maker, Gottlieb Tueschler; he has not attended Dairy School at Madison; no. of patrons, 9; no. of cows, 180; pounds of milk daily, 4,700; style of cheese, limburger; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; steam vat used; drainage, good condition; location and condition of whey tank, tank in good condition; condition of building, old but fair, kept in repairs; conditions of apparatus, good, clean condition, almost new, steam outfit; condition of surroundings, good; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is not painted outside.

June 16, 1904.—Name of factory, High Hollow Cheese Co.; location, country; township, York; owner or manager, Jno. Ula; P. O. address, Blanchardville, R. 3; name of maker, Jno. King; he has not attended Dairy School at Madison; no. of patrons, 13; no. of cows, 300; pounds of milk daily, 7,100; style of cheese, drum Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle used; drainage, fair condition, runs into creek; location and condition of whey tank, joining to building, dug in ground; condition of building, old but fair, kept in repairs; condition of apparatus, clean condition; condition of surroundings, fair, tank produces bad odor; condition of patrons' milk cans, good, new cans; condition of milk in cans, fair; building is not painted outside.

June 16, 1904.—Name of factory, Walnut Grove; location, country; township, York; owner or manager, Jac. Stauffacher; P. O. address, Blanchardville; name of maker, Jac. Alder; he has not attended Dairy School at Madison; no. of patrons, 12; no. of cows, 200; pounds of milk daily, 5,600; style of cheese, limburger; payments are made per hundred; steam vat used; drainage, good condition, enters in ditch, 40 feet from building; location and condition of whey tank, barrels in poor condition, dug in ground; condition of building, good; condition of apparatus, clean condition, good steam and engine outfit; condition of surroundings, poor on account of whey barrels; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside.

June 16, 1904.—Name of factory, River Road Creamery; location, Manitowoc; township, Manitowoc Rapids, sec. 21; owner or manager, Joseph Boackhaus; P. O. address, Manitowoc, R. F. D. No. 1; name of maker, Jos. Boackhaus; he has not attended Dairy School at Madison; no. of patrons, 29; pounds of milk daily, 4,300; pounds of cheese daily, 420; style of cheese, daisies; the Babcock test is used, the Wisconsin curd test is not much used; last test of composite milk sample for day, 3.3 to 4.2; payments are made on fat basis; weight of milk, 20,354; average test, 3.55; and pounds of cheese, 1,824 at last payment; self-heating vats used; drainage, box drain, away into open ditch, location and condition of whey tank, 20 feet away, not cleaned often enough; condition of building, fair; condition of apparatus, good; condition of surroundings, fair; condition of patrons' milk cans, some dirty; condition of milk in cans, some bad, neglected; building is painted outside.

June 17, 1904.—Name of factory, Big Rock Cheese Co.; location, country; township, Adams; owner or manager, Siver Gulson; P. O. address, Blanchardville, R. 1; name of maker, Otto Keller; he has not attended Dairy School at Madison; no. of patrons, 7; no. of cows, 160; pounds of milk daily, 3,300; style of cheese, block Swiss; the Babcock test is not used; the Wisconsin crud test is not used; payments are made per hundred; steam kettle used; drainage, good, will be in good condition when finished; location and condition of whey tank, barrels on platform; condition of building, good, new building, well put up; condition of apparatus, good, new steam outfit; condition of surroundings, good or will be when finished; condition of patrons' milk cans, fair, some old and rusty; condition of milk in cans, fair; building is not painted on outside.

June 17, 1904.—Name of factory, G. Rear; location, country; township, Adams, sec. 3; owner or manager, G. Rear; P. O. address, Argyle, R. 1; P. O. address of maker, Argyle; he has not attended Dairy School at Madison; no. of patrons, 13; no. of cows, 240; pounds of milk daily, 6,200; style of cheese, drum Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle used; drainage, fair condition, runs into ditch; location and condition of whey tank, barrels joining to building, bad condition; condition of building, old and not well kept in repairs; condition of apparatus, fair, clean condition; condition of surroundings, poor; condition of patrons' milk cans, some poor; condition of milk in cans, fair; building is not painted outside.

June 18, 1904.—Name of factory, Bragger Cheese Co.; location, country; township, York, sec. 7; owner or manager, A. Bragger; P. O. address, Blanchardville; name of maker, Christ King; he has not attended Dairy School at Madison; no. of patrons, 10; no. of cows, 250; pounds of milk daily, 6,200; style of cheese, drum Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle vats used; drainage, in poor condition, will be changed; location and condition of whey, barrels dug in ground, filthy condition; condition of building, old, fair, kept in repairs, making new cement floor; condition of apparatus, fair, clean condition; condition of surroundings, poor account of drainage, which produces bad odor; condition of patrons' milk cans, good, some a little filthy; condition of milk in cans, fair; the building is painted on outside.

June 18, 1904.—Name of factory, Paasch; location, country; township, Plymouth; owner or manager, Wm. Paasch; P. O. address, Plymouth, Wis.; name of maker, Wm. Paasch; he has not attended Dairy School at Madison; no. of patrons, 40; no. of cows, about 650; pounds of milk daily, 13,000; pounds of cheese daily, 1,300; style of cheese, Long Horns, Daisies; the Babcock test is not used; the Wisconsin curd test is not used;

payments are made on pooling system; steam vats used; drainage, underground, O. K., no bad odors; location and condition of whey tank, near factory, O. K., clean; condition of building, good, clean, good cement floors, splendid cheese factory building; condition of apparatus, first-class, up to date in every respect; condition of surroundings, splendid, O. K., clean; condition of patrons' milk cans, reported good; condition of milk in cans, reported good and clean; building is painted outside. Remarks: Factory clean, equipped with automatic curd agitators; splendid cement floor.

June 18, 1904.—Name of factory, Peters; location, country; township, Plymouth; owner or manager, John Peters; P. O. address, Plymouth, Wis.; name of maker, John Peters; he has attended Dairy School at Madison; no. of patrons, 37; no. of cows, about 700; pounds of milk daily, 14,000; pounds of cheese daily, 1,400; style of cheese, Long Horns, Young Americas; the Babcock test is not used; the Wisconsin curd test is not used; payments are made on pooling system; self-heating vats used; drainage, good, O. K., no bad odors; location and condition of whey tank, near factory, clean, O. K.; condition of building, first-class, fine large frame building; condition of apparatus, first-class, clean and up to date; condition of surroundings, O. K., clean, fine; condition of patrons' milk cans, reported good and clean; condition of milk in cans, reported good and clean; the building is painted outside, neat. Remarks: Fine, large cheese factory building; clean and neat. Good, cool curing room.

June 18, 1904.—Name of factory, Luecke; location, country; township, Plymouth; owner or manager, C. H. Luecke; P. O. address, Plymouth, Wis.; name of maker, C. H. Luecke; he has not attended Dairy School at Madison; no. of patrons, 25; no. of cows, about 450; pounds of milk daily, 8,600; pounds of cheese daily, 860; style of cheese, daisies, long horns and primrose; the Babcock test is not used; the Wisconsin curd test is not used; payments are made on pooling system; steam-heating vats used; drainage poor, not sanitary; location and condition of whey tank, near factory, not clean; condition of building, old, dirty, poor floors; condition of apparatus, dirty; condition of surroundings, dirty; condition of patrons' milk cans, reported O. K.; condition of milk in cans, reported O. K.; building is painted outside. Remarks: Poor floors. Dirty whey tank. Needs new sewage system.

June 18, 1904.—Name of factory, Plymouth; location, city; township, Plymouth; owner or manager, Wm. Edler; P. O. address, Plymouth, Wis.; name of maker, Wm. Edler; he has not attended Dairy School at Madison; no. of patrons, 47; no. of cows, about 650; pounds of milk daily, 13,000; style of cheese, daisies and 10 pound prints; the Babcock test is not often used; the Wisconsin curd test is not used; payments are made on the pooling system; self-heating vats used; drainage good, clean; location and condition of whey tank, near building, clean; condition of building, first-class, clean; condition of apparatus, good, clean; condition of surroundings, good, clean; condition of patrons' milk cans, reported O. K., clean; condition of milk in cans, fine, clean; the building is painted outside.

June 20, 1904.—Name of factory, Engwell; location, country; township, Blanchardville, sec. 21; owner or manager, Jno. Olson; P. O. address, Blanchardville; name of maker, Caspar Huber; he has not attended Dairy School at Madison; no. of patrons, 13; no. of cows, 220; pounds of milk daily, 5,200; style of cheese, block Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle used; drainage, not in the best condition; location and condition of whey tank, barrels in very bad condition, dug in ground; condition of building, wooden floor, no floor in curing room; condition of apparatus,

fair, clean; condition of surroundings, not in good condition, barrels which are dug in ground produce bad odor; condition of patrons' milk cans, good, almost new cans are used; condition of milk in cans, fair; building is painted outside.

June 21, 1904.—Name of factory, Cleary; location, country; township, Blanchardville; owner or manager, J. Cleary; P. O. address, Blanchardville; name of maker, Emil Ast; he has not attended Dairy School at Madison; no. of patrons, 4; no. of cows, 120; pounds of milk daily, 2,500; style of cheese, block, Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle vats used; drainage, fair condition, underground; location and condition of whey tank, barrels dug in ground, poor condition; condition of building, not very good, out of repairs; condition of apparatus, not very clean; condition of surroundings, poor, account of whey barrels; condition of patrons' milk cans, good, most new cans; condition of milk in cans, fair; the building is not painted outside.

June 22, 1904.—Name of factory, Ole A. Olson Cheese Co.; location, country; township, Blanchardville, LaFayette Co.; owner or manager, Ole A. Olson; P. O. address, Blanchardville; name of maker, Carl Haehlen; he has not attended Dairy School at Madison; no. of patrons, 12; no. of cows, 225; pounds of milk daily, 5,800; style of cheese, drum Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; steam kettle vats used; drainage, poor condition; location and condition of whey tank, barrels dug in ground; condition of building, good; condition of apparatus, very clean condition, a good, new steam outfit; condition of surroundings, poor, account drainage and whey barrels; condition of patrons' milk cans, good, clean condition; condition of milk in cans, good; the building is painted outside.

June 22, 1904.—Name of factory, Milladore; location, Milladore, Wood Co.; owner or manager, A. J. Empey; P. O. address, Milladore; name of maker, Miss M. A. Raeder; she has attended Dairy School at Madison; no. of patrons, 22; pounds of milk daily, 2,100; pounds of cheese daily, 200; style of cheese, cheddar block; the Babcock test is used; the Wisconsin curd test is not used; payments are made monthly, according to test; weight of milk, 28,130; average test, 3.8; and pounds of cheese, 2,546, at last payment; self-heating vats used; location and condition of whey tank, close by factory, kept clean; condition of building, fair, but crude, everything neat, tidy; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, fair; the building is painted outside.

June 22, 1904.—Name of factory, Reis; location, country; township, Sherman; owner and manager, Herman Becker; P. O. address, Random Lake, Wis., R. F. D., No. 17; name of maker, Herman Becker; he has not attended Dairy School at Madison; no. of patrons, 34; no. of cows, about 500; pounds of milk daily, 9,300; pounds of cheese daily, 925; style of cheese, flats; the Babcock test is used once in awhile; the Wisconsin curd test is not used; payments are made on pooling system; steam vats used: drainage, poor, not sanitary; location and condition of whey tank, 25 feet from factory building, underground, not clean; condition of building, old frame building, not clean; condition of apparatus, fair, clean; condition of surroundings, not sanitary, dirty, whey pool in marsh back of factory; condition of patrons' milk cans, very fair, nearly all clean; condition of milk in cans, fair, not all properly strained; the building is painted outside. Remarks: New factory building in process of construction.

June 22, 1904.—Name of factory, Straus; location, village of Silver Creek; township, Sherman; owner or manager, Frank Straus; P. O. address, Random Lake, Wis., R. F. D., No. 17; name of maker, Otto Arndt; P. O. ad-

dress, Random Lake, Wis.; he has not attended Dairy School at Madison; no. of patrons, 18; no. of cows, 250; pounds of milk daily, 4,600; pounds of cheese daily, 450; style of cheese, flats; the Babcock test is used once each week; the Wisconsin curd test is not used; payments are made on pooling system; weight of milk, 129,000; average test, 3.50; and pounds of cheese, 12,900, at last payment; self-heating vats used; drainage, fair, not first-class; location and condition of whey tank, near factory, in the ground; condition of building, fair, not first-class curing room; condition of apparatus, O. K., clean, not up to date, no steam; condition of surroundings, clean, O. K.; condition of patrons' milk cans, reported good, clean; condition of milk in cans, reported fine, clean; the building is painted outside.

June 22, 1904.—Name of factory, Silver Creek; location, village of Silver Creek; township, Sherman; owner or manager, J. T. Merrill; P. O. address, Random Lake, Wis., R. F. D., No. 17; name of maker, Robert Gates; he has not attended Dairy School at Madison; no. of patrons, 21; no. of cows, about 250; pounds of milk daily, 4,700; pounds of cheese daily, 460; style of cheese, flats; the Babcock test is not used; the Wisconsin curd test is not used; payments are made on pooling system; weight of milk, 135,000; and pounds of cheese, 13,500 at last payment; self-heating vats used; drainage good; location and condition of whey tank, close up to factory, above ground, clean; condition of building, good, new frame building, clean; condition of apparatus, good, clean, butter and cheese making machinery; condition of surroundings, good, neat and clean; condition of patrons' milk cans, reported O. K.; condition of milk in cans, reported O. K.; the building is painted outside.

June 22, 1904.—Name of factory, Kuettel; location, four miles north of Oshkosh; owner or manager, M. Knettel; P. O. address, 565 Algoma St., Oshkosh; name of maker, John Kometer; he has not attended Dairy School at Madison; no. of patrons, 4; pounds of milk daily, 1,800; pounds of cheese, daily, 180; style of cheese, brick and Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments made per hundred; steam vats used; drainage, stuff runs on ground near factory; location and condition of whey tank, close to building, not the best; condition of building, not the best; condition of apparatus, fair; condition of surroundings, very bad; condition of patrons' milk cans, fair; condition of milk in cans, fair; building is painted outside. Remarks: Factory constitutes a fence for one side of a very filthy hog yard. Surroundings extremely bad.

June 23, 1904.—Name of factory, Manke; location, Calumet Co.; township, Brillion, sec. 13; owner or manager, Robert Manke; P. O. address, Brillion; name of maker, Robert Manke; he has not attended Dairy School at Madison; no. of patrons, 36; no. of cows, 310; pounds of milk daily, 7,831; pounds of cheese daily, 750; style of cheese, Y. A.; the Babcock test is not used; the Wisconsin curd test is not used; payments made every two weeks, pooled; self-heating vats used; drainage, surface, fair; location and condition of whey tank, outside, 30 feet from factory, washed once a week; condition of building, fair, being repaired; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, fair; condition of milk in cans, good.

June 23, 1904.—Name of factory, Chas. Medenwaldt; location, Calumet; township, Brillion; owner or manager, Chas. Medenwaldt; P. O. address, Brillion; name of maker, Chas. Medenwaldt; he has not attended Dairy School at Madison; no. of patrons, 22; no. of cows, 250; pounds of milk daily, 5,400; style of cheese, daisies and Y. A.; payments made every two weeks, pooled; self-heating vats used; there were screen doors and windows; drainage, surface; location and condition of whey tank, outside and underground, washed once per week; condition of building, fair; condition of apparatus, fair; condition of surroundings, good; condition of patrons'

milk cans, reported good; condition of milk in cans, reported good; building is painted outside.

June 23, 1904.—Name of factory, Wolfmeyer; location, Calumet; township, Brillion, sec. 21; owner or manager, J. M. Wolfmeyer; P. O. address, Forest Junction; name of maker, J. M. Wolfmeyer; he has not attended Dairy School at Madison; no. of patrons, 37; no. of cows, 350; pounds of milk daily, 9,000; style of cheese, daisies and twins; the Babcock test is used; the Wisconsin curd test is not used; payments made every two weeks, pooled; weight of milk, 96,746; average test, 3.6, and pounds of cheese, 9,546 at last payment; steam vats used; drainage, surface, poor; location and condition of whey tank, underground, will put in one above ground; condition of building, fair; condition of apparatus, fair; condition of surroundings, fair; condition of patron's milk cans, reported most all good; condition of milk in cans, reported mostly good; the building is painted outside.

June 23, 1904.—Name of factory, H. Tiel Factory; location, Calumet Co.; township, Brillion; owner or manager, H. Tiel; P. O. address, Forest Jct.; name of maker, Herman Tiel; he has not attended Dairy School at Madison; no. of patrons, 27; no. of cows, 200; pounds of milk daily, 5,500; style of cheese, daisies, twins; the Babcock test is used; payments made every two weeks, pooled; self-heating vats used; drainage, poor; location and condition of whey tank, underground, poorly kept; condition of building, poor; condition of apparatus, poor; condition of surroundings, ground low, and conditions poor; condition of patrons' milk cans, reported nearly all good; condition of milk in cans, reported fair.

June 23, 1904.—Name of factory, Brillion; location, Calumet Co.; township, village; owner or manager, John Grootemont; P. O. address, Brillion; name of maker, John Grootemont; he has not attended Dairy School at Madison; no. of patrons, 45; pounds of milk daily, 10,500; style of cheese, daisies and Y. A.; the Babcock test is used; weight of milk, 121, 849; average test, 3.61, and pounds of cheese, 11,881, at last payment; steam vats used; drainage, fair, part surface, part underground; location and condition of whey tank, in building 40 feet from factory, whey pasteurized; condition of building good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, reported good; condition of milk in cans, reported good; the building is painted outside.

June 23, 1904.—Name of factory, Junker Factory; location, Manitowoc Co.; township, Maple Grove; owner or manager, L. C. Junker; P. O. address, Brillion; name of maker, L. C. Junker; he has not attended Dairy School at Madison; no. of patrons, 39; no. of cows, 400; pounds of milk daily, 8,300; style of cheese, longhorns; the Babcock test is used; the Wisconsin curd test is not used; weight of milk, 83,933; average test, 3.7; and pounds of cheese, 7,965, at last payment; steam vats used; drainage, part underground, part surface, fair; location and condition of whey tank, 40 feet from factory, partly underground, washed once a week; condition of building, good repair, with cement floor; condition of apparatus, fair, engine rather old, but in fair condition; condition of surroundings, good; condition of patrons' milk cans, reported mostly good; condition of milk in cans, reported fairly good; the building is painted outside.

June 23, 1904.—Name of factory, Union; location, Calumet Co.; township, Brillion; owner or manager, H. Halverson; P. O. address, Brillion; name of maker, H. Halverson; he has not attended Dairy School at Madison; no. of patrons, 20; no. of cows, 200; pounds of milk daily, 5,000; style of cheese, longhorns, prints; the Babcock test is used; the Wisconsin curd test is not used; steam vats used; drainage, surface, fairly good; location and condition of whey tank, 60 feet outside of factory above ground; whey tank washed once per week; condition of building, good; condition of ap-

paratus, good; condition of surroundings, good; condition of patrons' milk cans, reported mostly all good; condition of milk in cans, reported good; the building is painted outside.

June 23, 1904.—Name of factory, Beilke; location, Calumet Co.; township, Rantoul; owner or manager, Albert Beilke; P. O. address, Potter; name of maker, Fred Priebe; he has not attended Dairy School at Madison; no. of patrons, 16; no. of cows, 175; pounds of milk daily, 4,000; pounds of cheese daily, 360; style of cheese, daisies and Y. A.; the Babcock test is used; the Wisconsin curd test is not used; self-heating vats used; drainage, not good, surface and not carried off in trough; location and condition of whey tank, new and good, about 40 feet from factory; condition of building, old but fair; condition of apparatus, vat poor, leaks and needs repairs; condition of surroundings, fair; condition of patrons' milk cans, reported mostly good; condition of milk in cans, reported good; the building is not painted outside.

June 24, 1904.—Name of factory, Sunnyside Cheese Factory; location, country; township, Darlington; owner or manager, Jno. Schwartz; P. O. address, Darlington; name of maker, Jac. Kammer; he has not attended Dairy School at Madison; no. of patrons, 16; no. of cows, 225; pounds of milk daily, 6,000; style of cheese, drum, Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; steam kettle used; drainage, fair condition, enters into ditch 40 feet from building; location and condition of whey tank, fair condition; condition of building, old but in fair condition; condition of apparatus, fair, clean; condition of surroundings, tanks producing little bad odor; condition of patrons' milk cans, some old and rusty, not fit to be used; condition of milk in cans, fair; the building is painted outside.

June 24, 1904.—Name of factory, Cato; location, Cato; owner or manager, H. S. Schultz; P. O. address, Cato; name of maker, Albert Kolanczyk; he has not attended Dairy School at Madison; no. of patrons, 45; pounds of milk daily, 9,000; pounds of cheese daily, 880; style of cheese, flats and daisies, open, Swiss holey; the Babcock test is used; the Wisconsin curd test is not used; last test of composite milk sample for day, 3.4 to 4.3; payments are made on fat basis; weight of milk, 75,659; average test, 3.7; and pounds of butter, 3,180 at last payment; steam vats used; there were screen doors and windows; drainage, box underground; location and condition of whey tank, outside, cleaned weekly; condition of building, fair; condition of apparatus, good; condition of surroundings, fair; condition of patrons' milk cans, fair; condition of milk in cans, fair; the building is painted outside.

June 24, 1904.—Name of factory, Center Valley; location, 8 miles nw. Appleton; township, Center, sec. 28; owner or manager, W. O. Becker; P. O. address, R. R. No. 3, Appleton; name of maker, W. O. Becker; he has attended Dairy School at Madison; no. of patrons, 24; pounds of milk daily, 6,200; pounds of cheese daily, 590; style of cheese, flats; the Babcock test is used; the Wisconsin curd test is not often used; last test of composite milk sample for day, 3.2 to 4.0; payments are made on fat basis; weight of milk, 86,004; average test, 3.58; and pounds of butter, 3,550 at last payment; steam vats used; drainage, stuff is run in open ditch, near factory, bad; location and condition of whey tank, 25 feet from factory, cleaned seldom; condition of building, good; condition of apparatus, good; conditions of surroundings, bad in front of building; condition of patrons' milk cans, good except one or two; condition of milk in cans, fair; the building is painted outside.

June 25, 1904.—Name of factory, Oak Corner; location, country; township, Seymour; owner or manager, Chas. Teastle; P. O. address, Goff, R. F. D. 1; name of maker, Gottlieb Kammer; he has not attended Dairy School

at Madison; no. of patrons, 22; no. of cows, 350; pounds of milk daily, 7,100; style of cheese, drum Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; steam kettle is used; drainage, poor; location and condition of whey tank, poor; condition of building, fair; condition of apparatus, fair; condition of surroundings, poor; condition of patrons' milk cans, fair; condition of milk in cans, poor; the building is painted outside.

June 27, 1904.—Name of factory, Calamine; location, town; township, Willow Springs; owner or manager, Jno. Stauffacher; P. O. address, Calamine; name of maker, Christ Smoker; he has not attended Dairy School at Madison; no. of patrons, 11; no. of cows, 200; pounds of milk daily, 4,400; style of cheese, drum Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle used; drainage, not very good condition, enters into pasture; location and condi- of surroundings, poor account of whey barrels and drainage; condition of patrons' milk cans, some very dirty and rusty; condition of milk in cans, fair; the buiuding is not painted outside. Remarks: Called attention to condition of drainage and whey barrels; they agreed to change same at once.

June 28, 1904.—Name of factory, Blake Cheese Co.; location, country; township, Shulsburg; owner or manager, S. Creamer; P. O. address, Shulsburg; name of maker, Gottfr. Hess; he has not attended Dairy School at Madion; no. of patrons, 15; no. of cows, 140; pounds of milk daily, 3,800; style of cheese, block Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; steam kettle is used; drainage, enters into ditch, good condition; location and condition of whey tank, good condition; condition of building, new building, in very good condition; condition of apparatus, clean, all new, steam kettle outfit, new boiler; condition of surroundings, good; condition of patrons' milk cans, fair, some little old; condition of milk in cans, good; the building is not yet painted on outside, but will be.

June 28, 1904.—Name of factory, Gieger; location, Chippewa Co.; township, Edson; owner or manager, A. P. Gieger; P. O. address, Stanley; name of maker, A. P. Gieger; he has attended Dairy School at Madison; no. of patrons, 20; no. of cows, 150; pounds of milk daily, 3,000; style of cheese, brick and twins; the Babcock test is not used; the Wisconsin curd test is not used; steam vats used; drainage, poor but will fix same; location and condition of whey tank, good, in building, washed daily; condition of building, fair; condition of apparatus, rather old, but in fair repair; condition of surroundings, reported good; condition of patrons' milk cans, reported mostly good; condition of milk in cans, good; the building is painted outside.

June 28, 1904.—Name of factory, Stanley; location, Chippewa Co.; township, Edison; owner or manager, Walter Fero; P. O. address, Stanley; name of maker, Walter Fero; he has not attended Dairy School at Madison; no. of patrons, 22; no. of cows, 150; pounds of milk daily, 3,600; style of cheese, squares, twins; the Babcock test is used; the Wisconsin curd test is used; steam vats used; drainage, surface, fair; location and condition of whey tank, 60 feet from factory, washed twice per week; condition of building, good; condition of apparatus, good; condition of surroundings, fair; condition of patrons' milk cans, reported good; condition of milk in cans, reported fair; the building is painted cutside

June 28, 1904.—Name of factory, Riverside; location, 4 m. ne. Shiocton; township, Bovina; owner or manager, J. A. Koehler; P. O. address, Black Creek; name of maker, C. F. Krueger; he has attended Dairy School at Madison; no. of patrons, 22; pounds of milk daily, 3,000; pounds of cheese daily, 300; style of cheese, flats; the Babcock test is used; the Wisconsin curd test is not used; last test of composite milk sample for

day, 3.4 to 4.9; payments are made on fat basis; weight of milk, 45,862; pounds of cheese, 4,359 at last payment; steam vats used; drainage, tile leading to river; location and condition of whey tank, 20 feet from building, cleaned too seldom; condition of building, good; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, mostly good; condition of milk in cans, some off flavor; the building is painted outside. Remarks: One of the patrons has old, rusty cans.

June 29, 1904.—Name of factory, Seidling; location, Chippewa Co.; township, Rdson; owner or manager, Orth & Rosin; P. O. address, Juneau; name of maker, Wenzle Blass; he has not attended Dairy School at Madison; no. of patrons, 30; no. of cows, 200; pounds of milk daily, 4,000; style of cheese, brick; the Babcock test is not used; the Wisconsin curd test is not used; steam vats used; drainage, fair, surface; location and condition of whey tank, in building, washed daily; condition of building, good; condition of apparatus, fair; condition of surroundings, fair; condition of patrons' milk cans, good; condition of milk in cans, good; the building is painted outside.

June 29, 1904.—Name of factory, Mylor factory; location, country; township, Willow Spring; owner or manager, Jim McPhillips; P. O. address, Darlington, R. 2; name of maker, Fred Mueller; he has not attended Dairy School at Madison; no. of patrons, 16; no. of cows, 275; pounds of milk daily, 7,000; style of cheese, limburger; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; steam vat used; drainage, enters into ditch, 20 feet from building; location and condition of whey tank, dug in ground, very poor condition; condition of building, old, not in very good condition; condition of apparatus, clean, steam vat used; condition of surroundings, poor, account of whey barrels, which produce a bad odor; condition of patrons' milk cans, some old and rusty; condition of milk in cans, fair; the building is painted outside.

June 29, 1904.—Name of factory, Union Cheese Co.; location, country; township, Kendall; owner or manager, Louis Boyle; P. O. address, Calamine; name of maker, T. Eberhardt; he has not attended Dairy School at Madison; no. of patrons, 7; no. of cows, 157; pounds of milk daily, 3,600; style of cheese, block, Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle used; drainage, good condition; location and condition of whey barrels, dug in ground, poor condition; condition of building, old but fair, kept in repairs; condition of apparatus, fair condition, making room is of cement; condition of surroundings, poor account of barrels; condition of patrons' milk cans, some old and rusty; condition of milk in cans, fair; the building is not painted on outside.

June 29, 1904.—Name of factory, Druman Cheese Co.; location, town; township, Kendall; owner or manager, Fred Fink; P. O. address, Druman; name of maker, Alfred Gack; he has not attended Dairy School at Madison; no. of patrons, 13; no. of cows, 170; pounds of milk daily, 4,600; style of cheese, limburger; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; steam vat used; drainage, poor condition, enters 10 feet from building; location and condition of whey barrels, in very poor condition; condition of building, old and out of repairs; condition of apparatus, fair, clean condition; condition of surroundings, poor account of drainage and whey barrels, which produce a bad odor; condition of patrons' milk cans, some cans old and rusty; condition of milk in cans, fair; the building is not painted outside.

June 30, 1904.—Name of factory, Success Cheese Co.; location, country; township, Seymour; owner or manager, M. Holland; P. O. address, Druman; name of maker, Chas. Rolli; he has not attended Dairy School at Madison; no. of patrons, 8; no. of cows, 140; pounds of milk daily, 3,200; style of

cheese, drum Swiss; the Babcock test is not used; the Wisconsin curd test is not used; payments are made per hundred; fire kettle used; drainage, fair condition, enters into ditch 20 feet from building; location and condition of whey barrels, poor condition; condition of building, old and out of repairs; condition of apparatus, fair, clean condition; condition of surroundings, poor account of whey barrels; condition of patrons' milk cans, good, almost new cans; condition of milk in cans, fair, some is bad; the building is not painted outside. Remarks: Patrons have agreed to put in a new tank in place of whey barrels.

June 30, 1904.—Name of factory, Edson; location, Chippewa Co.; township, Edson; owner or manager, Orth & Bosin; P. O. address, Juneau; name of maker, Gotfried Ruegg; he has not attended Dairy School at Madison; no. of patrons, 40; no. of cows, 300; pounds of milk daily, 6,200; style of cheese, brick; the Babcock test is not used; the Wisconsin curd test is not used; steam vats used; drainage, surface, fair; location and condition of whey tank, upstairs in factory, washed daily, condition good; condition of building, good; condition of apparatus, good; condition of surroundings, fair; condition of patrons' milk cans, most all good; condition of milk in cans, fair; the building is painted outside.

June 30, 1904.—Location, Black Creek, one and one-half miles south; owner or manager, M. S. Felton; P. O. address, Seymour; name of maker, John Donner; he has attended Dairy School at Madison; no. of patrons, 20; pounds of milk daily, 6,500; pounds of cheese daily, 608; style of cheese, flats; the Babcock test is used; the Wisconsin curd test is not used; payments are made per hundred; weight of milk, 68,000; pounds of cheese, 6,300 at last payment; steam vats used; drainage, some runs on ground under factory, some in open ditch; location and condition of whey tank, just outside, overflows; condition of building, fair; condition of apparatus, good; condition of surroundings, very bad, filthy mess under factory; condition of patrons' milk cans, fair; condition of milk in cans, some gassy; the building is painted outside. Remarks: Extremely unsanitary premises.

REPORT OF CREAMERY INSPECTION.

Jan. 15, 1904.—Name of creamery, Van Wyk; proprietary; location, Appleton, Wis.; owner or manager, Van Wyk Bros.; P. O. address, Appleton, Wis., 865 College Ave.; name of bbuttermakers, Van Wyk Bros.; they have not attended Dairy School at Madison; no. of patrons, 3; no. of cows, 50; no. of pounds of milk daily, 550; milk and cream sold; drainage, good, city sewage; no bad odor in creamery; location and condition of skim milk tank, no tank, skim milk sold to city trade; condition of building, basement under large brick store building, cement floors; condition of apparatus, ice cream machinery and fixtures in good condition; condition of surroundings, clean, fronting on the main street of the city; condition of patrons' milk cans, good. Remarks: Branch creamery at 696 College Ave., Appleton, Wis.; not making butter at either plant at time of inspection. Dealers in milk, cream, ice cream and cottage cheese.

Jan. 15, 1904.—Name of creamery, Van Wyk; proprietary; location, Appleton, Wis.; owner or manager, Van Wyk Bros.; P. O. address, Appleton, Wis., 969 College Ave.; name of buttermakers, Van Wyk Bros.; they have not attended Dairy School at Madison; no. of patrons, 13; no. of cows, 200; no. of pounds of milk daily, about 2,000 pounds; drainage, good city drainage; no bad odor in creamery; condition of building, clean, but floor is in bad shape, rough and decayed, suggested new floors; building is painted outside; condition of apparatus, in good repair; condition of surroundings, clean; condition of patrons' milk cans, clean; condition of milk in cans, good except badly frozen.

Jan. 16, 1904.—Name of creamery, D. E. Wood Butter Co.; proprietary; location, Evansville, Wis.; owner or manager, The D. E. Wood Butter Co.; P. O. address, Evansville, Wis.; name of buttermaker, several buttermakers; they have not attended Dairy School at Madison; no. of patrons, 126; no. of pounds of milk daily, 10,000 delivered per day, milk delivered every other day by one-half of the patrons; no. of pounds of butter daily, about 500 pounds; loss of fat in skim milk, just a trace of fat; loss of fat in buttermilk, less than .2 per cent.; skim milk was divided by weigher; drainage, underground system to small stream at considerable distance from creamery; no bad odor in creamery; location and condition of skim milk tank, tank about 60 feet from building; condition of building, first-class structure, part brick and part frame; the building is painted outside; condition of apparatus, as near perfect as possible; condition of surroundings, very neat and clean; condition of patrons' milk cans, O. K., with one exception, patron warned to clean up; condition of milk in cans, good. Remarks: Combined plant; about 15,000 pounds of renovated butter made daily in addition to the manufacture of fancy creamery butter; management complying with the state and federal laws.

Jan. 30, 1904.—Name of creamery, Rutland Co-op.; co-operative; location, 4 miles sw. of Stoughton; manager, C. A. Hanan; P. O. address, Oregon R. D.; name of buttermaker, B. J. Ellis; P. O. address, Stoughton, R. D.; he has attended Dairy School at Madison; no. of patrons, 86; no. of pounds of milk for two days, 10,000; no. of pounds of butter for two days, 485;

average test, 4.10; butter yield, 4.79; overrun, 17 at last payment; sampling and testing, in winter once a month; commercial starter used; skim milk was divided by weigher; cream vat was covered with screen; drainage, tiled about half mile across marsh to ditch; location and condition of skim milk tank, inside washed daily; location and condition of buttermilk tank, outside next to building, not washed; condition of building, poor, needs part new floor, drain in floor bad; the building is painted outside; condition of apparatus, churn new, separator, good cream vats, wood rotten; condition of surroundings, O. K.

Jan. 23, 1904.—Name of creamery, Geo. Otto Creamery Co.; proprietary; location, 2 miles west of Grand Rapids; owner or manager, Geo. Otto; P. O. address, Centralia; name of buttermaker, Geo. Otto; he has not attended Dairy School at Madison; no. of patrons, 10; no. of pounds of milk daily, 1,350; sampling and testing, weekly, Babcock test; loss of fat in skim milk, 0.3 per cent.; skim milk was divided by weigher; cream vat was covered with cloth cover; drainage, good; no bad odor in creamery; location and condition of skim milk tank, in factory, good; condition of building, good; the building is painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, fairly good condition; condition of milk in cans, nearly all good.

Jan. 30, 1904.—Name of creamery, Omro Jc.; proprietary; location, 6 miles west of Oshkosh; sec. 32; owner, A. Speich; P. O. address, Oshkosh, R. D.; name of buttermaker, A. Speich; he has not attended Dairy School at Madison; no. of patrons, 22; no. of pounds of milk daily, 3,800; no. of pounds of butter daily, 140; loss of fat in skim milk, .02 per cent.; no starter is used; help themselves to skim milk; cream vat was covered with board; drainage, alongside road; location and condition of skim milk tank, elevated outside, washed daily; location and condition of buttermilk tank, have none, use cans; condition of building, poor, floor in bad condition; the building is painted outside; condition of apparatus, separator O. K., combined churn and vats, fair; condition of patrons' milk cans, generally clean; condition of milk in cans, fair.

Feb. 3, 1904.—Viroqua Creamery Co.; co-operative; location, Viroqua; owner or manager, Sec. J. S. Griffin; P. O. address, Viroqua; name of buttermaker, W. W. Wigginton; he has not attended Dairy School at Madison; no. of patrons, 20; no. of cows, 160; no. of pounds cream, 1,400; sampling and testing, Babcock composite weighing system; skim milk starter is used; cream vat covered with cloth; drainage, building located on slope and drainage good; location and condition of buttermilk tank, inside, washed daily; condition of building, new and good; building is not painted outside, but is painted inside; condition of apparatus, new and good; condition of surroundings, good; condition of patrons' milk cans, patrons use 10 gal. cans, some of them quite old; condition of cream in cans, sweet and good flavor, but little frozen.

Feb. 5, 1904.—Name of creamery, Elk Mound; co-operative; location, Elk Mound, Dunn Co.; owner or manager, Wm. Meyer; P. O. address, Elk Mound; name of buttermaker, W. L. Stevrum; he has attended Dairy School at Madison; no. of patrons, 50M. and 30C.; no. of pounds of milk daily, 5,000 and 4,000C.; no. of pounds of butter daily, 450; average test, 4.3; butter yield, 4.94, and overrun, 15, at last payment; sampling and testing, composite, monthly; loss of fat in skim milk, .07 per cent.; loss of fat in buttermilk, .6 per cent.; buttermilk starter is used; help themselves to skim milk; cream vat was covered with board; drainage, wooden trough about 50 feet and allowed to settle very bad in summer; no bad odor in creamery; location and condition of skim milk tank, overhead in engine room, washed daily; location and condition of buttermilk tank, overhead in engine room, washed daily; condition of building, good; building is painted outside; condition of apparatus, good, combined churn, two separators, open

vat; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, good.

Feb. 15, 1904.—Name of creamery, Prairie Queen; co-operative; location, 3 miles west Cambridge; sec. 10, town Christiana; owner or manager, M. A. Strommen; P. O. address, Cambridge, R. F. D.; name of buttermaker, M. Johnson; he has not attended Dairy School at Madison; no. of patrons, 40; no. of pounds of milk daily, 4,000; no. of pounds of butter daily, 180; average test, 4.10; butter yield, 4.64, and overrun, 13, at last payment; sampling and testing, single samples once in 2 weeks; loss of fat in skim milk, .05 per cent.; no starter is used; skim milk was divided by weigher; cream vat was covered with boards; drainage, sewer pipe about 8 rods from building into ditch alongside of road; no bad odor in creamery; location and condition of skim milk tank, inside building, washed daily, (said to be), looks as if it hadn't been washed out for a year; location and condition of buttermilk tank, inside, not in use, full of frozen buttermilk; condition of building, good, cement floor; building is painted outside; condition of apparatus, fair, combined churn, two cream separators, heat with direct steam; condition of surroundings, O. K.; condition of patrons' milk cans, O. K.; condition of milk in cans, good. Remarks: Thirty samples of milk were tested, ranging from 3.3 per cent. to 7.2 per cent. butter fat.

Feb. 16, 1904.—Name of creamery, Banner; proprietary; location, one and one-fourth miles ne. Lake Mills; sec. 7, town of Aztelan; owner, E. C. Dodge Creamery Co.; P. O. address, Lake Mills; name of buttermaker, D. Sheldon; he has not attended Dairy School at Madison; no. of patrons, 23; no. of pounds of milk daily, 4,500; no. of pounds of butter daily, 200; sampling and testing, composite, weekly; loss of fat in skim milk, 1-10 per cent.; loss of fat in buttermilk, .05 per cent.; cream starter is used; skim milk is divided by weigher; cream vat covered with cloth; drainage, six rods to a small creek, good; no bad odor in creamery; location and condition of skim milk tank, upstairs, cleaned daily, O. K.; location and condition of buttermilk tank, inside, clean, O. K.; condition of building, good, cement floor, painted inside, good sanitary condition; building is painted outside; condition of apparatus, good, combined churn, two cream separators, open cream vat, tester might be better; condition of surroundings, O. K.; condition of patrons' milk cans, O. K.; condition of milk in cans, good. Remarks: Twenty-one samples of milk tested which contained 3.4 per cent. to 5.4 per cent. butter fat.

Feb. 17, 1904.—Name of creamery, Aztalan; proprietary; location, two and three-fourths miles east of Lake Mills; owner, E. C. Dodge Creamery Co.; P. O. address, Lake Mills; name of buttermaker, F. M. Crandall; he has not attended Dairy School at Madison; no. of patrons, 40; no. of pounds of milk daily, 5,200; no. of pounds of butter daily, 235; loss of fat in skim milk, .04 per cent.; loss of fat in buttermilk, .1 per cent.; cream starter is used; skim milk was divided by weigher; cream vat was not covered; drainage, tiled to river, about 100 rods; no bad odor in creamery; location and condition of skim milk tank, upstairs, washed daily; location and condition of buttermilk tank, upstairs, washed daily; condition of building, good, cement floor, painted inside, clean; building is painted outside; condition of apparatus, good, combined churn, two separators, tester, O. K.; condition of surroundings, good; condition of patrons' milk cans, O. K.; condition of milk in cans, good. Remarks: Twenty-seven samples of milk were tested, which contained 3.2 per cent. to 5 per cent. butter fat.

Feb. 23, 1904.—Name of creamery, Token Creek; proprietary; location, Token Creek; Burke township, sec. 3; owners, Dodge & Dodge; P. O. address, Windsor; name of buttermaker, J. Tingum; has not attended Dairy School at Madison; no. of patrons, 39; cream, 9; no. pounds of milk 2 days, 5,300; no. pounds of butter 2 days, 450; sampling and testing, composite, weekly; no starter is used; skim milk was divided by weigher; cream vat was not

covered; drainage, open drain to a ravine, works well; no bad odor in creamery; location and condition of skim milk tank, upstairs, washed every day; location and condition of buttermilk tank, upstairs, washed every day; condition of building, good, new cement floor, painted inside; building is painted outside; condition of apparatus, good, combined churn, cream separator; condition of surroundings, good.

Feb. 24, 1904.—Name of creamery, Ideal; co-operative; location, 6 miles nw. Sun Prairie; township, Windsor, sec. 24; manager, T. O. Mandt; P. O. address, Sun Prairie, R. D.; name of buttermaker, C. H. Christianson; he has attended Dairy School at Madison; no. of patrons, 38; no. of pounds of milk 2 days, 4,800; no. of pounds of butter 2 days, 200; average test, 4.45; butter yield, 4.78, and overrun, 7 at last payment; sampling and testing, composite, semi-monthly; no starter is used; skim milk was divided by weigher; cream vat was covered with oil cloth; drainage, tiled about twenty feet, open to ravine; no bad odor in creamery; location and condition of skim milk tank, inside, overhead, washed daily; location and condition of butter milk tank, outside, not in use; condition of building, good, been fixing 't up, put in new refrigerator, will be painted in spring; the building is painted outside; condition of apparatus, nearly new, combined churn, separator and vats, tester O. K.; condition of surroundings, O. K.; condition of patrons' milk cans, O. K.; condition of milk in cans, only complaint is not delivered often enough.

Feb. 25, 1904.—Name of creamery, De Forest B. & C. Co.; co-operative; location, De Forest, Dane Co.; manager, A. J. Dustin; P. O. address, De Forest; name of buttermaker, T. L. Woodford; he has not attended Dairy School at Madison; no. of patrons, 26; no. of pounds of milk 2 days, 3,600; no. of pounds of putter, 150; average test, 3.36; butter yield, 4.20, and overrun 24 at last payment; sampling and testing, composite, semi-monthly; loss of fat in skim milk, .07 per cent.; loss of fat in buttermilk, .07 per cent.; inspector's test of composite milk sample for day, 3.9; no starter is used; skim milk was divided by weigher; cream vat was covered with cloth; drainage, cesspool about rod from building, very poor; no bad odor in creamery; location and condition of skim milk tank, inside, washed about twice a week now; location and condition of buttermilk tank, outside in ground, never washed; condition of building, poor floor, in bad shape, building old; the building is painted outside; condition of apparatus, fair, combined churn, Alpha separator, good refrigerator, poor tester; condition of surroundings, O. K., except cesspool; condition of patrons' milk cans, generally clean; condition of milk in cans, fairly good. Remarks: These people have since purchased a new tester. Seventeen samples of milk were tested, which contained 3.3 per cent. to 4.3 per cent. butter fat.

March 2, 1904.—Name of creamery, Omro B. & C. Co.; co-operative; location, Omro, Winnebago Co.; owner or manager, Jos. D. Trelevan; P. O. address, Omro, R. D.; name of buttermaker, C. J. Chapin; he has attended Dairy School at Madison; no. of patrons, 82; no. of pounds of milk 2 days, 12,000; no. of pounds of butter 2 days, 565; average test, 4.4; butter yield, 5.11, and overrun, 16 at last payment; sampling and testing, composite, monthly; loss of fat in skim milk, .07 per cent. in winter; loss of fat in buttermilk, .02 per cent.; no starter is used; skim milk was divided by weigher; cream vat was covered with boards; drainage, tile, 3 rods into river, O. K.; no bad odor in creamery; location and condition of skim milk tank, inside, upstairs, washed daily; condition of building, good except floor, expect to put in cement floor in spring, refrigerator needs fixing; building is painted outside; condition of apparatus, 2 new cream separators, combined churn, poor tester; condition of surroundings, good; condition of patrons' milk cans, good; condition of milk in cans, fairly good, some of it kept too long. Remarks: Three pipettes too small; two cream patrons use scales. Eighty-three samples of milk furnished by as many different patrons, tested with variation from 3.7 to 6.2 per cent. butter fat.

March 3, 1904.—Name of creamery, Knowles; proprietary; location, Knowles, Dodge Co.; owner, Naber Creamery Co.; P. O. address, Mayville; name of buttermaker, A. Lehmen; he has not attended Dairy School at Madison; no. of patrons, 35; no. of pounds of milk, 2 days, 4,600; no. of pounds of butter, 2 days, 199; sampling and testing, composite, semi-monthly; loss of fat in skim milk, .15 per cent.; inspector's test of composite milk sample for day, 4 per cent.; no starter was used; skim milk was divided by weigher; cream vat was covered with board; drainage, runs down side of road; no bad odor in creamery; location and condition of skim milk tank, upstairs, washed daily; location and condition of buttermilk tank, inside, washed daily; condition of building, good; the building is painted outside; condition of apparatus, at present poor, combined churn, two cream separators, tester poor; condition of surroundings, O. K.; condition of patrons' milk cans, good; condition of milk in cans, fair. Remarks: Parties owning creamery have just taken possession. Will put in new machinery and paint building inside and out.

March 8, 1904.—Name of creamery, Oak Park; co-operative; location, 3 miles nw. of Deerfield; sec. 17, town Deerfield; manager, Ed. Zabel; P. O. address, Deerfield, R. D.; name of buttermaker, Thos. Netland; he has not attended Dairy School at Madison; no. of patrons, 36; no. of pounds of milk daily, 4,000; no. of pounds of butter daily, 160; average test, 3.94; butter yield, 4.60, and overrun 16 at last payment; sampling and testing, composite, semi-monthly; commercial starter is used; skim milk was divided by weigher; cream vat was covered with oil cloth; drainage, runs out to road and alongside road; no bad odor in creamery; location and condition of skim milk tank, inside, washed daily; location and condition of buttermilk tank, inside, washed frequently; condition of building, good, new cement floor; the building is painted outside; condition of apparatus, good, two Alpha separators, combined churn, good tester and vats; condition of surroundings, O. K.; condition of patrons' milk cans, fairly clean; condition of milk in cans, shows wintry conditions.

March 8, 1904.—Name of creamery, Story creamery; co-operative; location, six miles sw. of Oregon; owner or manager, Oak Hall Creamery Co.; P. O. address, Oregon, Dane Co., Wis.; name of buttermaker, C. H. Masche; he has not attended Dairy School at Madison; no. of patrons, 39; no. of cows, about 300; no. of pounds of milk every other day, 5,491; no. of pounds of butter every other day, 240 pounds; average test, 4.11 per cent.; butter yield, 4.50 pounds, and overrun, 10 per cent., at last payment; loss of fat in skim milk, no skim milk bottles, just a trace shown in common bottle; loss of fat in buttermilk, .20 per cent.; inspector's test of composite milk sample for day, 4.14 per cent.; pasteurized skim milk commercial starter was used; skim milk was divided by patent weigher; cream vat was covered with tight pine board; drainage. not very good, small sewage box sunk in ground near the building, underground drain to field some distance from factory; no bad odor in creamery; location and condition of skim milk tank, elevated inside of building, made of galvanized iron, washed out daily; location and condition of buttermilk tank, elevated inside of building, made of galvanized iron, washed out daily; condition of building, fair, new floors of hard white pine in make room, repairs are at present being made on building; the building is painted outside; condition. of apparatus, clean, boiler, engine and milk heater not doing good work, separator, vats and churn in good order; condition of surroundings, clean and free from rubbish; condition of patrons' milk cans, clean, in good order, with the exception of four, which were badly rusted; condition of milk in cans, very good for every other day delivery, one can slightly sour.

March 9, 1904.—Name of creamery, Deerfield; co-operative; location, Deerfield, Dane Co.; manager, A. Brictson; P. O. address, Deerfield; name of buttermaker, J. T. Lundeberg; he has not attended Dairy School at Madison; no.

of patrons, 37; no. of pounds of milk 2 days, 7,000; no. of pounds of butter, 2 days, 280; average test, 3.9; butter yield, 4.6, and overrun, 17, at last payment; sampling and testing, composite, monthly in winter; loss of fat in skim milk, .05 per cent.; loss of fat in buttermilk, .02 per cent.; commercial starter is used; skim milk was divided by weigher; cream vat was covered with oil cloth; drainage, cesspool about 30 feet from building; no bad odor in creamery; location and condition of skim milk tank, inside, elevated, washed daily; location and condition of buttermilk tank, outside near building, not washed; condition of building, fair, cement floor; building is painted outside; condition of apparatus, good, combined churn, two cream separators, tester O. K.; condition of surroundings, O. K.; condition of patrons' milk cans, good; condition of milk in cans, bad, especially one load barny and wintry. Remarks: Called meeting of patrons for 2 P. M., about 20 in attendance. Talked nearly three hours. Thirty-seven samples of milk furnished by different patrons tested, with variation from 3.4 to 4.5 per cent. butter fat.

March 10, 1904.—Name of creamery, Bannon; proprietary; location, three and one-half miles ne. Deerfield; sec. 11, town Deerfield; owner, E. C. Dodge Creamery Co.; P. O. address, Lake Mills; name of buttermaker, Herman Schmidt; he has not attended Dairy School at Madison; no. of patrons, 29; no. of pounds of milk daily, 4,000; no. of pounds of butter daily, 175; sampling and testing, composite, weekly; loss of fat in skim milk, .05 per cent. to .12 per cent.; no starter is used; skim milk was divided by weigher; cream vat was covered with cloth; drainage, cesspool about 15 rods from building, overflows alongside road; no bad odor in creamery; location and condition of skim milk tank, upstairs, washed daily; location and condition of buttermilk tank, upstairs, washed weekly; condition of building, fair, good cement floor; building is painted outside; condition of apparatus, good, 2 cream separators, combined churn tester O. K.; boiler in poor condition; condition of surroundings, O. K.; condition of patrons' milk cans, generally clean; condition of milk in cans, very good. Remarks: Twenty-five samples of milk tested with variation from 3.2 per cent. to 4.4 per cent. butter fat.

March 11, 1904.—Name of creamery, London; proprietary; location, London, Dane Co.; owner, Roach & Seeber Co.; P. O. address, Waterloo; name of buttermaker, H. Lewis; he has not attended Dairy School at Madison; no. of patrons, 43; no. of pounds of milk daily, 7,300; no. of pounds of butter daily, 300; sampling and testing, composite, weekly; loss of fat in skim milk, .03 per cent.; loss of fat in buttermilk, .22 per cent.; sometimes buttermilk starter used; skim milk divided by weigher; cream vat covered by wire screen; drainage, open ditch alongside railroad track; no bad odor in creamery; location and condition of skim milk tank, inside, washed daily; location and condition of buttermilk tank, inside, washed daily; condition of building, good wood floor in main room, cement in boiler room; the building is painted outside; condition of apparatus, combined churn, tester and cream separator, O. K., two hollow bowls doing fair work; condition of surroundings, O. K.; condition of patrons' milk cans, generally good; condition of milk in cans, fair. Remarks: Forty-three samples of milk tested, showing variation from 3 to 4.4 per cent. of butter fat.

March 12, 1904.—Name of creamery, Cambridge; proprietary; location, Cambridge; owner Hoard Creamery Co.; P. O. address, Ft. Atkinson; name of buttermaker, W. B. Telyea; he has not attended Dairy School at Madison; no. of patrons, 52; no. of pounds of milk daily, 5,500; no. of pounds of butter daily, 240; sampling and testing, composite; loss of fat in skim milk, .02 to .05 per cent.; loss of fat in buttermilk, .35 per cent.; commercial starter is used; skim milk is divided by weigher; cream vat was not covered; drainage, tiled six rods to creek; no bad odor in creamery; location and condition of skim milk tank, inside, washed daily; location and condition of buttermilk tank, inside, washed daily; condition of build-

ing, good, has been rebuilt, cement floor; the building is painted outside; condition of apparatus, good, combined churn, two cream separators, heater, tester O. K.; condition of patrons' milk cans, good; condition of milk in cans, fair. Remarks: Fifty-two samples of milk tested which showed variation from 2.2 to 4:6 per cent. of butter fat.

March 15, 1904.—Name of creamery, Sumner; proprietary; location, Sumner, Jefferson Co.; owner, H. Schempf Co.; P. O. address, Ft. Atkinson; name of buttermaker, T. C. Blake; he has not attended Dairy School at Madison; no. of patrons, 35; no. of pounds of milk 2 days, 7,400; no. of pounds of butter 2 days, 330; sampling and testing, composite, semi-monthly; loss of fat in skim milk, .3 per cent.; commercial starter used; skim milk was divided by weigher; cream vat was covered with board; drainage, tile 20 feet to creek; no bad odor in creamery; location and condition of skim milk tank, upstairs, washed daily; location and condition of buttermilk tank, upstairs, washed daily; condition of building, new stone building, cement floor; condition of apparatus, good, combined churn, two separators, tester and vats O. K.; condition of surroundings, good; condition of patrons' milk cans, O. K.; condition of milk in cans, good.

March 16, 1904.—Name of creamery, Hillside; co-operative; location, 7½ m. n. of Edgerton; sec. 2, town Albion; manager, P. N. Johnson; P. O. address, Cambridge, 38; name of buttermaker, G. H. Zuedtke; he has not attended Dairy School at Madison; no. of patrons, 85; no. of pounds of milk 2 days, 13,600; no. of pounds of butter, 2 days, 625; average test, 4.10; butter yield, 4.72, and overrun, 15, at last payment; sampling and testing, composite, semi-monthly; commrcial starter was used; skim milk was divided by weigher; cream vat was covered with screen; drainage, half mile into field; no bad odor in creamery; location and condition of skim milk tank, inside, washed daily; location and condition of buttermilk tank, inside, washed daily; condition of building, good; the building is painted outside; condition of apparatus, good, combined churn, two separators, tester, everything in first-class shape; condition of surroundings, O. K.; condition of patrons' milk cans, O. K.; condition of milk in cans, O. K.

March 19, 1904.—Name of creamery, Rock Riverside; proprietary; location, Mayville, Dodge Co.; owner, Baertchy & Wuethrich; P. O. address, Mayville; name of buttermaker, F. Wuethrich; he has attended Dairy School at Madison; no. of patrons, 58; no. of pounds of milk 2 days, 9,500; no. of pounds of butter 2 days, 320; average test, 3.95; butter yield, 4.58; sampling and testing, composite, semi-monthly; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .05 per cent.; commercial starter is used; skim milk was divided by man employed; cream vat was covered with cloth; drainage, tile to Rock river; no bad odor in creamery; location anl condition of skim milk tank, outside, elevated, washed daily; location and condition of buttermilk tank, outside, washed weekly; condition of building, brick building, in good condition; condition of apparatus, nearly new, combined churn, heater, two cream separators, tester O. K.; condition of surroundings, good; condition of patrons' milk cans, O. K.; condition of milk in cans, O. K.

March 22, 1904.—Name of creamery, Hudson Road; co-operative; location, four and three-fourths miles west Menomonee; T. 28, sec. 24, R. 14; manager, M. Fladdoes; P. O. address, Menomonee, R. D. 1; name of buttermaker, S. B. Cook; he has not attended Dairy School at Madison; no. of patrons, 23 and 15 at station; no. of pounds of milk 2 days, 3,100; no. of pounds of butter daily, 150; average test, 3.80; sampling and testing, composite, semi-monthly; home-made starter used; skim milk was divided by weighing; cream vat was covered with board; drainage, tiled 60 feet from building, thence into woods, doesn't bother; no bad odor in creamery; location and condition of skim milk tank, elevated in work room, washed daily; location and condition of buttermilk tank, outside on ground washed

weekly; condition of building, fair, wooden floor, poor; the building is painted outside; condition of apparatus, combined churn, poor separator and tester O. K., vats O. K., refrigerator poor; condition of surroundings, O. K.; condition of patrons' milk cans, clean; condition of milk in cans, fair. Remarks: Very wet and damp from water tank leaking; makes it very unhealthy.

March 22, 1904.—Name of creamery, Brooklyn Cheese and Butter Factory; co-operative; location, village of Brooklyn; manager, H. B. Holberg; address, Brooklyn, Wis.; name of buttermaker, H. B. Holberg; he has not attended Dairy School at Madison; no. of patrons, 200; no. of cows, 1,200; no. of pounds of milk, every other day, 20,000; no. of pounds of butter, every other day, 900 pounds; average test, 3.90 per cent; butter yield, 4.5, and overrun, 15 per cent., at last payment; loss of fat in skim milk, trace, three mahines; loss of fat in buttermilk, .2 per cent.; no starter used; skim milk was divided by patent weigher; cream vat was covered; drainage, carried through sewer laid underground to stream in forest, nearly one mile from factory; no bad odor in creamery; location and condition of skim milk tank, outside, on surface of ground, clean, scalded daily; location and condition of buttermilk tank, outside, underground, clean but not desirable; condition of building, good, clean, well arranged plant; the building is painted outside; condition of apparatus, in good repair, doing good work; condition of surroundings, neat and clean; condition of patrons' milk cans, reported good by buttermaker; condition of milk in cans, reported good by buttermaker.

March 22, 1904.—Name of creamery, Oak Hall; co-operative; location, village of Oregon, Dane Co.; owner or manager, co-operative; P. O. address, Oregon, Wis.; name of buttermaker, E. Matson; he has attended Dairy School at Madison; no. of patrons, 145; no. of cows, about 1,200; no. pounds of milk every other day, 19,000; no. of pounds of butter, every other day, 850; average test, 4.25 per cent.; butter yield, 4.72, and overrun, 15 per cent., at last payment; loss of fat in skim milk, trace; loss of fat in buttermilk, .2 per cent.; commercial starter is used; skim milk was divided by patent weigher; cream vat was covered; drainage, good, carried into small stream some distance from factory; no bad odor in creamery: location and condition of skim milk tank, overhead in creamery building, clean; location and condition of buttermilk tank, overhead in creamery building, clean; condition of building, good, clean; the building is painted outside; condition of apparatus, first-class; condition of surroundings, clean and neat; condition of patrons' milk cans, reported good by buttermaker; condition of milk in cans, reported good by buttermaker.

March 22, 1904.—Name of creamery, Rutland Creamery; co-operative; location, village of Rutland; Rutland township, sec. 5; manager, B. J. Ellis; P. O. address, Stoughton, Wis., R. F. D.; name of buttermaker, B. J. Ellis; he has attended Dairy School at Madison; no. of patrons, 87; no. of pounds of milk, 10,000 every other day; no. of pounds of butter, about 850; average test, 3.95; butter yield, 4.66, and overrun, 18 per cent., at last payment; loss of fat in skim milk, trace; loss of fat in buttermilk, average, .2 per cent.; commercial starter is used; skim milk is divided by patent weigher; cream vat was covered; drainage, conveyed through sewer pipe into marsh one-half mile from creamery; no bad odor in creamery, but bad odor outside; location and condition of skim milk tank, in upper floor of creamery, fairly clean; location and condition of buttermilk tank, outside the factory, near factory wall, not clean; condition of building, poor, floors and siding needs to be replaced with new; building is painted outside; condition of apparatus, combined churn and butter worker, two separators and engine in good order, need new cream vat and repairs on boiler; condition of surroundings, untidy, bad odor; condition of patrons' milk cans, reported good by buttermaker; condition of milk in cans, reported good by buttermaker.

March 25, 1904.—Name of creamery, Star Prairie; proprietary; location, Star Prairie; 5 m. s. of New Richmond; owner, Superior Creamery Co.; P. O. address, Star Prairie; name of buttermaker, Peter Utgard; he has not attended Dairy School at Madison; no. of patrons, 72; cream, 6; no. of pounds of milk, 2 days, 9,000; sampling and testing, composite, semi-monthly; loss of fat in skim milk, .07 per cent.; commercial starter is used; skim milk was divided by weigher; cream vat was covered; drainage, good sewer to river; no bad odor in creamery; location and condition of skim milk tank, inside, washed daily; location and condition of buttermilk tank, have none, use cans; condition of building, fair, floor poor; the building is painted outside; condition of apparatus, good combined churn, two cream separators, vats and tester O. K.; condition of surroundings, O. K.; condition of patrons' milk cans, O. K.; condition of milk in cans, O. K. Remarks: Seventy-nine samples of milk tested which showed variation from 3 to 4.6 per cent. of butter fat. Eight samples of cream tested with variation from 19 per cent. to 23 per cent. butter fat.

March 26, 27, 28, 1904.—Name of creamery, Klondike; proprietary; location, 4 miles south of Marshfield; sec. 31, township 25, range 3 E.; owner, C. A. Hathaway; P. O. address, Marshfield, R. D. 1; name of buttermaker, W. Hathaway; he has not attended Dairy School at Madison; no. of patrons, 61; no. of pounds of milk 2 days, 6,500; no. of pounds of butter, 2 days, 287; average test 4.16, butter yield 4.63, and overrun 11.2, at last payment; sampling and testing, composite, semi-monthly; loss of fat in skim milk, .07, .05, .02 per cent.; loss of fat in buttermilk, .12 per cent.; inspector's test of composite milk sample for day, 3.8; commercial starter is used; skim milk was divided by weigher; cream vat was covered with board; drainage, box trough underground to creek; no bad odors in creamery; location and condition of skim milk tank, inside, washed daily; location and condition of buttermilk tank, use cans, cleaned daily; condition of building, fair, wooden floor; the building is painted outside; condition of apparatus, good combined churn, cream separator, vats and tester O. K.; condition of surroundings, O. K.; condition of patrons' milk cans, O. K.; condition of milk in cans, some sediment in some of the cans, otherwise O. K.

April 5, 1904. Name of creamery, Syene; proprietary; location, Syene, Dane Co.; owner or manager, J. Odegard; P. O. address, Syene, Wis.; name of Buttermaker, C. O. Black; he has not attended Dairy School at Madison; no. of patrons, 16; no. of pounds of milk every second day, 3,009; no. of pounds of butter every second day, 426; average test 3.60 per cent., butter yield 4.12, and overrun 11 per cent., at last payment; sampling and testing, properly done; loss of fat in skim milk, trace; loss of fat in buttermilk, .20 per cent.; inspector's test of composite milk sample for day, 3.60; no starter used; skim milk was divided by patent weigher; cream vat was not covered; drainage, into ditch a long distance from creamery; no bad odor in creamery; location and condition of skim milk tank, inside the building, in attic; location and condition of buttermilk tank, inside the building, in attic; condition of building, old and in poor repair; cement floors; the building is not painted on outside; condition of apparatus, good, machinery in first-class running order; condition of surroundings, not attractive, fairly clean; condition of patrons' milk cans, good, clean; condition of milk in cans, good, clean.

April 8, 1904.—Name of creamery, Boscobel; proprietary; location, Boscobel, Grant Co.; owner or manager, Parker, Hildebrand Co.; P. O. address, Boscobel; buttermaker has not attended Dairy School at Madison; no. of patrons, 25 and 17 cream; no. of pounds of milk, 3 times per week, 5,000: sampling and testing, composite, semi-monthly; no starter is used; skim milk was divided by weigher; cream vat was not covered; drainage, creek within three

or four rods of building; location and condition of skim milk tank, upstairs; location and condition of buttermilk tank, outside, an old churn, in good shape; condition of building, fair, wooden floor, in good condition; the building is painted outside; condition of apparatus; cream separator, combined churn and tester O. K.; condition of surroundings, O. K.; condition of patrons' milk cans, O. K.; condition of milk in cans, O. K.

April 9, 1904.—Name of creamery, Farmers Mutual; co-operative; location, Fennimore; manager, F. N. Kern; P. O. address, Fennimore; name of buttermaker, H. D. Remington; he has not attended Dairy School at Madison; no. of patrons, 74 and 20; no. of pounds of milk 2 days, 8,000; no. of pounds of butter 2 days, 600; sampling and testing, composite, semi-monthly; commercial starter is used; skim milk was divided by weigher; cream vat was not covered; drainage, creek within a rod of building; no bad odor in creamery; location and condition of skim milk tank, overhead, washed daily; location and condition of buttermilk tank, outside, cleaned daily; condition of building, good, wooden floor, refrigerator good; the building is painted outside; condition of apparatus, two separators, combined churn, tester and vats O. K.; condition of surroundings, O. K.; condition of patrons' milk cans, O. K.; condition of milk in cans, some of it kept too long.

April 14, 1904.—Name of creamery, Bloomington; proprietary; location, Bloomington; owner, Jos. Beadle; P. O. address, Millville; name of buttermaker, W. Finch; he has attended Dairy School at Madison; no. of patrons, 3 and 1; no. of pounds of milk daily, 200 for 2 days; sampling and testing, composite, semi-monthly; helped themselves to skim milk; cream vat was covered with cloth; drainage, creek back of building; no bad odor in creamery; no skim milk tank; location of buttermilk tank, inside; condition of building, fair; the building is painted outside; condition of apparatus, good separator and vats, will put in new churn; condition of surroundings, O. K.
ciation; co-operative; location, village of Loganville, Westfield township; manager, Henry Westdedt; P. O. address, Loganville, Sauk Co., Wis.; name of buttermaker, F. H. Harms; he has attended Dairy School at Madison; no. of patrons, 205; no. of cows, about 3,000; no. of pounds of milk daily, 31,000 no. pounds of butter daily average, 2,100; average test, 3.9 per cent.; butter yield, 4.11 pounds, and overrun 12 per cent. at last payment; sampling and testing, composite; loss of fat in skim milk, trace; loss of fat in buttermilk last test, .20 per cent.; pasteurized skim milk starter is used; skim milk was divided by weigher; cream vat was covered with canvas cover; drainage, passes off into creek, considerable distance from factory; no bad odor in creamery; location and condition of skim milk tank, on upper floor of creamery, clean; location and condition of buttermilk tank, on upper floor of creamery, clean; condition of building, first-class frame building, in good condition; the building is painted outside; condition of apparatus, first-class, well arranged and in excellent order; condition of surroundings, good, clean; condition of patrons' milk cans, reported good, a few gathered cream cans not kept clean; condition of milk in cans, reported good, maker complained that a few cans of gathered cream came in too warm.

April 15, 1904.—Name of creamery, White Lilly; proprietary; location, country; Janesville township, sec. 1; owner or manager, F. W. Boettcher; P. O. address, Janesville, Wis., R. F. D. 8; name of buttermaker, F. W. Boettcher; he has not attended Dairy School at Madison; no. of patrons, 37; no. of cows, about 400; no. of pounds of milk daily, 6,800; no. of pounds of butter daily, nearly 270; average test 3.70 per cent., butter yield 4.17, and overrun 13 per cent., at last payment; sampling and testing, composite; loss of fat in skim milk, last test showed trace in common milk bottle; no starter is used; patrons helped themselves to skim milk from barrel;

cream vat was covered with canvas; drainage, carried to large ditch not far from creamery; no bad odor in creamery; location and condition of skim milk tank, a common barrel just outside creamery building, clean; condition of building, large frame building in fair condition; the building is painted outside; condition of apparatus, did not see machinery in operation, but it looked to be in O. K. condition; condition of surroundings, first-class; condition of patrons' milk cans, reported clean; condition of milk in cans, reported good.

April 16, 1904.—Name of creamery, Clover Hill; proprietary; location, country; Cold Springs township; owner or manager, Coxe, Parish and Steele; P. O. address, Whitewater, Wis.; name of buttermaker, W. M. Coxe; he has attended Dairy School at Madison; no. of patrons, 21; no. of cows, 300; no. of pounds of milk daily, 5,000; no. of pounds of butter daily, 250; average test 3.85, butter yield 4.40, and overrun 15 per cent. at last payment; sampling and testing, composite; loss of fat in skim milk, reported trace; loss of fat in buttermilk, reported .20 per cent.; commercial starter is used; skim milk divided with pails; cream vat was not covered; drainage, poor, passes off into shallow ditch and over surface of ground; no bad odor in creamery; location and condition of skim milk tank, on surface of ground near factory, fair condition; no buttermilk tank; condition of building, poor, altogether too small and low; the building was painted outside some years ago; condition of apparatus, old, badly worn, separator not running as it should; condition of surroundings, fair, no bad odor, but untidy; condition of patrons' milk cans, reported good and clean, milk and cans seen were O. K.; condition of milk in cans, reported all right.

April 16, 1904.—Name of creamery, Home; proprietary; location, country; Cold Springs township; owner or manager, Billett and Marshall; P. O. address, Whitewater, Wis.; name of buttermaker, F. E. Snyder; he has not attended Dairy School at Madison; no. of patrons, 20; no. of cows, about 450; no. of pounds of milk daily, 5,000; no. of pounds of butter daily, 220; average test 3.60, butter yield 4.20, and overrun 15 per cent. at last payment; sampling and testing, composite; loss of fat in skim milk, reported trace; loss of fat in buttermilk, reported .20 per cent.; skim milk, not pasteurized, is used as starter; skim milk was divided by weigher; improved cream vat was used; drainage, tile drain underground O. K.; no bad odor in creamery; location and condition of skim milk tank, over boiler room on second floor, clean; location and condition of buttermilk tank, over boiler room on second floor, clean; condition of building, fine, large, roomy frame building, cement floors; the building is painted outside; condition of apparatus, good, fine up-to-date machinery of all kinds used in creameries; condition of surroundings, good, with the exception of one spout which needed repairing; condition of patrons' milk cans, reported good; condition of milk in cans, reported good.

April 16, 1904.—Name of creamery, Bark River Cheese Co.; co-operative; location, village of Hebron; Hebron township, sec. 2; manager, A. J. Carmon; P. O. address, Ft. Atkinson, Wis., R. F. D. 2; name of buttermaker, James Van Duser; he has attended Dairy School at Madison; no. of patrons, 54; no. of cows, 650; no. of pounds of milk daily, 8,500; no. of pounds of butter daily, 363; average test 3.65; butter yield 4.20, and overrun 15 per cent. at last payment; sampling and testing, composite; loss of fat in skim milk, trace; loss of fat in buttermilk, about .20 per cent.; pasteurized skim milk starter was used; skim milk was divided by patent weigher; cream vat was covered with good canvas covers; drainage, wash water and slops carried off to running stream of water; no bad odor in creamery; location and condition of skim milk tank, outside of creamery, galvanized iron, washed out daily; location and condition of buttermilk tank, on top of ground at rear of building, clean; condition of building, fine, large, well built frame building, clean and in good repair; the building is painted out-

side; condition of apparatus, O. K., splendid equipment; condition of surroundings, clean and carefully cared for; condition of patrons' milk cans, reported good; condition of milk in cans, reported good. Remarks: Factory in perfect condition.

April 16, 1904.—Name of creamery, Cold Spring Creamery Co.; co-operative; location, country; Cold Spring township; manager, J. W. Cooper; P. O. address, Whitewater, Wis.; name of buttermaker, W. F. Krohn; he has not attended Dairy School at Madison; no. of patrons, 20; no. of cows, about 350; no. of pounds of milk daily, 4,500; no. of pounds of butter daily, 200; average test, 3.50, butter yield 4.12, and overrun 13 per cent. at last payment; sampling and testing, composite; loss of fat in skim milk, trace; loss of fat in buttermilk, about .20 per cent.; skim milk not pasteurized is used as starter; skim milk was divided by patent weigher; cream vat was covered with board cover; drainage, wash water carried through closed ditch to land some distance from factory, no bad odor in creamery; location and condition of skim milk tank, on upper floor of factory, clean; location and condition of buttermilk tank, on upper floor of factory, clean; condition of building, first class, good floors, clean; the building is painted outside; condition of apparatus, O. K., clean, combined churn; condition of surroundings, neat and clean; condition of patrons' milk cans, reported good; condition of milk in cans, reported O. K.

April 21, 1904.—Name of creamery, Mt. Hope; proprietary; location, village of Mt. Hope; Mt. Hope township; owner or manager, Hinn Bros.; P. O. address, Fennimore, Wis.; name of buttermaker, C. E. Button; he has attended Dairy School at Madison; no. of patrons, 62; no. of pounds of milk every other day, —; no. of pounds of butter every other day, 1,200; average test, 3.80 per cent., butter yield 4.25, and overrun 15 per cent. at last payment; sampling and testing, composite; loss of fat in skim milk, trace; loss of fat in buttermilk, not over .20 per cent.; no starter used; skim milk was divided by patent weigher; cream vat was not covered; drainage, washings pumped up into large elevated tank, hauled away from time to time to a running stream of water; location and condition of skim milk tank, elevated, outside of creamery; location and condition of buttermilk tank, above ground, near creamery, clean; condition of building, old and in bad condition, floors worn out and patched, clean; the building is painted outside; condition of apparatus, O. K.; kept up in first-class order; condition of surroundings, clean, O. K.; condition of patrons' milk cans, reported O. K.; condition of milk in cans, reported good and clean.

April 21, 1904.—Name of creamery, Werley Co-op. Creamery; co-operative; location, Grant Co.; Mt. Ida township; owner or manager, Albert Ketter; P. O. address, Werley; name of buttermaker, Chas. Gilbert; he has attended Dairy School at Madison; no. of patrons, 40; no. of cows, 400; no. of pounds of milk daily, 8,000; no. of pounds of butter daily, 320; sampling and testing, composite; skim milk was divided by weigher; cream vat was covered with cloth; drainage, good, tile drainage to the creek; no bad odor in creamery; location and condition of skim milk tank, 30 feet outside, elevated and washed every day; location and condition of buttermilk tank, outside, near building, washed daily; condition of building, new and good; the building is painted outside; condition of apparatus, new and in first-class order; condition of surroundings, good; condition of patrons' milk cans, reported good; condition of milk in cans, reported good.

April 22, 1904.—Name of creamery, Lancaster; proprietary; location, Lancaster; owner, Baxter and Draper; P. O. address, Lancaster; name of buttermaker, D. W. Kelley; he has not attended Dairy School at Madison; no. of patrons, 19 milk and 18 cream; no. of pounds of milk two days, 6,000; no. of pounds of butter two days, 300; sampling and testing, composite, semi-monthly; no starter is used; skim milk was divided by weigher; cream vat was covered with screen; drainage, cesspool, advised building septic

tank; no bad odor in creamery; location and condition of skim milk tank, elevated, outside, washed daily; location and condition of buttermilk tank, elevated, outside, washed when emptied; condition of building, fair, wooden floor; the building is painted outside; condition of apparatus, combined churn, two cream separators, tester O. K.; condition of surroundings, O. K.; condition of patrons' milk cans, O. K.; condition of milk in cans, O. K.

April 23, 1904.—Name of creamery, Marcellon; co-operative; location, 3 miles northeast Pardeeville; owner or manager, M. Barden, Jr.; P. O. address, Cambria R. D.; name of buttermaker, W. A. Abbott; he has attended Dairy School at Madison; no. of patrons, 100; no. of pounds of cream daily, —; no. of pounds of butter daily, 300; average test, 30 per cent., and overrun 15 at last payment; sampling and testing, composite semi-monthly; commercial starter is used; skim milk was divided by weigher; cream vat was not covered; drainage, 150 feet to Fox river; no bad odor in creamery; location and condition of skim milk tank, elevated inside, washed frequently; location and condition of buttermilk tank, have none; condition of building, new, cement floor; building is painted outside; condition of apparatus, new combined churn, vats and tester; condition of surroundings, O. K.; condition of patrons' milk cans, mostly all cream gathered by haulers.

April 26, 1904.—Name of creamery, Keyser; proprietary; location, Keyser; owners, Dodge & Dodge; P. O. address, Windsor; name of buttermaker, H. Hendrickson; he has not attended Dairy School at Madison; no. of patrons, 31 milk and 8 cream; no. of pounds of milk daily, 2,800; no. of pounds of butter daily, 100; average test, 3.60; butter yield, 4.10 and overrun 14 at last payment; sampling and testing, composite weekly; commercial starter was used; skim milk was divided by weigher; cream vat was covered with oil cloth; drainage, fair, runs alongside road into a ravine; no bad odor in creamery; location and condition of skim milk tank, outside, elevated, washed daily; location and condition of buttermilk tank, outside, not washed; condition of building, fair, wooden floor; the building is painted outside; condition of apparatus, combined churn, separator O. K.; expect to put in new vats; condition of surroundings, O. K.; condition of patrons' milk cans, some in poor condition; condition of milk in cans, fair.

April 26, 1904.—Name of skimming station, Fountain Station; proprietary; location, country; Fountain Prairie township; manager, E. C. Dodge; P. O. address, Lake Mills, Wis.; name of buttermaker, L. C. Field; he has not attended Dairy School at Madison; no. of patrons, 27; no. of cows, about 300; no. of pounds of milk every ther day, 3,600; average test, 4.20; loss of fat in skim milk, trace; skim milk was divided by patent weigher; drainage, good, through tile underground to foot of hill, several rods from factory; no bad odor in creamery; location and condition of skim milk tank, on second floor of building, clean; condition of building, lower story of stone, wood floors, superstructure of wood, building O. K., clean; the building is painted outside; condition of apparatus, first-class, except line shafting; condition of surroundings, good, clean; condition of patrons' milk cans, reported clean and in good order; condition of milk in cans, reported first-class.

April 26, 1904.—Name of skimming station, Wright's Corners; proprietary; location, country; Fountain Prairie township; manager, R. C. Dodge; P. O. address, Lake Mills, Wis.; name of buttermaker, J. E. Hanson; he has not attended Dairy School at Madison; no. of patrons, 24; no. of cows, 225; no. of pounds of milk daily, 4,000; average test, 3.80; sampling and testing, O. K., composite; loss of fat in skim milk, trace in common bottle; skim milk was divided by automatic patent weigher; drainage, not first class, open ditch out into field; no bad odor in creamery; location and condition of skim milk tank, on second floor of factory, clean; loca-

tion and condition of buttermilk tank, has none; condition of building, poor, old, cement floor in bad condition; the building is painted outside; condition of apparatus, good, machinery in good running order; condition of surroundings, fairly clean; condition of patrons' milk cans, reported good; condition of milk in cans, reported good.

April 26, 1904.—Name of creamery, Englewood creamery; proprietary; location, country; Fountain Prairie township; owner, F. C. Westphal; P. O. address, Columbus, Wis.; name of buttermaker, Casper Hohn; he has not attended Dairy School at Madison; no. of patrons, 83; no. of cows, about 800; no. of pounds of milk every other day, 11,331; cream, 250; no. of pounds of butter every other day, 533 pounds; average test, 3.80; butter yield, 4.30, and overrun, about 15 per cent. at last payment; sampling and testing, O. K., composite, scales for cream sampling; loss of fat in skim milk, trace in common bottle; loss of fat in buttermilk, not over .20 per cent.; no starter is used; skim milk divided by drawing through hose from elevated tank; cream vat was covered with clean canvas cover; drainage, underground drain, leading to marsh, long distance from factory; no bad odor in creamery; location and condition of skim milk tank, on second floor of creamery, galvanized iron, neat and clean; location and condition of buttermilk tank, new galvanized tank on second floor, clean and neat; condition of building, first-class frame building, splendid, good cement floors, clean and neat; the building is painted outside; condition of apparatus, O. K., clean and in excellent shape; condition of surroundings, first-class, clean; condition of patrons' milk cans, reported good; condition of milk in cans, reported good. Remarks: The Englewood is a model creamery; machinery and building up to date and correctly arranged. The sanitary condition of this creamery is perfect. Clean, neat and attractive.

April 26, 1904.—Name of creamery, Fall River Creamery; proprietary; location, village of Fall River; Fountain Prairie township; owner or manager, E. C. Dodge; P. O. address, Lake Mills, Wis.; name of buttermaker, H. W. Quimby; he attended Dairy School at Madison in 1902; no. of patrons, 80; no. of cows, 585; no. of pounds of milk daily, 12,000; no. of pounds of butter daily, 500; average test, 3.80; butter yield, 4,20, and overrun, about 15 per cent. at last payment; sampling and testing, O. K.; loss of fat in skim milk, trace; loss of fat in buttermilk, from .20 to .30 per cent.; skim milk not pasteurized, was used as starter; skim milk was divided with patent weigher; cream vat was covered with oil cloth cover; drainage, very good, washings disposed of in running stream of water; no bad odor in creamery; location and condition of skim milk tank, on second floor of creamery, clean; location and condition of buttermilk tank, outside building, 10 feet from ice house, 30 feet from creamery proper, clean; condition of building, just fairly good, structure old, new cement floor in process of construction at time of inspection; the building is painted outside; condition of apparatus, good, boiler, engine and separator in good running order; condition of surroundings, O. K.; condition of patrons' milk cans, reported good; condition of milk in cans, reported good.

April 29, 1904.—Name of creamery, Edmund Creamery; co-operative; location, village of Edmund; Linden township; manager, Walter Kolb; P. O. address, Edmund, Wis.; name of buttermaker, Martin Martin; he has attended Dairy School at Madison; no. of patrons, 30; no. of cows, about 250; no. of 3.60 per cent., butter yield 4.00, and overrun 12 per cent. at last payment; sampling and testing composite, O. K.; loss of fat in skim milk trace; loss of fat in buttermilk, .30 per cent.; commercial starters used; skim milk was divided by patent weigher; cream vat was not covered; drainage, carried out onto field about 10 rods from factory; no bad odor in creamery; location and condition of skim milk tank, small tin can in factory, clean; location and condition of buttermilk tank, small tin can in factory, clean; condition of building, good frame building, clean, the building is painted outside; condition of apparatus, first-class, clean; condition of sur-

roundings, clean, O. K.; condition of patrons' milk cans, fair, clean; condition of milk in cans, good, clean. Remarks: Fine, large creamery.

April 29, 1904.—Name of Skimming Station, Salem; proprietary; location, country; Dodgeville township; owner, Mitchell & Griffith; P. O. address, Dodgeville, Wis.; name of buttermaker, N. I. Smith; he has attended Dairy School at Madison; no. of patrons, 6; no. of cows, about 50; no. of pounds of milk daily, 400; average test, 3.20 per cent.; sampling and testing, composite; loss of fat in skim milk, trace; skim milk was divided by automatic weigher; cream was put into cans and transported to Dodgeville for churning; drainage, closed underground drain out into adjoining field; no bad odor in creamery; location and condition of skim milk tank, just adjoining building, clean; condition of building, old, not up to date, clean; the building is painted a dirty red outside; condition of surroundings, clean, O. K.; condition of patrons' milk cans, reported good and clean; condition of milk in cans, reported good and clean.

April 20, 1904.—Name of skimming Station, Town Line; proprietary; location, village of Linden; Linden township; owner or manager, Spencley & Hoar; P. O. address, Mineral Point, Wis.; name of buttermaker, F. L. Edmunds; he has not attended Dairy School at Madison; no. of patrons, 10; no. of cows, about 60; no. of pounds of milk every other day, 1,533; average test, 3.70 per cent.; loss of fat in skim milk, trace; skim milk was divided by weigher; cream put into cans and transported to Mineral Point for churning; drainage, fair, drain into running water; no bad odor in creamery; location and condition of skim milk tank, in building, clean; condition of building, large, barn-like structure, fairly clean, horse stable in one end; the building was painted outside at one time; condition of apparatus, O. K., clean; condition of surroundings, O. K., clean; condition of patrons' milk cans, reported O. K.; condition of milk in cans, reported O. K.

April 29, 1904.—Name of Skimming Station, West Willow; proprietary; location, Richland Co; Ithaca township; owner or manager, Burnham & Scott; P. O. address, Richland Center; name of buttermaker, C. W. Scholl; he has attended Dairy School at Madison; no. of patrons, 24; no. of cows, 200; no. of pounds of milk daily, 3,500; sampling and testing, composite, Babcock; drainage, good, spring water runs through the factory; no bad odor in creamery; location and condition of skim milk tank, outside factory, washed daily; location and condition of buttermilk tank, not any; condition of building, fair, somewhat out of order while repairing is being done; the building is painted outside; condition of apparatus, fair; condition of surroundings, good; condition of patrons' milk cans, fairly good; condition of milk in cans, reported good.

April 29, 1904.—Name of Skimming Station, Burnham & Scott; proprietary; location, Richland Co.; Richland township; owner or manager, Burnham & Scott; P. O. address, Richland Center; name of buttermaker, Geo. Buchanan; he has not attended Dairy School at Madison; no. of patrons, 16; no. of cows, 300; no. of pounds of milk daily, 6,000; no. of pounds of butter daily, 250; skim milk was divided by check pump; drainage, good, runs into cesspool; no bad odor in creamery; location and condition of skim milk tank, in station, washed daily; condition of building, new and good; the building is not painted outside; condition of apparatus, good; condition of surroundings, good; condition of patrons' milk cans, reported good, condition of milk in cans, good.

April 30, 1904.—Name of creamery, Westford Creamery; proprietary; location, Richland Co.; Westford township; owner or manager, Frank Bowar; P. O. address, Cazenovia; name of buttermaker, Frank Bowar; he has attended Dairy School at Madison; no. of patrons, 29; no. of cows, from 290 to 375; no. of pounds of milk daily, 6,000; no. of pounds of butter daily, 250; average test 3.71, butter yield 4.20, and overrun 14 per cent. at last pay-

ment; sampling and testing, Babcock test; loss of fat in skim milk, reported trace; loss of fat in buttermilk, reported .01 to .02 per cent.; Douglas Culture starter is used; skim milk was divided by weigher; cream vat was covered with galvanized iron and cloth; drainage, fair, surface drain leading to creek; no bad odor in creamery; location and condition of skim milk tank, elevation outside of factory, skim milk is pasteurized, vat clean; location and condition of buttermilk tank, outside on surface and kept clean; condition of building, good; the building is painted outside and inside also; condition of apparatus, good; condition of patrons' milk cans, reported fair, a few bad; condition of milk in cans, fair.

May 2, 1904.—Name of creamery, Waupaca; proprietary; location, Waupaca; owner or manager, Strehlow & Tracte; P. O. address, Watertown; name of buttermaker, H. M. Derlith; he has not attended Dairy School at Madison; no. of patrons, 125 milk, 78 cream; no. of pounds of milk daily, 11,000; no. of pounds of butter daily, 440; average test 3.8, butter yield 4.3, and overrun 12 at last payment; sampling and testing composite, semi-monthly; loss of fat in skim milk, .02 per cent.; loss of fat in buttermilk, .04 per cent.; Commercial starter is used; skim milk was divided by weigher; cream vats were covered; drainage, three rods to river; no bad odor in creamery; location and condition of skim milk tank, upstairs, washed daily; location and condition of skim milk tank, upstairs, washed daily; location and condition of buttermilk tank, upstairs, washed daily; condition of building, good; the building is painted outside; condition of apparatus, combined churn, covered vats, pasteurized heater, separators, etc., O. K.; condition of surroundings, O. K.; condition of patrons' milk cans, O. K.; condition of milk in cans, O. K.

May 5, 1904.—Name of creamery, East Side Valley; co-operative; location, three miles east of DePere; Private claim, 34; manager, Jas. Smith; P. O. address, East De Pere, R. D.; name of buttermaker, L. A. Goodchild; he has not attended Dairy School at Madison; no. of patrons, 114; no. of pounds of milk daily, 11,000; no. of pounds of butter daily, 500; average test, 4.1, butter yield 4.42, and overrun 8 at last payment; sampling and testing composite, semi-monthly; loss of fat in skim milk, trace; loss of fat in buttermilk, trace; Commercial starter is used; skim milk was divided by weigher; cream vat was covered with cloth; drainage, 100 feet to creek; no bad odor in creamery; location and condition of skim milk tank, elevated, inside, washed daily; location and condition of buttermilk tank, inside, washed daily; condition of building, good; new cement floor; the building is painted outside; condition of apparatus, combined churn, two separators, vats, etc., O. K.; condition of surroundings, O. K.; condition of patrons' milk cans, O. K.; condition of milk in cans, O. K.

May 5, 1904.—Name of creamery, Mill Creek; proprietary; location, country; Sylvan township, Richland Co., Wis.; owner and manager, Frank E. Walker; P. O. address, Boaz, Wis., R. F. D., No. 1; name of buttermaker, Frank E. Walker; he has attended Dairy School at Madison; no. of patrons, 40; no. of cows, 500; no. of pounds of milk daily, 10,000; no. of pounds of butter daily, 400; average test 3.80 per cent., butter yield 4.15 per cent., and overrun 20 per cent. at last payment; sampling and testing, composite; loss of fat in skim milk, trace; loss of fat in buttermilk, .10 per cent.; skim milk pasteurized was used as starter; skim milk was divided by check pump; cream vat was covered with wood cover; drainage, running water through long drain pipe; no bad odor in creamery, location and condition of skim milk tank, 40 feet from building, above ground, clean, no bad odor; location and condition of buttermilk tank, overhead in boiler room, clean, O. K.; condition of building, good, clean; the building is painted outside; condition of apparatus, good, O. K., in splendid running order; condition of surroundings, clean, O. K.; condition of patrons' milk cans, reported clean; condition of milk in cans, reported clean and of excellent quality. Remarks: Neat little creamery.

BIENNIAL REPORT

OF THE

ADJUTANT GENERAL

OF THE

STATE OF WISCONSIN

FOR THE

Two Fiscal Years Ending June 30, 1904.

MADISON, WIS.
DEMOCRAT PRINTING COMPANY, STATE PRINTER.
1904.

REPORT

FOR THE

ADJUTANT GENERAL

STATE OF WISCONSIN,
Adjutant General's Office,
MADISON, July 1st, 1904.

To His Excellency ROBERT M. LA FOLLETTE,
Governor and Commander-in-Chief.

SIR: I have the honor to submit the following report for the two fiscal years ending June 30th, 1904.

On the date of this report the strength of the Wisconsin National Guard is as follows: Commissioned officers 202; enlisted men 2,765; total 2,967. If every organization was recruited up to the limit permitted by law the total number of officers and men would be 3,097.

The organization remains in force practically the same as it was June 30th, 1902, to-wit: three twelve company regiments of infantry; one four company battalion of infantry; one troop of cavalry; one battery of artillery; a medical department of thirteen officers, with the recent addition of a hospital corps of forty-four enlisted men. The organization in all respects is identical to that of the United States Army.

In connection with the strength and organization of the Wisconsin National Guard, attention is respectfully invited to the fact that under the terms of the state laws the military force is limited to forty companies of infantry, one troop of cavalry and one battery of artillery.

General Report.

Section 4 of the Act of Congress approved January 21st, 1903, provides: "That whenever the United States is invaded or in danger of invasion from any foreign nation, or of rebellion against the authority of the Government of the United States, or the President is unable, with the other forces at his command, to execute the laws of the Union in any part thereof, it shall be lawful for the President to call forth, for a period not exceeding nine months, such number of the militia of the state or of the states or territories or of the District of Columbia as he may deem necessary to repel such invasion, suppress such rebellion, or to enable him to execute such laws, and to issue his orders for that purpose to such officers of the militia as he may think proper."

In the event of an emergency arising whereby the President should feel obliged to call the entire force of the state in the United States service, the state would be left without military protection. At all events it might be left without at least adequate military protection when it really needed it. It would seem advisable therefore that the present laws be so amended as to give to the Governor the power to organize a temporary force in case he should be confronted by such a condition as that described. Upon the return of the militia proper to the state, provision should be made for the disbandment of the temporary force. As the organized militia of a state under the national law, even when called into the service of the United States, continues to be a state force, it would not be advisable on a response on its part to a call from the President for nine months service, to muster it out of the service of the state. Such a procedure, though it would be justified in the event of state troops volunteering as a body for what might be a long war, would hardly be justified under present laws and conditions. If not mustered out of the state service the Governor would be powerless to organize any additional state troops.

Equipment.

EQUIPMENT.

During the past two years the amount of equipment issued the military forces has been materially increased. The issues of military stores and supplies composing this increase consist of 63 magazine rifles, caliber 30, to each company of infantry with the accompanying bayonets, bayonet scabbards and web belts; magazine carbines, caliber 30, to Troop "A" 1st Cavalry, and to the Troop and Battery the required number of revolvers; also two additional revolvers to each company of infantry From the Quartermaster's Department a complete issue has been made to all the various organizations of shelter tents, kahki blouses, trousers and chambray shirts. A sufficient amount of tentage has been secured to put all of the troops of the state under canvas at one time giving to each organization the full regulation allowance of tentage. The blanket roll has been substituted for the knapsack, new improved haversacks have replaced the old style; each organization has been given a regulation field oven; the prescribed number of field desks have been issued, together with picks, axes and shovels, and a complete medical outfit for each organization has been supplied. In brief in the matter of equipment the Wisconsin National Guard is now, with the exception of wagons, mules or horses, completely equipped to take the field for any service at any time.

The woolen clothing now in use is obsolete but still fairly serviceable. It should be replaced in the next three years with the new woolen service uniform. When supplied with this it should be followed by an issue of the new dress uniform. A second issue of the kahki uniform should also be made.

All of these military stores and supplies have been drawn from the United States Government with practically no expense to the state.

Legislation.

LEGISLATION.

Under this head there is little to be said. Not very much was asked from the last legislature but the requests made were met with a ready response. The Wisconsin National Guard has always received liberal support from the various legislatures and that which convened in 1903 was no exception. The law governing the Wisconsin National Guard was amended as follows: The title of the chief of the medical department was changed from that of Surgeon General to that of Assistant Surgeon General and the grade of the position changed from that of Brigadier General to that of Colonel. The amount of annual compensation to be allowed the Assistant Surgeon General was fixed at $500. The section limiting the term of office of a colonel commanding a regiment to five years was amended so as to leave a continuation of the time at the close of five years discretionary with the Governor. The annual armory allowances of companies stationed in Milwaukee was increased from $500 to $700 each and that of all infantry companies in the interior of the state from $400 to $500. Provision was made for the purchase of horses to be kept on the Wisconsin Military Reservation for the use of mounted officers when on duty there. The following new section was added to the law: "Section 71a. For not less than fifteen years service a bronze medal may be issued to all officers and enlisted men eligible to receive a decoration for long and faithful service. The issue shall be made under such regulations as the Governor may prescribe." Under the provisions of this section handsomely designed medals have been procured and issued to all in the service entitled to the same. Finally the law was amended by increasing the total amount that may be expended from the state treasury for the support of the Guard in any one fiscal year from $125,000 to $130,000.

After the passage of the general law amended as indicated, a separate act was passed which provides for an additional yearly

allowance to the First Battery Field Artillery of $2,500 as an extra allowance for the purchase, keep and care of a sufficient number of suitable horses.

INSTRUCTION.

The general scheme of instruction followed at the home stations of the different companies is shown by the following:

STATE OF WISCONSIN,
Adjutant General's Office,
MADISON, January 22, 1903.

General Orders
No. 2.

Pursuant to the regulations governing the Wisconsin National Guard, the following in reference to theoretical instruction is published and will be closely followed:

Battalion commanders and such officers as may be detailed for Troop "A" and First Battery Field Artillery, will be required to inspect their commands in the latter part of April and June next each. At the inspection in April they will ascertain if company commanders have made every reasonable effort to recruit their commands to the maximum number of enlisted men; that they have paid proper attention to instruction in the setting up exercises, tidiness in dress, military courtesy, and the maintenance of discipline; the school of the soldier; sighting and aiming drills, and gallery practice. They will also examine closely the non-commissioned officers of each company, ascertain if adequate means for their proper instruction have been provided and if non-commissioned officer's schools have been regularly held. They will also inspect the condition of books and papers and condition and care of state property.

At the inspection in June they will take up movements by fours and company, movements by platoons, extended order, guard duty and duties of officers and non-commissioned officers. At this inspection they should also ascertain if any theoretical instruction has been given to any part of the command in the duties of outposts and in advance and rear guard formations. Also the amount and kind of work that is being done by each company on the open range.

At both inspections rifles will be carefully examined and all unserviceable pieces promptly reported. It will also be ascertained whether a sufficient supply of ammunition is constantly kept on hand

Instruction.

and if each company is properly prepared for an emergency call for active service.

If the civil occupations of the officers will permit a battalion officers' school for each battalion should be held in July for study of the program for camp work for 1903. Transportation for such schools will be issued on proper requisition.

Out-door drill, especially in guard duty and patrol work, is again strongly recommended.

Reports in detail of these inspections will be promptly made to the Adjutant General through military channels.

Regimental and post commanders, together with officers with independent commands, are especially charged with the execution of this order. Monthly drill reports should indicate that due preparation for these inspections is being provided for at the weekly drills of each command.

By Command of the Governor:

C. R. BOARDMAN,
Adjutant General.

Official:

JNO. G. SALSMAN,
Assistant Adjutant General.

That for 1904 is shown by the following:

STATE OF WISCONSIN,
Adjutant General's Office,
MADISON, January 12, 1904.

General Orders
No. 3.

The course of theoretical instruction for 1904 will be the same as that set forth in General Orders No. 2, A. G. O., 1903.

The inspections for 1903 plainly show lack of attention on the part of many company officers to the appearance of their men, the cleanliness of equipment, the condition and fit of uniforms and the care of company records. It is also clear that proper instruction in a great many commands is not given in the setting up exercises, school of the soldier and especially in extended order drill.

Battalion commanders therefore in making their inspections for April and June, 1904, will pay especial attention to these matters in those companies in their commands which by an inspecton marking of seven or less, show they are deficient. Battalion commanders are also

Inspections.

charged with the duty of checking up the financial accounts of each company at each inspection they make.

In the reports to the Adjutant General of these inspections it must be set forth in detail what progress has been made in remedying these deficiencies.

All provisions and recommendations of General Orders No. 2, A. G. O., 1903, will be rigidly observed.

By Command of the Governor:

C. R. BOARDMAN,
Adjutant General.

Official:

JNO. G. SALSMAN,
Assistant Adjutant General.

INSPECTIONS.

The system of competitive inspections based on the work of the companies at their home stations, their work in camp and their work on the range, has been continued with marked benefit. In 1903 the armory inspections were again efficiently made by Major C. R. Williams and the camp inspections by Captain J. F. Morrison, 20th Infantry, U. S. A. The work of Captain Morrison was of a very high order. He was thorough and tactful. By his efforts a large amount of practical instruction was imparted and the standard of efficiency of the Guard raised thereby. A copy of his report follows:

FORT SHERIDAN, ILL.,
August 8, 1903.

THE ADJUTANT GENERAL:
State of Wisconsin,
Madison, Wis.

SIR:—I have the honor to submit the following report of my inspection of the troops of your state during their encampment, July 11, to August 1, 1903, and to submit herewith inspection report cards of the several companies.

In submitting the cards I do so with some doubts as to their expressing the true state of the companies.

In marking the companies, it was necessary for me to fix upon cer-

Inspections.

tain rules for doing so. Never having attempted such a thing before, my methods while in one sense fair to all, or alike for all, may not have been the best.

The marks on the guard duty were obtained by visiting as many sentinels as possible and marking each on his knowledge of his duties and the way he performed them. This resulted in my inspecting about 15 men for each company and the mark of the company was the average of these individual marks.

At the beginning of each week these marks were generally low, later it was exceptional when a sentinel received a low mark.

The progress made by the different commands in this important duty during camp was most satisfactory. At the beginning however there were men on, doing their first tour, and before instruction had been given them. This would not have effected relative results had the guard detail come uniformly from each company, but some companies had more time to prepare before their men went on, owing to details being made from one battalion at a time. The very low marks at the first of each week followed by high ones at the close, when averaged, does not show the real state of the companies. Many of them stand to-day, in my opinion, much higher than their marks indicate.

The marks on military courtesy were given by deducting from each company's mark of 10, from 1 to 5 tenths for every breach observed. While some companies suffered considerably in marking by this, I wish to add that in no case did I observe what seemed to be intentional rudeness or discourtesy. They were all cases of carelessness or neglect, either from thoughtlessness or from not having been taught differently.

The 3rd Regiment, in some respects the best in camp, was in this regard the greatest offender. Very little attention seems to have been paid to this matter in this regiment. The other two regiments, particularly the first, were remarkably punctillious about all matters of this kind. It is not as important as a great many other things, yet it still has considerable value and is an aid to real discipline.

The officers were marked from their conduct of drill, the way they handled the company at all formations, condition of their company camp, the way they conducted their guard when on that duty and the general promptness and alacrity with which orders were obeyed, and the instruction of their men.

The non-commissioned officers in much the same way. How the guides did at drill, file closers, whether they just walked along or really did duty by correcting errors among the men. The extended order drill counted half for non-commissioned officers.

Inspections.

General discipline was an average of several things. In this I considered the cleanliness and order about the camp. When a company did not form promptly, but straggled, it took something off. In fact everything I observed about the company that was unmilitary reduced the mark.

DRILL.

The marks for all drills, except extended order, are uniformly high and deservedly so. There is comparatively little difference between the companies in this respect, all are good. This is equally true of ceremonies. There is more difference in the extended order drill but still not very marked, for they were all below what was to have been expected of them, judging from their other work.

It is in this that I have found the troops the weakest. Not a battalion did I inspect that was not weaker in this than in anything else. Not the men in their part as the officers in theirs. Except in the 3rd Regiment, the field officers were generally more responsible for errors than the company officers. The 3rd regiment could hardly be pronounced good in extended order, but they were better than the 2nd, which in turn was better than the first.

Most of the companies and battalions made great improvement in this respect while in camp, and I believe now, recognize their weakness, and will correct it before another camp.

CAMP.

The camp was the cleanest I ever saw. Particularly was this the case during the stay of the 3rd Regiment. Their camp was a model for any organization, their kitchens and all about them were kept in a perfect condition of cleanliness, and the whole camp corresponded with the kitchens. The other organizations were but very little behind the Third.

GUARD DUTY.

The guard duty in camp was well performed, officers, non-commissioned officers and sentinels all showed an intelligent conception of their duties and performed them well. Outpost duty has been taught and is well understood.

PERSONNEL.

The personnel of the guard particularly impressed me. The officers physically, mentally and morally, seemed thoroughly fit for the work.

Inspections.

The appearance of the enlisted men indicates that the state requirements for enlistment are well carried out. Very few of the men would fail to pass the physical examination if called into the national service. They are generally a sturdy, intelligent lot of men.

GENERAL DISCIPLINE.

During the entire camp the behavior of the men was excellent. There was no rowdyism nor disgraceful drunkenness came under my observation. It would be hard to assemble anywhere so large a number of men who would conduct themselves uniformly so well.

THE WORK OF THE CAMP.

The work was admirably planned and as well carried out. It called for an average of about eight hours work a day, which is about all that can be asked of the men.

The method of supply and the way the men lived in camp was the best part of the work.

They were taught to care for themselves in the field under service conditions, and that is worth much more, as it is much harder to learn, than the niceties of drill and ceremony. It is a large part of a soldier's training.

The only recommendations I have to make have been previously made by me, and, I understand, are generally to be carried out.

The substitution of morning report books for the blanks now in use. The organizing of a hospital corps for each regiment. The issue of shelter tents to the troops. More attention to be given to extended order or battle formations.

SUMMARY.

I consider the National Guard of Wisconsin as a whole a very efficient body of troops. They have faults, but they are such as would be easily and quickly corrected if called into service, and to offset their few weak points they possess many strong ones that only a considerable time and honest, conscientious, and intelligent effort can give to troops.

The spirit that pervades the Guard is admirable. They all seem to want to be thoroughly efficient. They know how to take care of themselves in the field, they can shoot, are disciplined and are well drilled, except as previously pointed out, and physically well up to their work

Respectfully submitted,

JOHN F. MORRISON,
Captain, 20th Inf., U. S. A.

Inspections.

The standing of the various commands was as follows:

Troop "A," 1st Cavalry	191.2
1st Battery, Field Artillery	189.0
Co. "F," 2nd Infantry	187.7
Co. "E," 2nd Infantry	186.9
Co. "L," 3rd Infantry	186.9
Co. "G," 1st Infantry	183.9
Co. "D," 2nd Infantry	183.2
Co. "K," 3rd Infantry	182.8
Co. "A," 2nd Infantry	181.7
Co. "I," 2nd Infantry	181.4
Co. "G," 2nd Infantry	180.3
Co. "I," 1st Infantry	180.2
Co. "D," 3rd Infantry	180.1
Co. "B," 3rd Infantry	179.7
Co. "B," 2nd Infantry	178.7
Co. "D," 1st Infantry	178.3
Co. "K," 1st Infantry	177.0
Co. "C," 1st Infantry	176.9
Co. "K," 2nd Infantry	176.9
Co. "F," 3rd Infantry	176.3
Co. "G," 3rd Infantry	176.2
Co. "L," 1st Infantry	176.2
Co. "E," 3rd Infantry	175.9
Co. "L," 2nd Infantry	175.7
Co. "C," 2nd Infantry	175.6
Co. "B," 10th Separate Battalion	174.4
Co. "H," 2nd Infantry	174.3
Co. "M," 3rd Infantry	173.8
Co. "H," 3rd Infantry	173.5
Co. "A," 3rd Infantry	172.7
Co. "C," 3rd Infantry	172.4
Co. "E," 1st Infantry	172.0
Co. "F," 1st Infantry	170.6
Co. "B," 1st Infantry	169.1
Co. "C," 10th Separate Battalion	168.9
Co. "M," 1st Infantry	168.6
Co. "I," 3rd Infantry	167.5
Co. "H," 1st Infantry	166.2
Co. "M," 2nd Infantry	165.4
Co. "A," 1st Infantry	164.7

Inspections.

Co. "A," 10th Separate Battalion	163.3
Co. "D," 10th Separate Battalion	161.9

In target practice the companies stood as follows:

Co. "M," 3rd Infantry	11,990
Co. "M," 1st Infantry	11,619
Co. "E," 2nd Infantry	11,109
Co. "D," 3rd Infantry	10,945
Co. "K," 2nd Infantry	9,491
Co. "B," 3rd Infantry	9,127
Co. "A," 2nd Infantry	9,048
Co. "A," 1st Infantry	8,941
Co. "C," 3rd Infantry	8,851
Co. "C," 1st Infantry	8,772
Co. "K," 3rd Infantry	8,206
Co. "D," 10th Separate Battalion	8,050
Co. "A," 10th Separate Battalion	7,410
Co. "G," 3rd Infantry	7,164
Co. "A," 3rd Infantry	6,191
Co. "L," 1st Infantry	5,906
Co. "L," 2nd Infantry	5,772
Co. "B," 1st Infantry	5,567
Co. "G," 2nd Infantry	5,064
Co. "I," 3rd Infantry	4,876
Co. "F," 2nd Infantry	4,860
Co. "L," 3rd Infantry	4,740
Co. "C," 2nd Infantry	4,464
Co. "G," 1st Infantry	4,398
Co. "E," 3rd Infantry	4,365
Co. "M," 2nd Infantry	4,322
Co. "D," 1st Infantry	4,075
Co. "F," 3rd Infantry	4,063
Co. "H," 1st Infantry	3,747
Co. "I," 1st Infantry	3,732
Co. "H," 2nd Infantry	3,726
Co. "C," 10th Separate Battalion	3,692
Co. "E," 1st Infantry	3,646
Co. "H," 3rd Infantry	3,364
Co. "K," 1st Infantry	3,110
Co. "I," 2nd Infantry	3,056

Inspections.

Co. "B," 10th Separate Battalion	2,984
Co. "F," 1st Infantry	2,937
Co. "B," 2nd Infantry	2,803
Co. "D," 2nd Infantry	2,693
Troop "A," 1st Cavalry	2,408

BATTALION AGGREGATES AND ORDER.

1st Battalion, 3rd Infantry	34,311
3rd Battalion, 3rd Infantry	28,560
3rd Battalion, 2nd Infantry	28,032
2nd Battalion, 1st Infantry	26,023
1st Battalion, 2nd Infantry	22,512
10th Battalion Infantry	22,408
1st Battalion, 1st Infantry	22,293
2nd Battalion, 3rd Infantry	21,731
3rd Battalion, 1st Infantry	19,048
2nd Battalion, 2nd Infantry	16,541

REGIMENTAL AGGREGATES AND ORDER.

3rd Infantry	85,280
1st Infantry	67,634
2nd Infantry	67,271

The highest combined score was again attained by Co. "E," 2nd Regiment, to which was again awarded the Pfister Trophy for being the best all around company in the state.

For 1904 the armory inspections were conducted by Major Charles G. Woodward, Artillery Corps, U. S. A., who will also conduct the camp inspections. His report on the former is herewith appended:

FORT SHERIDAN, ILLINOIS,
April 19, 1904.

THE ADJUTANT GENERAL,
State of Wisconsin,
Madison, Wis.

SIR:—I have the honor to inform you that I have completed the inspection of the Wisconsin National Guard under Special Orders No. 2, c. s., Headquarters Northern Division, and that during the inspection

Inspections.

I have made the markings of the various organizations as requested by you in letter of February 2, 1904, to the Adjutant General, Northern Division.

The Inspection Report Cards have this day been sent to you by mail, registered. The high figures given to many companies evidence the satisfactory proficiency that has been reached by these companies in the special matters that were subject to inspection. None, however, were without errors or neglects, many of which were trivial, but all of which could be corrected. Briefly specified, they were as follows:

1. At inspection:

(a) Some Captains presented their companies to the inspector as though they were parts of battalions. Each company was inspected on its own parade and the regulations governing in such cases should have been followed.

(b) General appearance.

While this was very good, many instances of men unshaven and with shoes not properly cleaned were observed. In some companies the collar of the blue shirt was turned up, and in others some enlisted men appeared with the collar turned up and others with the collar turned down. Uniformity in this matter should prevail.

(c) The manner of wearing the campaign hat (the position on the head), should be given attention.

(d) Practice is required in making the blanket-roll and securing the ends so that it may rest properly on the shoulder and not interfere seriously with the movement of the arms in handling the rifle.

Many of the blanket-bags were not properly adjusted, the straps being so long that the entire weight was brought against the small of the wearer's back.

(e) In some companies the blanket-bag was completely packed for service (excepting shoes); in others, the blanket, poncho and khaki trousers were carried within and the overcoat, rolled, on top. In some companies, the overcoat was rolled with the lining on the outside. In one company, the overcoat was inside the blanket-bag and the blanket, rolled, was on the outside. As the blanket-bag is now obsolete and has been called in by the Quartermaster's Department, no special importance is attached to these discrepancies.

(f) In the manner of unslinging blanket-bags and blanket-rolls, greater uniformity should be exacted. The nature of the floors of the armories prohibited the stacking of arms as prescribed in regulations.

Inspections.

There does not appear to be any valid reason why the blanket-rolls, when arrayed for inspection, and the ranks should not be properly and carefully aligned. As a rule, this was neglected.

2. Condition of Arms:

(a) Arms, when presented for inspection, should be clean. In some companies they were so; in others, they were not, and in a few instances, the cosmoline which was originally smeared on the breech-block at the Arsenal had not, apparently, been removed. No matter what may be the condition of the Armory and Gun Room with respect to moisture, an undue amount of heavy oil about the breech mechanism is not essential. It serves to clog the breech mechanism and causes misfires of the cartridges. Ordinary attention to the guns, by passing a well oiled cloth over the working parts after they have been properly cleaned, will prevent rusting and maintain the rifle in a serviceable condition. Heavy oils, whether used on the polished steel or in the hinges or grooves, are unnecessary and harmful.

(b) Only two rifles were found unserviceable. One resulted from the attempt of a man to take his gun apart; the other was due to a stoppage near the muzzle at target firing. In this instance, the barrel had been bulged and broken away about six inches from the muzzle. A new barrel will be required.

(c) The practice of bringing the rifles to an "order" without properly lowering them to the ground, which was specially noticeable in several companies of the 1st Regiment and in some companies of the 3d Regiment, is in disregard of the Drill Regulations and is hurtful to the piece. It is a relic of the old militia practice which cannot too soon be eliminated from the drill of the Wisconsin Guard. On a par with this unmilitary method is the practice, which still prevails in some companies, of starting and concluding all marching movements with simultaneous stamping by the men in ranks. That this is not a necessity on account of the polished and slippery floors is instanced by companies which have abandoned it without detriment to their marchings or haltings. It should be cut out.

3. Condition of Equipments:

In all companies, the equipment, while worn, is serviceable. The haversacks of old pattern will, it is understood, be replaced by a later pattern. Meat-cans, knives, forks, spoons and canteens were generally in excellent condition. In one company, the canvas had been recently removed from the canteens, washed and replaced. The improvement was very marked.

Inspections.

In all companies, the haversacks, blanket-bags and cartridge-belts, and, in many, the leggings were badly soiled and in need of scrubbing with soap and water. The cleaning of these articles does not require any special technical knowledge—simply an application of scrubbing brush and soap suds.

The blanket-bag, overcoat and canteen straps would generally have been improved by cleaning.

4. Condition of Uniform:

Necessarily, much of the uniform is worn, but all issued to the men is serviceable. Many of the blouses are grease-stained on the shoulder from contact with oily rifles. Many campaign hats are very much worn and rapidly approaching the unserviceable stage. Only a few men wear the regimental number and company letter on the campaign hats. The comments made on the appearance of the blanket-bags and haversacks apply equally to the leggings. They admit of being cleaned and, generally, they were not clean.

5. Condition of Books, Papers and Armory:

When the armories are owned or exclusively controlled by the companies, the conditions as regards care and cleanliness, are satisfactory. Much is to be desired in many cases in the matter of adequate storerooms, company rooms, offices and sufficiently large drill halls. Some of the drill halls for which rentals for a considerable amount are paid are controlled by the organizations only one or two nights during the week. They do not afford a home for the company, and the interest in them taken by the officers of the organizations is necessarily limited to the occasion when they are used by the companies. As a rule, companies which own their own buildings or which control exclusively the buildings suitable for Armory purposes are the best companies.

A custom which prevails generally throughout the State Guard is that of Captains, themselves, doing the book and paper work pertaining to their companies. This would be harmful if for no other reason than that, because of doing the work himself, the Captain does not find it necessary to teach the methods of company administration to others in the company.

There are other reasons, however, the principal one being that the paper work as now being done by the Captain is not, generally, well done. In many instances the records are not kept in the company office where they properly belong; certain books and papers are not kept up; the absence of the Captain from his command for any lengthy period leaves the company without anyone who knows where

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the records are or how, properly, to bring them up to date. It is understood that in the field the company Commanders would be unable to do this kind of work.

The detail of a company clerk to take care of books and to do the necessary paper work under the supervision of the Captain and 1st Sergeant would be found to fill all requirements and give much better results than are attained at the present time.

The 1st Sergeants should make out the morning reports, and it is suggested that this report be made out for each drill night, thereby affording, at the same time, instruction and a useful record from which to make up the monthly reports to the Adjutant General's office.

6. Care of State Property:

Much attention is being given to the care of property in nearly all the organizations. Instances were noted where the rifles were not locked in the racks, but the rooms in which they were located were, as a rule, secured; the Captain, 1st Sergeant and Quartermaster Sergeant, only, being provided with keys. Several of the armories were provided with excellent gun racks, all of this class being provided with sliding fronts by means of which the rifles are made secure and protected from dust and excessive moisture.

All companies are provided with individual lockers for the men. In some companies the rifles are kept in these lockers. This arrangement is not believed to be as efficient as the rack for securing the rifle. It has the disadvantage of soiling the uniform with which the rifle comes into contact, and of subjecting the rifle to moisture from the damp clothing in warm weather.

The system adopted by many Captains of removing from the individual lockers all articles of uniform excepting the blouse, blue trousers and cap and storing them in specially adapted receptacles, has resulted in greater care being given to the preservation of these articles. Under this system inventories can readily be taken at any time and complete issues to the entire company can be made by the Quartermaster Sergeant in a few minutes.

All companies should be provided with shelter halves, field ranges, and camp and kitchen utensils. With these articles in their store rooms the companies are prepared to move at short notice, whether for a practice march or field service. Ever company inspected had in store 1,000 rounds of multi-ball cartridges and, at the least, 1,000 rounds of service ammunition.

Inspections.

7. Setting-up Exercises and the School of the Soldier:

Viewed as a drill, the setting-up exercises were good. As setting-up exercises, they were defective. Sufficient stress is not given to perfecting the motions so as to obtain the best physical results therefrom, too much attention being given to having them performed in cadence. There can be no objection to the latter, provided the cadence is made sufficently slow to enable the greatest efficiency to be obtained from the movements. To this end, much more attention must be devoted to giving the commands properly, indicating, by the time interval between the preparatory command and that of execution, the nature of and the duration of the individual movements. In this matter the Non-commissioned officers require instruction and practice.

In none of the companies has there been sufficient instruction in the School of the Soldier. Many of the Non-commissioned officers, when turned out with squads, were completely at sea and none were able to drill their squads properly in all the movements laid down in the drill regulations. This was not due to lack of capacity on the part of the Non-commissioned officers, who, as a rule, are quick and enthusiastic men. It is due to the lack of opportunity afforded them by Company Commanders to perfect themselves and their squads in the most important element of the training of the soldier.

While the firings and the School of the Company were not included in the inspection for the State, my general instructions required me to observe them, and I embody some of the results of observations herein.

The company drills were uniformly excellent and very good, the nature of the floor and the contracted space of the drill hall causing certain modifications in some prescribed movements, which, while not to be permitted in the field, were well executed in the armory.

From a spectacular standpoint, the firings and the manual of arms were a success. With the exception of a few companies, they were not well executed. Officers commanding the companies at firing, were frequently not properly posted, the position of the men in ranks was not accurate, and the firing of volleys at absurd ranges and of rapid firing at equally impossible distances were the rule and not the exception. The mechanical execution of volley firing was generally all that could be desired, the head work was generally faulty.

The execution of the Manual of Arms emphasized what has already been commented on under the heading of School of the Soldier. As a whole, the movement appeared good. Individual faults were many, mainly, in position of left hands at "port arms" and at "present arms"; slope of pieces at "right shoulder"; "port" and "trail arms";

Inspections.

uncertainty of position of right hand at "inspection arms" and when receiving the piece back from the inspecting officer, and faulty position of the piece at "order arms." Errors like these can best be corrected at squad drills and not during the instruction of a company, as a whole, in the Manual of Arms.

These comments and criticism, it will be observed, are all about small irregularities and neglects. No large ones were observed. I believe that the organized Militia of the State of Wisconsin could, at a few hours' notice, take the field fully equipped for service, foreign or domestic.

The excellent condition in which the Quartermaster and Ordnance depots at Camp Douglas are maintained, the quantity of stores on hand in reserve, the care with which they are stored, marked and made available for immediate issue, insure a ready supply for all organizations in the state within twelve hours, and reflect great credit on the officer who is charged with this work and who has brought the system now employed to such perfection.

The marked courtesy and attention which, as inspecting officer, was shown to me by every officer in the state with whom duty brought me in contact, the interest and enthusiasm which everyone connected with National Guard displays in his particular work, and the evident desire of all to do away with gallery methods and to bring their organization to the solid basis of efficiency, have impressed me most favorably.

Her Guard is a credit to the State of Wisconsin.

Very respectfully,

CHARLES G. WOODWARD,
Major, Artillery Corps,
Inspector.

The following extracts from Major Woodward's report of his armory inspections was furnished the Adjutant General by the Adjutant General, U. S. A.

WAR DEPARTMENT,
Office of the Adjutant General,
WASHINGTON, May 9, 1904.

TO THE ADJUTANT GENERAL,
State of Wisconsin,
Madison, Wisconsin.

SIR:—I have the honor to communicate to you the following extracts from the report of Major Charles G. Woodward, Artillery Corps, Inspector, of his recent inspection of the organized militia of Wisconsin.

* * * * * * * *

The excellent condition in which all paper and book work was

Inspections.

found and the care and attention given to the storage, arrangement and preservation of the surplus property in the store-rooms reflect great credit on the officer who is in charge and who has perfected the system under which the work is done.

* * * * * * * *

The company officers throughout the state are, generally, intelligent and enthusiastic men and the enlisted strength is of a high order. The requirement of both physical examination and proof of good character before enlistment being enforced serves to secure a superior class of men. The only serious weakness observed in the course of the inspection was in the training of the non-commissioned officers. These, generally, were weak in drilling the squad, both in the school of the soldier and in the extended order. The company drills and execution of firing were well given, in many cases excellent. Proficiency in these had been obtained by giving to them time that could have been more profitably spent in the practical instruction of the non-commissioned officers in the important duties of their grades. Much attention is given in many of the companies to rifle firing and the preliminary instruction of sighting drills and gallery practice. As a result, the target practice is of a high order of merit.

* * * * * * * *

In nearly all of the organizations it was found that the paper work was being done by the Captain for the reason that no one else knew how to do it properly. This is considered objectionable. There is no lack of intelligent men in each company from whom efficient company clerks could be selected.

The impression derived from contact with this National Guard organization was very favorable. I was especially impressed with the desire of most of the officers for information as to army methods and the ready adaptation to their own commands of knowledge gained by association with regular troops. The 1st Regiment of Infantry, which participated in the maneuvers at West Point, Ky., last October, were enthusiastic in acknowledgement of the benefits they had derived from the experience, and the other regiments are most anxious for opportunity to gain similar valuable training.

The National Guard of Wisconsin has broken away from the traditional militia methods and gallery plays. As it stands today it is an efficient organization to be relied upon for any domestic emergency, and capable of taking the field, fully equipped for any service, within twenty-four hours after receiving the order to do so.

* * * * * * * *

Very respectfully,

JNO. F. GUILFOYLE,
Assistant Adjutant General.

Encampments.

ENCAMPMENTS.

The encampments for 1903 were generally satisfactory. Material progress was made in all directions. Three new features were added, to-wit: A system of lectures, athletics and a reading tent. The lectures were delivered immediately after parade each evening, each occupying a period of from twenty to thirty minutes. The subjects covered were: "First Aid," "Tent Pitching and Striking," "Military Discipline," "Small Arms Practice," and "Paper Work." The athletics consisted of field day exercises which were run off during the afternoon of the last day each organization was in camp. The contests included nearly all of those which comprise field meets except the two mile race and the 120 and 220 yard hurdles. The meets were governed strictly in accordance with the rules of the Amateur Athletic Union. Prizes were furnished by the officers of each regiment. The effect of these exercises was good. They should be continued both as a means of physical development for the men of the guard, as an incentive to good habits and a stimulant to recruiting among a desirable class of young men. The reading tent which was kindly stocked by the Free Library Commission was not, owing to the shortness of the camp, as well patronized as was expected.

Problems in field work kindly prepared by Colonel Arthur L. Wagner, U. S. A., were solved in a fairly satisfactory manner, and each battalion while in camp was required on one day to draw a day's field rations, full field equipment, ammunition, etc., load a wagon train, proceed to a distant point on the reservation and establish camp. It proved to be a valuable practical exercise. Appended are the reports of the commanding officers of the several camps:

HEADQUARTERS FIRST REGIMENT INFANTRY,
WISCONSIN NATIONAL GUARD,
THE ADJUTANT GENERAL, MILWAUKEE, WIS., Sept. 15, 1903.
Madison, Wis.

SIR:—I have the honor to submit the following report of tour of duty of the First Regiment Infantry, Wisconsin National Guard, at

Encampments.

Camp Ernst, Camp Douglas Station, Wisconsin, from July 18th to July 25th, 1903, as per G. O. No. 7, A. G. O. c. s.

The Milwaukee Section left this city at 9:10 A. M., July 18, and after many delays and stops, reached Camp Douglas at 2:30. The Madison section had arrived before 2:30, and at 4:30 Companies "B" and "I" reached Camp Ernst.

As per instructions of A. G. O., I instructed all company officers to allow no liquor on the trains and to permit but a limited amount in camp. I walked through the train enroute to and from camp and never before noticed the cars so clean and the men appearing so bright, neat and orderly.

I directed my Adjutant to make the following details for the Tour of Duty.

Two men from each company to report to the Medical officer at the Hospital immediately upon arrival of their respective commands at Camp Ernst. Lieut. Gaartz was detailed as Acting Ordnance Officer; Major Howard Greene was detailed as Summary Court Officer; Lieut. H. A. Prescott was detailed as instructor of Guard Duty; Capt. H. H. Jacobs as Regimental Headquarters Mess Officer; Lieut. Lawson of Co. "F" was detailed to take charge of loading and unloading of baggage; Lieut. Paul Ahuert was detailed as Assistant Commissary Officer; Major Joseph Whiting was detailed as Medical Officer in charge of Madison section; and Captain G. E. Seaman detailed as Medical Officer in charge of train leaving Milwaukee; Lieut. Frank Meske detailed as statistical officer.

The First Battery Field Artillery and Troop "A" arrived at Camp Ernst at 7:30 A. M. after a rough and stormy night on the cars.

The following is an abbreviated report of the strength of my Regiment each day during the Tour of Duty:

	PRESENT.			ABSENT.		
	Officers	Enlisted men.	Total.	Officers.	Enlisted men.	Total.
July 18	52	729	781	2	80	82
July 19	52	738	990	2	71	73
July 20	53	736	789	1	71	72
July 21	53	731	784	1	75	76
July 22	53	733	786	1	73	74
July 23	52	728	780	2	78	80
July 24	52	724	776	2	81	83
July 25	52	719	773	2	86	88

Encampments.

The "For Duty" strength of the First Battery as follows:

	PRESENT.			ABSENT.	
	Officers.	Men.	Total.	Men.	Total.
July 18	5	77	82	10	92
July 19	5	81	86	6	92
July 20	5	81	86	6	92
July 21	5	78	83	9	92
July 22	5	78	83	9	92
July 23	5	78	83	9	92
July 24	5	78	83	9	92
July 25	5	78	83	9	92

The "For Duty" strength of Troop "A" as follows:

	PRESENT.			ABSENT.		
	Officers.	Men.	Total.	Officers.	Men.	Total.
July 19	3	63	66	1	6	73
July 20	3	65	68	1	4	73
July 21	3	65	68	1	4	73
July 22	4	61	65	.....	8	73
July 23	4	61	65	.....	8	73
July 24	3	65	68	.....	6	74
July 25	3	64	67	1	5	73

The total sick of all commands on each day, was as follows:

July 20 4
July 21 3
July 22 3
July 23 4
July 24 4
July 25 5

The small percentage of sick men as reported above, is less than the number sick during the Camp of 1902, which number was then decreased owing to the introduction of army rations and improved sanitary conditions. In connection with this last summary, I regret to report the sad injury to a member of Co. "E" who injured one of his eyes while pulling a bayonet from a new Krag-Jorgenson rifle issued to him. I understand some eastern states have statutes allowing pensions for militia men injured in the service of the state, and hope to see a like statute in our state protecting men who are placed at such a disadvantage in earning a livelihood caused by such accident as that which befell a member of Co. "E."

Encampments.

On account of two battalions on the range each day, the details during the first three days had to be taken from one battalion each day. This took several officers as well as men from the companies not on the range, bringing about poor conditions for the companies to make a good showing with their skeleton fours.

The program for each day as per A. G. O. was carried out in full and promptly. The change of program this year seemed to inspire interest and enthusiasm among the officers and men.

Before departing from Camp Ernst, I detailed Lieut. Paul Ahnert to superintend loading the Milwaukee Train; Lieut. Shriner was detailed to superintend the loading of the Madison section, and Lieut. Gaartz was detailed to load wagons at Camp Ernst. The First Battery Field Artillery and Troop "A" 1st Cavalry left Camp Ernst at 11 A. M., July 25th, after a successful week in camp. The section carrying the 1st Infantry departed from Camp Douglas at 9 A. M., July 25th. After considerable trouble in obtaining teams to load staff, field and company property, the Milwaukee section detrained in this city at 2:35 P. M., on the 25th.

After all the change in details during the early part of the week and numerous changes of officers and non-commissioned officers, I am of the opinion that the 1903 tour of duty was the most successful of the First Regiment Infantry of the Wisconsin National Guard. All of which is respectfully submitted,

Very respectfully,

OTTO H. FALK,
Colonel First Infantry, W. N. G.

HEADQUARTERS SECOND INFANTRY,
WISCONSIN NATIONAL GUARD,
APPLETON, WIS., Sept. 25, 1903.

THE ADJUTANT GENERAL,
Madison, Wis.

SIR:—Pursuant to General Orders No. 7, dated May 27, 1903, the Second Infantry, Wisconsin National Guard encamped for instruction at the Wisconsin Military Reservation, Juneau county, July 25 to August 1, inclusive.

The first section arrived an hour ahead of schedule time, and the second section about two hours behind time. The scheme of moving the regiment at night I would hardly consider a success as it was carried out this year for any companies other than "I" and "M," but if

Encampments.

the troops could be moved under the same conditions they are in the regular army at night it might work to better advantage.

Liquor was rigidly excluded from all the trains and from the report of company commanders there was not a man in the entire command under the influence of liquor.

I have the same complaint to make this year that has been made in previous years, about the miserable train service furnished. Companies G and H arrived at Fond du Lac before 6 P. M., but did not arrive at their home stations, in Sheboygan and Manitowoc until 11:30 and 12:30 respectively.

The attendance was approximately 93 per cent of the enrolled strength. The same difficulty being experienced this year as in other years of getting employers to let their men off.

The schedule of exercises was fully completed by the regiment before it left camp, although not in the order laid down, owing to heavy rains interfering with the work in two different days. The idea of confining the field maneuvers to the reservation and its immediate vicinity I consider an excellent one, as time is saved, and everything accomplished that could be by covering a large amount of territory outside of the reservation.

The health of the troops in camp was better than ever, few men being excused from duty, and these few only temporarily.

The work in the Quartermaster and Commissary departments was much more extensive and intricate than ever before, but was an excellent experience for those engaged therein and can not fail to be of great value in case of a call into active service. The rations of the men were ample and prepared in a better manner than ever before. The regular army ration with the addition of milk and butter has become a recognized fact, and no complaint is now heard of quantity or quality.

It would seem to me to be a move in the right direction if the Quartermaster's department would provide equipment for headquarters and battalion messes, thus keeping the line officers as separate from their men in eating as they are in their sleeping apartments.

The only criticism of the schedule of exercises I have to make is in regard to the division of the shooting time of each battalion into parts of two days. As it was this year it almost decimated the two battalions not firing to furnish the details for guard and range work, and required the details to be changed twice a day, whereas if a battalion completed its firing in one day there would be a division of the details among the two battalions and no change made of the men detailed for these branches of work during the day.

Encampments.

The general conduct of the regiment during the entire encampment was excellent, not a single man being brought before the summary court. There was a general spirit of good feeling prevailing throughout the entire regiment, officers and men alike taking hold of the work in a cheerful manner, and carrying it to a successful conclusion.

I consider the Guard very fortunate in having as inspecting officer, Captain J. F. Morrison, Twentieth Infantry, U. S. A., whose work not only as to the inspector but as an instructor also, resulted in great good to the service, some new ideas being advanced for the good of the service, which benefitted not only the enlisted men, but the officers as well.

In conclusion I desire to thank the officers of the General Staff for their courtesy and valuable suggestions, and to the field staff and line officers for their hearty co-operation, without whose cheerful assistance a successful encampment could not be conducted.

Very respectfully,

N. E. MORGAN,
Colonel Second Infantry, W. N. G.

HEADQUARTERS THIRD REGIMENT,
WISCONSIN NATIONAL GUARD,
LA CROSSE, WIS., July 27th, 1903.

THE ADJUTANT GENERAL,
Madison, Wis.

SIR:—I have the honor to report that pursuant to General Orders, No. 7, A. G. O., dated May 27th, 1903, this Regiment was assembled for instruction at the Wisconsin Military Reservation on July 11th, 1903.

The entraining of the troops was promptly effected; and the schedule of train service, as issued by the Quartermaster's Department, was strictly complied with. All detachments arrived at Camp Douglas promptly at the hour fixed in the schedule. The conduct of the troops enroute was good.

As several of the Companies arrived in the early morning in advance of the stated hour for the issue of the days rations, they were met at the depot by a Staff Officer who informed them that rations could be purchased from the Regimental Commissary, whose store rooms were open for that purpose at 5:30 A. M., on Saturday, July 11th. Company "I" took advantage of this privilege, prepared and served a breakfast at 7:30 A. M., from rations purchased in this manner. If this state of affairs obtains in the future, it is suggested that

Encampments.

Company Officers be instructed to buy such portion of a travel ration per man as is necessary to properly supply their command until the first regular issue of rations, which has here-to-fore commenced with supper of Saturday. This seems especially necessary for the convenience of Companies which are obliged to begin their journey the Friday preceding.

As the several detachments arrived, the stated allowance of tentage and equipage were drawn from the Regimental Quartermaster, who had previously drawn same from the Post Quartermaster. The first day's rations were drawn at 2 P. M., and the camp was fully made and men provided for before 3 P. M., of Saturday.

Guard Mount was made at 4 P. M., and Evening Parade at the hour designated in the "list of calls."

On account of the presence in Camp of four Battalions, it became necessary for the 10th Separate Battalion to take the range Sunday for small arms practice; in the forenoon Fixed Distance, and in the afternoon Timed and Skirmish Fire, Volley Firing and Firing At Will. Officers Revolver Practice scheduled for Sunday P. M. was necessarily postponed to Thursday P. M., because of the range being in use all day by the Battalion on Sunday. The Revolver Practice not being completed Thursday, was finished Friday morning.

Otherwise the general schedule of exercises was strictly followed, except on Friday afternoon, when rain delayed the Field Day Exercises, which were, however, successfully run off before evening parade of that day.

The time of both officers and men was fully and thoroughly occupied by the different military exercises prescribed in the Official Program. No expression of dissatisfaction was heard, nor is it believed felt, by any member of the command.

The loading of wagons, pitching and striking of camp proved a most interesting and instructive exercise. The several lectures, after Evening Parade, were listened to by the men of the Command with close attention and interest.

When the number of excursions and of civilian visitors at camp are considered, the discipline of the men, and the good order and cleanliness of the Camp are to be commended. The one serious infraction of discipline was promptly dealt with by the Summary Court.

In all lines of soldierly duty, except rifle practice, the regiment showed a gratifying improvement over the work of previous years. The apparent falling off in rifle practice was due not so much to the lack of previous practice as to the unserviceableness of many rifles, and violent and variable winds on the days appointed for the target

Small Arms Practice.

practice. The records of the Companies on their home ranges, as turned in to these Headquarters, show that more than the usual time had been devoted to this exercise.

The health of the command was excellent throughout, there being not more than two men in the Hospital at any time.

The attendance was the highest in numbers and percentage ever attained by this Regiment. The number absent from Sunday morning on to the close of camp varied from 23 to 41, out of a total strength of 856.

Respectfully submitted,

ORLANDO HOLWAY,
Colonel Third Infantry W. N. G.

SMALL ARMS PRACTICE.

In 1903 all firing was done with the old Springfield rifle, caliber 45. Beginning with May 1st, 1904, the Magazine rifle caliber 30 has been used. At the date of making this report (June 30th) so little use has been had of the new rifle that comparisons cannot be made. The general indication, however, is that the expert shots will not do much if any better with the new piece but that the average man will shoot better. This should result in a year or two in a higher average of marksmanship throughout the state. Under the provisions of G. O. No. 50, A. G. O., U. S. A., 1903, a special course in small arms firing was adopted by the United States Government for all the states. Under the provisions of this order the men are classified as follows:

Fourth Class—All who have not fired.

Third Class—All who report for practice and are unable to score 10 out of a possible 25 at 200 yards in any score, or who have fired two or more full scores at 200, 300 and 500 yards, and from the best two have made an aggregate of less than 67.

Second Class—All who have fired two or more scores at 200, 300 and 500 yards, and from the best two have made a total of 67 out of a possible 150.

Small Arms Practice.

First Class—All who have fired two or more full scores at 200, 300 and 500 yards, and from the best two have made a total of 83 out of a possible 150.

Marksmen—All who have fired two or more full scores at 200, 300 and 500 yards, and from the best two have made a total of 98 out of a possible 150.

Sharpshooters—All who have fired two or more full scores at 200, 300, 500 and 600 yards, and from the best two in each range have made a total of 160, and have fired two or more full scores, timed fire at 200 yards (30 seconds firing interval in each score) and in the best two have made a total of 25; and have made one skirmish run of 20 shots, advancing from 600 to 200 yards; the total of all scores being not less than 235.

Experts—All who have made the necessary total to qualify as sharpshooter and have fired two or more full scores at 800 and 1,000 yards and from the best two have made a total of 40 at 800, and 35 at 1,000 yards.

Under the provisions of this order the classifications for Wisconsin as certified to the Adjutant General, U S. A., were as follows:

Small Arms Practice.

REPORT OF SMALL-ARMS FIRING OF THE WISCONSIN NATIONAL GUARD

ORGANIZATION.		RIFLE AND CARBINE FIRING. Classification and Figure of Merit.								
Regiment.	Co.	Total number classified.	Expert riflemen.	Sharpshooters.	Marksmen.	First-class men.	Second-class men.	Third class men.	Fourth-class men.	Figure of merit.
1st Infantry	A	72	2	5	8	6	5	35	11	41.6
	B	69	1	9	19	4	4	23	9	60.6
	C	65	2	12	39	7	5	0	0	105.8
	D	62	3	1	11	11	4	32	10	39.4
	E	64	2	2	7	5	8	34	6	39.3
	F	70	0	0	4	1	6	45	14	17.5
	G	68	0	3	10	11	24	20	0	54.0
	H	72	0	1	6	3	9	30	23	23.8
	I	73	0	3	11	7	9	38	5	39.9
	K	60	0	0	4	4	8	36	8	24.3
	L	71	2	1	6	3	10	31	18	30.8
	M	72	0	13	15	6	7	26	5	62.6
		818	12	50	140	58	99	350	109	44.8
2d Infantry	A	63	0	3	25	6	10	19	0	64.9
	B	69	0	0	3	4	11	40	11	22.5
	C	62	0	3	23	3	5	22	6	55.5
	D	68	0	0	1	2	10	42	13	17.2
	E	72	0	11	31	3	13	14	0	80.0
	F	71	0	2	14	8	4	38	5	40.6
	G	65	0	1	11	8	4	21	20	34.8
	H	68	0	0	2	2	6	44	14	16.0
	I	70	0	0	2	5	4	56	3	19 0
	K	70	1	3	23	10	9	22	2	62.4
	L	68	0	0	11	4	4	16	33	25.9
	M	68	1	0	19	10	8	26	4	51.6
		814	2	23	165	65	88	360	111	40.8
3rd Infantry	A	64	1	1	9	8	12	25	8	42.2
	B	60	0	0	48	9	2	1	0	93.0
	C	61	0	7	15	12	5	21	1	64.1
	D	68	0	13	30	6	2	12	5	82.6
	E	73	0	0	40	9	8	13	3	71.3
	F	62	0	1	19	24	12	6	0	72.6
	G	65	0	2	32	7	11	9	4	71.8
	H	71	0	0	9	7	12	41	2	34.3
	I	67	1	3	46	9	1	3	4	89.5
	K	61	5	3	45	2	0	6	0	100.9
	L	67	1	0	39	10	9	8	0	80.3
	M	68	3	6	43	8	5	3	0	98.2
		787	11	36	375	111	79	148	27	78.7
1th Separate Bat. Inf.	A	70	2	2	20	12	12	19	3	62.7
	B	62	0	0	13	9	10	30	0	44.4
	C	57	0	1	29	13	8	6	0	78.7
	D	77	0	6	14	8	6	20	23	44.2
		266	2	9	76	42	36	75	26	56.5
Troop A, 1st Cavalry		72	0	0	4	4	5	42	17	19.0
Total		2,757	27	118	760	280	307	975	290	50.5

Wisconsin Military Reservation.

From now on the competition firing in Wisconsin will be exactly the same as that in the United States Army, so that at the conclusion of this year's firing a comparison between the work of the Guard and the regular establishment can be made. Wisconsin adheres to the idea that to teach her soldiers to be good shots is of paramount importance.

WISCONSIN MILITARY RESERVATION.

This valuable piece of property during the past two years has been well cared for and steadily improved. Some thirty-five acres have been added by purchase and still more land should be purchased from time to time as funds are available. The prospects seem good for the purchase by the United States of maneuver grounds adjacent to the reservation. If this is done the state should keep its holdings, increase them if possible, giving the use of its reservation to the United States during the maneuvers in exchange for the use of the maneuver grounds during the annual encampments of state troops.

There is now needed at the reservation adequate office room for the Quartermaster General's force and a vault for the preservation of books and records. A large amount of property is being handled there at considerable risk. The office building should be a separate permanent building. A heating plant for it and such parts of the supply depot as need warming should be established outside of the depot itself, so as to avoid the hazard from fire. These improvements should be made at once. New and permanent headquarters should be erected, an ice house with cold storage facilities built, and new stables constructed. More facilities for small arms firing should be provided that while in camp a maximum of men may shoot in a minimum of time. All improvements from now on should be made looking to the future. They should be permanent and on a scale commensurate with the possible demands that may be made upon them in the event of the country again becoming involved in a war.

Examinations.

EXAMINATIONS.

Each year the requirements for a commission in the Wisconsin National Guard have been made more rigid. The following is the order now in force governing this subject:

STATE OF WISCONSIN,
Adjutant General's Office,
MADISON, April 30, 1903.

General Orders
No. 6.

The following rules prescribed for the examination of all officers below the grade of major, nominated or recommended for promotion or appointment, are published for the information and guidance of all concerned. They will supersede all rules previously published.

The examination of all officers below the grade of major shall be conducted by boards of three officers detailed in orders published from Regimental Headquarters.

So far as practicable the arm of the service for which the examination is made will be represented on the board.

The recorder of the board will swear the several members to faithfully and impartially examine and report upon the officer about to be examined, the president of the board then swearing the recorder to the faithful performance of his duty. Proceedings will be made separately in each case.

Previous to the swearing of the board, members thereof may be challenged for cause stated to the board, the relevancy and validity of which shall be determined by the full board, according to the procedure of courts martial in like cases. If the number of members is reduced by challenge or otherwise the board will adjourn and report to the convening authority for action. All questions relating to the physical condition of an officer shall be determined by the full board.

All public proceedings shall be in the presence of the officer under examination; the conclusions reached and the recommendations entered in each case will be regarded as confidential.

The sittings of the board shall be in uniform. The candidate will be required to present to the board as soon as it assembles, the certificate of a surgeon of the Wisconsin National Guard (if practicable), if not, that of a reputable physician, that he is physically qualified for military service. This certificate must be made out on Form 36, A. G. O. The certificate on the same form of the candidate himself

Examinations.

must also be correctly executed in advance. The certificate of the surgeon and of the candidate together with the oath and statement of the officer as provided by Form 35, A. G. O., must be made out in advance and be ready for presentation as soon as the board convenes.

The physical examination will be thorough and shall include the ordinary analysis of the urine.

Defects of vision, resulting from errors of refraction, that are not excessive and that may be entirely corrected by glasses, do not disqualify, when they are not due to or are accompanied by organic disease.

When the board finds an officer physically disqualified it shall conclude the examination by reporting the nature of the disability. When the board finds an officer disqualified the record must contain a full statement of the case.

When the board finds an officer qualified it will be stated in the following form: "The board is of the opinion that ..... has the physical, moral and professional qualifications to perform efficiently all the duties of the grade for which he has been examined and recommends that he be commissioned."

The record in each case where an officer is found physically disqualified shall be authenticated by all the members including the medical examiner. If any member dissents from the opinion of the board it will be so stated.

The examination in all subjects shall be oral and practical with the exceptions hereinafter mentioned.

During oral examinations all the members of the board will be present.

Written examinations may be conducted in the presence of one member of the board for which purpose the board may be divided into committees after which the board will reassemble to consider the findings.

Whenever the oral examination is unsatisfactory in any subject the board may at once proceed with a written examination and in case the officer is not found proficient the questions and answers will be attached to the proceedings.

To secure uniformity, boards of examination will be furnished by the Adjutant General with lists of questions, with numbers attached, covering each subject and each officer examined will be given not less than ten (10) questions to answer from each list. The maximum value of each question shall be ten. The board will prepare numbers corresponding to the numbers on the official lists of questions and permit each candidate to draw his quota of numbers.

Examinations.

No candidate will be passed who cannot answer sixty-five (65) per cent. of the questions.

The total value and relative weight of questions will be as follows:

	Total value.	Relative weight.
1. Administration. (U. S. Army Regulations and State Military Law and Regulations).....	100	2
2. Drill Regulations. (Including Guard Duty, Small Arms Practice, and Marches).....	100	3
3. Fire Discipline	100	1
4. Military Law	100	1
5. Military Topography and Military Field Engineering	100	2
6. Minor Tactics. (Advance and Rear Guards, Outposts, Patrols and Reconnoissance).....	100	3
7. Hippology. (For Cavalry and Artillery).....	100	2

In computing the examination, find the percentage in the various subjects, multiply each by the relative weight of the subject, then divide the sum of these products by the sum of the relative weights of the subjects included in the examination of each officer.

The questions for the use of examining boards issued by the Adjutant General will be prepared from the Army Regulations, State Regulations, Firing Regulations for Small Arms, General Orders, Circulars, Drill Regulations, Manual of Guard Duty, The Service of Security and Information, Wagner; Abridgement of Military Law, Winthrop; Manual of Field Engineering, Beach; Military Topography and Sketching, Root; Infantry Fire, Batchelor. For Artillery and Cavalry, Horses, Saddles and Bridles, Carter.

Boards should so conduct examinations that the qualifications of candidates may be determined, as far as practicable, by the practical application of their knowledge. The moral character and civil standing of the candidate shall also be taken into consideration. In all cases of doubt as to character and standing examining boards should make careful inquiry.

Each candidate who has not previously passed an examination will be required to show by a certificate of the authorities of schools where he has been in attendance or by the certificate of some member of his family or that of at least one reputable citizen that he has a fair education in grammar, mathematics, geography and history. His writing will be tested by requiring him to write a militay com-

Examinations.

munication and properly brief and endorse the same and by requiring him to make out a company ration return and execute a requisition for quartermasters supplies or ordnance stores. These can be prepared in advance of the sitting of the board provided that attached thereto is a certificate of an officer that the candidate performed the work alone and unaided by any person.

Where the opportunity for so doing exists each candidate should be required by practical exercises to demonstrate his ability to impart instruction.

The scope of the examinations will differ according to the grade and sets of questions which will limit the scope for the various grades will be furnished as follows: (1) For appointment as Second Lieutenant. (2) For promotion from Second Lieutenant to First Lieutenant. (3) For promotion from First Lieutenant to Captain. (4) For promotion from Captain to Major.

On requisition on the Quartermaster General, Camp Douglas, Wis., one set of the text books named in this order will be issued to company commanders and for which they will be held accountable. These books shall be kept for the use of all candidates for commission or promotion.

All examination questions issued previous to the date of this order are recalled.

The proceedings of the examining boards will be forwarded through military channels to the Adjutant General for the final action of the Governor.

By command of the Governor:

C. R. BOARDMAN,
Adjutant General.

Official:

JNO. G. SALSMAN,
Assistant Adjutant General.

The only changes that experience is showing should be made is to make the requirements more rigid until they are the same as those required for commission in the volunteer service of the United States. They should be supplemented by a school for officers held once a year. This can be accomplished by making the annual convention of officers a school, extend the period of its duration and provide by law for a per diem allowance to officers making attendance compulsory. This could be still further supplemented by regimental or battalion schools to be

held twice or four times a year. The course for these should be made preparatory for the annual school for the state. Schools of correspondence might also be efficiently established.

In the matter of physical examinations the War Department at Washington has accepted the system in force in Wisconsin the past four years as satisfactory and has ruled that Wisconsin troops, so long as this system is continued, can be mustered into the service of the United States without further physical examination.

MEDICAL DEPARTMENT.

The progress in this department has been marked. It is now completely organized and equipped in accordance with the regulations governing the United States Army. The following order is self explanatory.

STATE OF WISCONSIN,
Adjutant General's Office,
MADISON, February 19, 1904.

General Orders
No. 4.

Under the authority of Section 17, Chapter 228, Laws of 1901, the hospital corps will be increased as soon as practicable so that the detachment allowed each organization will correspond with the medical service provided for similar organizations in the United States Army. The personnel in addition to the three medical officers now assigned to the several organizations will be as follows:

For each regiment of Infantry:
1 Sergeant, First Class.
2 Sergeants.
9 Privates.

For the 10th Separate Battalion Infantry:
1 Sergeant.
3 Privates.

For Troop "A," 1st Cavalry:
2 Privates.

For 1st Battery Field Artillery:
2 Privates.

Medical Department.

The uniforms, equipment, property accountability, instruction and discipline will be made to correspond to that of the United States Army, except where they conflict with the state laws.

The several detachments will be recruited and stationed at points where officers of the medical department are stationed and shall be apportioned to any station in such numbers as the Assistant Surgeon General shall prescribe.

The rules governing enlistments, transfers and discharges for the Hospital Corps in the United States Army will apply in all cases where they do not conflict with the laws of this state.

All enlistments and discharges will be sent direct to the Adjutant General.

For muster and inspections members of the hospital corps will report to the senior medical officer at their station.

As soon as the enlistments are completed they will be reported to the Assistant Surgeon General who will assign the recruits to duty.

By Command of the Governor:

C. R. BOARDMAN,
Adjutant General.

Official:

JNO. G. SALSMAN,
Assistant Adjutant General.

Under the provisions of this order the following circular was issued by the Assistant Surgeon General:

STATE OF WISCONSIN,
ASS'T. SURGEON GENERAL'S OFFICE,
MAUSTON, March 4th, 1904.

Circular:

SIR:—Under the provisions of General Order No. 4, A. G. O., c. s., the stations of the Hospital Corps Detachments of the Wisconsin National Guard and the officers to recruit for the same will be as follows:

At Milwaukee:—In charge of Captain G. E. Seaman, Assistant Surgeon: 1 Sergeant, first class; 2 sergeants; 9 privates. In charge of Captain Ralph Chandler, Assistant Surgeon: 2 privates. In charge of Captain W. J. Cronyn, Assistant Surgeon: 2 privates.

At Ripon:—In charge of Captain E. C. Barnes, Assistant Surgeon: 5 privates. These in case of expediency can be recruited at Ripon, Fond du Lac or Oshkosh.

Medical Department.

At Marinette:—In charge of Lieut. T. J. Redelings, Assistant Surgeon: 4 privates. Major F. C. Moulding, Surgeon, will arrange for 1 sergeant, first class; 2 sergeants to be stationed at Ripon, Marinette, Fond du Lac, Oshkosh or Watertown.

At Menomonie:—In charge of Major E. H. Grannis, Surgeon: 1 sergeant, first class; 3 privates.

At Hudson:—In charge of Cpatain C. F. King, Assistant Surgeon: 3 privates.

At La Crosse:—In charge of Captain D. S. McArthur, Assistant Surgeon: 3 privates. Major E. H. Grannis, Surgeon, will arrange for the station of 2 sergeants.

At Arcadia:—In charge of Captain G. N. Hidershide, Assistant Surgeon: 1 sergeant; 3 privates.

If found desirable enlisted men of other organizations will be transferred to the Hospital Corps by the Adjutant General, on recommendation of the Assistant Surgeon General.

The officers in charge of the different detachments of the Hospital Corps will be furnished with detachment rolls on which to make reports of the semi-annual muster on the last Monday in March and September of each year.

Requisitions for all blanks should be made on the Adjutant General.

Requisitions for equipment to be made on the Quartermaster General at Camp Douglas. Requisitions to be approved by this office.

Enlistments for sergeants of the first class and sergeants will only be made to fill existing vacancies.

Very respectfully,

JNO. B. EDWARDS,
Assistant Surgeon General.

The organization of the hospital corps has been completed and an entire new equipment strictly regulation and up-to-date in every respect has been drawn from the United States for each regiment, the 10th Separate Battalion, Troop "A" and the First Battery.

Pension Division.

VOLUNTEER SERVICE.

In this department the letters received and answered from July 1st, 1902 to June 30th, 1904, amounted to 1,395. During the same period there were 740 certificates of service issued to former soldiers.

Fortunately the fire in the capitol February 27th, 1904, did no damage to the War Records of the state nor to the flags carried by Wisconsin troops in the Civil War.

PENSION DIVISION.

At the date of the last report from this office, September 30, 1902, there had been filed with this division 5,816 claims of all classes and there were on the files 879 claims awaiting action.

Owing to the change in closing the fiscal year this report will only embrace the time from September 30th, 1902, until June 30th, 1904, a period of twenty-one months, instead of the complete two years.

During that time there have been filed 1,156 claims of all classes, 1,203 claims have been passed upon by the Bureau of Pensions; of that number 721 have been allowed, 482 have been rejected, and six soldiers have died before the date set for a medical examination, thus losing the right to any increase being allowed their heirs, and 31 claims have been abandoned because of inability to procure evidence.

Of the claims allowed (721), 18 were claims for Original Pension under the Act of July 14th, 1862, (The General Law); 7 being for soldiers of the War with Spain, 10 for soldiers of the Regular Army and one soldier of the War of the Rebellion; 151 were Original claims under the Act of June 27th, 1890; 93 were claims for Increase under the General Law; 228 were for Increase under the Act of June 27, 1890; 37 were Widow's claims under the General Law; 158 Widow's claims under the Act of June 27, 1890; 27 widows who had forfeited their pensions by remarriage were restored to the rolls

Pension Division.

under the provisions of the Act of March 3, 1901, three widows not having a pensionable status, secured the accrued pension due the deceased soldier; 5 dependent mothers and one dependent father were placed on the rolls, as were also 4 minor children and one dependent sister. One widow was assisted in securing one-half of the husband's pension who had deserted her and one widow of a Mexican soldier was added to the rolls.

Of the 482 rejected claims, 15 were for Original pension under the General Law, 17 were Original pension under the Act of June 27, 1890, 178 were claims for increase under the General Law, and 137 were for Increase under the Act of June 27, 1890; 31 widow's claims under the General Law were rejected, they having failed to show that the soldier's death was due to the pensioned cause or to his military service; 16 widow's claims under the Act of June 27, 1890, were rejected, ten on account of having an income in excess of $250.00; three who had been divorced on motion of a former husband, and two were not recognized as legal widows at the time of marriage; two dependent fathers, one dependent sister, one wife who asked for one-half of the husband's pension, and one Mexican soldier's widow were also placed on the rejected list.

The filing of claims for Original Invalid pension under the Act of July 14, 1862, (The General Law) by soldiers of the War of the Rebellion has practically ceased, as the difficulties of procuring satisfactory evidence of hospital records, or of acceptable testimony from regimental medical officers, company officers or comrades, to prove disease or disability of service origin or treatment, are such that few make the attempt, but confine themselves to increase of existing disabilities or take the benefits of the Act of June 27th, 1890, and later amendments.

Pension applications under the General Law are now confined to soldiers of the War with Spain and to soldiers of the Regular establishment, almost exclusively.

The percentage of rejections of widow's claims under the General Law still continues high as it is becoming more and

Pension Division.

more difficult to show that the cause of death is due to the pensioned cause.

The correspondence has been more than usually large, owing to the answering of letters of inquiry regarding the new "age rule," promulgated by the Commissioner of Pensions, March 5th, 1904. 2,012 letters have been copied upon the files of the office and nearly as many more written in answer to minor questions, not of sufficient importance to become a matter of record; about 2,000 circulars and postals have been sent out.

All communications have been promptly answered and all blanks asked for have gone forward the day the request was received; the only delay at any time was for the month of March, 1904, when (all of our blanks having been destroyed in the Capitol Fire of Feb. 27,) it was necessary to wait until a new supply could be obtained from the public printer.

In the Capitol fire all of the "completed files" of the division and all blanks were destroyed, but the files containing the pending claims and the books of record were saved, so that with the slight delay above mentioned, the business of the office proceeded without a break.

1,502 Pension vouchers for soldiers and widows have been executed, without charge, besides many other affidavits and other papers pertaining to pensions, and while the business of the office has increased more than 50 per cent over any similar period since the establishment of the division, the business has been kept strictly up to date.

Since the establishment of this division, sixteen years ago, there have been filed 6,973 claims of all classes, and there are now on the files 692 claims awaiting adjudication.

Under Order No. 78, (as the New Rule of Age, is termed), there have been filed with this office 336 new claims, of which about 30 per cent are of soldiers who have never received a pension. 98 claims have been allowed; 55 original applications and 43 increase.

Owing to the extreme care in the supervision of the prepara-

tion of evidence forwarded through the office, the percentage of allowances has steadily risen until at present it is about 70 per cent of all claims filed.

The expense of the maintenance of both the volunteer service and pension divisions is now charged to the Wisconsin National Guard. This is unfair to these divisions and unjust to the Guard. The former should be maintained at a high degree of efficiency but the expense should come from a separate fund and not out of the $130,000 annual allowance for the maintenance of the Guard.

FINANCIAL.

The books of this department show the following expenditures to have been made for each of the two fiscal years covered by this report.

FINANCIAL STATEMENT.

Fiscal Years July 1st, 1902 to June 30th, 1904.

	July 1, '02 to June 30, '03.	July 1, '03 to June 30, '04.
Rent of Armories	$18,200.00	$23,100.00
Allowance to company commanders	2,100.00	2,100.00
Allowance to battalion commanders	500.00	500.00
Allowance to regimental adjutants	100.00	300.00
Allowance to regimental headquarters	300.00	300.00
Clothing allowance	13,400.00	14,400.00
Extra horse hire Troop and Battery	3,000.00	3,000.00
C. R. Boardman, salary Adjutant General	2,000.00	2,000.00
C. R. Boardman, expense	165.83	180.65
John G. Salsman, salary Ass't Adj. Gen.	1,400.00	1,400.00
John G. Salsman, expense	62.50	126.35
Salaries, National Guard Department	1,320.00	1,800.00
Salaries, pension division	2,100.00	2,100.00
Pay of troops in camp	54,065.75	54,296.85
Captain E. Chynoweth, 17th Inf. U. S. A., Inspector	600.00	
Captain J. F. Morrison, 20th Inf. U. S. A., Inspector		600.00

Maneuvers.

Troop "A," 1st Cavalry, feed and care of horses	3,000.00	1,000.00
Expense Major B. H. Dally, 1st Inf. Ft. Riley ..	28.65	
W. F. Schultz, stenographer, court martial ...		108.00
Lieut. C. G. Price, 1st Inf., fees Buemdicke case	220.00	
Captain C. G. Price, 1st Inf., Judge Advocate pay		27.78
Dues Interstate National Guard Association ..	35.00	35.00
Louis Esser Co., Service Medals		250.00
Major C. R. Williams, Quartermaster, Expense Inspection, 1902		172.75
Hudson Kimberley Publishing Co., text books	368.85	1.85
E. A. Armstrong Mfg. Co.		.75
Army and Navy Journal	6.00	6.00
Army and Navy Register		6.00
Telegraph and telephone	57.55	38.85
Express and freight	16.14	49.37
Printing	176.79	435.66
Postage	327.20	353.00
Quartermaster General's Department	26,661.48	19,918.32
Medical Department	619.12	1,271.85
	* $130,830.86	$129,879.03

MANEUVERS.

For the first time in its history Wisconsin in 1903 participated in joint maneuvers with other state troops and the United States Army. These maneuvers took place at West Point, Kentucky, and have been fully covered by Government reports. The First Infantry, Wisconsin National Guard, under command of Colonel Otto H. Falk, represented Wisconsin with credit to the regiment and to the state. The following communications are submitted as showing the estimate placed on the work of the Wisconsin regiment by the United States authorities:

*This amount exceeds $130,000.00 for the reason that some of the annual allowances due organizations in 1902 were withheld until 1903 to compel compliance with certain orders and regulations. The excess really belongs to expenditures for 1902.

Maneuvers.

HEADQUARTERS FIRST BRIGADE,
MANEUVER DIVISION,
WEST POINT, KY., Oct. 7, 1903.

COLONEL OTTO H. FALK,
First Wisconsin Infantry,

SIR:—The Inspector General of the Division made verbal report to me yesterday to the effect that the camp of the First Wisconsin Infantry was in most excellent condition and that the sanitary precautions enjoined in orders were implicitly followed. He added, "they have nothing to learn in this respect from any regiment on the grounds."

It gives me great pleasure to furnish you with this information.

Very respectfully,
(Signed) W. A. KOBBE,
Brigadier General, U. S. A.

WEST POINT, KY., Oct. 14, 1903.

MY DEAR GENERAL:

I wish to tell you how favorably I was impressed with the First Regiment of Infantry, Wisconsin National Guard, at the encampments at West Point, Kentucky. This regiment came fully up to my expectation, and I expected a good deal of it. Its conduct in the maneuvers showed that it had devoted intelligent and faithful attention to tactics, not merely drill, but tactics in the higher sense of the word, and its camp was a model of neatness and good sanitary condition. The condition and conduct of this regiment at this encampment show that the National Guard of your state is devoting its time faithfully and intelligently to preparation for the duties of War. I hope the good work will continue.

With cordial regards, I am,

Sincerely yours,
ARTHUR L. WAGNER,
Chief Umpire.
Colonel and Assistant Adjutant General,

These maneuvers are of the utmost value to the militia and whenever the opportunity presents itself Wisconsin should continue to participate in them.

Miscellaneous.

MISCELLANEOUS.

During the past two years new armories have been built at Portage, Marinette, Monroe and Reedsburg. The two former by the cities, the two latter by stock companies organized in the interest of the military companies. A new armory is about to be built at Mauston and one is in progress of construction at Appleton. It is also highly probable that in a reasonable time the company at Neenah will own its own armory. Every company in the state should own its own armory and the work of stimulating building should be continued until this has been accomplished.

The annual appropriation of $130,000 should be increased to $140,000 and made to include the $2,500 annual special appropriation each to Troop "A" and 1st Battery, both of which were provided for after the passage of the laws fixing the maximum annual expense.

The First Battery Field Artillery should own its own horses the same as Troop "A" and should be equipped as soon as possible with modern field pieces.

The Light Horse Squadron Association armory at Milwaukee should be owned by the state.

Another issue of kahki clothing should be made to the entire Guard as soon as possible and this should be followed by an issue of the woolen service uniform. These new issues should be made before any attempt is made to furnish the new dress uniform.

Sufficient wagons and mules should be purchased and kept to at least furnish a minimum wagon train for at least one regiment.

With the addition of transportation, shoes, socks and underwear the Wisconsin National Guard can be ready immediately to take the field for domestic or foreign service on any call by the President or Governor.

Miscellaneous.

With an expression of appreciation of your judgment and support together with that of all associated with me, I am,

Very respectfully,

C. R. BOARDMAN,
Adjutant General.

BIENNIAL REPORT

OF THE

Quartermaster General

AND

The Chief of Ordnance

OF THE

STATE OF WISCONSIN

FOR THE

Fiscal Years Ending June 30, 1903, and June 30, 1904.

MADISON
DEMOCRAT PRINTING CO., STATE PRINTER
1904

BIENNIAL REPORT

OF THE

QUARTERMASTER GENERAL.

STATE OF WISCONSIN,
Office of Quartermaster General, Commissary General, and the Chief of Ordnance.
MADISON, June 30, 1904.

To His Excellency, ROBERT M. LAFOLLETTE,
Governor and Commander-in-Chief.

SIR—In compliance with the provisions of section 10, chapter 228, laws of 1901, I have the honor to submit the following report of the principal operations of the Quartermaster's, Subsistence, and Ordnance Departments of the Wisconsin National Guard, during the two fiscal years ending June 30, 1904, with such recommendations as in my judgment are for the best interest of the State and service.

The section of the law above referred to reads in part,—

> "The Quartermaster General . . . and he shall, on or before the 1st day of October in each even numbered year, render a report to the Governor, to be laid before the legislature, giving a detailed statement of all moneys received and expended by him, of all military property belonging to the State and remaining on hand at the date of his last report, and such as may have come into his possession after such date, from what sources the same have been received, to whom issued or how expended and upon whose order, and the condition of the property remaining on hand, also showing who has possession and the condition of all military property issued under the law, so far as same has been reported to him."

General Report.

It is regretted that, in submitting this report, this provision of the law cannot be complied with, the following letter of the Adjutant General being explanatory:—

STATE OF WISCONSIN,
Adjutant General's Office,
MADISON, May 4, 1904.

The Quartermaster General, W. N. G.

SIR—By direction of the Governor, I have the honor to invite your attention to the fact that your biennial report will be due June 30, 1904. I would also respectfully invite your attention to the fact that the statutes especially provide that the size of your report must not exceed twenty-five (25) printed pages.

It is desirable to have this report ready at the time designated and it also must be kept within the limits of the size provided by law.

Very respectfully,
(Signed) C. R. BOARDMAN,
Adjutant General.

Twenty-five pages are not sufficient for the rendering of this report as required by law and it is urgently recommended that that part of sec. 10, chapter 228, laws of 1901, relating to the rendering of report of all property on hand at the time of last return, received from different sources, issued, expended, and remaining on hand and the condition thereof, also showing who has possession of military property of the State, be so amended that same can be printed in the limited number of pages authorized for this Department, or that provisions be made whereby complete report as required by this law can be printed.

A table showing the expenditures of the departments for the fiscal years ending June 30, 1903, and June 30, 1904, is annexed to this report and marked "A."

In this State, the Quartermaster's, Subsistence, and Ordnance Departments are combined under one head with one office force and one depot of supplies. This combining of the departments of supply has at times led to some confusion in the transaction of business on the lines as defined by quartermaster, subsistence

and ordnance. It has been my aim, during the past two years, to carry out as far as possible the separation of these departments in transactions with officers of the Guard. The reasons and necessity for this are obvious. In the United States Army, the Quartermaster's, Subsistence, and Ordnance Departments are entirely separate, each having its own chief, corps of assistants, and depot of supplies. Forms for making requisition and drawing of supplies, as well as methods of accountability are different in these departments of the Army; in fact, each has a way of doing business in a manner peculiar unto itself. While I am not in position to state that this method of the supply departments of the Army is not the proper one, it is the one which is in vogue at the present time, and if officers of the Wisconsin National Guard are to be proficient, they must know the Army's way of doing business, especially when called upon to take the field in time of war or insurrection or during such times as they may participate in the annual maneuvers. While the efforts in the separation of the business of the three supply departments of the State, on the lines of like departments of the Army, have not been as successful as could be wished, it is safe to state that our officers have a fairly good knowledge of what constitutes clothing, equipage and quartermaster's supplies, subsistence supplies and subsistence property, and ordnance and ordnance stores.

In connection with this, it is urgently recommended that, in the future, orders emanating from the Adjutant General's office and which apply entirely or in part to the supply departments or to the chief or officers thereof, proper reference be made to each department or its chief or officers, instead of the Quartermaster's Department or the Quartermaster General as is commonly used. Orders have frequently been issued, in the past, directing the Quartermaster General to perform some duty pertaining to the Ordnance Department, or requiring officers to make requisition on the Quartermaster's Department for stores which pertain to and are issued by the Ordnance Depart-

ment. This is wrong, and it is hoped that this practice will be discontinued.

THE QUARTERMASTER'S AND ORDNANCE DEPARTMENTS.

The depot of supplies of the Quartermaster's and Ordnance Departments, located on the Military Reservation, has been in direct charge of the major and quartermaster of the Wisconsin National Guard, who, in addition to his duties as quartermaster, performs those of an ordnance officer. This officer has also had charge of the offices of the Quartermaster General and Chief of Ordnance and, during the annual encampments, was detailed as assistant to the Commissary General. All requisitions of officers for quartermaster and ordnance property are forwarded to the offices at Camp Douglas. In the Quartermaster's Department, 449 requisitions were received during the fiscal year ending June 30, 1903, and 319 for the year 1904. In the Ordnance Department, 394 requisitions were received for the first fiscal year and 369 for the second. During the fiscal year 1903, 544 issues of property were made by the quartermaster, and 377 for 1904. The acting ordnance officer made 460 issues of ordnance stores during the fiscal year 1903, and 422 in 1904. These issues of property do not include those made on memorandum receipt by the Quartermaster's Department, to officers during annual encampments. In the offices of the Quartermaster General and Chief of Ordnance, 2,935 letters were written in 1903, and 2,517 in 1904. 396 property returns were received, examined and settled during the two years in both departments.

The quartermaster and acting ordnance officer in charge of the depot of supplies is required to render, semi-annually, complete returns of all property received, manufactured, issued, and expended, during each period. Every cents worth of property whether received from the United States Government or purchased with funds appropriated by the State, is accounted for

on these returns which are filed with the Adjutant General for auditing.

During the past two years, the employees have remained the same, both as to personnel and number. The efficiency of an Army depends to a large extent upon the proper management of the supply departments. This applies to the National Guard of a State as well. If these departments are to be kept abreast with the rapidly improving line of our Guard, it will be necessary that some provision be made for additional assistance. The demands being made upon them are ever increasing, and efficient service can only be rendered by proper organization and sufficient force for the prompt and economical discharge of duties. With the help now provided, the officers of these departments are required to do a vast amount of clerical work as well as manual labor, and as a result, much valuable work is neglected or half done, owing to lack of time or proper supervision. In brief, the requirements of the Guard of this State have outgrown the force authorized for these departments.

In 1893, the force consisted of the Quartermaster General, Asst. Quartermaster General with rank of major, Asst. Quartermaster with rank of captain, a sergeant in charge of the Military Reservation, and a sergeant on duty in the supply depot. The total salaries paid during this year was $4,220.00. In 1896, the force consisted of Quartermaster General, Asst. Quartermaster General with rank of colonel, Asst. Quartermaster with rank of major, one storekeeper with rank of sergeant, and two employees on the Military Reservation, with a total payroll of $5,644.00. The present force consists of the Quartermaster General with additional duties as Commissary General and Chief of Ordnance, quartermaster with rank of major, performing additional duties as acting ordnance officer and assistant to the Commissary General, two sergeants and a clerk employed from 9 to 10 months each year. The total paid for salaries the past year was $4,140.00 or $80.00

less than in 1893 and $1,500.00 less than in 1896, and with duties and work 10 fold greater than either period. During the past 6 years, a clerk has been employed by the quartermaster from 9 to 10 months each year, at a salary of $25.00 per month the first 4 years and $30.00 per month the past two years. The employment of this clerk at this low salary has only been possible by reason of the fact that the quartermaster has provided her with board at his own expense. This officer has been obliged to personally pay over $200.00 for assistance in the office during the past 6 years, at such times as payment was not allowed by the State.

A number of changes have been planned, the adoption of which it is believed will greatly improve the efficiency of this office, which, however, can only be carried out in the event of the authorization of employment of additional help. All shipments of property to and from the depot of supplies, whether by freight or express, the cost of which is paid by the State, should be made on proper bills of lading. A system of card indexing should be installed for the proper recording of the vast number of requisitions, property returns, and other valuable reports and papers which are ever increasing. To carry these out properly requires considerable additional labor over the present system as in vogue. The rendering of the semi-annual returns by the quartermaster and acting ordnance officer requires a vast amount of clerical work, and for their proper rendition, it is safe to state that it will require the services of a good clerk practically two-thirds of his time. The officers of this Department are under bond for the proper accounting of all Government property placed in their charge. If a single item is lost and cannot be accounted for, it must be paid for unless they are so fortunate as to be relieved from accountability by action of a board of survey. It is due the accountable officer that every reasonable assistance be given him for the prompt and accurate rendering of his returns, for he is not only financially interested, but prides himself

on the fact that every effort is made to properly account for every item of Government property, no matter how small in size or value.

The following is respectfully recommended to you as the proper force which experience has suggested to me as necessary for the business-like administration of the Quartermaster's Subsistence, and Ordnance Departments of this State:

Quartermaster General	salary	$1,000.00	per year.
1 Quartermaster, rank of major	salary	1,400.00	per year.
1 Sergeant, Quartermaster Department	salary	720.00	per year.
1 Laborer	salary	540.00	per year.
1 Laborer	salary	480.00	per year.
1 Clerk	salary	600.00	per year.

The total salaries to be paid as recommended amount to $4,740.00 per annum, which is $904.00 less than paid in 1895 or 1896.

CLOTHING AND EQUIPAGE.

During the past two years, the following articles of clothing have either been received from the Quartermaster's Department of the Army on the State's quota of the appropriation under the provisions of Sec. 1661, R. S., or purchased from the Quartermaster's Department of the Army, under Act of Congress approved January 21, 1903, with moneys collected for property lost or sold:

600 Blankets, woolen,
125 Blouses, made,
40 Caps, forage,
139 Cap ornaments,
1,662 Prs chevrons for dress coats and overcoats,
773 Prs. chevrons for khaki coats,
3,000 Coats, service, khaki.
170 Coats, canvas, fatigue,
1,276 Hats, campaign,
3,010 Hats, campaign, cords,
4,300 Hats, campaign, letters,
4,200 Hats, campaign, numbers,
1,176 Pairs leggins,
75 Pairs overalls, mounted,
102 Overcoats,
200 Ponchos, rubber,
3,200 Shirts, chambray,
450 Shirts, dark blue flannel,
75 Stable frocks,
850 Prs. trousers, kersey, foot,
175 Prs. trousers, kersey, mtd.,
300 Pairs trousers, khaki, foot,
25 Pairs trousers, khaki, mtd.,
170 Prs trousers, canvas, fatigue,
519 Prs. trouser stripes,
600 Waist belts, leather.

Clothing and Equipage.

In this period, the following articles of clothing have been issued:—

231 Blankets, woolen,	162 Overcoats,
678 Blouses, made,	188 Ponchos, rubber,
105 Caps, forage,	2,856 Shirts, chambray,
567 Cap ornaments,	757 Shirts, dark blue flannel,
2,823 Coats, service, khaki,	65 Stable frocks,
82 Coats, canvas, fatigue,	810 Pairs trousers, kersey, foot,
1,217 Hats, campaign,	89 Pairs trousers, kersey, mtd.,
1,976 Hats, campaign, cords,	1,197 Pairs trousers, khaki, foot,
2,796 Hats, campaign, letters,	39 Pairs trousers, khaki, mtd.,
3,018 Hats, campaign, numbers,	81 Pairs trousers, canvas, fatigue,
801 Pairs leggins, canvas,	282 Pairs trouser stripes,
65 Pairs overalls, mounted,	593 Waist belts, leather.

In addition to this, complete sets of new regulation chevrons for all non-commissioned officers, cooks, and artificers, have been issued to each company, non-commissioned staff and band for dress coats, overcoats, and for cotton khaki service coats.

The Act of Congress approved March 2, 1903, appropriated $2,000,000.00 for arming, equipping, and uniforming the organized militia of the country, and Wisconsin's quota of this appropriation was $31,298.47. $700,000.00 of the appropriation referred to was set aside by the War Department for the purchase and manufacture of modern field guns with carriages, limbers, caissons, and harness for issue to field batteries of organized militia of the various states. It is understood that the field battery of this State is to receive complete new equipment with field guns when same are ready for issue.

By reason of the appropriation in Act of Congress approved March 2, 1903, this State has been able to draw from the General Government sufficient tentage, field ovens, field desks, and other articles of equipage necessary for the entire service. In the past two years, the following equipage has been drawn from the Quartermaster's Department of the Army:

Clothing and Equipage.

284 Axes,
284 Ax helves,
3,000 Bed sacks,
42 Brooms,
300 Camp kettles,
54 Desks, field.
1 Color belt and sling,
1 Color, National, silk,
1 Color, field hospital,
1 Color, general hospital,
1 Flag, post,
1 Flag, storm and recruiting,
26 Field ranges with utensils,
42 Hand litters,
300 Mess pans,
372 Pickaxes,
372 Pickax helves,
336 Shovels, short handled,
73 Trumpets,
73 Trumpet cords and tassels,
25 Trumpet crooks,

Tentage—
130 Common wall,
130 Common wall poles, ridge,
260 Common wall poles, upright,
140 Conical wall,
10 Conical poles with tripods,
2 Hospital,
2 Hospital flies,
2 Hospital poles, ridge,
4 Hospital poles, upright,
2,000 Shelter halves,
2,000 Shelter poles,
140 Tent stoves,
140 Sections tent stovepipe,
140 Tent tripods and pipe,
140 Tent caps, galvanized,
50 Tent plates and chains,
50 Tent slips, large,
500 Tent slips, small,
404 Yards canvas,
5,036 Pins, large,
9,896 Pins, small,
10,000 Pins, shelter.

Shelter tents have been issued to the troops at the rate of ½ tent for each soldier and 1 complete tent for each officer. 1 field oven, 1 field desk, 6 camp kettles, 6 axes, 6 pickaxes, and 6 shovels, have been issued to each organization. The balance of equipage necessary for troops to take the field is stored in the Quartermaster's Depot at Camp Douglas, and is arranged in such manner as will insure its being loaded in cars for transportation to any point in the State in a comparitively short time.

The Hospital Corps having been organized since the drawing of tentage from the General Government, 30 additional common wall tents with poles and pins complete should be requisitioned for in order that the equipment of this branch of the service can be complete; and in a like manner, 15 hospital tent flies should be secured for use as shelter to each cook oven and cooks during the time the troops are in camp on the Military Reservation.

The question of the proper uniforming of the entire Guard is the hardest problem which confronts the Quartermaster's Department. The blue uniform, consisting of blouse, flannel shirt, and trousers, is badly worn and in a number of companies is in such condition as to cause unfavorable comment. This condition exists notwithstanding the annual allowance made to each organization of 12 blouses, 10 shirts, and 20

pairs trousers. The enlisted strength of a company changes very rapidly, at least ⅓ each year, and under the present system of uniforming, it often happens that articles of clothing are worn by three or four different men before being discarded as unserviceable. The enlisted men of our Guard are recruited from the best families, and the issuance of old clothing, (especially trousers, shirt, and hat,) to the recruit often has the tendency to greatly dampen his military ardor. He feels, and rightly too, that if he is willing to sacrifice to a certain extent his liberty as well as his time, to become a proficient soldier, the least, the very least the State can do, is to provide him with a good clean uniform. I believe that each soldier should have issued to him at the time of enlistment, coat, woolen and khaki; shirt, woolen and cotton; hat, campaign; breeches, woolen and khaki. The balance of clothing required, to-wit,—the blanket, overcoat, poncho, belt, and leggins, can be used by four or five different soldiers. It would cost about $16,000.00 per year to issue clothing as above recommended. The present appropriation of the General Government is not sufficient to permit this. In the past year, only such quantities of the blue uniform, now obsolete, as were absolutely necessary to meet emergent demands have been drawn or purchased. Every cent expended for this style of clothing is wasted, and in view of the present condition of same, it is urgently recommended that steps be taken at once for the purchase of the olive drab service uniform, consisting of coat, woolen shirt, and breeches. It is estimated that the issue of these articles will cost $36,900.00, and as same cannot be drawn from the Quartermaster's Department of the Army inside of two years, purchase should be made in the market. For payment of this clothing, there is on deposit at the State Treasury, under special fund created by Section 1, Chapter 62, Laws 1901, $14,833.70. $14,000.00 can be obtained from the appropriation made by the General Government. Balance of amount necessary could be had by cutting off one day from camp of 1905.

Arms and Equipment.

An additional pair of cotton khaki breeches should be issued for each soldier, so as to give a change during camp or maneuvers. This should not be carried out, however, until such time as the State is able to obtain from the Quartermaster's Department of the Army, cotton khaki breeches, the trousers previously issued being obsolete. It is believed that one cotton khaki service coat for each soldier is sufficient.

ARMS AND EQUIPMENT.

In 1903, the Springfield rifles with equipments pertaining to them were exchanged for the modern Magazine rifle, cal. .30, used in the United States Army. This issue was made by the Ordnance Department of the Army without cost to the State, under provisions of Act of Congress approved Jan. 21, 1903. Under this Act, this State received:

2,522 U. S. Magazine rifles, cal. .30,
67 U. S Magazine carbines, cal. .30,
2,589 Small arm oilers,
2,522 Sight and muzzle covers,
67 Front sight covers,
518 Screw drivers,
2,522 Bayonet scabbards, cal. .30,
2,522 Gun slings,
2,522 Cartridge belts, cal. .30,
67 Cartridge belts, cal. .30, cavalry,
256 Arm chests.

60 rifles with belts, bayonet scabbards, and appendages were issued to each company and a like number of carbines to the troop of cavalry; those to the 1st. and 2nd. Infantry and the troop during camp of 1903, and to the companies of the 3rd. Infantry and 10th. Separate Battalion by shipment to the home stations.

The Act of Congress above referred to required that all Springfield rifles, cal. .45, with equipments, property of the United States, be turned in to the Ordnance Department of the Army without money credit to the State, also that all ammunition and components thereof of cal. .45 was to be exchanged for like components of ammunition suitable for the cal. .30 Magazine rifle, without charge. This necessitated the calling in to the Depot at Camp Douglas of all Springfield rifles and carbines with equipments and ammunition pertain-

Arms and Equipment.

ing to them, and their thorough overhauling, cleaning and packing for shipment. On April 21, 1904, there was shipped to the Commanding Officer of Rock Island Arsenal, the following arms, equipment and ammunition, being this State's total accountability to the General Government of the several articles:

1,761	Springfield rifles, cal. .45,
1,634	Bayonet scabbards, cal. .45,
1,876	Cartridge belts, woven,
1,461	Cartridge belt plates,
2,874	Gun slings, black,
132,000	Rifle ball cartridges, cal. .45,
2,000	Carbine ball cartridges, cal. .45,
10,000	Rifle and carbine blank cartridges, cal. .45,
64,400	Rifle bullets, cal. .45,
3,000	Carbine bullets, cal. .45,
92,000	Round balls, cal. .45,
134,400	Empty cartridge shells, cal. .45,
88	Arm chests,
600	Headless shell extractors,
92	Screw drivers,
30	Spring vises,
71	Tumbler punches.

On April 28th. last, there was received from the Commanding Officer, Rock Island Arsenal, 134,000 ball cartridges, cal. .30, and 10,000 blank cartridges, cal. .30, in exchange for the rifle and carbine ball and blank cartridges, cal. .45, turned in. Shells, bullets, and round balls in exchange for those turned in are still due the State.

To permit the issuance of 3 additional rifles with scabbards and belts, 30 Magazine rifles, cal. .30, with equipments, were drawn from the Ordnance Department of the Army, and issue will be made to companies at the coming encampment.

63 complete fair leather horse equipments for officers were purchased from the Ordnance Department of the Army in March, 1904, each outfit consisting of 1 saddle, 1 bridle, 1 halter, 1 nose bag, 1 saddle blanket, 1 service saddle cloth with figures, 1 pair saddle bags, and 1 canteen strap, mounted service. This equipment with the addition of a canteen and meat can has been or will be issued to each mounted officer of the Guard, excepting those of the Medical Department. The black leather saddles and bridles previously issued to mounted officers have been called in, overhauled, repaired, and will be issued to the troop of cavalry. 10 additional complete horse equipments should be purchased and issued to officers of the Medical Department.

Arms and Equipment.

100 revolvers with holsters were drawn from the Ordnance Department in 1903, and 2 additional were issued to the officers of each company, so that all officers of the service are now provided with this arm. Issue of revolvers with holsters and web belts was made in the past year to the non-commissioned staff of each regiment.

During the present year, 65 revolvers with holsters were issued to the troop of cavalry, and 80 with revolver cartridge belts to the field battery. The equipment of the troop of cavalry has been made practically complete by issue in the past two years, in addition to Magazine carbines and revolvers, of the following equipment:

17 Bridles,
6 Curry combs,
5 Horse brushes,
40 Halters, black leather,
40 Canvas horse covers,
11 Saddles, black leather,
69 Saddle blankets,
69 Canteens,
29 Canteen straps, mounted,
65 Surcingles,
65 Carbine scabbards,
65 Cavalry links, russet leather,
68 Pistol lanyards,
130 Saber straps.

It is estimated that the present black leather horse equipment in possession of the troop, together with that in store, will last about two years; same should then be replaced with fair leather. Further purchases of black leather equipment should not be made.

The following additional equipment has been issued to the 1st. Battery, Field Artillery:

2 Telescopic sights with pouches,
16 Whips,
3 Fuze punches,
3 Sperm oilers, rectangular,
3 Combined tompion and muzzle covers,
8 Railroad lanterns,
12 Paulins,
3 Breech covers,
13 Pairs spurs,
13 Skirmish links,
4 Saddles,
3 Bridles,
48 Nose bags,
47 Canvas horse covers,
84 Canteens,
87 Canteen straps,
12 Canteen straps, mounted,
80 Revolver cartridge belts,
17 Saber belts with plates,
80 Haversacks,
80 Haversack straps,
80 Knives,
80 Forks,
80 Spoons,
80 Meat cans,
80 Tin cups,
80 Artillery knapsacks.

The old renovated haversacks issued to the State by the Ordnance Department of the Army in 1899, and now forming part of the equipment of the infantry soldier, will be replaced with the new haversack of the latest pattern during the com-

Uniform and Equipment of the W. N. G.

ing encampment, 2,500 new haversacks having been received on May 10th of this year. The cal. .30 bayonet scabbards issued to the State with the new Magazine rifles were found to be defective in construction and, upon report of this Department, the Chief of Ordnance of the Army ordered a new issue to be made, those previously issued to be called in and shipped to the Commanding Officer, Springfield Armory, Springfield, Mass. This exchange with the troops will be made at camp.

The blanket bag pattern of knapsack having been discarded by the Army as a part of the equipment of the infantry soldier, the shelter tent roll being substituted therefor, this article of equipment of the Guard has been ordered turned in to the Ordnance Depot.

UNIFORM AND EQUIPMENT OF THE WISCONSIN NATIONAL GUARD.

At the present time, the following constitutes the clothing of an enlisted man of the Wisconsin National Guard:

1 Blanket, woolen,
1 Blouse,
1 Cap, forage,
1 Cap ornament,
1 Khaki coat,
1 Hat, campaign,
1 Hat, campaign, cord, (color of arm of service,)
1 Hat, campaign, letter, bronze,
1 Hat, campaign, number, bronze,
1 Pair leggins, canvas,
1 Overcoat, kersey,
1 Poncho, rubber,
1 Shirt, chambray,
1 Shirt, dark blue flannel,
1 Pair trousers, kersey, (reinforced for mounted troops,)
1 Pair trousers, khaki, (reinforced for mounted troops,)
1 Leather waist belt.

Equipage,—1 shelter tent half with pole and pins, complete.

In addition to the above, 3 sets of chevrons and 1 pair trouser stripes for kersey trousers are issued for each non-commissioned officer and sergeant of the Hospital Corps, and 1 pair musician trouser stripes to each bandsman and field musician.

Additional clothing for mounted troops,—1 pair overalls, 1 stable frock; and for cooks,—1 canvas fatigue coat, 1 pair canvas fatigue trousers.

Articles necessary to complete the uniforming of the Guard for field service are shoes, socks, and underclothing.

The following is the individual equipment of soldiers of the Wisconsin National Guard:

Uniform and Equipment of the W. N. G.

For cavalry soldier:

1 Carbine, cal. .30, model 1899,
1 Revolver, cal. .38,
1 Light cavalry saber,
1 Cartridge belt, woven, cal. .30,
1 Saber attachment with 2 slings,
1 Pistol holster, cal. .38,
1 Pistol lanyard,
1 Saber knot,

1 Canteen,
1 Canteen strap, cavalry,
1 Meat can,
1 Tin cup,
1 Knife,
1 Fork,
1 Spoon.

Horse equipment, for each horse:

1 Saddle, complete,
1 Pair saddle bags,
1 Saddle blanket, grey,
1 Surcingle,
1 Curb bridle, complete,
1 Halter, complete,
1 Link,

1 Carbine scabbard and strap,
1 Nose bag,
1 Horse brush,
1 Curry comb,
2 Saber straps, saddle,
1 Horse cover, cotton duck.

Necessary to complete for field service,—1 pair spurs with straps, 1 canteen strap for dismounted service, 1 watering bridle, complete, 1 lariat, 1 lariat strap with snap, 1 picket pin.

For soldier of field artillery:

1 Revolver, cal. 38,
1 Revolver holster, cal. 38,
1 Cartridge belt, woven,
1 Canteen,
1 Canteen strap,
1 Haversack,
1 Haversack strap,

1 Knapsack, artillery,
1 Meat can,
1 Tin cup,
1 Knife,
1 Fork,
1 Spoon.

The non-commissioned officers, musicians, etc., mounted separately are each equipped, in addition to the above, with the following:

1 Saber, light cavalry and artillery,
1 Saber attachment with sling,
1 Saber belt slide,
1 Saddle, complete, cavalry,
1 Pair saddle bags,
1 Pair spurs with strap,

1 Bridle, curb, complete,
1 Curry comb,
1 Horse brush,
1 Link,
1 Canteen strap, cavalry.

11 saddle bags, 2 curb bridles, 19 pairs spurs with straps, 19 canteen straps, cavalry, and 3 links, are necessary to complete the equipment of this command. Each driver is equipped, in addition to articles named in first paragraph, with 1 curry comb and 1 horse brush. For each horse, there has been provided 1 saddle blanket, 1 canvas horse cover, 1 halter, complete, 1 nose bag, 1 surcingle. Articles necessary to complete

Uniform and Equipment of the W. N. G.

equipment for horses are watering bridle, lariat and picket pin.

For infantry soldier:

1 U. S. Magazine rifle, cal. 30, with bayonet, model 1898,
1 Bayonet scabbard,
1 Cartridge belt, woven, with fastener,
1 Canteen,
1 Canteen strap,
1 Gun sling,
1 Haversack,
1 Haversack strap,
1 Meat can,
1 Tin cup,
1 Knife,
1 Fork,
1 Spoon.

63 Magazine rifles with cartridge belts, bayonet scabbards and gun slings is the maximum number allowed an infantry company.

For infantry non-commissioned staff officer:

1 N. C. O. sword,
1 Revolver, cal. .38,
1 Waist belt, N. C. O.,
1 Sliding frog for N. C. O. waist belt,
1 Revolver belt, web,
1 Revolver holster, cal. .38,
1 Canteen,
1 Canteen strap,
1 Haversack,
1 Haversack strap,
1 Meat can,
1 Tin cup,
1 Knife,
1 Fork,
1 Spoon.

For soldier of regimental band:

1 Canteen,
1 Canteen strap,
1 Haversack,
1 Haversack strap,
1 Meat can,
1 Tin cup,
1 Knife,
1 Fork,
1 Spoon.

For Hospital Corps:

The equipment of a soldier of the Hospital Corps is the same as that provided for infantry, without arms.

Articles necessary to complete the equipment of infantry soldiers are blanket roll strap; and 1 revolver, 1 revolver holster, 1 revolver belt, web, for each company musician. 1 hospital corps knife and scabbard are required for each member of the Hospital Corps.

Articles necessary to complete equipment of field battery should not be issued until such time as is definitely known just what articles are to be supplied by the Ordnance Department with the new field guns and equipment.

Ammunition, Targets, and Target Supplies.

AMMUNITION, TARGETS, AND TARGET SUPPLIES.

For the year 1903, the allowance of ammunition fixed in orders for each infantry company was as follows:

6,000 Rifle ball cartridges, cal. .45,
300 Revolver ball cartridges, cal. .38,
500 Reduced ball cartridges, cal. .45,
500 Rifle blank cartridges, cal. .45.

In addition to this allowance, rifle bullets, powder, and cartridge primers for reloading service ammunition, and round balls for gallery practice were issued as required. 100 revolver ball cartridges were issued to each field and staff officer.

The allowance of ammunition fixed for the target season of 1904 is as follows:

For each infantry company,—
9,000 Ball cartridges, cal. .30,
500 Blank cartridges, cal. .30,
600 Revolver ball cartridges, cal. .38.
60 Revolver blank cartridges, cal. .38.

For troop of cavalry,—
8,000 Ball cartridges, cal. .30,
500 Blank cartridges, cal. .30,
6,000 Revolver ball cartridges, cal. .38,
2,000 Revolver blank cartridges, cal. .38.

For field battery,—
8,000 Revolver ball cartridges cal. .38,
1,000 Revolver blank cartridges, cal. .38.

For field and staff officers and officers of the Medical Department, each,—
200 Ball cartridges, cal. .30,
200 Revolver ball cartridges, cal. 38.

For non-commissioned staff officers armed with the Magazine rifle and revolver, each,—
200 Ball cartridges, cal. .30,
200 Revolver ball cartridges, cal. .38.

This issue of ammunition to the infantry companies and troop of cavalry was divided into two periods, 6,000 being issued for the period ending June 30th, and the balance of allowance after that date. The allowance fixed for the target years of 1903 and 1904 was in addition to that used during the annual encampments and rifle competitions.

During the target season of 1903, the following ammunition was expended in practice firing:

341,970 Rifle ball cartridges, cal. .45,
1,080 Carbine ball cartridges, cal. .45,
90,480 Ball cartridges, cal. .30,
41,640 Revolver ball cartridges, cal. 38,
9,500 Reduced ball cartridges, cal. .45.

Ammunition, Targets, and Target Supplies.

Based on allowances, the following will be expended during the season of 1904:

432,040 Ball cartridges, cal .30,
49,068 Revolver ball cartridges, cal. .38,
9,000 Reduced range cartridges, cal. .30.

The total cost of ammunition and target supplies issued from July 1, 1902, to June 30, 1903, was $9,179.96, and from July 1, 1903, to June 30, 1904, $17,518.06.

In December, 1903, 1,000 multi-ball cartridges, 300 dummy cartridges, 1,000 gallery practice shells, and 1 set reloading and cleaning tools for gallery practice, cal. .30, were issued to each infantry company and the troop of cavalry. The allowance of gallery practice material for the Magazine rifle was fixed at 10,000 round balls, cal. .30, 10,000 cartridge primers, 10 pounds small arms powder, black.

Material for reloading service ammunition is not issued to the regular troops, it being held by ordnance officers that, owing to the action of the composition from which the primer is made, the cartridge shells cannot be used for this purpose. The adoption of a new primer composition, as well as improved methods of manufacturing cartridge cases by the Ordnance Department of the Army will, it is understood, overcome the splitting of the shells when used two or three times. Reloading of service ammunition by troops will then be possible This should be taken up by the Ordnance Department of this State as soon as possible, in order that cost of ammunition for small arms target practice can be materially reduced.

In the regular service, troops are permitted to turn in to the Frankford Arsenal, Frankford, Pa., all empty cartridge shells, ball, revolver and blank, and receive in exchange therefor, 110 rounds of cal. .30 ball cartridges or 170 rounds of cal. .30 blank cartridges for each 1,000 empty ball or blank shells, cal. .30; and 115 rounds of cal. .38 revolver ball cartridges or 130 rounds of cal. .38 blank cartridges for each 1,000 ball or blank shells, cal. .38, turned in. This privilege

of exchange has been extended to the militia of the various states, and all empty shells have been ordered turned in to the Depot at Camp Douglas at the close of the present practice season. Freight charges on empty shells shipped from the Ordnance Depot to the Frankford Arsenal, and on service ammunition allowed in exchange, will be paid by the United States. Companies will be given in exchange service ammunition in proportion for each 1,000 empty shells turned in. Regulations of the Ordnance Department require troops to decap and clean shells before shipment. It is believed that this work can be performed in a more satisfactory manner and at much less expense at the Ordnance Depot than by labor employed by company commanders.

For the proper equipment of ranges at the home stations of the companies, the following targets were issued to each:

Laidley revolving targets, horizontal axis, 6x6 feet,
Steel target frames, D-E,
2 Marking discs and staves, short range,
2 Marking discs and staves, mid range,
2 Danger flags,
2 Ricochet flags.

All spare parts necessary for keeping these targets in repair have been issued as required.

The annual allowance of supplies for ranges of each company was fixed in orders as follows:

32 Yards cotton cloth,
4 Cloth silhouettes, D,
4 Cloth silhouettes, E,
12 Paper silhouettes, D,
12 Paper silhouettes, E,
20 Paper targets, A,
20 Paper targets, B,
4 Paper targets, C,
6 Paper targets, F,
8,000 White pasters,
5,000 Black pasters.

During the year 1903, the following ammunition for field guns was issued to the 1st. Battery, Field Artillery, and expended by them in practice and target firing.

5 Canister.
250 Shells, 3.2 in. rifle.
269 Blank cartridges, 3.2 in. rifle. Drill charge.
280 Blank cartridges, 3.2 in. rifle. Service charge.
750 Friction primers.

Ammunition, Targets, and Target Supplies.

And in 1904:

40 Shells, 3.2 in rifle.
24 Sharpnel, 3.2 in rifle.
150 Blank cartridges, 3.2 in. rifle. Drill charge.
72 Blank cartridges, 3.2 in. rifle. Service charge.
400 Friction primers
30 F. A. base percussion fuzes.

The total cost of ammunition for field guns issued to this organization in the two years was $1,090.28.

The total cost of ammunition and supplies issued for rifle practice of the entire Guard during the year ending June 30, 1904, is about ⅔ this State's quota of the appropriation made by the General Government for the support of the organized militia. While it is recognized and appreciated that a soldier's worth and value are to a large extent based upon his ability to shoot, and to attain proficiency in this department of his education requires the expenditure of a vast amount of ammunition, I do not believe that everything else should be sacrificed to attain this one object. Clothing, tentage, articles of equipage, rifles, and the various components of the soldier's equipment are constantly wearing out and being rendered unserviceable by constant use. These must be replaced with new, which requires the outlay of a considerable sum of money annually. All this property must be obtained on the State's quota from the appropriation by the General Government. Unless the appropriations available for this Department can be considerably increased in the future, I believe the interests of the service at large demand the curtailment of expenditures incidental to rifle practice.

MILITARY RESERVATION.

The care and improvement of the Wisconsin Military Reservation has received careful attention. The residence for the quartermaster stationed at this point was completed in the fiscal year ending June 30, 1903. 35½ acres of land were purchased and added to the Reservation, thereby giving

Military Reservation.

a road around the south end of Long Bluff so as to reach State land on the east side.

The following improvements were made during 1903:

Guard house was moved to a point south of the commissary building.

Platform was built in rear of commissary building along railroad track.

Number of targets on ranges 3 and 5 was increased from 12 to 16 each, and new pit houses of brick and stone with steel roofs constructed in the pit of each. 32 feet of defective wall in pit 5 was torn down and reconstructed. A new retaining wall, 20 feet in length, was built at the north end of pit 3. Log retaining walls were built in rear of each pit to keep sand from being washed around targets, thereby saving annually about $75.00 expended in labor cleaning these pits out. The bullet backstops in rear of targets in each pit were reconstructed and built to a height of over 2 feet on a level from tops of targets when raised. Range 1, known as the skirmish range, has been widened, lengthened, and fitted out with positions for 16 groups of targets instead of 12 as heretofore.

New streamer poles and streamers have been provided for all ranges.

28 acres of land on what now constitutes the artillery range were cleaned up. The wood secured in clearing this land was hauled to a point west of the main camp, sawed, piled, and issued to troops during 1903, and a sufficient amount remains on hand for all purposes during the coming encampment. The estimated value of this wood sawed is $350.00.

A sample road of cinders was constructed between the Quartermaster's Depot and Commissary building. The cinder walk in front of general headquarters and staff building was repaired.

The total cost of improvements during this fiscal year, including care of grounds and completion of residence, was $3,323.22.

Military Reservation.

The following improvements were completed on the Reservation during the present fiscal year:

The frame sinks in rear of each camp were removed to different parts of the Reservation and placed over wood curb vaults, and 18 brick vaults constructed for two camps and hospital, for use as camp latrines. This will permit the burning out of the vaults twice daily, in accordance with recommendations made by the Medical Department.

A great many old stumps on different parts of the grounds have been removed, thereby greatly reducing the expense of mowing.

Extensive repairs were made in the water system by building brick manholes and cementing up pump well.

The total expenditures account of Military Reservation, during the fiscal year ending June 30, 1904, were $1,803.35.

The following recommendations are made for the further improvement of this property:

1st. The old sheds used for stabling State horses, kept for use of the Quartermaster's Department, are a disgrace, and suitable brick barn for the proper quartering of public animals should be constructed as soon as possible.

2nd. The roofs of the commissary building and guard house are in bad condition. New steel roofs should be placed on these buildings before camp of 1905.

3rd. The surface sand roads on the Reservation are a great drawback to the general appearance of the grounds and during dry, hot weather are simply unbearable to those required to travel over them. Good roads of cinders or crushed rock and clay should be constructed as soon as possible. Especially is a road of this description desirable from the Quartermaster's Depot to the main entrance.

4th. The three old frame buildings used for quarters and offices of the general staff during the annual encampments should be torn down and replaced with a substantial brick structure on a site more remote from the infantry camp. If

Military Reservation.

this improvement cannot be made within the next two years, it is recommended that the old hospital and administration building be torn down. These buildings are not in condition to warrant the expenditure of a sufficient sum to put them in a tenantable condition. The frame headquarters building can be fitted out to accommodate 10 officers, in addition to sufficient office space for the Adjutant General. This should be ample for all ordinary requirements of the service.

5th. The purchase of 160 acres of land east of the Reservation for protection of the rifle and artillery ranges.

6th. Accurate survey of State land by competent engineer with map.

7th. Construction of ice house and cold storage building at a point west of the commissary building.

8th. Construction of a brick canteen with dining room and barber shop in connection, at a point south of the guard house. The old canteen building should be torn down as soon as possible.

9th. The wires of the telephone exchange should be restrung so as to follow the roads and conform to the present location of buildings. The central station should be located in the commissary building.

10th. The present organization of the Wisconsin National Guard comprises 3 regiments and a battalion of infantry, a troop of cavalry, and a battery of field artillery. The camps as laid out will only accommodate one regiment and a battalion of infantry at one time. Camp grounds suitable for the entire Guard should be carefully laid out so as to be ready for occupancy in emergency. The present battalion camp should be extended for a regiment of infantry and provided with water and sewerage. It is estimated that this can be done at a cost not to exceed $600.00. The infantry camp should be so extended as to give intervals between battalions, being too crowded as now laid out. It may be advisable to rearrange the water and sewerage so as to permit troops to camp in the manner provided in drill regulations of 1904.

Quartermaster's and Ordnance Depot.

QUARTERMASTER'S AND ORDNANCE DEPOT.

The vast amount of property handled during the past two years, both quartermaster and ordnance, has more than taxed the capacity of this building, and, at such times as troops are not encamped on the Reservation, it has been found necessary to use the commissary building for storage, also workshop for repairing tentage, overhauling arms, equipments, etc. Racks have been completed in the quartermaster room of this Depot for the proper storage and care of tentage, bedsacks, etc., of the different organizations of the Guard.

As new clothing adopted for the Army is issued in 18 sizes, more space will be required than that given by the cupboards now in use for the proper handling of all articles to be kept in stock for issue. The quartermaster has prepared a plan to meet this emergency and, as this can be done at a comparitively small expense, same should be carried out as soon as possible.

It is again urgently recommended that a special appropriation be asked of the legislature, for the installation of a proper heating plant in this Depot. This is absolutely necessary to prevent the deterioration of arms, leather equipments, and supplies.

A vault for the safekeeping of all papers in the offices of the Quartermaster General and Chief of Ordnance has long been considered a necessity, but as room for this cannot be spared in the present Depot, and the space now occupied as offices is required for storage, it is suggested that a building with a vault, for the exclusive use of offices, be constructed between the Depot and commissary building.

Encampments.

ENCAMPMENTS.

All arrangements for the transportation of troops, horses and equipment to and from the annual encampments at Camp Douglas, as well as the purchase of necessary supplies incidental to the camps, has been performed by the Quartermaster's Department. Schedules covering the transportation of all troops to and from home stations have been prepared at the Quartermaster's office. Generally these schedules have been followed by both troops and railroad companies as to time of leaving home stations and departure from camp, excepting possibly, handling of the 2nd. Regiment by the Chicago & North Western Railway.

During the encampments, tentage and equipage and all clothing and stores required by the different organizations are issued in bulk to the quartermaster and acting ordnance officer of each regiment and the 10th separate battalion. These officers are compelled to account for this property in the same manner as required in the Army, tentage and equipage being issued to company officers on memorandum receipt and, at the close of the tour of duty, collected and turned over to such officer as designated by me; clothing and equipment drawn is transferred by them to company officers.

I have never been in favor of the practice, as during the past two years, of the issuance of the vast quantities of clothing and articles of equipment at times of encampments, for the reason that I believe that all this property should be drawn by officers at such times as required for use. This would better insure the readiness of all commands to take the field at any time. The system of permitting company commanders to await their arrival at camp before drawing needed supplies and having necessary repairs made to arms and equipment, is wrong and should be discontinued at once. Troops should come to camp as thoroughly uniformed and equipped as if they were to take the field for active service.

Subsistence Department.

It has been noticed in past encampments that a number of companies of the Guard have fallen into the old ways existing prior to the war, of bringing vast quantities of baggage, cooking utensils, and in some instances crockery for use of the men's mess. This should be stopped at once. The utensils issued each company with the field range, with the addition of one or two articles, are considered ample for the proper cooking and handling of rations. Under no circumstances should any organization be permitted to bring tableware of any description into camp. The soldier should be taught and required to use the individual mess kit issued by the Ordnance Department. The annual encampment is the time to learn this. Baggage should be reduced to the smallest amount required for actual field service, and to that end, the articles of clothing, etc., to be carried into camp by the men, as well as officers, should be designated in orders, and not a single ounce in addition to this should be permitted. The experiences in this line of our volunteer soldiers during the late war with Spain should not be forgotten.

SUBSISTENCE DEPARTMENT.

All subsistence supplies for troops during encampments have been purchased by this Department on contract, kind and quantity as provided in regulations for the soldier of the United States Army. The quality has at all times been excellent. During the camp of 1903, the method of issuing rations to troops was greatly changed by requiring the commissary of the regiment to make requisition on this Department, prior to the arrival of his regiment in camp, for all subsistence supplies and stores required by him for issue and sale. All rations excepting fresh meat, bread, butter and milk, were transferred in bulk to him on his arrival in camp. Fresh bread and butter were issued daily, and meat twice during the tour of duty. The manner of issue and accountability is now the same as required in the United States Army, and instruction in this

Property Accountability.

line to the officers of the service has been most valuable. During the camp of 1903, 20,281 rations were issued by the commissaries of the 1st, 2nd, and 3rd, regiments and the 10th separate battalion. Sales amounting to $407.64 were made by these officers for officers' messes. The cost of each ration was $.28½ including wood and ice.

Company officers should be required to give more attention to the preparation and serving of the rations to their men. In a great many companies this is entirely neglected. This is wrong. Regulations regarding the supervision of the cooking and messing of the men should be rigidly enforced.

PROPERTY ACCOUNTABILITY.

The method of property accountability in the Ordnance Department of this State is the same in every respect as in this department of the Army. In the Quartermaster's Department, the method of the Army is followed as closely as National Guard service will permit. All blanks used in both departments, as well as Subsistence Department, are similar to those used by the Army. The regulations regarding property accountability of officers of this State have been rigidly enforced during the past two years. Property lost and not accounted for in a satisfactory manner has been charged to organizations and cost withheld from annual allowances. In 1903, $1,565.27 was charged and collected, and in the present year, $1,401.51. Both these amounts were deposited with the State Treasury to the credit of the lost property fund. All losses have been replaced by purchase from this fund, from either the General Government or in the open market.

I renew recommendations made in past years, that report of purchases by company commanders be made to the Quartermaster's and Ordnance Departments, in order that these offices can require that all property purchased by officers with state funds be properly accounted for on Returns.

U. S. Property—Financial.

UNITED STATES PROPERTY.

The total value of United States property issued to this State and for which the Governor is accountable, on June 30, 1904, amounted to $183,449.37. During the past two years, the value of the property received from the various Departments of the Army, was as follows:

Quartermaster's Department	$28,983 23
Subsistence Department	36 29
Medical Department	3,962 05
Ordnance Department	78,885 18
The Military Secretary, books	382 52
Total	$112,249 27

The balance to the credit of the State, under the appropriation provided in Sec. 1661, R. S., was, on June 30, 1904, $172.42. This State's quota of the appropriation made by Act of Congress approved March 2, 1903, has been exhausted.

All United States property is in good condition and well cared for. Such articles as may be short in accountability will be replaced during the coming fall by purchase, ample funds for this purpose being on deposit in the State Treasury in the lost property fund.

FINANCIAL.

The total expenditures of the Quartermaster's and Ordnance Departments during the two years ending June 30, 1904, were $45,869.30 which, compared with the expenses for the 1 year and 9 months ending June 30, 1902, (amounting to $43,493.09,) shows considerable saving.

The principal item of expense is that of transportation, which is steadily increasing from year to year, due to larger attendance at the annual encampments, and the issuance of transportation to companies for purpose of rifle competition. These competitions among companies have aided wonderfully in stimulating interest in rifle practice and should be continued in the future, with certain restrictions.

General Recommendations.

GENERAL RECOMMENDATIONS.

The following recommendations are respectfully suggested:

An armorer should be provided, by proper legislation, at a salary of $480.00 per year, for each company, troop and battery of the State. The amount of public property for which company commanders are accountable is increasing every year, the average amount being, at the present time, valued at $3,612.83, and consists of 2,997 pieces, exclusive of ammunition and target supplies. The proper care and accounting for this property is the hardest task which falls to the lot of the company commander, and the employment of a man as recommended will remove one of the principal causes for a number of our best officers quitting the service. The sacrifice of time is too great. They are ordinarily men of modest means. If such a man was employed, considerable savings could be made in the appropriation now made for armory fund, account of janitor service and clothing, as well as expenditures in repairs and care of rifle ranges. This is the most important requirement of the Guard of this State.

All arms and equipment issued for use of officers should be owned by the State. To carry this out, 150 revolvers should be purchased from the Ordnance Department of the Army, to replace those belonging to the Government and which have been issued to officers.

Each officer should have issued to him by the State, 1 field glass and 1 compass.

All officers should be required to provide themselves with canvas folding cot, camp chair, folding table, and canvas for bedding roll for field service. The practice of issuing cots, chairs and tables during camp should be discontinued. It is just as essential that officers be properly equipped for field service as the enlisted man. The purchase of these articles for company officers should be made with funds of the State, in possession of captains, the articles to be accounted for on semi-annual returns.

General Recommendations.

Each officers' mess should own its cooking utensils and dishes, field range being supplied by the Quartermaster's Department. Necessary articles for field service should be packed in chest and stored in the Quartermaster's Depot, together with equipage of the command.

Shoes of a good serviceable pattern should be adopted, contracted for by the Quartermaster's Department, and sold to soldiers of the Guard at cost. The issue of this article of clothing to the Guard is not practicable.

Authority should be given the Quartermaster's Department to engage a good, competent man to conduct the canteen on the Reservation during encampment, at a nominal rent for the privilege. This will insure a better class of goods for sale and better service to the soldier. The amount derived from rental should be made, by legislation if necessary, available for the purchase each year of suitable prizes and trophies, to be awarded officers and enlisted men for skill and proficiency in rifle shooting.

The issue to companies of blankets, ponchos, canteens and straps, haversacks and straps, meat cans, tin cups, knives, forks, and spoons should be increased to 68 of each, so as to give an outfit to each officer for active service.

The officers of the Guard do not receive any assistance from the State for the purchase of uniforms and personal articles of equipment. There is paid to each company, the troop and battery, the sum of $15.00 per year, account of clothing fund for officers in attendance at the annual encampment. As the law now stands, not a cent of this money can be expended for officers' clothing and equipment. It is recommended that company commanders be authorized to expend not more than $25.00 of the clothing fund each year, for the purchase and repair of clothing and equipment of officers.

Certain articles of officers' clothing and equipment should be kept for sale in the Quartermaster's and Ordnance Departments. These articles could be purchased under contract at

General Recommendations.

wholesale prices and sold to officers at a considerable saving to them. The use of $1,200.00 of the lost property fund should be authorized for the purchase of a limited amount of officers' clothing and equipment.

Uniform packing boxes should be provided for the troop of cavalry, battery of field artillery, each infantry company, and regimental band, to be used, at times of camp or active service, for the transportation of such articles as cannot be carried by the soldier in the shelter tent roll. This applies principally to the overcoat and woolen uniform. A great many boxes now used for carrying these articles are entirely too large. Boxes should be of sufficient size to hold clothing of a tent squad,—13 men.

During the encampment, officers visiting commands other than their own should be provided with suitable quarters. Meals should be furnished them at headquarters mess at cost. Officers visit other camps than their own for instruction. It is a good school for them and they should not be made to feel dependent upon the hospitality of those in camp at the time. They are willing to give their valuable time and the State should provide them with quarters. In short, they should be made to feel perfectly at home. To carry this out will not require the expenditure of $30.00. The State has plenty of tents and cots.

The work of the several employees of these Departments has been satisfactory.

I am under many obligations to your Excellency for the deep interest you have always taken in the work of these Departments.

Very respectfully,
Your obedient servant,
J. HODGINS,
Quartermaster General and Commissary General, and Chief of Ordnance, W. N. G.

Expenditures.

EXHIBIT "A."

Expenditures Quartermaster General's Department, July 1, 1902, to June 30, 1904.

	July 1, 1902, to June 30, 1903	July 1, 1903, to June 30, 1904	Total expenditures, July 1, 1902, to June 30, 1904.
Transportation.			
Camp, W. N. G	$8,259 93	$8,269 04	$16,528 97
Rifle competition	458 09	251 93	710 02
Officers' convention	220 88	399 62	620 50
Inspection	37 86	170 01	207 87
Maneuvers, West Point, Ky	.....	233 84	233 84
Miscellaneous	753 38	297 66	1,051 04
Total transportation	$9,730 14	$9,622 10	$19,352 24
Freight.			
Camp, W. N. G	$1,267 01	$1,344 16	$2,611 17
Competition	54 00	.....	54 00
Supplies, Quartermaster's and Ordnance Departments	507 64	736 43	1,244 07
Maneuvers, West Point, Ky	.....	160 00	160 00
Total freight	$1,828 65	$2,240 59	$4,069 24
Clothing.			
Material	$20 10	$11 20	$31 30
Labor	8 30	.....	8 30
Total clothing	$28 40	$11 20	$39 60
Telegraph and Telephone.			
Western Union Telegraph Co	$38 35	$46 34	$84 69
Wisconsin Telephone Co	18 00	18 00	36 00
Total telegraph and telephone	$56 35	$64 34	$120 69
Military Reservation.			
Material and supplies	$1,419 54	$526 96	$1,946 50
Labor	1,903 68	1,276 39	3,180 07
Total Military Reservation	$3,323 22	$1,803 35	$5,126 57
Salaries.			
General J. Hodgins	$1,000 00	$1,000 00	$2,000 00
Major C. R. Williams	1,400 00	1,400 00	2,800 00
Sergt. E. S. Burroughs	720 00	720 00	1,440 00
Sergt. Henry Schalle	720 00	720 00	1,440 00
Total salaries	$3,840 00	$3,840 00	$7,680 00
Insurance premiums	$1,270 00	.....	$1,270 00
Quartermaster's Department.			
Material and supplies Quartermaster's and Ordnance Departments	$1,001 17	$743 38	$1,744 55
Labor	229 85	217 25	447 10
Total Q. M. Dept	$1,231 02	$960 63	$2,191 65
Camp Expenses.			
Materials and supplies	$495 48	$453 45	$948 93
Labor	1,062 13	959 59	2,021 72
B. Mock, 2 horses of 1st Battery, F. A., died during camp	290 00	.....	290 00
A. Manger, injuries to horse of 1st Battery, F. A. during camp	60 00	.....	60 00
Mess, employes Quartermaster's Department	94 00	77 60	171 60
Total camp expenses	$2,001 61	$1,490 64	$3,492 25

Expenditures.

Expenditures Quartermaster General's Department, July 1, 1902, to June 30, 1904—Continued.

	July 1, 1902, to June 30, 1903.	July 1, 1903, to June 30, 1904.	Total expenditures, July 1, 1902, to June 30, 1904.
Competition Expenses.			
Materials, meals, etc	$176 70	$24 65	$201 35
Labor	339 88	234 15	574 03
Total competition expenses	$516 58	$258 80	$775 38
Expenses of officers of Quartermaster's Department.			
General J. Hodgins	$215 03	$204 65	$419 68
Major C. R. Williams	185 15	210 50	395 65
Total expenses officers	$400 18	$415 15	$815 33
Purchase of land for Military Reservation.			
Sec. 1, Chap. 262, laws 1901, from R. Nash	$136 25		$136 25
Printing and postage.			
Printing	$126 80	$28 20	155 00
Postage	150 00	150 00	300 00
Total postage and printing	$276 80	$178 20	$455 00
Special fund, (Sec. 1, chap. 62, laws 1901).			
Henry Anderson, pumps	$222 48		$222 48
Wis. Telephone Company, building long distance line	122 62		122 62
Total special fund	$345 10		$345 10
Total expenditures	$24,984 30	$20,885 00	$45,869 30

Lost Property Fund.

LOST PROPERTY FUND.

(Sec. 37. Chap. 228, Laws 1901.)

	CREDITS.		
1902.			
July 1,	To balance	$3,533 23	
1903.			
Mar. 8,	To deposit State Treasurer	1,016 24	
Mar. 19,	To deposit State Treasurer	153 27	
Apr. 18,	To deposit State Treasurer	267 26	
May 12,	To deposit State Treasurer	70 63	
May 23,	To deposit State Treasurer	57 87	
Dec 22,	To deposit State Treasurer	23 12	
1904.			
Feb. 26,	To deposit State Treasurer	488 39	
Mar. 24,	To deposit State Treasurer	890 00	
Apr. 27,	To deposit State Treasurer	152 75	
	Total credit		$6,652 76
	DISBURSEMENTS.		
1904.			
Apr. 14,	Rosenwasser Brothers, N. Y., Leggin repairs	$71 75	
Apr. 25,	Commanding Officer, Rock Island Arsenal, Horse equipment	2,550 45	
May 24,	American Button Company, Buttons	145 25	
June 21,	Major J. T. Knight, Q. M., U. S. A., Philadelphia, Clothing	1,228 56	
	Total disbursements		3,996 01
	Balance to credit of fund, June 30, 1904		$2,656 75

THE UNIVERSITY OF WISCONSIN.

BIENNIAL REPORT

OF THE

Regents of the University

FOR THE

Years 1902-3, and 1903-4.

MADISON
DEMOCRAT PRINTING COMPANY, STATE PRINTER
1904

THE REGENTS OF THE UNIVERSITY.

THE PRESIDENT OF THE UNIVERSITY, *Ex-officio.*
THE STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, *Ex-officio.*

State at Large, WILLIAM F. VILAS, Madison.
State at Large, ALMAH J. FRISBY, Milwaukee.
1st District, HOMER C. TAYLOR, Orfordville.
2nd District, LUCIEN S. HANKS, Madison.
3rd District, DWIGHT T. PARKER, Fennimore.
4th District, JAMES M. PERELES, Milwaukee.
5th District, ARTHUR J. PULS, Milwaukee.
6th District, MAJOR C. MEAD, Plymouth.
7th District, EDWARD EVANS, La Crosse.
8th District, JAMES C. KERWIN, Neenah.
9th District, EDMUND A. EDMONDS, Rhinelander.
10th District, GEORGE F. MERRILL, Ashland.
11th District, AUGUST J. MYRLAND, Grantsburg.

OFFICERS OF THE REGENTS.

GEORGE F. MERRILL, *President.*
MAJOR C. MEAD, *Vice-President.*
THE STATE TREASURER, *Ex-officio Treasurer.*
E. F. RILEY, *Secretary.*

STANDING COMMITTEES.

[The President of the University is *ex-officio* a member of all standing committees of the board with power to vote in case of a tie.]

Executive—VILAS, KERWIN, HANKS.
College of Letters and Science—VILAS, CARY, EVANS, FRISBY, EDMONDS, PULS.
College of Agriculture and College of Mechanics and Engineering—TAYLOR, KERWIN, PARKER, MEAD, MYRLAND.
College of Law—MEAD, PERELES, KERWIN.
Donations—VILAS, EVANS, PULS.

UNIVERSITY OF WISCONSIN.

Biennial Report of the Regents of the University.

MADISON, WIS., December 1, 1904.

To His Excellency, ROBERT M. LAFOLLETTE,

Governor.

In behalf of the Regents of the University, I have the honor to present to you herewith their biennial report for the years 1902–1903, 1903–1904.

Very respectfully,

GEORGE F. MERRILL,

President.

University of Wisconsin.

Report of President Charles R. Van Hise.

For the years 1902–'03, 1903–'04.

The Honorable GEORGE F. MERRILL,
President of the Regents of the
University of Wisconsin.

SIR: Herewith I submit a report for the two years ending June 30, 1904. For the first of these years, Dr. E. A. Birge was Acting President.

In this report, first, I shall give a review of the progress of the University during the past two years; and second, I shall discuss the needs of the University. The general review of the situation contained in this report is supplemented by the more detailed accompanying reports of the Deans of the Colleges.

PROGRESS OF THE UNIVERSITY.

Some of the more important changes during the past two years are as follows:

1. An event of great importance within the University is the adoption of the principle that all general four year courses of study within the College of Letters and Science shall lead to the degree of bachelor of arts. This degree supplants the degrees of bachelor of letters and bachelor of science for all students in the College of Letters and Science taking general courses. The full significance of this change is pointed out in the accompanying report of the Dean of the College of Letters and Science.

2. The College of Letters and Science has been partially reorganized. This College, when I assumed the office of

President, included the following semi-independent schools: (a) School of Economics and Political Science; (b) School of History; (c) School of Commerce; (d) School of Education; (e) School of Pharmacy. Each of these schools had a director. Because of this subdivision parts of several subjects were taught in different departments and different schools. Thus, a part of political economy was taught in the School of Economics and Political Science under Director Ely, and a part in the School of Commerce under Director Scott. In consequence of this, a portion of the work of some professors was included in the School of Political Science, and another portion in the School of Commerce. A part of botany was given in the department of botany, and another part in the School of Pharmacy. A part of organic chemistry was given in the department of chemistry, and a part in the School of Pharmacy. The inevitable result of the growth of semi-independent schools within the College was loss of efficiency, due to the subdivision of the work which belongs naturally to a single department. It seemed clear that all of political economy, all of botany, and all of chemistry should be in the departments to which they respectively belong. It further seemed that the work in some of the so-called schools, for instance, in commerce, was a course in the College of Letters and Science analogous to the civil engineering course in the College of Engineering. These views were assented to by the Directors of the Schools, and they recommended to the Faculty that the Schools be abolished, and courses be established in their stead so far as this seemed advisable. They further recommended that all of the subjects belonging to a department be consolidated, and that the affairs of such departments be in the hands of a committee of professors of the respective departments. These recommendations were adopted by the Faculty and approved by the Regents.

3. One of the great advantages of a University, as contrasted with a College, should be that at the University the

student in any of its constituent Colleges ought to have opportunity to broaden his education by the election of work, to a reasonable degree, in other colleges. In the past the privilege had been granted in special cases, but no general rule was recognized. Last year the broad principle was adopted that candidates for the A. B. degree in the College of Letters and Science may elect work in other colleges, to the extent of twenty semester hours, or one-sixth of the course. Similarly elections in variable amount of studies in the College of Letters and Science are allowed to students in other Colleges.

4. An immediate result of the adoption of the principle of the election, by A. B. students, of studies of a technical or special character, to a limited extent, was the settlement of the question of a degree for the course in Commerce. By a slight modification of the Commerce course, which in no way decreased its efficiency, it fulfilled all requirements for the A. B. degree, without receiving any special favor, and thus that degree was granted to the Commerce course.

5. By the legislature of 1903, funds were appropriated for the establishment of a department of home economics. Upon the recommendation of the Faculty, and the approval of the Regents, this department was located in the College of Letters and Science. Miss Caroline L. Hunt was secured as professor of home economics, and courses were first offered in the second semester of the year 1903–04. With reference to the advisability of establishing this department there had been much difference of opinion. However, the principle was laid down that only students admitted to the University under the requirements already established were eligible for work in this department. It was further decided, that, so far as practicable, the courses offered should be of equal grade to other courses offered for the A. B. degree. These principles led to the co-operation of other departments in constructing a course in which home economics is a major.

6. In the College of Agriculture, the most important inno-

vation in the instructional work has been the introduction of the Farmers' Course. Early in the year 1903–04, Dean Henry proposed that in the winter months courses of lectures running through two weeks be offered to the farmers of the state. The proposition seemed a good one, being substantially that of University extension lectures at home, i. e., under the most favorable circumstances. It was supposed that forty or fifty farmers might take advantage of the opportunity. To the surprise of both Dean Henry and myself about one hundred and seventy registered. The course was a decided success and will be undoubtedly of great advantage to the agricultural industry. At its close the student farmers unanimously petitioned that the Farmers' Course be made a regular part of the University instruction.

7. The graduate work of the University, which had heretofore been called a department, has been organized into a Graduate School. Graduate students are in all the Colleges. Certainly the graduate work is not a department in the sense in which the term is used at the University. It comprises work in many departments. However, the interests of the graduate students are so peculiar and allied, that there should be some organization which should care for them, and the organization which seems best adapted to the purpose is a Graduate School. This School has been placed in charge of an Administrative Committee composed of members of the Faculty.

8. Another matter of organization which should be mentioned, although it is not directly under the authority of the University, is that of the Alumni Association. This Association, as an organization, has had comparatively little influence in University affairs, although many alumni individually have been important factors in the development of the University. At the annual meeting of 1904 the alumni provided for the services of a general secretary, who shall give his entire time to the interests of the association and of the Alumni Magazine. The secretary is to keep full records of the alumni, assist in the

organization of local associations, and be the medium of communication among alumni and between the alumni and the University. George F. Downer was elected permanent secretary. He has been granted the use of an office in University Hall, and it is expected that he will cooperate with the President in reference to all matters concerning the progress of the University. It is hoped that it will be possible for the University authorities, through the general secretary, to secure the cooperation of the alumni in furthering the interests of the University much more effectively than has hitherto been possible.

9. A press bulletin has been established. This has been placed in the charge of Dr. Willard G. Bleyer. By having an accredited member of the Faculty as the press representative of the University, it is possible to give to the public information in reference to the University along scholastic and investigative lines, and convey to the people the idea that the University is more than an athletic and social center. Authorized statements are issued by Mr. Bleyer to all the representative papers of the State, as well as to papers outside the State, to be simultaneously released. Arrangements have been made to get such statements as are suitable for the purpose into the patent insides sent to the country papers, so that authentic information concerning the work of the University may reach all the people of the State.

10. A general University exhibit was prepared under the direction of a committee of the Faculty, with Professor John G. D. Mack as chairman, for the Louisiana Purchase Exposition. This exhibit comprises a beautiful model of the buildings and grounds, a model of the steam engineering laboratory, a collection of the publications of the University staff and students, various scientific instruments invented here, many striking pictures of the grounds and campus, and charts illustrating the growth of the University. It is believed that this exhibit compares very favorably with the exhibits of the

better Universities of the country. At the end of the Fair it is planned to assemble this material at Madison, and use it as a permanent part of our museum. By keeping the material together it will also serve as a nucleus of any future exhibits.

Aside from this exhibit in the Educational Building, there was a joint exhibit in the Agricultural Building made by the Agricultural College and the Experiment Stations. Our dairy exhibit was awarded two grand prizes, one to the Wisconsin Dairy School, and another to Professor Babcock, for the Babcock milk test. Also, a grand prize was awarded to the collective exhibit of the dairy departments of the different Agricultural schools. Since this exhibit as a whole was prepared under the direction of Professor Edward H. Farrington of the University, and the Wisconsin portion of the exhibit was so important a portion of it, we may well consider ourselves as sharing in this grand prize.

11. During the year 1904 a request was made to the Chief of the Weather Bureau at Washington for the establishment of a regular station at the University. This request was verbally renewed to the Secretary of Agriculture at the time of his visit here in June. In consequence of this interview, followed by a formal request, a fully equipped Weather Bureau Station has been established in North Hall, without expense to the University, except for fittings for offices and for mountings for instruments. The nearest Weather Bureau stations are those of Milwaukee and La Crosse. A weather map is now issued each week day morning by the station located at the University, and from this point the daily weather maps and local forecasts are distributed throughout the central part of the State by trains which leave Madison about midday. This Weather Bureau station will undoubtedly be of great advantage to the citizens of the part of the State the natural center of which is Madison.

The Secretary of Agriculture has further authorized the local forecast officer to give courses in meteorology in the

University without cost to us. The first course will be given the second semester of the year 1904–5. Thus students who wish to study the science of meteorology have a very favorable opportunity to do so. There are available instruments necessary to illustrate the subject, and a fully equipped station in operation, enabling students to see exactly how results are obtained. The establishment of this Weather Bureau Station should enable the University to train meteorologists for the Weather Bureau, besides giving general education to the many in judging and forecasting the weather,—matters of importance to every citizen.

12. During the biennial period the department of anatomy has been provided with a well finished set of rooms, adapted to its purposes, in the attic of Science Hall. These rooms are fitted with all the modern appliances. By the addition of Professor Charles R. Bardeen and two instructors to the staff, giving, with Dr. Miller, a force of four in anatomy, this department has been put upon an independent basis. Heretofore, anatomy has been an adjunct to the department of zoology. The development of the department of anatomy is an important step in the plan for providing at the University all of the scientific work prerequisite for special medical studies.

13. An event of greatest importance with reference to the future of the University was the Jubilee which was held in connection with the Commencement of 1904. The organization of the Jubilee was more largely due to Professor G. C. Comstock than to anyone else, although many members of the Faculty cooperated most efficiently in making the celebration a success. The events of the Jubilee are so well known that they need not be recited. The general purpose of the celebration was to strengthen the University in the State and in the Nation. There are many lines of evidence which lead us to believe that this purpose has been achieved to a considerable extent. One of these is the unusually large number of new students that in

the autumn of 1904 have entered the University with advanced standing and from other States.

14. Perhaps the most conspicuous evidence of the standing which the University has in other parts of the country, and of its widening influence, is furnished by the recent visit of some forty delegates from the University of Georgia. The party included the Governor of the State, the Chancellor of the University, the editors of such papers as the Atlantic Constitution and the Savannah Press, and other representative citizens of Georgia, members of the Board of Trustees and of the Georgia legislature. The party came from Georgia solely for the purpose of visiting the University and returned immediately after the visit. The reason assigned by the visitors for selecting the University of Wisconsin was that it is a model northern state university. Perhaps never before has the University received more significant recognition. After their departure from Madison, the party passed resolutions, embodying their impressions, among which were the statements,

"That our inspection of the various departments of the University of Wisconsin has enlarged our views and has inspired us with the earnest desire to see our own university be put upon a plane commensurate with the dignity of the state of Georgia."

"That in the upbuilding of the University of Wisconsin we see what the consecrated labor of able men endorsed by the liberality of their state legislation can effect in making an institution of research and learning which directly benefits every citizen in the state."

It is my expectation that in the future Wisconsin will do a larger proportion of the higher educational work for students from other states, and I know of no line of endeavor which will do more to make Wisconsin favorably known throughout the nation. Some persons, I presume, may question the advisability of freely admitting students from other states, and before many years, possibly within a year or two, the question

may well arise as to charging still higher non-resident fees, although at the present time I should hardly favor such increase. While there may be a question with some of us as to how far we should go in the education of students from other states, I suppose we would all agree that we should go far enough to make the University of Wisconsin a national university rather than a provincial institution.

15. During the two years covered by this report, the University has received considerable gifts from private sources. Under the will of the late President Charles Kendall Adams, who died July 26, 1902, the University of Wisconsin was made the recipient of all of his property with the exception of some minor legacies, but with the provision that the income of such property should go to his wife so long as she should live. Less than six months later, December 11, 1902, Mrs. Adams died, also leaving the major portion of her property to the University of Wisconsin, under terms identical with those of her husband's. Under these wills, the University has received about $40,000. The income of the two estates is to go to the maintenance of fellowships in the departments of English, Greek, and Modern History. Only one of these fellowships is provided for at the outset. For many years to come the others are to be provided for by the accumulation of the income upon the residue of the estate. As soon as such accumulation has reached $10,000, a second fellowship is to be established, and so on until fifteen fellowships shall have been endowed. Before leaving Madison, Dr. and Mrs. Adams gave to the Historical Library the objects of art, their most treasured personal property, which they had collected during many years. This gift and their wills show how deeply they loved the University of Wisconsin, the institution to which they gave the full energy of the closing years of their lives.

From alumni and other friends of the University $15,000 were subscribed for the Jubilee. Approximately $13,000 have been spent in connection with the celebration, and $2,000

remain in the hands of the treasurer to be used in the publication of the Jubilee volume, which, it is expected will be distributed to all the subscribers to the Jubilee fund, as well as to other friends of the University. The subscribers to the Jubilee are so numerous that they cannot be named in this report. The amounts given by the individual contributors range from one dollar to one thousand dollars. One of the most significant things in reference to the Jubilee fund is the wide interest shown in the celebration as indicated by the large number of alumni who sent such small subscriptions as they were able to afford.

Aside from the above, the gifts dispersed through the Secretary of the Regents for various purposes for 1902–03 and 1903–04 were $5,777.81. This money was mainly given for the support of fellowships and scholarships, and has come from a number of generous friends of the University. A small part of the money was for books and equipment.

From the foregoing it appears that during the two years, the gifts from private sources amount to $60,777.81. This sum, while not large as compared with the great gifts which have gone to eastern universities from private sources during the past two years, is of great significance as marking the beginning of a movement which, I believe, will be of great magnitude. It looks as if people who have gained wealth by taking advantage of the natural resources of the State are beginning to feel that they can wisely invest a portion of such money in the University. In my inaugural address, after pointing out the great importance to the University of halls of residence, a commons, and a union for the men, I said in substance: The State of Wisconsin is a safer trustee than any individual or corporation. The man who attaches his name to a hall, a commons, or a union, will fix that name as one to be loved by the unnumbered sons of the State that during the centuries to come will flock to the University of Wisconsin to obtain intellectual training, to develop

high ideals, and more than all, to gain sterling, vigorous, self-sufficient, adjustable manhood. May I not hope that soon the money will be forthcoming to provide for these needs, so that the grants to the University by the State may be concentrated upon the many additional buildings, very largely increased equipment, and numerous additions to the instructional force made imperative by the extraordinary increase in number of students at the University?

Aside from the gifts which have been made directly to us, the headquarters of the American Bureau of Industrial Research have been established at the University, with Dr. Richard T. Ely in charge. Nearly $25,000 have been subscribed for this bureau by Mr. Robert Fulton Cutting of New York, Mr. Justice P. H. Dugro, of New York, Mr. M. Everett Macy, of New York, Captain Ellison A. Smyth, of Pelzer, South Carolina, and by a large contributor who does not wish his name to be published. The money is to be expended under the direction of Dr. Ely for investigations upon the history of industrial democracy in the United States. It is believed by the donors that the results of an inductive investigation upon industrial problems will be conducive to their peaceful settlement. Likewise it is my conviction that there is no line of investigation which is likely to be more fruitful to the nation than such an investigation in political economy as that proposed. While perhaps a direct increase in money income to the State and nation cannot be pointed out, as in the case of investigations in applied science at the University, if the work of the American Bureau of Industrial Research be a factor in the peaceful solution of the economic problems of the nation and of the State, and this it can hardly fail to be, the indirect gains will be no less important than the material gains which accrue to the State in consequence of investigation in agriculture and engineering.

16. During the two years just past there have been many changes in the Faculty. These changes are given in detail in

an appendix to this report and will not be repeated here. In addition to these changes a number of appointments of such importance have been made to take effect July 1, 1904, that they deserve specific mention. With the exception of the deans all of the changes below mentioned take effect on that date.

In the College of Letters and Science two additional professors have been secured in departments which already existed. Professor John R. Commons has been added to the department of political economy. Dr. Charles R. Bardeen has been made professor of anatomy. These men are regarded by many scholars as among the most progressive and productive men of the country in their respective lines. Dr. Augustus Trowbridge has been promoted from assistant professor to professor of mathematical physics. Dr. F. C. Sharp has been promoted from assistant professor to associate professor of philosophy; Mr. William F. Giese, from assistant professor to associate professor of French; Dr. Victor Lenher, from assistant professor to associate professor of chemistry; Dr. Charles E. Mendenhall, from assistant professor to associate professor of physics. Mr. D. Earle Burchell has been appointed assistant professor of business administration. Mr. R. E. N. Dodge, Charles E. Allen and A. C. L. Brown have been promoted from the rank of instructor to that of assistant professor. Mr. Albert S. Flint has been promoted from assistant astronomer to astronomer.

In the College of Agriculture, Dr. A. S. Alexander has been appointed professor in veterinary medicine, and Mr. G. N. Knapp has been appointed assistant professor in agricultural engineering. Dr. Fritz W. Woll has been promoted from assistant professor to associate professor of agricultural chemistry.

In the College of Mechanics and Engineering, two important changes have been made. The tragic death of Dean Johnson, June 23, 1902, has been recorded in the biennial report of Act-

ing President Birge. Upon the death of Dean Johnson, F. E. Turneaure, professor of bridge and sanitary engineering, was made acting dean. He performed the duties of the office of dean so acceptably during the year 1902–1903, that early in the year 1903–1904 he was promoted to the position of dean and professor of engineering. The place left vacant by the promotion of Professor Turneaure was filled by the appointment of Professor Daniel W. Mead, a man of well recognized professional reputation, to the professorship of hydraulic and sanitary engineering. Mr. Charles F. Burgess has been promoted from the rank of assistant professor to that of associate professor of electrical engineering, and Messrs. George C. Shaad and H. J. B. Thorkelson have been promoted from the rank of instructor to that of assistant professor.

In the College of Law a number of important changes have been made in the instructional force. In June, 1903, in accordance with the wish of the late Dean Bryant, it was arranged that he be relieved from his administrative work, that he might give his entire effort to instruction. At this time Professor H. S. Richards, of the law school of the University of Iowa was appointed dean of the college. It was expected that Dean Bryant would continue to serve in the Law School as professor of pleading and practice, but during the summer vacation of 1903, his unfortunate death occurred. Dean Bryant was loved alike by the regents, the faculty, the alumni and the students, and all regret that he could not have lived to do the work which he had selected and hoped to do for many years. The professorship of pleading and practice left vacant by the death of Dean Bryant has been filled by the appointment of Robert M. Bashford, who for many years has been a lecturer in the College.

Aside from the above changes in the faculty, there have been many others in the ranks of instructors and assistants distributed through all the colleges.

Report of the President.

THE NEEDS OF THE UNIVERSITY.

INCREASE IN STUDENTS.

During the two years covered by this report, the increase in the number of students has been rapid.

The catalogue of 1901–02 shows a total of 2,777; that of 1902–03, 2,870; that of 1903–04, 3,151. The growth for the year 1902–03 was 93; for 1903–04, 281, and for the two years 374. The distribution of this increase is fully given in the reports of the Deans of the Colleges and is summarized in the table in the appendix.

While this official biennial report covers the years 1902–03, and 1903–04, from the point of view of the needs of the University, growth in students during the years 1903–04 and 1904–05 is of greater significance, for this is the period which was provided for by the last legislative appropriation, and it will be the years 1905–06 and 1906–07, which are to be provided for by the legislature of the year 1905. The growth for these years will be particularly discussed.

As has been noted, the catalogue for 1903–04 shows an increase of 281 students over the catalogue of 1902–03. The directory of 1904–05, as compared with the directory of 1903–04, shows an increase of 278 students. This probably means that the increase in the number of students for the present year will be more than 300. This increase has been largely in the Colleges of Letters and Science, of Engineering, and of Agriculture.

In the College of Letters and Science the number of students for 1902–03 was 1,232; for 1903–04, 1,312; and the registration to the time of the issuing of the directory, November 1st, for the current year, is 1,451, whereas the directory of last year showed 1,289. These numbers show an increase of 80 for the year 1903–04 and for the current year, 162. Thus the increase for the College of Letters and Science for the two years to November 1st, was 242. Of the students in the College of

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Letters and Science 136 were in the Course in Commerce in 1902–03; 177 in 1903–04, and 206 to November 1st of the present year, whereas the directory of the last year showed 173. Thus the increase in the Course in Commerce for the two years is 74.

In the College of Agriculture the number of students in the long course for 1902–03 was 36, for 1903–04, 57, and the registration to November 1st of the current year, 90. These numbers show an increase of 21 for the year 1903–04, and for the current year as compared with the directory of last year, 35, or for the two years, 56. There has also been an increase in the number of students in the Short Course in Agriculture. For the year 1902–03 the number was 299; for the year 1903–04, the number was 310; and for the present year to Dec. 15, the number registered was 307.

In the College of Engineering the number of students for 1902–03 was 585; for 1903–04, 744, and the registration to November 1st of the current year is 808. These numbers show an increase of 159 for 1903–04, and for the current year, as compared with the directory of last year, 103, or for the two years, 262.

In the College of Law during the years in question there has been a slight decrease in the number of students.

From the foregoing it appears that during the two years of 1903–04 and 1904–05, for which the legislature of 1903 provided, that not only has there been an increase in the number of students never before approached, but that this increase is general for the Colleges of Letters and Science, of Agriculture, and of Engineering. As already made plain the total increase in the number of students during the two years, 1903–04 and 1904–05, will be between 550 to 600 students, or more than the entire attendance at the University during the closing year of Dr. John Bascom's administration, 1886–1887. *Thus the University the present year is being run with an appropriation from the legislature, made upon the basis of between five hun-*

dred and six hundred less students than are present. The only increase in income which has accrued to the University by the increase of students is the comparatively small amount derived from student fees. The result is that our very prosperity in the matter of student numbers has been a source of weakness so far as efficiency of instruction is concerned. In order to keep within available funds, it has been necessary to employ a large number of instructors and assistants, who give the major part of their time to freshman and sophomore work. While during these years the number of men of the rank of assistant, associate, and full professor has increased, the increase has not been proportional to the increase of the men of lower grade.

In this statement in reference to the situation as to the freshman and sophomore instruction, it is not meant to imply that the average work of the University has not improved. Indeed, it is believed that the quality of the work for the juniors, seniors, and graduate students has grown steadily better. This has been largely due to the sustained and earnest work of the members of the instructional force.

In the above paragraphs the effect of the more rapid growth in students than in income has been considered only in reference to the instructional work. The disastrous effect in reducing the productive scholarship and the amount of fruitful research is not taken into account. If the full energy of the force be spent in instruction, so that research in pure and applied sciences, for example, agriculture, which has been of such immeasurable value shall be seriously cut into, the loss to the State will be beyond computation. But this aspect of the situation is perhaps better considered in connection with the needs of the respective Colleges.

If the above is the situation for the years 1903–04, and 1904–05, what will be our condition for caring for the work of the University for the years of 1905–06 and 1906–07? These are the years for which the legislative appropriations for 1905 are applicable. As already explained, in the last year in which the legisla-

ture was in session, 1903, the attendance was 2,870. The present year, 1904–05, the probable attendance will be 3,450. Suppose the increase in number of students for the next two years to be 275 per year, i. e., somewhat less than for the past two years, the attendance for the year 1905–06 will be 3,725 students, and for 1906–07, 4,000 students. Thus the legislature of 1905 has the problem before it of providing for a University with an average attendance of at least 3,850 students, for the two years of 1905–06 and 1906–07. The appropriations which now obtain are on the basis of 2,870 students. *Hence it is necessary to provide for a University with an attendance of nearly one thousand students larger than was the University when present appropriations were made, or a growth of one-third.*

INCREASE IN INCOME FOR CURRENT EXPENSES.

From the Deans and from the men in charge of the Library, steam plant, water works, buildings and grounds, etc., I have asked for conservative estimates of the necessary increase in income to provide for the pressing needs of the University during the coming two years. These reports I have considered carefully and the requests for increase in income and for buildings and equipments are fully justified by the necessities of the case. If the University is to do its work there must be a very large increase in income. In my judgment such an increase is imperatively demanded and should stand as the foremost need of the University, the one which cannot be met by any small provision wihout abandoning its higher functions. With the remarkably rapid growth in students already indicated, it is certain if such an increase be not provided that the University will positively retrograde, and this rapidly.

It has been found impossible to secure men worthy the rank of professor for the standard salary which in years past

has prevailed at the University. This is unquestionably due in considerable measure to the fact that the cost of living during the past few years has increased at least from fifteen to twenty-five per cent and salaries have everywhere else been rising. In this connection it is to be said that a serious injustice is now being done to a considerable number of the members of our instructional force whose salaries have remained substantially the same during the past two to four years, and hence by changed economic conditions have been really reduced. Even if the economic conditions had remained uniform, and no attempt were made to raise the grade of work, a very large increase in income would be necessary in order to provide the additional number of instructors and professors. And it has been my policy in making recommendations to the rank of assistant professor, associate professor, and professor, to see that the men appointed, or promoted, shall be equal to the men of that grade in the representative universities of the country. A lower standard than this I know would not be satisfactory to you, nor would, I believe, be satisfactory to the people of the State. These statements in reference to salaries apply to all the Colleges.

College of Letters and Science.

In addition to the departments which now exist in the College of Letters and Science, it is necessary that a department of physiology be immediately established, in order to carry out the plan of giving here all the scientific studies preparatory to a medical course. In the departments already established, there is immediate need for a professor of philosophy, a professor of education, and a professor of zoology. Professor John W. Stearns, who resigned January 1st, 1904, was professor of both philosophy and education. It is evident, however, that these two important departments cannot again be filled by one man. There should be a professor in each department. The very large amount of executive work in the College of Letters and Science

makes it certain that the Dean of the College cannot longer carry the work of Dean and do the work of a full professor in the department of zoology; hence the necessity for a professor in this department. An additional professor is needed at once in the departments of sociology and of history. Finally almost every department in which there has been a large increase in the number of students needs an increase in the instructional force. The number of additional instructors needed for the College of Letters and Science may seem surprising, but it is to be remembered that this is the largest College in the University, and the one in which the present year there has been the greatest increase in number of students. Also in this College a large amount of instruction is done for students in the other colleges, so that the rapid growth of these colleges increases greatly the amount of instructional work in the College of Letters and Science. Further it is to be remembered that the increase asked is not for the instructional work alone in the undergraduate departments, but is also for instruction in the Graduate School and to provide for investigative work.

The College of Letters and Science is the one in which the great majority of graduate students are located. It is believed that the development of advanced work in the University at the present time is its most important direction of growth. In order that the entire University shall become more useful to the State, it should have harmonious proportions, and at the present time the advanced work is not developed proportionately to the College work, and especially to the work of the first and second years. If the Graduate School is to be developed so as to be proportional in size to such schools in the best universities of the country, a considerable sum of money must go for additional professors of the highest grade, so that individual attention may be given to the students who are making their beginnings as investigators and productive scholars.

The present year I am glad to say that the Graduate School has a considerable increase in numbers. This increase is be-

lieved to mark the beginning of a period of rapid expansion of the advanced work of the University. Last Commencement, the Jubilee year, eleven men were granted the degree of Doctor of Philosophy, a larger number than ever before. The current year twenty men have announced themselves as candidates for examination for that degree at the Commencement of 1905. This growth of the Graduate School is significant of the increase in productive scholarship and investigation in the College of Liberal Arts.

Important researches are now being carried on in most departments of that College. While for many of these researches no pecuniary value can be pointed out, other lines of investigation, such as those in the departments of anatomy, bacteriology, and geology, have a direct money value. But it must be remembered that scientific investigations which appear to have no practical value at the present moment may in the future be of immeasurable importance. This is illustrated by the investigations upon electricity by Franklin and Faraday, and by Pasteur and Koch upon microbes. Out of their purely scientific discoveries which appeared to have no practical value, have come the marvelous advances in the application of electricity, and modern scientific medicine. An historical study of scientific research warrants the statement made by me that "no knowledge of substance or force or life is so remote or minute, although apparently indefinitely distant from present practice, but that to-morrow it may become an indispensable need."

Work in pure science is the foundation upon which all applied scientific researches having a practical value must rest. On subsequent pages the great increase in material wealth of the State, due to investigations in the University in the applied sciences of agriculture and engineering are discussed. Dean Henry points out in his report, accompanying this, that the remedy for smut on oats introduced into the State by the College of Agriculture which has already saved the State four and a half million dollars per annum, rested upon the purely scien-

tific discovery of the compound formaldehyde. Another illustration of the principle is the almost revolutionary work which is being done in the development of nitrogenous compounds in the soil, so essential to its fertility. This was only possible by the scientific discoveries of botany and bacteriology. The important researches, now going on in pure science in the University, will ultimately be the bases upon which discoveries in applied science will be made to further greatly increase the wealth of the State.

But investigative and productive work should not be confined to scientific work alone. In no department of learning is there more need for earnest study and investigation than in the problems of political economy, political science, and history. Upon such studies and investigations must rest the solution of the great fundamental problems of government which confront us. It has already been pointed out that researches in these subjects are regarded of such importance that the sum of about $25,000 has been raised from private sources to carry out a single line of investigation in one of these subjects at the University.

Advanced scholarship should not be confined to the lines of work in which we can point out the money value. All other studies to which the capacities of the human mind extend, which are potent forces in developing a higher type of man, should be encouraged at the University. While the value of such studies cannot be estimated in amount of money there is no other advance the real value of which is greater. Who shall estimate in money value the service to the nation of him who produces a great piece of literature? But if the highest function of the University be performed, that of producing scholars and investigators, there must be a large increase in funds available for this purpose. Such is my confidence in the breadth of view of the State, that I look forward to the development of a great school of pure learning in the University.

College of Agriculture.

In the College of Agriculture the attendance has increased so rapidly in recent years, and the consequent demands for instructional work have been so great, that the investigative work of the College has already begun to diminish in quantity. If there is not a large increase in funds this fundamental work of the College will be seriously endangered.

The Agricultural College began with few students. It was in investigation that it gained its reputation. In investigation it has been of immeasurable value to the State. It would be most unfortunate if this College, the first in the University to give important contributions to the advancement of knowledge, should be checked in this field, because of the necessity that its professors give all their energy to instructional work. The men in the College who have been so successful in doing investigative work should be continued along these lines, and additional instructors should be obtained to care for the increasing number of students, and to increase the amount of research work.

Dean Henry, in his report, shows how great has been the increase in wealth of the State in consequence of the investigative work of the College of Agriculture. All the money which has gone into investigation has been returned manyfold. For instance, it is shown that as a result of the direct application of the Babcock milk test, the products to the State have been increased more than one million dollars per annum, without taking into account the very important indirect effects of the discovery in improving the quality of the herds of the State. It is shown that the discovery of the Wisconsin curd test has increased the wealth of the State by more than one hundred thousand dollars per annum; that by the introduction of Swedish oats the income of the farmers has been increased by millions of dollars per annum, and that the work upon the smut of oats during the past ten years has increased the income of the State by four and a half million dollars per annum.

University of Wisconsin.

And these are only a few of the lines of investigation which have brought prosperity to the State. There are many other lines of research which have been carried on, such as those in the department of animal husbandry, upon the introduction of new forage plants, official tests of dairy cows, the control of commercial feeding stuffs, tests of commercial fertilizers, the development of the beet sugar industry, nursery inspection, tobacco investigation, improvement in plums and apples, cranberry investigation, potato investigation, studies of tuberculosis, and other researches upon which no definite figures can be placed as to the amount of wealth accruing to the State, but it is certain that the total amount is large, aggregating millions of dollars per annum.

It is absolutely certain that the annual increase in the wealth of the State due to investigations and to dissemination of knowledge among the people by the College of Agriculture is more than ten times the entire grants of the State to the University, and it is probably true that this increase in wealth is more than twenty times the amount of such grants.

Dean Henry's report shows that there are various lines of investigation, such as further improvement in the herds of the State, a campaign for poultry raising, and the development of the horse industry of the State, the study of the marsh and swamp soils, for which there are no funds available. Some of these investigations, for instance that upon the soils, and especially the marshes and swamps, are of the highest importance to the future of our commonwealth. Over extensive areas of the State nearly one-third of the level land is marsh or swamp. The reclaiming of such lands is to be the chief additional source to the State of arable land. Simply draining such soils has not been found adequate. Proper methods of treatment must be determined to make them productive. The successful solution of the problems of rendering arable and fertile the great marsh and swamp tracts of the State may require years of time and the expenditure of considerable sums

of money, but who shall estimate the increased wealth to the State from their successful solution?

Aside from the large sum demanded for investigation, the College of Agriculture needs a large increase of income to provide for additional administrative and instructional work. The work of administration, involving as it does the supervision of the instructional and investigative work of all the departments, besides an enormous correspondence carried on with the farmers throughout the State, is becoming so heavy a burden that Dean Henry must have executive assistance, else he will break down under the strain. This would be nothing short of a catastrophe to the agricultural interests of the State. Therefore among the needs for extension of force of this College, I place first that of an assistant to the Dean. Because of the great increase in the number of students and of the necessity that the able men who are now engaged in research shall have time to carry such work forward, an additional strong man is needed in each of the following departments: Agricultural chemistry, agricultural physics, horticulture, animal husbandry, dairying, and bacteriology. In the veterinary department a larger proportion of Dr. Alexander's time should be given to the University. In the department of animal husbandry an additional instructor is desired. A man is needed to give his entire time to official tests of dairy cows. An instructor and assistant are necessary if a poultry department be established. A professor in forestry should be secured at once.

In reference to the demands for an increased instructional force, it is to be remembered that the instructional work in agriculture results in training a large number of students in this science. These men thus trained go to all parts of the State to take charge of butter and cheese factories, to conduct farms according to the best methods, to engage in animal husbandry, etc. Their scientific knowledge and skill have vastly increased the wealth of the State. It is impossible to

estimate the money value of instructional work in agriculture. However, it is certain that the campaign for the improvement of the dairy products of the State, inaugurated when Hiram Smith Hall was occupied, has greatly increased the quality and quantity of the Wisconsin dairy products, and hence has immensely increased our wealth. When it is remembered that the dairy products of the State are worth between $40,000,000 and $50,000,000, per annum, and that butter and cheese are now selling at prices from twenty-five per cent to one hundred per cent more than they were when an inferior product was manufactured, it will be realized how enormous has been the benefit which the College of Agriculture has bestowed upon the State by instruction in this one department alone. In other departments of agriculture similar service has been preformed, and in still other departments this service is yet to be done, because sufficient funds have not been available.

From the foregoing statement it is perfectly clear that if the College of Agriculture is to continue to do its investigations and make new discoveries which can be applied to increase the wealth of the State; if it is to carry to the people all of the discoveries it makes as well as all of the important discoveries of other experiment stations throughout the world, through innumerable letters, mimeograph statements, and bulletins; if it is adequately to provide instruction for the rapidly increasing number of regular students and the farmers, the College must have a very large increase in annual income. Only by such increase will it be possible to satisfactorily accomplish the lines of work which the College has heretofore been carrying on, and be able to take up the new lines of work which are demanded for the welfare of the State.

College of Engineering.

In the College of Engineering, the increase in the number of students has been most surprising. This extremely rapid

growth began in 1898. The late Dean J. B. Johnson, in 1901, projected forward by diagram the probable attendance in this College and placed a lower and upper limit upon the probable number. Up to the present time the attendance is at his upper limit. As already explained, for the year 1903–04 the increase was more than 150 students, and this year the increase will be almost as large. Dean F. E. Turneaure states that in order to handle the instructional work for the two years to come it will be absolutely necessary to largely augment the amount paid for instructional work.

It is extremely desirable to at once establish courses in chemical engineering and mining engineering. At the present time a very large part of the work of these courses is done here. In order to introduce these courses it will be necessary only to provide a professor and an instructor in chemical engineering and a professor in mining engineering. The establishment of these courses will not require any great increase in the actual expenditure of the College, beyond that which would be necessary in any case, since the increase of classes in these courses will to that extent decrease classes in other subjects. To illustrate, in the catalogue of 1903–04 a pre-mining engineering course under general engineering was announced, and this year, 1904–05, about fifty students have already entered the course,—a division large enough to demand the full attention of two instructors. If work in mining engineering be begun, this will decrease the amount of instructional work which these men will demand in other departments.

A similar situation obtains in reference to chemical engineering. At the present time men are demanded who are both engineers and chemists. The chemical manufacturing interest is on the point of very important expansion in this country. The institution which first offers a strong course in chemical engineering will train men in the two lines of chemistry and engineering, a combination necessary for the development of the chemical industry. The state which first takes up the

training of chemical engineers will have a great advantage in securing a large share of the resultant industrial development.

Aside from the expansion of instructional facilities, it is my earnest desire that investigative work be seriously begun in the College of Mechanics and Engineering. A certain amount of work of this kind has been done by the professors as they could snatch time from their heavy instructional work, but as yet the investigative work of this College has not reached the place it has in the Colleges of Letters and Science and of Agriculture. There is an unrivalled opportunity at the present time for Colleges of Engineering to take up investigative work for the benefit of the people. While it is not possible in advance to give the money value which will accrue to the State from research in engineering, no one who is familiar with the history of industrial development in the world, can doubt that research by the engineer is a source of enormous increase in the wealth of the nation. It is sometimes said that important discoveries are not made by the trained engineers, but in answer to this it may merely be recalled that James Watt, in association with a professor of natural philosophy at the University of Glascow, invented the steam engine. Many other illustrations of discoveries of profound importance to man, made by trained engineers, could be given if by so doing this report would not become unduly extended. But it may be remarked that Dean Turneaure in an accompanying report shows that without any special provisions for investigative work, already a considerable number of important discoveries, of direct benefit to the State, have been made by members of the instructional force.

If the College of Engineering be given sufficient funds to take up investigations under favorable conditions, it appears certain to me that the State will have this money returned to it many times over. The importance of investigation in engineering schools has been recognized by some of the neighboring States. For instance, the Engineering Department of Iowa

State College and the College of Engineering of the University of Illinois have already received appropriations for research and investigation. Iowa had a special appropriation of $6,000 for the purpose, and Illinois received the large appropriation of $150,000 for apparatus and for investigation together. We must now either provide for such work in the College of Engineering at the University of Wisconsin, or see this College, which has been a leading engineering school fall behind Illinois and Iowa. In the College of Engineering, as in the College of Agriculture, the best results, even if the narrow point of view of instruction alone be considered, can be obtained only at a college where investigations are being vigorously pursued. In order to provide for serious research work in the College of Engineering, a considerable additional fund should be added to the income of the college.

College of Law.

In the College of Law one important change in policy has been introduced. Heretofore, the entrance requirements for the College have been the same as those of the Colleges of Letters and Science, of Engineering, and of Agriculture. It has been decided to require for admission to this College in the year 1905–06, work equivalent to that required for entrance to the sophomore year, and in 1906–07, work equivalent to that required for entrance to the junior year of the College of Letters and Science. While these changes have not yet gone into effect, they are important with reference to the future of the College of Law. They are an attempt to raise the College to a higher standard. The plan has met the general approval of the Bar of the State, and its success will depend upon the available support.

The College of Law has not grown as rapidly as the Colleges already considered. This is partly explained by the fact that the State has taken a different attitude toward this College than toward the others. The plan has been to make the

College of Law as nearly self supporting as practicable. However, the experience of other institutions shows it is impossible to maintain work in law on the highest plane from tuition fees alone. So far as I can see, there is no legitimate reason why the College of Law should be placed upon a different basis from the other Colleges. If the College be given sufficient support and made as strong, relatively, as the Colleges of Letters and Science and of Engineering, it is certain that it will show corresponding growth. But to do this will require a considerable increase of income. It is believed if the State fully appreciates that the College of Law is falling behind the other Colleges, relatively, because of lack of support, adequate funds will be furnished to make this College the equal of any other of its kind in the Middle West.

General Expenses.

For general University expenses a large increase in income is necessary. Perhaps the most important of the items coming under this heading is the demand for a larger book fund. Until two years ago the library had received a ridiculously inadequate sum. The last legislature appropriated $7,500 a year for the library for two years. If the library is to keep pace with other departments of the University, that it may provide books necessary for them, there should be a permanent increase in the book fund of at least $10,000 per annum.

The income of the University has been so small that it has not been possible to keep the buildings in a good state of repair. Some of the buildings require at once the expenditure of considerable sums in order to put them in a satisfactory condition. For instance, upon the gymnasium there should be spent at once several thousand dollars. Other buildings are badly in need of lesser repairs. The income of the University should be sufficiently large so that the buildings may be kept in good condition. Not to do this is extremely extravagant, for otherwise buildings costing large sums of money deteriorate.

The new chemical building which will be ready for occupancy in the autumn of 1905, will need to be heated, lighted, and provided with janitor service. This will require a considerable addition to the running expenses of the University.

NEW BUILDINGS AND EQUIPMENT.

Wing of University Hall.

In the matter of new buildings, it is my judgment that the construction of the north wing of University Hall is absolutely imperative. At the present time it is almost impossible to provide rooms to hold the students. What we shall do next year unless more space is available, I do not know. And before two years have gone by, unless additional room is provided, it will be impossible to find places for the regular recitation and lecture room work of the College of Liberal Arts.

Already there is serious complaint from many departments that their work is not as efficient as it should be because of lack of adequate space. For instance, the allied departments of political economy, political science, sociology, and history, are scattered through several buildings, wherever an available chink can be found for their accommodation. It has been strongly represented to me that this seriously interferes with their efficiency and esprit de corps. These allied departments should have adjacent suites of rooms adequate for their purposes in one building.

Building to Relieve Science Hall.

An appropriation for a building or buildings by which the congestion of Science Hall may be relieved is also a vital necessity. At the present time this hall is crowded to its limit. The increase of students in physics for several years has been about fifty per year. The first semester of the present year, 1904–05, there are more than five hundred students in physics. How the department can accommodate its students during the years 1905–06 and 1906–07, is difficult to say. The

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department of geology has given up a considerable portion of the space originally assigned to it to biology, and is in an even more congested condition than the department of physics. The number of students in geology in the first semester of 1902–03 was 168, 1903–04, 251, and in 1904–05, 323, or a growth of over 90 per cent in two years. At the present time the only possible way to provide space for the students is to use the museum as a laboratory for the elementary classes. The professors of the department state that at the present time they could use to advantage about twice as much space as they now occupy. The departments of biology and anatomy, in order to gain more space, have taken possession of the attic of the science building, and this year there was finished in the attic for biology the last cubic foot of room available. The growth of these departments has also been rapid. The congestion in them is now very severe, and biology, like geology, needs about twice the space now available.

After a careful consideration of all the various possibilities, and consultation with the Dean of the College and the professors concerned, it seems clear that one of the departments in the science building must be removed to provide additional space for the other two. Probably the best plan is to allow physics a large part of the second floor of Science Hall; to have geology occupy the third floor, in which biology is at present located, and to construct a building for the biological department. The construction of Science Hall is well adapted to physics. Geology can be well accommodated on the third floor of Science Hall if it retains the museum on the second floor, and in the future, if necessary, it will be possible to remove anatomy from the attic of Science Hall, and provide a building for it adjacent to the biological building, thus leaving free the space which it occupies for advanced work in geology.

Equipment for Chemical Laboratory.

In the legislative year of 1903, $150,000 was asked for a Chemical Building and equipment for the same. This amount was reduced by the legislature to $100,000. It was stated by the University authorities at that time to the Joint Committee on Claims that if this reduction were made it would cut out the equipment for the building. It has been barely possible to let the contract for the building alone for $100,000.. It is, therefore, necessary that provision be made for the equipment of the Chemical Building, which must be ready for occupancy the autumn of 1905.

Buildings for Agriculture.

In the College of Agriculture provision for the following buildings is urged by Dean Henry, and with his recommendation I fully concur. Adjacent to the farm engineering building, provided for at the last meeting of the legislature, there is need for a tool house for the storing of agricultural machinery owned by the farm, and such machinery as could be readily loaned from manufacturers of agricultural implements, provided a proper place were available for its storage. If a poultry department be established, and this is a need which is strongly urged by Dean Henry, it is necessary to erect a suitable building. A large and well equipped horse barn and hippodrome is needed for the horse department. If such a building were available, and the department were put upon a proper basis, it is believed by Dean Henry that there would accrue to the State within a few years a gain in wealth similar to that which has come from the establishment of the dairy department. Another need of the College is a stock barn, with a stock judging pavilion. Such a building would adequately provide for housing the farm animals, and would serve for the instruction of the farmers who each winter will come here in increasing numbers for the farmer's course in agriculture.

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Building and Equipment for Engineering.

In the College of Engineering, as already pointed out, the increase in the number of students has been very rapid, the attendance having more than doubled during the past four years, and having increased forty per cent during the past two years. In consequence of this very rapid growth, there is immediate need for more room for the College. Also, a large amount of additional equipment is necessary. First among these needs is placed a hydraulic laboratory, the present laboratory being wholly inadequate. Such a laboratory located on the lake shore would make it possible not only satisfactorily to do the instructional work in this important department, but its location is such that it would be available for valuable experimental work such as that necessary to determine the best method of handling great volumes of underground water, for instance, in the lead and zinc districts of southwestern Wisconsin. Another building needed immediately by the College is a model foundry. The space occupied by the old foundry must be used to increase the size of the forge room, which is inadequate to provide for the students. The buildings mentioned are immediate needs which should be provided for before the beginning of the next college year. Dean Turneaure also requests that at the earliest possible moment provisions be made for building one of the wings of the Engineering Building, since already the recitation rooms, laboratories, offices, and drafting rooms of this bulding are overcrowded.

In addition to the above demands of this college, the great increase in number of students makes it necessary that there be available a large fund for additional apparatus. A College of Engineering, in order to be successful, must provide the students with apparatus with which to work. The report of Dean Turneaure shows that the amount of apparatus which the college has, per student, is much smaller than that of the strong competing colleges. As illustrating the importance which other institutions attach to apparatus in engineering, it

may be mentioned again that two years ago the Engineering College of the University of Illinois received $150,000 for this item and for research work.

Removal of Central Heating Plant.

The present central heating plant is not sufficiently large to heat the group of buildings now connected with it and to furnish steam for the engines and the machine shops. During the coldest weather it is possible to heat the buildings only by giving a limited amount of steam to the machine shops. The new chemical building should be connected with this central heating plant, rather than have placed in its basement a special battery of boilers. Also all other buildings upon University Hill, as they are constructed, should be connected with the central heating plant. The best position for such a plant is probably on or near the lake shore. The alternative is before you of either making very large extensions and improvements to the present plant, or else moving the entire plant to a central position, under a roof large enough to accommodate boilers sufficient to provide for the new buildings which may be expected within a reasonable number of years. It is my opinion that in the long run it will be economy to move the heating plant at the present time to the most favorable location, even if this involves a larger outlay than would be necessary to sufficiently enlarge the plant in its present position so as to meet temporary needs. At some time the heating plant must be moved, and now, when large additions and improvements are demanded, is the time for the change.

Additional Fire Protection.

The buildings of the University representing an investment of about one and one-half millions of dollars, do not have adequate fire protection. Only four of the buildings are provided with stand pipes. Both J. T. W. Jennings, Superintending Architect of the buildings and grounds, and D. W.

Mead, Professor of Hydraulic and Sanitary Engineering, recommend that stand pipes be erected at each of the important buildings, that these stand pipes be connected with fire escape ladders, and that fire hose be placed in each building adjacent to the stand pipes. Providing all the usual, modern precautions for extinguishing fire is an expenditure the wisdom of which cannot be questioned, especially as the State has adopted the plan of state insurance. No private company would own such an expensive plant and not have the buildings provided with the best fire protection. Among the twenty or more large buildings of the University, it is only a question of time when a fire will break out. The chance of extinguishing such a fire is of course far greater in buildings where stand pipes and hose are immediately available. There is no question on my part that the expenditure of a sufficient amount of money to erect stand pipes and provide adequate hose for all of the buildings will be more than justified in the years to come. The installation of such fire protection would have been recommended to you for the current year had there been available funds in the University treasury.

Improvement of Waterworks.

The demands made upon the water works system are continually increasing. Some of the pumps now in use are of an antiquated pattern, and are extremely costly both for operation and repairs. At the earliest possible moment these antiquated pumps should be replaced by modern pumps. This change within a few years will more than pay for itself by the reduced cost of operation.

Building for Out-of-Door Athletics.

One of the very important needs of the University, and one which I should place high among the necessaries for additional buildings, is provision for out-of-door athletics. At the present time the gymnasium is congested. The athletic field is more than a half mile from the gymnasium. It is necessary for

the young men who are training for the athletic teams, and for all other students who wish to take part in out-of-door athletics, to change their clothes at the gymnasium, go to the athletic field a half mile away, and after finishing their work to again return to the gymnasium for bath and change. If there were upon the athletic field a building of sufficient size to furnish lockers for all students who wish to engage in out-of-door athletics, and a sufficient number of shower baths to accommodate such men, it would relieve the gymnasium of the men interested in out-of-door athletics. Moreover, it is my conviction that if there were a building containing lockers and baths sufficient to accommodate the men at Camp Randall, a much larger number of students would take part in out-of-door athletics, and this is greatly to be desired, both from the point of view of the success of the athletic teams, and that of the general participation of the students in the out-of-door life of the University.

Buildings for the Men and Women.

All the needs of the University thus far discussed are along the lines of work already inaugurated, or directly connected with such work. But there are other needs of the University which are so important that I cannot close this report without mentioning them; for it is plainly my duty to call to your attention all of the needs of the University, the satisfaction of which would return to the State more than the expenditure involved.

At the University of Wisconsin, with about thirty-five hundred students, the only dormitory is Chadbourne Hall, which provides for one hundred women. This hall is entirely inadequate to accommodate the women who apply for rooms. Usually applications have been received for every room for any year by the commencement of the preceding year, and many applicants during the summer are informed that they cannot be accommodated. Thus many parents of the State are asking that

their daughters be provided with rooms in a building under University supervision whose requests can be granted.

Last year there were in the University five hundred thirty-five young women. These women have no University building which they can use for social purposes. The gymnasium which is available for them is ridiculously inadequate. All of the gymnastic work of the women is confined to one room, forty-six feet wide and seventy-one feet long, in Chadbourne Hall. There is immediate need for a commodious and modern building, which will serve as a gymnasium and social center for the women of the University. The importance of an adequate gymnasium for the women cannot be over-emphasized. The young women upon the whole feel the strain of their work more than the men. The men have a great gymnasium in which to exercise. The upper classmen, as well as the freshmen and sophomores, take advantage of its opportunities. The room now available for gymnastic work by the women is not sufficient to properly accommodate the required work of the freshmen and sophomores. The juniors and seniors after having been taught how to exercise and develop themselves physically have little opportunity to continue this work during these years. The proposed women's building is also to serve as a social center. At the present time, more than four-fifths of the women are scattered through the town in sorority and boarding houses. When the number of women in the University was so small that Chadbourne Hall accommodated the majority of them, it was practicable for the parlors and other rooms to provide for callers, for literary societies, and other general purposes. This is no longer possible. The necessity for a building which shall be the center of life for the young women in the University is even greater than it would be were they all housed in dormitories. When such a building is available all the social functions of the University can be provided for in buildings subject to proper supervision. A women's building adequate for present needs, without considering the fact that the

women of the University are sure to rapidly increase in number, will cost at least one hundred thousand dollars.

In the early days of the University, before the fire which destroyed Science Hall in 1884, North and South Halls were dormitories for men. At that time it was necessary to take these buildings for instructional work, and halls of residence for men at Wisconsin were abandoned. In my inaugural address I urged that the most fundamental characteristic of the ancient universities of Oxford and Cambridge are the halls of residence, with the accompanying commons and union. I called attention to the fact that the larger eastern institutions of the United States which have been most influential in the development of the nation have the same system. The fundamental purpose of such a group of buildings is to make a center where the men shall meet in large numbers for close mutual intercourse, and thus gain the advantage of social attrition with hundreds of their fellows. In the making of men it seems to me that halls of residence, commons, and union are as important as laboratories. From the outset, our nearest and strongest competitor, has had halls of residence, and recently this university has constructed a magnificent commons, patterned on the commons of Christ College, Oxford, and a superb union for the men. To provide adequate halls of residence, commons, and a union for the men will cost at least a half million dollars.

So large and so imperative are the other needs of the University that I do not feel certain that it will be possible to ask the legislature to provide funds to construct at once a women's building, and to provide halls of residence, a commons, and union for the men, but I feel that before long funds for these purposes must be obtained from some source if the University is to do its full work for the State.

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CONCLUSION.

From the statement which has been made, it is plain that during recent years the University has grown more rapidly than its support.

It is also plain when its income is compared for these years with the rapidly increasing incomes of adjacent institutions that we are relatively losing ground. In Michigan, the State the condition of which and the development of its University work are most nearly comparable with our own, the institutions which do the work of the University of Wisconsin, have an income for the year 1903–04 of $421,225 more than our University. The University of California, a younger institution, but a state university which next to Michigan, is most nearly comparable, had an income for the year 1903–04 of $156,168 more than Wisconsin. The University of Illinois, an institution which until a few years ago was comparatively small, and which many of us did not think as of equal importance with our own University, has forged ahead and its income for the year 1903–04 is $185,237 more than that of Wisconsin, and for the current year Illinois is confidently expecting that the State grant will be increased by at least one hundred thousand dollars per annum. In the much younger State of Nebraska, the University receives as income a one mill tax for its support. This amount, with the income from the sale of its land grants, for the present year, will be considerably larger than the annual income of the University of Wisconsin from the same sources.

A number of other western states which, while not giving a larger income to their universities than Wisconsin, give a much larger income in proportion to their wealth. For instance, Colorado and North Dakota have a one mill tax for the support of the State educational institutions of college rank, which are to do the work for their State that our University does for Wisconsin.

The legislature of the State of Iowa in the year 1902 gave

to the University and to the Agricultural College, which together do the work for that State done by our University, two-fifths of a mill tax for five years for building purposes alone. With the large sum which this tax gives, more than a quarter of million dollars per annum, these institutions are enabled to lay out a building campaign to extend over five years, and thus to adequately house the University. Moreover, this tax was a doubling of a fifth mill tax for the two previous years . The situation in Iowa is in strong contrast with that which has prevailed at Wisconsin for some years. In 1891, during President Chamberlin's administration, when the institution was much smaller, a law was passed under the terms of which a tenth of a mill tax for six years was provided for buildings alone, but in recent years we have been obliged to live from hand to mouth in our constructional work, wholly unable to formulate any general plans for adequate housing of the University. The importance and value of establishing a policy to extend through a number of years cannot be over-estimated. If the University can know the amount of money which will be available for constructional purposes for some time to come, it can adopt plans for a harmonious group of buildings, properly arranged with reference to one another and to the older buildings, and with reference to the central heating plant. The buildings most imperatively needed can be first constructed, and other buildings taken up in order within a reasonable time. The departments now pressing for buildings immediately will cheerfully suffer great inconvenience and lack of facilities for two or three years, if they can know that at the end of that period their reasonable wants will be satisfied.

I appeal to you, the Regents, to secure such legislation as will enable the University to adopt a wise building campaign extending over a number of years. There is no question that such legislation will be a source of great saving to the State. If we are obliged to ask for a certain amount of money to build a specific building, no plans can be made beyond this. If, however, legislation can be secured which will give us a fund

upon which we can rely for constructional purposes for some years, it will be possible to provide the buildings, which, as shown by my report and those of the Deans, are imperatively demanded.

I appeal for legislation which will give a sufficient increase in income to provide instruction equal to that furnished by any institution in the United States, for the well-nigh four thousand students who, during the two years to come, will ask the University to fit them for their life work.

I appeal also for grants to carry on and to increase the amount for research in the Colleges of Letters and Science, of Agriculture, and of Engineering, the results of which have been shown to be so important to the material wealth and spiritual growth of the State.

In short, I appeal for legislation which will make possible the adoption of a broad and wise policy for the years to come, adequate to the needs of the University. Only by such legislation is it possible to give to the State the greatest returns for the money it devotes to its University.

In conclusion I must urge upon you the seriousness of the problem before you, and the responsibility which rests upon you to bring before the State the most pressing needs of the University which have been set forth in this report in order that the legislature may fully appreciate the situation. All the needs which have been mentioned should be satisfied at the earliest possible moment. I believe if the State fully appreciates the very great and pressing necessities of the University it will not fail to put this institution, in which it takes such pride, in a position to do its full work, for the experience of the past quarter of a century has shown that all the money invested in the University is returned manyfold to the State in service. This was the fact which led us to have inscribed upon our Jubilee medal the words: "The University of Wisconsin commemorates fifty years of service to the commonwealth."

Very respectfully,

CHARLES R. VANHISE,

President.

December 1, 1904.

Report of E. A. Birge,

Dean of the College of Letters and Science.

President CHARLES R. VAN HISE,
University of Wisconsin,

SIR:—I submit herewith my biennial report as Dean of the College of Letters and Science.

I. CHANGES IN THE FACULTY.

The important changes in the faculty during the past two years have not been numerous outside of the alterations due to the appointment and resignation of instructors and assistants and the additions made to the permanent faculty by the promotion of those who have been already for some time in the service of the University.

One death has occurred, that of Dr. Hamilton G. Timberlake, Assistant Professor of Botany, who died suddenly July 19, 1903. Professor Timberlake came to the University as instructor in 1899; he had just been advanced to the position of Assistant Professor and had been appointed Research Assistant in the Carnegie Institution, and had been granted leave of absence that he might carry on his studies for a year. His death cut short a career of great achievement and even greater promise.

John C. Monaghan, who had been Professor of the Theory and Practice of Domestic and Foreign Commerce since 1900, was granted leave of absence for a year in 1902, in order to accept a position in the newly created Department of Commerce, and the following year resigned his professorship in order to remain permanently connected with that department.

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John W. Stearns, Professor of Philosophy and Pedagogy and Director of the School of Education, resigned January 1, 1904. Professor Stearns joined the University faculty in 1883 as Professor of Pedagogy. In 1887 his title was changed to that of Professor of Philosophy and Pedagogy, and in 1897 he was made Director of the School of Education. Professor Stearns had thus been for twenty years in charge of the department of education in the University and had also been the leader in the department of philosophy since the resignation of President Bascom. He resigned in order to withdraw from teaching. No words are needed here to mark the value of his long service to the University and to the State.

In addition to new appointments in the faculty, caused by promotion, the following permanent appointments have been made:

D. Earle Burchell, A. B., of the State Agricultural College of Utah, was appointed Assistant Professor of Business Administration in 1903. He was granted a year's leave of absence and began his duties with the college year 1904–05.

Two appointments have been made in connection with additional grants of money by the legislature of 1903:

Caroline L. Hunt, A. B., was appointed Professor of Home Economics in 1903, beginning her work with the second semester of 1903–04.

Charles R. Bardeen, M. D., Associate Professor of Anatomy at Johns Hopkins Medical School, was appointed Professor of Anatomy in 1904.

John R. Commons, A. M., of New York, was appointed Professor of Political Economy in 1904. This appointment was made in consequence of the gift of $30,000 made to the Department of Political Economy for the purpose of investigating the history of the labor movement in the United States. Reference to this gift has already been made in the President's report.

Report of Dean Birge.

II. NUMBER OF STUDENTS.

The number of students registered in the College of Letters and Science is as follows:

	1902–03	1903–04
Graduates	110	105
Undergraduates	1122	1207

At the present time, November 1, 1904, there are registered in this college 103 graduate and 1348 undergraduate students. While the number of graduates remained substantially the same during the two years covered by this report, 141 undergraduate students were added to the college. The increase in number of students during the past ten years has been fairly steady, and during that period the number of undergraduates has nearly doubled; the numbers being 622 in 1893–94 and 1207 in 1903–04. The average increase has, therefore, been slightly under 60 students per year during the ten year period, but it has been more rapid of late. The number increased by 80 in 1903–04 and judging by the autumn registration a larger number will be added in 1904–05. The number registered, shown by the directory issued in the fall of 1903, was 1200, and that of 1904, 1348, an increase of nearly 150. The prospect is, therefore, that the college will grow even more rapidly in the future than has been the case in the past decade.

The number of students in the College of Letters and Science by no means measures the amount of instruction given by the faculty of that college. A large share of the teaching in the College of Agriculture and the College of Engineering is given by the faculty of the College of Letters and Science. The number of students in the Long Course in Agriculture has not been great and their presence in the classes of the College of Letters and Science has involved comparatively little labor. They are, however, increasing, as the present freshman class in Agriculture numbers 24; quite enough to constitute a divi-

sion in each study. All of their instruction during freshman and sophomore years is given by the College of Letters and Science. The students of the College of Engineering have increased in number with great rapidity, as is shown in the report of Dean Turneaure, rising from 513 in 1901–02 to 585 in the following year, to 744 in 1903–04, while the registration to November 1st as shown by the directory is 808. More than three-fourths of the work of the freshman engineers and about five-eighths of that of the sophomores is under the care of teachers in the College of Letters and Science. This instruction includes all of the courses in English, foreign languages, mathematics, physics, chemistry, mineralogy, and geology. Thus the need of additional instruction which Dean Turneaure reports from his college is felt in an equal degree by the College of Letters and Science, with this difference—that, as the instruction given by the College of Letters and Science lies chiefly in the freshman and sophomore years, the increase of Engineering students makes itself felt in the College of Letters and Science before it seriously affects the College of Engineering. The two lower classes in the latter college increased 136 in number during the biennial period, and, including the agricultural students, a total addition of more than 300 students was made during the two years in the classes of the college. If the present semester is included and compared with 1901–02, the increase amounts to more than 500 students for whom additional instruction has had to be provided.

The numbers in the Summer Session remain almost constant. The attendance in 1901 was 322; in 1902, 350; in 1903, 318; and in 1904, 304.

III. CHANGES OF EDUCATIONAL POLICY.

The most important event of the biennial term has been the adoption by faculty and regents of a new and uniform course of study leading to the degree of bachelor of arts. This change marks the close of a period of evolution, which began

with the reorganization of the University in 1866. At that time the course of study in what is now the College of Letters and Science corresponded to the old-fashioned classical course. New studies were added to the University curriculum as the institution enlarged, and these were organized into separate courses, each with its own degree. The General Science Course was first established in 1866; then followed the Modern Classical Course in 1876; and, after a considerable interval, the English (1887) and Civic Historical Courses (1893). The Philosophy Course for normal graduates was established in 1897, and the School of Commerce in 1901. The degree of bachelor of arts was confined to the graduates of the Ancient Classical Course, the degree of bachelor of science being given to graduates of the General Science Course, and that of bachelor of letters to those who completed the Modern Classical, English, and Civic Historical Courses. The degree of bachelor of philosophy in pedagogy was given to graduates of the Philosophy Course. Under the new plan, which went into effect with the beginning of the year 1903–04, all of these courses, except the Philosophy Course, are merged into one general course leading to the degree of bachelor of arts. In this course about one-half of the 120 units* necessary for graduation is required, and the remainder elective, but the requirements are in all cases, except English, so made that while a general line of study is marked out, the student has a considerable range of choice within that line. In the freshman and sophomore years there are required courses in English, two foreign languages, and two of the three subjects—mathematics, science, or history. The amount of study required in these departments varies from 34 units, as a minimum, to 46 units, as a maximum, depending on the choice of subject, and also on the amount of previous preparation in foreign languages on the part of the student. In the junior and senior years a major study is required, which must lie in one department selected by the stu-

*By a unit is meant work five times per week for one semester.

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dent; in which at least 20 units must be taken, including a thesis; and in which not more than 40 units may be elected. The work of the freshman year is confined to subjects selected from the required studies. It is expected that the remaining required studies will be finished in sophomore year and the choice of subjects in junior and senior years is restricted only by the selection of a major subject and the preparation of a thesis. By this plan, the University hopes to allow the student a wide freedom of choice in selecting his studies, and also measurably to avoid the evils which result both from over specialization and from too great scattering of studies. The requirement of studies during the earlier years in several departments prevents a premature specialization and concentration of the student's efforts into one field, while, by requiring a major subject and a thesis during the junior and senior years, the University prevents the student from continuing the process of "sampling" throughout his entire course of study. The plan has been put in operation so recently that as yet no comparison is possible between its effects and those of the system which it replaced. The Philosophy Course is continued with the same degree as before.

In connection with these changes in the courses, all of the schools which were closely associated with the College of Letters and Science have been abolished. These were the School of Economics and Political Science, the School of History, the School of Education, the School of Commerce, and the School of Pharmacy. The School of Music, whose relations with the College of Letters and Science are little more than formal, was continued. The work of the Schools of Commerce and Pharmacy was continued in courses of the same name. The degree of bachelor of arts is given to the graduates in the Commerce Course, while the degree of bachelor of science is retained for those who complete the Pharmacy Course. The work of the Schools of Economics, History, and Education, which was never distinctly separated from that of the College of Letters

and Science, has been merged in the general course leading to the degree of bachelor of arts.

The legislature of 1903 made provision for the establishment and permanent support of a course in home economics, and Miss Caroline L. Hunt was appointed as Professor of Home Economics in 1903. She entered on her duties with the second semester of 1903–04, but at much had to be done in the way of preliminary organization and the fitting up of suitable quarters for the department, its work hardly began until the opening of the current year, and, therefore, is outside of the limits of this report. The same statement may be made of the Department of Anatomy, as the result of a grant from the legislature of 1903. Professor Bardeen began his work here with the opening of the current college year.

IV. NEEDS OF THE COLLEGE.

First in the needs of the College of Letters and Science I should place the demand for increased instruction. I have already referred to the growth in the number of the students, which causes each year an increase in the amount of teaching. The increase in the income of the college has not kept pace with this growth, and, as a result, the sections into which the classes are divided, especially during the freshman year, have tended to increase in size. This has been true in spite of the fact that they have always been much too large. The number of students in many sections of elementary subjects, such as foreign languages, mathematics, and English, has ordinarily exceeded 30, and in many cases has exceeded 35, and has even reached 40, or more. It is obvious that with sections of this size it is impossible to give to each student that personal attention which is especially necessary for students during their first year of residence. The sections in such classes and the quiz sections which follow the lectures in history and science ought not to contain more than 15–20 students. We should aim to reduce them to the smaller number and should regard 20 as a maxi-

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mum. At present it seems to me that the teaching of the elementary classes is the weakest part of our course of study, and that this weakness depends to a very considerable degree on the large size of the class sections. No single change would tend more to increase the vigor of the teaching in the College of Letters and Science than a large increase in the secondary faculty, such as would permit the division of the freshman class into sections not more than half the size of those now existing.

The question of the salaries of the instructional force is also one which demands prompt consideration. During the past half dozen years the cost of living has increased from 15% to 20%. Not only has there been no commensurate increase in the salaries of the instructional force, but there has been actually no general increase of salaries at all. There has thus been an actual diminution of salaries in respect to their purchasing power and the salaries of the professors, and all the other grades of the instructional force, should be gradually increased so as to compensate for this reduction.

The experience of the University is showing in several ways this necessity for larger salaries. When a vacancy occurs in a professorship it is usually impossible to fill the place at the same salary that the former occupant was receiving. It is increasingly difficult to secure for our new professorships men of the same grade as those now constituting our faculty without paying a larger salary than that regularly given by the University to its professors. The same thing appears in regard to instructors. The minimum salary of our instructors has remained at $800 for many years. Ten years ago, and even more recently, it was easy to fill these positions at this salary. At present the departments find it difficult to secure instructors of the grade needed for the sum at their disposal.

Some addition to the permanent faculty must be made in the near future. The amount of executive work placed in my hands is so great that for some years past it has been impossible for me to give proper attention to the department of zoology,

and it is evident that the faculty of that department must be increased. The position left vacant by the resignation of Professor Stearns must be filled, and, as it is rare at the present time to find a man who is capable to doing professor's work in the two subjects of pedagogy and philosophy, it will probably be necessary to make appointments in both of those important departments. An appointment must be made in the department of physiology, following the development of that line of teaching begun by the appointment of Dr. Bardeen as professor of anatomy. It will be necessary also to increase the staff of professors in the department of history.

During the past four years the average annual increase to the budget of the College of Letters and Science has been about $20,000. Even with this addition, the efficiency of its teaching has certainly not advanced, even if it has not declined in comparison to its condition in years past. If the efficiency of the college is to be maintained and if even a fair proportion of the improvements needed are made, a much larger addition to its income is necessary than has obtained during the four years just past. A large addition to the permanent income of the college is its first and greatest need.

The increase in number of students has also created the necessity for increased space. At present all of the departments in languages, history, literature, etc., are greatly crowded for room. Some of the classes in German are held in the Engineering Building, occupying space which that college greatly needs. The completion of the Chemical Laboratory, which will set free a part of North Hall, will by no means afford adequate relief to the situation as it exists at present. It is obvious, of course, that unless more recitation rooms are provided, it will be impossible to reduce the size of the sections of the freshman and sophomore classes. I should place first, therefore, among the needs of the College of Letters and Science for buildings the erection of the north wing of University Hall. This wing will correspond in size with that already built on the

south end of the Hall, and its completion will furnish these departments of the College of Letters and Science with sufficient space for several years to come, unless the University grows at a much more rapid rate than can be at present anticipated.

The departments occupying Science Hall have also increased in size to such an extent that the building is greatly overcrowded. The recent addition of the rooms in the attic for the use of the department of biology relieved for the time the congested condition of the rooms assigned to that department, but the department of physiology, which must now be established, can hardly find a place in the present quarters. The department of geology needs much more space for laboratories. The rooms of the department of physics are especially over-crowded and to a degree which makes some relief imperative. Five years ago the number of students taking the course in physics was 260, and the number is almost exactly twice as great during the present year. In geology the students have increased from 168 in the autumn of 1902 to 323 in 1904, or about doubled in two years. As a result of this growth, lectures have to be repeated to several different sections of the same class and the laboratories are greatly congested. It is obvious that a very large increase of floor space is necessary for the departments of physics and of geology, which are in almost as bad condition as is chemistry in its old quarters. I have very carefully considered the possible methods of relieving this congestion of Science Hall. Three possibilities present themselves—(1), to build a Physical Laboratory, corresponding in a general way to the Chemical Laboratory now under erection, and thus make room for the remaining departments in Science Hall, (2), to erect a Geological Building, and (3), to build a Biological Laboratory, and thus allow physics and geology to remain in Science Hall and occupy more space there. The last plan seems better for the departments concerned. The whole lower portion of Science Hall has been constructed with reference to physics and has been provided with costly piers, wiring, etc.,

for the special use of the department. The general solidity of the building, with its fire-proof construction, meets the necessity of physics, while a similarly solid construction, though desirable, is not equally necessary for the department of biology. Ultimately biology ought to be located where allied departments, such as anatomy and physiology, can be placed in adjacent buildings. I, therefore, recommend that the University ask the legislature to provide funds for the erection of a Biological Laboratory, which will contain the departments of botany and zoology, and which will leave Science Hall to the departments of physics, geology, and anatomy. If this change can be made, the department of geology will occupy the upper parts of Science Hall and physics can have the second floor, now used by geology, with the exception of the museum. It will be possible in the future, if it is found necessary, to remove anatomy and, finally, to give the building to the department of physics by the removal of geology. It is plain, however, that prompt relief must be found for the departments now housed in Science Hall, by the removal of one of them.

Summing up the wants of the College of Letters and Science, a large increase in income is the first and imperative need. On this depends the efficiency of the college as an institution for teaching and investigation. Next comes the need for additional recitation and lecture rooms for the departments of the humanities, to be met by the building of the north wing of University Hall. The need for increased space for the science departments, to be met by the erection of a Biological Laboratory, is almost equally pressing and is placed last only because the sciences have recently received aid in the grant for a Chemical Laboratory.

Respectfully submitted,

E. A. BIRGE,
Dean.

November 15, 1904.

University of Wisconsin.

Report of W. A. Henry,

Dean of the College of Agriculture.

CHARLES R. VAN HISE, President,
University of Wisconsin.

DEAR SIR:—In submitting to you a report of the condition of the College of Agriculture and Experiment Station for the biennial period closing June 30, 1904, I have not held closely to the limitations of the specific period for the reason that this is the first report of its kind to appear in the biennial publication of the Regents; this true, it seems entirely proper to go further back where necessary to record facts and bring data together in such form as to present more completely the growth and present status of this branch of the University. If what is presented is of greater length than you had anticipated allow me to remind you that agriculture is the greatest industry in this commonwealth, and the foundation of its prosperity. Let me further call to your attention the fact that agricultural research and education are now forging ahead by leaps and bounds, and there is nothing small or insignificant in the subjects I am to discuss. Wisconsin has 175,000 farmers, and the College which even in a small measure serves such a constituency must have body, breadth, and character, and any account of what it is doing, even though of the briefest nature possible, must occupy considerable space.

In what I say I shall not always distinguish sharply between the two rather well-defined divisions of research and instruction, but shall let the story run on somewhat as it will, be-

lieving that you and the Regents and readers generally will prefer to have facts presented in the form in which they naturally arrange themselves.

CHANGES IN COLLEGE AND STATION STAFF.

It is with extreme regret that I record the death of Mr. F. J. Wells, Assistant Professor of Agricultural Physics, who passed away after a brief illness, March 1, 1904. Mr. Wells was a conscientious, faithful teacher, and his going was a loss to the cause of industrial education.

During the biennial period, our College has lost, through withdrawal, Mr. Alfred Vivian of the Chemical Department, who left to assume a higher similar position in the Ohio State University. Mr. T. F. McConnell, Instructor in Animal Husbandry, withdrew to accept an important position with the Arizona Experiment Station. Professor W. L. Carlyle resigned the chair of Professor of Animal Husbandry to accept a like position in the Colorado Agricultural College. Mr. U. S. Baer resigned to become Assistant Dairy and Food Commissioner of this State. Mr. W. B. Richards left to become Assistant Professor of Animal Husbandry in the North Dakota College of Agriculture. Mr. Frederic Cranefield and Mr. H. B. Ramsey resigned from the Horticultural Department, the former to become Secretary of the State Horticultural Society. Mr. J. H. Godfrey, Instructor in Dairying, left us to take a position with a large dairy supply house. It is a significant fact that, with one exception, all of those who resigned from this college, accepted positions along similar lines of work at advanced compensation.

The following appointments have been made during the past two years:

Mr. George C. Humphrey, a graduate of the Michigan Agricultural College, was appointed Assistant Professor of Animal Husbandry, June, 1903.

Mr. G. N. Knapp, a graduate of this institution, was ap-

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pointed Assistant Professor of Agricultural Engineering, October, 1903, beginning service March 1, 1904.

Doctor A. S. Alexander, a graduate of Glasgow University, Scotland, was appointed Instructor in Veterinary Science, January, 1903, and in April, 1904, was made Professor of Veterinary Science.

Mr. Charles W. Stoddard, a graduate of Columbia College, was appointed Instructor in Agricultural Physics, April 1, 1904.

Mr. W. J. Carson, a graduate of the Ontario College of Agriculture, Canada, was appointed Instructor in Dairying, April 1, 1904.

Mr. Walter S. Brown, a graduate of Alfred University and Cornell University, New York, was appointed Instructor in Horticulture, June, 1904.

Mr. J. G. Fuller, a graduate of this institution, was appointed Assistant in Animal Husbandry, September, 1904.

Mrs. S. M. Briggs, a graduate of the University, was appointed Librarian in charge of the Agricultural College Library, beginning service August, 1903.

ATTENDANCE OF AGRICULTURAL STUDENTS.

Registration of Graduate and Long Course students for the past four years, and in other courses for the last year, was as follows:

Graduate and long course (four year) students.

	1901-2.	1902-3.	1903-4.	Fall of 1904
Pursuing graduate studies for higher degree	3	4	3	7
Under-graduates	18	32	57	83
Total	21	36	60	90

Attendance in other courses during college year, 1903-4.

Short course in agriculture (lasting two winter terms of fourteen weeks each)	310
Dairy course (lasting twelve weeks, with the entrance requirements of six months' previous experience in creamery or cheese factory)	167
Farmers' course (lasting two weeks and limited strictly to persons over twenty-five years of age, forty-two counties represented)	175

Report of Dean Henry.

THE LONG COURSE IN AGRICULTURE.

As the above shows, attendance in the Long Course has more than quadrupled in the last four years, with an increase of fifty per cent this year over the previous year. Seven college graduates are working for higher degrees, and two graduates and 89 undergraduates are in the regular four-year course. There is every evidence that attendance will continue to grow even more rapidly in the future than it has in the past. Young men are at last coming to know that instruction along agricultural lines offers as good opportunities for mental development and for a broad education as do other college courses. And like the graduates of other colleges the services of graduates in Agriculture are in demand.

In the earlier years of this College, and almost down to the present writing, the number of Long Course students was so small as to not seriously interfere with other lines of duty which kept us fully employed. Now all has changed, and we must have a corps of teachers ready to give instruction in all the branches of the course throughout the College year; it is with this in view that the requests for increased support are made.

THE SHORT COURSE IN AGRICULTURE.

More than any other College in America, ours has developed and pushed the work of Short Course instruction for those who could not for lack of time or means, or both, gain the advantages of regular University instruction. Attendance in the Short Course for the term of 1902–03 was 299, and for the term of 1903–04, 310, as previously reported. We have reduced the non-resident attendance by raising the fees for such students to $40.00 for the term of fourteen weeks, while for our own students the fees remain a merely nominal sum. The results of our continued efforts in building a strong and helpful Short Course have been to educate a large body of

ambitious, worthy young men and send them back to the farms of the State to be helpful in the several communities. The vast good accomplished through this effort can never be measured. The Experiment Association, referred to elsewhere, is a direct outgrowth of our Short Course effort. The call for these students to work on farms, act as herdsmen, foremen, and managers, and as aids in all kinds of practical agricultural, is so great that we can always find places for several times the number available.

THE DAIRY COURSE.

Wisconsin established the first Dairy School in America, with two pupils, in 1890. The following year the great advertisement wrought through the Babcock Milk Test brought the School seventy pupils. The term opening January, 1892, found us occupying Hiram-Smith Hall, the new Dairy Building, with its accommodations for one hundred pupils taxed to the limit. Instructional facilities have been increased through additions to the building until we now accommodate one hundred fifty pupils at one time. A summer dairy course was added two years ago. The attendance of dairy students for course given in 1902–03 was one hundred twenty-six, and for the last year covered by this report one hundred fifty-five for the regular winter course and twelve in the newly established summer course. In addition, Graduate and long Course students pursue dairy studies throughout the year there being sixteen such in the department at this time.

To restrict the attendance more largely to persons from our own State, we ask a fee of $50.00 for twelve weeks' instruction to non-residents. Despite this apparently prohibitory charge, we had during the past year, students from the Argentine Republic, Mexico, Japan, and Canada, as well as from nine other states of the Union. That the school is appreciated is shown by the fact that during the past twelve months Mr. Farrington has received a total of 261 calls from persons

seeking our students to operate creameries and cheese factories, milk supply plants, etc.

THE FARMERS' COURSE.

Having established what was really the first separate, distinct and successful Short Course in Agriculture, and the first Dairy School in America, it became apparent, as the years went by, that there was still needed a brief, practical course for busy farmers. The University, with its vast equipment, belongs to the whole people. The Agricultural College is particularly a department of service for our rural people. We had provided for the young men of the farm and for the operators of creameries and cheese factories, but so far we had left the mature, busy farmer without an opportunity of receiving instruction at the University, though provision had been made for his home instruction through the Farmers' Institute effort. Accordingly, there was arranged what we have chosen to call "The Farmers' Course," to which only persons twenty-five or more years of age are admitted. The theory is that men younger than that should take one of the other courses offered by the College. No fees are asked because these farmers are regarded as stockholders in their great University and all that pertains to it. Our first Farmers' Course opened February 5, 1904, lasting two weeks. One hundred seventy-five persons, from forty-two counties, registered for the course, none being under twenty-five years of age, and several over sixty years of age. All expressed themselves delighted with their stay, and we look for a larger attendance the coming winter. In establishing the Farmers' Course, the University has taken another forward step and is drawing still closer to the great middle class of citizens, who are, after all, its principal supporters, both in the taxes they pay and in the children they send to it for instruction.

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A SUMMER COURSE FOR TEACHERS.

With the addition of the Farmers' Course to the list we did not exhaust the instructional possibilities of this College for service to the people. Under present arrangements, instruction proceeds for nine months of the year, the summer period from the last of June to the last of September being without such effort. This is unfortunate, for the great material forces of the College for educational good should not be idle so long. The books of the library, the chemical and physical apparatus of the laboratories, the tools, machinery, and live stock at the farm, should all be in use during that period, as well as at other times. Summer is the best season in some particulars for agricultural instruction, for then all plants of the fields and the horticultural grounds are at their best.

But while our Agricultural College is doing no teaching in mid-summer, its force is, nevertheless, extremely busy. The average vacation period for the professors in this College is scarcely four weeks. While our students are away, research work is continued with greater vigor than is possible during their presence. Again, it is the time when the annual report of the Experiment Station is prepared for publication, and this, with other matters, keeps us busily engaged.

The need of a course of agricultural instruction for teachers seems imperative. Gradually educational efforts are becoming more rational and tending toward the useful. Moreover, we are learning that the greatest blessings of nature and her choicest treasures lie all about us, though often unseen and unrecognized by most of our educators who have been blind to these opportunities. Agriculture is nominally being taught in our rural schools. How can this be accomplished until someone has taught the teachers? Our first work indeed should be to instruct the teachers of the teachers, who are at present found in our normal schools and in the state institute corps. At present not one of these, so far as we are aware, has received instruc-

tion at this or any other agricultural college or school. It seems reasonable to hold that a teachers' course in agriculture would be popular and receive support from the start, and would grow mightily as the powers of this College and its equipment for such instruction increased with the passing years. In this effort we would give our public school teachers another opportunity to learn of their University and to personally receive its benefits. We should open a summer teachers' course in agriculture as soon as we have a reasonable addition to our present force of instructors.

OPPORTUNITIES FOR STUDENTS.

The call for specially trained men in agriculture is greater at the present time than ever before, not only from the United States Department of Agriculture and agricultural institutions of instruction and research, but the owners of large estates and proprietors of up-to-date farms, gardens, and orchards more and more look to us for scientific aids. The call for those who have pursued Short Course and Dairy Course instruction is great and steadily increasing as our people come to know what the College furnishes to such students in the way of training. It is a conservative statement that we have three calls for every man that we can actually supply. Of course there are always weak and helpless ones whom we cannot recommend, but no worthy student need wait any length of time after studying with us for a fair opportunity to show the value of his training. Each year over two thousand letters are written and scores of personal conferences are held with employers in this one line of effort.

THE EXPERIMENT ASSOCIATION.

In illustration of one line of good wrought through our Short Course effort, is the Experiment Association, formed exclusively of former students of the College of Agriculture, mostly those of the Short Course. One object of this Association, is to

secure new and improved varieties of seeds and plants through the Experiment Station and other sources, test them on the farms of its members and select and disseminate the best among the surrounding communities. This Association now numbers over five hundred paying members, and its work is already so great that it was recognized by the legislature of 1903 in an annual appropriation of $1,000 for its support. The legislature further directed the State Printer to print five thousand copies of the annual report of the Association, free of charge to its members. The Association is now conducting extensive experiments in growing alfalfa, the soy bean, improved varieties of corn, oats, etc. When the annual meeting of this body is held in the State Capitol each winter, the attendance is larger than that of any other agricultural organization in the State. Mr. R. A. Moore, Agronomist of the Station, is able, through this Association, to almost instantly and completely come in touch with the whole farming community of the State, and thereby matters of importance and usefulness at once find a vast audience.

BUILDINGS.

During the period covered by this report there has been completed at the farm a steam-heated, electric-lighted stock-judging building, 36x72 feet in area, with a folding partition arranged to divide the floor area into two separate class rooms, when desired. The building is sky-lighted so that ample light is provided and no shadows are cast on the animals under inspection and study by the student classes. This structure cost, complete, about $3,300, and has been in use since January, 1903.

The new central Agricultural Building, for the construction of which the legislature of 1901 appropriated $150,000, and for the equipment of which the legislature of 1903 appropriated $25,000, has been completed, and equipped as far as the avail-

able means provide, and has been occupied since November, 1903.

During the fall of 1903 the two original greenhouses of the Horticultural Department, each 22x76 feet in area, were completely rebuilt, and a third one, similar to the others, added. At the rear of these three structures was constructed a one story addition 22x66 feet in area, designed for laboratory purposes, with root and storage cellars beneath. These changes and additions, including steam heat, electric light, water supply, etc., cost about $7,000.

PUBLICATIONS.

For the year ending June 30, 1903, the Experiment Station issued the following publications:

No. of Bulletin.	Title.	Size of Edition.	Pages.	Total pages.
94	Curing of Cheddar Cheese, with Especial Reference to Cold-Curing	10,000	44	440,000
95	Some Observations of Sheep Breeding from the Experiment Station Flock Records	18,000	19	342,000
96	Investigations of Methods of Milking	20,000	79	1,580,000
97	Licenced Commercial Feeding Stuffs	20,000	48	960,000
98	On the Prevention of Oat Smut and Potato Scab	50,000	23	1,150,000
98 (2d ed.)	On the Prevention of Oat Smut aad Potato Scab	20,000	23	460,000
99	Concentrated Feeding stuffs and Fertilizers licensed for Sale in Wisconsin, 1903	14,000	10	140,000
100	Licensed Commercial Fertilizers and Feeding Stuffs, 1903	14,000	22	308,000
	Totals	166,000	245	5,580,000
	Annual report	15,000	302	4,530,000
	Total pages of reports and bulletins, 1902-3			9,910,000

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During the year ending June 30, 1904, the Experiment Station issued the following publications:

No. of Bulletin.	Title.	Size of Edition.	Pages.	Total pages.
101	Shrinkage of Cold-Cured Cheese During Ripening	7,000	30	210,000
102	Studies in Milk Production	18,000	88	1,584,000
103	Soiling Crops for Dairy Cows in Wisconsin	18,000	14	252,000
104	The Food Requirements of Pigs from Birth to maturity	18,000	51	918,000
105	The Improvement of Home Grounds	20,000	39	780,000
106	Licensed Commercial Feeding Stuffs, 1903	18,000	55	990,000
107	Official Tests of Dairy Cows, 1902-3	18,000	43	774,000
108	Trees and Shrubs for Shade and Ornament	25,000	60	1,500,000
109	Concentrated Feeding Stuffs and Fertilizers Licensed for Sale in Wisconsin, 1904	14,000	10	140,000
110	Spraying Fruit Trees	20,000	28	560,000
111	Oat Smut and its Prevention	50,000	10	500,000
112	Alfalfa in Wisconsin	20,000	10	200,000
113	Licensed Commercial Fertilizers and Feeding Stuffs, 1904	15,000	22	330,000
114	A Lesson in Bovine Tuberculosis	20,000	8	160,000
	Totals	281,000	468	8,898,000
	Twentieth annual report	15,000	414	6,210,000
	Total pages of reports and bulletins, 1903-4	296,000	882	15,108,000

The above shows that during the year just closed there were published by the Station fourteen bulletins and an annual report, containing in all 882 pages of printed matter, prepared by the workers of the Station and during the year 15,108,000 pages of printed matter in the form of an annual report and bulletins were distributed from the Station, nearly all going to the farmers of Wisconsin. Numerous newspaper bulletins on agricultural subjects were sent to all the papers of the State, as well as to the agricultural press generally. Similar work has been going on since the College was established. When the range of subjects treated in the reports and bulletins as well as their very thorough and complete dissemination among the farmers are taken into account, one gains some idea of the vast uplift that is taking place among our farming population in consequence of this persistent and continued effort.

Report of Dean Henry.

RELIEF FOR THE RESEARCH WORKERS.

Instruction to Graduate, Long, Short, Dairy, and Farmers' Course students, the heavy correspondence, the personal attention given to the thousands of visitors, the presence of our workers as expert stock judges at state and county fairs, lectures at teachers' meetings and Farmers' Institutes, and attendance on various agricultural gatherings in our own State and elsewhere have all combined to encroach upon the time and resources of our small force of investigators to such a degree that we are doing far less research work than formerly. This matter weighs heavily on my mind and discourages me more than you can know. I cannot ask my co-workers to do two things at once, or otherwise accomplish the impossible. Men adapted by nature and special training to the work of research are rare and difficult to secure; once found, we should hold them and offer every opportunity for the full occupation of their powers. The Wisconsin Agricultural College made its reputation through the splendid efforts of its pioneer investigators in the Experiment Station. This reputation is becoming dimmed and will surely fade away if present distractions and diversions continue. When in those early days we were doing our best research work, our students were almost a zero quantity, our correspondence a small factor, and scarcely one visitor came to our doors where there are now ten. To correct this encroachment upon our research work we should at once provide a corps of specially trained instructors, one in each of the following departments: Agricultural Chemistry, Agricultural Physics, Horticulture, Animal Husbandry, Dairying, and Bacteriology, and I urge most strongly that this provision be made at the earliest possible date.

INCREASED COMPENSATION TO INVESTIGATORS AND TEACHERS.

At this time only two of my associates receive full University professor's salary, all others working on partial compensation.

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As shown elsewhere we are losing men steadily to other similar institutions, largely from an enforced policy of granting insufficient compensation. We must increase the salaries of our present workers or they too will go to other institutions, leaving us in time with a force of second and third grade men.

Permit me to call your attention to the fact that opportunities for men of good training in agriculture are now so great that our colleges generally are constantly losing instructors to enter practical farming on their own account, or sell their services to proprietors of landed estates, to become farm managers, or otherwise find employment. Thus we have two classes of competitors, educational and business, and for this reason and because of the small number of men who have thus far chosen this line of study, the salaries of good agricultural teachers and investigators run higher than those paid in several other branches. To hold the best men in our present force, I ask a reasonable increase to our present allowance for salary purposes.

NEED OF CLERICAL HELP.

Work in the executive office grows at a surprising pace. More and more farmers and business men interested in agriculture apply to our College for counsel and advice. To merely present a catalogue of the subjects concerning which information is sought during a period of say a few months, would require more space than is permissible for this whole report. We receive tens of thousands of letters annually from our own State and from all over the world on every conceivable agricultural topic. In answering this ever increasing, never ending current of inquiry pouring in upon us every day throughout the year we have recourse to numerous devices to reduce the work. Thousands of mimeograph circulars are prepared, embodying replies to oft-repeated topics, and many are answered by sending bulletins of our own or other stations, or those of the United States Department of Agriculture. We annually distribute, directly from the Station, as shown elsewhere, over fifteen million pages in

bulletins and annual reports, in addition to the nineteen million pages which go out in the annual Farmers' Institute Bulletin. The Government permits us to frank all Station reports and bulletins. Despite this great concession and the other fact that many circulars go out as second-class matter, our postage bill for the past year was $803.00. This sum measures better than can words the volume of our correspondence, though it conveys no idea of its range and variety. While further organization and more time given to the subject would aid us in abridging this great strain on our energies and resources, we must look for ever-increasing calls for help and counsel from our farm constituents. The issuance of reports and bulletins and the other forms of information given out only tend to multiply the number of inquiries and the requests for further help. The whole matter grows by what it feeds on!

Nor would we have it different. The very fact that the farmers of Wisconsin in such numbers appeal so earnestly to their University for counsel and advice is the most convincing and satisfying evidence that could possibly be obtained of their faith and reliance on that institution. Isolated on their farms and sorely in need of help, it would be a bitter turn indeed were we to treat their inquiries other than with the utmost promptness, courtesy, and care.

To carry on this work we should at once have a substantial increase for additional clerks, for postage, supplies, etc.

ASSISTANT TO THE DEAN.

If the term of my service continues to the close of the next semester, I will have been with the University twenty-five years. During that period I have been absent from the University once for three weeks, once for four weeks, twice for the usual vacation period, and twice for two or three weeks more than the full vacation period. All other vacations, including the whole of the Christmas holidays, as well as Saturdays, I have devoted continuously and without stint to the service of the University.

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For eight years past, in addition to other duties, I have taught not less than two classes daily during the whole Christmas vacation, save only Christmas and New Year's days. This long-continued effort has told upon my energies and powers of endurance until the time is at hand, when, if I am to continue service, there must come some change and relief. This can best be afforded, it seems to me, by providing a well-trained assistant to help in the executive office, and by having others do some of the teaching. I do not ask to be relieved from hard work, and am willing to continue giving full service, but the accumulation of duties is now greater than I can carry. I therefore ask for an assistant to be provided by the close of the present college year.

I estimate that I have spent the equivalent of four full years out of the twenty-five of my service in showing to visitors our College and its work, in the effort to build up public sentiment in favor of agricultural education and research. Those who sometimes express surprise at the popularity of this branch of the University, should know that, as with all other human advancements, ours has come only through and by earnest, long-continued effort and not by accident.

THE DEPARTMENT OF ANIMAL HUSBANDRY.

The Animal Husbandry Department is in many particulars the most important in our College, whether considered from the side of instruction or of research. In 1900, according to the United States census, the farm animals of Wisconsin were valued at $93,521,430, and to these animals was fed that year $41,583,750 worth of produce raised by the farmers. Even the dairy industry, which is our pride, is as yet but partially developed. Next in development is the swine industry, which has proved extremely profitable. The production of horses, beef cattle, and sheep is far from what it should be, both in quality and quantity of the output.

Report of Dean Henry.

The improvement of our live stock, through breeding and their better nourishment and care, are matters of increased intelligence among our farmers, brought about through continuous patient educational effort from a great central source like our Agricultural College. Our Animal Husbandry Department has already accomplished a vast good through what it has taught in the class-room, on the institute platform, and in the bulletins of the Experiment Station. We need in this Department a corps of strong teachers and investigators, one at least for each of the leading lines of live stock. At present Dr. Alexander is employed only with Short Course and Dairy Course instruction. We should at once provide that he give instruction in Veterinary Science and on The Horse to junior and senior Long Course students. I ask provision for such instruction and, as elsewhere stated, the addition of one assistant to the teaching force.

ADDITIONS TO HERDS AND FLOCKS.

Our farmer constituents secured from the last legislature an appropriation of $10,000 for the better equipment of our Animal Husbandry Department with representative pure-bred animals. This movement originated with the stockmen of the State and was entirely separate from the askings of the Regents. Nothing could plainer show the respect with which our College is held and the interest taken therein by the people who support it. The sum asked was granted by the legislature without dissent, and the money received has nearly all been expended in the purchase of pure-bred representative specimens of horses, cattle, sheep, and swine, especially chosen for class instruction. Our live stock equipment now inventories nearly $20,000. When we reflect that thousands of visitors annually inspect our herds and flocks and that they are constantly used for instruction with classes which this year will number nearly one thousand students, the importance of having the best, and only the best, animals that can be provided is at once apparent. Students who constantly have before them typical animals become famil-

iar with the form and excellence of such, and carry these impressions, deeply wrought into their very natures, with them when they return to home and farm. Men so trained in youth will never be satisfied with any but high quality farm stock and their example will be followed by others living about them, and so great and lasting good will spread throughout the community. The University of Wisconsin should nurture the Animal Husbandry Department of this College, supplying its every real need, for the animal industry is the foundation of all real, permanent advancement among our agricultural people, upon whom in turn rests the prosperity of the commonwealth.

It is a pleasure to report that our exhibitions of sheep at the great International Show in Chicago have for several years past won encomiums on all sides. For the last two years the Wisconsin Agricultural College has exhibited at this Show the best fat sheep and the best five fat sheep in the whole exhibit, winning in competition with animals reared in Great Britain, in Canada, and in various states of the Union, the competition being of the most severe character. Many other prizes were also won with our sheep. Let us hope that the time is not far distant when our other lines of animals will be equally meritorious.

FEEDING INVESTIGATIONS IN PROGRESS.

An extensive feeding experiment, began some years since with dairy cows, is being continued, in an effort to determine the most economical production of milk and butter-fat for Wisconsin. Feeding experiments are also in progress with sheep and swine.

Of the earlier investigations along animal husbandry lines, the following are of importance:

The effects of the various nutrients, in abundant and meagre supply, on the body of the growing pig, as determined by the writer some years since, have exerted a most profound influence throughout the country on the proper nourishment of swine

and in the production of high quality pork. These experiments have been illustrated and quoted in agricultural papers on both continents, and so striking and important were some of them that they have been repeated in this and other countries, with confirmatory results.

Years ago our farmers were advised by various parties to cook feed for their swine, uncooked feed being, they were told, not in proper condition for digestion and assimilation. The writer undertook extensive experiments covering years of effort, which showed that in most cases there was no gain through cooking feed for swine, and in some cases absolute loss. The result is that our intelligent farmers now endeavor to furnish feed to their swine in palatable form, warmed in winter time, but not cooked. The saving in the cost of apparatus required for cooking, the time of operator, as well as fuel, has been enormous.

The forage rape plant is of old use in England and has long been grown in Canada. Strangely, its adoption in this country was extremely slow. Aside from casual references in Station reports, no efforts were made by the Stations to push the growth of this plant systematically in the United States until it was first taken up by the Wisconsin Experiment Station! Now all over the northern United States forage rape is extensively grown as a feed for sheep and swine, and thus there is added another to our relatively limited list of forage plants highly useful for farm animals.

THE BABCOCK MILK TEST.

Bulletin No. 24 of this Station, issued July, 1890, announced the invention of the Babcock Milk Test. An enormous interest was at once awakened in this matter throughout the dairy world and our Station issued 60,000 copies of bulletins and reports describing this test, while other stations, manufacturers of the test, and the agricultural press generally, issued descriptions and directions by hundreds of thousands. Everybody, it would seem, wished to learn how milk could be simply, accurately, and quickly analyzed for its fat content.

It can be proved without question that through this test there is saved in all milk which passes through the creamery separators not less than two-tenths of one per cent of the fat in such milk, over what would be the case were the Babcock test not used. This saving is accomplished in part through driving out poor separators, but largely through enabling the creamery operator to secure the closest possible skimming of the milk under his care. With the Babcock apparatus, he frequently tests the skim-milk flowing from the rapidly revolving bowl of the separator, and thereby knows exactly the amount of fat being lost in such milk. He then adjusts the separator as to speed, gauges the temperature and quantity of the inflowing milk, so as to cause practically all the fat to pass out and be saved as cream, instead of allowing an indefinite but large quantity to pass away with the skim-milk and thus be lost for butter-making purposes. The milk received at Wisconsin creameries contains on the average 4 per cent fat and 2-10 of 1 per cent of this fat which is certainly saved through the use of the test, means a net gain of 5 per cent of the total output made in our creameries. The total butter output of Wisconsin creameries is worth $16,000,000 annually, five per cent of which is $800,000.

The test has further made possible the more economic operation of the churn in converting the cream into butter by enabling the operator to determine the losses in the buttermilk and so to properly ripen the cream, and adjust the work of the churn.

The Babcock test is now extensively used in our cheese factories and by private dairymen, both in selecting good cows and disposing of poor ones, and in operating hand separators. Such gains are certainly worth a quarter of a million dollars per year to the people of our State. These facts being true, and they admit of all reasonable proof, we may conclude that the Babcock test is worth to the dairy interests of Wisconsin alone, at the present time, over one million dollars annually.

Another fact often forgotten in this connection is the inter-

relation of the Babcock test with the De Laval process for the continuous separation of fat from milk by centrifugal force. Dr. De Laval's invention made it possible for a hundred or more farmers to have their milk skimmed at one point by one machine operated at comparatively small cost. But this machine took no account of the wide variation in fat quality of different patrons' milk. This was left for the Babcock test. Until both inventions were facts and used together, associated or co-operative butter-making, though hoped for and desired, was not possible. The Babcock test was to associated dairying what the Morse electric telegraph was to railroad operation.

It was most appropriate, therefore, that the legislature of 1899 wisely and thoughtfully voted to Dr. Babcock a beautiful golden-bronze medal, which was formally presented to him at a special meeting held for the purpose during the legislative session of 1901. It is significant and pleasing to report that he has further received substantial recognition from the dairymen of Australia and New Zealand in separate testimonials.

THE WISCONSIN CURD TEST.

The Wisconsin Curd Test was devised or invented by Doctors Babcock and Russell and Instructor Decker, in 1896. By means of this test it can be quickly and accurately determined whether or not a sample of milk is clean, or foul with dirt and bacteria. This test is now extensively used by cheese makers in detecting bad milk. We have records showing where the factory operator was producing low grade cheese in spite of every endeavor on his part to make a high grade product. In such cases the losses frequently run from $10 to $30 per day for a single factory. Suspecting the milk of taint, the operator would apply the Wisconsin curd test to the different samples of the patrons' milk, and thereby locate the bad lots, and, rejecting them, a good quality of cheese was again produced. Sometimes the cause was found to be foul drinking water, or deleterious plants in the pasture fields. In one instance it originated from

an unburied decaying animal body in the pasture. The Wisconsin curd test is coming into use by city milk inspectors for detecting dirty foul milk. This test returns annually to our people the whole cost of their Agricultural College.

THE DISCOVERY OF GALACTASE IN MILK AND THE COLD-CURING OF CHEESE.

In the fourteenth annual report of this Station, Doctors Babcock and Russell announced the highly scientific discovery that milk contained an unorganized ferment or enzyme, which they named "galactase." Here is a happy illustration of the value of a purely scientific discovery to the farmer. We may naturally suppose that when our farmer constituents first read of galactase, they held the idea that a substance so minute in quantity might be of interest to scientists, yet could hardly be useful in a practical way, for how could there be anything in milk that was not already known to either scientists or to butter and cheese makers!

These investigators, however, continued their studies after the first discovery, and by long-continued, patient effort, found that the galactase closely resembled some of the digestive fluids of the alimentary canal, and this led to the thought that it might have to do with the so-called "ripening" of cheese. Still further continuing their studies, they were led to doubt the generally accepted theory of the time, that bacteria were the principal factor in the curing or ripening of cheese. Finding instead that the ripening was due largely at least to the galactase, they concluded it might be possible to cure cheese at a low temperature, and if such were the case, certain troubles incident to high-temperature curing might be avoided.

Practical cheese men were consulted as to the possibility of curing cheese at low temperatures; for example, just above the freezing point. The uniform answer was that this would never do; that they knew from experience that cheese cured at low temperatures had a bitter taste, was crumbly, and generally very

unsatisfactory, and entirely unmerchantable. The scientists put their theories to test, however, making cheese which were placed in refrigerators and held at temperatures ranging at from below freezing to somewhat above. It was found that those held at a few degrees above freezing cured into a mild, rich-flavored product, and, further, that there was less shrinkage in weight than under the old system, so that there was material and positive advantage in two particulars. And so it turned out that the practical man was wrong and the scientist right.

As a practical result of these originally extremely scientific investigations, there are now being built in our State cheese factories without curing rooms. In such factories the cheese makers take the cheese from the press and ship them at once to refrigerators located at central points, where they are stored and cured at low temperatures, under expert supervision. By this system the cheese maker is relieved of his most onerous and perplexing duty, and having no cheese to cure, can devote his whole time and energy to caring for the milk and turning it into a high quality article, ready for others to ripen.

Under this system of central curing places, there is a saving of several hundred dollars in the construction of each cheese factory, and because of less loss in weight and a better flavored cheese, the discovery of galactase in milk by the Wisconsin Experiment Station is worth millions of dollars to the dairy interests of our own State alone.

OFFICIAL TESTS OF DAIRY COWS.

The dairy interests of Wisconsin are suffering a vast loss annually because of the large number of cows of low productive capacity scattered everywhere on our farms. With a total output of dairy products amounting under present conditions to about $40,000,000 annually, the loss to the commonwealth through this source is enormous. Our dairymen must be educated and helped to breed and feed high grade cows only.

Years ago efforts toward improvement were made by a num-

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ber of breeders of pure-bred dairy stock, who determined the weight of the milk and butter their cows produced for definite periods, usually for one week, and reported the same in the agricultural papers. Unfortunately, individuals of questionable reputation took advantage of public credulity and reported spurious yields for their cows, thereby often gaining patronage for worthless animals. These false claims, ever increasing in numbers, soon brought the whole system of private tests for cows into disrepute. Realizing the gravity of the situation, our Station took up the matter vigorously and endeavored to put the testing of dairy cows for milk and fat production on a new plane of safety.

The plan was to send a Station representative to see each cow milked, weigh the milk himself, sample and analyze the same by the Babcock test, at the same time sending check samples to the Station for further analysis. This representative was to remain at the farm during the whole time of actual test and personally oversee the milking of each cow under test for one day, or generally for seven days, and sometimes for sixty consecutive days. The strictest rules are laid down to prevent accident or fraud. The registry associations of pure-bred dairy stock print these records in special registry books, which constitute valuable sources of information in regard to pedigrees and production of cows of high quality. Breeders seek to improve their herds by choosing these officially tested animals, or especially their progeny, the prices for such always ranking much higher than with untested animals. Thus it is seen that the Wisconsin Experiment Station stands back of the claims of productive excellence of the meritorious cows of the State, which thereby must stand unchallenged.

When at first the Station undertook this work, only an occasional call came, asking that we test a certain cow. Of late the work has grown so rapidly that last year Professor Woll, who has the matter in charge, supervised 248 seven-day tests, 21 thirty-day tests, 10 sixty-day tests, and 77 tests lasting one

day each month throughout the year. Thirteen different inspectors, nearly all graduates of our Short or Dairy Courses, were employed in the work, and often as many as eight tests, on as many different farms, were in progress at one time. A vast amount of labor is involved in receiving and recording these tests, in the correspondence with the owners of the cows, and with the officials of the herd registries who finally publish these records in book form, as well as with the numerous representatives of the Station who travel from farm to farm making the tests. Mr. Woll estimates that for a large part of the year not less than five hours daily of his time is expended in this one effort. The owners of the cows tested pay all the direct expenses of the tests, such as the *per diem* of the experts, their traveling expenses, board, etc. The sum paid in *per diem* wages by them for the year ending June 30, 1904, was $2,326.28. All the expenses incurred directly by the Station, such as general supervision, keeping records, directing inspectors etc., are not charged to the owners of the animals tested, nor do we believe they should be for the reason that the work is of great general interest to the dairymen of the State and therefore to the whole State, and is tending powerfully and quite effectively to the uplift and improvement of our dairy cattle. The results of these tests, reported from week to week in the agricultural press, and recorded in the various advanced registries of the Breed Associations are being spread throughout the world, and buyers seeking high quality cattle are coming to our State in ever-increasing numbers from distant points, leaving with us large sums of money for the cattle they take away. We already have numerous buyers from other states, and a goodly patronage from Japan, Mexico, and other foreign countries. Not infrequently from $3,000 to $5,000, and even more is left as the purchase price for a small number of officially tested animals or descendants of such.

If the Wisconsin Station in conjunction with the breeders of

pure-bred dairy stock can expand this work to its full possible measure, our State will soon be selling hundreds of thousands of dollars worth of high quality cattle annually to other states and countries, besides breeding what is needed for our own use.

We need a man who shall relieve Mr. Woll and give his whole time to this work, for thereby the number of animals tested will be greatly increased, and he can also spread information concerning the work among the people. If this work can be pushed as it should it will not be long before a large percentage of the bulls which head the dairy herds of the State will be descendants from officially tested cows of superior excellence, and the uplift thereby will be enormous.

We ask an annual allowance to meet the salary and expenses of a Station official, who shall give his whole time to supervising these tests, and for the expenses of his office, such as apparatus, chemicals, traveling expenses, etc., it being understood that all direct expenses of the tests, such as compensation to those actually conducting them, their traveling expenses, etc., will be met in the future, as in the past, by the owners of the cattle tested. A narrow view would force the owners to pay all expenses incurred by this Station; but a broad policy calls on us to support the general supervision of the work, as the whole State is thereby greatly benefited.

This work should be given over to the Animal Husbandry division and the expert devote his spare time, if he has any, to assisting in that department.

CONTROL OF COMMERCIAL FEEDING STUFFS.

In the manufacture of human food from the cereal grains and other articles, enormous quantities of by-products result which are usually employed in the nourishment of horses, cattle, etc., in cities and on the farms. Until recently unscrupulous persons have practiced fraud and deception almost without check by adulterating articles from such sources with

oat hulls, ground corn cobs, ground rice hulls, ground corn stalks, and other worthless and sometimes worse than worthless articles. The adulterating substances are often so mingled with genuine good feed materials as to completely deceive the purchaser, even on close inspection. Again, weed seeds, mill sweepings, low grade wheat screenings, etc., are used to adulterate higher grade feeds, such as bran, middlings, etc.

The legislature of 1901 directed the Station to inspect all the brands of high priced feeding stuffs sold in the State, for each of which there should be a license taken out annually. This work has been carried on by us since the law went into effect, with great advantage to the interests concerned. In one case it was found that a carload of bran shipped into this State for sale, contained, on the average, the enormous number of 28,000 weed seeds for each pound of bran in the whole carload. Most of these weed seeds were alive and ready to grow if they reached the soil. It is needless to say that this carload of bran was not sold in the State, but was returned to the State whence it came. This work of inspection likewise makes inroads on the time and energies of the Station force.

COMMERCIAL FERTILIZERS.

In many states of the Union vast sums of money are paid by the farmers for commercial fertilizers. The sale of these is as yet small in our State, but is steadily growing through the demands of gardeners and growers of special crops, in the production of which the use of such fertilizers is often extremely profitable.

Professor Whitson's studies of the soils of the State show that there is needed by them in some cases before they will yield profitable crops, certain fertilizing elements, which can best be supplied by these commercial fertilizers.

The value of commercial fertilizers depends on the percentage and form of nitrogen, phosphorus and potash they con-

tain. The buyer cannot determine their value by inspection, nor, unfortunately, can he always trust the claims of the vendor. All states east of the Mississippi river and several west thereof, have adopted laws controlling the license and sale of commercial fertilizers. This work was placed with our Station by the legislature in 1895, and is under the supervision of our chemical department which issues bulletins annually in relation thereto, Mr. Woll having direct charge. Though this line of effort takes but a fragment of our time, it reduces the power of instruction and research by so much. We do not ask to be relieved of this work, for it belongs to the Station, but this factor should be taken into account in reckoning what is accomplished.

DEVELOPING THE BEET SUGAR INDUSTRY.

Fifteen years ago, our Station undertook to determine whether this State was adapted to the production of sugar from the beet root, and to further ascertain which portions of the State were the most favorable thereto. In these studies as much as 4,500 pounds of sugar-beet seed has been distributed in small packages to the various counties of the State in a single year, and from samples of the beets thus grown and shipped back to the Station in the fall, thousands of analyses were made. Mr. Woll has made as many as 1,700 analyses of beets in a single season. These studies have proved, beyond question, that Wisconsin is one of the best sugar-beet states in the Union. The results of the analyses and other studies in this line have been published in the annual reports and bulletins of the Station, which have been distributed by tens of thousands among the farmers of the State, and sent to capitalists, manufacturers and others interested in the commercial side of the subject. The Director of the Station has through the State press, the Station bulletins, and especially in meetings called at many points in the State to discuss the matter,

urged beet culture and the manufacture of sugar from beets as an industry of great possibilities for our State. Our Station has expended at least $10,000 in this one effort.

It is a pleasure to report that there are at Menomonee Falls, Janesville and Chippewa Falls beet sugar factories in successful operation this season, and two factories just outside our borders, one at Menomonee, Michigan, and the other at Minneapolis, use beets grown by our farmers. A letter from Mr. R. G. Wagner, manager of two of the Wisconsin factories, states that the beet factories will this year pay Wisconsin farmers nearly one million dollars for their crop. He further writes: "I am convinced that the interest the farmers are taking in sugar-beet culture is mostly due to your untiring energy, and I feel satisfied that the farmers in this State for generations to come will thank you for it."

The opportunity for extending the industry in Wisconsin is most favorable at this writing; this is in strong contrast to the condition in certain other States where the farmers have notably failed to produce enough beets to keep the factories in profitable operation, so that a number have been forced to suspend operations. We have proceeded more cautiously in Wisconsin, and we believe our Station deserving of credit therefor.

Wisconsin expends over $6,000,000 annually for sugar. If present conditions continue, we will soon save this vast amount to our State, and we can further produce sugar for other States not so eminently adapted to beet culture, all of which can be accomplished without producing a pound less of corn, oats, butter, pork or other present agricultural products. This startling statement will become a verity because our farmers are being rightly educated in the proper procedure of beet culture, whereby it becomes an addition, instead of displacing or driving out other crops.

In other States great trouble early arose between the beet growers and factory operators in regard to the sugar analyses

of the beets, the farmers claiming that they were defrauded therein. Mr. Wagner, to whom credit is due for starting the first successful factory in Wisconsin, endeavored to avoid such troubles through co-operation with the Experiment Station. To this end we were asked to furnish and supervise the chemist to make all the analyses at his factory. Other factories on starting have adopted the same practice, and this season we are furnishing three chemists and supervising their work, the factories paying their expenses and salaries. This adds somewhat to our duties, though the good accomplished is vastly in excess of such loss to us.

SOIL AND DRAINAGE PROBLEMS.

The soils of our State have never been studied by the scientist from an agricultural standpoint. Scarcely a day passes, but calls of the most imperative nature come for help concerning Wisconsin soils. There are 1,000,000 acres of marsh lands in our State awaiting reclamation. Mere drainage will not suffice, for in many cases these soils lack certain elements of fertility, as our investigations have already shown. We are conducting studies on these soils in a limited way, not for lack of interest but for want of adequate funds.

The stiff, red clay soils of the region south of Lake Superior invite special study at this time, when they are beginning to be opened up for agricultural purposes. Naturally rich in some parts, they, nevertheless, need special treatment, which can only come through the scientific study of their characteristics, conditions, and needs. We are doing positively nothing with these soils.

We have undertaken a study of the peat soils of the State, some of which have been found to be quite unsatisfactory, efforts at reclamation bringing unexpectedly poor results. We are endeavoring to find the right method of draining and improving these soils. In an experiment on such soil, conducted the present year by Mr. Whitson, who has charge of

the soil work, it was found that the yield of potatoes was increased from 75 bushels, without treatment, to 200 bushels, per acre by proper treatment.

The sandy soil regions of the State demand attention from our Station, but so far we have been unable to do anything. We should ascertain the proper crops to add humus and nitrogen to such soils. Prof. Whitson holds it probable that the great peat beds which rest throughout the sandy regions, may be used to furnish nitrogen and humus to the adjacent sandy lands with great advantage, especially if certain other needed elements are first added to the peat.

In the central part of the State are areas of clay soil, with underlying hard pan, needing study. Some of these areas have been found to be very deficient in phosphorus.

Even in the older sections of the State there is imperative need of soil studies. Farmers complain that their oat crops lodge far worse than formerly with resultant small yields of light grain. We are as yet unable to do anything in these last two lines.

The State of Illinois has for several years past appropriated $25,000 annually to its Station for soil studies. Surely with a far greater variety of soil than has Illinois, we should at once have generous help to push this important work.

IMPROVED VARIETIES OF PLUMS AND APPLES.

Years ago our lamented Professor Goff began extensive efforts to improve the American wild plum, which is indigeneous to all parts of our State, and also to increase the quality and hardiness of the apple. In the case of the plum, the efforts continued by Mr. Sandsten have resulted in a number of seemingly highly useful, prolific, attractive new varieties. We have grown great numbers of seedling plum trees, allowing each to come to fruition and then saving only the best. In carrying out this plan, fully four thousand seedling trees, which have fruited at least once, and many for two or three years, have

been rooted up and destroyed, leaving only one or two trees in a hundred as possibly worthy of being perpetuated. Such a process of selection and elimination is an expensive one, but none other can be satisfactorily employed. As a result of these efforts we now have about a score of varieties of plums of great promise. When these have been tested a year or two more, we will be in position to supply horticulturists with trees from the best for practical uses.

In much the same manner we have developed four or five seemingly hardy varieties of apples, of extremely attractive appearace, of excellent flavor and fair keeping qualities. This work is also so well along that we will soon through grafts and buds be able to disseminate these valuable new varieties among the horticulturists and fruit growers of our State.

TOBACCO INVESTIGATION.

The last legislature appropriated $1,500 annually for two years for the improvement of the tobacco plant. During the first year experiments were conducted by the Horticultural Department in growing tobacco under cover, at Janesville and at Sauk City, and fertilizer experiments were conducted in Columbia and Rock counties. Efforts were also made to improve the quality of the tobacco leaf by saving seed from the most carefully selected plants. During the summer just closed, tobacco was grown under cover in Crawford county, where peculiarly favorable conditions were believed to prevail as determined by an examination of the soil and tobacco grown in the open. Important fertilizer experiments were continued in Columbia and Rock counties, and new locations for the same work were used in Vernon, Crawford, and Eau Claire counties. Excellent progress has been made. It is apparent that by intelligent selection of the growing specimens, the tobacco plant can be greatly improved and brought to a far higher standard of excellence than at present found on our tobacco farms. In carrying out these studies a large quantity of seed produced

from selected plants will be available for distribution the present winter. Our work has gone far enough to show that in a few short years we can increase the value of the tobacco leaf to the grower by from one to three cents per pound or from twelve to forty per cent. over what it now sells for. A report of progress will be issued during the coming winter. We ask that the appropriation be continued.

NURSERY INSPECTION.

One line of effort by the Horticultural Department is the inspection of all the nurseries of the state, as directed by chapter 180, laws of 1899. Under this law, an inspector is annually sent to each commercial nursery in the State to carefully examine all trees and plants to determine whether or not they are infested with dangerous insects or fungus diseases. The most dreaded insect at this time is the San Jose scale, a pest infesting a great variety of trees and plants. Last year our inspector found this scale in one nursery, where fortunately it was on but a few trees, which were destroyed. An examination during the past summer failed to reveal its presence anywhere within our borders. The work of nursery inspection adds to the duties of the Horticultural Department, without any compensation therefor.

POTATO INVESTIGATIONS.

The central portion of our State presents a combination of soil and climatic conditions particularly favorable to growing potatoes of unusual excellence. This, coupled with our proximity to great centers of consumption, warrants the statement that great as is this industry at the present time, it is still in its infancy. While our potato growers have learned much through practical experience, it is yet possible for our Station to render them most valuable aid; indeed, there are some lines of the industry which imperatively need our immediate attention.

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More and more as potatoes are grown over great areas, are they threatened by fungus and other diseases, some of which have already gained a foothold and are spreading their devastating effects. Realizing the importance of this work, our Horticultural Department this year purchased a power sprayer and hand sprayers, and has conducted an interesting test in the field of Mr. Soren Jenson of Waupaca county. A large signboard was placed on the roadside telling of the experiments in the adjacent field. Farmers were invited, through the local press and by postal cards, to be present on certain days and witness spraying trials. We should arrange to conduct spraying trials in several counties next season. We should also take up other potato investigations. For this purpose I ask an annual appropriation.

CRANBERRY INVESTIGATION.

The last legislature appropriated $2,500 annually for two years for the study and development of the cranberry industry in this State, Fortunately the Cranberry Growers' Association had already started a small station at Cranmoor on which they were conducting variety tests, and this formed the nucleus for efforts by us on a broader scale. A reservoir covering 1⅛ acres of ground has been built and is in excellent condition. Below this reservoir and watered by it is an area of some seven acres, which has been divided into beds and put in first-class condition for growing the cranberry plant, for flooding the beds with water from the reservoir, and for rapid drainage so that the water can be quickly accumulated to cover the plants and again be as quickly removed, enabling us to check both frost and insect ravages. Some important results from frost studies have already been attained. This work is being carried on in close co-operation with the Wisconsin Cranberry Growers' Association, an intelligent, progressive, and harmonious working body of citizens, united for a single purpose. A report of progress is in preparation and will be published the coming winter. We ask that the appropriation be continued.

Report of Dean Henry.

TUBERCULOSIS AMONG DAIRY CATTLE.

It is extremely unfortunate that even a small percentage of the dairy cattle of Wisconsin are afflicted with the dread scourge tuberculosis. The thought of drinking milk from cows so affected is revolting, and yet our civilization is such that we can scarcely exist without this most useful animal. The prevalence and dangers of this disease in our State was first made known to our people mainly through the efforts of our Bacteriological Department, and Dr. Russell has labored incessantly toward educating the people in regard thereto, and has also aided materially in repressing and eradicating the scourge. Such efforts in some other states have been extremely unsatisfactory in character. The State of Massachusetts, for example, spent over $600,000 a few years ago in buying up diseased cattle and destroying them, but the cost was so great that the attempt was abandoned through fear of wrecking the state treasury.

Our College has moved along the line of educating the public and gradually eliminating the disease rather than attempting immediate suppression, which cannot be done because of the expense. Already a vast good has been accomplished by our efforts. The Live Stock Sanitary Board was created in part through the results brought to the attention of the public by our Bacteriological Department. Our students are trained in regard to the prevalence of the disease, its dangers, and rational suppression. Several bulletins of fifteen to twenty thousand copies each have been issued, carrying general and specific information to our people and warning them of the danger threatening the dairy interests. Our Bacteriological Department has repaid to the State many times its cost in the one effort toward suppressing tuberculosis among cows.

OTHER AID.

A couple of years since one of the large pea canning factories of the State was incurring heavy losses through fermentation

ruining the canned product. Our Bacteriological Department was appealed to for assistance and soon located the trouble, which was easily remedied and a waste of many thousands of dollars was checked.

This fall a Swiss Cheese factory in Green county found its output practically ruined through deleterious fermentation arising in the cheese sometime after they were made. The maker was absolutely without knowledge as to the cause of the trouble, and consequently helpless in removing it. A few days of study by Dr. Russell and Assistant Hastings solved the mystery and suggested a satisfactory remedy. The losses incurred by this one factory before it called on us for help, were equal to more than half the annual expense of our Bacteriological Department.

The Department is now assisting one of the largest milk supply houses in the State in locating and removing troubles of a serious character. Thus we are constantly called on for assistance in matters along dairy and other lines.

Our Bacteriological Department has further become the source of supply for a large portion of the teachers and investigators in dairy bacteriology required by the agricultural colleges and experiment stations of the country. At the present time there are fifteen students receiving graduate and undergraduate instruction in this Department. In view of the fact that teaching is thus crowding upon us, thereby greatly lessening our powers and time for research work, it is most reasonable to ask that a special teacher be provided in this Department, with the understanding that any spare time he may have will be spent in research work.

OAT SMUT STUDIES.

The Department of Agronomy is constantly producing results which mark the wisdom of its creation.

Wisconsin farmers annually sow 2,500,000 acres to oats, the yield of which is from 90,000,000 to 100,000,000 bushels. A

careful survey of the State conducted by Mr. Moore five years ago, showed that 18% of the oat crop for that year was lost through the ravages of smut, which attacks the grains, destroying them completely at ripening time. Placing the oats at 25 cents per bushel, this meant a loss of $4,500,000 for that year.

Some years since a German investigator found that formaldehyde is destructive to fungus life. Professor Bolley of the North Dakota Station, experimenting with this chemical, treated seed oats therewith and found that under certain conditions it proved a preventive of the common oat smut. Immediately this Station took up the work, making thorough tests and helping determine the best methods of treatment. This study has taken Mr. Moore to nearly every county in the State during each oat harvest. In all we have prepared and sent out over 200,000 copies of reports and bulletins giving directions for treatment and announcing results, with the effect that all the most careful, intelligent farmers now treat their seed oats and have no smut in the crop.

Furthermore, the Experiment Association, composed of former students, has cooperated with Mr. Moore in making tests, disseminating information, etc., so that already our efforts have reduced the oat smut losses in the State by at least two million dollars annually and in a few years more they will almost disappear.

A NEW VARIETY OF OATS.

In 1898 this College received several new varieties of seed oats from the U. S. Department of Agriculture, Washington. One lot of five pounds was secured by a government expert in Russia. When all the varieties including this one, some forty or fifty in number, were tested, the one from Russia proved superior. Mr. Moore carefully saved all the seed from the first little crop and re-sowed it the following season, repeating the process for several years. To more extensively test its value he placed a quantity with growers at several widely separated

points in the State where it was grown in comparison with the usual varieties of the community. In nearly every instance the yield in such trials was highly satisfactory. In the spring of 1903 we were able to send at least one two-bushel sack of these oats to each county in the State, and again most tests showed marked superiority. As a result of the interest taken by the farmers and the wide distribution given the seed, at least one quarter of a million bushels of this variety of oats was sown by Wisconsin farmers in the spring of 1904, all of which originated from the five pounds of seed received in 1898. Mr. Moore estimates that at least four million bushels of Swedish oats, as we call this variety, was grown by our farmers the present season. Through the use of this oat our farmers are securing a yield of from two to ten bushels more of oats per acre than with the varieties previously used. As we grow about 2,500,000 acres of oats each year, it is apparent that the introduction of this one variety of improved seed is worth a vast sum to our State.

IMPROVEMENT OF CORN.

The State of Illinois appropriates $10,000 annually to its Experiment Station for scientific corn studies and results already attained have returned to the State a hundred fold the appropriation. The farmers of Illinois are enthusiastic over the good accomplished, and no other appropriation is more firmly intrenched with the people. There is greater need for seed corn improvement in Wisconsin than there is in Illinois. An examination shows that many of our farmers are growing varieties of low productive capacity, and in the northern part of our State there are localities where very little corn is being grown for lack of proper varieties. The possibilities and importance of improving the Wisconsin corn crop through breeding and selection are greater even than those of improving the oat crop. Mr. Moore has begun this important work both at the Station and in cooperation with the Agricultural Experiment Association referred to elsewhere.

The Agronomy Department is further testing certain plants, such as the soy bean, the cow pea, etc.

At the present time our students in corn judging are crowded into rooms not designed for that purpose, and with the increased numbers sure to come we do not know which way to turn. In view of these facts there should at once be constructed an agronomy building, which I have placed as one of the first in our list of requirements.

I may say in passing that the Iowa Agricultural College has a corps of several teachers and investigators in this one line of effort, and has corn-judging rooms for the accommodation of five hundred students working at one time.

PURCHASE OF LAND.

The last legislature provided funds for the purchase of sixty acres of land adjoining our second farm, known as the Hill Farm, lying two miles distant from our central College farm. We expended $9,000 for this tract, and the present fall it is being enclosed with a substantial wire fence. This tract has been turned over to Mr. Moore for his field work, crops having been grown for the purpose this season for the first time. This fall there has been set aside on the central farm for the Agronomy Department four acres of land specially adapted to the important work of plant breeding. This tract lies about 25 rods north of the horse barn. Here we hope soon to erect the much needed special building for this department referred to above.

AGRICULTURAL ENGINEERING.

The legislature of 1903 appropriated $15,000 for a farm engineering building, and $2,500 annually for the maintenance of such a department. Mr. G. N. Knapp, a graduate of our University, a practical farmer, and for some years in the partial employ of the U. S. Geological Survey, conducting investigations in artesian water supply, was secured for the position.

University of Wisconsin.

Mr. Knapp relieves Mr. Whitson, in charge of the Agricultural Physics Department, of a portion of his instruction and research work. The erection of the engineering building has been delayed for several reasons, the principal one being that we desire to thoroughly study our necessities and opportunities before drawing definite plans. Our purpose is to complete the plans during the present winter and hasten construction during the building season of 1905. Already Mr. Knapp's work has grown until his time and powers are taxed to the utmost. Not a week passes but farmers through letters or by personal visits, consult us with reference to the construction of farm buildings, especially barns, stables and silos. The farmer in his efforts toward improving his buildings, has little aid outside of that which the agricultural colleges can furnish. The city architect is useless in planning barns or other farm buildings for he knows nothing of their uses. It remains therefore for the Station to fill this imperative want and aid the farmer and stockman in constructing modern, up-to-date buildings, with the proper sanitary provisions, arranged for economy of administration and the lowest possible cost for construction.

This Station was the first to give our farmers a rational system of stable ventilation, known as the King System, and important studies are still necessary to aid the builder to properly construct this system. Observations by Mr. Knapp have shown that in fully one-half the cases the King system of ventilation, seemingly so simple of construction and so useful for stables when properly arranged and constructed, is so placed in the buildings and so constructed as to prove a more or less complete failure. Mr. Knapp is now continuing his examination of the ventilation system as placed in a number of barns, and devising remedies to cure the defects, these studies being preliminary to the issuance of a bulletin subject.

We ask for a sum sufficient for the proper maintenance of the new Farm Engineering building, which will be completed by the fall of 1905 at the latest.

TOOL HOUSE.

Our large equipment of tools should be stored in close proximity to the Farm Engineering building, in order to have them also serviceable for instruction and inspection. From our own experience and that of other stations having farm engineering departments, we are certain that manufacturers will place with us a large line of the best and most up-to-date farm machinery, practically without cost to us contingent only on proper housing and care. We have been forced to decline many offers of machinery in the past for the reason that we actually have no room for its storage. An inspection of the present storage provision for tools at the University farm will remove all doubts on this point. There is needed at once, a commodious tool house the construction of which should not be delayed beyond the coming year.

Let it be said in passing, that the Iowa Agricultural College has erected a farm engineering building, which, with equipment, represents an outlay of $70,000. The University of Illinois has a large department devoted to this single line of instruction and other Colleges are rapidly falling into line. The census of 1900 places the value of the farm machinery of this State at over $29,000,000.

NEED OF A POULTRY DEPARTMENT.

The poultry industry now brings to our State about nine million dollars annually. Wisconsin is peculiarly adapted to the development of this industry, and our College should at once take rank with others that are giving instruction in this important line. Besides being a business in which small capital may be employed, the industry is peculiarly suited to a class of people who cannot otherwise so well earn a livelihood or remain self-supporting. It is particularly appropriate that our University impart instruction and render aid to such persons when it can not be gained elsewhere.

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To advance to the full measure of its possibilities a commonwealth must have every member, be his powers little or great, working advantageously and earning to his full capacity of enlightened service. Not a week passes but persons visit us or write to us, asking if we give instruction on the care and management of poultry or can render them assistance along this line. Several other institutions in the country have poultry departments which are well patronized and highly appreciated. I am sure that were we to offer a strong practical course of poultry instruction, backed by proper equipment, we would at once have from 25 to 50 students. I earnestly urge that we procure from the next legislature the means necessary to carry out this project both as to building and equipment and able trained teachers.

A HORSE DEPARTMENT NEEDED.

Wisconsin can no longer produce grain at as low a cost as can sister states lying further to the west and northwest. This true, if we continue to dispose of the harvests of our fields as raw product, there is as sure to be retrogression and degradation in agriculture as there has been in states further east of Wisconsin that have continued in such error. According to census reports the State of New York—*the Empire State*—once the greatest agricultural commonwealth in the Union, suffered a shrinkage in the value of its agricultural property, personal and real, of more than $425,000,000 in the period of thirty years ending with 1900. This enormous shrinkage occurring in the midst of a country rapidly expanding in population, wealth, and seemingly all that goes to make a nation great, should cause us to seriously consider whether or not the same affliction may not beset us, especially if we are moving along the same lines. The New York farmers endeavored to produce hay, grain, and the coarse products of the farm generally for the markets, failing to realize until too late that their competitors further to the west were outclassing them.

Report of Dean Henry.

Wisconsin farmers should no longer market such products as grain, hay and straw in the open market, but become manufacturers of high grade agricultural articles therefrom such as cheese, butter, cream, eggs, fowls, pork, splendidly bred horses, etc., thus turning the grain, the hay, the grasses, etc., of our fields, through skillful management, made possible by high training and wise direction of effort, into articles that bring remunerative returns. Unless this plan be substantially followed, Wisconsin is surely about to enter a period of agricultural retrogression and we shall witness depreciating land values, with the thousand attendant evils, such as have been suffered by the farmers of New York and New England generally. Our Agricultural College must be the watchman, and leader as well, in moulding the minds of our rural people to comprehend, accept and utilize these great economic changes, constantly going on, for the condition of the farmer as to product and market, changes as surely and as unceasingly as do all other lines of creation and production.

The State of Wisconsin is peculiarly adapted to rearing high quality draft and carriage horses. The best place to breed such animals is upon the small snugly managed farm. Each farmer can breed a few choice animals, giving them the intelligent individual care such creatures demand. The rich, luxuriant grasses and clovers of our fertile fields, the abundant grains, especially oats, in the production of which our State is a leader, the enormous output of bran, rich in phosphates of lime for bone-building and nitrogen for muscle-building, produced at our very door, all combine to furnish the necessary nutriment both in quantity and quality for the highest development of such animals. With the facilities at hand and those we are hoping to provide, there awaits our University an opportunity for making Wisconsin the great breeding ground of the finest draft and carriage horses to be found in all America.

It is a startling fact conceded by those best posted that Wisconsin is to-day producing less good horses proportionally than

it was 25 years ago. This decadence is due to a number of causes which cannot be discussed in this brief communication. These can be removed by our University and the friends of the horse, through combination and educational effort. To this end, first of all there should be erected on the University grounds a great stock pavillion, or hippodrome, large enough for the exhibition of numbers of horses in action at one time, and having seating capacity for not less than 2,000 students and spectators. It should contain a large number of fire-proof stalls, with rooms for veterinary instruction, special lectures on farm animals, etc.

Each winter we ask breeders to loan to the University horses worth from $1,000 to $3,500 each, for instruction purposes. Not only are these animals sent to us without charge, but the number we can obtain seems unlimited. At present time we have only two or three stalls available for these valuable animals and these are on the second floor of our horse barn, a wood building, where if fire broke out, destruction of all the animals therein would be almost a certainty. There should be connected with the hippodrome a large number of fire-proof stalls, as before recited, on the ground level, shut off from the main building by iron doors, with all the safeguards against fire that money and ingenuity can provide.

In this building could be held great public sales of high quality pure-bred stock,—horses, cattle, sheep and swine. It would serve hundreds of breeders and thousands of buyers. Such sales would not only accommodate the stockmen of the State most efficiently, but also enable our students to familiarize themselves with the merits of the animals offered for sale. Already one cattle association uses our stock-judging room in the dairy barn for an annual sale, but it is too small for the purpose.

I ask an appropriation for such a building and its proper equipment together with a liberal annual allowance for the maintenance of this department, including expenses of instruct-

ors, clinics, and ample provision for annual gatherings of stockmen at horse and cattle sales to be held in such building.

A STOCK BARN NEEDED.

Our present quarters for catttle are filled to over-flowing. We have no place for housing beef cattle, bulls, or young stock. We need a large barn for these animals, to which should be attached a stock-judging pavillion, with accommodations for at least seven hundred students at one time. There is imperative and immediate need of this building. It is a certainty that we will have with us each winter hereafter from 500 to 600 mature farmers, most of whom will come principally for the Animal Husbandry instruction and demonstrations we give. Even with our attendance of 175 farmers last winter, we were cramped for room in which to exhibit and study live stock. The matter of properly instructing these farmers to a knowledge of better live stock makes the amount asked for seem insignificant, rather than large. We must have the stock judging pavillion at the earliest possible moment.

GOOD ROADS INSTRUCTION.

For many years past the Department of Agricultural Physics has given limited instruction to Short Course students in the proper construction and maintenance of country roads. Now that a Department of Agricultural Engineering has been established, we hope to offer more extended instruction in this line to this class of students. For the Long Course students, Mr. Knapp plans still more extended instruction, especially thorough preparation and drill being provided for those who elect farm engineering as their major subject. The importance of good roads to Wisconsin is conceded by all, and our College, through bulletins and otherwise, has already rendered material aid. What has been accomplished, however, is but an earnest of our desire and hopes in this line.

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FORESTRY.

For years it has been my ambition to have a Department of Forestry in the College of Agriculture, and when our new building was planned, we provided a commodious office and a large laboratory, which are now held in waiting. There are many lines of instruction provided for in the other Colleges of the University, and in this College as well, which bear directly upon instruction in forestry. With one or more teachers provided for forestry instruction proper, we would at once be in position to give a strong, well rounded course on a subject which is awakening more and more interest among the people.

Further, some way should be provided for combining the efforts of the University in forest instruction with those of the State Forestry Commission, to the end of economy and greater efficiency through such combination.

ADDITIONS TO EQUIPMENT, LIBRARY, ETC.

The sum of $25,000 allowed for equipment of the new Agricultural building by the last legislature, although carefully and economically expended, was insufficient. In our new building we provided two museum rooms, which are without cases at this time. We should immediately provide cases for the proper preservation of valuable objects and specimens now on hand, accumulated through long years, many of which are suffering deterioration for lack of suitable care.

No portion of the funds which the University receives for library purposes is turned over to the College of Agriculture, this Department having to provide for all books which it may specially need. A considerable sum of money should be available at once with which to secure reference books relating strictly to agriculture and now much needed by the several Departments of this College.

Again, there are several Departments in need of facilities and equipment for laboratories and for instruction purposes,

the rapidly increasing number of Long Course students making the asking imperative.

CONCLUSION.

In closing this report let me remind you that our Agricultural College does more than impart instruction and conduct research work at the University—it has become an institution for the intellectual and material advancement of the whole agricultural people of this commonwealth scattered on 175,000 farms. It has taken twenty-five years of service to gain the respect and confidence of its constituents, which condition has been attained only through the most earnest efforts of a small body of unselfish workers giving the best of their lives to the work. What has been accomplished, great though it may seem, is after all but an earnest of what will surely come if all work in the future with the great singleness of purpose and unselfishness that has characterized their efforts in the past.

Respectfully submitted,

W. A. HENRY,
Dean and Director.

November 16, 1904.

University of Wisconsin.

Report of F. E. Turneaure,

Dean of the College of Engineering.

President CHARLES R. VAN HISE,
University of Wisconsin.

SIR:—I have the honor to submit herewith my biennial report regarding the College of Mechanics and Engineering for the years 1902–1904, together with a statement of its needs for the immediate future:

ATTENDANCE.

Perhaps the most significant feature relating to the condition of the College in the past two years is the very large increase in attendance which has taken place. Previous to 1898 the growth of the College was comparatively slow, but since that date it has been extremely rapid. In the following table is given the attendance for each year from 1898–99 to 1903–04, and the estimated total attendance for the present year:

		Increase over preceding year.
1898–1899	242	
1899–1900	327	85
1900–1901	411	84
1901–1902	513	102
1902–1903	585	72
1903–1904	744	159
1904–1905	845 (to Nov. 1)	101

The attendance has thus more than doubled in the past four years, and in the past two years it has increased about 40 per cent. It may seem that this great growth cannot long continue

and that the time will soon come when the numbers will no longer increase. This is not probable. Doubtless the growth will be temporarily checked at times of business depressions, but the rapidly extending field in which the technically educated man is needed, as well as the history of technical education in Germany, where there are over 4,000 students in some of the technical schools and where the country is already much more developed than is our own, indicates clearly that the technical schools in this country are certain to continue to expand greatly for many years to come.

Of the total number of students in this College 81 per cent reside in this State; the remaining 19 per cent are from 28 different states and countries. The University is primarily for Wisconsin students and its patronage is of course mainly from this State, but the fact that a very considerable number of students from all parts of the Union are attracted to its doors is of advantage both to the College and to the student body. The attendance of students from other states is particularly significant in view of the fact that the fees required of non-residents in this College of Engineering are larger than at any other State University. The attendance of Wisconsin students at other technical schools goes further to show that this institution is meeting fairly the expectations of the State. An inspection of the catalogues, for 1903–04, of other important Engineering schools shows that there were in attendance, in courses of study now provided for this school, the following numbers of students from the State of Wisconsin:

Mass. Institute of Technology 1
Cornell University 2
Columbia University 0
University of Michigan (unclassified) 1
University of Illinois 0
University of Minnesota 6
Purdue University 1

These numbers are very small indeed and practically it may be said that all Wisconsin boys desiring an Engineering education expect to get it at their home instituton. In courses not yet provided for here there are considerable numbers attending other schools.

A gratifying feature of the registration of the present year is the comparatively large number of students entering to advanced standing from other institutions,—colleges and technical schools where the facilities are less adequate than here.

GRADUATES.

The graduates of this College now number 574, the number receiving their degree last year being 80, the largest class yet graduated. While the demand for technical men this year has been somewhat less than for a few years past, all of the graduating class are well employed and many requests for men have been unanswered. A very significant feature of the recent development in this direction is the frequent requests that come from manufacturing establishments in small towns, establishments that a few years ago would not have considered seriously the idea of employing a college man. The field of employment of our graduates is also widening in other directions. In the field of Mining, of Gas manufacture, of Paper manufacture, of various chemical industries, and of Government service in the Irrigation Division and on the Panama Canal, numerous graduates of this College are now finding desirable positions.

INSTRUCTIONAL FORCE.

During the past two years the work of the College has been carried on with efficiency and with the hearty co-operation of all departments. No additions have been made in the courses of instruction as the great growth in attendance has made it difficult to provide satisfactorily even for the work as heretofore given. The number of instructors of all grades for the

current year is 36, an increase of 9, or 25 per cent, over the number two years ago. In the meantime the increase in the three upper classes, to which nearly all of the instruction is given that is provided for in this College, has been 48 per cent. Our junior and senior classes are now of such a size that it is necessary to sub-divide them into two or three sections for nearly all of their work, thus making a demand on the instructional force much greater in proportion than a similar increase when the total numbers were less. In several departments more instructional force is much needed. Some of the advanced courses have been given up for this year, and in subjects like Mechanics and Hydraulics we are handling the students in sections of 35 to 40 for recitation work where the number should not exceed 25.

The Faculty changes during the past year have been confined mainly to the usual promotions and additions in the lower ranks made necessary by reason of the growth of the College. Last year at your request, by the action of the Regents, I assumed the office of Dean of the College as successor of the late Dean J. B. Johnson. Since his unfortunate death I had occupied the place of acting Dean. Last June Mr. D. W. Mead, consulting engineer of Chicago, was elected to the chair of Hydraulic and Sanitary Engineering. Professor Mead has had a wide experience in Hydraulic Engineering and comes to us in the expectation of carrying out many useful lines of investigation. His work here is certain to add greatly to the professional reputation of the school.

The members of the instructional force of this College are doing their full share in adding to the literature of the profession. During the past two years, two important standard textbooks have been published and many contributions have been made to periodicals and publications of societies. Three of the members of the faculty have done important jury work at the Louisiana Purchase Exposition, Professor Bull having been chairman of an important jury.

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COURSES OF STUDY.

During the past two years no new courses of study have been established. There is a marked increase in the tendency for engineering students to secure a broader course by electing more or less work in the College of Letters and Science, and at the same time the engineering course is coming to be looked upon as a desirable preparation for other than purely technical employment. For the past two years fully half of the class in Transportation in the Department of Political Economy has been composed of Engineering students. Some combination of Engineering and Commerce studies would seem to meet the needs of a considerable class of students, the number of which is likely to become large in the near future. For the business positions in manufacturing establishments, railway companies and other corporations, such a combination will, I believe, supply a demand which is strongly felt but which has not yet been satisfactorily met. The opportunities in this direction at this University are unsurpassed.

GRADUATE AND RESEARCH WORK.

The amount of graduate work in the College has increased very considerably in the past two years. The three scholarships assigned to the College last year are filled by excellent men and a marked increase of interest in this work is manifest. At present the great needs in this direction are more time to devote to the work, and more apparatus. The research work of the College is already of considerable importance and it is to be hoped that this line of work can be greatly increased. There would seem to be no good reason why the Engineering laboratories should not contribute their share of fruitful research in applied science, in the direction of improved methods of construction, new processes of manufacture, and other similar lines of work in the same way that the Agricultural College serves the agricultural interests of the State. With no special

provision for such work, investigations of considerable importance have already been carried out in our laboratories.

In the Department of Civil Engineering an extensive series of tests have been made, and are still under way, regarding the effects of moving trains upon railway bridges. These experiments have already led to a considerable modification of specifications for such bridges. They have also shown great advantages in favor of balanced locomotives, such as are now being purchased by some of our Railway companies, and arrangements have already been made with one of the large Companies to co-operate with them in studying the effects of their balanced engines. In this Department also, important experiments are now being made upon concrete reinforced with steel, a new combination of materials rapidly coming into use for building and bridge purposes. These experiments are recognized as among the most important ever made on the subject. We cannot, however, carry our work out fully in this direction because of the lack of a larger testing machine than we now have. Professor Mead has already a bulletin planned on the subject of Pumping Machinery for Mine Drainage, with special reference to the conditions in the lead and zinc regions of this State. With his wide experience in Hydraulic machinery such a bulletin should be of great value.

In the Department of Mechanical Engineering important investigations have been carried out regarding the use of gas engines for small electric light stations, the efficiency of electric lighting and power plants, the power required to operate cream separators, the economy of superheated steam in the steam engine, and many other problems connected with the operation of steam and gas engines. A thorough test is now being made by our students on the C., M. & St. P. R'y to determine the relative economy of simple and compound locomotives. Investigations have also been untertaken with a view to determining the possibility of using peat for fuel or power purposes, either directly, or indirectly through the manufacture of gas.

University of Wisconsin.

In the Department of Electrical Engineering, investigations have been made in many lines of work, particularly in the Electro-Chemical laboratory. A valuable study has been made on the corrosion of iron, with special reference to the electrolysis of water and gas pipe by street railway circuits, and many problems have been investigated relating to electro-plating, and the electrolytic production of pure metals and of various chemical compounds. The successful production of pure iron from very impure material on a comparatively large scale is one of the results of the work of this laboratory, and is a discovery which is likely to be of very great value in many lines of steel manufacture. This is a line of work which ought, by all means, to be continued vigorously, but as it involves a great amount of preparatory and analytical work it is impossible to continue it satisfactorily with our present facilities.

The above are the most important lines of work which have recently been begun in our laboratories, but there are innumerable other problems which could be undertaken with great profit to the University and to the State were the means only at hand. In this connection it is worthy of note that two of our neighboring state engineering schools have established Engineering Experiment Stations with a view to undertaking experimental work of particular interest to the states in question. We have here ample organization for such work, but only lack the time and necessary equipment to carry it out.

ADDITIONAL INSTRUCTION NEEDED.

The subject of Chemical Engineering has been attracting a great deal of attention for the past few years and the demand for men educated as engineers and chemists has not yet been satisfactorily met. It is of the greatest importance to this institution and to the students who come here for their education that instruction be offered in this great field of engineering. It is a kind of education which adds greatly to the wealth of the country through its influence on the development of new indus-

tries and the more economical utilization of our natural resources. It is to the Engineer, who is trained in both Chemistry and Engineering, that we have to look for improvements in many industries, such as the making of beet-sugar, Portland cement, wood pulp, illuminating and fuel gas, and innumerable other products. All of these industries depend for their success upon, first, the satisfactory solution of the chemical problem involved and, second, the economical carrying out of the process. The problem must be solved either by two separate sets of men working independently, or by men who understand both chemistry and engineering. The experience of manufacturers goes to show that the first method is often disastrous and nearly always unsatisfactory. The demand now is for men, who by a long course of study have made themselves familiar with both the Engineering and the Chemical sides of the problem. We have already a strong department of applied electro-chemistry, which is one of the important lines of Chemical Engineering, and we should now extend the work by adding instruction in other special lines such as above enumerated. The old Chemical Laboratory if available for this purpose will provide the space needed for this work, which has not heretofore been obtainable.

A thorough course in Chemical Engineering will undoubtedly require five years, the first four to include most of the purely Engineering subjects together with the fundamental work in Chemistry, and the last year to be devoted to the more technical applications in the various industries and to research work. If a strong course be established, I have no fear but that many of the better students desiring Chemical Engineering will gladly take five years for preparation for their life work.

For some time past there has been a growing demand on the part of a large number of students in this College for instruction in Mining Engineering. To partially meet this demand there was arranged two years ago a group of elective studies in the General Engineering course made up of courses in Civil

Engineering, Chemistry, and Geology, such as were already offered, which would constitute the backbone of a good mining course, the expectation being that a student could graduate at a Mining school in one year after finishing this course. The attendance in this elective course has been much greater than anticipated, there being this year about 50 students taking the work. To give a complete course in Mining we lack only a comparatively small amount of instruction in technical mining operations, which could for the present be given by a single additional man. With such work well provided for I believe we could give instruction in Mining unsurpassed by any other institution. Considering the demand on the part of students of this State the time has arrived when this course should be added to our curriculum. Students of Wisconsin should not be required to go outside the State in such large numbers to secure what they need in any branch of engineering.

These two departments, Chemical Engineering and Mining, are essential to any fully equipped engineering school and are, perhaps, more than any of the existing departments, of direct value to the industries of the State.

FINANCIAL NEEDS OF THE COLLEGE.

Income for Maintenance.—The first and greatest need of the College is an increase in its annual income available for salaries and running expenses. It goes without saying that so long as the number of students is increasing so rapidly the income must be continually enlarged to meet the demands for instructional purposes and for other running expenses. At the last session of the legislature the income of the College was increased by an amount calculated to provide for about the same growth as had been experienced during the previous biennial period. As a matter of fact, however, our growth for the last two years has been about 50 per cent in excess of the estimate so that our income has fallen considerably short of the actual necessities. As a result our instructional force is not as large

as it should be and the allowances for other running expenses are considerably too small. It is extremely important that the maintenance of the College be more adequately provided for by an increase in income much larger than that granted for the present biennial period. I would also urge that provision be made for instruction in Chemical Engineering and Mining, as heretofore set forth.

During the past six years the total expenditures of the College have increased much less rapidly than the attendance so that the expenditures per student have fallen off. In 1898–99 the expenditure per student for the instruction given in the College was approximately $150, while for the present year it is about $80. This is extraordinarily low, too low in fact for satisfactory results. Of course not all the instruction given to Engineering students is given by this College, but the most expensive part of their work is provided for here. Now that our numbers have become large we can, of course, conduct the work at a somewhat less cost per student than when they were small, but the time has come when the classes are so large that nearly all must be divided into sections, so that the instructional force will hereafter have to be increased nearly in proportion to the increase in students.

Income for Apparatus.—For the last four years this College has depended almost entirely upon special appropriations from the legislature for the purchase of apparatus. During this time about $15,000 per year has been available, with the exception of the present year when only about half that sum can be had. So long as the College is growing so rapidly a large addition to our equipment is absolutely necessary each year in order to properly carry on our laboratory work. The funds that we have had the past three years have maintained our equipment at a reasonable standard, but the amount available the current year is entirely inadequate to maintain it in proper condition. Some of our important laboratories are spending practically nothing during the present year and as a conse-

quence are actually running behind, considering the regular increase in the student body.

It is quite impossible to conduct an engineering school of the first rank without large sums for apparatus. Many of the more important pieces of equipment are very expensive, but if the College is to keep pace with the development in these lines funds must be had for such equipment. Among the more expensive single pieces of apparatus which we should have are a large testing machine, needed for experimental work on stone, concrete, etc. Our steam laboratory is still without a steam turbine, a most important piece of apparatus, considering its wide adoption for certain classes of work. The Electrical laboratory should replace its dangerous wooden switchboards with permanent marble boards such as are used in all properly equipped power plants. It should also possess precision apparatus for electrical testing and equipment for high voltage transmission, all costly apparatus. The Machine shops need to be thoroughly modernized in their equipment. A few, at least, of the modern high speed machines should be installed and several special tools added. Besides these, there are many important but less expensive pieces of apparatus which should be had and a large number of standard instruments must be added each year to provide for the regular growth in classes.

To bring the laboratories into good condition and to provide properly for increase in classes the amount available for apparatus should be very considerably increased. The great appropriation of $150,000 for apparatus at the University of Illinois two years ago is significant of the needs of a growing engineering school.

As already stated the expenditures for apparatus have been provided for in recent years by special appropriations. Inasmuch as the College will always need considerable sums for this purpose even though the numbers should remain stationary, it is highly desirable that a part of the apparatus fund should be made a part of our permanent income.

Extension of Buildings and Laboratories.—The first and greatest need in the direction of increased space is an adequate Hydraulic laboratory. We are now attempting to give instruction to all the junior students in a laboratory about 20 feet square, in which the equipment is the most meager. No effort has indeed been made to equip a good Hydraulic laboratory in the present building as there is no space for it. It has been the intention for several years to construct a separate small building on the lake shore for this purpose, but no funds for doing this have heretofore been available. It is almost useless to go on longer with this laboratory work in our small quarters, and I therefore ask that provision be made for the construction of this long delayed building. The conditions here are unusually favorable for hydraulic experimentation, and with the recent appointment of a specialist in this department a well equipped laboratory will be an exceedingly fruitful source of valuable experimental work. One such line of investigation that could easily be undertaken is the study of the use of deep well pumps for raising water from artesian wells and from deep shafts, a very important problem to many sections of Wisconsin.

Another building which has been needed for a long time is a new foundry. Our present foundry is a very inadequate affair and the space it occupies should be added to the forge room which is now over-crowded. The machine shops should also be extended so as to provide more space for the wood shop and for the University carpenter shop.

Besides the above named special buildings we need more space for general purposes. In the matter of offices, draughting rooms, recitation rooms and laboratories, we have now practically reached the limit in the main building. Our numbers have increased 250 per cent since the appropriation was made for the present building, this being greatly in excess of all expectations at that time. We are, of course, using the space much more economically than when our numbers were

smaller, all laboratories being run both morning and afternoon, and the draughting-rooms being used by several sections of students. We need, however, more and larger lecture rooms, more draughting rooms, more space for surveying instruments, many of which are left at the Observatory for lack of room, and more space for laboratories. I would respectfully urge that provision be made at the earliest possible date for the construction of one of the wings of our main building.

THE SUMMER SCHOOL FOR ARTISANS.

For the last four years the laboratories of this College have been thrown open, for six weeks each summer, for the use of a class of mechanics, who, while not prepared to profit by a regular engineering course can be greatly helped in their calling by properly graded laboratory instruction in steam engineering, electricity, materials, etc. This opportunity has been appreciated by those for whom it was intended and the attendance has steadily increased each session. Last summer instruction was given to 110 students, of whom 91 took most or all of their work in this school. Among the occupations represented were those of the steam engineer, machinist, electrician, central station employee, draughtsman, and many others. It seems that the school is meeting an important need of the artisan class and should be continued and enlarged. Up to the present time the work has been considered largely experimental, and to help it along our instructors have carried an excessive amount of work, much more than should be required of them. I believe that the work should go on, but if this is to be the case it should be put on a more permanent basis and more funds should be available for the purpose.

Respectfully submitted,

F. E. TURNEAURE,

Dean, College of Mechanics and Engineering.

November 3, 1904.

Report of H. S. Richards,

Dean of the College of Law.

To the President of the University:—

I have the honor to submit the following report, touching the progress of the College of Law during the past biennium, and its needs for the future.

FACULTY.

During the first half of the biennium, the instructional force consisted of two resident Professors of Law, including the Dean, one Assistant Professor of Law, and four lecturers.

In June, 1903, Dean Bryant resigned the office of Dean and was elected resident Professor of Law, in charge of the courses in Pleading and Practice. This change was at the request of Dean Bryant, who desired more time to devote to teaching and investigation. As he had already covered the subjects of Pleading and Practice in a number of treatises recognized as authoritative by the profession, the announcement that he would continue as a professor in the school was regarded by law school men and the profession generally as peculiarly fortunate. By his sudden death in August, 1903, the hope that he would be able to devote many years to the school was destroyed. His death brought a sense of personal loss to everyone who had known him, and particularly to his old pupils, who knew and appreciated his untiring devotion to their personal interests, as well as to the school, during the period of his Deanship.

The office of Dean was filled in June, 1903, by the election of H. S. Richards, formerly Professor of Law in the University of Iowa. Assistant Professor Gilmore was elected to a full

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Professorship. To carry on the work assigned to General Bryant, Mr. Edwin S. Mack, of the Milwaukee Bar, and Judge E. Ray Stevens, of the Circuit Court, were selected as lecturers, each devoting two hours per week to the school. In May, 1904, Professor R. M. Bashford was assigned to the newly established courses in Pleading and Practice, devoting eight hours per week to the school. The instructional force was further increased by the election of Mr. H. C. Horack as instructor in law.

ATTENDANCE.

During the year 1902–03, the attendance was two hundred and twenty-six, divided as follows: 70 Seniors, 53 Middles, 68 Juniors, 3 Adult Specials, 5 Specials, and 27 Seniors in Letters and Science. In 1903–04 the total attendance was two hundred and one students, divided as follows: 50 Seniors, 62 Middles, 61 Jniors, 2 Adult Specials, 5 Specials, and 21 Seniors in Letters and Science.

The efforts of the Faculty during this period have been mainly directed towards providing higher entrance requirements for the College, with a view to securing more uniform attainments of matriculants, thereby making possible more thorough work in the College itself. The activity in the direction indicated is the outgrowth of the feeling, shared alike by University Law Faculties and the members of the Bar, that economic and educational conditions have changed so radically in the last decade as to necessitate a complete readjustment, not only of entrance requirements, but also of the methods and scope of law school instruction.

These changes have resulted from a movement on the part of members of the Bar throughout the country to raise the standards of the legal profession by exacting higher entrance requirements, longer periods of study and better preliminary education. Although the profession of the law is a learned profes-

sion, it has for a long period rested under the reproach of admitting untrained and ignorant men into its ranks. The effect has been to lower the profession in public estimation, as well as to entail great public and private expense, through ill-advised and vexatious litigation. The movement now on foot has for its object the correction of these abuses and the placing of the legal profession on the same footing as the other learned professions. The importance to the State of developing and maintaining an enlightened bar cannot be overestimated, particularly under the complex economic, social and political systems that now prevail. The material development of a State is futile, if not impossible, unless the life and property of the citizen is protected by wise laws impartially administered. Since the enactment of laws and their administration is largely in the hands of members of the Bar, the highest interests of the State and of the Bar, as well as the traditions and policy of the University, demand that the College of Law be maintained on a basis that will meet the needs of the time and furnish facilities for instruction at least equal to those provided in Universities of like rank. The leading Universities, appreciating that these changed conditions demand, not more lawyers, but better lawyers, have steadily advanced their entrance requirements and extended the period of study, and have broadened the course of study for the degree in law.

The first step taken towards higher standards of admission was to place the administration of the entrance requirements in the hands of the Registrar of the University, to the end that the rules heretofore somewhat laxly administered might be strictly enforced.

Following this, the Regents at the request of the Faculty rescinded the provision in force since 1897, by which young men twenty-three years of age who could not satisfy the entrance requirements could enter without examination and become candidates for a degree in law by satisfying the entrance requirements at any time before receiving their degree in law. By

a later resolution, all candidates for the College of Law coming from high schools were required to take the regular entrance test in English exacted of all candidates for admission to the Freshman class of the College of Letters and Science.

Through the medium of a memorial presented to the Regents in March, 1904, the Faculty urged the adoption of a resolution still further advancing the entrance requirements, which memorial was favorably acted upon by the Board; the proposed regulation being in accord with the suggestions contained in the report of the Board of Visitors for 1902–03, wherein they say: "Since the adoption of the three years' course, this College has made a noted step in advance. It would seem that the time has come for a still further step in advance, by way of requiring a higher preparatory training for admission to the school. The students at present differ so widely in their scholastic attainments that the instructors find it difficult to properly adapt the instruction to all; we are therefore convinced that the best interests of the school, and also of the legal profession, would be conserved by raising the educational requirements for admission to this department."

The rule as outlined in the memorial provides that all persons seeking admission to the College as candidates for a degree shall present, in addition to the present requirements, credits equivalent to the Freshman and Sophomore years in the College of Letters and Science. To avoid hardship to prospective students who have relied on the present requirements, the rule is to go into effect gradually. Thus, beginning with the University year 1905–06, students entering for the first time will be required to present credits equivalent to the Freshman year in Letters and Science, and the full provision will go into effect in 1907–08.

Students of unusual mental power or having special preparation, and who can satisfy the entrance requirements of the College of Letters and Science, will be admitted to the College of Law as special students, where they can prepare themselves for

the bar examinations of this State or of other States; the Faculty reserving the right to recommend for the degree any such special students as maintain a high standard of work in their law studies. A way is thus provided by which worthy students may still be honored by a degree, when for any reason they are unable to meet the maximum entrance requirement.

The changes here enumerated have been supplemented by the policy of the Faculty of insisting upon a higher standard of attainment by the students enrolled in the school. Students who fail to obtain a passing grade in a major part of their studies are dropped, and others whose work is of a low order are advised to withdraw. The result has been to restrict the upper classes to men of proven ability.

The courses of study have been rearranged with the object of grouping the fundamental topics of the course in the Junior year, the advanced courses being grouped in the Middle and Senior years. The number of courses offered has been increased, making it possible for the abler students to carry at least one-third more courses than are required for a degree, forty-three hours of instruction per week being offered as against thirty hours, formerly the rule.

In accordance with the recommendation of the Board of Visitors for 1903, the courses in Practice have been extended and supplemented by a Practice Court. The student is instructed in the drawing of various legal papers, including pleadings. In addition thereto he is required to prosecute and defend causes before a court conducted under the same rules as the circuit court. The courses in Practice have been placed in charge of a veteran teacher and experienced practitioner. The work is carried on with great zeal, and cannot fail to produce excellent results.

To carry out effectively the changes enumerated, and to place the school on a footing equal to that of law schools maintained in Universities of like rank, an immediate appropriation is essential. The needs of the library are the most urgent, since

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the scope and grade of instruction depends in a large degree on the access of the students to a well equipped reference library.

The library at present contains seven thousand four hundred volumes comprising the official reports of the various States, with five exceptions, down to the National Reporter System; the volumes of that System to date; the reports of the Federal Courts to date; a partial collection of English reports; two sets of Wisconsin reports; and various digests, encyclopedias, and treatises. The present legislative appropriation of one thousand dollars is not sufficient to make any considerable additions to the library, after deducting the cost of annual accessions and expenses of binding and repairs.

An effective working library should comprise the official reports of the various States, and of the United States; the complete English reports; the English Colonial reports; the revised statutes of the various States, with subsequent session laws; at least five sets of Wisconsin reports; the various collections of selected cases, as the Lawyers' Reports Annotated, the American Reports and the American Decisions; the Reporter System complete; law encyclopedias; the standard treatises; historical works on the law, and the files of leading legal periodicals.

It will be observed that, in a library constituted as above, many cases are reported in duplicate, particularly the leading cases; such duplication is intentional, and is necessary in a law school library. An entire class is referred to a particular case, and unless it can be found in duplicate it will be inaccessible to a large number, at the time needed.

The necessity of an immediate special appropriation for the law library is more apparent when it is remembered that under modern methods of instruction the law library bears the same relation to the work of the law school that the laboratories do to the work in natural science. Instruction of the first order in chemistry, for example, would not be conceived of as possible unless the students are provided with a well equipped

laboratory. Neither is it possible to maintain a law school of high rank without access to a well equipped library, since the reported cases, treatises and statutes are the materials which the student must have at hand as the basis of study.

The inadequacy of the library in the past has been less apparent, because the students of the College had access to the State Law Library in the Capitol. Since the Capitol fire, law students have been excluded, and are now forced to depend upon the library of the school. This exclusion is likely to be made permanent, since the Capitol is now much crowded, and since complaint is made that the presence of a large number of students interferes with the use of the State library by attorneys who are in attendance on the Supreme Court. A further objection urged is that the students, by reading year after year the same cases in the reports, destroy volumes that cannot be replaced. In any event, it should not be necessary for law students to resort to the Capitol to find the ordinary materials for their preparation.

Without curtailing the present inadequate reading room space, the capacity of the library for the storage of books has already been reached. The construction of the building is such as not readily to admit of expansion. The necessary space can best be secured by cutting an archway through the North wall of the library room into the lecture room known as the "Junior Room," devoting this space to library uses. This plan not only makes it possible to provide sufficient shelf room, but also much needed reading room space as well. The cost of making the change is trifling compared with the expense of carrying out any other feasible plan.

Higher standards of admission, better material equipment, comprehensive courses of study, are all for the purpose of making possible a higher order of instruction and scholarship in the College itself. The purpose will fail unless the force of instruction is increased and strengthened, and the clerical work so provided for that the members of the Faculty can

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devote their time and energies to the work of instruction. The increase in the number of hours of instruction offered, from thirty hours to forty-three hours per week, necessitates a larger Faculty. In rearranging the course of study some topics have been shifted from the Junior to the Middle year, making it possible to omit those subjects for the current year, and thus enabling the Faculty, as constituted at present, to carry the work, but this plan will not be possible in the future.

The leading law schools have found that the best results are obtained and a consistent course of study to be possible, only by placing the bulk of the instruction in the hands of men who devote their entire time to the school, and who are on the same footing as other University professors. This policy has been attended with such excellent results that it is now the rule rather than the excepion in the best known schools. No school confines its instructional force entirely to men who are not in practice, and such a plan would not be desirable, particularly as to subjects that are most intimately connected with the practice. Owing to the difficulty of inducig properly equipped men to abandon the practice of law and devote their entire time to teaching, it has been found necessary to pay a salary to law teachers considerably in advance of that paid to University professors generally. In dealing with the question of salaries, therefore, it must always be borne in mind that to obtain and retain the services of competent teachers of law, the salary paid must have some relation to the income which a lawyer of like ability would be able to command as a practitioner.

A sufficient permanent library support fund should be provided to enable the purchase of the continuations of the various reports when brought down to date; to cover the expense of repairs and binding—a considerable item in a library in constant use; and to furnish a small annual fund with which to make additions to the library in the way of new treatises, periodicals, etc.

Report of Dean Richards.

The proper administration of the library requires the services of a permanent librarian. The care of a library of even the present size is enough to occupy the full time of a librarian, particularly if he looks after the continuations and repairs and keeps the run of the law catalogues. Under the present system of student librarians, as soon as the incumbent has sufficient knowledge of the library to be of real service to the students, he is replaced by another, and the burden of administration in reality falls on some member of the Faculty. The duties of librarian are advantageously united with those of secretary in many schools. In the latter capacity the incumbent would have charge of the routine correspondence, the records of the school, etc., relieving the Dean of a large amount of clerical work which must now be performed at the expense of more important duties.

The increase in the number of classes makes it necessary to provide additional lecture rooms of moderate size. All of the space in the law building now devoted to other purposes is needed for the College of Law.

In dealing with the needs of the College as above outlined, it should be borne in mind that the College, in the past, has not been dealt with on the same footing as have the other Colleges of the University. The appropriations, over and above the fees paid by the students, have been small, and the College has for the most part paid its own way. A comparison of the amounts expended for the various Colleges for the years 1901–02, 1902–03 and 1903–04 shows that the amount expended per student on the College of Law in 1901–02 was but 34% of that spent in the College of Letters and Science; 23% of that spent in the College of Agriculture, and 42% of that spent in the College of Engineering. In the year 1902–03, the percentage was 37%, 21% and 45% respectively; and in 1903–04, the percentage was 45%, 24% and 70% respectively. A further comparison of the general support fund indicated in this report with the expenditures per student on

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behalf of the other Colleges of the University in the last available report—that for 1903–04, shows that the amount asked is still but 70% of the amount expended on account of the College of Letters and Science, 37% of that expended on account of the College of Agriculture, and 87% of that expended on the College of Engineering; showing that the estimates for the future are well within the per capita present expenditure in other Colleges.

It is apparent from these figures that the College of Law, while an integral part of the University, has been on an entirely different basis as regards support. The College of Law is the only College in which anything more than a small incidental fee is charged, and until very recently the income from fees has practically paid the running expenses of the College. No reason can be advanced for the liberal support by the State of other departments of the University which does not apply with equal force to the College of Law.

The present is a period of transition in legal education. The resources of the leading university law schools are being augmented and new foundations established to meet the demand of the times for more thorough training in law. The College of Law, by reason of its situation and connections, is in a position to take a leading part in the movement for higher standards, provided proper financial support is assured.

Respectfully submitted,

H. S. RICHARDS,

Dean.

December 1, 1904.

Attendance.

APPENDIX A.

The Attendance at the University of Wisconsin.

1. Number of Students During the Past Ten Years.

College of	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04
Letters and Science[1] ..	785	818	872	947	995	1,096	1,137	1,176	1,232	1,312
Mechanics and Engineering	225	207	218	227	242	327	411	513	585	744
Agriculture	213	190	215	277	326	381	440	448	461	525
Law	266	223	216	182	214	231	266	260	226	201
Course in Pharmacy ...	41	50	64	61	55	51	44	35	35	36
School of Music	.....	181	145	141	155	199	191	169	126	172
Summer Session	.....	.....	.....	.....	.....	341	323	322	350	330
Summer School for Artisans and Apprentices	.....	.....	.....	.....	.....	.....	.....	45	60	70
Summer School[2]	151	114	127	117	197	.....	.....	.....	.....	.....
Library School[2]	.....	6	25	16	24	36	40	37	44	30
Less twice enumerated	10	71	80	68	64	[3]204	[3]193	[3]191	[3]205	[3]239
Totals	1,520	1,598	1,650	1,767	1,923	2,422	2,619	2,777	2,870	3,151

The Summer Session of 1904 had a registration of 395 and the Library School of the same summer was attended by 59 persons.

2. Number of the Instructional Force.

	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04
Professors	47	47	49	49	52	52	55	58	59	71
Associate Professors ...	2	2	2	2	1	2	1	1	2	1
Assistant Professors ...	14	23	23	24	27	29	37	33	35	40
Instructors	25	23	23	26	28	31	37	46	58	65
Assistants	3	8	12	14	17	23	32	29	30	43
University Fellows[4]	9	10	10	10	10	10	14	13	13	13
Totals	100	113	119	125	135	147	176	180	197	233

[1]This includes the course in Commerce. This course is so interwoven with the other courses of the College of Letters and Science that it cannot well be separated.

[2]Not included in totals.

[3]This large number is due to the fact that many persons who were present at the Summer Session were also present in the regular sessions of the University.

[4]The University Fellows, though primarily students, are classified here for the reason that according to the terms of their appointment, they are required to render a small amount of instruction. This requirement, however, applies only to the University Fellows; consequently the above enumeration does not include the Fellows provided for by private generosity.

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APPENDIX B.

Changes in the Faculty.

During the Fiscal Year of July 1, 1902—June 30 1903.

APPOINTMENTS.

Professors.

Name.	Title.
EUGENE A. GILMORE, A. B., LL. B.,	Assistant Professor of Law.
CHARLES K. LEITH, Ph. D.,	Assistant Professor of Geology.
DANA C. MUNRO, A. M.,	Professor of European History.
JAMES D. PHILLIPS, B. S.,	Assistant Professor of Mechanical Drawing.
EMIL P. SANDSTEN, M. S.,	Associate Professor of Horticulture.
EDMUND R. STEVENS, B. L., LL. B.,	Lecturer in Criminal Law.

Instructors and Assistants.

MARTIN F. ANGELL, B. S.,	Assistant in Physics.
DANIEL L. BARNARD,	Assistant in Bacteriology.
ARTHUR BEATTY, Ph. D.,	Instructor in English.
WARREN J. BISHOP,	Assistant in Gymnastics.
IRWIN W. BRANDEL, Ph. G., M. S.,	Instructor in Pharmaceutical Technique.
HERMAN G. A. BRAUER, Ph. D.,	Instructor in French.
ELIAS A. BREDIN,	Instructor in Music.
JOHN C. BROWN, M. S.,	Assistant in Agricultural Chemistry.
EDWARD A. COOK, B. L.,	Instructor in English.
GEORGE J. DAVIS, C. E.,	Instructor in Civil Engineering.
HENRY FOX, B. S.,	Instructor in Biology.
CHARLES H. HANDSCHIN, Ph. D.,	Instructor in German.
EDWIN G. HASTINGS, M. S.,	Assistant Bacteriologist.
WILEY J. HUDDLE, A. B.,	Assistant in Chemistry.
EDGAR B. HUTCHINS, M. S.,	Assistant in Quantitative Chemical Analysis.
TOYOKICHI IYENAGA, Ph. D.,	Lecturer in Political Science.
WILLIAM H. KELLY, Ph. B.,	Assistant in Physics.
WILLIAM G. KIRCHOFFER, C. E.,	Instructor in Civil Engineering.
ALFRED E. KUNDERT, Ph. G.,	Assistant in Pharmaceutical Chemistry.
MARION B. LAMONT,	Assistant in Elocution.
MAX O. LORENZ, A. B.,	Assistant in Economics.
FREDERICK W. MEISNEST, B. S.,	Instructor in German.
ADAM V. MILLAR, M. S.,	Instructor in Descriptive Geometry and Mechanical Drawing.

Changes in the Faculty.

ALBERT B. NEWELL, B. S.,	Assistant in Chemistry.
HARRY B. NORTH, Ph. G.,	Assistant in Chemistry.
GEORGE A. OLSON, B. S.,	Assistant in Agricultural Chemistry.
HARRISON E. PATTEN, Ph. D.,	Instructor in Chemistry.
WALTER D. PATTON,	Assistant in General Chemistry.
ULRICH B. PHILLIPS, Ph. D.,	Instructor in History.
ANNIE M. PITMAN, A. B.,	Assistant in Latin.
PAUL F. REIFF, Ph. D.,	Instructor in German.
WILLIAM C. RUEDIGER, Ph. B.,	Assistant in Pedagogy.
GEORGE A. SCOTT, B. S.,	Instructor in Electrical Engineering.
ARTHUR R. SEYMOUR, M. L.,	Assistant in French.
GEORGE C. SHAAD, B. S.,	Instructor in Electrical Engineering.
ALBERT H. TAYLOR, B. S.,	Instructor in Physics.
EARLE M. TERRY, A. B.,	Assistant in Physics.
HALSTEN J. B. THORKELSON, M. E.,	Instructor in Steam Engineering.
CHARLES A. TIBBALS,	Assistant in Chemistry.
MELVIN E. TWEEDEN, Ph. G.,	Assistant in Practical Pharmacy.
ELSBETH VEERHUSEN, A. B.,	Assistant in German.
ARTHUR S. WHEELER, B. A.,	Assistant in English.
JAMES G. ZIMMERMAN,	Assistant in Applied Electro-Chemistry.

PROMOTIONS.

Professors.

CARL R. FISH, Ph. D.,	From Instructor to Assistant Professor of American History.
GEORGE C. FISKE, Ph. D.,	From Instructor to Assistant Professor of Latin.
ARTHUR W. RICHTER, M. E.,	From Assistant Professor to Professor of Experimental Engineering.
GRANT SHOWERMAN, Ph. D.,	From Instructor to Assistant Professor of Latin.
SAMUEL E. SPARLING, Ph. D.,	From Instructor to Assistant Professor of Political Science.
ANDREW R. WHITSON, B. S.,	From Assistant Professor to Professor of Agricultural Physics.
OLIVER B. ZIMMERMAN, M. E.,	From Instructor to Assistant Professor of Machine Design.

Instructors and Assistants.

FLORENCE E. ALLEN, M.. L.,	From Assistant to Instructor in Mathematics.
BOYD H. BODE, Ph. D.,	From Assistant to Instructor in Philosophy.
FREDERIC CRANEFIELD,	From Assistant to Instructor in Horticulture.
ARTHUR R. CRATHORNE, B. S.,	From Assistant to Instructor in Mathematics.

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THOMAS F. McCONNELL,	From Assistant to Instructor in Animal Husbandry.
LOUALLEN F. MILLER, A. M.	From Assistant to Instructor in Physics.
WARREN M. PERSONS, M. S.,	From Assistant to Instructor in Mathematics.
GUY M. WILCOX, M. A.,	From Assistant to Instructor in Physics.
HENRY C. WOLFF, M. S.,	From Assistant to Instructor in Mathematics.

VACANCIES

Taking effect June 30, 1903, unless otherwise indicated.

EDWARD A. BIRGE, Ph. D., Sc. D. .....Term expired
Acting President of the University.

EDWIN E. BRYANT .....Resigned
Dean of the College of Law.

Professors.

WILLIAM L. CARLYLE, B. S. A. .....Resigned
Professor of Animal Husbandry.

LELLEN S. CHENEY, M. S. .....Resigned
Assistant Professor of Pharmaceutical Botany.

JULIUS M. CLEMENTS, Ph. D. .....Resigned
Assistant Professor of Geology.

JAMES C. MONAGHAN, A. B. .....Resigned
Professor of Theory and Practice of Domestic and Foreign Commerce.

Instructors and Assistants.

MARTIN F. ANGELL .....Term expired
Assistant in Physics.

DAVID L. BARNARD .....Term expired
Assistant in Bacteriology.

WARREN J. BISHOP .....Term expired
Assistant in Gymnastics.

SAMUEL R. BOYCE, Ph. G., M. D. .....Term expired
Lecturer in Pharmacognoscy.

HARRY E. BRADLEY .....Term expired
Assistant in Gymnastics.

GEORGE J. DAVIS, Jr., C. E. .....Term expired
Instructor in Civil Engineering.

HENRY FOX, B. S. .....Term expired
Instructor in Biology.

Changes in the Faculty.

RUDOLPH HARTMAN, B. S. .....Term expired
Instructor in Testing Laboratory.

WILEY J. HUDDLE, A. B. .....Term expired
Assistant in Chemistry.

MAY L. HUNT, M. L. .....Term expired
Instructor in English.

TOYOKICHI IYENAGA, Ph. D. .....Term expired
Lecturer in Political Science.

ROSWELL H. JOHNSON .....Term expired
Assistant in Vertebrate Anatomy.

WILLIAM H. KELLY, Ph. B. .....Term expired
Assistant in Physics.

WILLIAM G. KIRCHOFFER, C. E. .....Term expired
Instructor in Civil Engineering.

GEORGE R. LAIRD, A. B. .....Term expired
Instructor in Elocution.

THOMAS F. McCONNELL .....Resigned
Instructor in Animal Husbandry.

ALBERT S. MERRILL, B. S. .....Term expired
Instructor in Mechanical Engineering.

ALBERT B. NEWELL, B. S. .....Term expired
Assistant in Chemistry.

WALTER D. PATTON .....Term expired
Assistant in General Chemistry.

PAUL F. REIFF, Ph. D. .....Term expired
Instructor in German.

WILLIAM C. RUEDIGER, Ph. B. .....Term expired
Assistant in Pedagogy.

OSWALD SCHREINER, Ph. G., Ph. D. .....Resigned
Instructor in Pharmaceutical Technique and Physical Chemistry.

GEORGE A. SCOTT, B. S. .....Term expired
Instructor in Electrical Engineering.

WILBUR O. SYPHERD, M. A. .....Term expired
Instructor in English.

ARTHUR S. WHEELER, B. A. .....Resigned
Assistant in English.

GUY M. WILCOX, M. A. .....Term expired
Instructor in Physics.

GEORGE W. WILDER, Ph. D. .....Term expired
Instructor in Physics.

University of Wisconsin.

Changes in the Faculty.

During the fiscal year of July 1, 1903—June 30, 1904.

APPOINTMENTS.

Name.	Title.
HARRY S. RICHARDS, Ph. B., LL. B.,	Dean of the College of Law.

Professors.

FRANK O. DUFOUR, C. E.,	Acting Professor of Bridge Engineering.
ALBERT B. FAUST, Ph. D.,	Assistant Professor of German.
NEVIN M. FENNEMAN, Ph. D.,	Professor of General and Physiographic Geology.
GEO. L. HENDRICKSON, B.A., L.H.D.,	Non-resident Professor of Latin.
GEORGE C. HUMPHREY, B. S.,	Assistant Professor of Animal Husbandry.
CAROLINE L. HUNT, A. B.,	Professor of Home Economics.
GEORGE N. KNAPP, B. S.,	Assistant Professor of Farm Engineering.
EDWIN S. MACK, A. M., LL. B.,	Lecturer in Law.
JESSIE M. MEYER, B. S.,	Mistress of Chadbourne Hall.
JOHN W. SHUSTER, B. S.,	Assistant Professor of Electrical Engineering.
JAMES A. WOODBURN, Ph. D.,	Professor of American History.

Instructors and Assistants.

PHILIP ADAMS, B. A.,	Instructor in English.
A. S. ALEXANDER, F.H.A.S., M.D.C.,	Instructor in Veterinary Science.
BENNETT M. ALLEN, Ph. D.,	Instructor in Comparative Anatomy.
KATHERINE ALLEN, Ph. D.,	Instructor in Latin.
EMMETT D. ANGELL,	Instructor in Gymnastics.
JAMES T. ATWOOD, B. S.,	Instructor in Mechanical Drawing.
SYDNEY H. BALL, A. B.,	Assistant in Geology.
GEORGE J. BALZER, A. B.,	Assistant in Physics.
JAMES D. BARNETT, A. B.,	Assistant in Political Science.
RAYMOND C. BENNER, B. S.,	Assistant in Chemistry.
EDWIN S. BISHOP, B. L.,	Assistant in Physics.
PAUL G. A. BUSSE, A. M.,	Instructor in German.
WILLIAM J. CARSON, B. S. A.,	Instructor in Dairying.
ARTHUR H. CHRISTMAN, B. S.,	Assistant in Botany.
ALLEN L. COLTON, M. A.,	Instructor in Physics.
MAYNARD L. DAGGY, Ph. B.,	Instructor in Rhetoric and Oratory.
WILLIAM L. DAVIS,	Assistant in Education.
ALBERT R. DENU, B. L.,	Instructor in Rhetoric and Oratory.
THOMAS H. DICKINSON, A. M.,	Instructor in English.

Changes in the Faculty.

MARSHALL R. EVANS, Ph. D.,	Instructor in German.
ALVIN HAASE, B. S.,	Assistant in Experimental Engineering.
HERBERT P. HOLMAN, A. B.,	Assistant in Chemistry.
JOSEPH G. HOLTY, B. S.,	Assistant in Chemistry.
FREDERICK W. HUELS, B. S.,	Assistant in Experimental Engineering.
EDITH K. LYLE, Ph. D.,	Assistant in History.
RALPH B. MACNISH, B. L.,	Instructor in French.
GEORGE JOHN MARQUETTE,	Assistant in Hygienic Laboratory. tory.
WILLIAM G. MARQUETTE, B. S.,	Assistant in Botany.
FRANCIS M. McCULLOUGH, C. E.,	Instructor in Civil Engineering.
FRANK C. McKINNEY, M. A.,	Instructor in English.
HENRY H. McPHERSON, M. E.,	Instructor in Mechanical Laboratory.
LEWIS E. MOORE, B. S.,	Instructor in Drawing and Mechanics.
GEORGIANA L. MORRILL, Ph. D.,	Instructor in English.
ADOLPH PFUND, A. B.,	Assistant in German.
JAMES W. PUTNAM, M. A.,	Assistant in History.
FRANK RABAK, Ph. G.,	Assistant in Pharmacognosy.
WILLIAM B. RICHARDS, B. S.,	Assistant in Animal Husbandry.
FERDINAND SCHMITTER, A.B., M.D.,	Instructor in Anatomy.
HELEN SHERMAN, B. S.,	Assistant in Botany.
ALDEN L. STONE,	Assistant in Agronomy.
JESSE D. SUTER,	Assistant in Mathematics.
JAMES E. TUTHILL, M. A.,	Assistant in History.
ERNEST G. TOAN, B. A.,	Assistant in Physics.
GEORGE WAGNER, M. A.,	Instructor in Zoology.
JAMES W. WATSON, B. S.,	Instructor in Electrical Engineering.
LESTER D. WILLIAMS, C. E.,	Instructor in Civil Engineering.

PROMOTIONS.

CHARLES R. VAN HISE, Ph.D., LL.D.,	From Professor of Geology to President of the University.
FREDERICK E. TURNEAURE, C. E.,	From Professor of Bridge and Sanitary Engineering to Dean of the College of Engineering.

Professors.

CHARLEE H. BURNSIDE, M. A.,	From Instructor to Assistant Professor of Mechanics.
ROBERT E. N. DODGE, M. A.,	From Instructor to Assistant Professor of English.
WILLIAM D. FROST, Ph. D.,	From Instructor to Assistant Professor of Bacteriology.
EUGENE A. GILMORE, A. B., LL. B.,	From Assistant Professor to Professor of Law.
CHARLES K. LEITH, Ph. D.,	From Assistant Professor of Geology to Professor of Economic and Structural Geology.
JOHN G. D. MACK, M. E.,	From Assistant Professor to Professor of Mechanics.

University of Wisconsin.

WILLIAM S. MILLER, M. D.,	From Assistant Professor to Associate Professor of Anatomy.
EDWIN C. L. ROEDDER, Ph. D.,	From Instructor to Assistant Professor of German Philology.
EMIL P. SANDSTEN, Ph. D.,	From Associate Professor to Professor of Horticulture.
HAMILTON G. TIMBERLAKE, M. S.,	From Instructor to Assistant Professor of Botany.
AUGUSTUS TROWBRIDGE, Ph. D.,	From Assistant Professor to Professor of Mathematical Physics.
FRANK J. WELLS, B. S.,	From Instructor to Assistant Professor of Agricultural Physics.

Instructors and Assistants.

JOHN C. BROWN, M. S.,	From Assistant to Instructor in Agricultural Chemistry.
ROLLIN H. DENNISTON, B. S.,	From Assistant to Instructor in Pharmacognosy.
EDWIN G. HASTINGS, M. S.,	From Assistant to Instructor in Bacteriology.
MARION B. LAMONT,	From Assistant to Instructor in Elocution.
MAX O. LORENZ, A. B.,	From Assistant to Instructor in Economics.
GEORGE A. OLSON, B. S.,	From Assistant to Instructor in Agricultural Chemistry.
ARTHUR R. SEYMOUR, M. L.,	From Assistant to Instructor in French.

VACANCIES

Taking effect June 30, 1904, unless otherwise indicated.

Professors.

EDWIN E. BRYANT ..... Died
Professor of Law (August 11, 1903).

FRANK O. DUFOUR, C. E. ..... Term expired
Acting Professor of Bridge Engineering.

ALBERT B. FAUST, Ph. D. ..... Resigned
Assistant Professor of German.

GEORGE L. HENDRICKSON, B. A., L. H. D. ..... Term expired
Non-resident Professor of Latin.

JOHN W. STEARNS, LL. D. ..... Resigned
Director of School of Education.

HAMILTON G. TIMBERLAKE, M. S. ..... Died
Assistant Professor of Botany (July 19, 1903).

Changes in the Faculty.

FRANK J. WELLS, B. S. .....Died
Assistant Professor of Agricultural Physics (March 1st, 1904).

JAMES A. WOODBURN, Ph. D. .....Term expired
Professor of American History.

Instructors and Assistants.

ULYSSES S. BAER .....Resigned
Instructor in Cheese Making.

SYDNEY H. BALL, A. B. .....Resigned
Assistant in Geology.

GEORGE J. BALZER, A. B. .....Term expired
Assistant in Physics.

HERMAN G. A. BRAUER, Ph. D. .....Term expired
Instructor in French.

PAUL G. A. BUSSE, A. M. .....Term expired
Instructor in German.

ARTHUR H. CHRISTMAN, B. S. .....Term expired
Assistant in Botany.

FREDERIC CRANEFIELD .....Resigned
Instructor in Horticulture.

ARTHUR R. CRATHORNE, B. S. .....Term expired
Instructor in Mathematics.

MAYNARD L. DAGGY, Ph. B. .....Term expired
Instructor in Rhetoric and Oratory.

WILLIAM L. DAVIS .....Term expired
Assistant in Education.

ALBERT R. DENU, B. L. .....Term expired
Instructor in Rhetoric and Oratory.

MENDAL G. FRAMPTON, M. A. .....Term expired
Instructor in English.

ALVIN HAASE, B. S. .....Term expired
Assistant in Experimental Engineering.

HERBERT P. HOLMAN, A. B. .....Term expired
Assistant in Chemistry.

EDITH K. LYLE, Ph. D. .....Term expired
Assistant in History.

GEORGE JOHN MARQUETTE .....Term expired
Assistant in Hygienic Laboratory.

FRANK C. McKINNEY, M. A. .....Term expired
Instructor in English.

LEWIS E. MOORE, B. S. .....Term expired
Instructor in Drawing and Mechanics.

University of Wisconsin.

ADOLPH PFUND, A. B. .....Term expired
Assistant in German.

ANNIE M. PITMAN, Ph. D. .....Term expired
Assistant in Latin.

JAMES W. PUTNAM, M. A. .....Term expired
Assistant in History.

WILLIAM B. RICHARDS, B. S. .....Term expired
Assistant in Animal Husbandry.

ERNEST G. TOAN, B. A. .....Term expired
Assistant in Physics.

JAMES G. ZIMMERMAN .....Term expired
Assistant in Applied Electro-Chemistry.

Report of the Board of Visitors, 1902-03.

To the Honorable, the Board of Regents of the University of Wisconsin.

Gentlemen: The Board of Visitors for the school year 1902–3 beg herewith to submit to your honorable body the reports of the various sub-committees of their body which were approved by the Board at its meeting held April 14, 1903.

In addition to the recommendations therein contained the Board desires to express the wish that the new Board of Visitors may be appointed at or before the June meeting of the Board of Regents, so that they may have the full school year in which to do their work.

Respectfully submitted,

(Signed) JOHN B. WINSLOW,
Chairman.

THE STUDENT LIFE OF WOMEN.

The student life of women may be considered in its relation to college work and in its social aspect. Public attention being very generally drawn to the number and distribution of women students in our larger co-educational institutions, your committee regards it of interest to inquire into the relation of these facts to the work of our University.

There will be excluded from this inquiry nearly one hundred names of women whose sole connection with the University is as music students, one-half being young children connected with the secondary schools of Madison, as well as nine hundred men in the technical courses of engineering, pharmacy, law and agriculture.

With the above exception, the number of women students is 447, being 38% of the whole number of students in the college of letters and science. Ten years ago the women numbered 36% of the same college. It is seen that there has been no rapid increase in their numbers, and that some classes are so largely made up of women is due to the fact that the men have been attracted to the civic historic and commercial courses. The women number one-fourth of the students in the general science course, one-third in the philosophical, civic historic and ancient classical courses, one-half in the English course and four-fifths in the modern classical course. They are not represented in the commercial course. The department of domestic science which has recently been organized will tend to more evenly distribute the women by attracting them to work in the general science and civic historic classes. It will also bring women here for the practical training they must now seek in neighboring states, and give them an equivalent for the work the University has so long emphasized for men. In this regard we feel that the University has taken a step

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needed to bring it in line with other state institutions, and in the direct course demanded by the development of co-education.

We think our women students should have the sympathy and intellectual stimulus of more women in the faculty, and should if possible, be more associated with them in their daily lives. A daily association with women of broad culture and a university training would afford a stimulus as valuable as anything that can be received in the class room.

The social life of our women students depends upon their abiding place. The state has provided a home for about one hundred of them, about one hundred and fifty of them are with parents or relatives in the city, and about one hundred are grouped in the sorority houses, leaving about the same number of college students and twenty-five music students boarding in the homes and boarding houses of the city.

At present the number that can be accomodated in Chadbourne Hall about equals the number that must seek boarding places among strangers. Since there is a very decided pecuniary advantage in being in the Hall, and since a residence there is especially desirable for the younger girls, we emphasize the recommendation made by the former committee that the freshmen be given a preference over the older girls. At present about one-half the girls in the boarding places are here for the first year, and about the same proportion of students in Chadbourne Hall belong to the junior and senior classes.

There is no absolute fairness in the advantages offered by the state being possible to a limited number, but if a system be adopted by which the younger girls could be received first, it would be fair to all. So far as possible Chadbourne Hall should be for the use of all the women, and suitable rooms should if possible be provided for their general use instead of taking up all available space for dormitory purposes.

The sororities are useful in providing an agreeable and advantageous home life for their members.

There are seasons when the social life of the University amounts to an undesirable dissipation for all the students. These seasons occur generally as an accompaniment to some event that disturbs the whole life of the University. So far as the women students are concerned, it is believed that some modification of these seasons of festivity is not only desirable, but would be gladly received by them. We think best to call attention to one abuse in the social life of the University arising from the multiplication of the secret societies. There are about twenty-five such societies among the men and women. Since each one gives at least two formal dancing parties during the year, these parties have become too prevalent in the middle of the week. During the two weeks following the date of this report there are six such parties occurring on a Tuesday, Wednesday or Thursday night. If the girls in Chadbourne Hall, which is under the direct control of the University, could be induced to refuse to attend such parties, we are confident that those living in the sorority houses would follow their example and that the abuse would be corrected.

Dated April 14, 1903.

(Signed) HELEN R. OLIN,
ELIZABETH TAYLOR,
MARY L. EASTON.

Report of the Board of Visitors, 1902-03.

REPORT OF THE COMMITTEE ON GRADUATE DEPARTMENT AND SUMMER SCHOOL.

Evansville, Wis., April 14 ,1903.

Hon. J. B. WINSLOW, Chairman of Board of Visitors:

Your committee on Graduate Department and Summer School begs to report as follows:

GRADUATE DEPARTMENT.

No branch of work connected with the University is of more importance than the graduate work. The undergraduate work is, of course, the primary object. It is no mean task to furnish this grade of work to the young men and women of our great state. But this grade of work alone, however well done—and we would have it second to none—will not make our State University rank with the great educational institutions of our country.

The work accomplished by some of our professors, in this department, has done more to bring our institution before the public, to make our young people satisfied to be graduated from the U. of W., to attract students of ability from beyond the bounds of our own state than any other influence.

The practical side—if anything can be more practical than the above—is no less important. The material results, that enrich and bless mankind, that add to his physical comfort, that help to make life more than it could be without them, are the rich reward of such effort.

We hope that all will be done that can be done to encourage this work, not by the professors alone, but by the students also. The fellowships and scholarships should be increased as fast as possible, and as much time granted for this kind of work as is consistent with their other duties.

SUMMER SCHOOL.

A number of conditions make the summer session of the University not only a convenience but a necessity. The most important of these is the desire on the part of many high school principals and teachers to do advance work, or review collegiate work, during the summer vacation. If opportunity for this is not furnished at home, then will those desiring this work go where it can be had. When once the high school principals and teachers become acquainted with institutions outside the state, often without intending to do so, they influence students to attend such schools. The summer session helps to keep our own students at home.

It meets another demand of our time, i. e., it enables students to secure the degree of A. B. in three years.

It also affords the professors who teach during the summer session an opportunity for leave of absence for study and recreation without the sabbatical rest accorded the professors in some colleges and universities. It keeps the educational plant, representing many thousands of dollars, open throughout the entire year. Your committee found both professors and students enthusiastically pushing their work during the summer session of 1902. In one respect only did the work appear to any disadvantage, as compared with that done at any other time of the year; viz., the time was a few days shorter consequently a little more crowding was required. Your committee was favorably impressed with the summer session.

(Signed) J. EMORY COLEMAN.

University of Wisconsin.

REPORT OF THE COMMITTEE ON ASTRONOMY AND MATHEMATICS.

Madison, Wis., April 14, 1903.

To the Honorable J. B. WINSLOW, Chairman of the Board of Visitors, University of Wisconsin.

Your Committee on Astronomy and Mathematics respectfully submit the following report:

In the Department of Astronomy such conditions were found as in our opinion make no recommendations necessary or criticisms possible. The apparatus seems to be sufficient and satisfactory to those having the work in Charge.

In the Department of Mathematics there might be recommendations to offer were it not for the fact that steps are already being taken to change what are considered as unfavorable conditions.

The question has been asked by interested parties if too much of the instruction was not given into the hands of young or inexperienced instructors; but in that particular we must take into consideration the overcrowded conditions in the classes, which it is hoped will be materially relieved by the changes which are now being earnestly considered by the faculty, and which will shortly be made.

We can not fail to see that those having this department in charge are thoroughly interested in their work, and are doing their best to further the interests of their departments, and for the good of the University as a whole.

ELIZABETH TAYLOR, *Chairman*,
OTTO GAFFRON.

REPORT OF COMMITTEE ON NATURAL SCIENCES AND SCHOOL OF PHARMACY.

To the Board of Visitors of the University of Wisconsin:

Your Committee feel that the work done by the School of Pharmacy and by the Department of Natural Science in general is worthy of high commendation. It is apparent that those in charge are doing everything in their power to keep the instruction in science abreast of the times and to provide modern equipments. Everything is evidently being done that can be done by the faculty to hold the work to the standard of the best universities, although they are laboring under serious disadvantages. The heads of the School of Pharmacy and the Pre-medic Department are thoroughly alive to the needs of their branches of the University, and they should receive far more encouragemet than they do.

The lack of room is at present the most serious drawback and there seems to be no remedy for this except by the erection of more buildings. All the available space in the present buildings is being utilized and it is difficult to see how the matter can be helped any by making alterations in these until more room is provided. The quarters of the School of Pharmacy are not at all adapted to that department; nor is the room adequate to meet the needs of the classes. The school is sadly in need of a lecture room.

What is said of the School of Pharmacy applies with equal force to the Pre-medic Department which is also seriously embarrassed by the lack of suitable quarters. The overcrowded condition in the Department of Chemistry should not be allowed long to exist. Neither the laboratories or the lecture rooms are large enough to accommodate half of the students in that department.

Respectfully submitted,

OTTO GAFFRON,
A. H. VOGEL,
Committee.

REPORT OF THE COMMITTEE ON SCHOOL OF MUSIC AND SCHOOL OF EDUCATION.

To the Board of Visitors, University of Wisconsin.

Your Committee begs to report the following:

We find the School of Music in very good condition for effective work in this branch of the arts, and its labors are being carried on energetically and with the necessary enthusiasm for progressive results. At the same time the attendance in this department is growing so rapidly that larger accommodations have become pressing.

In the basement below the main floor of the chapel there is considerable space now serving no particular purpose, which could readily be transformed into three good sized rooms suitable for teaching or practice. From these rooms a convenient exit out upon the campus can readily be provided. We recommend the completion of these rooms at the earliest moment possible.

While the Recital Hall is all but ideal as a chamber music room and lecture hall, the chapel or Library Hall proper will soon be inadequate to hold students and other auditors upon the occasion of the performance of choral and other works of larger scope. This the more that the acquisition for the equipment of the Hall with a pipe organ has become a necessity. Organ study has always formed part of the curriculum of our School of Music and the use of parlor or reed organs are inadequate for the purpose. To study the tone color and the peculiar characteristics of this noble instrument and the works composed for same, a pipe organ is indispensable. Tuition of this nature is now being given in the various churches of Madison, which have such instruments, and while we may be thankful for the courtesy and the privilege, it is a notorious fact that churches are rarely heated except on days of worship, so that study and tuition alike suffer under this difficulty.

Professor Parker is of the opinion that a pipe organ such as he considers sufficient for our needs, would cost in the neighborhood of $2,000. We urgently pray the Board of Regents to provide for this expenditure.

Finally, commendation is due the efforts of the school to foster the love of song and thereby indirectly that of music among the students generally, by the compilation of a number of songs, patriotic, collegiate and humorous, for convocation purposes. The gathering of these is likely to serve two important purposes: First, they will gradually supplant the coarser effusions of voice by the student body, and second, it will yield a refining influence generally and we believe a distinct de-

sire for the better in the realm of music. This activity on the part of the School of Music is in the nature of true missionary work and not be underestimated.

SCHOOL OF EDUCATION.

From such insight as was obtainable and conversation with the head of the School of Education, this department seems to be in flourishing condition and successful with its work. No particular recommendations seem necessary this current academic year.

JULIUS GUGLER.

REPORT OF COMMITTEE ON COLLEGE OF MECHANICS AND ENGINEERING.

This department impresses the visitor as being, together with that of the Agricultural, the best endowed and most thoroughly equipped of the University. Nothing seems lacking in detail or totality, and hence the reputation of the department gained by the successful graduates it has sent out into practical life is easily accounted for.

The pressure of raw material that comes hither to be educated seems to increase, however, more rapidly than accommodations can be provided, and additions to both buildings and to the faculty will soon be needed.

It would seem advisable that the possibility should be met by higher demands upon the applicants for admission and graduates from high schools in regard to fundamental branches, such as Chemistry, Botany and Physics. By such methods it is likely that room and time could be gained for the specific and higher objects of the college.

A course of Chemical Engineering should be inaugurated as soon as ways and means can be provided. Scientific exploitations of the boundless resources of our country and the transformation on a commercial scale of the crude materials lying dormant at our feet into articles of food, clothing or enjoyment, has but just begun. The chemist with his added education of engineer capable of installing scientifically factories and plants for the reduction of raw materials into merchantable goods, is distinctly the man of the future.

JULIUS GUGLER.

REPORT OF THE COMMITTEE ON ANCIENT LANGUAGES.

To Judge JOHN B. WINSLOW, Chairman of Board of Visitors, University of Wisconsin:

The undersigned members of the Committee on Ancient Languages would, as the result of their inspection and observations, express their satisfaction with the general state of conditions in this department. The courses of study are well arranged, and offer a wide and inviting field of activity to the student of classical and post-classical antiquity,

of Oriental Languages, and of Comparative Philology. The means of instruction, information, and reference appear to be amply provided for. The professors and instructors have performed their duties with devotion and ability, and the students we have found to be well-behaved in the classrooms, and interested in their work. We only regret to notice that, in spite of the endeavors and the marked ability of the teaching force, the noble language and literature of Hellas has not yet regained its attractive influence upon the youthful mind. The professors still complain of the comparatively small number of students in their Greek classes. The same observation is made also in other institutions of learning, both here and abroad, and seems to point to a common tendency of our age favoring practical and applied science in preference to more ideal spheres of thought.

Though it is difficult to counteract this tendency of the times, yet it is our opinion that no effort should be spared to arouse a greater interest in this study and to increase the number of students in this branch.

Respectfully submitted,
(Signed) F. W. A. NOTZ, *Chairman.*
HELEN R. OLIN.

REPORT OF THE COMMITTEE ON GROUNDS AND BUILDINGS.

Milwaukee, April 10, 1893.

Hon. J. B. WINSLOW, Chairman of Board of Visitors:

Your Committee on Grounds and Buildings begs to report as follows:

The condition of the grounds and buildings was found generally satisfactory, though there is still ample opportunity to beautify and improve the same.

The campus in front of the Library Building should be turned over to a landscape gardner without further delay, and the students provided with some other grounds for their sports. This particular spot marks the entrance to the University grounds, and would be most appropriately adorned by a statue of President Adams.

The interior of North Hall is badly in need of a general overhauling, the German quarters in this building making an especially depressing effect on the visitor. Your committee would suggest reconstructing the interior and devoting this entire building to the Natural Sciences, and removing the German Department to South Hall as soon as the Agricultural Building is ready for occupancy.

The School of Music is likewise badly in need of additional rooms to accommodate its pupils, and it must require a great deal of enthusiasm to go down into one of these underground apartments to cultivate the art of music. Pleasing and artistic surroundings are of special importance in this building as it is most frequented by young women. Donations and purchases of pictures and statuary are most to be desired for all buildings devoted to Fine Arts.

Respectfully submitted,
(Signed) AUG. H. VOGEL,
J. EMORY COLEMAN,
ELIZABETH TAYLOR.

University of Wisconsin.

REPORT OF COMMITTEE ON STUDENT LIFE OF YOUNG MEN.

Hon. J. B. WINSLOW, Chairman Board of Visitors, University of Wisconsin.

Dear sir: Your Committee on the Student Life of Young Men beg to submit the following report:

Student life of young men in any institution of learning furnishes an important and interesting field for investigation. What can be done to create more favorable conditions in our educational institutions for the development of the young men sent out from the different homes of this state is one of the perplexing problems that now confronts us. We must all agree that certain conditions prevail about many of our large educational institutions that are not conducive to the best interests of many young men who are in those institutions.

Our investigation leads us to believe that the University of Wisconsin is very much misunderstood by many of our people who have young men ready for college life. The impression prevails in some portions of the state that the environments of our University are detrimental to the moral life of the average student. This sentiment is largely based upon the newspaper and other reports of the thoughtless and indiscreet acts of a few students. Our inquiry leads us to believe that the conditions are highly favorable for the physical, intellectual, social, moral and religious development of the students of the University. We must admit, however, that in nearly all these lines there are to be found some drawbacks, but these are to be found more or less in nearly every community in the state.

The advantages enjoyed by our young men of the University are unsurpassed by few institutions of learning in this country. We believe it should be the policy of the State to cheapen the cost of education at our University, so that young men from the common walks of life may be encouraged to attend and enjoy the advantages of higher education. It may seem now that the state has already cheapened education enough, but when we consider the battle fought out by the young man who earns his own money and pays all his own expenses, that he has a large undertaking to perform. The cost of living in Madison has somewhat increased, and owing to the rapid growth in numbers, the demand for rooms has greatly increased throughout the city.

We are of the opinion that a dormitory for young men who are by force of circumstances compelled to economize would seem a necessity. Some of our older colleges have provided dormitories for young men and have done much towards furnishing work and extending aid to the deserving and worthy young man who is ambitious to obtain a college education.

We inspected the Gymnasium and its appliances and saw some of the work in Physical Culture. It was manifest that the University offers excellent advantages for Physical Culture and that this department was receiving the full measure of attention which is now demanded by the student life. Athletics, and especially football, receives much attention in University life.

Your committee recognizes the fact that football is one of the games that greatly assist in the development of a university spirit which is of considerable importance. It establishes friendly relations and also creates a spirit of friendly rivalry between the different universities. But there is danger of excess. It cannot be too carefully guarded.

Any gambling or semblance of gambling should be severely punished.

The University cannot afford to have it understood that she fosters or tolerates a sporting element in her midst. While the University has been brought into very great prominence on account of her athletic victories, yet it should be understood that the greatest victories won by the young men outside of the regular work have been in the literary Joint Debates. The interest manifested by the members of the literary societies gives assurance of the maintenance of the high standard of proficiency in debate that has won so many honors for the University in these intellectual contests.

There is considerable adverse criticism of student life in the fraternities at our University. It is not an easy matter to obtain all the information necessary to confirm or refute such criticism; but the conclusion reached is that much of the outside criticisms are based upon misinformation and a wrong conception of the functions of the University.

On the whole, the moral life of the University is quite good. It is a fact that there will always be some, in so large a body of students, who will at times bring disgrace upon the institution. Summary means should be used to remove this element from the institution as quickly as possible. The great mass of young men seem to be at the University for earnest work and we believe it would be difficult to find a more peaceable, orderly body of young men in any institution of like proportions in this country. Much good work has been done by the University management to create a most wholesome moral atmosphere.

Madison is a city of churches and religious societies, furnishing to each student an opportunity to worship as he is inclined. The State cannot teach religion, but it encourages all religious influences, which may gather about the University. Everything points directly to the conclusion that the management is doing its utmost to bring about such conditions as will be helpful to the best interests of the students.

(Signed) D. O. MAHONEY, *Chairman.*
F. W. A. NOTZ,
C. G. CANNON.

REPORT OF SUB-COMMITTEE ON HORTICULTURE AND PHYSICS.

To the Board of Visitors of the University of Wisconsin.

Your Committee on Horticulture and Physics begs leave to submit the following report:

We are very favorably impressed by the thoroughness and exactness of the experiments and investigations carried on in this department on different lines in laboratory and hothouse, as well as in the open field.

That the value of the publications disseminating the results of those investigations is appreciated by the State, is evidenced by the large number of bulletins of information which are sent out on application. It is evident that these investigations are of the highest importance to the agricultural and horticultural interests, not only of our State, but to those of our country at large.

We are gratified to observe the devotion of professors and instructors to this line of work, and we have noticed that the students in this Department generally pursue their several studies with laudable zeal and interest.

University of Wisconsin.

We believe that the Horticultural Building is crowded and has become too small for its purpose. The desire to have this Department provided with more room for the pursuit of its work seems fully justified, and we feel that a recommendation in this direction should be laid before the Board of Regents.

In conclusion, we should like to call attention to the fact that an unrivalled opportunity is afforded the University in the lower campus below the Library Building of affording an object lesson in the aesthetic side of Horticulture.

America is awakening more and more to the great artistic possibilities of Horticulture, and some instruction in the art of beautifying home premises will surely be of great value.

MARY LOSEY EASTON,
HELEN R. OLIN,
F. W. A. NOTZ.

REPORT OF THE COMMITTEE ON MODERN LANGUAGES.

Evansville, Wis., April 14, 1903.

Hon. J. B. WINSLOW, Chairman of Board of Visitors.

Your Committee on Modern Languages begs to report as follows:

DEPARTMENT OF GERMAN.

The efficiency of this Department is perhaps lacking a little in the current year through the fact of Dr. Voss' absence on leave, and through the consequent overburdening of the teaching force; upon Professors Hohlfeld and Roedder devolving mainly the classroom work usually done by Professor Voss.

But there seems to be, besides this, some waste of energy mainly by the head of this department, due to a quantity of administrative work devolving upon him, which is quite difficult and tedious to perform. This work your committee is assured could easily be done by an ordinary clerical person, or stenographer. We should recommend that service of this kind be furnished by the Regents.

But in other ways, also, this department is handicapped. This particular difficulty arises from the awkward arrangement of the department's quarters in North Hall. Professors and instructors have no conference room, and the division of the class rooms, three on each of two floors, is such that whenever consultation seems necessary the professor occupying the south room cannot communicate with his colleague at the north end without stepping out into the open, which, in cold weather,—protecting vestibules of any kind lacking,—is a hardship and often a menace to health. We should advocate that this state of things and the necessity of supplying a general office, or conference room, for this department be investigated by the Board of Regents.

We advocate the above also for a reason which should carry even greater weight than the one mentioned.

The Department of German is now doing its work in six rooms which are hardly sufficient for its purpose. There should be, in the judgment of this committee, nine all told. And this is not only for reasons already stated, but from the fact that there are now between 800 and

900 students taking the various German courses and that the department is growing at the rate of about 125 students per annum, which is equal to an increase of almost 15%. At the same time, owing to lack of room, the tuition of German in connection with the Engineering Department and one other, is given outside, that is in the buildings housing these departments.

All these observations and the fact that the present quarters are poorly kept as regards repair of woodwork, walls, locks, doos, etc., lead to our recommendation to the Board of Regents that one of three things be done at as early a date as possible.

1. The addition of extra rooms now occupied by the Chemical and Pharmaceutical department in same building when these are moved to the Chemical Building.

2. The transferring of this department to South Hall when that shall be vacated in the near future.

3. The setting aside, now, of sufficient room and the necessary conveniences in the proposed wing of the Main Hall, at present under contemplation.

The last named course is recommended as the most fitting, since it would result in the uniting of the German department with the balance of the arts now located in the main building.

It is further suggested to the Board of Regents that the subject of scholarships for this department have especial consideration. It boasts of only one now, and that ($150.00 per annum) will run out this year. It would not be an over-diffifficult task to obtain several in the state of Wisconsin where so large a percentage of the population cherishes the German language and the civilization that finds expression in this tongue; but it seems to your committee that a start should be made by the University as such, in creating at least one scholarship. The interest thus shown by its Regency will no doubt find emulation and several others, we are quite sure, will follow.

Your Committee finds that many critical editions of German poets and authors of note, since Goethe, are lacking in the library. Liberal allowances should be made for this purpose, since these are the indispensable tools with which professors and instructors must do their work, and the gradual acquisition of such works, which takes perhaps less money than time and attention to collect, should be carefully fostered.

Finally, it is the sense of your committee that the class rooms of the German department, aside from their defective appearance, lack that character of decoration consisting of portraits of poets and thinkers as well as photographs of art monuments, which together with suitable color tones upon the walls and ceilings, have the tendency to inspire student and professor and unconsciously warm both to the subject treated of in the class room. For the baldness of these surroundings tradition may be answerable, but this condition of things should be changed. Decorations of the character named are not expensive, and small sums set apart for such purposes will go very far. Regents and professors alike should not underrate the value of "atmosphere," and lend their support to realize the object last named.

DEPARTMENT OF ENGLISH.

Whatever other attainment a student may realize, if unable to write the English language reasonably well, he will be handicapped during his entire lifetime. The faculty of the University fully appreciate this,

and have amply provided for a thorough study of English. Your Committee does not assume to offer any suggestions looking to the betterment of the plan now being pursued, but we do wish to heartily approve of the purpose to make every graduate capable of expressing his thoughts in writing, in a style of which his Alma Mater will not be ashamed. We also heartily approve of the purpose to discontinue preparatory work in English, in the University. We believe the result will be not only to secure for those who enter the University, a better English training in the Academy and High School, but also to raise the grade of work done by those who do not continue their studies beyond schools of secondary grade.

The provision for four years of undergraduate work in English, as well as for three years of post graduate work, is as we believe it should be. Too great facilities cannot be offered for the study of our mother tongue.

SCANDINAVIAN LANGUAGES.

Since there are so many residents of our state who came to us, or whose parents came to us, from the Scandinavian peninsula, the opportunity afforded to study the language and literature of those countries, we regard as both fair and wise. The work in this department is, of necessity, restricted, yet we think the University can profitably encourage it, both for her own sake and for the sake of our Scandinavian citizens.

J. EMORY COLEMAN,
JULIUS GUGLER,
MARY LOSEY EASTON.

REPORT OF THE COMMITTEE ON COLLEGE OF AGRICULTURE.

Report of the sub-committee on College of Agriculture, including Farm and Dairy Instruction and Farmers' Institute.

To the Board of Visitors of the University of Wisconsin:

The Committee on the College of Agriculture, including Farm and Dairy Instruction and Farmers' Institute, submits the following report for your consideration:

The total attendance of the department for the college year of 1902 and 1903 shows a slight increase over preceding years, the accomodations for Dairy Instruction and the Short Course in Agriculture being taxed to the utmost.

It is important to note that the attendance in the Long Course in Agriculture begins to increase, showing that young men are gradually becoming inclined to spend four years in preparation for life work in agriculture. This fact is significant in many ways. We must remember that if the Experimental station is to keep up its present standard of work and the Short Course is to grow in numbers and length of period of instruction, there must be increased teaching force to properly attend to the Long Course students, who must have instruction each college day throughout the year. In the past our Agricultural Experiment Station has been enabled to do much of its good work because for a part of the year the workers were forced to do little teaching. As the Long Course grows, the conditions become burdensome with the same persons having Long Course instruction as well as Dairy and Short Course instruction added to their duties as investigators.

LENGTHENING THE SHORT COURSE.

Those in charge of instruction in the College of Agriculture, as well as your committee, believe that the time is at hand for slightly lengthening the Short Course, remembering that at first it covered but twelve weeks period for one winter, and that it was further lengthened to two winters of twelve weeks, and later to two winters of fourteen weeks. There is now a feeling that it should be lengthened to two winters of sixteen weeks. The Short Course classes for the last two years have voted almost unanimously, when the question was submitted to them in favor of having the course lengthened. These students are greatly pressed for time, working more hours in class-room and laboratory than any other class of University students.

With the occupancy of the new agricultural building there will be materially better accommodations for this class of students.

NEEDS OF THE COLLEGE.

It should be borne in mind by our citizens and regents, that the Wisconsin Agricultural College, as yet gives no instruction worthy of commendation in the extremely important subject of Veterinary Science, nor does it give any instruction in Poultry rearing and egg production. It also has no department of Economic Entomology or Vegetable Pathology. All of these branches are taught in all first-class agricultural colleges. Then there is great need of a department of what may be called Farm Engineering or Farm Mechanics. All our colleges are deficient in a more or less marked degree in this line, though some of them have started instruction and are greatly in advance of our own college. Iowa is about to erect a building to cost $25,000 for Farm Mechanics, and some of the other colleges are taking similar steps. The Agricultural College is constantly importuned by farmers for help in planning farm buildings of all kinds, especially barns, for instruction in regard to farm machinery, for counsel in regard to land drainage and other farm engineering problems. At our University farm agricultural machinery is stored in lofts, dark cellars, cheap sheds, etc., although in very small amount or numbers, as compared with other colleges.

At the Agricultural colleges in Europe, one finds great buildings and museums where agricultural machinery is displayed and operated.

The college is asking for and your committee believes it should have $15,000 for a farm mechanics or farm engineering building for accommodations for this much needed department; also $2,500 on account of expenses of such department including instructors. There is urgent need in this line. The farm is also seriously in need of increased land. At least $10,000 should be set aside with which to increase the size of the Agricultural Farm. The Wisconsin Agricultural College is the poorest off in this regard of any college in the west, and each and every opportunity for securing land at anything like reasoable prices should be taken.

IMPROVED VARIETIES OF GRAIN.

The Agricultural College is doing a most important work in testing and disseminating new and improved varieties of grains. A marked instance is that of the Swedish oats, which promise great returns to

our state in the way of largely increasing yields over any of the varieties now grown by our farmers. Millions of dollars can annually be added to the wealth of our state in assisting farmers to the best and most productive varieties of the cereal grains and other useful farm plants.

The Dairy Department is now well housed and has good accommodations. Our state may well feel proud of what it has done in this department of the College of Agriculture. There is still great work for the College in assisting in developing the industry normally and wisely in the northern part of the state. Professor Henry insists that the best portion of our state for cheese production is still almost undeveloped. The college should do its full work in making the northern half of our state the greatest cheese region in all the country.

FARMERS' INSTITUTE.

Little need be said in regarding the Farmers Institute. In the past year over one hundred institutes have been held in different portions of our state, with marked success in nearly every instance. The good to come from these meetings cannot be overestimated and the management of our Agricultural College has done much in making them a success.

(Signed) C. G. CANNON, *Chairman;*
WM. J. STARR,
D. O. MAHONEY,
Committee.

REPORT OF COMMITTEE ON COLLEGE OF MECHANICS AND ENGINEERING.

To the Board of Visitors of the University of Wisconsin:

Your Committee assigned to visit the College of Mechanics and Engineering submits the following report:

The success of this Department of the University certainly justifies the belief that a combination of theoretical knowledge and actual work and experiment in shop and laboratory may be so welded together as to form almost an ideal beginning to the education of a young man who would become an engineer.

Already the graduates of this College are widely sought, the demand for such men being much greater than the College can supply a marked change from that condition of a few years ago when the young man from the school of engineering found his theories looked at askance and his practical ability questioned.

The strongest commendation this College could have is the constant application for its students by practical men of affairs who have found its teachings sound and worth their money.

And so it is well that this department impresses the visitor as being one of the best endowed and most thoroughly equipped of the University. So far as it goes nothing seems lacking in detail or totality, and hence the reputation of the department gained by the successful graduates it has sent out in practical life and its popularity among students themselves, is easily accounted for.

The pressure of raw material that comes hither to be educated seems to increase, however, more rapidly than accommodation can be pro-

vided, and additions to both buildings and to the faculty will soon be needed. It is fortunate that the present home of this department has been so planned as to permit ready and symmetrical expansion of the buildings as the need for it arises.

It would seem advisable that the possibility of a growth disproportionate to the other departments should be met by a demand for higher standards in the applicants for admission and in graduates from high schools, especially as to fundamental branches, such as Chemistry, Physics and Mathematics. By such methods it is likely that such elementary work could be done elsewhere, so that time might be gained for the specific and higher objects of this college.

It is also necessary that constant increase in apparatus necessary for this department be made if the instruction is to be kept up with the exacting demands of the engineering profession. Nowhere in the University is it more imperative that there shall be no out-of-date apparatus or obsolete methods employed than in this College of Mechanics and Engineering.

A course of Chemical Engineering should be inaugurated as soon as ways and means can be provided. Scientific exploitations of the boundless resources of our country and the transformation on a commercial scale of the crude materials lying dormant at our feet into articles of food, clothing or enjoyment, has but just begun. The chemist with his added education of engineer, capable of installing scientifically factories and plants for the reduction of raw materials into merchantable goods, is distinctly the man of the future.

We commend most highly the College of Mechanics and Engineering and the excellent work now being done by its Faculty.

(Signed) WILLIAM J. STARR,
Chairman.

REPORT OF COMMITTEE ON FINANCES AND BUSINESS METHODS.

To the Board of Visitors of the University of Wisconsin:

The Committee appointed to investigate the Finances and Business Methods of the University reports as follows:

We have made a careful inspection of the methods employed in the offices of the University, starting with the Budget of estimates for the year's income and expenditures. Following the Budget and kept within its estimates come the system of requisitions by the heads of the different departments, which requisitions must be approved by the president of the University, passed to the Executive Committee of the Board of Regents, and acted upon by that body before supplies are bought or money disbursed.

To safeguard the accuracy of payments so authorized there is in use a very complete system of checking and cross-checking with frequent reports to the State Treasurer—who is *ex officio* the Treasurer of the University—and statements from him, showing all receipts and disbursements, together with the particular accounts to which they are chargeable.

There is also a complete set of monthly statements covering each department of the institution, showing the cost in detail and as a whole of operating such department during the month and also showing the proportion of the amount allowed that department by the Budget expended to date.

University of Wisconsin.

We also found careful inventories, which are carried down from year to year and show as nearly as possible the value of all tangible property, both real and personal, giving the present value of the entire plant.

The fire insurance of the university property is being carried at about 50 per cent. of the inventory value in good insurance companies, at a very reasonable rate and on a "blanket form" policy that seems to cover the risk in a very satisfactory manner.

We are very much pleased to find the finances of the University so carefully administered, and we feel convinced that in regard to accuracy and quick accessibility of details, those in charge of the business side of this institution are doing their work in a way that might well excite admiration in the office of many a corporation.

(Signed) WILLIAM J. STARR, *Chairman*,
D. O. MAHONEY.

Madison, Wis., April, 11, 1904.

Report of the Board of Visitors. 1903-04.

To the Board of Regents of the University of Wisconsin:

Pursuant to the direction of the Board of Visitors for the year 1903–4, I herewith transmit to your honorable body the reports of the various sub-committees of the Board which were adopted as the report of the Board at its meeting held April 6th, 1904.

Respectfully submitted,

(Signed) JNO. B. WINSLOW,
Chairman Board of Visitors.

REPORT ON MATHEMATICS AND ASTRONOMY.

Hon. JOHN B. WINSLOW, Chairman of the Board of Visitors, University of Wisconsin:

Dear Sir: The committee on Mathematics and Astronomy reports that by visits made to the class-rooms, by conversation with teachers, pupils and outside friends, we are satisfied that these departments are in excellent condition.

With the exception of the engineering and commercial courses, Mathematics is now wholly elective. This is the first year of optional work. Much interest has been felt as to the number who would choose to pursue Mathematics. The teachers are gratified with the results. Seventy per cent of those to whom it is optional have chosen Mathematics. This is of double advantage. The classes have been rid of those who from lack of interest or capacity, have been a drag, and new zeal is felt by those, who from choice, not necessity, pursue these courses. It is evident that Mathematics is not the bugbear it has been sometimes represented but full of interest to those having capacity to enjoy it. We have also noted the relative number of men and women in classes visited. Sixty-six per cent. were women. These were holding their own with spirit.

The department of Astronomy is a revelation to one who remembers the meager outfit and course of twenty-five years ago. A course in general Astronomy—not emphasizing Mathematics, but revealing the wonders of the heavens, and teaching pupils to enjoy them with home-made apparatus—proves delightful. The course for engineers, in the study and use of the smaller instruments, already overcrowds the lecture rooms in the Observatory. New textbooks notably the one by Professor Comstock have greatly aided the students.

In addition to this general course, every opportunity is given to those who have special aptitude for higher work. Quite a number have availed themselves of these opportunities and are doing themselves and our University credit here and in other institutions.

(Signed) HELEN L. BURHANS, *Chairman*,
F. W. A. NOTZ,
W. J. MCELROY.

University of Wisconsin.

REPORT OF COMMITTEE ON STUDENT LIFE OF YOUNG MEN.

Hon. J. B. WINSLOW, Chairman Board of Visitors, University of Wisconsin.

Dear Sir: Your committee begs leave to report as follows:

Student life of young men in its different aspects—physical, intellectual, moral, social—presents a subject of vast import and extent, requiring for an exhaustive report more time and labor than the members of this committee—all living at a distance from the University—were able to bestow upon it. We therefore confine ourselves to the following remarks embodying the results of personal observation and inquiry made during the present school-year.

We find that the students' life and conduct has, so far, taken a smooth and normal course. There are no instances on record of flagrant and combined violation of the law. The students generally have shown a proper sense of their responsibilities and devotion to their task. A high and strictly maintained standard of regularity in attendance and of proficiency in their studies, together with a wise and just management on the part of the Faculty have no doubt contributed to this result.

For physical exercise and training ample means have been provided and we find that the students generally make good use thereof. In view of the fact, however, that the swimming tank in the Gymnasium is very sparingly patronized on account of an entrance fee being charged, we should recommend that this fee be abolished and some other means to prevent overcrowding be substituted.

More than ever before the general and constant rise in the price of the necessaries of life and the consequent increase of expenses for board and lodging calls attention to the necessity repeatedly urged by previous committees, of granting more substantial help to students whose means are insufficient or limited, by providing a dormitory affording rooms at reasonable rates and a dining hall offering a meal to every student who wishes it, at lower rates than those charged in private or public eating houses.

Likewise, we think, some help is needed toward a sounder development of the young men's social life and intercourse. There are two influences at work, both counteracting it, yet in opposite directions; on the one hand a tendency toward aristocratic exclusiveness within chosen circles; on the other, the ever active temptations to spend the free hours of recreation in common and low resorts. There is need of a house like Harvard Union offering one common ground where all the young men may freely meet with each other, may meet their teachers and older graduates, may met friends and visitors, from abroad among pleasant and homelike surroundings in an atmosphere of decency and purity vouchsafed by proper restrictions and supervision. We are glad to be informed that active steps have been taken toward the erection of such a meeting place and heartily recommend this work to the support and co-operation of all who take an interest in the welfare of the University and of the youth committed to its care.

(Signed) F. W. A. NOTZ, *Chairman*,
SAMUEL SHAW,
C. G. CANNON.

Report of the Board of Visitors, 1903–04.

STUDENT LIFE OF WOMEN.

Your committee would respectfully emphasize the need of more supervision over the life of the young women, especially those who are at the University for the first time. To this end we believe that after two years residence at Chadbourne Hall, the Senior and Junior girls should yield their rooms to Freshmen girls who make application for rooms in this building.

(Signed) MARY L. EASTON,
HELEN R. OLIN,
HELEN L. BURHANS.

REPORT OF COMMITTEE ON COLLEGE OF LAW.

To the Board of Visitors of the University of Wisconsin:

Your committee appointed to inspect the College of Law would respectfully report that on the 26th day of Jauary A. D. 1904, the members of the committee, in company with Hon. John M. Winslow, visited that institution.

We attended recitations conducted by the Dean and by Professors Smith, Gilmore and Mack. Unfortunately on the day we were there no lectures were being given by Professors Olin, Bashford, Jones or Stevens. However, we called upon the gentlemen last named at their offices in the city and consulted with them as well as with the Dean of the Law College and Professors Smith and Gilmore, as to the work being done and the needs of the institution. We also talked with a number of the students in order to get what information we could from their view-point, and have since conversed with a number of recent graduates of the school; thinking that their experience in starting out upon the practice of law might afford us valuable information as to the efficiency and needs of this department of the University. As the result of our observations and investigations, we would respectfully report as follows:

We believe the work that is being attempted in the law school at the present time is being thoroughly well done. The methods of instruction employed are up to date, the so-called "case method" being used almost exclusively. This is the method that is being used with signal success in the Harvard Law School and which was recently recommended by the Committee on legal education of the National Bar Association.

At its introduction into the school this method did not meet with general favor, but it is growing in popularity, not only with the faculty, but with the students. In the hands of a weak or indolent instructor it would probably give a fragmentary knowledge only of a subject; but with a strong, energetic teacher it is probably the best known method of imparting instruction in legal principles. It is especially valuable in teaching a student how to analyze, state the points involved tersely and with precision, and instruct him in the methods of legal reasoning.

We found the student body an earnest, enthusiastic lot of young men. They came with their lessons well prepared, while the attention and decorum were all that could be expected or desired.

University of Wisconsin.

The library connected with the College of Law is fairly well equipped in the way of Reports with the exception of Wisconsin Reports. Nine-tenths of the students in the school will practice law in this State. It is, therefore, apparent that special use must be made of the reports of Wisconsin cases. There are over two hundred students in attendance upon the law school and only two sets of Wisconsin Reports in its library. It thus frequently happens that students are required to wait several hours before they can obtain access to some particular volume of Wisconsin Reports containing some case to which their attention has been directed by their instructors.

In the way of legal text books, the library is very deficient. It is the opinion of your committee that several additional sets of Wisconsin Reports should be procured for the use of the students and faculty; that $1,000 should be expended in making needed additions to the text books kept for reference, and that the Legislature ought to be urged to double the present appropriation of $1,000 per annum which it now makes for the purpose of keeping up the Law Library connected with the College of Law.

While your committee are of the opinion that excellent work is being done in the Law School and that it is accomplishing all that could be reasonably expected of it with the limited means at its disposal, we are, nevertheless, of the opinion that it is not doing the work which ought to be done therein, in order that it may accomplish the purposes of such an institution, or come up to the expectations of the bar and the people of the State.

The objects of the institution, as stated in its literature, is to "fit the student for the active practice of the profession." Those pursuing the course of study in the school expect, and have a right to expect, that upon the completion of its course they will be sufficiently instructed to enable them to at once enter upon the active practice of the profession. They cannot be prepared to do so without they have been taught in the school to do those things they will be called upon to do in the first years of their experience at the bar.

If a young man desires to fit himself for the profession of teaching, he attends a Normal School, where he is required to teach under the supervision and guidance of a skilled and experienced teacher; if medicine, surgery, or dentistry is his choice, he has clinical instruction in hospitals and operating rooms under the supervision of able, skillful and experienced practitioners. If he wishes to be an electrical engineer, the State furnishes him with the same machinery and electrical appliances to work with during his college course that he will be expected to use thereafter. If he is to become a chemist or pharmacist, he is put to work in a laboratory doing the very things in school that he will be expected to do upon completing his course of study.

In the College of Law, however, the instruction given is nearly all along theoretical lines, and very little is given in the important field of practice. Only one instructor has been provided for this important branch of legal education, and he can devote only a few brief hours per week to it, and those must be snatched from the exactions of other duties. Of course, actual practice cannot be secured in court for the student, but moot court work can be made to take its place in a measure. Very little work of this kind is now open to the student, and such as is given, we are led to believe, is more along theoretical lines than along the lines of the minutiae of practice. *No instruction whatever is given anywhere in the course in justice court practice.* Yet we all know that it is in this humble forum that

nearly every young lawyer must commence his experience and either lay the foundations of his subsequent success, or else demonstrate his unfitness for the profession. Should he be fortunate enough in his early practice to be employed in a case in the Circuit or in the Supreme Court, he is quite certain to have some older and more experienced practitioner associate with him, who can pilot him aright through the shoals and rocks of practice. But such is not the case with his retainers in justice court cases. The amount involved in such cases usually precludes the employment of more than one attorney, and hence it is seldom that he can have the benefit of the advice and experience of others. How important it is then that he should receive adequate preparation for this class of work in our College of Law, yet it is, as we have already said, entirely neglected. No attempt is being made to teach it. The result is that the student upon graduation is soon made to feel his utter helplessness and becomes discouraged. He must acquire this knowledge, if he acquires it at all, in the dear school of experience.

Necessarily he must make many mistakes, and, as a lawyer's mistakes are paraded before court, jury and by-standers by his opponent, discredit is thrown upon the law school and upon our University.

The only way to succeed in this world is to do things, and do them well. How can our law students be expected to understand the practice of the law without instruction? The remedy is of course apparent:—employ a sufficient instructional force to give the needed preparation. Let such instructors be selected from the ranks of the successful practitioners at the bar in the State of Wisconsin:—from those who have, in the actual school of experience, learned how to practice law in all the courts of this State, and then require them to devote their entire time to the work in the College. Of course this will require money, and considerable of it, as a successful lawyer (and none other should be employed) would not feel like giving up his practice unless he was to receive an adequate salary. This brings us face to face with the real needs of the College of Law, and that is, briefly spoken, "more money."

Without pretending to say that any one in particular is at fault for the situation (it has probably grown up naturally), it is nevertheless apparent that the College of Law has never heretofore been regarded as really constituting a part of the University of Wisconsin.

This is so because the same liberal treatment has never been extended to it that has been given the other colleges composing the University.

To illustrate: If a young man desires to become a civil engineer or an electrical or mechanical engineer, the University does not require him to pay any tuition fees, but will educate him for four years at an annual expense to the State of $117.90. If he wishes to enter the profession of teaching or of journalism he enters the College of Letters and Science, paying no tuition, but the state expends $147.12 per annum to educate him. If he wishes to be a scientific farmer the State gives him the instruction *gratis* and expends $214.25 per annum upon him. If he desires to mix pills and compound prescriptions, the State will expend $248.09 per annum for his benefit, and this also free of expenses for tuition. But if he wishes to study law, the University says to him that if he will pay $50 per annum for tuition it will expend for his legal education the sum of $45.70 per annum, and pocket $4.30 per capita profit every year from each student entering the law school. At least this is the way the thing figures out from the statement of the receipts and disbursements of the University for the year 1901–2.

Why this discrimination? Is it because the legal profession is not an honorable avocation? If this is so, the College of Law would better be discontinued. Is it because the graduates of the law course are not bringing honor upon the University? We have only to point to the long list of eminent men, governors, judges, legislators and diplomats who have graduated from its halls to disprove this supposition. Is it because it is supposed that its graduates will be of little use to the State or to the University in the future? That our laws should be properly framed and wisely administered is surely a matter of great concern to the State, and we may well ask: When the University goes to the State Legislature to secure appropriations, whom will it find in its halls shaping legislation and championing the cause of the University? Will it not be very largely the young men who have graduated from the College of Law?

Why then should the State require that, of all the colleges composing its University, the Law School alone should be self supporting? Why not extend to it the same generous and liberal treatment extended to other departments of the University.

The greatest need, in fact the one great need, of our law school today is an additional appropriation of at least ten thousand dollars per annum. If this is given it, the College of Law can be made to come up to the design and purposes of such an institution, make an honorable name for itself among the best institutions of the kind in the United States, and will give an added lustre to the proud name of the University of Wisconsin. But if the present policy is to continue and no more is to be expended upon the College of Law than is derived from tuition fees taken in by it, the law school must, perforce, largely fail for its purpose and be a continual source of disappointment and humiliation to the bar of the State, and to the University itself. It is useless to talk about improving the school so long as the present financial policy is pursued. All is being done at present that can be done with the limited means that is now devoted to its support.

Respectfully submitted,

(Signed) ALDRO JENKS,
W. J. MCELROY,
A. W. SHELTON,
Committee.

REPORT OF COMMITTEE ON MODERN LANGUAGES.

Milwaukee, April 4, 1904.

Hon. JOHN B. WINSLOW, Chairman, Madison, Wis.

Dear Sir: It affords me pleasure to report some progress in the direction of better surroundings within the classrooms of North Hall of the University. Also has the recommendation of the Visiting Committee of last year for better protection from storms and cold of the halls and adjoining classrooms been heeded, and the physical conditions in the buildings are therefore now much better. Nevertheless, there are still lacking a much needed special room for the professors, and also a toning of walls, ceilings and woodwork more agreeable to the eyes of students and instructors.

It is gratifying to note that through the labors of Prof. Voss while in Europe last year, appropriate pictures, portraits and busts are being

offered to the Department of German, and that a sum of money has been set apart to make an initial purchase of this kind.

Otherwise, matters, methods and tendencies are about as they were when last your committee reported. There is a healthy growth in the study of all the modern languages, and efforts are being made by the faculty to meet the demands made upon it for room and facilities for study.

Respectfully submitted,
(Signed) JULIUS GUGLER, *Chairman.*
Visiting Committee Modern Languages.

REPORT OF COMMITTEE ON UNIVERSITY FINANCES AND BUSINESS METHODS.

Milwaukee, Wis., April 4, 1904.

Hon. JOHN B. WINSLOW, Chairman, Madison, Wis.

Dear Sir: Your Visiting Committee, instructed to inspect and report upon University Finances and Business Methods, has found that the system of accounting adopted and very carefully carried out by our Secretary, Mr. Riley, is in every way modern and apparently accurate.

The system of checking bills and accounts, such as is used by large present-day institutions having a diversity of accounts, is employed in the counting room of the University, and items of the smallest detail are carefully followed up and passed through various hands for verification before filing or making payments.

There seems to be no particular call at the present time for instituting additions or improvements to the booking system of the University.

Respectfully submitted,
(Signed) JOHN GUGLER, *Chairman,*
C. G. CANNON,
Visiting Committee University Finances & Business Methods.

REPORT OF COMMITTEE ON GROUNDS AND BUILDINGS.

The University of Wisconsin has for fifty years controlled a site conspicuous for convenience and natural beauty. That these advantages have been in some degree lessened is due to two things:

First: A lack of appreciation of the value of order and neatness, not to say beauty, of surroundings, and

Second: The lack of one harmonious plan, and control under that plan, for the whole premises.

No one can deny that a large portion of the University grounds presents very generally an appearance of neglect and disorder, ranging from the scattering of paper and other rubbish about the buildings and roadways, to the use of the greater portion of the natural groves along the beautiful lakeshore drive, for the fencing in of horses and hogs. In one case, a score or more of horses have been confined in a space large enough for pasturage of one or two, and the ground has been

reduced to a most unsightly condition. In the other, the hogs have uprooted every portion of the turf and exposed the roots of the trees in what was, until a year or two past, the most beautiful bit of natural woods left on the University grounds.

The lack of a uniform plan and control of the grounds has produced a series of buildings, some of them, especially the three first constructed, architecturally good and well placed, but which, taken together, present an appearance far from harmonious or dignified. It is not too late to emphasize the reasons for this result that the remnants of what was once a noble opportunity may be preserved to the State. We believe that more attention should be paid to the appearance of the grounds and buildings; that a sufficient force should be employed to keep rubbish and debris of all kinds picked up; that the only street end in control of the University, as well as its shore line generally, should not be made a dumping ground; and to these ends, that a superintendent of grounds should be empowered and required to enforce neatness and order generally.

We believe that a general plan by a competent landscape architect should be adopted, which should provide for the proper location of buildings and driveways, and a system of planting which should screen what is unsightly and improve what is capable of improvement. As examples of deterioration recently shown by the lack of such advice, is the failure to replace the screen which used to shut off the view of the unsightly buildings along the linden drive; and the change in the direction of the western end of this drive in a way to emphasize and make conspicuous the barns and cattle sheds of the University farm, and create the impression that the driveway around the grounds to the lakeshore was a mere incident. This latter example is the result of not having the matter in the control of a man whose duty it should be to consider the grounds as a whole. The unsuitable location of some of the buildings may be accounted for in the same way. This matter has been left too much to the head of the departments concerned, and too little to a well considered judgment for general harmony and fitness.

It is a pleasure to record that the plans for the new chemical building have been most painstakingly considered by competent architects with special reference to its location and relation to the grounds generally, and that the material used in its construction will be selected with reference to harmony with others to be erected in the future instead of a desire to increase the variety already presented.

The need of a general plan has been recognized by the regents. Two or three years ago such a plan was secured for a portion of the bill, but this report was laid aside and no attention was paid to its suggestions. Also, before the present historical building was completed or occupied, a plan for the improvement of the lower campus was presented for approval to the officers of the State Historical Society.

This campus is the most conspicuous example presented by the University of disregard for good order and fitness in the use of grounds. The location of the historical building was accepted by the officers of the society on the agreement often repeated that the proper setting should be given the building by putting the lower campus in order as a park. When a resolution of the Board of Regents was asked for, the president of the University requested that the attention of the public should not be called to the matter by such a resolution, but that it was well understood that the lower campus should be converted into a space that could be planted in its border and covered with turf. This

understanding has been persistently ignored, and one of the noblest buildings in the country is the background of an alternating dust heap and mud hole. The hospital for the insane receives dignity and beauty by the treatment of the grounds in its front. The youth of the State are not only deprived of what might have a lasting influence on their lives, but are taught to regard the uses of the library building with contempt by exposing it to the dust, noise and danger from broken glass incident to the present use of the lower campus.

The weight of the argument that this ground is needed for athletic purposes is lessened by the knowledge that the athletic grounds of many colleges and universities are at a considerably greater distance from the social center than is Camp Randall.

The comfortable use and appearance of the historical building do not afford the only objection to the present use of the lower campus. This campus is too small for its safe use for ball playing. Balls are constantly flying across the streets to the north and south of these grounds in a manner to make any passage at certain hours very dangerous; and it is within the personal knowledge of one member of this committee that one person, and we are credibly informed that two others, in passing along these streets, have been struck in the head by swift balls with sufficient force to cause death, if good luck had not modified the force of the blow.

Two bulletins recently issued by the Agricultural Experiment Station on the improvement of home grounds and the planting of trees and shrubs for ornamental purposes are based upon the two principles we have emphasized, viz.: an appreciation of aesthetic values and the need of a general plan. These bulletins are profusely illustrated with examples of art in landscape gardening, but these illustrations are not drawn from the University grounds. If this were possible, their influence would be materially increased, as is that of other bulletins from this department. We hope the day is not far distant when all the illustrations needed to enforce such bulletins may present views of the University grounds.

We realize that the mistakes of the past impose a heavy burden upon the present administration. We realize also that unless the conditions of the past few years are changed this burden will be rapidly increased.

Respectfully submitted,

(Signed) HELEN R. OLIN,
HELEN L. BURHANS.

REPORT OF COMMITTEE ON ANCIENT LANGUAGES.

Crandon, Wis., April 2, 1904.

Hon. JOHN B. WINSLOW, Chairman, Madison, Wis.

Dear Sir: As chairman of the Visiting Committee on Ancient Languages, I respectfully submit my report, which is as follows:

In company of Dr. F. W. A. Notz of Watertown, Wis., I made one visit to the State University, Rev. J. E. Coleman of Evansville, Wis., being sick at the time and unable to be with us. From that visit, your said committee begs leave through me, to report:

1st. The instruction in ancient languages that we saw on this visit was all of a high order; the students seemed interested and prepared

University of Wisconsin.

in their work, and the teaching force was exceptionally happy in its treatments of the authors that were being studied; a thorough community of interest was apparent between the instructional force and those who were taught, and the attention of the student body was close and critical.

2nd. I, as chairman of the committee, was seriously impressed with the fact that so few of the student body seem to be taking advantage of your splendid facilities for mastering the ancient languages. I am told that this condition is the condition everywhere during these later times even in the best colleges and universities in Europe; I cannot but regard this drifting away from the humanities as a serious retrograde step in true higher education. I well remember the time when nearly 20% of your university students had some knowledge of the Greek language and literature, from a careful study of the language itself; many of them were brilliant Greek scholars; I am creditably informed that the number who now take Greek is less than 4% of the student body. I regard this as most unfortunate.

Is it not a mistake to confer the B. A. without any Greek? Would it not be well to stir up the city superintendents and high school principals all over the State to see to it that more of the young men and women in the public schools have their faces set towards Athens and Rome?

3rd. I noticed with interest that the University has expanded its work upon the Semitic languages. I trust that this effort may prove to be in time one of the features which shall attract students from far and near to your great institution of learning.

Respectfully submitted,

SAMUEL SHAW, *Chairman.*
F. W. A. NOTZ.

REPORT OF COMMITTEE ON SCHOOL OF PHARMACY AND NATURAL SCIENCES.

To the Board of Visitors of the University of Wisconsin:

Your Committee on School of Pharmacy and Natural Sciences, begs leave to report as follows:

School of Pharmacy. Although the attendance of the School of Pharmacy does not increase over preceding years, yet the quality and standard of the work done in that department is high, and in every was satisfactory to your committee.

Your committee, however, wishes to suggest that more attention be given to the repair, cleanliness and sanitary conditions of the "North Hall" in which building this department is housed. The building, though sound and firm in itself, is sorely in need of general repair, re-painting and re-decorating throughout, which would only necessitate the expenditure of a comparatively small sum of money, and would add much to the appearance and value of the building, and at least would make it more pleasant and attractive to the teachers and students who spend most of their time in the same. More janitor service is also much needed in order to keep this building in a neat and sanitary condition.

School of Natural Sciences. The attendance in this department seems to be increasing rapidly and the standard and quality of the courses

offered by this department is high, and the work done in the same, in the main, is thorough and generally satisfactory to your committee.

Science Hall, though quite a large and well arranged building, seems to be inadequate to accommodate the needs of the work in that department, notwithstanding that several additions, improvements and changes have recently been made to the same.

A few years ago a pre-medical course of study was added to this department for the accommodation and benefit of those students expecting later to take up the further study of medicine. Later a special course of Human Anatomy and Dissection was also arranged and added thereto. Your committee fully realizes that such a course of study is exceedingly beneficial to that class of students expecting to enter the study of medicine, but from present indications and from what information can be gained, your committee verily believes that the quality, standard, character and scope of the work done in the pre-medical course of this University, does not compare favorably with similar work done in first-class medical schools and other large universities. Your committee therefore suggests that the said pre-medical course of study be investigated and if found deficient in any way, that it be brought up to the proper standard, or else discontinued altogether.

Your committee also advises that more janitor service be provided for Science Hall, so that the interior of this building may have a neater and more orderly appearance than at present.

Respectfully submitted this 6th day of April, A. D. 1904.

(Signed) C. G. CANNON, *Chairman.*

University of Wisconsin.

Report of the Treasurer.

MADISON, WIS., July 1, 1904.

GEORGE F. MERRILL,

President of the Board of Regents.

SIR—I submit my report as Treasurer of the Board of Regents, University of Wisconsin, for the fiscal years ending June 30th, 1903 and June 30th, 1904.

RECEIPTS.		
1902, July 1.		
Balance on hand	$93,051 73	.....
From Treasurer of the U. S. for the year ending Sept. 30, 1903	40,000 00	.....
From State Treasurer for the year ending Sept. 30, 1903	435,286 74	.....
From deposits by the Secretary of the Board for the year ending Sept. 30, 1903	164,612 71	.....
From income on gifts for the year ending Sept. 30, 1903	1,265 34	.....
From Treasurer of the U. S. for the year ending June 30, 1904	40,000 00	.....
From State Treasurer for the year ending June 30, 1904	486,439 57	.....
From deposits by Secretary of the Board for the year ending June 30, 1904	183,910 60	.....
Interest on gifts for the year ending June 30, 1904	1,315 66	.....
DISBURSEMENTS.		
On orders fiscal year ending June 30, 1903	.....	$672,695 51
On orders fiscal year ending June 30, 1904	.....	771,053 36
	.....	$1,443,748 87
Balance on hand	.....	2,133 48
	$1,445,882 35	$1,445,882 35

(Signed) JOHN J. KEMPF,

Ex-Officio Treasurer Board of Regents, University of Wisconsin.

Financial Condition.

Report of the Secretary.

MADISON, WIS., July 1, 1904.

HON. GEORGE F. MERRILL,

President of the Regents of the University of Wisconsin.

SIR—I have the honor to report herewith the financial condition of the University for the biennial periods July 1, 1902—June 30, 1904.

Receipts and disbursements for the fiscal year ending June 30, 1903, were as follows:

RECEIPTS.		
From State Appropriations:		
Chapter 62, Laws 1887	$12,000 00	
Chapter 418, Laws 1887	3,000 00	
Chapter 322, Laws 1901	394,000 00	
From United States Appropriations:		
Treasurer United States for Experiment Station (Hatch Fund)	15,000 00	
Treasurer United States for Agriculture and Mechanic Arts (Morrill Fund)	25,000 00	
From Productive Funds:		
Income from productive University fund	13,474 72	
Income from productive Agricultural College fund	12,525 39	
From Income on Bequests:		
Jackson bequest	681 80	
Doyon bequest	266 54	
Stein bequest	50 00	
Bryan Prize fund	12 50	
Johnson Endowment fund	254 50	
From Miscellaneous:		
Students' fees, tuition, etc.	81,364 00	
Students, for laboratory supplies	22,932 61	
Library fines	12 04	
Agricultural College sales, proceeds of material after being used for experimental purposes	50,368 14	
For testing dairy cows	1,286 37	
Feeding stuffs license fees	150 00	
Fertilizer license fees	800 00	
Interest on bank deposits	276 56	
Rents, material sold, refunds, etc.	1,298 25	
Matron Chadbourne Hall	572 96	
United States, for use of laboratory	24 36	
Advertising in and sale of Institute Bulletins	1,165 85	

University of Wisconsin.

From Gifts:		
Sheboygan Graduate Scholarship in German Philology	247 50	
Lillian Paige–Allis Scholarships	150 00	
Johnson Endowment fund, principal, refunded	331 12	
Political Science Library fund, F. Vogel, Jr.	500 00	
Pennoyer Scholarship	50 00	
Louis Lotz Scholarship	50 00	
Milwaukee Gas Light Co. fund	250 00	
Chicago Social Settlement Fellowship	35 00	
B. K. Miller Scholarship	50 00	
The Jerman–Pflueger–Kuehmsted and Yahr–Lange Scholarships in Pharmacy	25 00	
Alumni Fellowship, 1901–02	7 95	
Gustav A. Kletzsch Fellowship	400 00	
William F. Allen Scholarship	250 00	
John C. Freeman Scholarship	250 00	
Biblical Alliance Scholarships	1,290 00	
Hebrew Lectureship and Scholarship Society	275 00	
Henrik Wergeland Scholarship	200 00	
	$640,878 16	

DISBURSEMENTS.

Agricultural College and Experiment Station		$122,479 70
College of Letters and Science		185,035 56
College of Mechanics and Engineering		73,226 92
Administration		18,581 13
College of Law		13,661 86
Washburn Observatory		6,495 10
General Library		17,934 55
Laboratory supplies		18,800 33
School of Pharmacy		8,700 22
Agricultural Institutes		14,542 51
Summer Session		11,687 92
Repairs and improvements		11,460 78
Heat and light		31,693 80
Printing and advertising		7,323 83
General account		5,326 91
Roads and grounds		4,954 68
Agricultural College building		95,422 53
Historical Library building (account expense joint use)		750 59
School of Economics Library fund		814 89
School of Commerce Library fund		375 60
Anatomical Laboratory		9,430 77
Henrik Wergeland Book fund		121 95
Hebrew Fellowship		355 00
W. F. Allen Graduate Scholarship		250 00
J. C. Freeman Graduate Scholarship		250 00
Sheboygan Graduate Scholarship		300 00
Biblical Alliance Scholarships		1,290 00
Kletzsch Scholarship fund		400 00
Chicago Social Settlement Fellowship		85 00
Jackson Bequest income		1,000 00
Amelia E. H. Doyon Bequest income		13 75
Lewis Medal fund, principal		100 00
Louis Lotz Scholarship		50 00
Lillian Paige–Allis Scholarship		150 00
Political Science Library fund		500 00
Amelia E. H. Doyon Scholarship		250 00
B. K. Miller Scholarship		50 00
Jerman–Pflueger Scholarship		25 00
Johnson Endowment fund, loaned through treasurer		300 00
Henrik Wergeland Scholarship		200 00
University grounds		8,000 00
Lewis Medal fund, interest		18 00
Total receipts and disbursements	$640,878 16	$672,408 88
Balance June 30, 1902	93,051 73	
Balance June 30, 1903		61,521 01
	$733,929 89	$733,929 89

Financial Condition.

Receipts and disbursements for the fiscal year ending June 30, 1904, were as follows:

RECEIPTS.		
From State Appropriations:		
Chapter 344, Laws of 1903	$425,500 00	
Chapter 322, Laws of 1901	25,000 00	
Chapter 167, Laws of 1903	5,000 00	
Chapter 239, Laws of 1899	16,000 00	
From United States appropriations:		
Treasurer of U. S. for Exp. Station (Hatch Fund)	15,000 00	
From U. S. for Agriculture and Mechanic Arts (Morrill Fund)	25,000 00	
From Productive Funds:		
Income from productive University fund	13,236 56	
Income from productive Agricultural College fund	1,703 01	
From Income on bequests:		
Jackson bequest	638 00	
Doyon bequest	295 66	
Johnson Endowment fund	254 50	
Stein bequest	50 00	
Bryan Prize fund	12 50	
Lewis Medal fund	2 50	
Adams' estates	62 50	
From Miscellaneous:		
Students' fees, tuition, etc.	89,293 23	
Students, for laboratory supplies	23,172 91	
Library fines	18 62	
Agricultural College sales, proceeds of material used for experimental purposes	56,826 77	
Testing dairy cows	2,316 86	
Feeding stuffs, license fees and tests	1,350 00	
Fertilizer license fees	450 00	
Interest on bank deposits	54 16	
Rents, material sold, refunds, etc.	1,898 31	
Matron Chadbourne Hall	1,120 05	
Sales University publications	29 05	
Advertising in and sale of Institute Bulletins	1,090 95	
University Extension fees	20 00	
From Gifts:		
Johnson Endowment fund principal, refunded	511 24	
Adams' Estates, account principal	4,853 45	
Gustav A. Kletzsch Fellowship	400 00	
Pennoyer Scholarship	50 00	
B. K. Miller Scholarship	50 00	
Lillian Paige-Allis Scholarships	150 00	
Louis Lotz Scholarship	50 00	
Henrik Wergeland Scholarship	200 00	
Paul Bacon gift	5 00	
DISBURSEMENTS.		
Agricultural College and Experiment Station		$159,235 00
College of Letters and Science		214,577 66
College of Mechanics and Engineering		74,790 38
Administration		19,216 31
College of Law		15,800 85
Washburn Observatory		6,232 63
General Library		23,510 53
Laboratory supplies		18,634 78

University of Wisconsin.

School of Pharmacy		5,854 35
Agricultural Institutes		15,199 87
Summer Session		9,850 35
Repairs and improvements		30,938 98
Heat and light		41,871 64
Printing and advertising		4,664 30
General account		6,028 22
Roads and grounds		6,078 98
$25,000.00 appropriation for equipment of Agricultural Hall		23,556 15
Water works		11,053 53
Chemical Laboratory building		2,715 10
Agricultural College building		32,577 47
School of Economics Library fund		126 38
School of Commerce Library fund		171 22
Cold storage		3,202 59
St. Louis Exposition		2,557 91
University grounds		9,000 00
Sheboygan Scholarship		300 00
Kletzsch Fellowship		400 00
Pennoyer Scholarship		50 00
Refund students' fees		1,749 68
B. K. Miller Scholarship		50 00
Adams' Estates, principal		4,951 43
University park		24,338 47
Amelia H. Doyon Scholarships		250 00
Jackson Request income		1,000 00
Lillian Paige-Allis Scholarships		150 00
Louis Lotz Scholarship		50 00
Christian R. Stein Scholarship		50 00
Johnson Endowment fund (loaned through treasurer)		224 00
The Allis fund		26 60
Lewis Medal Fund income		18 00
Total receipts and disbursements	$711,665 83	$771,053 36
Balance June 30, 1903	61,521 01	
Balance June 30, 1904		2,133 48
	$773,186 84	$773,186 84

RECAPITULATION.

Total receipts and disbursements for 2 years	$1,352,543 99	$1,443,462 24
Balance June 30, 1903	93,051 73	
Balance June 30, 1904		2,133 48
	$1,445,595 72	$1,445,595 72

For detail of disbursements see appendix A.

Respectfully,

E. F. RILEY,

Secretary.

APPENDIX A.

To the Report of The Regents of the University of Wisconsin, Showing Detail of Disbursements of Funds for the Two Years ending June 30, 1904.

For further detail of items marked with a star see Appendix B.

University of Wisconsin.

DETAIL OF DISBURSEMENTS,

1902–03.

COLLEGE OF AGRICULTURE.		
W. A. Henry, dean and director, salary	$4,000 00	
S. M. Babcock, asst. director and chief chemist, salary	3,000 00	
H. L. Russell, professor, salary	2,500 00	
E. H. Farrington, professor, salary	2,420 00	
W. L. Carlyle, professor, salary	2,200 00	
F. W. Woll, asst. professor and chemist exp, sta	2,000 00	
E. P. Sandsten, professor, salary	1,800 00	
R. A. Moore, assistant professor, salary	1,700 00	
F. J. Wells, assistant professor, salary	1,200 00	
U. S. Baer, instructor, salary	1,000 00	
Frederic Cranefield, instructor, salary	1,000 00	
Leslie H. Adams, farm superintendent, salary	999 96	
E. G. Hastings, instructor, salary	800 00	
A. R. Whitson, professor, salary	600 00	
Geo. A. Olson, instructor, salary	600 00	
J. C. Brown, instructor, salary	500 00	
T. F. McConnell, instructor, salary	500 00	
A. S. Alexander, instructor, salary	490 33	
J. F. Nicholson, instructor, salary	40 00	
G. H. Benkendorf, assistant, salary	240 00	
J. R. Danks, assistant, salary	210 00	
Peter Dukleth, assistant, salary	200 00	
Ole Esker, instructor, salary	66 66	
R. A. Elliott, instructor, salary	21 25	
J. A. Ford, instructor, salary	125 00	
Ernst Greenwood, instructor, salary	30 00	
J. H. Godfrey, assistant, salary	250 00	
James Hutton, assistant, salary	180 00	
L. P. Haskins, assistant, salary	17 75	
F. Kleinheinz, assistant, salary	210 00	
John McCready, instructor, salary	150 00	
Martin Meyers, pasteurizer, salary	160 00	
A. J. Meyer, instructor, salary	50 00	
Fred Marty, assistant, salary	120 00	
Hugh Nisbet, instructor, salary	150 00	
A. J. Roycroft, instructor, salary	12 00	
H. Sandell, assistant, salary	100 00	
Wm. Verthein, assistant	187 50	
F. F. Zimmerman, assistant	100 00	
American Guernsey Cattle Club, book	1 50	
Adams & Westlake Co., mdse.	1 25	
American Cereal Co., oat shorts	20 80	
Alberene Stone Co., alberene plates	1 75	
Assn. of Am. Agr'l Colleges, membership fee	30 00	
American Southdown Breeders' Assn., book	1 00	
American Berkshire Association, registration	79 75	
Alford Bros., laundry	18 91	
Anthony & Scoville Co., photo mdse.	2 31	
Am. Poland China Record Assn., registration	9 00	
American Shropshire Association, registration	3 00	
Armour Fertilizer Works, phosphates	2 70	
Geo. R. Angell & Co., city directories	6 00	
Am. Jersey Cattle Club, registration and book	8 00	
Am. Trotting Register Assn., books	31 00	
B. S. Anderson, machinist	4 27	
L. H. Adams, expenses	3 84	
Wm. Albers, sand	32 25	
A. H. Andrews Co., furniture and extras	378 38	
Agricultural College Pay roll,* clerks, janitors, etc	20,891 80	
Peter Burger, hardware and labor	48 73	
Brown & Nevin, livery	10 00	

Detail of Disbursements, 1902–03.

B. T. Babbitt, potash	16 00	
David Bradley Mfg. Co., planter	40 32	
F. A. Brockhaus, books	201 12	
Boynton Furnace Co., furnace	64 00	
Burdick, Pecher & Murray Co., hay caps	21 25	
Barbee Wire & Iron Works, wire guard	1 15	
John W. Burnham, powdered tobacco	2 00	
Brillion Iron Works, clod crusher	25 00	
W. A. Burpee & Co., seeds and plants	3 31	
A. D. A. Barnes, trees	9 00	
C. S. Baker Co., tablets	36 25	
P. Blackinston's Sons & Co., book	4 00	
Chas. H. Besley & Co., brass, steel, &c.	18 79	
Borden & Selleck Co., milk scales	13 15	
U. S. Baer, expenses	226 01	
Bausch & Lomb Optical Co., apparatus	758 47	
Blied & Schneider, hardware and tin work	47 94	
Bowman Dairy Co., milk cans	30 00	
Wm. Baird, cheese agitator	20 00	
John W. Burnham, lambs	17 77	
J. C. Baldwin, blue prints	1 00	
Barnes–Crosby Co., cuts	60 60	
S. Beattie, veterinary services	8 00	
C. F. Cooley, lime and cement	54 36	
Conrad & Jones Co., trees	1 75	
Frederick, Carl, filter pump	15 50	
Century Camera Co., camera and accessories	46 60	
Charles Carman, shoeing horses	18 00	
J. A. Countryman & Son, registration and boar	54 25	
Coe, Converse & Edwards Co., trees	19 92	
Samuel Cabot, shingle stain	45 80	
Geo. Challoner's Sons Co., extras for refrigerator	8 45	
Creamery Belting & Supply Co., belting	10 60	
Cornish, Curtis & Greene Mfg. Co., butter tubs, app., &c.	47 66	
Clifford & Fox Lumber Co., lumber	3 55	
Capital City Paper Co., paper	51 57	
M. J. Cantwell, printing	160 00	
W. F. Carter & Co., tiling for dairy building	157 30	
Corry's Grocery, mdse.	13 60	
Currie Bros., bulbs, plants and mdse.	13 38	
W. L. Carlyle, expenses	175 43	
Frederic Cranefield, expenses	57 04	
College Book Store, mdse.	18 25	
Chicago Lab'y Supply & Scale Co., mdse.	140 43	
J. M. Clifford, Agt., insurance premiums	12 50	
J. M. Clifford, Agt., insurance premiums	25 00	
Creamery Package Mfg. Co., dairy supplies	420 76	
Crane Co., pipe and fittings	77 57	
City of Madison, constructing sewer	50 00	
Geo. Challoner's Sons Co., packing	1 80	
Charles Carman, horse shoeing	11 40	
Creamery pay roll,* milk	36,026 87	
Conklin & Sons, fuel	3,832 55	
L. P. Denoyer, periodicals	25 70	
Dresen & Rhodes, cold water paint	2 35	
Democrat Printing Co., printing	56 50	
J. R. Danks, adding machines and thermometers	8 00	
C. F. Dittmar, photo work	35 00	
Doyon & Rayne Lumber Co., lumber	124 82	
Dane County Telephone Co., rentals and repairs	64 80	
G. E. Day, boar and sow	125 00	
C. M. Dengler, lettering	13 00	
A. B. Dick & Co., mimeograph supplies	65 65	
Darling & Co., beef meal	30 00	
Henry A. Dreer, seeds and plants	34 29	
Dennison Mfg. Co., labels, tags, &c.	9 80	
Albert Dickinson Co., seeds	127 75	
Detroit Lubricator Co., condenser	1 25	
Darling & Co., beef meal	7 50	
R. Douglas & Sons, trees	41 85	
C. W. Darrow, curculio machine	14 00	
Deering Harvester Co., binder twine	48 16	
De Laval Separator Co., extras	6 40	
P. J. Diepold, blacksmithing	52 60	
Diebold Safe & Lock Co., vault door	68 00	
O. Douglass, butter culture	2 40	
F. R. Eastman, electric mdse.	23 40	

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Eimer & Amend, chemicals, &c.	261 21	
F. C. Edwards Nursery, trees	36 80	
Eagle Pencil Co., pencils	1 70	
Elgin Butter Tub Co., butter tubs	138 85	
Elwanger & Barry, trees	6 00	
Evening Wisconsin Co., printing	11 25	
Electrical Supply Co., electric mdse.	36 40	
Ellsworth & McNair, horses	375 00	
Electric Wheel Co., mdse.	8 80	
E. H. Farrington, expenses	307 66	
A. D. & J. V. Frederickson, lumber and labor	345 72	
Fairbanks, Morse & Co., work on gas engine	22 50	
E. M. Fox, Agt., insurance premiums	36 25	
J. H. Fmdorn, carpenter work	8 00	
Fargo Creamery Supply Co., butter printer	13 50	
Fuller & Johnson Mfg. Co., hay rake and extras	37 40	
M. H. Fairchild & Bro., bottle cleaners	53 76	
Edward Fischer, copying cloths	1 00	
Gould, Wells & Blackburn Co., mdse.	47 50	
Gallagher Tent & Awning Co., covers, labor, rep. tent	44 50	
Gem Fibre Package Co., butter boxes	23 10	
Wm. Gugler, feed	98 40	
Glucose Sugar Refining Co., feed	163 20	
A. H. Gardner Co., belting and hose	59 13	
H. P. Gibson, envelopes	270 67	
G. Grimm & Son, binding	176 85	
Richard Gibson, sheep	40 00	
Philip Gross Hardware Co., hardware	21 90	
H. E. Gardner, Clydesdale mare	400 00	
A. E. Houts, horses	590 00	
W. H. Hoffman, feed	388 70	
James Hutton, expenses	10 50	
A. L. Hutchings, expenses	9 37	
H. B. Hobbins, Agt., insurance premiums	60 00	
J. C. Haley, Agt., insurance premiums	36 25	
Theo. Herfurth & Sons, Agts., insurance premiums	48 75	
J. W. Hutchinson, Holstein cow	125 00	
H. J. M. Howard, fire hose	171 20	
Lien P. Haskins, expenses	46 73	
Henry Hombrecht, feed	286 75	
Fred Huels, key and lock work	12 18	
Hollister's Pharmacy, chemicals	129 57	
Holstein-Friesian Assn. of America, registration	11 25	
Chr. Hanson's Laboratory, butter color	10 75	
W. A. Henry, expenses	391 89	
Louis C. Haley, Agt., insurance premiums	11 25	
Blanchard Harper, lantern slides	1 75	
Wm. Haak, Jr., pump work and mdse.	31 00	
Heisig, Grinde & Evans, axes	7 50	
Hinrichs Dry Goods Co., mdse.	22 44	
John D. Hayes, shoeing horses	101 82	
W. D. Hoard & Co., advertising	13 25	
Hoffmann & Baur, tinwork, &c.	53 05	
Roy T. Harris, expenses	359 14	
A. Haswell & Co., furniture	5 50	
Imperial Brush Co., brushes	10 00	
International Live Stock Exposition, expenses	112 46	
J. T. W. Jennings, sup. architect	1,666 68	
Geo. S. Josselyn, plants	1 00	
Jewell Nursery Co., apple stocks and trees	19 50	
Julia Jardot, guinea pigs	5 10	
Z. K. Jewett & Co., baled moss	3 00	
Hall N. Jackson, books	2 00	
Klueter Bros., feed	1,642 65	
Kemp & Burpee Mfg. Co., repairing apparatus	7 00	
J. L. Kennedy, feed	159 00	
Chas. J. Cruse, lettering	23 14	
King & Walker Co., pipe fittings, iron work, &c.	517 68	
Simeon C. Keith, Jr., cultures	2 50	
Kroncke Bros., hardware	2 65	
A. H. Kayser, lumber	394 34	
King Bros., book	1 00	
Jas. H. King, books	9 05	
Frank Kleinheinz, expenses	12 25	
Wm. Keyes, gravel	2 00	
D. H. Knobel, glass	1 25	
Kentzler Bros., livery	13 00	

Detail of Disbursements, 1902–03.

Theo. Kupfer, cement sidewalk tools	10 13	
J. W. Kerr, trees	9 50	
Chas. Karstens, repairing furniture	1 60	
Ernst Leitz, apparatus	218 58	
A. J. Lovejoy & Sons, boar and sow	80 00	
Christ Laurence, salt	5 50	
Roderick Lean Mfg. Co., land roller	21 25	
H. T. Lerdall, Agt., insurance premiums	48 75	
R. M. Lamp, Agt., insurance premiums	48 75	
J. C. Lubbe & Co., books	5 79	
J. C. Latham, seed oats	187 88	
A. A. Mayers, mdse.	477 09	
Walter Mayer, printing	35 00	
James E. Moseley, mdse.	20 13	
T. F. McConnell, expenses	13 98	
Minnesota Experiment Station, seedlings	27 00	
McCormick Harvesting Mach. Co., tools and extras	15 76	
R. A. Moore, expenses	128 35	
Modern Machine Works, water register	35 00	
K. McLennan & Co., commutator compound	2 50	
A. J. Meyer, expenses	8 21	
Mautz Bros., painting, material and labor	53 84	
Morrill & Morley, strainer	1 13	
Madison Traction Co., special cars for German visitors	10 00	
Montgomery Ward & Co., mdse.	10 82	
A. C. McClurg & Co., books	164 91	
Merrill Lumber Co., shavings	106 05	
C. E. Milward, plastering	7 05	
H. B. McGowan, mdse.	4 50	
Miller-Parkinson Lumber Co., lumber	2 16	
W. T. McConnell & Son, mdse.	16 02	
Menges Pharmacies, drugs and sundries	32 20	
Geo. McKerrow & Sons, ewe	30 00	
B. M. Minch, feed	50 60	
Mandel Engraving Co., photo work and engraving	118 44	
John Miller & Sons, Shropshire ram	50 00	
W. J. Meltzer, plumbing	36 85	
The Mueller Co., steam heating and extras	304 81	
A. J. Meyer, expenses	6 50	
Madison Saddlery Co., harness repairs	70 90	
Madison Park & Pleasure Drive Assn., use of roller	61 98	
Frank M. Meyer, shoeing horses	30 80	
A. H. Main & Son, Agts., insurance premiums	48 75	
T. C. McCarthy, mason work	86 98	
The Macmillan Co., books	3 67	
J. H. McSloy, cracked peas	43 72	
F. M. Morris, books	18 10	
Thos. Meehan & Sons, books, trees, plants, &c.	72 45	
C. F. Martin & Co., photo work	4 00	
Samuel H. Marshall, lambs	43 12	
Michigan Agricultural College, reports	2 50	
Madison Gas & Electric Co., gas, electricity, &c.	1,626 28	
H. H. Noble, Agt., insurance premiums	48 75	
National Blower Works, fan, &c.	101 25	
H. B. North, lantern slides	17 60	
Louis F. Nafis & Co., apparatus	141 35	
H. Niedecken Co., mdse.	1 50	
Northwestern Lithographing Co., half tones	5 25	
National Paint & Varnish Works, graphite paint	22 50	
Northrup, King & Co., seeds	19 65	
R. C. Nicodemus, Agt., insurance premiums	67 25	
New Process Rawhide Co., pinion	3 19	
National Distilling Co., alcohol	7 50	
Northern Electrical Mfg. Co., electric mdse.	30 12	
New York Store, mdse.	43 14	
A. & B. Olson, furniture	84 50	
Ott's Pharmacy, mdse.	9 00	
Wm. Owens, plumbing	69 41	
Charles Ovenden, prints	2 75	
Wm. Oppel, berry boxes	7 25	
O'Brien & Scanlon, livery	9 00	
Geo. A. Olson, expenses	11 34	
Stanley R. Pierce, Angus steers	185 00	
Pritzlaff Hardware Co., fire pails	14 90	
C. H. Pratt, draughting	1 50	
Pasteur-Chamberland Filter Co., bougies	6 00	
Park Dry Goods Store	4 28	

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Geo. H. Patch, use of engine and expenses	52 80	
Parke, Davis & Co., guinea pigs	12 50	
C. C. Pollworth Co., mastica and glazing machine	7 50	
Pollard-Taber Co., painting	5 06	
C. C. Pollworth Co., plants	9 48	
Post Publishing Co., dairy and short course circulars	124 30	
Wm. J. Park Co., mdse.	14 25	
E. F. Paunack, crushed stone	304 29	
J. R. Peak & Son, cattle	325 00	
Page Woven Wire Fence Co., stretcher and pulley	3 00	
Petrie, Elliott & Herrington, harrow and wagon	63 00	
C. S. Plumb, reports	1 85	
L. J. Pickarts & Co., mdse.	22 45	
U. S. Dept. of Agriculture, experimental cheese	132 87	
University Co-operative Co., mdse.	35 35	
W. B. Richards expenses	13 35	
Renk Bros., feed and lambs	159 19	
M. J. Regan, livery	50 00	
E. L. Roloff, slaughtering hogs	10 00	
H. L. Russell, expenses	43 77	
Riley & Sons, livery	4 00	
M. C. Ring, ewes	25 00	
Roach & Seeber Co., cold storage	76 48	
Rockwell & Rupel Co., stationery, &c.	10 27	
A. H. Reid, belting, pulleys, extras, &c.	37 13	
Rippley Hardware Co., tools, &c.	5 40	
Stephenson & Studeman, hardware and tin work	102 39	
Fred M. Schlimgen, marble	5 00	
J. A. Swenson, horse	160 00	
Sturges & Burns Mfg. Co., washing powder	8 40	
E. P. Sandsten, expenses	20 74	
A. W. Sprague, razor-back hogs	50 00	
J. G. Smith, expenses	11 00	
James Skowlund, expenses	11 50	
Standard Paper Co., paper	67 05	
State Journal Printing Co., printing	37 75	
Standard Oil Co., oils and wax	182 33	
David Stephens, brick and crushed stone	513 50	
Sec'y Board of Regents, freight and express	2,456 29	
W. & F. Smith & Co., trees	95 50	
E. P. Sandsten, expenses	98 78	
J. Schlimgen, Agt., insurance premiums	25 00	
Stout's Book Exchange, books	9 85	
Smith Premier Typewriter Co., platens	3 00	
Fred Smith, Sec'y, book	5 28	
G. E. Stechert, books	133 44	
Wm. Stekelberg, wood	19 25	
Smalley Mfg. Co., root cutter and extras	29 61	
Starck Mfg. Co., mill work, stock judging room, &c.	1,988 00	
Henry Scheler, cold storage, meat, &c.	23 03	
Sturges, Cornish & Burns Co., steel churn	6 00	
Shea Smith & Co., mdse.	4 76	
John G. Smith, boarding threshing crew	6 75	
Sumner & Morris, hardware	280 26	
G. & F. Soelch, lard	1 35	
Schwaab Stamp & Seal Co., rubber stamps	4 63	
Storrs & Harrison Co., plants	1 75	
E. H. Sargent & Co., mdse.	36 37	
H. N. Thompson, Hereford steer	100 00	
Taylor & Gleason, printing	54 25	
Tracy, Gibbs & Co., printing	15 00	
Tranquility Farms, Dorset ram	40 00	
A. T. Thompson & Co., mdse.	1 05	
H. F. Tiedeman, jars	3 60	
J. M. Thorburn & Co., plants and seeds	5 85	
Dean Thompson, photos of meat cuts	36 00	
H. C. Taylor, Regent, expenses	18 90	
Taylor Bros. Co., mdse.	52 16	
University Pay Roll,* labor, &c.	874 84	
Vermont Farm Machinery Co., extras	1 16	
A. Van Deusen, furniture	4 25	
Vaas, Danielson & Sturm, mdse., blankets, &c.	15 14	
Vaughan's Seed Store, seeds and plants	10 30	
R. Vincent, Jr., & Son, plants	6 00	
A. Verbeek & Peckholdt, apparatus	138 88	
Montgomery Ward & Co., photo material	15 06	
Wisconsin Wagon Co., repairs	24 20	

Detail of Disbursements, 1902–03.

A. R. Whitson, expenses	170 06	
Western Consolidated Granite Co., granite screenings	61 93	
F. C. Warren, cows	225 00	
Wisconsin Pharmacy, mdse.	2 70	
Wells-Higman Co., baskets	1 40	
Wolf & Kubley, ventilator, vats, tinwork, &c	53 10	
Wyckoff, Seamans & Benedict, typewriter supplies	4 85	
Watertown Thermometer Co., thermometers	5 30	
Whiting Paper Co., paper	64 30	
Washburn-Crosby Co., bran	603 75	
F. W. Woll, expenses	72 58	
Wernich Seed Co., seeds	8 70	
F. Willey & Co., charcoal	5 49	
Chas. Wehrmann, harness work	36 05	
H. P. West, registration fee	2 50	
Wisconsin Agriculturist, advertising	50 00	
Wisconsin Dairy Supply Co., dairy supplies	77 10	
Wausau Quartz Co., quartz	5 25	
Wiedenbeck, Dobelin & Co., hardware	43 97	
Wilcox Mfg. Co., grindstone	1 25	
Williams & Sons Co., painted labels	13 00	
Yale & Towne Mfg. Co., hardware	93 25	
Yawman & Erbe Mfg. Co., brushes	8 00	
Zenner disinfectant Co., disinfectant	17 50	
J. G. Zimmerman, photos	2 50	
COLLEGE OF LETTERS AND SCIENCE.		
W. A. Scott, dean, salary	$500 00	
J. W. Stearns, director and professor, salary	3,000 00	
M. V. O'Shea, professor, salary	2,500 00	
Joseph Jastrow, professor, salary	2,500 00	
F. C. Sharp, assistant professor, salary	1,800 00	
A. W. Tressler, assistant professor, salary	1,500 00	
B. H. Bode, instructor, salary	800 00	
Wm. Ruediger, assistant, salary	120 00	
Richard T. Ely, director and professor, salary	3,500 00	
T. S. Adams, assistant professor, salary	1,400 00	
Jerome Dowd, lecturer, salary	600 00	
M. O. Lorenz, assistant, salary	500 00	
J. B. Parkinson, professor, salary	2,500 00	
Paul S. Reinsch, professor, salary	2,500 00	
S. E. Sparling, assistant professor, salary	1,100 00	
Toyokichi Iyenaga, lecturer, salary	500 00	
F. J. Turner, director and professor, salary	3,500 00	
D. C. Munro, professor, salary	3,000 00	
Victor Coffin, assistant professor, salary	1,800 00	
C. R. Fish, assistant professor, salary	1,400 00	
U. B. Phillips, instructor, salary	800 00	
A. C. Tilton, instructor, salary	900 00	
G. C. Sellery, instructor, salary	900 00	
A. C. Boggess, assistant, salary	150 00	
W. A. Scott, director and professor, salary	3,500 00	
J. C. Monaghan, professor, salary	2,000 00	
B. H. Meyer, professor, salary	2,500 00	
H. C. Taylor, instructor, salary	800 00	
Chas. F. Smith, professor, salary	3,000 00	
A. G. Laird, assistant professor, salary	1,700 00	
Alex. Kerr, professor, salary	1,000 00	
W. H. Williams, professor, salary	2,000 00	
Fred T. Kelly, instructor, salary	850 00	
M. S. Slaughter, professor, salary	2,500 00	
Geo. C. Fiske, assistant professor, salary	1,400 00	
Grant Showerman, assistant professor, salary	1,200 00	
Annie M. Pitman, assistant, salary	400 00	
Edw. T. Owen, professor, salary	1,667 00	
W. F. Giese, assistant professor, salary	1,500 00	
Lucy M. Gay, assistant professor, salary	1,400 00	
Otto Patzer, instructor, salary	1,000 00	
H. G. A. Brauer, instructor, salary	800 00	
A. R. Seymour, assistant, salary	700 00	
J. E. Olson, professor, salary	2,300 00	
A. R. Hohlfeld, professor, salary	2,500 00	
Ernst K. J. H. Voss, professor, salary	2,000 00	
Susan A. Sterling, assistant professor, salary	1,400 00	
E. C. L. Roedder, instructor, salary	1,200 00	

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F. W. Meisnest, instructor, salary	1,000 00	
Abbie F. Eaton, instructor, salary	1,000 00	
Paul F. Reiff, instructor, salary	800 00	
C. H. Handschin, instructor, salary	800 00	
Sabena M. Herfurth, assistant, salary	700 00	
S. H. Goodnight, assistant, salary	600 00	
Elsbeth Veerhusen, assistant, salary	500 00	
J. C. Freeman, professor, salary	3,000 00	
D. B. Frankenburger, professor, salary	2,500 00	
F. G. Hubbard, professor, salary	2,500 00	
H. B. Lathrop, associate professor, salary	1,500 00	
J. F. A. Pyre, assistant professor, salary	1,500 00	
W. B. Cairns, assistant professor, salary	1,400 00	
Arthur Beatty, instructor, salary	1,100 00	
R. E. N. Dodge, instructor, salary	1,000 00	
W. G. Bleyer, instructor, salary	900 00	
A. C. L. Brown, instructor, salary	1,000 00	
May Hunt, instructor, salary	800 00	
W. O. Sypherd, instructor, salary	800 00	
M. L. Daggy, instructor, salary	850 00	
Geo. R. Laird, instructor, salary	750 00	
M. G. Frampton, instructor, salary	400 00	
E. A. Cook, instructor, salary	666 65	
Marion B. Lamont, assistant, salary	400 00	
C. A. VanVelzer, professor, salary	2,500 00	
C. S. Slichter, professor, salary	2,500 00	
L. W. Dowling, assistant professor, salary	1,550 00	
E. B. Skinner, assistant professor, salary	1,550 00	
A. R. Crathorne, instructor, salary	800 00	
H. C. Wolff, instructor, salary	800 00	
W. M. Persons, instructor, salary	800 00	
Florence E. Allen, instructor, salary	750 00	
B. W. Snow, professor, salary	2,500 00	
C. E. Mendenhall, assistant professor, salary	1,500 00	
A. Trowbridge, assistant professor, salary	1,200 00	
G. W. Wilder, instructor, salary	1,100 00	
L. F. Miller, instructor, salary	700 00	
M. F. Angell, assistant, salary	400 00	
W. H. Kelly, instructor, salary	400 00	
E. M. Terry, assistant, salary	400 00	
E. S. Bishop, assistant, salary	10 80	
W. W. Daniells, professor, salary	2,500 00	
L. Kahlenberg, professor, salary	2,200 00	
H. W. Hillyer, assistant professor, salary	1,500 00	
Victor Lenher, assistant professor, salary	1,500 00	
H. E. Patten, instructor, salary	800 00	
W. D. Patton, student assistant, salary	400 00	
C. A. Tibbals, Jr., student assistant, salary	500 00	
E. B. Hutchins, Jr., assistant, salary	400 00	
W. J. Huddle, assistant, salary	400 00	
O. Schreiner, instructor, salary	15 00	
A. B. Newell, assistant, salary	400 00	
Charles R. Van Hise, professor, salary	2,000 00	
W. H. Hobbs, professor, salary	1,700 00	
J. M. Clements, assistant professor, salary	1,000 00	
C. K. Leith, assistant professor, salary	500 00	
W. S. Miller, assistant professor, salary	1,800 00	
W. S. Marshall, assistant professor, salary	1,800 00	
R. H. Johnson, assistant, salary	700 00	
Henry Fox, instructor, salary	800 00	
R. A. Harper, professor, salary	2,400 00	
H. G. Timberlake, instructor, salary	950 00	
C. E. Allen, instructor, salary	800 00	
Wm. D. Frost, instructor, salary	1,200 00	
J. C. Elsom, director and professor, salary	1,700 00	
Abby S. Mayhew, mistress and assistant professor, salary	1,400 00	
A. M. O'Dea, instructor and assistant director, salary	1,000 00	
Emily Fliegge, nurse and asst. to mistress, salary	500 00	
H. E. Bradley, student assistant, salary	300 00	
Warren J. Bishop, student assistant, salary	200 00	
H. S. Peterson, pianist at Gym., salary	100 00	
Grace Graham, assistant, salary	160 00	
F. A. Parker, director, salary	2,500 00	
E. A. Bredin, instructor, salary	700 00	
J. D. Barnett, fellow, salary	400 00	
R. C. Clark, fellow, salary	400 00	
Gustave Fernekes, fellow, salary	400 00	

Detail of Disbursements, 1902–03.

W. F. Hauhart, fellow, salary	400 00	
Rachel M. Kelsey, fellow, salary	400 00	
Marie McClernan, fellow, salary	400 00	
Florence B. Mott, fellow, salary	200 00	
Susan P. Nichols, fellow, salary	400 00	
Rose A. Pesta, fellow, salary	400 00	
A. H. Pfund, assistant, salary	400 00	
J. G. Rosebush, fellow, salary	400 00	
H. A. Ruger, fellow, salary	400 00	
R. F. Scholz, fellow, salary	400 00	
L. R. Ingersoll, scholar, salary	225 00	
R. W. Haight, scholar, salary	180 00	
L. J. Paetow, scholar, salary	225 00	
S. Huebner, scholar, salary	225 00	
Kjosha Kawakami, scholar, salary	180 00	
Chas. A. Curtis, captain U. S. A. and professor of Military Science	396 00	
Guy M. Wilcox, instructor, salary	350 00	
A. H. Taylor, instructor, salary	350 00	
A. S. Wheeler, assistant, salary	333 33	
E. H. J. Lorenz, mechanician, salary	50 00	
Violet Slack, herbarium assistant, salary	50 00	
R. H. Shaw, assistant in chemistry, salary	40 00	
H. A. Winkenwerder, assistant in biology, salary	20 00	
Geo. R. Angell & Co., city directory	3 00	
D. H. Allen & Co., standorettes	12 00	
Adams & Westlake Co., mdse.	3 00	
B. S. Anderson, machinist	58 77	
Bausch & Lomb Optl. Co., objectives	32 50	
E. Bartholomew, books	12 00	
E. Baggott & Co., electric lamp	21 00	
Blied & Schneider, hardware	29 40	
Paul Bunge, balances	399 84	
C. F. Baker, mosses	1 83	
James G. Biddle, apparatus	73 63	
Carson, Pirie, Scott & Co., rugs	50 44	
Chief of Ordnance, U. S. A., ordnance stores	147 90	
Clara E. Cummings, lichens	3 10	
Craig Keyless Lock Co., locks	8 00	
C. F. Cooley, lime and cement	4 65	
Chas. A. Curtis, commandant, paid for rent of shooting range and bills paid	31 69	
Chicago Lab. Supply Co., mdse., balances, etc.	51 38	
F. S. Collins, fascicle	20 00	
Crane Co., pipe and fittings	14 92	
Josephine A. Clark, index cards	34 77	
M. J. Cantwell, printing	30 35	
Geo. R. Carpenter, lecturer	50 00	
Concillio Bibliographico, cards	39 24	
Arthur S. Cooley, lantern slides	44 15	
Densmore Typewriter Co., ribbons	1 00	
W. H. Dudley, lantern slides	51 40	
Leon Dadmun, lantern slides	10 00	
Jerome Dowd, expenses of lecturer paid by him	5 50	
C. M. Dengler, lettering	9 75	
Dane Co. Telephone Co., rentals	58 50	
Dulan & Co., mdse.	2 30	
Democrat Printing Co., printing	13 50	
Eagle Pencil Co., pencils	18 16	
Geo. L. English & Co., minerals	25 25	
Electrical Supply Co., electric mdse.	19 36	
Juan C. Edmundez, fossils	25 00	
Eimer & Amend, air pump	22 50	
R. Fuess, microscopes	354 08	
E. M. Fox, agent, insurance premium	36 87	
Faneuil Watch Tool Machine Co., lathe	441 20	
A. D. & J. V. Frederickson, lumber	238 24	
Wm. Gaertner, apparatus	8 46	
A. H. Gardner Co., hose	11 05	
S. W. Gilman, lectures	100 00	
Gimbel Bros., cork carpet	457 24	
G. Grimm & Son, binding	7 50	
Groves-Barnes Music Co., mdse., sheet music	11 03	
Gallagher Tent & Awning Co., labor and material	76 35	
John Greig, furniture	10 75	
Hoeveller & Barckhans, furniture	15 75	
W. H. Hobbs, travelling expenses	18 16	

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Hull & Hammond, mattress work	6 43	
R. A. Harper, expenses	1 72	
A. Haswell & Co., furniture	260 07	
Theo. Herfurth & Son, insurance premium	60 00	
J. A. Hobson, lecturer	300 00	
N. A. Howe, index cards	9 43	
Illinois Electric Co., desk fan	9 50	
Illinois Paper Box Factory, paper boxes	11 58	
Imperial Brush Co., brushes, sweeper	22 00	
George Kemmerer, lantern slides	15 30	
Kny-Scheerer Co., specimen jars	8 20	
Keeley, Neckerman & Kessenich, mdse.	17 10	
King & Walker Co., labor and material	22 40	
Max Kohl, apparatus	422 78	
LesFils D'Emile Deyrolle, apparatus	142 62	
Lansing Wheelbarrow Co., truck	20 00	
Ernst Leitz, apparatus	75 64	
Sidney Lee, lecturer	150 00	
Library Bureau, card case	49 25	
Lyon & Healy, sheet music for band	12 04	
E. H. J. Lorenz, mechanician	252 00	
B. H. Meyer, expenses	184 57	
Menges Pharmacy, drugs and mdse.	20	
Madison Gas & Electric Co., gas ranges and current	41 05	
Matson & Klein, framing pictures	5 60	
Malec Bros., mdse.	14 25	
E. B. Meyrowitz, politzer accomometer	2 55	
A. A. Mayers, mdse.	9 75	
Wm. J. Meltzer, plumbing	65 40	
Mandel Bros., sofa, etc.	54 34	
Moore & Scriver, rugs	96 76	
Jas. E. Moseley, mdse.	40 70	
New York Store, mdse.	49 80	
Wm. C. Niebuhr, cane seat in chair	2 35	
Jos. Nemitz, balances	53 07	
Narragansett Machine Co., cord grips, apparatus	132 88	
William Owens, plumbing	35	
A. & B. Olson, furniture	53 00	
Pollard & Taber Co., painting	18 65	
Jennie M. Pitman, anatomical charts, drawings	23 60	
W. J. Park & Co., mdse.	41 60	
L. J. Pickarts & Co., mdse.	60	
J. L. Rose, apparatus	52 18	
Remington Typewriter Co., mimeograph supplies	2 95	
J. H. Robinson, lecturer	300 00	
Roberts Portable Oven Co., portable oven	90 00	
Geo. H. Russell, agent, premium on ordnance bond	36 87	
State Journal Printing Co., printing	37 50	
G. E. Stechert, books	268 20	
D. W. Springer, lecturer	150 00	
Secretary Board of Regents, freight and express	584 70	
Standard Telephone & Elec. Co., brass castings	2 65	
R. D. Salisbury, plaster bust of Pres. Chamberlain	6 00	
Franz Schmidt & Haensch, apparatus	148 14	
G. Sommer & Fglio, lantern slides	22 96	
Sumner & Morris, hardware	29 46	
A. B. Seymour, fungi supplement	8 53	
Schwaab Stamp & Seal Co., rubber stamps	65	
Fred M. Schlimgen, marble work	8 45	
Stephenson & Studemann, hardware	92	
John Smith & Co., desk	10 75	
B. E. Smiley, piano tuning	40 00	
Tracy, Gibbs & Co., printing	148 50	
Truax, Greene & Co., pantagraph	4 00	
H. G. Timberlake, expenses	1 72	
University Co-op Co., mdse.	96 60	
University pay roll*	10,844 09	
Vogtlander & Sons Optl. Co., lens	33 75	
A. Van Deusen, furniture	27 00	
The Warner & Swazey Co., repairing app.	123 50	
Wisconsin Pharmacy, drugs and mdse.	17 00	
Kelvin & James White, ampere apparatus	162 14	
W. W. Warner, drum head	1 50	
Wyckoff, Seamans & Benedict, mimeograph supplies	30 25	
Wiedenbeck, Dobelin & Co., hardware	1 68	
Wrought Iron Range Co., potato masher	7 50	
Western Electric Co,, electric mdse.	28 63	

Detail of Disbursements, 1902–03.

Montgomery, Ward & Co., mdse.	39 00	
Whiting Paper Co., paper	14 37	
Rudolph Wurlitzer Co., tuba and sheet music	22 69	
Yahr & Lange Drug Co., cylinders	28 00	
Yost Writing Machine Co., pads	4 25	
Carl Zeiss, apparatus	101 59	
E. Zimmerman, apparatus	47 52	
Total		$185,035 56

COLLEGE OF ENGINEERING, 1902–1903.

F. E. Turneaure, acting dean and professor, salary	$3,000 00	
A. Trowbridge, assistant professor, salary	300 00	
E. R. Maurer, professor, salary	2,000 00	
J. D. Phillips, assistant professor, salary	1,400 00	
C. H. Burnside, instructor, salary	1,100 00	
A. V. Millar, instructor, salary	800 00	
W. D. Taylor, professor, salary	2,500 00	
L. S. Smith, assistant professor, salary	1,700 00	
Storm Bull, professor, salary	2,500 00	
A. W. Richter, professor, salary	2,000 00	
J. G. D. Mack, assistant professor, salary	1,800 00	
O. B. Zimmerman, assistant professor, salary	1,400 00	
H. J. B. Thorkelson, instructor, salary	1,200 00	
D. C. Jackson, professor, salary	2,500 00	
B. V. Swenson, assistant professor, salary	1,600 00	
C. F. Burgess, assistant professor, salary	1,400 00	
G. C. Shaad, instructor, salary	1,200 00	
J. W. Watson, assistant, salary	225 00	
J. W. Shuster, assistant	1,000 00	
J. G. Zimmerman, student assistant, salary	200 00	
C. I. King, professor, salary	2,000 00	
W. G. Lottes, instructor, salary	1,000 00	
W. H. McIntosh, instructor, salary	474 00	
H. Kratsch, machinist, salary	999 96	
G. J. Davis, instructor, salary	900 00	
R. Hartman, instructor, salary	900 00	
A. S. Merrill, instructor, salary	900 00	
E. H. J. Lorenz, mechanician, salary	800 00	
G. A. Scott, instructor, salary	800 00	
W. G. Kirchoffer, instructor, salary	700 00	
M. Bonn, foundryman	469 00	
R. L. Hankinson, student assistant, salary	147 75	
B. S. Anderson, machinist	313 18	
A. H. Andrews Co., globe	15 00	
Austin Separator Co., separators	41 20	
Acherson Graphite Co., graphite powder	10 80	
Am. School of Correspondence, addressing circulars	12 00	
Wm. Albers, sand	11 05	
Julius Andrae & Sons, switchboard	100 00	
Ashcroft Mfg. Co., indicators	280 00	
Brown, Bouveri & Co., electric motor	180 36	
F. C. Blied & Co., printing	4 00	
Christian Becker, balances	60 00	
Chas. H. Besley & Co., brass goods	147 29	
Bausch & Lomb Optical Co., apparatus	22 95	
Boston Gear Works, extras	3 00	
Peter Burger, tin work	9 92	
Storm Bull, expenses	25 52	
Barth Mfg. Co., jack	6 38	
Bullock Electrical Mfg. Co., apparatus	1,165 00	
Blied & Schneider, hardware	27 84	
The Bristol Co., ammeter and voltmeter	101 00	
Sidney J. Bullard, water organisms	15 00	
James G. Biddle, apparatus, etc.	1,045 45	
Colliery Engineer Co., advertising	14 55	
Crerar, Adams & Co., duplex chain block	20 00	
Geo. V. Cresson, hangers and pulleys	28 19	
Cowles Electric Smelting Co., silicon copper	4 95	
Craig Keyless Lock Co., locks	14 00	
City of Madison, water	17 10	
John Chatillon & Sons, balances	12 25	
Geo. B. Carpenter & Co., packing	1 49	
The Carborundum Co., carborundum	14 25	
Carnegie Steel Co., steel	3 15	

University of Wisconsin.

Conklin & Sons, coal, ice, &c.	4,295 07	
C. F. Cooley, lime, cement, &c.	83 80	
Crucible Steel Co. of America, steel	8 96	
H. W. Caldwell & Sons Co., speed indicator	3 00	
Cleveland Stone Co., grindstone	4 88	
J. B. Colt & Co., lenses	8 50	
Crosby Steam Gage & Valve Co., recorder and gauges	41 10	
Central Electric Co., incandescent lamps	7 15	
P. F. Campbell, mill	118 75	
Crane Co., pipe and fittings	851 32	
College Book Store, mdse.	75	
J. Carpenter, apparatus	282 07	
Chicago Laboratory Supply & Scale Co., mdse.	18 70	
Colliery Engineer Co., advertising	9 00	
Doyon & Rayne Lumber Co., lumber	31 80	
C. M. Dengler, lettering	15 85	
Jos. Dixon Crucible Co., graphite	7 00	
Democrat Printing Co., printing	69 35	
Dane County Telephone Co., rentals	39 00	
Eugene Dietzgen Co., apparatus, &c.	151 32	
W. H. Dudley, lantern slides	4 00	
Emerson Electric Co., apparatus, motor, &c.	236 74	
Emmert Mfg. Co., vises	33 75	
Engineering News Pub. Co., advertising	33 01	
Eimer & Amend, apparatus	16 00	
Eagle Pencil Co., pencils	60	
Electrical Review, advertising	38 00	
Electrical Supply Co., electrical mdse.	432 54	
Evening Wisconsin Co., printing separates	43 63	
Electrical Appliance Co., apparatus	15 51	
Edward Fischer Co., stationery	3 00	
Wm. Frankfurth Hardware Co., hardware and tools	95 31	
Fairbanks, Morse & Co., cement tester and extras	141 25	
Fox Machine Co., milling machine	212 50	
A. D. & J. V. Frederickson, lumber	388 44	
Fabrikoid Co., mdse.	12 90	
Fuller & Johnson Mfg. Co., casting	30	
Globe-Wernicke Co., file cabinet	64 80	
Gisholt Machine Co., screws and brass	3 00	
Phillip Gross Hardware Co., hardware, &c.	46 09	
Ganz & Co., electric motor	112 15	
Geometric Drill Co., tools	9 00	
W. J. Gamm, stop watches	31 00	
John Greig, furniture	37 25	
Gould, Wells & Blackburn Co., mdse.	2 25	
Gallagher Tent & Awning Co., rope	2 00	
Emil Greiner, apparatus	10 65	
W. & L. E. Gurley, apparatus, brass rods, wire, &c.	84 00	
Garden City Sand Co., fire brick	4 20	
General Electric Co., electric apparatus	275 43	
Harrington & King Perforating Co., mdse.	10 60	
Hollister's Pharmacy, chemicals	19 42	
Harbison-Walker Co., fire brick	48 00	
Hendee Machine Co., lathe	418 50	
Hoeveller & Barckhans, baize	7 00	
Gustav Heyde, apparatus	284 30	
Hinrichs Dry Goods Co., mdse.	2 20	
Fred Huels, key and lock work	3 50	
Hibbard, Spencer, Bartlett & Co., aluminum paint	6 00	
Blanchard Harper, lantern slides	20 00	
Henry Heil Chemical Co., chemicals	437 22	
Samuel Harris & Co., tools, brass tubing, &c.	73 94	
Hanson & Van Winkle Co., mdse.	73 22	
Hoffman & Baur, extras	6 72	
John F. Hayford, expenses as lecturer	56 30	
Illinois Steel Co., I-beams	24 30	
J. B. Johnson's Estate, refund expenses paid	12 00	
H. W. Johns-Manville Co., pipe covering	197 95	
L. E. Knott Apparatus Co., cable	9 60	
C. I. King, expenses	50 50	
King & Walker Co., pipe and fittings, labor, &c.	35 71	
E. C. Koropp, engraving	8 25	
Geo. Kemmerer, lantern slides	73 80	
Kroncke Bros., hardware	5 05	
A. H. Kayser, lumber	8 60	
The Lakon Co., transformer	149 04	

Detail of Disbursements, 1902–03.

H. W. Loewe, apparatus	43 50	
Ludlow–Saylor Wire Co., cement sieves	12 50	
Library Bureau, shelf pins	6 25	
The Menges Pharmacies, mdse.	1 75	
McDonnell Odometer Co., speed indicator	8 40	
H. B. McGowan, mdse.	8 85	
Machinists Supply Co., mdse.	6 14	
A. A. Mayers, mdse.	94 79	
Maple City Soap Works, mechanician's soap	3 60	
Mautz Bros., painting	57 59	
Moore & White Co., clutch pulley	53 30	
Eugene Munsell & Co., mica	4 95	
Milwaukee Leather Belting Co., belting	117 70	
Wm. J. Meltzer, plumbing	249 86	
The Mueller Co., installing coils, extras, &c.	51 95	
Milwaukee–Rice Machinery Co., emery cloth	7 68	
Machado & Roller, armatures	181 90	
H Mooers Co., packing	45 10	
J. G. D. Mack, expenses	44 88	
Madison Gas & Electric Co., gas, current, &c.	715 65	
T. C. McCarthy, mason work	670 00	
The Fred Macey Co., Ltd., tray and cards	6 33	
James E. Moseley, mdse.	11 05	
Machinenfabrik Oerlikon, apparatus	155 03	
Mahn & Co., apparatus	336 00	
H. Niedecken Co., mdse.	3 00	
Northern Electrical Mfg Co., electric mdse., &c.	42 70	
Northwestern Furniture Co., desk and chairs	28 50	
New York Store, mdse.	2 82	
Newbury & Peper, pulleys, couplings, labor, &c.	299 02	
Edward Orton, Jr., expenses as lecturer	39 49	
Tinius Olson & Co., apparatus	1,012 50	
Ostrander–Seymour Co., mdse.	8 00	
Wm. Owens, plumbing	135 86	
Martin Payton, castings	27 73	
Pratt & Whitney Co., die stocks and taps	5 33	
Wm. J. Park Co., mdse.	50	
The Pollard–Tabor Co., painting	9 58	
Pittsburgh Reduction Co., mdse.	75 20	
L. J. Pickarts & Co., mdse.	1 50	
Queen & Co., Inc., apparatus	98 25	
Rider–Erickson Co., pump	270 00	
J. T. Ryerson & Sons, steel	12 64	
Rockwell & Rupel Co., letter books	4 50	
Richards & Co., apparatus and chemicals	310 53	
Samuel Rodman, expenses as lecturer	80 94	
A. W. Richter, expenses	67 19	
Fred A. Rich, apparatus, tools, &c.	59 30	
Stromberg–Carlson Telephone Mfg. Co., phone outfit	280 00	
R. R. Street & Co., pulleys	29 68	
Shelby Electric Co., electric lamps	24 72	
Stephenson & Studeman, hardware and tin work	204 13	
Stevens, Maloney & Co., card index and case	25 20	
State Journal Co., printing	2 50	
Standard Telephone & Electric Co., brass castings	170 89	
Edwin Sumner & Son, mdse.	4 20	
Scully Steel Co., steel	74 10	
Franz Schmidt & Haensch, lantern	288 00	
E. H. Sargent & Co., thermometers	30 25	
Shea Smith & Co., mdse.	1 75	
Schaeffer & Budenberg Mfg. Co., apparatus	425 20	
Sunlight Lava Mfg. Co., lava slabs	20 00	
Schoelkopf, Hartford & H. Co., mdse.	12 63	
Fred M. Schlimgen, marble	8 25	
Stanley Electrical Mfg. Co., apparatus	125 00	
Schwaab Stamp & Seal Works, rubber stamps	93	
Chas. A. Strelinger Co., mdse.	18 09	
B. V. Swenson, expenses	44 57	
J. W Shuster, expenses	17 72	
Sumner & Morris, hardware	61 21	
Chas. L. Safford, font rubber type	5 49	
Secretary Board of Regents, freight, express, &c.	981 96	
David Stephens, brick	15 00	
Taylor & Gleason, printing	30 25	
Tracy, Gibbs & Co., printing	29 00	

University of Wisconsin.

W. D. Taylor, expenses	28 67	
*University pay roll, clerks, janitors, etc.	5,225 32	
University Co-operative Co., mdse.	8 45	
Universal Draughting Machine Co., machine	30 00	
Viscosity Oil Co., oil	36 65	
Wirt Electric Co., apparatus	45 00	
Webster & Perks Tool Co., reducing wheel	31 50	
Watson & McDaniel Co., steam separator	24 00	
Chas. Wehrman, harness work	1 15	
Weston Electrical Instrument Co., apparatus	1,498 86	
Wisconsin Art Glass Co., plate glass	4 50	
Wiley & Russell Mfg. Co., tools	1 72	
Westinghouse Electric & Mfg. Co., apparatus	80 60	
Wheeler Condenser Co., condenser	400 00	
P. & R. Wittstock, transits	1,773 90	
Whiting Paper Co., paper	31 50	
Whaley, Totten & Co., compound	10 00	
Wolff & Kubley, tin work	6 00	
Wiedenbeck, Dobelin & Co., hardware	37 64	
Western Electric Co., apparatus	1,381 94	
Yahr & Lange Drug Co., cylinders	28 00	
		$73,226 92

COLLEGE OF LAW.

E. E. Bryant, dean and professor	$3,500 00	
H. L. Smith, professor, salary	2,500 00	
E. A. Gilmore, professor, salary	1,800 00	
John M. Olin, lecturer, salary	1,050 00	
R. M. Bashford, lecturer, salary	1,040 00	
B. W. Jones, lecturer	1,050 00	
E. Ray Stevens, lecturer	250 00	
Henry C. Rowan, clerk moot court	25 00	
Frank W. Lucas, marking ex. papers	9 30	
Association of American Law Schools, membership fees	10 00	
American Citation Publishing Co., reports	5 00	
Boston Book Co., books	45 00	
Conklin & Sons, fuel	550 91	
C. N. Casper & Co., books	3 25	
Callaghan & Co., books	358 50	
Democrat Printing Co., printing	11 75	
Wm. V. Dawson, books	27 50	
Eagle Pencil Co., pencils	50	
Evening Wisconsin Co., printing separates	11 25	
A. D. & J. V. Fredrickson, lumber	13 80	
T. H. Flood & Co., reports	49 00	
G. Grimm & Son, binding	110 25	
Gilbert Book Co., books	135 00	
Harvard Law, review books	5 00	
Little Brown & Co., books	12 00	
G. W. Levis, books	75 00	
Lawyers Co-op. Publishing Co., books	20 00	
Jas. E. Mosley, mdse.	23 10	
H. Niedecken Co., ink	90	
W. J. Park Co., mdse.	2 65	
The Frank Shepard Co., books	9 50	
Shea Smith & Co., mdse.	1 15	
Secretary Board of Regents, freight, exp. & cartage	34 35	
Tracy, Gibbs & Co., printing	3 65	
Edw. Thompson & Co., books	18 00	
*University pay roll, clerks, janitors, etc.	556 75	
Wisconsin Pharmacy, mdse.	30	
West Publishing Co., books	330 75	
Banks Law Publishing Co., books	7 00	
E. E. Bryant, refund bills paid	5 75	
		$13,661 86

SCHOOL OF PHARMACY.

Edw. Kremers, salary, director and professor	$2,200 00	
L. S. Cheney, salary, assistant professor	1,400 00	
Richard Fischer, salary summer session, asst. professor	1,275 00	
R. H. Denniston, salary summer session, assistant	1,875 00	
A. E. Kundert, assistant, salary	400 00	
H. B. North, student asst., lantern slides and salary	235 00	

Detail of Disbursements, 1902–03.

Fred L. Shinn, assistant, salary	255 00	
M. E. Tweeden, assistant, salary	271 50	
I. W. Brandel, instructor, salary	350 00	
S. R. Boyce, lecturer	150 00	
Conklin & Sons, fuel	550 91	
Democrat Printing Co., printing	3 00	
A. D. & J. V. Fredrickson, lumber	33 00	
Gould Wells & Blackburn, mdse.	3 31	
Library Bureau, index cards	28 69	
Madison Gas & Electric Co., Gas & current	4 00	
A. A. Mayers, mdse.	14 50	
Secretary of Board of Regents, postage, express, stationery, etc.	26 11	
O. Schreiner, salary	292 00	
Sumner & Morris, hdwr.	23 35	
University Labor Pay Roll,* janitors, clerks, etc.	308 95	
Whitney Paper Co., paper	90	
		$8,700 22

OBSERVATORY.

Geo. C. Comstock, director and professor	$3,000 00	
A. S. Flint, assistant astronomer, salary	1,540 00	
B. S. Anderson, machinist	25 31	
Chas. H. Besly, brass and steel	3 16	
Boston Gear Works, steel	1 29	
Blied & Schneider, hardware	6 90	
Blied, Dufrenne & Son, hardware	28 90	
Burke & James, photo supplies	14 20	
Conklin & Sons, fuel and ice	197 07	
Capital City Paper Co., paper	1 47	
Crane Co., pipe and fittings	2 10	
Dane County Telephone Co., telephone rentals	19 50	
Doyan & Rayne Lumber Co., lumber	2 69	
P. J. Diepold, blacksmith work	2 00	
Electrical Supply Co., electrical mdse.	1 60	
A. D. & J. V. Fredrickson, lumber	32 21	
Ralph J. Golsen, scale	4 00	
G. Grimm & Son, ruled paper	8 50	
Gould, Wells & Blackburn Co., mdse.	3 46	
Hollister's Pharmacy, mdse.	3 50	
Illinois Electric Co., electric goods	1 85	
King & Walker Co., pipe and fittings, labor and mdse.	4 73	
Kroncke Bros., hardware	11 15	
G. D. Kemmerer, lantern slides	2 65	
Chas. Kehoe, rugs	13 03	
E. H. J. Lorenz, making apparatus, labor	77 20	
Madison Gas & Electric Co., gas and current	33 00	
Menges Pharmacy	5 15	
Montgomery Ward & Co., mdse., photo material	17 75	
James E. Mosley, mdse.	2 10	
Milwaukee Electric Co., repair armature	52 50	
A. A. Mayers, mdse.	1 45	
W. T. McConnell & Son, mdse.	60	
Mautz Bros., painting	148 72	
New York Store, mdse.	152 77	
Wm. Owens, plumbing	27 53	
Ott's Pharmacy, mdse.	85	
L. J. Pickarts & Co., mdse.	3 65	
Martin Payton, castings	28	
State Journal Printing Co., printing	2 75	
Standard Telephone & Electric Co., brass castings, etc.	4 42	
Sewell Clap Mfg. Co., printing envelopes	16 75	
Sumner & Morris, hardware	37 75	
C. A. Steinheil, Soëhne, apparatus	20 11	
Secretary Board of Regents, freight, exp. & postage	68 22	
Shea, Smith & Co., mdse.	45	
Stephenson & Studeman, hardware	16 53	
Tracy, Gibbs & Co., printing	1 00	
*University Pay Roll, clerks, janitors, etc.	866 22	
University Co.-op. Co., mdse.	60	
Chas. Wehrmann, harness work	25	
Wiedenbeck, Dobelin & Co., hardware	68	
Western Electric Co., electric goods	4 55	
		$6,495 10

University of Wisconsin.

LIBRARY.

W. M. Smith, librarian, salary	$1,803 00	
W. H. Dudley, assistant librarian	1,200 00	
Mary Thompson, head cataloguer, salary	425 00	
Mabel Marvin, salary	333 30	
Sarah H. Miner, cataloguer, salary	600 00	
L. C. Burke, library assistant, salary	550 00	
Gertrude B. Nutting, library assistant	420 00	
American School of Correspondence, books	30 00	
F. A. Brockhaus, books	459 41	
E. J. Brill, books	17 57	
R. R. Bowker, book	1 50	
Cougday & Britnell, books	2 25	
C. A. Cutter, book	5 00	
Friedrich Cohn, books	376 40	
L. P. Denoyer, periodicals	155 20	
Dodd, Mead & Co., encyclopedia, book	48 40	
Dennison Mfg. Co., mdse.	3 64	
J. C. Elsom, books	13 60	
Eagle Pencil Co., pencils	2 53	
Funk & Wagnalls Co., books	18 00	
First National Bank, error H. Sotheran & Co.	2 45	
G. Grimm & Son, binding	695 75	
Journal of Medical Research, books	16 00	
Johns Hopkins Press, book	5 00	
F. S. King & Son, books	14 04	
B. Login, book	4 75	
Library Bureau, cards	2 00	
The Macmillan Co., books	7 41	
W. S. Miller, books	17 50	
J. E. Moseley, mdse.	2 25	
Conway McMillan, book	3 25	
Wm. Murray, Secretary, books	23 85	
A. C. McClurg & Co., books	7 [illegible]	
New York Store, mdse.	84	
Newberry Library, books	2 00	
New England Publishing Co., periodicals	1 10	
J. E. Olson, books	86 10	
L. J. Pickarts, mdse.	7 50	
Rogers & Manson, books	16 00	
Chas. F. Smith, books	10 90	
Smithsonian Institution, books	39 25	
Secretary of Board of Regents, exp., stationery, postage, etc.	246 52	
Steven C. Stuntz, salary	66 66	
H. Sotheran & Co., books	36 59	
Soule Art Gallery, book	3 00	
Svenska Literatur Society, books	34 21	
State Journal Printing Co., printing paper	49 65	
G. E. Stechert, books	8,283 44	
*University Pay Roll, labor, etc., clerks, janitors, etc.	979 53	
University of State of New York, refund bills paid	2 25	
C. A. Van Velzer, book	3 75	
John Williams White, President, books	31 50	
H. W. Wilson, books	8 00	
H. Welter, books	18 34	
		$17,934 55

AGRICULTURAL INSTITUTES.

Geo. McKerrow, superintendent, salary, expenses	$5,080 05	
*Labor Pay Roll, janitors, etc.	5,145 00	
Democratic Printing Co., printing bulletins	3,504 50	
Hammersmith Engraving Co., engraving	94 73	
Kroncke Bros., hardware	45	
Jas. E. Moseley, mdse.	5 50	
L. J. Pickarts & Co., mdse.	2 75	
Rockwell & Rupel Co., letter books	4 50	
Secretary Board of Regents, postage, exp., etc.	451 31	
State Journal Printing Co., printing	19 37	
Tracy, Gibbs & Co., printing	135 00	
Taylor & Gleason, printing	65 80	
Tension Envelope Co, envelopes	16 20	
Whiting Paper Co., paper	11 25	
Wm. J. Park Co., mdse.	6 10	
		$14,542 51

Detail of Disbursements, 1902–03.

SUMMER SESSION.		
E. A. Birge, director, salary	$300 00	
J. B. Parkinson, professor, salary	300 00	
J. W. Stearns, professor, salary	300 00	
M. V. O'Shea, professor, salary	300 00	
Paul S. Reinsch, professor, salary	300 00	
M. S. Slaughter, professor, salary	300 00	
J. C. Monaghan, professor, salary	300 00	
W. W. Daniells, professor, salary	300 00	
Louis Kahlenberg, professor, salary	300 00	
A. R. Hohlfeld, professor, salary	300 00	
J. C. Elsom, professor, salary	300 00	
N. M. Fenneman, professor, salary	300 00	
C. A. Van Velzer, professor, salary	300 00	
D. B. Frankenburger, professor, salary	300 00	
Victor Coffin, assistant professor, salary	225 00	
T. S. Adams, assistant professor, salary	225 00	
H. B. Lathrop, associate professor, salary	225 00	
L. W. Dowling, assistant professor, salary	225 00	
J. F. A. Pyre, assistant professor, salary	225 00	
H. G. Timberlake, instructor, salary	200 00	
W. D. Frost, instructor, salary	200 00	
C. E. Allen, instructor, salary	150 00	
H. E. Patton, instructor, salary	150 00	
Geo. M. Miller, instructor, salary	150 00	
G. W. Wilder, instructor, salary	150 00	
May Hunt, instructor, salary	150 00	
Otto Patzer, instructor, salary	150 00	
W. M. Persons, instructor, salary	150 00	
O. G. Libby, instructor, salary	150 00	
G. Stanley Hall, lecturer, salary	600 00	
James L. Hughes, lecturer, salary	75 00	
E. R. Shaw, lecturer, salary	75 00	
E. B. Andrews, lecturer, salary	50 00	
C. F. Thwing, lecturer and expenses	49 00	
Thos. M. Balliet, lecturer and expenses	46 85	
A. E. Winship, lecturer, salary	43 00	
R. H. Johnson, assistant, salary	150 00	
Otto E. Lessing, instructor, salary	150 00	
H. L. Russell, professor, salary	100 00	
A. R. Anderson, instructor, salary	100 00	
Max Farrand, instructor, salary	100 00	
Geo. A. Scott, instructor, salary	100 00	
J. C. Grey, instructor, salary	100 00	
Marion B. Lamont, assistant, salary	75 00	
H. E. Bradley, student assistant, salary	75 00	
E. H. Wells, student assistant, salary	75 00	
Ruth Marshall, assistant, salary	75 00	
Charlotte E. Shedd, assistant, salary	30 00	
J. G. D. Mack, assistant professor, salary	250 00	
A. W. Richter, assistant professor, salary	250 00	
B. V. Swenson, assistant, professor, salary	250 00	
C. I. King, professor, salary	250 00	
J. W. Shuster, instructor, salary	150 00	
C. H. Burnside, instructor, salary	150 00	
W. G. Lottes, instructor, salary	125 00	
L. D. Rowell, instructor, salary	100 00	
R. L. Hankinson, instructor, salary	80 00	
Atlantic Educational Journal Co., advertising	4 20	
M. J. Cantwell, printing	162 85	
Educational Journal Co., advertising	4 50	
N. M. Fenneman, expenses paid	7 00	
Wm. Goodbody, envelopes	76 88	
S. Y. Gillan & Co., advertising	10 06	
Iowa Normal Monthly, advertising	7 80	
E. L. Kellogg & Co., advertising	6 00	
Mandel Engraving Co., cuts for circulars	49 47	
Missouri School Journal Co., advertising	4 05	
Midland Schools, advertising	5 00	
Nebraska Teacher, advertising	4 00	
New England Publishing Co., advertising	13 00	
J. E. Olson, editing university bulletins	50 00	
Public School Pub. Co., advertising	6 40	
State Journal Printing Co., printing	81 72	

University of Wisconsin.

The School Weekly, advertising	6 50	
F. C. Sharp, expenses paid	7 90	
Taylor & Gleason, printing	286 50	
Tracy, Gibbs & Co., printing	44 00	
*University Pay Roll, clerks, janitors, etc.	238 70	
E. O. Vaile, advertising	9 60	
Western School Journal, advertising	3 00	
		$11,687 92
ADMINISTRATION.		
E. A. Birge, acting president, salary	$6,000 00	
J. B. Parkinson, vice president, salary	500 00	
E. F. Riley, secretary, services	3,437 50	
Geo. R. Angell & Co., city directory	6 00	
Helen L. Burhans, visitor, expenses	32 00	
E. A. Birge, acting president, contingent	499 88	
American Conference, Pharmaceutical College dues	3 00	
E. A. Birge, expenses, trip East, attending meetings	132 65	
E. R. Curtis, photos	3 00	
Prof. Creighton, convocation lectures	15 00	
A. R. Cowley, map for convocation	4 50	
W. J. Cantwell, printing	11 50	
A. R. Crathorne, conducting examinations	4 00	
Democrat Printing Co., printing	5 00	
W. W. Daniells, refund bills paid	6 60	
J. C. Elsom, photographs	2 00	
Mrs. H. F. Green, photos	2 05	
W. R. Harper, dues association American Universities	15 00	
P. F. Harloff, electric fan	18 00	
H. H. Jacobs, expenses, lectures at convocation	5 00	
Jean Monteith, clerical services	23 25	
R. B. Moulton, convocation lectures	20 00	
W. S. Miller, expenses paid	20 87	
National Association Colleges, dues	3 00	
Postal Telegraph Co., messages	8 66	
F. A. Parker, convocation expenses	26 50	
W. M. Persons, conducting examinations	1 50	
W. A. Scott, expenses paid	35 59	
P. W. Search, expenses lectures at convocation	25 00	
L. G. Spencer, photos	63	
F. J. Turner, refund bills paid	25 00	
R. J. Usher, services conducting examinations	6 80	
E. O. Vaile, directories	7 00	
Prof. Vincent, expenses lectures at convocation	20 00	
Western Union Telegraph Co., messages	16 09	
C. M. Woodward, refund expenses paid	21 59	
Wisconsin Staats Zeitung, printing	3 50	
Ellis J. Walker, Add. envelopes	7 60	
J. E. Coleman, visitor, expenses	13 32	
C. G. Cannon, visitor, expenses	23 07	
W. J. Cantwell, printing	29 00	
Densmore Typewriter Co., carbon paper	11 20	
Dane County Telephone Co., rentals	78 00	
Democrat Printing Co., printing and daily paper	16 00	
E. A. Edmonds, Regent, expenses	163 50	
Almah J. Frisby, Regent, expenses	42 32	
Julius Engler, visitor, expenses	34 41	
G. Grimm & Son, binding	17 00	
W. D. Hiestand, registrar	1,999 92	
J. B. Johnson's Estate, expenses paid	12 00	
J. C. Kerwin, expenses	85 21	
Mrs. Grace D. Madden, visitor, expenses	12 66	
Geo. F. Merrill, Regent, expenses	152 25	
Jas. E. Moseley, stationery	26 28	
Major C. Mead, Regent, expenses	99 75	
D. O. Mahoney, visitor, expenses	27 29	
F. W. A. Notz, visitor, expenses	12 64	
A. J. Puls, Regent, expenses	149 28	
James M. Pereles, Regent, expenses	51 27	
W. J. Park Co., mdse.	5 00	
Rockwell & Rupel, cases and index	5 29	
Secretary Board of Regents, freight and express	115 55	
J. H. Stout, Regent, expenses	122 28	
B. J. Stevens, Regent, expenses	148 05	

Detail of Disbursements, 1902–03.

H. C. Taylor, Regent, expenses	86 36	
Tracy, Gibbs & Co., printing	55 50	
A. J. Myrland, Regent	28 32	
University pay roll,* clerks, janitors, etc.	4,472 47	
Whiting Paper Co., paper	10 56	
		$18,581 13
PRINTING AND ADVERTISING.		
American Collins Mfg. Co., mount cards	$3 70	
American Ribbon & Carbon Co., carbon paper	10 00	
Bunde & Upmeyer, stamped paper, invitations	69 50	
Library Bureau, cards	75 40	
Bailey, Banks & Biddle, diploma blanks	215 90	
Badger Board University of Wisconsin, badgers H. S.	184 43	
W. J. Betts, writing diplomas	182 45	
Crane Bros., paper	26 88	
M. J. Cantwell, printing	158 00	
Democrat Printing Co., printing	439 05	
Daily Cardinal, papers to H. S.	250 00	
De Pere Tablet Co., note books	12 97	
Dennison Mfg. Co. labels	3 36	
Evening Wisconsin Co., printing	934 46	
A. D. & J. V. Frederickson, lumber	15 00	
D. B. Frankenburger, compilation Alumni catalog	348 25	
G. Grimm & Son, binding	6 30	
Wm Goodbody, envelopes	100 50	
Blanchard Harper, photo work	76 44	
Hinrichs Dry Goods Store, mdse.	48 95	
W. D. Hiestand, expenses	5 38	
J. E. Moseley, mdse.	57 00	
J. E. Olson, editor, U. W. Pub.	100 00	
W. J. Park Co., mdse.	12 50	
Rockwell & Rupel Co, paper	1 69	
Secretary Board of Regents, express, postage, etc.	1,114 39	
Sumner & Morris, hardware	9 60	
Schwaab Stamp & Seal Co., rubber stamps	5 59	
Shea Smith & Co., envelopes	8 00	
F. C. Sharp, Exp. Ent. Co.	124 58	
State Journal Printing Co., printing	1,137 15	
Standard Paper Co., paper cut	25 00	
Tracy, Gibbs & Co., printing	321 50	
Tension Envelope Co., envelopes	90 03	
Taylor & Gleason, printing	7 00	
Tileston & Livermore, catalog paper	914 76	
University pay roll,* janitors, etc.	176 25	
University Co-op Co., mdse.	5 05	
Whiting Paper Co, paper	34 82	
Wyckoff, Seaman & B., carbon paper	12 00	
		$7,323 83
REPAIRS AND IMPROVEMENTS.		
B. S. Anderson, machinist and assistant	$96 70	
Armour Glue Works, glue	18 00	
A. H. Andrews Co., crests	1 00	
American Blower Co., heater base	25 00	
W. Albers, sand	75	
Blied & Schneider, hardware	295 67	
Barbee Wire & Iron Works, wire	14 05	
Henry B. Bischoff, plastering	62 58	
Barth Mfg. Co., elevator repairs	990 31	
Bischoff Bros., plastering	41 85	
Conklin & Sons, fuel	143 56	
Crane Co., pipe and fittings	972 69	
City of Madison, pipe	17 34	
Capital City Paper Co., paper and twine	10 00	
C. F. Cooley, cement and mdse.	5 13	
C. M. Dengler, lettering	4 85	
Doyon & Rayne Lumber Co., lumber	41 20	
Deane Steam Pump Co., pump extras	82 16	
Dane County Telephone Co., rentals	2 85	
Electrical Supply Co., electric mdse.	14 46	
A. D. & J. V. Frederickson, lumber	276 49	
Fuller & Johnson Mfg. Co., pig iron	4 10	

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J. H. Findorff, carpenter work	77 20	
Phillip Gross Hardware Co, hardware	5 63	
Gisholt Machine Co., screws, etc.	3 60	
Fred Huels, lock work	6 45	
Hoffman & Bauer, acct. contract	2,280 31	
W. J. Hyland, plumbing	12 40	
Peter P. Hyland, door checks	7 30	
Johnson Service Co., damper	25 00	
A. H. Kayser, lumber	39 76	
Chas. Karstens, repairing furniture	50	
Kroncke Bros., mdse.	5 25	
King & Walker Co., castings, etc.	94 40	
Mautz Bros., painting material	372 71	
A. A. Mayers, mdse.	222 83	
W. J. Meltzer, plumbing	147 33	
J. M. Maw, work	4 80	
H. Mooers, steam trap	16 88	
Marshall Field & Co., curtains	3 60	
Model Laundry Co., drying racks	50 00	
Merrit & Co., steel lockers	448 93	
Milwaukee Rice Machinery Co., packing	9 30	
Milwaukee Leather Belting Co., belting	18 28	
T. C. McCarthy, mason work	245 37	
National Blower Works, ventilating fan	130 00	
Thos. P. Nelson, painting	319 00	
Newbury & Peper, labor and material	13 25	
Northern Electrical Mfg. Co, motor	165 00	
E. Niebuhr, repairing chair	1 25	
Wm. Owens, plumbing	370 98	
Pollard & Taber Co., painting	382 49	
L. J. Pickarts, mdse.	1 50	
Power Regulator Co., thermometers	14 00	
The Wm. Powell Co., oilers	7 54	
Rundell & Spence Co., syphon	4 50	
Secretary of Board of Regents, postage, express, etc.	178 00	
Stephenson & Studeman, hardware	14 40	
Fred M. Schlimgen, marble work	60	
Standard Oil Co., oil	36 38	
Standard Telephone & Electric Co., brass castings	2 70	
Sumner & Morris, hardware	71 79	
Stark Mfg Co., moulding, lumber, etc.	91 89	
University Labor Pay Roll,* janitors, clerks, etc.	2,213 76	
University Co-op Co., mdse.	7 50	
Western Electric Co., electric goods	78 17	
Henry R. Worthington, valve springs and plates	5 12	
Wisconsin Pharmacy, drugs	10 20	
Western Kiley Steam Specialty Co., valve	15 00	
Wiedenbeck, Dobelin & Co., hardware	22 61	
Yale & Town Mfg. Co., hardware	84 63	
		$11,460 78

HEAT AND LIGHT.

M. B. Austin & Co., electric mdse.	23 16	
B. S. Anderson, machinist	67	
Blied & Schneider, hardware	9 32	
Storm Bull, summer service	100 00	
Peter Burger, hardware	1 00	
Conklin & Sons, fuel, etc.	22,210 31	
J. B. Colt & Co., carbons	3 25	
C. F. Cooley, cement	94 20	
Deane Steam Pump Co., packing rings	23 75	
Electrical Supply Co., electric mdse.	75 21	
A. H. Gardner & Co., packing	95 23	
Gould, Wells, Blackburn & Co., mdse.	5 88	
Garden City Sand Co, fire brick	123 00	
P. F. Harloff, electric mdse.	9 50	
H. W. Johns-Manville Co., covering	97 78	
Johnson Service Co., diaphragms	14 50	
King & Walker Co., pipe and fittings	90 82	
Link Belt Machine Co., pin	3 30	
Lynn Incandescent Lamp Co., electric lamp	36 58	
W. T. McConnell & Son, mdse.	18	
The Mueller Co., extras for furnace	1 50	
A. A. Mayers, mdse.	5 50	

Detail of Disbursements, 1902–03.

Madison Gas & Electric Co., gas and current	3,989 10	
Milwaukee Lea Belt Co., belting	12 18	
Northern Electrical Mfg. Co., mdse.	2 50	
Wm. Owens, plumbing	80	
Powers Regulator Co., repairing thermometer	3 75	
Power Specialty Co., tube cleaner	85 00	
Racine Hardware Co., extras	8 50	
Secretary Board of Regents, express, postage, etc.	42 39	
Shelby Electric Co., incandescent lamps	57 00	
University Labor Pay Roll,* janitors, clerks, etc.	4,170 08	
Viscosity Oil Co., oil	137 35	
Wadham's Oil & Grease Co., waste	10 54	
Western Electric Co, mdse.	18 20	
Westinghouse, Church, Kerr & Co., extras for furnace	119 37	
Wiedenbeck, Dobelin & Co., hardware	12 40	
		$31,693 80

LABORATORY SUPPLIES.

B. S. Anderson, machinist and assistant, salary	$194 87	
Ashcroft Mfg. Co., springs	3 05	
Albany Card & Paper Co., paper	32 08	
A. E. Austin, rubber boots	3 50	
G. F. Anderson, copper wire	19 08	
Allis Chalmers Co., boiler steel plate	45 50	
American Hard Rubber Co., sheet rubber	6 59	
American Electro Chemical Society, book	4 00	
American Steam Pump Co., apparatus	13 20	
American Vulcanized Fibre Co., tubes	8 09	
Julius Andrae & Sons Co., Nernst glowers	9 00	
Peter Burger, labor and material	8 05	
C. H. Besly & Co., brass, steel	214 20	
F. A. Brockhaus, books	8 53	
James G. Biddle, apparatus, repairing	120 12	
Blied & Schneider, hardware	55 45	
J. Bishop & Co., mdse. and repairing	116 53	
Brimley Bros., earthworms	8 25	
Herman Boker & Co., wire	21 74	
Christian Becker, weights	120 00	
Mrs. C. F. Baker, mdse.	15 00	
W. A. Bently, lantern slides	14 00	
Bausch & Lomb Opt. Co., chemicals	5,823 88	
Buckstaff Edwards Co., chairs	18 00	
Baker & Co., repairing crucibles	1 63	
C. F. Cooley, cement	16 76	
J. M. Clements, expenses	12 95	
Chicago Calcium Light Co., acid gas	41 50	
Crosby Steam Gage Co., piston rods and indicator cord	44 95	
Corbin Cabinet Lock Co., keys and blanks	59 23	
J. B. Colt & Co., lenses	3 00	
Conklin & Sons, fuel and ice	59 12	
College Book Store, mdse.	70	
Chicago Laboratory Supply Co., mdse.	30 66	
Central Scientific Co., mdse.	52 92	
M. J. Cantwell, printing	28 15	
Currie Bros., shears, etc.	25	
Crane Co., pipe, etc.	15 49	
Cambridge Botanical Supply Co., mdse.	2 69	
Crucible Steel Co., tool steel	248 14	
Democrat Printing Co, printing	49 45	
Denoyer, L. P., periodicals and books	83 57	
Dexter Curtis Co., zinc	5 00	
Doyon & Rayne Lumber Co., lumber	139 22	
C. M. Dengler, lettering	12 10	
Eugene Deitzgen Co., bobs, tapes	12 15	
Dennison Mfg. Co., tags	20 45	
Eimer & Amend, chemicals	473 47	
Electric Appliance Co., electric goods	68 66	
Excelsior Supply Co., mdse.	8 90	
Engineering News Publishing Co., sketch book, periodicals	13 25	
Electric Supply Co., electric goods	20 78	
John Fath, crayfish and mdse.	4 23	
Fabrikoid Co, alum	8 60	
Firth Sterling Steel Co., steel	19 41	

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Fuller & Johnson Mfg. Co., castings, pig iron, coke	105 87	
A. D. & J. V. Frederickson, lumber	373 22	
Wm. Frankfurth Hardware Co., hardware	294 94	
Eugene C. Forster, liquid air	15 50	
Fauerbach Brewing Co., acid gas	15 00	
Fritzsche Bros., chemicals	4 50	
R. Freidlander & Son, periodicals	3 20	
Henry J. Green, thermometers	47 70	
Gould, Wells & Blackburn Co., mdse.	13 50	
Wm. Gaertner & Co., supplies	35 28	
Garden City Sand Co., sand	7 25	
Goodell Pratt Co., mdse.	5 13	
G. Grimm & Son, binding	5 50	
W. J. Gamm, mdse.	50	
W. & L. E. Gurley, rod wire, etc.	133 17	
Gallagher Tent & Awning Co., covers	30	
Hinrichs Dry Goods Store, mdse.	80 45	
H. S. Hull, belting	1 80	
John P. Halbach, mdse.	1 75	
F. H. Horsford, bulbs	1 54	
Hans Hule, spectroscope	5 42	
H. Heil Chemical Co., chemicals	85 87	
Huber & Thurman, black pepper	1 65	
Hollister's Pharmacy, chemicals	453 44	
Fred Huels, key & lock work	7 75	
P. F. Harloff, electric work	13 13	
H. C. Hendrickson, cones	8 78	
Hibbard, Spencer, Bartlett & Co., gauges	11 29	
Samuel Harris & Co., brass tubing, mdse.	69 22	
E de Haen, apparatus	37 00	
Imperial Brush Co., brushes	3 00	
A. L. Ide & Sons, paint	3 00	
International Electric Co., binding posts	10 00	
Jones & Laughlin Steel Co., steel	57 72	
Jewell Electric Inst. Co., springs, extras for app.	5 00	
Kaiser Bros. (Fair Store), flower pots	1 98	
Kroncke Bros., hardware	2 20	
L. E Knott Appliance Co., apparatus, electroscope	20 00	
A. H. Kayser, lumber	6 37	
Kempsmith Mfg. Co., castings	8 58	
Alex. Kornhauser & Co. mdse.	4 70	
Keeley, Neckerman & Kessenich, spool cabinet	1 50	
Keuffel & Esser Co., slide rule	4 19	
King & Walker Co., pipe, labor, castings, etc.	277 28	
Library Bureau, cards	51 00	
C. F. Lamb, agent, surety on bond	5 00	
Christ. Lawrence, salt	1 15	
Lehn & Fink, drugs	83 21	
Ernst Leitz, slide cases, apparatus, mdse.	149 21	
Eli Lilly & Co., starches	2 85	
R. K. Le Blond Machine Tool Co., tools	8 10	
Milwaukee Rice Machinery Co., mdse., cutters, blocks	24 09	
A. A. Mavers, mdse.	49 51	
Mary E. Martin, plants	1 06	
A. C. McClurg & Co., books	105 28	
Machado & Roller, repairing apparatus	12 25	
Madison Steam Laundry, laundry work	5 79	
Marine Biological Laboratory, sharks	15 15	
H. Mooers Co, packing	5 26	
Merck & Co., drugs	86 89	
Milwaukee Electric Co., motor	60 00	
Milwaukee Leather Belt Co., belting and waste	24 45	
Maple City Soap Works, soap	7 20	
H. R. McGowan, mdse.	2 60	
Ed. W. Morhoff, galvanized iron steel	31 65	
Anna L. Moore, stencil work	6 60	
Jas. E. Moseley, mdse.	18 25	
W. T McConnell & Son, mdse.	23 87	
W. J. Meltzer, plumbing	67 40	
Mantz Bros., painting	42 45	
Madison Fixture & Plating Co., repairs	2 65	
Municipal Engineering Co., books	2 00	
Montgomery Ward & Co., mdse.	5 35	
Menges Pharmacy, mdse.	49 31	
Machinists Supply Co., mdse.	8 28	

Detail of Disbursements, 1902–03.

Madison Gas & Electric Co., gas and current	449 31	
New York Store, mdse.	13 34	
H. Neuecken Co., ink	45	
Alex. Nelson, Necturnes	2 40	
Nichols Engineering & Contracting Co., steel tapes, tape reels	24 00	
Norton Emery Wheel Co.	18 03	
Northern Electrical Mfg. Co., repairing apparatus, electric mdse.	124 32	
National Distilling Co., alcohol	160 42	
Newbury & Peper Machine Shop, brass, pulleys and couplings, labor and material	16 91	
Nernst Lamp Co., electric lamp	5 90	
Wm. Owens, plumbing	17 64	
C. Olivetti, hot wire ammeter	69 00	
Marion Payton, castings	50 66	
O. L. Petitdidier, polishing prism	39 50	
W. J. Park Co., mdse.	5 15	
Parr & Kroncke, repairing mower	35	
Pratt & Whitney Co., die, stocks and taps	4 02	
Pittsburgh Reduction Co., aluminum	1 64	
E. F. Paunack, stone	2 20	
Peck & Velsor, Oswego tea	1 20	
Pulsometer Engineering Co., special oil	2 36	
E. F. Phillips, mdse.	5 00	
John Pritzlaff Hardware Co., hardware	4 27	
L. J. Pickarts & Co., mdse.	22 00	
Perman, Pfeuger & Keumstead Co., mdse.	1 80	
John F. Pieh, sand	6 75	
Jennie M. Pitman, charts	13 50	
Queen Co., mdse.	21 15	
Fred A. Rich, micrometer head, repairing apparatus	49 71	
W. C. Ritchie & Co., boxes	10 00	
F. L. Rogers, mdse.	1 11	
Fred Rentschler, plants, etc.	6 15	
Richards & Co., chemicals	98 11	
E. H. Sargent & Co., chemicals, mdse.	431 72	
Fred M. Schlimgen, marble chips	1 00	
Standard Telephone & Electric Co., brass castings	73 15	
State Journal Printing Co., printing	11 00	
Edwin Sumner & Son, mdse.	26 00	
Street Railway Publishing Co., periodicals	8 00	
Sumner & Morris, hardware	142 96	
Dr. Steig & Reuter, apparatus	27 56	
Schwaab Stamp & Seal Co., rubber stamp	58	
L. S. Smith, expenses	29 96	
L. S. Starratt Co., apparatus	18 23	
Winfield Scott, mdse.	1 25	
G. E. Stechert, books	681 07	
M. A. Seed Dry Plate Co., plates	10 05	
L. F. Schoelkopf, steel balls	1 00	
Standard Oil Co., wax and oil	16 46	
Katherine Silbernagel, lantern slides	2 65	
Secretary of Board of Regents, stationery, express, postage, etc.	842 58	
Stephenson & Studeman, hardware	108 21	
Chas. A. Srelinger Co., brass	101 47	
Schaffer & Budenberg Mfg. Co., mdse and repairing	44 48	
Tracy, Gibbs & Co., printing	7 75	
F. E. Turneaure, expenses	60 27	
Taylor & Gleason, printing	40 15	
Torrey Botanical Club, books	9 00	
University Labor Pay Roll,* janitors, clerks, etc.	1,604 81	
University Co-op. Co., mdse.	207 05	
C. R. Van Hise, expenses	6 70	
Viscosity Oil Co., oil	170 50	
Vaughn's Seed Store, seeds	3 85	
Wiedenbeck, Dobelin & Co., hardware	233 30	
Chas. Wehrmann, work	75	
Williams & Peters, smithing, coal	125 16	
Wiley & Russell Mfg. Co., die and taps	2 71	
Wadhams Oil & Grease Co., waste	39 85	
S. S. White Dental Mfg. Co., acid gas	6 30	
Geo. Wittbold Co., plants	5 00	
F. W. Walmsley, starfish	6 15	

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Worcester Machine Screw Co., screws	2 10	
W. W. Warner, bass viol bows	5 00	
Williams, Brown & Earle, slides	3 08	
Western Electric Co., electric goods	154 58	
Weston Electric Instrument Co., apparatus	335 39	
Williams & Peters, castings	147 62	
Wisconsin Pharmacy, drugs, etc.	1 50	
Wisconsin Engineer, periodicals	12 50	
Whitall, Tatum & Co., graduate jars, etc.	139 21	
Whiting Paper Co., paper	1 20	
Yale & Towne Mfg. Co., hardware	3 00	
Yahr & Lange Drug Co, seed	2 00	
		$18,800 33

ROADS AND GROUNDS.

Wm. Albers, sand	$9 25	
Blied & Schneider, tin work	50	
Peter Burger, hardware	3 40	
Breitenbach Bros., rubber boots	4 50	
Blied, Dufrenne & Schneider, hardware	2 29	
Conklin & Sons, fuel and ice	71 06	
Chas. Carman, shoeing horses	18 40	
City of Madison, water, macadam	497 76	
C. F. Cooley, lime and cement	482 54	
C. M. Dengler, lettering	1 50	
Doyon & Rayne Lumber Co., lumber	183 90	
Findlay & Co., salt	6 60	
A. D. & J. V. Fredrickson, lumber	7 42	
A. H. Gardner & Co., rubber hose	14 50	
Gallagher Tent & Awning Co., labor and material	7 91	
L. B. Gilbert, cement walks	134 00	
Hollister's Pharmacy, mdse.	20	
John B. Hayes, shoeing	12 40	
John P. Halbach, mdse.	13 65	
A. H. Kayser, lumber	135 15	
Kroncke Bros., hardware	60	
Christ. Lawrence, salt	5 00	
Madison Saddlery Co., mdse.	9 00	
Mantz Bros., painting, etc.	28 22	
McCormick Hardware Co., tools	48	
A. A. Mayers mdse.	18 10	
B. M. Minch, feed	23 65	
Orr & Locket Hardware Co., tools	2 50	
W. E. Oakey, gravel for walks	7 60	
Parr & Kroncke, repairing mower	23 00	
Piper Bros., millet	7 00	
John F. Pieh, sand and gravel	6 50	
Petrie, Elliott & Herrington, bobs	16 25	
L. J Pickarts & Co., mdse.	25	
Standard Oil Co., oil	1 00	
Secretary Board of Regents, express, postage, etc.	190 72	
David Stephens, brick, crushed stone	195 29	
Sumner & Morris, hardware	8 85	
Stephenson & Studeman, hardware	6 35	
University Pay Roll,* janitors, etc.	2,707 16	
University Co-op Co., mdse.	2 80	
Western Consolidated Granite Co., granite screenings	57 02	
Chas. Wehrmann, harness work	1 25	
Wiedenbeck & Dobelin Co., hardware	41	
Wisconsin Wagon Co., repairs, etc.	28 75	
		$4,954 68

GENERAL ACCOUNT.

Alford Bros., laundry	$14 45	
American Crayon Co., crayons	5 75	
Alumin Association, commencement aid, entertain'g guests	200 00	
Chas. H Besley & Co., mdse.	6 00	
Blied, Dufrenne & Schneider, hardware	6 73	
W. G. Bleyer, high school inspection	13 41	
Storm Bull, high school inspection	3 44	
Arthur Beatty, high school inspection	16 25	
E. A. Birge, acting president, entertains	136 35	
The Bristol Co., charts	3 00	

Detail of Disbursements, 1902–03.

L. S. Cheney, high school inspection	21 61	
Corbin Cabinet Lock Co., keys	5 00	
Conklin & Sons, fuel and ice	25 33	
S. Cupples Wooden Ware Co., mop heads	9 00	
Continental Brush Co., brushes	32 30	
City of Madison, water	101 56	
W. B. Cairns, high school inspection	12 67	
Cushman & Denison, clamps	1 00	
Capital City Paper Co., paper and twine	1 40	
L. W. Dowling, high school inspection	20 27	
De Pere Tablet Co., blue books	98 37	
Democrat Printing Co., printing	1 00	
C. M. Dengler, lettering	25	
Electrical Supply Co., electric mdse.	2 46	
G. C. Fiske, high school inspection	17 38	
M. H. Fairchild Bros., polish	3 00	
Edward Fischer Co., paste, mdse.	30 02	
J. C. Freeman, high school inspection	20 62	
Phillip Gross Hardware Co., hardware	11 60	
Groves Barnes Music Co., pianos	500 00	
Gould, Wells & Blackburn Co., mdse.	61 00	
Hinrichs Dry Goods Co., mdse.	26 35	
A. R. Hohlfeld, high school inspection	22 89	
Hull & Hammond, renovating rugs	59 46	
Hollister's Pharmacy, mdse.	4 09	
Fred Huels, key work	1 30	
The Hub, gloves	2 00	
R. A. Harper, high school inspection	36 82	
J. T. W. Jennings, architect	833 28	
Kentzler Bros., livery	4 00	
Alex. Kornhauser, flags	1 50	
Adam Klein, brooms	10 00	
L. Kahlenberg, high school inspection	14 26	
Christ. Lawrence, salt	4 40	
Edgar A. Murray, machine	10 00	
Madison Saddlery Co., mdse.	2 75	
Jas. E. Moseley, mdse.	2 55	
Madison Steam Laundry, laundry,	3 93	
F. W. Meisnest, High School inspection	15 14	
A. A. Mayers, mdse.	5 00	
B. H. Meyer, expenses	11 11	
Abby S. Mayhew, expenses	1 45	
Irving Mutchler, refund bills paid	11 50	
W. T. McConnell & Son, mdse.	40	
Menges Pharmacy, mdse.	7 60	
D. C. Munro, High School inspection	31 20	
H. B. McGowan, mdse.	1 25	
Chas. Nitschke, commencement music	125 00	
Northern Tissue Paper Co., toilet paper	107 80	
New York Store, mdse.	1 69	
H. Niedecken Co., ink, mdse.	21 52	
M. V. O'Shea, High School inspection	6 90	
Wm. Owens, plumbing	1 50	
L. J. Pickarts, mdse.	3 62	
Robb Pfeiffer, flowers for commencement	24 00	
J. F. A. Pyre, High School inspection	4 50	
F. A. Parker, music	3 17	
Fred Rentschler, flowers	10 00	
Ruth Mfg. Co., externune	5 00	
Rockwell & Rupel Co., letter books	47 63	
P. S. Reinsch, high school inspection	14 09	
Remington Typewriter Co., oil	2 00	
Edwin Sumner & Son, mdse.	45	
Secretary of Board of Regents, band	330 30	
E. B. Skinner, high school inspection	15 25	
Standard Oil Co., oil	4 00	
C. F. Smith, high school inspection	12 15	
M. S. Slaughter, high school inspection	8 15	
Standard Paper Co., paper	95	
Stephenson & Studeman, hardware	4 05	
G. Showerman, high school inspection	1 76	
Shea Smith & Co., mdse.	34 69	
Schwaab Stamp Seal Co., rubber stamps	2 95	
J. W. Stearns high school inspection	7 80	
C. S. Slichter, supt. of athletics	500 00	

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Sumner & Morris, hardware	1 85	
Secretary Board of Regents, search for bodies, postage, express, etc.	218 50	
A. W. Tressler, high school inspection	370 47	
Tracy, Gibbs & Co., printing	1 00	
*University labor pay roll, janitors, clerks, etc.	778 80	
University Co.-op. Co., mdse.	5 10	
Viscosity Oil Co., oil	17 45	
C. A. VanVelzer, high school inspection	1 62	
Wyckoff, Seamans & Benedict, typewriters' supplies	6 00	
Wisconsin Pharmacy, drugs	8 50	
R. D. Wood & Co., wrenches, etc.	9 75	
Wisconsin Telephone Co., rentals for year 1902	30 00	
W. W. Warner, rent of piano	60 00	
Yost Writing Machine Co., repairing machine	11 10	
		$5,326 91

AGRICULTURAL COLLEGE BUILDING.

G. Grimm & Son, binding	$8 35	
Illinois Electric Co., telephone wire	56 53	
T. C. McCarthy, account contract	951 79	
Perkins Windmill Co., tank	90 00	
Secretary Board of Regents, express, postage, etc.	1 00	
Starck Mfg. Co., lumber, etc.	39 65	
*University pay roll, janitors, clerks, etc.	48 00	
		$95,422 53

STATE HISTORICAL SOCIETY OF WISCONSIN.

Maintenance		$750 00

SCHOOL OF ECONOMICS LIBRARY FUND.

F. A. Brockhaus, books	$3 64	
The Comrade, book	3 25	
H. Falkman, books	2 15	
A. C. McClurg, books	7 20	
A. Eichlu, books	26 23	
G. E. Stechert, books	719 96	
George Roustan, book	52 46	
		$814 89

SCHOOL OF COMMERCE LIBRARY FUND.

The Audit Co., of N. Y., exchange directions	$9 00	
A. C. McClurg & Co., books	56 83	
H. V. & H. W. Poor, book	10 00	
G. E. Stechert, books	295 17	
Secretary of Board of Regents, express, postage	4 60	
		$375 60

ANATOMICAL LABORATORY.

B. S. Anderson, machinist	2 03	
Conklin & Sons, coal and fuel, ice	78 75	
Crane Co., pipe and fittings	1,023 66	
Dresen & Rhodes, paint	14 05	
Electrical Supply Co., mdse.	2 50	
A. D. & J. V. Fredrickson, lumber	95 37	
Phillip Gross Hardware Co., hardware	156 00	
Hoffman & Bauer, account contract	1,179 60	
Illinois Electric Co., mdse., conduit	371 40	
J. T. W. Jennings, expenses	106 74	
A. H. Kayser, lumber	883 29	
T. C. McCarthy	2,635 71	
W. S. Miller, expenses	29 50	
A. A. Mayers, mdse.	40 00	
National Blower Works, fan and trap	280 00	
Newbury & Peper, labor, material	35 40	
Wm. Owens, plumbing	1,000 00	
John F. Pieh, sand	36 00	
Secretary of Board of Regents, express, postage	109 36	
Standard Oil Co., oil	24 06	

Detail of Disbursements, 1902–03.

Stephenson & Studeman, tinwork	1 75	
*University labor pay roll, janitors, clerks	955 65	
University Co-op Co., mdse.	2 80	
Western Electric Co., mdse.	20 05	
Wiedenbeck & Dobelin Co., hardware	2 80	
Youngstown Iron Roofing Co., sheet metal lath	344 35	
		$9,430 77
WERGELAND BOOK FUND.		
J. E. Olson, books	$17 61	
G. E. Stechert, books	104 34	
		$121 95
HEBREW LECTURESHIPS AND SCHOLARSHIPS.		
L. B. Wolfenson, aid		$355 00
WILLIAM F. ALLEN SCHOLARSHIP.		
John B. Stearns, aid		$250 00
JOHN C. FREEMAN SCHOLARSHIP.		
Florence Ketchum, aid		$250 00
SHEBOYGAN GRADUATE SCHOLARSHIP GERMAN PHILOLOGY.		
J. S. Hausmann, aid		$300 00
B. K. MILLER, JAPANESE SCHOLARSHIP.		
Bentaro Kamiyami, aid		$50 00
BIBLICAL ALLIANCE SCHOLARSHIP.		
Secretary Board of Regents		$1,290 00
GUSTAV. A. KLETZSCH SCHOLARSHIP IN BACTERIOLOGY.		
D. L. Barnard, aid	$250 00	
Gustav Kletzsch, aid	150 00	
		$400 00
CHICAGO SOCIAL SETTLEMENT FELLOWSHIP.		
Rosa M. Perdue, aid		$85 00
JACKSON PROFESSORSHIP OF LAW.		
J. H. Carpenter, Jackson Professorship of Law		$1,000 00
INCOME DOYON BEQUEST.		
J. O. Davidson, Treasurer, sundry accounts		$13 75
LOUIS LOTZ SCHOLARSHIP.		
Navjaia Inouye, aid		$50 00
LEWIS MEDAL FUND PRINCIPAL.		
J. O. Davidson, Treasurer, sundry accounts		$100 00

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LILLIAN PAGE-ALLIS SCHOLARSHIPS IN GERMAN.		
H. H. Jebins, aid	$50 00	
Anna M. Roemer, aid	100 00	
		$150 00
POLITICAL SCIENCE LIBRARY FUND.		
George Roustan, aid	$414 09	
Secretary Board of Regents, aid	85 91	
		$500 00
AMELIA E. H. DOYON SCHOLARSHIPS.		
Emma E. Jaek, aid	$125 00	
Laura E. DuFour, aid	125 00	
		$250 00
JERMAIN-PFLUEGER-KEUMSTED AND YAHR-LANGE SCHOLARSHIP IN PHARMACY.		
Chas. A. L. Buerstatte, aid		$25 00
JOHNSON ENDOWMENT FUND INTEREST.		
Alfred G. Arnold, aid	$25 00	
Peter O. Anderson, aid	20 00	
Mathew G. Berge, aid	25 00	
Ole J. Eggum, aid	25 00	
Christian F. Graff, aid	35 00	
Anne C. Lerum, aid	20 00	
Lars A. Kalvestraw, aid	25 00	
Olaf Lauerguard, aid	25 00	
Florina Mortenson, aid	25 00	
B. A. Paust, aid	25 00	
Henry R. Schlytter, aid	25 00	
Benedick Skrwseith, aid	25 00	
		$300 00
HENRIK WERGELAND SCHOLARSHIP FUND.		
O. H. Baldwin, aid		$200 00
UNIVERSITY GROUNDS.		
Mary Coyne, purchase lot 16, B. 2		$8,000 00
LEWIS MEDAL PRIZE FUND INTEREST.		
Arnold L. Gesell, Lewis prize		$18 00

Detail of Disbursements, 1903–04.

DETAIL OF DISBURSEMENTS,

1903–04.

COLLEGE OF AGRICULTURE.		
W. A. Henry, dean and director, salary	$4,000 00	
S. M. Babcock, asst. director and chief chemist, salary	3,000 00	
H. L. Russell, professor, salary	2,500 00	
E. H. Farrington, professor, salary	2,200 00	
E. P. Sandsten, professor, salary	1,900 00	
R. A. Moore, assistant professor, salary	2,000 00	
G. C. Humphrey, assistant professor, salary	1,800 00	
F. W. Woll, asst. professor, salary	2,000 00	
A. S. Alexander, instructor and veterinarian, salary	1,000 00	
Frank Kleinheinz, assistant salary	900 00	
L. H. Adams, farm supt., salary	1,000 00	
E. G. Hastings, instructor, salary	1,000 00	
A. R. Whitson, professor, salary	700 00	
F. J. Wells, asst. professor, salary	910 00	
F. Cranefield, instructor, salary	700 00	
G. A. Olson, instructor, salary	800 00	
W. B. Richards, assistant, salary	700 00	
J. R. Danks, assistant, salary	540 00	
Henry Ramsay, assistant, salary	600 00	
James Hutton, assistant, salary	700 00	
J. C. Brown, instructor, salary	700 00	
L. P. Haskins, expenses	659 23	
W. L. Carlyle, professor, salary	440 00	
Roy T. Harris, expenses	282 40	
G. N. Knapp, asst. professor, expenses	237 62	
S. S. Anderson, machinist, salary	7 00	
A. S. Alexander, expenses	58 33	
American Sheep Breeders' Assoc., half tone	2 00	
American Trotting Register Assoc., book	1 00	
American Jersey Cattle Club, registration and book	8 00	
American Duroc Jersey Co., register and record	5 50	
American Hereford Breeders' Assoc., book	1 00	
F. A. Averbeck, repairing camera case	1 25	
American Duroc Jersey Swine Breeders' Assoc., book	6 00	
Apfel-Murdoch Co., burners	7 00	
*Agricultural College pay roll	26,815 02	
American Cotton Oil Co., cottonseed oil	209 50	
American Express Co., charges	165 53	
American Guernsey Cattle Club, books and registration	37 00	
American Florist Co., book	2 00	
Austin Engraving Co., electros	1 12	
American Southdown Breeders' Assoc., books	12 50	
American Ribbon & Carbon Co., carbon paper	9 25	
American Berkshire Assoc., registry fees	13 25	
A. H. Andrews Co., furniture	276 00	
Assoc. of American Agricultural Colleges, fee	30 00	
Wm. Albers, sand	30 00	
American Pomological Society, fee	20 00	
S. L. Allen & Company, seed drill	7 88	
Amer. Shorthorn Breeders' Assoc., registration, books	9 75	
Armour Fertilizer Works, fertilizer	1 50	
G. W. Acker, oats	32 65	
American Yorkshire Club, registry fees	4 00	
American Percheron Horse Co., registration	8 00	
Peter Burger, hardware	87 65	
Bowman Dairy Co., milk cans	27 50	
Bramhall, Deane & Co., sterilizer	70 00	
C. E. Blodgett, cow	205 00	
Bliss & Otmar, pig	25 00	
A. Booth & Co., storage, etc.	11 08	

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M. Brahaney, hoof packing	5 00	
Blied & Schneider, hardware	305 24	
The Book Shop, books	14 00	
C. Bernard & Son, boat hire	12 00	
A. H. Barber Mfg. Co., butter color, cans, mdse.	63 15	
H. H. Brown, straps	75	
Barbee Wire & Iron Works, railing	17 10	
Brown & Nevin, livery	50 00	
Baker & Co., crucibles	6 38	
The J. W. Biles Co., grains	185 00	
Binner–Wells Co., proofs	50	
F. A. Brockhaus, books	191 66	
Bausch & Lomb Optl. Co., instruments	1,619 91	
D. Bradfute & Son, cow	275 00	
Patrick Barry, grading grounds	248 07	
C. S. Baker & Co., drugs	18 25	
U. S. Baer, salary	300 00	
Borden & Selleck Co., repairing scale, scales	28 60	
Burdick & Murray Co., dry goods, stationery	21 91	
Barnes–Crosby Co., certificates	7 80	
Chas. H. Besly & Co., tools, etc.	2 28	
M. J. Cantwell, printing	443 50	
C. N. Caspar & Co., books	4 02	
Centralia Hdw. Co., hardware	36 43	
Challoner & Co., fittings	4 74	
Crane Co., pipe fittings	274 22	
Conklin & Sons, fuel, cement, ice, mdse.	1,743 52	
C. F. Cooley, coal and ice	5,654 88	
College Bookstore, mdse.	12 70	
Corry's Grocery, mdse.	16 16	
Chas. Carmen, shoeing	18 60	
Miles A. Compton, expenses	7 98	
John Campbell, sheep	75 00	
Creamery Patrons' pay roll,* milk	42,096 37	
Cornish, Curtis & Greene Mfg. Co., brushes, cards, dairy supplies	116 31	
Central Camera Co., camera case, etc.	27 00	
M. H. Conlin, hog	18 00	
Wm. Conley, cow	400 00	
Creamery Package Mfg. Co., bottles, engine and boiler, milk jars	290 58	
City of Madison, water	10 68	
Coe, Converse & Edwards Co., trees and plants	17 44	
A. R. Collins, cows	375 00	
John L. Childs, bulbs	6 00	
E. M. Calkins, bills paid	67 03	
Colby–Hinkley & Co., fruit baskets	17 50	
C., M. & St. P. R. R. Co., freight	633 09	
C. & N. W. R. R. Co., freight	878 23	
F. W. Curtiss, photos	169 70	
Creamery Belting Co., belts	12 80	
Coffins Box & Lbr. Co., tree protectors	27 00	
Chapin & Co., feed	63 45	
F. Cranefield, expenses	114 38	
Capital City Paper Co., paper	69 52	
W. L. Carlyle, expenses	23 46	
W. J. Carson, salary	358 63	
Democrat Printing Co., printing	111 15	
John A. DuBon, Supt., tobacco plants	23 00	
M. Diedrich, mdse.	19 99	
J. W. Dalton, hauling, livery, expenses	14 00	
J. R. Danks, expenses	203 14	
H. B. Daggett, Mgr., Holstein Bull	150 00	
L. M. Davis, freight paid	8 00	
Divan Bros., cow	300 00	
A. W. Delquest & Co., book	58	
Dennison Mfg. Co., labels	7 97	
C. F. Dittmar, framing picture	8 25	
R. Douglas' Sons, trees	3 00	
Albert Dickinson Co., seeds	127 82	
Doyon & Rayne Lumber Co., lumber	18 04	
Dennison's Freight Delivery, hauling	8 00	
C. M. Dengler, lettering	3 15	
Jos. Dixon Crucible Co., pencils	3 00	
Dane County Telephone Co., rentals	274 15	

Detail of Disbursements, 1903–04.

A. B. Dick & Co., mimeograph supplies	24 00	
G. Howard Davison, sheep	100 00	
Henry A. Dreer, seeds	11 47	
P. J. Diepold, blacksmithing, repairing	44 50	
De Laval Separator Co., repairs	17 52	
J. Elliot, pollen	2 50	
Eimer & Amend, chem. app.	867 94	
Electric Wheel Co., metal wheels	15 85	
Electrical Supply Co., supplies	15 07	
E. A. Ekern, blue prints	2 00	
R. Elliott, traveling expenses	33 72	
Alfred Ellickson, expenses	34 40	
F. R. Eastman, electric work	86 50	
E. H. Farrington, expenses	270 71	
A. D. & J. V. Frederickson, lumber	455 92	
M. H. Fairchild & Bro., dairy compound, washing powder	43 59	
Findlay & Co., salt	6 30	
The Fair Store, mdse.	2 40	
D. M. Ferry & Co., seeds	16 32	
Fauerbach Brewing Co., barley	238 03	
A. P. Felton, keys	1 00	
Funk Bros. Seed Co., seeds	110 00	
Foley Mfg. Co., greenhouse	1,283 20	
Fargo Creamery Supply Co., repairs, churns and cover..	61 35	
G. W. Fisher, raising tobacco	118 50	
Fuller & Johnson Mfg. Co., castings	32 42	
Felt & Tarrant Mfg. Co., repairing comptometer	18 95	
Henry A. Field, books	22 55	
Chas. Frautschi, furniture	31 96	
Ed. Foust, pigs	65 00	
Gustav Fock, books	52 38	
Flint Mill Co., feed	42 50	
J. H. Findorff, mill work	1,652 58	
G. Grimm & Son, binding work	242 50	
Gay's Stock Farm, cow	50 00	
Gould, Wells & Blackburn Co., mdse.	107 75	
H. J. Green, instruments	39 47	
Peter Gross, lime	15 50	
George Gregg, horse	250 00	
Green & Viney, butter tubs	133 00	
W. & L. E. Gurley, apparatus	262 00	
Ralph J. Golsen, tripods	3 15	
A. H. Gardner & Co., belting	45 14	
Phillip Gross Hardware Co., keys	11 47	
Gaynor–Blackstone Co., labor, cranberry work	68 23	
Gallagher Tent & Awning Co., canvas covers	51 00	
Gugle & Frisch, threshing	15 00	
H. P. Gibson, printed envelopes	379 65	
Gem Fibre Package Co., boxes	21 66	
N. H. Gentry, lectures	125 00	
W. A. Henry, expenses	177 05	
A. Haswell & Co., furniture	107 70	
G. C. Humphrey, expenses	276 65	
W. D. Hoard, lecture and expenses	38 00	
Jas. Hutton, expenses	24 76	
D. Hill, trees	21 60	
Holdeman Mfg. Co., sprayer	24 00	
Holstein–Fresian Association, registration	13 75	
Hendee–Bamford–Crandall Co., printing	112 17	
Peter Henderson & Co., pruning tools	6 05	
Wm. Haak, Jr., pump	12 20	
W. M. Hays, grain planter	25 00	
Hallwill & Baume Co., newspapers	5 00	
Delos Hatch, bulletins	4 00	
Helios–Upton Co., thermometers	21 30	
F. W. Harding, cow	400 00	
S. B. Heddles, labor, tobacco	316 76	
P. F. Harloff, elec. mdse.	4 50	
Haussman & Dunn, syringe	2 61	
Hollister's Pharmacy, drugs and mdse.	109 33	
W. L. Houser, filly	400 00	
John D. Hayes, shoeing	98 35	
Wm. Haak, Jr., repair pump and fittings	60 96	
H. F. Hagemeister, filly	500 00	
Perry Hatfield, pigs	75 00	

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F. W. Harding, calf	150 00	
Horstmeyer & Ottow, plumbing	265 54	
Ida Herfurth, expense as notary	2 25	
Hinrichs Dry Goods Co., cheese cloth, mdse.	22 80	
Fred Huels, keys	7 45	
Robert Holloway, horse	625 00	
Hohman & Bauer, roofing felt and cement	71 00	
Lewis Hinrichs, oats	237 39	
C. W. Haines, pig	60 00	
John Herr, cow and calf	125 00	
Blanchard Harper, photos	214 20	
Huntleywood Farm, lambs	35 00	
Illinois Central R. R. Co., freight	34 61	
Illinois Electric Co., electric mdse.	286 54	
Iona Pottery Co., flower pots	49 35	
John G. Imboden, instruction	100 00	
Instructors' Pay Roll, Dairy and Short Course	1,319 87	
Ira Inman, cows	700 00	
Int. Live Stock Exposition, expenses	66 45	
International Harv. Mach. Co., extras	128 75	
J. T. W. Jennings, salary and expense	864 92	
Johnson & Hill, supplies	36 14	
B. W. Jones, examining abstract	10 00	
Z. K. Jewett & Co., moss	3 90	
A. H. Kayser, lumber	485 65	
Adam Klein, brooms	10 50	
Frank Kleinheinz, expenses	130 19	
Alex. Kornhauser & Co., mdse.	1 00	
Kellogg Bros. Lumber Co., lumber	67 00	
B. C. Kassell, labels	7 30	
Klueter Bros., feed	1,213 43	
Keuffel & Esser Co., calculating machine	45 00	
Kroncke Bros., hardware	20 75	
Theo. Kupfer, castings	48 41	
Kuhlo Mfg. Co., Dumpy level, thermometers	88 50	
M. Kailin & Sons, soap	9 90	
King & Walker Co., castings	125 50	
J. H. Lane & Co., cloth	95 10	
Wm. Lane, freight paid	6 00	
Lewis Lewellin, steer	51 60	
Clark Lyon, carpenter work	28 25	
Lufkin Rule Co., tape measure	2 22	
Ludlow Valve Mfg. Co., hydrants	25 64	
Lloyd-Jones Co., sheep	45 00	
Longfellow Bros. & Co., cranberries	7 00	
Ludington Salt Co., salt	14 00	
Mautz Bros., paints and painting	91 18	
F. M. Morris, books	5 00	
B. M. Minch & Son, feed	372 50	
Milwaukee Leather Belting Co., belts, etc.	98 98	
McDonald & Brooks, livery	8 00	
Madison Gas & Electric Co., gas and current	1,614 26	
J. W. Martin, cows	700 00	
Morris Ptg. Co., books	21 00	
R. A. Moore, expenses	148 80	
Menges Pharmacy, sundries	50 15	
W. J. Meltzer, plumbing	347 50	
A. C. McClurg & Co., books	149 03	
A. A. Mayers, seeds and mdse.	204 38	
W. T. McConnell & Son, mdse.	57 65	
Michigan Carbon Co., fertilizer	43 50	
Merrill Lumber Co., shavings	90 61	
Morgan Mfg. Co., fittings	3 40	
Michigan Merino Sheep Breeders' Association, book	1 00	
O. Morterud, expense and photos	18 15	
Madison Park Association, use of steam roller	12 50	
Walter Mayer, printing	23 00	
F. E. Meyers & Bro., spraying pump	1 57	
Morrill & Morley, spray pump and app.	17 89	
J. Milward, expenses	4 98	
Jas. E. Moseley, supplies	75 12	
H. B. McGowan, mdse.	7 28	
L. L. May & Co., seeds	5 10	
Frank M. Meyer, shoeing	49 30	
T. C. McCarthy, stone work	3,348 01	

Detail of Disbursements, 1903–04.

Miller–Parkinson Lumber Co., lumber	20 60	
Mass. Horticultural Society, books	16 75	
The Mueller Co., pipe work	1,743 02	
S. M. Marshall, sheep	11 07	
Maher & Grosh Cutlery Co., pruning knives	1 00	
F. W. Metcalf, seeds	2 00	
Edmund Mortimer & Co., fertilizer	117 85	
F. T. Meggett, freight paid	1 50	
A. Mitchelson & Co., seed	1 00	
H. Mooers Co., gauge, water gauge	16 00	
Patrick Nalty, cow and calf	80 00	
Northwestern Linseed Oil Co., oil meal	70 50	
National Cash Register Co., register and rolls	49 15	
Louis F. Nafis & Co., milk bottles, testing app.	207 84	
Wm. O. Naset, drafting	18 55	
Wm. Nisbit, freight paid	5 81	
John Nichols, soap, etc.	20	
Northern Electric Mfg. Co., brushes, mdse.	1 35	
H. Niedecken Co., ink	45	
Northern Tissue Paper Co., toilet paper	16 50	
Northwestern Litho. Co., halftones	14 46	
North British Agriculturist, magazine	85	
J. W. Natwick, furniture	37 85	
B. F. Nason, carpenter work	24 25	
New York Store, mdse.	50 36	
Neostyle Co., supplies	66 00	
Ott's Pharmacy, drugs	58 31	
D. M. Osborne & Co., casting	40	
Wm. Owens, plumbing	97 21	
H. S. Ott, drugs	6 70	
Oppel's Fancy Grocery, berry boxes	16 38	
Orr & Lockett Co., tools	15 15	
Parsons Ptg. & Stationery Co., stationery	28 58	
Page Woven Wire & Fence Co., wire gate	9 00	
E. F. Paunack, stone	90 26	
L. J. Pickarts & Co., stationery	32 16	
Park Hotel, dinner for German visitors	60 00	
Purlington Paving Brick Co., paving brick	126 00	
W. L. Pierstorff, oats	470 83	
Pollard & Taber Co., painting	2 72	
Phoenix Nursey Co., trees	2 40	
Parke, Davis & Co., guinea pigs	15 10	
Patterson Parchment Paper Co., paper	84 00	
Piper Bros., empty boxes	2 50	
Postmaster, Madison, Wis., envelopes and stamps	697 00	
W. J. Park & Co., stationery	75 35	
Pabst Stock Farm, mare	550 00	
Red Polled Cattle Club, registry	1 00	
McPherson Reynolds, lantern slides	15 25	
C. D. Rosa & Co., heifer	250 00	
Rippley Hardware Co., repairs	50	
Richards, Graves & R., steer	38 00	
A. H. Reid Supply Co., dairy supplies, repairs	19 55	
Smith Roulette, expenses	8 75	
J. S. Rowell Mfg. Co., repairs	6 45	
Raymond Lead Co., lead	39 61	
Joseph Ross, cow	75 00	
Remington Typewriter Co., supplies	11 50	
H. Rablin, Mgr., lumber	230 62	
Henry Ramsay, expenses	128 64	
Jas. H. Rhodes & Co., chemicals	3 43	
W. B. Richards, expenses	62 90	
Riverside Printing Co., printing	44 00	
H. L. Russell, expenses	9 66	
G. E. Stechert, books	349 75	
Smalley Mfg. Co., cutter knives, etc.	9 60	
Henry Scheler, mdse.	6 33	
Shea Smith & Co., tags, supplies	13 40	
Star Milk Cooler Co., cooler	44 00	
E. H. Sargent & Co., supplies	17 20	
Storrs & Harrison, roots	10 50	
Silk Publishing Co., book	2 00	
Stark Bros. Nurseries, trees	56 23	
Slatington–Bangor Slate Syndicate, slate table tops	9 80	
Swift & Co., fertilizer	65 88	

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Shire Horse Society, books	5 27	
Will Spalding, blue prints	9 26	
Harvey Sandell, expenses	34 73	
Chas. W. Stoddard, expenses	417 14	
Standard Paper Co., paper	37 91	
Chas. A. Strelinger Co., pulley	7 95	
A. Simonton, ram	40 00	
Schwaab Stamp & Seal Co., rubber stamps, seal	8 85	
Sumner & Morris, hardware	432 20	
State Journal Ptg. Co., printing	63 75	
G. W. Spencer, lunch for German visitors	1 04	
Standard Oil Co., engine oil	23 31	
Edwin Sumner & Son, dark room lamp	1 00	
Stephenson & Studeman, hardware	107 12	
The Sharples Co., wrench	4 50	
J. H. Sanders Pub. Co., photos	12 00	
Smith-Premier Co., stand, desks	87 75	
August Scheibel, hardware	1 60	
Swift & Co., fertilizer	5 15	
David Stephens, stone	1,883 53	
Standard Telephone & Elec. Co., castings and wire, mdse.	7 69	
Secretary of Board of Regents, contingent	293 64	
Treas. State Ins. Fund, premium	498 36	
Standard Poland China Association, books	11 00	
Tracy, Gibbs & Co., printing	34 00	
J. M. Thorburn & Co., seeds	11 62	
Otto Toepfer, seed grain	378 74	
H. C. Taylor, lecture and expense	19 51	
I. Thuringer & Co., mdse.	4 15	
Tobacco Leaf Pub. Co., books	2 45	
Taylor & Gleason, printing	44 20	
Comfort A. Tyler, registry	1 00	
Andrew Thompson, traveling expenses	4 94	
A. T. Thompson & Co., slide boxes	6 30	
U. S. Express Co., express charges	205 45	
G. Underdahl, applying fertilizer, bills paid	55 55	
U. S. Cast Iron Pipe & Foundry Co., pipe, etc.	295 71	
University Co-op Co., mdse.	28 20	
U. S. Department of Agriculture, cheese for experiment	13 92	
University Pay Roll,* labor, janitors	1,315 01	
Vaughan's Seed Store, seeds	57 94	
A. Verbeck & Peckholdt, books	138 94	
Viney, Schwartz & Co. butter tubs	56 00	
Vass, Danielson Co., mdse.	23 56	
R. Vincent, Jr., & Co., seeds	10 50	
Westside Lumber Co., lumber	25 80	
Wiedenbeck, Dobelin & Co., hardware	32 08	
J. Wragg & Sons Co., trees	3 60	
A. R. Weston & Co., plants	7 75	
A. R. Whitson, expenses	281 79	
R. D. Wood & Co., hydrants, etc.	66 46	
F. W. Woll, expenses	74 78	
H. W. Wilson Co., books	3 00	
Wietor Bros., plants	9 25	
Wisconsin Wagon Co., repairing	84 75	
Wells-Higman Co., fruit baskets	22 00	
Chas. Wehrmann, harness and whip	22 75	
Watertown Thermometer Co., thermometers	11 17	
R. C. Wott, pig	40 00	
Wagner Glass Works, bottles	7 50	
Western Electric Co., mdse.	3 60	
Washburn-Crosby Co., feed	420 00	
Wahl & Hennis, book	7 50	
Williams & Sons Co., labels	17 50	
R. G. Wright & Son, lettering	67 81	
H. Williams, book	3 00	
Wilcox & Harvey Mfg. Co., cattle and hog markers	9 25	
Wisconsin State Cranberry Growers' Association, removing vines	60 71	
Wausau Quartz Co., quartz	22 50	
Wisconsin Dairy Supply Co., lactic ferment	3 25	
Wisconsin Pharmacy, drugs	18 80	
Whiting Paper Co., paper	53 55	
Zenner Disinfectant Co., disinfectant	12 50	
		$159,235 00

Detail of Disbursements, 1903–04.

COLLEGE OF LETTERS AND SCIENCE.		
E. A. Birge, dean and professor, salary	$4,500 00	
D. C. Munro, professor, salary	3,000 00	
J. W. Stearns, director and professor, salary	1,200 00	
M. V. O'Shea, professor, salary	2,500 00	
Joseph Jastrow, professor, salary	2,500 00	
F. C. Sharp, assistant professor, salary	1,800 00	
A. W. Tressler, assistant professor, salary	1,600 00	
B. H. Bode, instructor, salary	800 00	
R. T. Ely, director and professor	3,500 00	
T. S. Adams, assistant professor, salary	1,400 00	
Jerome Dowd, lecturer, salary	600 00	
M. O. Lorenz, instructor, salary	800 00	
J. B. Parkinson, professor, salary	2,500 00	
S. E. Sparling, assistant professor, salary	1,400 00	
P. S. Reinsch, professor, salary	2,700 00	
J. D. Barnett, assistant, salary	500 00	
Victor Coffin, assistant professor, salary	1,800 00	
C. R. Fish, assistant professor, salary	1,000 00	
U. B. Phillips, instructor, salary	1,000 00	
A. C. Tilton, instructor, salary	900 00	
Geo. C. Sellery, instructor, salary	1,200 00	
W. A. Scott, director and professor, salary	3,500 00	
B. H. Meyer, professor, salary	2,700 00	
H. C. Taylor, instructor, salary	1,000 00	
C. F. Smith, professor, salary	3,000 00	
J. A. Woodburn, professor, salary	1,400 00	
F. J. Turner, director and professor, salary	1,750 00	
Alexander Kerr, professor, salary	1,000 00	
A. G. Laird, assistant professor, salary	1,700 00	
F. T. Kelly, instructor, salary	900 00	
M. S. Slaughter, professor, salary	1,875 00	
G. L. Hendrickson, professor, salary	800 00	
Grant Showerman, assistant professor, salary	1,400 00	
Katherine Allen, instructor, salary	800 00	
Edward T. Owen, professor, salary	1,667 00	
W. F. Giese, assistant professor, salary	1,700 00	
Lucy M. Gay, assistant professor, salary	1,400 00	
Otto Patzer, instructor, salary	1,000 00	
H. G. A. Brauer, instructor, salary	950 00	
A. R. Seymour, instructor, salary	900 00	
J. E. Olson, professor, salary	2,300 00	
A. R. Hohlfeld, professor, salary	2,500 00	
Ernst K. J. H. Voss, professor, salary	2,200 00	
Susan A. Sterling, assistant professor, salary	700 00	
E. C. L. Roedder, assistant professor, salary	1,400 00	
M. B. Evans, instructor, salary	1,000 00	
F. W. Meisnest, instructor, salary	1,100 00	
A. B. Faust, assistant professor, salary	1,024 00	
C. H. Handschin, instructor, salary	800 00	
P. G. A. Busse, instructor, salary	800 00	
Sabena M. Herfurth, assistant, salary	700 00	
S. H. Goodnight, assistant, salary	600 00	
Elsbeth Veerhusen, assistant, salary	700 00	
Adolph Pfund, assistant, salary	408 25	
J. C. Freeman, professor, salary	3,000 00	
D. B. Frankenburger, professor, salary	2,000 00	
F. G. Hubbard, professor, salary	2,500 00	
H. B. Lathrop, associate professor, salary	1,700 00	
J. F. A. Pyre, assistant professor, salary	1,500 00	
W. B. Cairns, assistant professor, salary	1,500 00	
R. E. N. Dodge, assistant professor, salary	700 00	
A. Beatty, instructor, salary	1,100 00	
A. C. L. Brown, instructor, salary	1,200 00	
W. G. Bleyer, instructor, salary	1,000 00	
M. G. Frampton, instructor, salary	800 00	
Georgiana L. Morrill, instructor, salary	800 00	
T. H. Dickinson, instructor, salary	800 00	
E. A. Cook, instructor, salary	800 00	
M. L. Daggy, instructor, salary	1,100 00	
Marion Lamont, instructor, salary	750 00	
C. A. Van Velzer, professor, salary	2,500 00	
C. S. Slichter, professor, salary	2,550 00	

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E. B. Skinner, assistant professor, salary	1,700 00	
L. W. Dowling, assistant professor, salary	1,700 00	
A. R. Crathorne, instructor, salary	800 00	
H. C. Wolff, instructor, salary	800 00	
W. M. Persons, instructor, salary	800 00	
Florence E. Allen, instructor, salary	800 00	
B. W. Snow, professor, salary	2,500 00	
A. Trowbridge, professor, salary	2,000 00	
C. E. Mendenhall, assistant professor, salary	1,700 00	
A. H. Taylor, instructor, salary	700 00	
A. L. Colton, instructor, salary	700 00	
E. M. Terry, assistant, salary	400 00	
E. S. Bishop, assistant, salary	400 00	
Geo. J. Balzer, assistant, salary	400 00	
W. W. Daniells, professor, salary	2,500 00	
L. Kahlenberg, professor, salary	2,300 00	
H. W. Hillyer, assistant professor, salary	1,500 00	
Victor Lenher, assistant professor, salary	1,700 00	
H. E. Patten, instructor, salary	800 00	
R. C. Bennet, assistant, salary	600 00	
F. L. Shinn, assistant, salary	425 00	
E. B. Hutchins, Jr., assistant, salary	400 00	
C. A. Tibbals, Jr., assistant, salary	500 00	
J. G. Holty, assistant, salary	400 00	
H. P. Holman, assistant, salary	400 00	
C. K. Leith, professor, salary	2,000 00	
N. M. Fenneman, professor, salary	2,000 00	
W. H. Hobbs, professor, salary	2,000 00	
S. H. Ball, assistant, salary	500 00	
W. S. Miller, assistant professor, salary	2,000 00	
W. S. Marshall, assistant professor, salary	1,800 00	
Bennet M. Allen, instructor, salary	900 00	
Ferumand Schmitter, instructor	1,000 00	
George Wagner, instructor, salary	900 00	
R. A. Harper, professor, salary	2,500 00	
C. E. Allen, instructor, salary	1,200 00	
R. H. Denniston, instructor, salary	1,000 00	
W. G. Marquette, assistant, salary	400 00	
A. H. Christman, student assistant, salary	400 00	
Helen Sherman, assistant, salary	400 00	
J. C. Elsom, professor, salary	1,700 00	
Abby S. Mayhew, assistant professor	1,400 00	
A. M. O'Dea, instructor and assistant director, salary	1,000 00	
E. D. Angell, instructor, salary	900 00	
F. A. Parker, professor and director, salary	2,500 00	
E. A. Bredin, instructor, salary	800 00	
A. C. Boggess, fellow, salary	400 00	
A. S. Field, fellow, salary	400 00	
J. W. Gannaway, fellow, salary	400 00	
J. F. Hausmann, fellow, salary	400 00	
L. R. Ingersoll, fellow, salary	400 00	
A. E. Kundert, fellow, salary	400 00	
J. P. Magnusson, fellow, salary	400 00	
Annie McLenegan, fellow, salary	400 00	
John A. Moore, fellow, salary	400 00	
Rose A. Pesta, fellow, salary	240 00	
R. F. Scholz, fellow, salary	400 00	
Chas. N. Smiley, fellow, salary	400 00	
D. B. Swingle, fellow, salary	400 00	
H. C. Hockett, scholar, Salary	225 00	
Chester Lloyd-Jones, scholar, salary	225 00	
Caroline L. Hunt, professor, salary	1,000 00	
Jessie M. Meyer, mistress Chadbourne Hall, salary	800 00	
W. B. Anderson, scholar, salary	225 00	
Chas. A. Curtis, Capt. U. S. A. and professor of military science, commutation of quarters	432 00	
F. C. McKinney, instructor, salary	800 00	
J. W. Putnam, assistant, salary	320 00	
Emily Fliegge, nurse and assistant to mistress, salary	500 00	
Mary E. Pickarts, musician and measurement clerk, salary	300 00	
R. B. Macnish, instructor, salary	650 00	
J. D. Suter, student assistant, salary	250 00	
O. H. Baldwin, scholar, salary	225 00	
E. G. Toan, assistant, salary	344 45	
Charlotte A. Faber, scholar, salary	225 00	
H. B. North, assistant, salary	200 00	

Detail of Disbursements, 1903–04.

Philip Adams, instructor, salary	640 00	
Margaret Ashmun, student assistant, salary	36 00	
Annie M. Pitman, assistant, salary	250 00	
James E. Tuthill, assistant, salary	400 00	
L. F. Miller, instructor, salary	1,000 00	
G. C. Fiske, assistant professor, salary	1,400 00	
Edith K. Lyle, assistant, salary	252 00	
Friedrich Bruns, scholar, instructional work	21 75	
W. H. Williams, professor, salary	2,000 00	
D. C. Munro, temporary dean, salary	500 00	
W. L. Davis, student assistant, salary	84 00	
A. R. Denu, instructor, salary	600 00	
W. D. Frost, assistant professor, salary	1,400 00	
American Express Co., express charges	17 55	
A. H. Andrews Co., furniture	50 00	
American Entomological Society, book, speciments, etc...	26 25	
C. E. Allen, expenses	4 17	
Jane Addams, lecture and expenses	59 09	
Art Association, pictures	10 00	
American Ribbon & Carbon Co., carbon paper	30	
W. C. Alden, draughting	24 94	
E. A. Birge, expenses	97 43	
Blied & Schneider, hardware	71 10	
C. F. Baker, plants	7 46	
Browning Mfg. Co., electric motor	55 05	
Bausch & Lomb Optical Co., apparatus	271 45	
F. H. Bresler Co., art goods	31 75	
E. Bartholomew, book	6 00	
M. Bonn, Moulder	2 40	
F. W. Blackmar, lecturer	200 00	
Buckstaff–Edwards Co., furniture	14 60	
James G. Biddle, electric mdse.	150 00	
Peter Burger, hardware	40	
Cantwell Printing Co., printing	36 50	
Capital City Paper Co., paper, &c.	2 00	
City of Madison, water	12 22	
Josephine A. Clark, index cards	15 36	
Crane Bros., paper	90	
John A. Colby & Sons, furniture	135 00	
E. B. Corry, washing powder	4 25	
T. A. Chapman Co., pottery	5 00	
Central School Supply House, maps	13 00	
Cutler–Hammer Mfg. Co., resistances	252 00	
Crane Co., pipe, &c.	1 38	
F. S. Collins, fascicle	5 00	
C., M. & St. P. Ry. Co., frt. charges	77 30	
C. & N. W. Ry. Co., frt. charges	61 76	
P. P. Caproni & Bro., statuettes	22 50	
Chief of Ordnance, U. S. A., accoutrements	151 63	
Chief Clerk U. S. Geol. Survey, topographic charts	7 48	
C. F. Cooley, cement	6 25	
F. S. Collins, fascicles	10 00	
C. P. Cary, dictionary	7 50	
C. M. Dengler, lettering	5 90	
Dennison Typewriter Co., typewriter, furniture, &c.	122 40	
Detroit Photo Co., photos	49 15	
Dunwell & Ford, stationery	11 25	
Joseph Dixon Crucible Co., pencils	20	
Dodd, Mead & Co., books	95 20	
Dane County Telephone Co.	73 20	
R. H. Denniston, expenses	2 87	
W. H. Dudley, lantern slides	70 13	
Denison's Freight Delivery, hauling	14 50	
M. Diederich, mdse.	60	
A. B. Dick Co., mimeograph supplies	30 70	
Elva V. Duke, water colors	1 60	
Eimer & Amend, chemicals and apparatus	300 60	
Electrical Supply Co., electric goods	55 63	
Geo. L. English & Co., crystal stands	58 60	
A. D. & J. V. Frederickson, lumber	522 97	
Dr. W. Fuller, anatomical models	65 00	
J. S. Ford, Johnson & Co., furniture	81 50	
J. H. Findorff, wood work	20 36	
Chr. Frautschi, furniture	8 75	
Edward S. Field, cards	41 26	
H. G. Fischer, mechanician	694 50	

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Fox Machine Co., milling machine	255 00	
Fairbanks, Morse & Co., scales	6 23	
J. H. Findorff, mill work, &c.	68 00	
Grimm's Book Bindery, binding and mounting maps	51 39	
Gray Herbarium of Harvd. Univ., card index	21 00	
Wm. Gaertner & Co., harmonic analyzer	412 00	
S. W. Gilman, salary and expenses	503 80	
Gimbel Bros., rugs, &c.	38 75	
Groves–Barnes Music Co., piano and reproducer	420 00	
Gallagher Tent & Awning Co., flag, &c.	36 75	
Gould, Wells & Blackburn Co., mdse.	4 50	
The Gould Co., brass fittings	19 33	
Globe–Wernicke Co., furniture	16 00	
Robert Hunter, lectures	50 00	
A. Haswell & Co., furniture	366 95	
Hollister Drug Co., drugs and chemicals	59 54	
C. Hennecke Co., mdse.	6 69	
R. A. Harper, expenses	9 68	
M. J. Hogan, express charges paid	23 48	
Hull & Hammond, repairing mattresses	48 80	
Samuel Harris & Co., hardware	4 68	
Hoffman & Bauer, roofing cement	4 00	
Hoefer Mfg. Co., drill press	30 25	
Blanchard Harper, photo work	19 90	
J. P. Halbach, repairing harness	75	
Fred Huels, keys, &c.	1 60	
Caroline L. Hunt, expenses	115 04	
Hinrichs Dry Goods Co., mdse.	2 91	
P. F. Harloff, electric mdse.	21 40	
Henry Huber Co., thermometers	3 22	
International College of Languages, French outfit	25 00	
Illinois Paper Box Co., card trays	7 20	
Illinois Central R. R. Co., freight charges	79	
E. T. Jenks, locks	7 00	
Julia Jardot, guinea pigs	4 40	
Adolph Johnson, sample cases	6 50	
C. W. Jarvis, cartage	50	
C. I. King, expenses	12 44	
Dr. Otto Kuntze, minerals, &c.	19 25	
The Kny–Scheerer Co., skeletons, models, &c.	801 36	
A. H. Kayser, lumber	34 70	
König Preussischen Messbild–Anstalt, apparatus	103 32	
Alex. Kornhauser & Co., mdse.	22 21	
Keeley, Neckerman & Kessenich, mdse.	1 45	
Kroncke Bros., hardware	9 65	
Ernst Leitz, apparatus	1,185 98	
Leeds & Northrup Co., apparatus	112 50	
Library Bureau, library supplies	18 75	
The M. C. Lilley & Co., swords and belts	77 02	
H. Lydow, specimens	7 64	
E. H. J. Lorenz, work on apparatus	17 90	
C. H. Leith, expenses	9 31	
H. B. Lathrop, expenses	6 48	
B. H. Meyer, expenses	94 66	
A. C. McClurg & Co., books	32 02	
D. C. Munro, expenses	72 69	
Marshall Field & Co., mdse.	55 35	
Carlotta McC. Beatty, index for bulletin	3 00	
Madison Fixture & Plating Works, plating	19 50	
G. J. Marquette, assistant, salary	320 00	
B. H. Meyer, expenses and bills paid	127 72	
V. Malec & Bro., hip boots, rep. app., &c.	10 30	
Mautz Bros., paints and painting	267 61	
James E. Moseley, mdse.	39 65	
Louis B. Malecki & Co., music	22 60	
Marshall–Bennett Co., pipe organ	1,400 00	
Andrew A. Mayers, mdse.	26 00	
F. W. Meisnest, lantern slides	5 60	
McIntosh Stereopticon Co., apparatus	94 35	
Madison Gas & Electric Co., gas and current	29 00	
Newton & Co., lantern slides	68 55	
Northwestern Compo–Board Co., lumber	9 90	
National Distilling Co., alcohol	24 38	
Newbury & Peper, pulleys, &c	94 25	
Noyes Bros. & Cutler, mdse.	4 49	
Norton Emery Wheel Co., bench grinder	28 87	

Detail of Disbursements, 1903–04.

Northern Electrical Mfg. Co., mdse.	58 34	
Northern Tissue Paper Mills, toilet paper	22 40	
T. Niebuhr, repairing furniture	2 00	
Narragansett Machine Co., athletic goods	172 80	
Orr & Lockett Hardware Co., cooking utensils	95 55	
Wm. Owens, plumbing	5 00	
Postmaster, Madison, Wis., postage	334 95	
Pollard–Tabor Co., painting	2 35	
Horace Partridge & Co., medicine ball	10 00	
Parsons Ptg. & Sta. Co., supplies	11 25	
Wm. J. Park Co., stationery	99 63	
L. J. Pickarts & Co., mdse.	34 83	
Jennie M. Pitman, chart work	25 00	
Queen & Co., Inc., galvanometer	57 60	
H. L. Russell, Director Hyg. Lab., salary and exp.	334 55	
Remington Typewriter Co., typewriters	185 75	
Mrs. W. H. Rosenstengel, desk and chair	30 00	
Rundle–Spence Mfg. Co., heater	84 20	
F. Rentschler, plants and pots	28 45	
Alex. H. Revell & Co., furniture	199 80	
Geo. H. Russell, Agt., premium on bond	36 87	
Victor Rosewater, lectures	50 00	
Rand, McNally & Co., maps	56 33	
W. C. Reinking, rabbits	4 20	
E. H. Sargent & Co., chemicals	332 52	
Sumner & Morris, hardware	151 18	
Society of Arts & Crafts, subscription to magazine	1 50	
Jos. Sutter, plumbing	68 30	
Standard Adding Machine Co., machine and supplies	129 00	
State Journal Ptg. Co., printing	31 20	
Schwaab Stamp & Seal Co., rubber stamps	6 35	
G. E. Stechert, books	170 05	
Stephenson & Studeman, hardware and tin work	21 90	
David Stephens, stone and brick	15 55	
R. D. Salisbury, bust	7 50	
C. H. Stoelting Co., hymograph	28 75	
Martin Schilling, models	42 77	
Sec'y Board of Regents, bills paid	48 23	
Peter Stoe, apparatus	8 42	
Standard Paper Co., paper	15 22	
Geo. R. Swain, lantern slides	19 80	
Slatington–Bangor Slate Syndicate, slate	84 15	
G. Sommer & Fglio, lantern slides	5 88	
Tracy, Gibbs & Co., printing	134 75	
R. G. Thwaites, lectures	100 00	
Taylor & Gleason, printing	13 75	
Treas. State Ins. Fund, premium	1,544 92	
U. S. Express Co., express charges	17 75	
University of Chicago Press, transparencies	36 00	
*University pay roll, clerks, laborers, &c.	12,472 23	
L. M. Underwood, book	11 69	
University Co-operative Co., mdse.	107 95	
Voigt & Hochgesang, periodicals	20 35	
Vilter Mfg. Co., refrigerating machine	450 00	
Whiting Paper Co., paper	1 42	
Wisconsin Pharmacy, mdse.	21 50	
Wisconsin Staats Zeitung, printing	5 75	
W. W. Warner, piano	281 72	
Wadsworth, Howland & Co., vermilion	19 00	
Wiedenbeck, Dobelin & Co., hardware	4 47	
L. F. Wilson, drum heads	1 72	
Yost Writing Machine Co., ink pads	4 25	
W. B. Yeats, lectures	140 00	
Carl Zeiss, optical goods	46 28	
		$214,577 66

COLLEGE OF ENGINEERING.

E. R. Maurer, professor, salary	$2,000 00	
J. D. Phillips, assistant professor, salary	1,400 00	
C. H. Burnside, assistant professor, salary	1,400 00	
A. V. Millar, instructor, salary	900 00	
J. T. Atwood, instructor, salary	800 00	
L. E. Moore, instructor, salary	1,000 00	
W. D. Taylor, professor, salary	2,500 00	
L. S. Smith, assistant professor, salary	1,800 00	

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L. D. Williams, instructor, salary	1,000 00	
F. M. McCullough, instructor, salary	800 00	
F. O. Dufour, acting professor, salary	2,000 00	
Storm Bull, professor, salary	2,500 00	
Mack, J. G. D., professor, salary	2,000 00	
A. W. Richter, professor, salary	2,000 00	
O. B. Zimmerman, assistant professor, salary	1,400 00	
H. J. Torkelson, instructor, salary	1,200 00	
H. H. McPherson, instructor, salary	900 00	
F. W. Huels, assistant, salary	500 00	
Hasse, Alvin, assistant, salary	500 00	
D. C. Jackson, professor, salary	2,500 00	
B. V. Swenson, assistant professor, salary	1,600 00	
C. F. Burgess, assistant professor	1,600 00	
J. W. Shuster, assistant professor, salary	1,400 00	
G. C. Shadd, instructor, salary	1,200 00	
G. W. Watson, instructor, salary	800 00	
J. G. Zimmerman, student assistant, salary	300 00	
C. I. King, professor, salary	2,000 00	
W. G. Lottes, instructor, salary	1,050 00	
Henry Kratsch, instructor	1,233 32	
W. H. McIntosh, instructor, salary	600 00	
B. S. Anderson, machinist and assistant	239 59	
M. Bonn, salary	390 00	
John Berg, salary	8 75	
Will Spaulding, salary	22 40	
E. H. J. Lorenz, mechanician	1,200 00	
Milay R. Bump, salary	295 00	
R. L. Hankinson, salary	160 00	
W. F. Marx, salary	45 00	
F. E. Turneaure, dean and professor, salary	3,250 00	
A. H. Taylor, instructor, salary	300 00	
University pay roll,* labor, etc.	447 68	
Armstrong Bros.' Tool Co., tool holder	4 60	
B. S. Anderson, machinist	2 94	
American Ribbon & Carbon Co., carbon paper	50	
Alberene Stone Co., stone slabs	21 60	
Geo. R. Angell, city directory	3 00	
Allis Chalmers Co., nuts	2 00	
American Express Co., charges	53 67	
M. B. Austin & Co., electric mdse.	2 62	
F. C. Blied & Co., printing	7 50	
J. A. Buckmaster, rep. oscillograph	1 50	
W. F. & J. Barnes Co., repair lathe	75	
H. Boker & Co., wire	13 93	
Storm Bull, expenses	66 81	
Jas. G. Biddle, electric mdse.	138 00	
Bausch & Lomb Optical Co., optical goods	23 93	
The Browning Co., repairing ammeter	5 90	
Albert Blossy, tracing	30 00	
Chas. H. Besly & Co., tool	61 49	
Blied & Schneider, hardware	35 65	
Babcock & Wilcox Co., boiler	370 02	
Crane Co., pipe fittings	186 05	
Challoner Co., fittings	4 74	
C. F. Cooley, coal & cement	30 56	
Capital City Paper Co., paper	13 60	
Jas. B. Clow & Sons, brass pipe, etc.	21 87	
G. W. Curtis, photographs	6 40	
Geo. B. Carpenter & Co., flax	2 10	
C. & N. W. R. R. charges	149 28	
T. L. Condron, expenses	15 00	
C., M. & St. Paul Ry., charges	202 99	
Chicago Pneumatic Tool Co., drill and hammer	191 38	
F. W. Curtis, photo work	34 40	
Cooper, Hewitt & Co., lamp	122 00	
City of Madison, water	35 10	
J. B. Clow & Sons, fittings	2 94	
Crucible Steel Co., dies	11 70	
College Book Store, mdse.	1 05	
Cavanaugh & Darley, gasoline engine	228 00	
Conklin & Sons, fuel and ice	5,858 87	
Crandall Packing Co., packing	18 08	
Dennison's Freight Delivery, hauling	84 00	
Democrat Printing Co., printing	21 25	
Dresen & Rhodes, paints	12 21	

Detail of Disbursements, 1903–04.

C. M. Dengler, lettering	22 10	
W. H. Dudley, slides	60 00	
Eugene Dietzgen Co., slide rule	24 40	
W. N. Durant Co., adding machine	30 00	
F. A. Delano, expenses	15 00	
M. Diedrich, mdse.	6 15	
A. B. Dick Co., office supplies	1 16	
Dane County Telephone Co., rentals	33 00	
Doyan & Rayne Lumber Co., lumber	3 81	
The Derry Collard Co., model	22 50	
F. O. DuFour, expenses	32 18	
Electrical Supply Co., electric goods	149 45	
Elmer & Amend, chemicals	649 17	
Eng. News Pub. Co., Adv.	36 45	
Electric Appliance Co., mdse.	8 00	
J. S. Eastman, fixtures	50	
W. H. Dudley, slides	24 00	
E. P. Earle, ores	13 00	
A. D. & J. V. Fredrickson, lumber	196 91	
Fanueil Watch Tool Co., machine tools	501 00	
J. H. Findorff, woodwork	125 00	
Fort Wayne Electric Works, app.	317 50	
Fuller & Johnson Mfg. Co., castings	40 78	
Foote, Pierson & Co., photometer	191 25	
Foote Mineral Co., mineral	44 30	
The Fahnstock Transmitter Co., binding posts	3 00	
Wm. Gaertner & Co., silver	4 50	
W. J. Gamm, watch crystals	4 40	
Gisholt Machine Co., steel	2 52	
Gould Storage Battery Co., batteries	110 50	
Gould, Wells & Blackburn Co., mdse.	2 70	
Goodyear Rubber Co., rubber sheet	13 77	
Alex. Gill & Co., repairing roof	5 25	
Gordon Battery Co., zincs	2 03	
The Gould Co., brass fittings	19 33	
Gross Hardware Co., hardware	2 70	
Grant Gear Works, apparatus	100 00	
General Electric Co., mdse.	836 28	
Garden City Sand Co., fire brick	1 60	
W. L. E. Gurley, meter	57 60	
John Greig, furniture	119 40	
Hill Toole Co., tool	24 00	
Hill Clarke & Co., grinder	72 12	
C. Hambuechen, making transformer	69 00	
Hibbard Spencer Bartlett & Co., aluminum paint	12 00	
Harrington & King Perforating Co., perforator	10 96	
Hollister's Drug Co., drugs and chemicals	44 54	
Hinrichs Dry Goods Co., mdse.	16 23	
Hanson & Van Winkle Co., salts, etc.	89 09	
Harshow Fuller Co., quartz	2 06	
Henry Heil Chemical Co., mdse.	84 05	
W. J. Hyland, plumbing	3 75	
Fred Huels, keys and locks	9 75	
M. J. Hogan, bills paid	14 10	
Blanchard Harper, slides	60 70	
P. F. Harloff, lamps	22 95	
Edw. S. Halsey, meter	12 15	
J. J. Higgins, brass castings	4 14	
V. J. Holt, draughting	19 23	
Samuel Harris & Co., hardware	168 19	
Illinois Central Ry., freight	9 03	
Illinois Zinc Co., zincs	13 29	
A. L. Ide & Sons, piston head	15 75	
J. T. W. Jennings, adamant	8 60	
Johnson Service Co., thermometer	4 47	
H. W. Johns–Manville Co., covering	100 00	
Jewell Electric Institute Co., repairing voltmeter	7 75	
King & Walker Co., pipe work	45 92	
A. H. Kayser, lumber	37 00	
Adam Klein, brooms	3 75	
Keuffel & Esser Co., solar attachment	127 50	
Geo. W. Kittridge, lecture	20 00	
Kroncke Bros., hardware	17 88	
E. H. J. Lorenz, expenses	95	
Leeds & Northrup Co., condenser	447 73	
Menges' Pharmacy, mdse.	11 75	

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Marinette Iron Works Co., gas engine	1,200 00	
A. A. Mayers, mdse.	84 78	
Machado & Roller, repairs for dynamo	16 09	
Anton Metz, galv. tank	1 50	
Mautz Bros., paints, etc.	21 90	
Milwaukee Leather Belt Co., belting	248 49	
Jas. E. Moseley, mdse.	50	
Miller Parkinson Lumber Co., lumber	22	
Miller Lock Co., locks	48 00	
Machinists' Supply Co., tools	28 83	
T. C. McCarthy, stone work	12 14	
W. J. Meltzer, plumbing	3 05	
Matson & Klein, brushes	2 25	
The Mueller Co., steam fitting	59 68	
Mandel Engraving Co., half tones	38 09	
McIntosh Stereopticon Co., lanterns	7 20	
Madison Gas & Electric Co., gas and current	952 95	
John Nichols, scissors, etc.	40	
Newbury & Peper, pulleys	2 58	
Northern Electrical Mfg. Co., motor	304 33	
R. G. Norton, repairing clock	1 50	
S. B. Newberry, expenses	10 00	
New York Store, mdse.	1 00	
T. S. & J. D. Negus, chronometer	80 00	
New York Air Brake Co., valve steam	1 41	
Northern Tissue Paper Co., toilet paper	22 10	
Niles Bement Pond Co., emery grinder	21 50	
National Carbon Co., carbons	32 07	
National Blower Works, steam trap	12 50	
H. Niedecken Co., inks	90	
Wm. Owens, plumbing	40 55	
The S. Obermeyer Co., tools	14 60	
Postmaster of Madison, postage	131 00	
John F. Pich, sand	7 50	
Pollard Taber Co., paints, etc.	5 85	
Martin Payton, castings	23 74	
W. J. Park Co., mdse.	10 94	
J. D. Phillips, expenses	46 86	
Pratt & Whitney Co., lathe	654 80	
Pittsburg Reduction Co., aluminum	52 46	
Queen & Co., bronze	1 09	
Riehle Bros. Machine Co., testing machine	950 00	
Remington Typewriter Co., repairs	8 50	
Fred A. Rich, tools	52 12	
James H. Rhodes & Co., chloride calcium	17 11	
L. F. Schoelkopf, ball bearings	4 80	
Simplex Electric Heating Co., rheostats	31 25	
Stanley Electric Mfg. Co., voltmeter	61 00	
R. R. Street & Co., pulleys	24 21	
J. W. Shuster, expenses	59 95	
C. H. Stoelting, mdse.	3 50	
Standard Telephone & Electric Co., castings	207 29	
G. C. Shaad, expenses	62 92	
Sumner & Morris, hardware	88 72	
B. V. Swenson, expenses	67 80	
State Journal Printing Co., printing	21 85	
Stephenson & Studeman, hardware	28 10	
David Stephens, stone, etc.	20 91	
E. E. Sater, electric work	60 50	
Fred M. Schlimgen, marble furnace	9 00	
E. H. Sargeant & Co., chemicals	18 16	
Jos. Sutter, hose	18 35	
Schaeffer & B. Mfg. Co., indicator	401 88	
The Schapnograph Co., ink	5 25	
Secretary Board of Regents, bills paid	13 60	
Stromberg Carlson Co., desk telephones	27 00	
The L. S. Starrett Co., tools	33 90	
Chas. A. Sterlinger Co., hanger	6 48	
Taylor & Gleason, printing	75 50	
Turner Brass Works, blowpipe	7 50	
W. D. Taylor, expenses	17 92	
F. E. Turneaure, expenses	109 18	
Treas. State Ins. Fund, premium	348 85	
Trachte Bros., iron tanks	88 35	
Tracy, Gibbs & Co., printing	67 75	
A. H. Thomas & Co., balances	102 50	

Detail of Disbursements, 1903–04.

University General Pay Roll,* clerks, janitors	4,274 49	
University Co-op Co., mdse.	54 08	
C. R. Underwood, name plate	3 35	
U. S. Express, charges	55 79	
Vilter Mfg. Co., refrigerating machine	492 16	
Westinghouse C. K. & Co., stoker	117 22	
Wirt Electric Co., rheostat	70 68	
P. & R. Whittstock	324 36	
Whiting Paper Co., mdse.	16 10	
Western Electric Co., supplies	189 47	
J. H. Williams Co., tool posts	8 04	
Weston Elect. Inst. Co., electric mach.	596 65	
Wagner Electric Co., brushes	2 55	
Western Rawhide Belting Co., belting	192 80	
L. D. Williams, expenses	36 38	
Western Union Telegraph Co., telegrams	80	
Wisconsin Engineer, advertising	57 50	
Wisconsin Pharmacy, drugs, etc.	1 00	
Wiedenbeck, Dobelin & Co., hardware	32 70	
Wadham Oil & Gas Co., waste	20 79	
Yahr & Lange Co., ammonia	28 35	
J. G. Zimmerman, photographs	12 00	
		$74,790 38
COLLEGE OF LAW.		
H. S. Richards, dean and professor	$3,500 00	
H. L. Smith, professor, salary	2,500 00	
E. A. Gilmore, professor, salary	2,500 00	
B. W. Jones, professor, salary	1,025 50	
J. M. Olin, professor, salary	1,020 00	
R. M. Bashford, professor, salary	980 00	
Edwin S. Mack, lecturer, salary	968 48	
E. Ray Stevens, lecturer, salary	620 00	
Association of American Law, membership fee	10 00	
American Ribbon Co., carbon	2 00	
American Express Co., express	40	
Boston Book Co., book	57 75	
Conklin & Co., fuel	742 26	
Callaghan & Co., books	95 38	
Congdon & Britnell, books	10 85	
Dane County Telephone Co., rentals	11 00	
Democrat Printing Co., printing	11 25	
Densmore Typewriter Co., repairs	9 05	
T. H. Flood & Co., books	141 09	
Grimm's Bindery, binding	14 70	
H. C. Horack, expenses	15 06	
Harvard Law Review, subscription	2 75	
Lawyers' Co-op Co., books	12 80	
The Macmillan Co., books	2 43	
J. E. Moseley, mdse.	7 35	
W. J. Park Co., mdse.	60	
Parsons Printing Co., printing	4 75	
Preston Book Co., books	6 00	
Postmaster, postage	23 20	
H. S. Richards, expenses	60 47	
Frank Shepard Co., subscription	2 50	
Edw. Thompson & Co., books	18 00	
Tracy, Gibbs & Co., printing	1 75	
Taylor & Gleason, printing	83 50	
University Co-op Co., mdse.	60	
University Pay Roll,* labor, etc.	589 15	
Wisconsin Pharmacy, sundries	70	
West Pub. Co.	739 50	
Ward Bros., binders	2 25	
Whitney Paper Co., paper	7 78	
		$15,800 85
PHARMACY.		
Edw. Kremers, salary	$2,300 00	
L. W. Brandel, salary	800 00	
Richard Fischer, salary	700 00	
Frank Rabak, salary	400 00	
M. H. Tweeden, salary	400 00	
C. G. Wetmore, salary	25 00	

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American Conference Pharmacy Faculties, annual assessment	3 00	
Barbee Wire & Iron Works, wire railing	14 21	
Bausch & Lomb Optical Co., optical goods	26 10	
Crane Co., pipe, fittings	8 56	
Conklin & Sons, fuel	634 29	
C., N. W. Ry. Co., freight	1 17	
A. D. & J. V. Fredrickson, lumber	23 05	
Madison Gas & Electric Co., gas and current	9 30	
Germania Pub. Co., printing	8 00	
Illinois Central Ry. Co., freight	71	
Lehn & Fink, drugs	34 30	
Mautz Bros., painting	2 00	
Pharmacy Review Pub. Co., advertising	20 00	
Postmaster of Madison, postage	21 20	
W. J. Park & Co., mdse.	88	
Remington Typewriter Co., supplies	3 45	
Sumner & Morris, hardware	12 90	
State Journal Printing Co., printing	4 25	
University Pay Roll,* labor	393 78	
University Co-op Co., mdse.	1 00	
Wiedenbeck & Dobelin & Co., hardware	7 20	
		$5,854 35

WASHBURN OBSERVATORY.

G. C. Comstock, director and professor, salary	$3,000 00	
A. S. Flint, assistant astronomer, salary	1,540 00	
B. S. Anderson, machinist	12 50	
American Express Co., charges	3 26	
Blied & Schneider, hardware	73 03	
M. Bradley & Co., index	50	
Peter Burger, hardware	50	
Crane Co., pipe fittings	2 66	
C. F. Cooley, fuel	296 23	
Century Camera Co., photo supplies	22 06	
Capital City Paper Co., paper	4 98	
Conklin & Sons, ice	18 25	
Democrat Printing Co., printing	4 50	
M. Diedrich, mdse.	55	
Doyon & Rayne Lumber Co., lumber	6 38	
Dane County Tel. Co., rentals	16 50	
Electrical Supply Co., mdse.	7 20	
J. S. Eastman, fixtures	1 00	
A. D. & J. V. Frederickson, lumber	144 90	
Ralph J. Golsen, apparatus	11 44	
P. F. Harloff, mdse.	7 20	
King & Walker Co., pipe, etc.	1 99	
Theo. Kupfer, hardware	1 80	
E. H. J. Lorenz, making apparatus	16 20	
A. A. Mayers, mdse.	2 36	
Mautz Bros., paints	42 43	
W. J. Meltzer, plumbing	25 80	
Prosch Mfg. Co., lens, etc.	88 80	
Miller-Parkinson Lumber Co., lumber	4 50	
Menges Pharmacy, mdse.	1 10	
Madison Gas & Electric Co., gas and current	28 68	
Wm. Owens, plumbing	4 83	
Postmaster, Madison, Wis., postage	10 00	
Geo. N. Saegmueller, levels	8 81	
Sumner & Morris, hardware	12 67	
Secretary Board of Regents, bills paid	1 45	
Stephenson & Studeman, hardware	3 50	
Treasurer State Insurance Fund, insurance premium	99 69	
Patrick Trainor, lathing	6 00	
Taylor & Gleason, printing	2 75	
University Pay Roll,* labor, etc.	614 23	
United States Express Co., charges	63 28	
Montgomery Ward & Co., lantern and app.	3 12	
R. J. Wallace, screen	15 00	
		$6,232 63

Detail of Disbursements, 1903–04.

GENERAL LIBRARY.		
W. M. Smith, librarian, salary	$2,000 00	
W. H. Dudley, assistant librarian, salary	1,200 00	
American Ribbon & Carbon Co., carbon paper	60	
American Inst. of Mining Engineers, book	3 75	
B. S. Anderson, machinist	2 25	
American Railway Association, books	10 50	
American Microscopic Society, books	55 40	
American Entomological Society, book	1 50	
American Federation of Labor, books	24 50	
Actuarial Society of America, books	17 00	
American Express Co., express charges	24 55	
R. R. Bowker, book	3 00	
Boston Book Co., books	25 00	
C. W. Bardeen, book	1 15	
L. C. Burke, salary	710 00	
F. A. Brockhaus, books	331 97	
C., M. & St. P. R. R., freight charges	107 41	
The Arthur H. Clark Co., book	2 58	
John J. Cass, books	3 70	
Crane Bros., paper	1 10	
Thos. Chew, periodicals	2 00	
N. R. Campbell & Co., books	2 75	
C. & N. W. R. R., freight charges	46 43	
L. P. Denoyer, books	35	
E. P. Dutton Co., books	72 00	
Jos. Dixon Crucible Co., pencils	40	
Daniel Dunn, books	1 65	
Henry Delaroque, book	1 14	
Dodd, Mead & Co., books	33 60	
Engineering Magazine, books	12 50	
N. G. Elwert, books	12 41	
Funk & Wagnalls Co., book	12 00	
Henry A. Field, books	149 55	
G. Grimm & Son, binding	1,203 10	
Arlene Grover, salary	405 00	
Geological Society of America, books	10 00	
The Gunton Co., magazine	5 10	
Goodspeed Book Shop, book	1 00	
F. B. Hartranft, books	3 50	
John L. Haney, book	4 00	
Holden Patent Book Cover Co., binders	1 09	
Hulda B. Hainke, salary	120 00	
Johns-Hopkins Press, book	7 47	
Illinois Central R. R. Co., freight	1 13	
Ill. Society of Engineers and Surveyors, book	4 50	
H. F. Johns, books	25 75	
Journal of Medical Research, books	5 00	
Journal of Applied Microscopy, books	9 00	
Journal of Comp. Neuralogy, books	4 50	
C. W. Jarvis, freight	2 35	
W. P. Jervis, book	3 95	
Karl Knortz, book	1 10	
W. H. Lowdermilk Co., books	175 50	
Library Bureau, supplies	5 75	
John D. Morris & Co., books	17 81	
Marine Review Pub. Co., periodicals	1 45	
Marion C. McLean, salary	245 00	
W. S. Miller, book	7 50	
J. E. Moseley, mdse.	1 32	
W. T. McConnell & Son, mdse.	1 25	
A. C. McClurg & Co., books	1,641 75	
Sarah H. Miner, salary	600 00	
Gertrude B. Nutting salary	493 36	
H. Niedecken Co., ink	90	
Daniel O'Shea, books	3 00	
Parsons Printing & Stationery Co., printing	10 50	
Postmaster, Madison, Wis., postage	55 00	
Poor's Railroad Manual, book	10 00	
L. J. Pickarts & Co., stationery	2 35	
Judson G. Rosebush, books	19 50	
W. G. Rieve, books	5 50	
Remington Typewriter Co., supplies	6 50	
W. G. Rieve, book	9 60	
Walter M. Smith, bills paid	3 00	

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Henry Sotheran & Co., books	80 26	
Stafford Stamp Works, machine	13 65	
Shepard Book Co., book	4 75	
Smithsonian Institution, books	61 80	
Secretary Board of Regents, postage, express, etc.	6 86	
Chas. Scribner Sons, books	17 16	
Shea Smith & Co., supplies	90	
Schwaab Stamp & Seal Co., stamps	90	
State Journal Printing Co., printing	68 25	
G. E. Stechert, books	11,227 76	
Mary Thompson, salary	900 00	
C. L. Travers, book	2 10	
University of Chicago Press, book	3 28	
United States Express Co., express charges	11 37	
University Pay Roll,* labor, etc.	990 01	
University Co-op Co., mdse.	7 90	
Henry Wark, books	15 00	
Whiting Paper Co., paper	1 10	
Oscar Wegelin, books	64 22	
H. W. Wilson, book index	8 00	
H. Welter, books	18 50	
		$23,510 53

AGRICULTURAL INSTITUTE FUND.

Geo. McKerrow, salary	$2,200 00	
American Express Co., charges	16 51	
F. C. Blied, printing	56 00	
C., N. W. Ry. Co., freight	83 26	
Clark Eng. Co., half tone	152 54	
C., M. & St. Paul Ry. Co., freight	68 90	
Dane Co. Tel. Co., rentals	9 40	
Jos. Dixon Crucible Co., pencils	10	
C. M. Dengler, lettering	35	
Democrat Printing Co., printing	3,991 50	
Illinois Central Ry. Co., freight	2 46	
Institute Pay Roll,* clerks, janitors, etc.	5,293 09	
Geo. McKerrow, expenses and salary	2,939 46	
Mantz Bros., painting	6 50	
J. E. Moseley, supplies	2 75	
A. C. McClurg, books	7 40	
W. T. McConnell & Son, mdse.	2 00	
H. Niedecken Co., ink	45	
Postmaster of Madison, postage	189 00	
Wm. J. Park Co., supplies	1 00	
Parsons Printing Co., stationery	124 45	
Remington Typewriter Co., supplies	1 20	
Sumner & Morris, hardware	35	
Secretary Board of Regents, bills paid	5 52	
State Journal Printing Co., printing	7 25	
Tracy, Gibbs & Co., printing	19 30	
U. S. Express, charges	14 93	
University Pay Roll,* labor	4 20	
		$15,199 87

SUMMER SESSION.

E. A. Birge, professor, salary	$250 00	
J. W. Stearns, professor, salary	300 00	
R. W. Snow, professor, salary	300 00	
F. G. Hubbard, professor, salary	300 00	
A. R. Hohlfeld, professor, salary	300 00	
C. A. Van Velzer, professor, salary	300 00	
N. M. Fenneman, professor, salary	300 00	
R. A. Harper, professor, salary	300 00	
J. C. Elsom, professor, salary	300 00	
J. G. D. Mack, professor, salary	300 00	
A. W. Richter, professor, salary	300 00	
C. I. King, professor, salary	300 00	
B. V. Swenson, assistant professor, salary	250 00	
E. B. Skinner, asst. professor, salary	225 00	
Grant Showerman, asst. professor, salary	225 00	
A. W. Tressler, inspector of high schools, salary	225 00	
W. D. Frost, asst. professor, salary	225 00	
Victor Lenher, asst. professor, salary	225 00	
J. D. Phillips, asst. professor, salary	225 00	

Detail of Disbursements, 1903–04.

J. W. Shuster, asst. professor, salary	225 00	
J. E. LeRossignal, lecturer, salary	200 00	
Lucy M. Gay, asst. professor, salary	225 00	
C. R. Fish, asst. professor, salary	225 00	
W. H. Williams, professor, salary	150 00	
A. R. Anderson, instructor, salary	150 00	
A. R. Crathorne, instructor, salary	150 00	
A. H. Taylor, instructor, salary	150 00	
W. O. Sypherd, instructor, salary	150 00	
A. C. Tilton, instructor, salary	150 00	
M. L. Daggy, instructor, salary	150 00	
H. C. Taylor, instructor, salary	150 00	
W. G. Lottes, instructor, salary	150 00	
H. P. Howland, instructor, salary	100 00	
S. P. Starks, instructor, salary	100 00	
Lewis Atherton, instructor, salary	75 00	
E. B. Hutchins, Jr., assistant, salary	75 00	
W. H. Wells, instructor, salary	75 00	
H. E. Bradley, instructor, salary	75 00	
H. B. North, assistant, salary	50 00	
John B. Clark, lecturer, salary	500 00	
Merrick Whitcomb, lecturer, salary	400 00	
C. E. Allen, instructor, salary	100 00	
Annie M. Pitman, assistant, salary	100 00	
Mrs. V. S. Timberlake, balance of professor's salary	150 00	
E. A. Birge, bills paid	14 10	
Chas. W. Dabney, president, advertising	15 00	
Educator-Journal Co., advertising	10 50	
H. C. Fish, making cuts	6 70	
T. G. Gottschalk, refund fees paid	15 00	
S. Y. Gillan & Co., advertising	17 25	
Iowa Normal Monthly, advertising	3 00	
Midland Schools, advertising	4 50	
Mo. School Journal Pubg. Co., advertising	4 50	
Nebraska Teacher, advertising	3 00	
New England Pubg. Co., advertising	13 00	
Tracy, Gibbs & Co., printing	332 60	
University Pay Roll,* labor, etc.	216 95	
E. O. Vaile, advertising, directories	15 25	
Western School Journal, advertising	4 00	
		$9,850 35

ADMINISTRATION.

Van Hise, C. R., president, salary	$6,500 00	
E. F. Riley, Secretary of Regents, salary	2,750 00	
W. D. Hiestand, registrar, salary	2,000 00	
J. B. Parkinson, vice president and professor	500 00	
American Ribbon & Carbon Co., carbon paper	6 75	
American Express Co., express charges	85	
Helen L. Burhans, expenses	27 00	
E. A. Birge, bills paid,	64 86	
F. C. Blied & Co., printing	22 52	
C. G. Cannon, expenses	55 79	
C., N. W. R. R., freight	40	
Cantwell Printing Co., printing	44 00	
M. E. Cooley, expenses	26 54	
C., M. & St. Paul R. R. Co., freight	28	
Dane County Telephone Co., rentals	66 00	
G. M. Dahl, expenses	18 74	
Densmore Typewriter Co., repairs	2 00	
A. B. Dick & Co., roller	1 17	
Jos. Dixon Crucible Co., pencils	80	
Democrat Printing Co., printing	8 50	
Edw. Evans, expenses	95 25	
Almah J. Frisby, expenses	26 41	
H. P. Gibson, envelopes	26 69	
Otto Gaffron, expenses	25 60	
Grimm's Bindery, binding	5 00	
W. D. Hiestand, bills paid	2 25	
Illinois Central R. R. Co., freight	3 02	
Aldro Jenks, expenses	21 53	
J. C. Kerwin, expenses	134 40	
Paul Kney, expenses	12 68	
Library Bureau, cards, etc.	5 25	
Geo. F. Merrill, expenses	163 90	

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M. C. Mead, expenses	68 08	
J. E. Moseley, mdse.	30 20	
W. J. McElroy, expenses	21 89	
A. J. Myrland, expenses	114 08	
F. W. A. Notz, expenses	7 70	
Postmaster of Madison, stamps, etc.	594 60	
W. J. Park Co., stationery	16 95	
Parsons' Printing Co., printing	13 75	
J. M. Pereles, expenses	45 39	
A. J. Puls, expenses	39 20	
L. J. Pickarts, stationery	3 75	
Remington Typewriter Co., supplies	2 20	
Rockwell Wabash Co., filing cases	2 25	
Schwaab Stamp & Seal Co., rubber stamps	5 20	
Samuel Shaw, expenses	26 60	
Smith Premier Typewriter Co., typewriter	90 00	
Secretary Board of Regents, bills paid	45 04	
A. W. Shelton, expenses	57 08	
Shea Smith & Co., supplies	12 26	
Taylor & Gleason, printing	7 50	
Tracy, Gibbs & Co., printing	46 25	
H. C. Taylor, expenses	50 14	
Elizabeth Taylor, expenses	23 29	
University Pay Roll,* labor	4,810 87	
U. S. Express Co., express charges	1 20	
University Co-op Co., mdse.	25	
Van Hise, C. R., bills paid	481 16	
Western Union Telegraph Co., telegrams	2 12	
		$19,216 51

PRINTING AND ADVERTISING.

American Express Co., charges	$4 00	
American Ribbon & Carbon Co.	6 00	
L. C. Burke, indexing	16 40	
F. C. Blied, printing	4 00	
W. J. Betts, lettering	75 00	
Bailey, Banks & Biddle, diplomas	232 50	
C. & N. W. Ry. Co., freight	16 42	
M. J. Cantwell, printing	178 25	
C., M. & St. P. Ry. Co., freight	20 54	
C. M. Dengler, lettering	2 15	
Democrat Printing Co., printing	260 70	
Dennison Mfg. Co., seals and labels	2 19	
Daily Cardinal, reading slips	151 25	
DePere Tablet Co., blue books	211 79	
Evening Wisconsin, paper	41 50	
G. Grimm & Son, binding	34 40	
Ralph J. Golsen, photo supplies	10 64	
E. W. Keyes, postmaster, postage	171 20	
Library Bureau, cards	127 94	
J. E. Olson, expenses	11 26	
Parsons' Printing Co., printing	6 35	
Remington Typewriter Co., supplies	34 83	
Rockwell & Wabash Co., paper	5 76	
Secretary Board of Regents, bills paid	28 43	
Sumner & Morris, hardware	2 60	
State Journal Printing Co., printing	129 57	
Schwaab Stamp & Seal Co., stamps	7 14	
Staffords' Stamp Co., stamps	1 25	
Taylor & Gleason, printing	226 50	
Tileston & Livermore, catalog paper	1,516 20	
Tension Envelope Co., envelopes	113 75	
Tracy, Gibbs & Co., printing	703 70	
University pay roll,* clerks, etc.	150 45	
University Co-op. Co., mdse.	5 25	
U. S. Express Co., express charges	4 39	
Wisconsin Alumni Magazine, adv. & Subs.	150 00	
		$4,664 30

REPAIRS AND IMPROVEMENTS.

Armour Glue Works, glue	18 00	
A. H. Adams, furniture, repairs	23 44	
Wm. Albers, sand	8 90	
American Express Co., express charges	4 05	

Detail of Disbursements, 1903–04.

Anatomical Laboratory, added to repairs	2,039 35	
B. S. Anderson, machinist	142 91	
Peter Burger, hardware	40	
Babcock & Wilcox Co., boiler	1,162 92	
C. I. Banker Wire & Iron Works, fence and repairs	186 00	
M. Bonn, work	6 00	
Barbee Wire & Iron Works, iron railing, guards, etc	73 45	
Blied & Schneider, hardware	805 90	
C. & N. W. R. R. Co., freight	85 13	
Chicago Fixture Mfg. Co., fixtures	64 00	
Crane Co., pipes	992 37	
Challoner & Co., fittings	6 52	
C. F. Cooley, cement	58 48	
Conklin & Sons, cement, coal, etc	21 18	
Capital City Paper Co., paper	15 38	
C. M. & St. P. R. R. Co. freight	37 38	
Dresen & Rhodes, painting	16 85	
Dennison's Frt. Delivery, hauling	15 50	
M. Diedrich, mdse.	45	
Doyon & Rayne Lbr. Co., lumber	274 43	
C. M. Dengler, lettering	14 43	
Electrical Supply Co., supplies	253 57	
E. A. Ekern, drafting	2 00	
A. D. & J. V. Frederickson, lumber	1,475 36	
Fuller & Johnson Mfg. Co., casting	7 81	
J. H. Findorff, contract, mill work, extras	1,647 49	
Fairbanks, Morse & Co., brass	4 32	
Gisholt Machine Co., repairs	2 66	
The Gould Co., brass fittings	19 34	
Grimm's Bindery, binding	16 00	
Griffin & Bradley, painting	7 50	
Garden City Sand Co., brick	97 92	
H. J. Howard, hose racks	9 80	
Fred Huels, keys, etc.	5 15	
Heil Rail Joint Welding Co., boiler app., etc	518 00	
Hinrichs Dry Goods Co., muslin	1 20	
Theo. Hoeveller, upholstering	20 00	
Peter Hyland, door checks	20 85	
Hoffman & Baur, roofing cement	1 00	
A. Haswell & Co., sundries	76 90	
Illinois Central R. R. Co., freight	15 18	
Illinois Electric Co., mdse.	353 62	
Johnson Service Co., heat	276 00	
H. W. Johns-Manville Co., covering	1,126 14	
Adolph Johnson, cans and screws	5 80	
Elisha T. Jenks, locks	12 25	
H. C. Knisley & Co., wire glass	33 50	
A. H. Kayser, lumber	187 30	
King & Walker Co., pipe and fittings	266 97	
Kroncke Bros., hardware	15 80	
Ludlow Valve Co., fittings	30 05	
Link Belt Machinery Co., repairs	12 00	
W. J. Meltzer, plumbinbg	351 05	
Milwaukee Leather Belting Co., belting	163 20	
Manning, Maxwell & Moore, chisels, band saw	261 71	
A. A. Mayers, mdse.	462 97	
T. C. McCarthy, stone work	2,032 79	
Madison Fixture & Plating Co., plating	69 95	
Mautz Bros., paints	1,371 66	
Benj. Moore & Co., radiator enamel	8 25	
Madison Gas & Elec. Co., gas and current	35 49	
Miller Lock Co., locks	105 10	
Anton Metz plumbing	16 25	
The Mueller Co., heating President's house, fittings, labor	1,213 29	
Miller-Parkinson Lbr. Co., lumber	860 64	
Newbury & Peper, bolts	30	
Northern Elec. Mfg. Co., pulleys	174 83	
National Blower Works, steam traps	40 00	
Wm. Owens, plumbing	3,050 74	
L. J. Pickarts & Co., mdse.	30	
A. J. Priest, plastering	309 21	
E. F. Paunack, stone	2 00	
Pollard-Taber Co., painting	129 84	
Wm. Powell Co., lubricator cup	5 80	
John F. Pieh, sand	15 00	

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Sumner & Morris, hardware	380 09	
Secretary Board of Regents, bills paid	18 63	
Stephenson & Studeman, hardware	144 12	
Standard Tel. & Elec. Co., brass	7 79	
Jos. Sutter, plumbing	333 36	
Stewart & Romaine Mfg. Co., bolts	53 99	
Standard Tel. & Elec. Co., casting	1 24	
David Stephens, stones and brick	257 83	
Standard Oil Co., oil	19 27	
S. H. Sinclair & Co., steam coil	75 00	
Patrick Trainor, lathing	32 25	
University Co-op. Co., mdse.	14 40	
University pay roll,* labor	5,190 86	
U. S. Express Co., charges	4 70	
U. S. Gypsum Co., adamant	26 64	
Vilter Mfg. Co., refrigerating machine	450 00	
C. R. VanHise, mantel	23 25	
H. R. Worthington, pump cylinder, valve spgs.	21 07	
Wiedenbeck, Dobelin & Co., hardware	50 47	
Western Elec. Co., supplies	33 86	
Westinghouse, Church, Kerr & Co., plates, stoker, etc.	436 33	
Wisconsin Pharmacy, mdse.	90	
Yale & Towne Mfg. Co., checks	87 57	
		$30,938 98

HEAT AND LIGHT.

American Express Co., express charges	$3 70	
B. S. Anderson, machinist	2 25	
M. B. Austin & Co., switches	3 90	
M. Bonn, moulder	2 10	
E. Baggott & Co., repair of dome	2 00	
Blied & Schneider, hardware	13 00	
Storm Bull, services, expenses	330 53	
C., M. & St. P. R. R. Co., freight	107 36	
C. & N. W. Ry. Co., charges	11 88	
J. B. Colt & Co., carbons	6 00	
J. B. Clow & Son, pressure regulators	28 00	
C. F. Cooley, coal	623 15	
Crane Co., pipe fittings	41 90	
Conklin & Sons, fuel, etc.	28,706 98	
Deane Steam Pump Co., pump	134 55	
M. Diedrich, mdse.	4 99	
W. W. Darley, fittings	14 40	
Electrical Supply Co., supplies	197 08	
F. R. Eastman, elec. mdse.	2 30	
A. D. & J. V. Frederickson, lumber	19 40	
Fuller & Johnson Mfg. Co., coke, etc.	2 00	
A. H. Gardner & Co., packing	146 47	
Gould, Wells & Blackburn Co., mdse.	3 85	
P. F. Harloff, mdse.	3 00	
Illinois Elec. Co., supplies	647 26	
Johnson Service Co., regulation, thermometers, mdse.	184 24	
H. W. Johns-Manville Co., canvas	3 13	
King & Walker Co., castings, etc.	34 68	
M. S. Klauber Co., mdse.	2 00	
Link Belt Machinery Co., chain	17 47	
T. C. McCarthy, stone and mason work	44 10	
Madison Gas & Elec. Co., gas and current	4,742 44	
Madison Fixture & Plating Works, plating	4 77	
H. Mooers & Co., flue brush	3 00	
W. T. McConnell & Son, mdse.	53	
Milwaukee Leather Belting Co., belting	21 12	
A. A. Mayers, mdse.	21 10	
The Nichols Co., mdse.	85	
Northern Electrical Mfg. Co., electric mdse.	22 00	
Power Specialty Co., repair tube cleaner	3 50	
Powers Regulator Co., gaskets, thermostat	13 75	
John F. Pieh, sand	2 00	
Racine Engine & Iron Works, repairing	1 75	
Jos. T. Ryerson & Son, boiler tubes	76 98	
Sumner & Morris, hardware	13 50	
Secretary, Board of Regents, refund of bills paid	4 57	
Stephenson & Studemann, hardware	4 70	
U. S. Express Co., charges	3 25	
University pay roll,* labor, etc.	5,184 84	

Detail of Disbursements, 1903–04.

Valvoline Oil Co., cylinder oil	49 40	
Viscosity Oil Co., oil	97 00	
Westinghouse, Church, Kerr & Co., elec. app.	217 40	
Wadham's Oil & Grease Co., waste	24 84	
Wiedenbeck, Dobelin & Co., hardware	12 40	
Western Elec. Co., supplies	2 28	
		$41,871 64

LABORATORY SUPPLIES.

Apfel Murdoch Co., chemicals	$75 71	
American Express Co., express charges	122 83	
T. R. Almond, jaws for chuck	1 84	
B. S. Anderson, machinist	241 14	
American Society of Mech. Engineers, books	10 00	
American Electro-chemical, book	4 00	
American Foundryman's Assn., metal	12 00	
Julius Andrae & Son, Nernst Glowers	12 00	
W. A. Bently, slides	7 50	
Burke & James, photo supplies	5 60	
Herman Boker & Co., electric wire	5 89	
Boston Store, sounding lines	1 33	
Brooklyn Biological Supply Co., specimens	3 85	
Baker & Co., platinum	15 14	
Baltimore Smelting Copper Co., copper	29 77	
J. A. Buckmaster, lenses	1 25	
John Bauhs, turnips	1 00	
F. A. Brockhaus, books	9 11	
Blied & Schneider, hardware	120 43	
Chas. H. Besly, mdse.	76 80	
Brimley Bros., specimens	6 08	
C. Becker, weights	47 50	
J. A. Brashear & Co., polishing prism	5 00	
Peter Burger, hardware	5 25	
James J. Biddle, ribbons	56 59	
Mrs. C. F. Baker, Bot. specimens	9 92	
Bausch & Lomb Opt. Co., supplies	241 71	
J. Bishop & Co., crucibles	19 11	
M. Bonn, foundry work	4 80	
Chicago Calcium Light Co., oxygen	13 75	
C. F. Cooley, coke	31 45	
Conklin & Sons, ice, cement	31 08	
Crosby Steam Gage Co., cord	30 00	
Dexter Curtis Co., scrap zinc	6 30	
Corry's Grocery, mdse.	1 00	
The Celluloid Co., celluloid	9 25	
Chicago Laboratory Supply Co., meter, etc.	167 60	
O. H. Christman, expenses	1 72	
Corbin Cabinet Lock Co., keys	6 43	
Capital City Paper Co., paper	2 53	
C., M. & St. P. Ry. Co., charges	152 96	
Crane Co., pipe & fittings	10 30	
C. & N. W. Ry. Co., freight charges	174 12	
Cantwell Ptg. Co., printing	6 60	
College Book Store	1 45	
Crucible Steel Co., steel	298 49	
Chicago Screw Co., screws	48 40	
Dearborn Drug Chemical Co., oil	15 60	
W. N. Durand & Co., mdse.	2 40	
Doyon & Rayne Lumber Co., lumber	26 63	
Eugene Dietzgen Co., squares	61 20	
C. M. Dengler, lettering	4 00	
A. B. Dick & Co., supplies	4 00	
Henry A. Dreer, seeds	7 99	
Dennison Mfg. Co., labels	60 41	
Devoe & Reynolds Co., paints	12 94	
Thos. L. Dickinson, carbon tool	5 00	
Democrat Printing Co., printing	43 20	
M. Diedrich, mdse.	19 06	
Geo. L. English & Co., crystal stands	3 95	
Excelsior Supply Co., tubing	2 26	
Elliot Bros., instruments	107 15	
Eimer & Amend, chemicals	5,959 49	
Engineering News Pub. Co., book	2 15	
Electrical Supply Co., Nernst Glowers	23 68	
Electric Appliance Co., wire	97 09	

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F. R. Eastman, electric mdse.	3 00	
R. Friedlander & Sohn, book	1 67	
A. P. Felton, keys, etc.	5 48	
Thos. Fall, photos	5 36	
Fabrikoid Co., alum, paint	21 50	
Fritzschi Bros., drugs	37 08	
H. A. Field, books	95 25	
Fox Machine Co., milling machine	7 00	
F. F. F. Steam Laundry, laundry	1 81	
The Fair Store, crockery	1 32	
H. G. Fischer, mechanician	138 83	
John Fath, crabs	3 00	
N. M. Fenneman, expenses	13 05	
A. D. & J. V. Fredrickson, lumber	399 50	
Fuller & Johnson Mfg. Co., castings	221 91	
Alex. Gill & Co., asphalt	62	
Wm. Gaertner, weights	73 08	
Emil Grenier, specific gravity tubes	5 40	
G. W. Garvens, slides	10 85	
W. & L. E. Gurley, level vials	9 35	
Groves–Barnes Music Co., reproducer	5 00	
General Chemical Co.	38 50	
Gould, Wells & Blackburn Co., mdse.	12 70	
H. J. Green, thermometer	34 44	
Wm. J. Gamm, mdse.	85	
Gilbertson & Anderson, Rep. thermometer	3 50	
Grimm's Bindery, binding	21 00	
Garden City Sand Co., sand	8 40	
Gisholt Machine Co., oil cup, etc.	11 26	
R. M. Green, pitch	29 25	
M. J. Hoven, fish heads	1 00	
Henry Heil Chem. Co., bell glasses	90	
Hollister Pharmacy, drugs	422 05	
Huber & Fuhrmann, drugs	16 50	
Fred Huels, keys	2 95	
Fred Henrichs Dry Goods Co., towelling	102 50	
Peter Henderson & Co., seeds	62	
P. F. Harloff, electric mdse.	10 20	
M. W. Howland, writing labels	10 00	
Hill, Clarke & Co., tools	5 50	
H. C. Hopson, repair batteries	19 11	
Samuel Harris & Co., mdse.	240 29	
Blanchard Harper, photo work	53 75	
J. J. Higgins, brass castings	22 25	
Ill. Central Ry. Co., freight	3 25	
Illinois Electric Co., switches	2 10	
International Text Book Co., books	180 00	
Illinois Society of Engineers, books	5 70	
Ingersoll–Sargent Drill Co., oil	4 75	
Johns Hopkins Press Co., phot. map	25 00	
Jewell Electric Instrument Co., repairing	4 00	
Jones & Laughlin Steel Co., iron	31 66	
Otto Jaap, fungi	5 64	
Dr. Otto Kuntze, slides	29 60	
J. Klonne & G. Muller, preparations	16 58	
Kroncke Bros., hardware	5 00	
Alex. Kornhauser & Co., mdse.	11 05	
Kempsmith Mfg. Co., repairs	3 50	
King & Walker Co., castings	130 02	
Julius Klueter, feed	14 50	
A. H. Kayser, lumber	36 57	
Leeds & Northrup Co., apparatus	51 67	
F. D. Lambert, specimens	13 20	
Lufkin Rule Co., tapes	19 10	
Layer & Harrell, plants	2 50	
Lawton & Co., duplicator and ink	5 00	
Library Bureau, furniture	5 89	
Lehn & Fink, drugs	26 36	
Ernst Leitz, chemicals	311 56	
C. K. Leith, expenses	16 98	
Machinist Supply Co., tools	3 57	
Milwaukee Leather Belting Co., waste	52 79	
Madison Gas & Electric Co., gas and current	494 68	
Kny–Scheerer Co., skeletons	27 73	
Milwaukee Rice Machinery Co., metal	26 12	
Jas. E. Moseley, supplies	32 15	

Detail of Disbursements, 1903–04.

Mary E. Martin, seeds	58	
A. A. Mayers, mdse.	55	42
Menges Pharmacy, sundries	51	26
B. M. Minch & Son, feed	7	73
Madison Steam Laundry, laundry	6	08
W. T. McConnell & Son, mdse.	33	11
McGraw Publishing Co., book	4	00
Helen C. Marston, packing	2	00
Mautz Bros., paints	34	18
A. C. McClurg & Co., books	147	11
Marine Biol. Lab., supplies	35	00
Ed. W. Morhoff, apparatus	18	00
McDonnell Odometer Co., speed counter	8	40
John D. McGonigle & Co., lancets	4	80
W. J. Meltzer, plumbing	83	05
H. B. McGowan, mdse.	3	05
Maple City Soap Works, soap	7	20
A. F. Moore, electric wire	3	64
National Distilling Co., alcohol	140	49
Nernst Lamp Co., ballasts	18	12
Richard G. Norton, repair watch	4	00
Nicholson File Co.	27	52
Northern Electrical Mfg. Co., mdse.	2	45
The Nichols Co., mdse.		80
Alex. Neilson, specimens	7	50
Northwestern Compo-Board Co., blackboards	5	00
Wm. Owens, plumbing	2	38
Olson & Jacobson, dishes	2	72
J. D. Phillips, lettering	1	54
Pelton & Klauber, tobacco	1	50
L. J. Pickarts & Co., mdse.	26	48
Park Dry Goods Co., mdse.	15	51
Pratt & Whitney Co., apparatus	50	81
Pollard & Tabor Co., painting	7	08
E. F. Paunack, crushed stone	3	80
O. L. Petitididier, optical glasses	11	00
Martin Payton, castings	2	89
W. J. Park Co., mdse.	3	40
Postmaster, Madison, Wis., postage	10	60
Jas. H. Rice Co., plates	16	64
F. Rentschler, flowers	4	74
W. C. Ritchie & Co., trays	5	48
J. Riverchon, herbs	5	00
Fred A. Rich, tools	2	49
H. Sothern & Co., books	45	33
State Journal Printing Co., printing	25	50
R. Stafford, fireworks	1	25
Standard Oil Co., oil	3	10
Schaeffer Budenberg, glasses, etc.	26	20
Street Railway Journal, periodicals	7	17
Standard Telephone & Electric Co., castings	61	74
Secretary Board of Regents, bills paid	33	05
Schimming Bros., gravel	5	00
Chas. A. Strelinger Co., spelter	2	25
Spencer Lens Co., lens	7	39
C. H. Stoelting & Co., mdse.	53	28
E. H. Sargeant & Co., supplies	266	70
J. T. Slocomb & Co., drills	14	00
Standard Paper Co., paper	1	05
Stephenson & Studeman, hardware	104	41
Henry Scheler, mdse.	3	88
M. A. Seed Dry Plate Co., photo work	8	20
G. E. Stechert, books	676	25
J. W. Staniford & Co., vials	70	46
L. S. Smith, expenses	88	15
Edwin Sumner & Son, photo plate	2	25
Sumner & Morris, hardware	104	58
J. M. Thorburn & Co., seeds	3	37
Tracy, Gibbs & Co., printing	37	80
Thompson Meter Co., repairs for meter	2	55
Taylor & Gleason, printing	72	60
Torsion Balance Co., balances	35	00
University Pay Roll,* labor	2,356	11
University of Chicago Press	2	00
University Co-op Co., mdse.	85	55
United States Express Co., charges	59	16
A. Van Deusen, hardware	1	00

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Vaughn's Seed Store, seeds	2 14	
J. H. Volkert, polish	4 75	
Viscosity Oil Co., oil	197 10	
Weston Electric Instrument Co., ammeter	2 00	
Geo. A. Works, expenses	5 67	
Watertown Thermometer Co., apparatus	27 00	
H. Weissemann, oil	9 60	
Wisconsin Pharmacy, drugs	43 00	
F. W. Wamsley, specimens	8 55	
Waterbury Brass Co., brass	4 64	
Williams & Peters, coal	144 68	
A. J. Wilkinson & Co., brass discs	4 44	
Wisconsin Engineer, books	14 50	
W. W. Warner, double bass strings	5 00	
Whitall Tatum & Co., vials and mdse.	115 84	
Wadham Oil & Grease Co., waste	33 40	
Western Lime & Cement Co., cement	8 40	
W. M. Welch & Co., tablets	18 00	
Whiting Paper Co., paper	9 90	
J. H. Williams & Co., lathes, dogs	7 12	
Wiley & Russell Mfg. Co., tools	9 97	
Williams Pharmacy, mdse.	1 75	
Wiedenbeck & Dobelin Co., hardware	250 97	
C. Z. Wise, moulding sand	2 00	
Victor Wayman, flowers	1 50	
Western Electric Co., electric mdse.	29 67	
Yahr & Lange Drug Co., drug	10 77	
Julius Zehnter Co., needles	3 00	
		$18,634 78

ROADS AND GROUNDS.

American Plow Co., plow	$13 00	
G. W. Acker, oats	117 40	
Brown & Nevin, livery	4 00	
Dr. S. Beattie, veterinary services	3 00	
M. Bonn, castings	1 50	
Blied & Schneider, hardware	9 46	
Peter Burger, hardware	3 85	
C., M. & St. Paul Ry. Co., freight	38 10	
Chas. Carman, horse shoeing	6 40	
C. F. Cooley, cement	10 06	
Conklin & Sons, cement	614 51	
City of Madison, water, mdse.	183 59	
M. Diederich, mdse.	50	
P. J. Diepold, blacksmithing	1 25	
Doyon & Rayne Lumber Co., lumber	67 26	
John Delaney, cement sidewalk	409 90	
A. D. & J. V. Fredrickson, lumber	30 53	
Gould, Wells & Blackburn Co., mdse.	1 00	
John D. Hayes, horse shoeing	2 80	
Hollister's Pharmacy, drugs	1 00	
J. P. Holbach, rep. harness	1 80	
International Harvester Co., extras	96	
A. H. Kayser, lumber	75 91	
E. H. J. Lorenz, work on apparatus	5 00	
F. H. McKay, mortar hoes	1 00	
B. M. Minch & Son, feed	11 25	
V. Malec & Bro., rubber boots	4 50	
Mautz Bros., paint	5 00	
Frank M. Meyer, horse shoeing	5 56	
A. A. Mayers, mdse.	17 45	
John F. Pieh, sand	56 15	
E. F. Paunack, crushed stone	8 44	
M. S. Rowley, com. on purchase of real estate	250 00	
E. F. Riley, team, wagon and harness	350 00	
Stephenson & Studeman, hardware	3 50	
David Stephens, crushed stone	70 28	
Secretary Board of Regents, bills paid	56 45	
Sumner & Morris, hardware	5 61	
Standard Telephone & Electric Co., castings	8 80	
Town of Madison, grading	75 00	
University Pay Roll,* labor	3,468 85	
Chas. Wehrmann, harness work	10 35	
Wiedenbeck, Dobelin & Co., hardware	3 26	
Wisconsin Wagon Co., repairing wagon	16 50	
Western Consolidated Granite Co., granite screenings	48 85	
		$6,078 98

Detail of Disbursements, 1903–04.

GENERAL ACCOUNT.		
Alford Bros., laundry	$44 60	
A. H. Anderson Co., repairs	7 00	
American School Furniture Co., crayons	21 50	
American Ribbon & Carbon Co., carbon paper	4 60	
Association of American Universities, annual dues	40 00	
American Express Co., express	80	
W. G. Bleyer, H. S. inspection	15 74	
A. Beatty, H. S. inspection	5 82	
Blied & Schneider, hardware	9 90	
B. H. Bode, H. S. inspection	8 42	
W. J. Betts, lettering diplomas	250 00	
S. Cupples Wooden Ware Co., mop heads	9 00	
College Book Store, stationery	2 50	
Corbin Cabinet Lock Co., locks, keys	1 43	
Conklin & Sons, ice	12 00	
C. & N. W. Ry. Co., freight	5 15	
Crerar, Adams & Co., watchman's clock	37 50	
M. J. Cantwell, printing	31 50	
City of Madison, mdse.	133 41	
W. B. Cairns, H. S. inspection	10 34	
B. E. Corry, mdse.	4 25	
C., M. & St. P. Ry. Co., freight	6 69	
M. Diederich, mdse.	30	
Jos. Dixon Crucible Co., pencils	36 22	
L. W. Dowling, H. S. inspection	11 30	
Democrat Printing Co., printing	7 85	
G. C. Fiske, H. S. inspection	29 47	
Gimbel Bros., cork carpet	21 85	
Grimm's Book Bindery, binding	7 50	
E. A. Gilmore, expenses	34 20	
Gould, Wells & Blackburn Co., mdse.	76 18	
Theo. Herfurth & Son, boiler insurance	60 00	
A. R. Hohlfeld, H. S. inspection	15 74	
R. A. Harper, H. S. inspection	24 15	
Hollister's Pharmacy, drugs	75	
Hinrichs Dry Goods Co., mdse.	63 29	
Illinois Electric Co., electric mdse. (fan)	12 00	
J. T. W. Jennings, salary and expenses	1,656 38	
Kentzler Bros., livery	8 00	
Adam Klein, brooms	26 25	
Chas. F. Lamb, agent, premium on bond	5 00	
H. B. Lathrop, H. S. inspection	38 12	
The M. C. Lilley Co., flag	13 18	
W. G. Laird, H. S. inspection	15 94	
H. R. McGowan, mdse.	6 00	
Placide Mougenot, brooms	12 00	
P. R. McPherson, moving piano	5 00	
Irving Mutchler, bills paid	13 50	
W. T. McConnell & Son, mdse.	1 00	
C. E. Mendenhall, H. S. inspection	9 17	
Madison Steam Laundry, laundry work	3 26	
A. A. Mayers, mdse.	5 00	
Menges Pharmacy, drugs	5 45	
D. C. Munro, H. S. inspection	26 37	
Jas. E. Moseley, stationery	40	
R. H. Meyer, H. S. inspection	25 13	
North Central Association of Colleges, memb. fees	10 00	
New York Store, mdse.	1 80	
Northern Tissue Paper Co., toilet paper	100 28	
Chas. Nitschke, music for commencement	150 00	
H. Neidecken Co., ink	22 20	
Julius E. Olson, bills paid	203 25	
M. V. O'Shea, H. S. inspection	13 42	
Parsons' Printing Co., office supplies	22 88	
The Paper Mills Co., paper	16 80	
J. D. Phillips, H. S. inspection	11 03	
Pollard Taber Co., paint	25	
J. F. A. Pyre, H. S. inspection	49 61	
Wm. J. Park Co., mdse.	75	
P. S. Reinsch, H. S. inspection	13 91	
F. Rentschler, plants	3 50	
Aug. Schiebel, fire axes	6 50	
Chas. S. Slichter, Supt. of Athletics	469 89	
Grant Showerman, H. S. inspection	1 36	

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G. C. Sellery, H. S. inspection	23 02	
Stephenson & Studeman, hardware	2 90	
H. H. Swain, H. S. inspection	3 00	
J. W. Stearns, H. S. inspection	21 89	
Sumner & Morris, hardware	45 97	
Shea Smith & Co., stationery	7 70	
State Journal Printing Co., ptg.	2 10	
R. E. Smiley, tuning pianos	50 00	
Standard Paper Co., paper	13 82	
Wm. A. Scott, H. S. inspection	30 57	
E. R. Skinner, H. S. inspection	48 52	
Secretary Board of Regents, bills paid	21 92	
Tracy, Gibbs & Co., printing	1 00	
A. W. Tressler, H. S. inspection	401 33	
A. Trowbridge, H. S. inspection	34 64	
University pay roll,* labor	850 53	
University Band,* services	315 00	
United States Express Co., express	2 35	
University Co-op. Co., mdse.	11 75	
Ernst Voss, H. S. inspection	23 11	
Wisconsin Telephone Co., tolls	32 50	
Wiedenbeck & Dobelin Co., hardware	4 55	
Western Union Telegraph Co., messages	1 09	
Waterloo Nursery, flowers	25 98	
Whiting Paper Co., paper	75	
Western Electric Co., mdse.	13 80	
Wisconsin Pharmacy, mdse.	3 60	
		$6,028 22

AGRICULTURAL COLLEGE BUILDING.

T. C. McCarthy, balance contract	$32,577 47	
		$32,577 47

TWENTY-FIVE THOUSAND DOLLAR EQUIPMENT AGRICULTURAL COLLEGE BLDG.

M. B. Austin & Co., electric mdse.	$1 93	
A. H. Andrews, chairs and furniture	3,389 97	
A. W. Andrews, work on plans	50	
American Express Co., charges	11 30	
Blied & Schneider, hardware	69 65	
Buffalo Scale Co., scales	55 00	
S. H. Barnum, stand	20 00	
Peter Burger, hardware	27 73	
Bausch & Lomb Opt. Co., optical goods	786 15	
C., M. & St. Paul Ry. Co., freight	42 34	
James B. Clow & Sons, fittings	32 40	
Crane Co., fittings	5 74	
Capital City Paper Co., paper, etc.	41 80	
Crerar, Adams & Co., watchman's watch	46 50	
C. P. Carv, dictionary	67 50	
C. & N. W. Ry. Co., freight	67 51	
John Doerscher, installing bell line	10 00	
C. M. Dengler, lettering	1 75	
Electrical Supply Co., mdse.	170 31	
J. S. Eastman, fixtures	257 58	
J. H. Findorff, lumber	8,340 89	
Chr. Frautschi, furniture	17 17	
Fairbanks, Morse & Co., scales	33 09	
Gallagher Tent & Awning Co., awning	227 00	
Phillip Gross Hardware Co., keys	25 75	
Gould, Wells & Blackburn Co., mdse.	12 50	
John Greig	43 50	
V. H. Holt, drafting	13 47	
Horstmeyer & Ottow, plumbing	744 80	
Hinrichs Dry Goods Co.	8 27	
Hamilton Mfg. Co., electric cabinet	45 00	
A. Haswell & Co., furniture	553 56	
W. A. Henry, expenses	13 95	
Illinois Electric Co., electric wiring	207 03	
M. F. Johnson, maps	6 25	
Jones & Laughlin Steel Co., shafting	13 79	
King & Walker Co., pulleys	12 30	
F. C. Long, slides	5 60	

Detail of Disbursements, 1903–04.

Lansing Wheelbarrow Co., truck	8 33	
Library Bureau, furniture	379 72	
Ernst Leitz, mdse.	849 31	
Madison Gas & Electric Co., meters, gas, etc.	105 69	
T. C. McCarthy, mason work	48 87	
Milwaukee Leather Belting Co., belting	12 77	
McIntosh Stereopticon Co., lantern and lenses	178 00	
Fred Macey Co., furniture	100 39	
J. L. Mott Iron Works, electric fixture	257 40	
The Mueller Co., steam heating	95 63	
Matson & Klein, wire	60	
McCray Refrigerator Co., refrigerator	51 15	
A. C. McClurg & Co., books	23 91	
Mautz Bros., painting	785 27	
Northern Electrical Mfg. Co., electric mdse.	540 00	
Neostyle Co., neostyle and supplies	100 00	
A. & B. Olson, bed springs	15 50	
Wm. Owens, plumbing	589 75	
W. J. Park & Co., office supplies	75 60	
Pulsometer Engine Co., vacuum pump	78 37	
John F. Pieh, sand	100 33	
Pollard & Taber Co., painting	96	
Parsons Printing Co., printing	50	
Chas. Pollacheck & Bros. Co., gas and elec. fixtures	1,526 60	
A. H. Revell & Co., furniture	114 25	
Alex. H. Revell & Co., furniture	990 30	
E. H. Sargent Co., supplies	63 10	
The Sadler Co., lock boxes	82 60	
Slatington Bangor & Slate Co., slate slabs	47 85	
Stephenson & Studeman, tinwork	53 35	
Sumner & Morris, hardware	30 82	
Smith-Premier Typewriter Co., supplies	182 25	
G. E. Stechert, books	55 74	
Simplex Electric Co., mdse.	4 50	
A. T. Thompson, lantern	253 54	
Henry Troenemer, balance	194 40	
University pay roll,* labor, etc.	99 52	
United States Express Co., express	2 40	
Western Electric Co., electric supplies	30 74	
Wiedenbeck, Dobelin & Co., hardware	56	
		$23,556 15

WATER WORKS.

B. S. Anderson, machinist	$83 75	
American Express Co., charges	20	
Wm. Albers, sand	68 70	
M. Bonn, salary	43 20	
Capital City Paper Co.	9 75	
Crane Co., pipe, etc.	31 73	
C. F. Cooley, coal and cement	190 91	
Conklin & Son, coal, etc.	7 50	
C. & N. W. Ry. Co., charges	38 46	
C., M. & St. P. Ry. Co., charges	298 51	
Denison Frt. Delivery, hauling	92 80	
M. Diedrich, mdse.	3 20	
Democrat Printing Co., printing	4 90	
Doyon & Rayne Lumber Co., lumber	20 67	
Fuller & Johnson Mfg. Co., repairs	17 00	
S. Freeman & Sons	3,000 00	
A. D. & J. V. Fredrickson, lumber	49 59	
Hollister Drug Co., drugs, etc.	20	
Illinois Central Ry. Co., freight	77 78	
Jefferson Brick Co., brick	288 00	
C. I. King, expenses	51 89	
Theo. Kupfer, hardware	4 00	
A. H. Kayser, lumber	4 26	
Ludlow Valve Mfg. Co., fittings	164 66	
Ludlow Valve Co., fittings	101 08	
Madison Gas & Electric Co., gas and current	7 00	
T. C. McCarthy, stone work	16 68	
Milwaukee Leather Belting Co., valves	19 05	
A. W. Morgan Mfg. Co., fittings	46 75	
Wm. Owens, plumbing	7 50	
Wm. J. Park Co., supplies	25	
E. F. Paunack	685 00	

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John F. Pieh, sand	15 00	
Raymond Lead Co., pig lead	199 52	
Sumner & Morris, hardware	35 35	
Secretary Board of Regents, bills paid	428 37	
Standard Telephone & Electric Co., castings	7 00	
Stephenson & Studeman, hardware	3 90	
David Stephens, brick and stone	620 00	
To correct No. 1272 add to water works	36 52	
United States Express Co., charges	46	
U. S. Cast Iron Pipe & Foundry Co., pipe	2,331 29	
University pay roll,* labor, etc.	1,583 74	
Wiedenbeck, Dobelin & Co., hardware	8 46	
R. D. Wood & Co., fittings	315 11	
Wisconsin Bridge Iron Works, beams	33 90	
		$11,053 53

CHEMICAL LABORATORY BUILDING.

Babcock & Wilcox Co., boiler	$1,110 06	
Conklin & Sons	15 00	
Democrat Printing Co., printing	6 80	
J. T. W. Jennings, traveling expenses	167 59	
Warren P. Laird, services and expenses	524 39	
Andrew A. Mayers, mdse.	3 50	
Mautz Bros., painting	4 35	
Milwaukee Free Press Co.	18 90	
Menges Pharmacy	40	
Pearson Bros., blue print	2 00	
Sentinel Co., advertising	9 45	
State Journal Printing Co., printing	18 00	
University Co-op. Co., mdse.	90 72	
U. S. Express Co., charges	4 30	
University pay roll,* labor, etc.	386 01	
Westinghouse Church Kerr & Co.	351 66	
F. Weber & Co.	1 52	
Whiting Paper Co., paper	45	
		$2,715 10

COLD STORAGE PLANT.

American Express Co., charges	$1 55	
Barns Boiler Mfg. Co., tank	168 00	
A. H. Barber Mfg. Co., pipe	905 62	
C. & N. W. Ry. Co., charges	13 70	
Challoners Sons Co., fittings	10 44	
Jas. B. Clow & Sons, fittings	442 41	
C., M. & St. Paul Ry. Co., charges	26 72	
H. W. Johns Manville Co., covering	417 03	
Theo. Kupfer, hardware	3 81	
King & Walker Co., fittings	9 61	
Jas. H. Rhodes & Co., calcium	30 93	
Trachte Bros., tinwork	11 50	
University pay roll,* labor	212 45	
U. S. Express Co., charges	75	
The Vilter Mfg. Co., fittings	641 05	
Wiedenbeck & Dobelin Co., hardware	3 42	
The F. W. Wolf Co., brine cooler	300 00	
A. S. White, refund	3 60	
		$3,202 59

ST. LOUIS EXPOSITION.

American Express Co., charges	$8 20	
A. H. Abbott & Co., clay	1 50	
Atlas School Supply Co., glazed paper	3 28	
B. S. Anderson, machinist	11 50	
T. S. Adams, chart work	5 75	
Blied & Schneider, hardware	5 77	
J. G. Braun, steel mouldings	23 48	
Boston Belting Co., stair treads	1 60	
C. & N. W. Ry. Co., freight	88	
Central School Supply House, card board	6 16	
Carroll & Lancaster, rug	18 00	
F. W. Curtis, photo work	190 15	
Cantwell Printing Co., printing	30 67	
C. M. Dengler, lettering	4 50	

Detail of Disbursements, 1903–04.

C. F. Dittmar, photo work	15 85	
A. D. & J. V. Fredrickson, lumber	58 05	
C. H. Hanson, name plates	6 17	
Hinrichs Dry Goods Co., mdse.	30	
Blanchard Harper, photo work	4 50	
H. M. Hooker & Co., plate glass	66 00	
Samuel Harris & Co., tools	8 01	
A. Haswell & Co., mdse.	2 00	
Illinois Central Ry. Co., freight	4 16	
C. W. Jarvis, hauling	75	
Alex. Kornhauser & Co., mdse.	6 00	
H. Kohnstamm & Co., paints	1 61	
King & Walker Co., fittings	6 75	
Mautz Bros., paints	125 19	
J. G. D. Mack, expenses	370 02	
Anna L. Moore, typewriting	3 50	
Mandell Engraving Co., half tones	29 47	
A. C. Neilson, photo work	5 50	
Northern Electrical Mfg. Co., card board	6 45	
Pollard & Taber Co., painting	2 25	
Pittsburg Plate Glass Works, plate glass	39 00	
W. G. Park Co., supplies	2 10	
A. H. Revell & Co., furniture	75 00	
Isaac A. Ridgway, photos	13 00	
J. Riswig, show case	67 00	
Stephenson & Studeman, hardware	1 10	
Secretary Board of Regents, bills paid	4 25	
Standard Telephone & Electric Co., mdse.	38 52	
S. E. Sparling, books	2 60	
F. C. Sharp, expenses	17 07	
Tobey Furniture Co., furniture	268 25	
United States Express Co., charges	1 55	
University pay roll,* labor, etc.	964 14	
University Co-op. Co., mdse.	11 25	
Wiedenbeck Dobelin & Co., hardware	26	
Whitehead & Hoag Co., name plates	6 29	
H. C. Wolff, statistical	11 70	
Western Electric Co., electric mdse.	86	
		$2,557 91
SCHOOL OF ECONOMICS LIBRARY FUND.		
Chas. H. Kerr & Co., books	$7 48	
A. C. McClurg & Co., books	6 84	
G. E. Stechert, books	92 44	
H. Welter, books	19 62	
		$126 38
SCHOOL OF COMMERCE LIBRARY FUND.		
Burnham Antique Book Store, book	$5 00	
The Comrade, volume	1 00	
A. C. McClurg & Co., books	11 80	
G. E. Stechert, books	153 42	
		$171 22
SHEBOYGAN GRADUATE SCHOLARSHIP GERMAN PHILOLOGY.		
Friedrich Burns		$300 00
GUSTAV A. KLETZSCH SCHOLARSHIP IN BACTERIOLOGY.		
D. L. Barnard		$400 00
N. A. PENNOYER SCHOLARSHIP.		
Wm. V. Pooley		$50 00
B. K. MILLER JAPANESE SCHOLARSHIP.		
B. Kamiyami		$50 00

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AMELIA E. H. DOYON SCHOLARSHIPS.		
Huldah B. Hainke	$125 00	
Alice J. Reid	125 00	
		$250 00
LILLIAN PAIGE ALLIS SCHOLARSHIP IN GERMAN.		
Norma C. Halbach	$50 00	
Martin E. Jahr	50 00	
Henry H. Jebens	50 00	
		$150 00
LOUIS LOTZ SCHOLARSHIP.		
N. Inouye		$50 00
CHRISTIAN R. STEIN SCHOLARSHIP.		
Thorina Mortenson		$50 00
JOHNSON ENDOWMENT FUND.		
Christian F. Graff	$30 00	
Chas. E. Nelson	22 00	
Peter M. Anderson	22 00	
Eli S. Jedney	20 00	
B. F. Paust	22 00	
Ole J. Eggum	22 00	
Alex. F. Hansen	22 00	
Chas. A. Madsen	22 00	
Lester R. Creutz	22 00	
A. T. Twesme	20 00	
		$224 00
LEWIS MEDAL FUND INTEREST.		
H. L. Geisse		$18 00
JACKSON BEQUEST INCOME.		
J. H. Carpenter		$1,000 00
THE ADAMS' ESTATES.		
Caroline M. Jennison, loan	$4,500 00	
E. F. Riley, Sec'y, bills paid	451 43	
		$4,951 43
UNIVERSITY PARK.		
E. F. Riley, Sec'y, part purchase price and contingent..	$4,338 47	
Frank Hoyt, purchase price Caesar lots	20,000 00	
		$24,338 47
UNIVERSITY GROUNDS.		
E. C. Hammersly & Chas. Nelson, addition to "Hill Farm"		$9,000 00
THE ALLIS FUND.		
G. E. Stechert, books		$26 60

Detail of Disbursements, 1903–04.

REFUND OF STUDENTS' FEES.

B. B. Andrews, fees refunded	$18 50	
G. D. Arnold, fees refunded	5 00	
W. T. Buck, fees refunded	10 50	
M. G. Berge, fees refunded	7 00	
L. W. Boldenweek, fees refunded	17 50	
J. A. Brown, fees refunded	37 50	
M. R. Bump, fees refunded	20 00	
S. E. Bauer, fees refunded	25 00	
R. E. Burns, fees refunded	25 00	
A. R. Burton, fees refunded	17 00	
R. E. Beckington, fees refunded	25 00	
Henry F. Carpenter, fees refunded	37 50	
C. H. Clark, fees refunded	15 00	
P. E. Clement, fees refunded	10 80	
Lucie N. Case, fees refunded	30 00	
J. E. Cleary, fees refunded	15 00	
Wm. F. Doyle, fees refunded	10 00	
E. L. Dake, fees refunded	10 00	
Grace W. Davidson, fees refunded	10 00	
Don W. French, fees refunded	15 00	
Cary C. Fisher, fees refunded	28 00	
H. E. Foelski, fees refunded	50 00	
Mary E. Gandolfs, fees refunded	8 00	
Earl R. Granner, fees refunded	20 00	
Alice M. Gray, fees refunded	20 00	
Fred R. Hunt, fees refunded	10 00	
Lacy Horton, fees refunded	10 00	
L. W. Horton, fees refunded	3 50	
Ida N. Hinrich, fees refunded	30 00	
M. A. Hutchinson, fees refunded	50 00	
H. A. Hern, fees refunded	18 50	
Edwin House, fees refunded	12 95	
V. R. Holt, fees refunded	10 50	
A. T. Henry, fees refunded	2 00	
D. P. Hughes, fees refunded	8 40	
L. S. Hannah, fees refunded	15 00	
Albert Hanson, fees refunded	12 00	
J. C. Jones, fees refunded	7 50	
Edw. Johnson, fees refunded	10 00	
W. B. Jones, fees refunded	75 00	
Sarah D. Jenkins, fees refunded	7 00	
Margaret Johnson, fees refunded	1 00	
H. J. Henry, fees refunded	10 00	
C. O. Klingholz, fees refunded	15 00	
Guy C. Kemp, fees refunded	25 00	
Florence Lockner, fees refunded	10 00	
Isaac Lewis, fees refunded	12 00	
P. McGovern, fees refunded	25 00	
D. J. Manger, fees refunded	25 00	
C. W. McKeys, fees refunded	8 00	
Hazel Manning, fees refunded	8 00	
W. D. Morgan, fees refunded	12 00	
B. C. McCourt, fees refunded	15 00	
Fred J. McConnell, fees refunded	37 50	
A. H. Meiss, fees refunded	5 00	
W. H. McNally, fees refunded	12 50	
Grace McDonald, fees refunded	7 00	
Chas. L. Mead, fees refunded	35 00	
Wm. J. Miller, fees refunded	10 50	
Paul Mueller, fees refunded	1 50	
W. H. Ochsner, fees refunded	10 00	
Chas. E. Porritt, fees refunded	25 00	
Ethel Parker, fees refunded	10 00	
John Price, fees refunded	37 50	
J. M. Pummerville, fees refunded	7 50	
W. J. Pooley, fees refunded	15 00	
Chas. A. Parfrey, fees refunded	5 00	
C. J. Peacock, fees refunded	7 70	
Lyman W. Pool, fees refunded	12 00	
Paul F. Pettigrew, fees refunded	25 00	
R. L. Peterson, fees refunded	15 00	
Frank Rabak, fees refunded	20 00	
J. C. Rorter, fees refunded	15 00	

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W. M. Richmond, fees refunded	10 00	
A. W. Richter, fees refunded	8 00	
D. C. Richards, fees refunded	8 00	
Alfred R. Roberts, fees refunded	13 50	
R. C. Roach, fees refunded	37 50	
S. B. Swenson, fees refunded	10 50	
Karl R. Siebecker, fees refunded	7 00	
Geo. A. Sieler, fees refunded	8 00	
W. H. Stevens, fees refunded	21 00	
A. E. Sutton, fees refunded	7 70	
C. F. Schneider, fees refunded	18 50	
Harry A. Spalding, fees refunded	13 50	
Jas. R. Stack, fees refunded	15 00	
A. E. Ulmer, fees refunded	5 00	
R. J. Usher, fees refunded	6 00	
Edw. Vanderboom, fees refunded	25 00	
F. C. Van Patten, fees refunded	15 00	
Edwin C. Vogt, fees refunded	14 80	
Martha Washburn fees refunded	1 00	
W. G. Whitmore, fees refunded	12 60	
G. R. Whitson, refund fees	10 00	
J. A. Walker, fees refunded	30 80	
L. L. Watson, fees refunded	30 00	
M. E. Wagneid, fees refunded	10 00	
Henry A. Wagman, fees refunded	12 00	
W. J. Warner, fees refunded	26 95	
Rhoda M. White, fees refunded	42 08	
A. S. White, fees refunded	14 00	
W. Winslow, fees refunded	37 50	
Charlotte E. White, fees refunded	10 00	
		$1,749 68

APPENDIX B.

Detail of Farm and Office Pay Roll.

Detail of University Pay Roll.

Detail of Agricultural Institute Pay Roll.

Detail of Milk Pay Roll.

Detail of Band Pay Roll.

University of Wisconsin.

AGRICULTURAL COLLEGE, 1902–1903.

Item, "Farm and Office Pay Roll, Clerks, Janitors, Laborers, etc.," $20,791.80.

DETAIL.

To whom paid and for what purpose.

Mrs. Andrus, laundry work	$2 40	
Geo. Anslinger, laborer	5 86	
Mary Antony, charwoman	1 25	
Severt Aasen, engr. steam roller	7 87	
P. O. Anderson, night watchman	23 25	
Oscar Anderson, laborer	41 48	
A. L. Anderson, foreman	556 54	
A. E. Anderson, laborer	46 71	
L. D. Baker, assistant	23 30	
Wm. Blaney, sheep shearing	8 00	
L. Backhaus, teamster	186 80	
Patrick Barry, teamster	14 80	
James Barry, laborer	7 40	
Geo. Brohough, laborer	302 33	
H. Beckenstratter, extra help	10 20	
Alfred Buser, berry picker	1 61	
Daisy Beecroft, librarian and sten.	150 00	
Ella Barton, compiling dairy tests	30 65	
W. J. Ballantyne, assistant	150 00	
G. H. Benkendorf, engineer	450 00	
Idalyn Bibbs, stenographer	193 38	
Mrs. Kate Brenan, charwoman	18 13	
J. D. Clarke, milk tests	270 94	
W. M. Charles, catching fish, insects	2 20	
Henry A. Cook, laborer	42 75	
John Corcoran, teamster	4 20	
D. L. Cowgill, herdsman	180 66	
J. W. Dawdy, assistant bookkeeper	30 00	
J. R. Danks, herdsman	560 00	
Godlieb Diebold, laborer	18 00	
Chas. Diebold, laborer	70	
C. Daellenbach, laborer	70 00	
A. H. Dickson, laborer	305 14	
L. R. Davies, dairy tests	17 15	
Peter Dukleth, dairy tests	50 35	
C. J. Dandy, assistant in office	14 00	
G. L. Davey, laborer	31 35	
Larry Diebold, laborer	1 40	
Ole Esker, separator instructor	9 88	
R. A. Elliot, pasteurizer	135 00	
F. E. Ebert, assistant Shepherd	93 38	
H. C. Fish, laborer and extra help	136 76	
J. A. Ford, dairy tests	54 00	
Niles Fellows, painter	47 25	
F. G. Frelich, laborer	229 00	
Lucinda Gafke, stenographer	270 00	
G. M. Gleason, laborer	26 22	
E. S. Gillespie, laborer	1 50	
Mrs. Gleason, charwoman	6 88	
W. S. Guilford, assistant	57 00	
Mollie Gratz, berry picker	60	
Gugle & Frish, threshers	31 65	
Ed. Grinnell, extra laborer	8 25	

Detail of Farm and Office Pay Roll, 1902–03.

John Gysbers, assistant	122 00	
Fred Grainger, helper	107 53	
J. H. Godfrey, butter maker	495 00	
Chas. Gallagher, helper	65 94	
Alfred Goodell, laborer	70 00	
Elizabeth Henwood, bookkeeper	480 00	
R. T. Harris, milk tests	604 44	
Ellen F. Haskins, assistant Grad. Inv.	40 00	
A. L. Hutchins, herdsman	105 50	
James Hutton, herdsman	440 00	
F. G. Hostak, laborer	211 35	
John Hofman, carpenter	110 00	
Hudah B. Hamke, library work	117 68	
Geo. Hutton, teamster	600 00	
Ida Herfurth, clerk	840 00	
Andrew Hofer, painter	92 93	
M. Hadich (Miss) stenographer	4 68	
L. Hanauer, stenographer	72 38	
A. Herring, teamster and team	2 80	
John Jones, janitor	540 00	
Victoria Jones, addressing envelopes	7 55	
Chas. John, laborer	230 26	
Anton Jacobson, dairy tests	74 00	
Elizabeth Kessenich, mailing bulletins and addressing envelopes	40 90	
Frank Kleinheinz, shepherd	510 00	
A. F. Kreuger, day fireman	180 00	
Andrew Kinneare, laborer	1 50	
Carrie Kleinheinz, berry picker	3 48	
Max W. King, catching insects	1 80	
Clarence King, catching insects	1 80	
Frank Lemon and team, teamster	65 55	
A. Lawrence, carpenter	544 70	
Tennyson Lathrop, laborer	3 80	
Joseph Link, laborer	75	
Geo. D. Little, herdsman	280 00	
Mrs. John Meyer, laundry work	21 45	
M. H. Meyer, helper	350 18	
Jas. G. Milward, assistant	485 00	
Jos. Matthews, teamster	477 38	
W. W. Mitchell, night fireman	33 75	
O. G. Malde, laborer	96 92	
Hugh Minnich, laborer	68 00	
John J. Meyers, teamster	62 60	
T. B. Miller, testing cheese	35 00	
Mrs. J. McGowan, charwoman	2 50	
L. A. Merritt, laborer	97 74	
Mrs. McCann, charwoman	10 01	
A. J. Meyers, assistant	56 45	
Geo. Moore, mailing posters	2 16	
Mary Manthie, addressing envelopes	4 35	
Winifred Meeker, stenographer	7 68	
Chas. McCabe, laborer	229 00	
Mautz Bros., painting	118 16	
T. F. McCramer, teamster	66 50	
Aug. Mutschman, laborer	223 83	
C. A. Nicolaus, milk tests	447 05	
I. H. Nosovitch, cleaning floor, helper	140 75	
Thos. O'Dair, laborer	6 00	
Nalvin Olson, laborer	41 48	
Geo. A. Olson, assistant feed inspection	30 00	
Arthur O. Oleson, laborer	20 16	
Kathryn Powers, stenographer	5 70	
R. H. Prien, printing cards	4 50	
I. A. Palmer, painter	106 75	
Edward Reynolds, teamster	8 00	
G. Rasmussen, painter	540 42	
Ethel Rice, mailing bulletins	24 19	
Bryant Ryall, supervisor dairy tests	302 53	
Walter Reif, berry picker	7 73	
Mrs. Roberts, charwoman	9 38	
Wilhelmine Redder, husking corn	56 22	
C. Rusten, laborer	6 40	
W. B. Richards, assistant	222 00	
A. J. Roycraft, helper	12 00	
A. L. Richardson, laborer	10 46	

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A. E. Swanson, night fireman	5 00	
Frank Stark, dairy tests	46 78	
Herman Steffen, delivery man	480 00	
Harvey Sandell, assistant and janitor	500 00	
Chas. Starke, laborer	70 00	
T. A. Semb, laborer	96 92	
E. G. Slaby, laborer	70 00	
Mrs. Anna Schmelzer, laundry work	35 85	
John G. Smith, farmer	373 85	
Jas. Skowlund, assistant	102 40	
W. H. Sanborn, assistant	124 00	
Chas. Sager, laborer	97 70	
F. C. Schroeder, supervising dairy tests	120 92	
Cena Troan, mail clerk and sten.	169 93	
N. O. Taylor, janitor	1 80	
Wm. Toole, janitor	37 00	
Valentine, assistant herdsman	25 00	
Wm. Verthein, pasteurizer	250 00	
Geo. Willett, assistant janitor and night fireman	512 98	
Wiedholz, assistant bookkeeper	3 00	
Frank Wrabetz, laborer	70 00	
R. Whitman, student janitor	160 00	
Chas. Woodburn, laborer	487 15	
Mark Wills, grubbing wood	43 00	
Chas. A. White, testing cheese	15 00	
Albert Wilber, extra labor	2 25	
W. W. Waite, janitor	20 00	
J. M. Wagner, dairy tests	153 63	
A. E. Wymann, teamster	236 02	
Aug. R. Wilskman, laborer	24 75	
		$20,791 80

Detail of Farm and Office Pay Roll, 1903–04.

AGRICULTURAL COLLEGE, 1903–1904.

Item, "Farm and Office Pay Roll, Clerks, Janitors, Laborers, etc.," $26,815.02.

DETAIL.

To whom paid and for what purpose.

Gaill Adams, orchard work	$5 98	
Ned Antom, labor	14 15	
Al. Anderson, farmer	314 80	
A. N. Anderson, labor	273 77	
Fred Ashman, night fireman	53 71	
I. M. Andrews, man and team	25 00	
Andrew Anderson, farmer	160 00	
Ida Bibbs, mailing clerk	354 71	
J. B. Bingham, labor	21 22	
H. Beckenstrater, labor	139 98	
Albert Borquist, janitor	37 69	
Anna Beyler, charwoman	38 13	
Alfred Berard, laborer	20 20	
C. L. Baldwin, labor	5 00	
Geo. Brohaugh, assistant	55 00	
Jas. Berry, labor	60 80	
C. A. Berard, labor	5 63	
A. J. Brabant, labor	5 60	
Patrick Barry and team, labor	285 40	
Fred Ballantyne, helper	34 82	
Lester Bacho, helper	9 31	
L. Backhaus and team, labor	79 05	
J. P. Bouzelst, supervisor	56 97	
L. L. Berry, labor	105 42	
Jas. Bilkey, labor	68 88	
G. H. Benkendorf, engineer	642 50	
Ive Bergstrum, helper	88 70	
E. C. Barney, carpenter	74 00	
John C. Brown, supervisor	30 50	
S. M. Briggs (Mrs.), librarian	466 33	
Mrs. Brenna, charwoman	3 75	
Fritz W. Ashman, day fireman	21 00	
Cobb, Mr., helper	14 25	
Tom Connors, labor	46 70	
James Cook, helper	15 00	
Daniel Cornelius, labor	19 88	
D. B. Charles, janitor	436 33	
W. L. Cockerill, supervisor	17 78	
Henry Cook, helper	10 50	
M. Charles, labor	144 67	
W. M. Charles, labor	4 65	
Mrs. O. Comstock, charwoman	11 25	
Gill Comstock	11 00	
Mrs. Margaret Church, charwoman	5 63	
Frank Crye, labor	4 80	
E. J. Delwiche, helper	79 41	
J. C. Dawdy, assistant	48 00	
L. Davies, supervisor and assistant dairy tests	194 01	
Gus Danielson, labor	223 80	
Peter Dukleth, farm dairy assistant	56 25	
Henry Douglas, helper	39 98	
Frank Dodd, labor	14 10	
Godlief Diebold, painter	6 00	

University of Wisconsin.

J. R. Danks, herdsman	65 00	
John Dodd, labor	44 92	
A. H. Dixon, teamster	96 20	
Olive Daniels, picking berries	18	
Henry Downing, labor	9 60	
C. H. Dresen, helper	177 50	
C. Daehenbach, labor	37 00	
R. Elliot, supervisor and assistant dairy tests	693 77	
A. C. Ellickson, assistant	100 00	
J. J. Emmerich, horse and buggy	5 00	
F. C. Elbert, helper	34 35	
W. C. Edwards, helper	1 88	
W. Ebert, night fireman	147 00	
Francis E. Ebert, assistant shepherd	97 50	
James A. Ford, supervisor, Dairy Farm	271 79	
W. H. Freund, cheese making	33 34	
J. G. Fuller, assistant shepherd	1 50	
G. A. Freeman, swine herdsman	201 44	
J. H. Godfrey, buttermaker	409 34	
Chas. Gallagher, assistant	268 20	
Aug. Guelzow, day fireman	69 00	
Mrs. Elsie Gaveruen, weeding	5 07	
L. Gafke, stenographer	561 33	
Mrs. James Gaynor, board	247 50	
Henry Gemra, labor	68 88	
Emil Greves, helper	16 90	
Fred Gawert, labor	530 40	
H. Gratz, teamster	31 50	
Alfred Goodell, labor	314 80	
Gaynor Blackstone Co., labor	43 75	
Miss A. Gundlach, laundry	23 11	
Mollie Gratz, orchard work	1 20	
Roy T. Harris, supervisor	686 98	
F. Hostak, labor	431 94	
O. J. Hauzlik, supervisor dairy farm	251 74	
A. Hanson, labor	29 75	
M. Haenig, labor	152 08	
Wilson Hill, labor	15 00	
Geo. Hutton, teamster	615 38	
John Hoffman, carpenter	615 46	
L. P. Haskins, assistant	474 28	
Ida Herfurth, clerk	826 54	
H. A. Hass, pasteurizer	185 00	
E. F. Homuth, labor	48 90	
Carl Hall, orchard work	4 60	
W. E. F. Harnes, labor	3 08	
Jas. Hutton, horseman	55 00	
H. B. Hainke, library assistant	58 95	
A. L. Hutchings, herdsman	275 76	
Harvey Hubbard, Com. work	1 25	
C. N. Holkins, separator assistant	33 34	
Miss E. Henwood, bookkeeper	562 30	
A. F. Homburg, labor	3 08	
Albert Hanson	4 00	
Geo. C. Humphrey, money advanced	41 40	
Mrs. F. L. Hoffman, washing	3 60	
C. C. Hometh, helper	5 00	
Humboldt Jugger	40 00	
John Jones, janitor	261 33	
E. R. Jones, assistant	11 00	
August Johns, laborer	20 25	
Frank Johnson, labor	25 19	
Ed. Johnson, helper	114 00	
J. D. Jarvis, labor	109 50	
Chas. Kruger	8 82	
Clarence King, labor	133 70	
M. King, labor	22 58	
Addie Kleinheinz, picking berries	60	
Monica Kleinheinz, labor	5 78	
Albert Kressin, day fireman	54 00	
Ralph King, orchard work	25	
F. Kleinheinz, shepherd	60 00	
E. G. Kavenaugh, labor	29 45	
Carrie Kleinheinz, picking berries	5 52	
E. Kessenich, mailing bulletins	177 44	
R. G. Logan, helper	65 06	

Detail of Farm and Office Pay Roll, 1903–04.

Edward Long, labor	203 41	
Frank Lemon, labor	209 20	
Margaret Lynch, copying	16 05	
Mrs. Mary Lemberger, charwoman	48 76	
Humboldt Lugger, assistant	20 50	
Joe Mathews, teamster	530 33	
W. E. Markey, assistant herdsman	66 50	
Martin Meyers, pasteurizer	510 38	
C. J. McComb, dairy herdsman	130 00	
O. G. Malde, labor	372 98	
John Meyer, sawing wood	16 85	
Howard Mercer, janitor	39 23	
Thos. McGovern, labor	9 50	
Chas. L. Miller, helper	23 78	
Jas. Milward, assistant	234 72	
A. L. Mercer, day fireman	60 00	
Sadie Mills, typewriting	134 84	
W. W. Mitchell, helper	54 40	
G. W. Mortimer, helper	102 83	
Axle Martinson, labor	220 20	
J. G. Moore, milk test	66 68	
J. W. Moore, cheese making	33 34	
Fred Marty, cheese making	66 68	
Terance McCann, labor	52 40	
Mrs. E. McCann, charwoman	11 25	
Wm. Mifka, labor	61 09	
Dennis McCarthy, labor and team	68 80	
Mrs. John Meyer, laundry	10 37	
Martin Myklebust, labor	48 50	
A. J. Meyer, labor	10 00	
G. E. Morton, assistant	93 90	
Frank Miller, labor	130 00	
Ole Martinson, labor	228 29	
Wm. McKenna, berry pickers	4 03	
H. Minnich, labor	226 95	
I. H. Nosovitch, helper	232 30	
Ole Nelson, night watch	106 50	
Martin Nelson, assistant	4 25	
A. Olive, assistant	75 00	
Geo. A. Olson, supervisor	25 87	
Herman Oran, labor and janitor	262 03	
C. L. Perry, day fireman	45 00	
Dr. H. E. Petten, assistant, marsh soil	150 00	
J. A. Pynch, library attendant	107 93	
Peter Peterson, labor	19 50	
Patrick Powers, labor	76 40	
I. A. Palmer, painter	26 71	
Geo. Peterson, labor	323 79	
S. L. Pratt, labor	70 69	
Carl Rief, orchard work	5 21	
Mrs. W. Reddlers, husking	64 74	
G. Rasmussen, labor	11 25	
Anna Reddles, charwoman	19 38	
W. B. Richards, assistant	25 72	
Miss Lilian Roulette, weeding	4 88	
Bryant Ryall, supervisor	449 21	
Walter Riley, orchard work	5 50	
Miss Jennie Roulette, weeding	3 38	
Smith Roulette, labor	35 80	
Walter Reif, labor	28 14	
B. N. Robinson, addressing envelopes	9 53	
Mrs. E. Ryan, charwoman	82 51	
Mrs. Smith Roulette, board	110 42	
Joe Schuyler, labor	13 43	
E. G. Slaby, labor	230 57	
Louis Summat, labor	5 25	
M. Smeltzer, picking berries	17	
Anna Schmelzer, washing	31 40	
Mrs. Etta Steele, charwoman	5 63	
Nick Schmitz, picking berries	1 65	
Eli Swamp, labor	3 43	
Elias Skenandore, labor	19 88	
Jas. Skenandore, labor	19 88	
Alfred Sandell, labor	4 30	
Chas. Starker, labor	230 57	
Anderson Skenandore, labor	34 00	

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T. A. Sembe, labor	230 57	
Frank Stork, supervisor dairy tests	196 82	
Abram Skenandore, labor	24 38	
David Skenandore, labor	15 50	
A. L. Stone, assistant	90 00	
Wilson Skenandore, labor	8 00	
Harvey Sandell, assistant	540 38	
Taylor Smith, labor	54 41	
Herman Steffen, delivery man	526 33	
L. Schrader, milker	5 29	
G. O. Thompson, labor	67 59	
Frank Tetzlaff, helper	8 00	
J. Theobald, labor	5 25	
E. C. Townsend, farm dairy assistant	31 25	
Cena Troan, stenographer	116 03	
Wm. Uahmais, labor	19 88	
R. I. Vandercook, labor	1 15	
Albert Vogel, foreman	104 12	
Fred Wilhelm, picking berries	2 09	
A. Wermuth, teamster	90 00	
Chas. Woodburn, foreman	580 38	
Mr. S. N. Whittlesey, horse, board, etc.	99 00	
John Wachter, carpenter	11 25	
Geo. Willot, assistant	148 50	
Frank Wrabetz, labor	230 57	
A. Wiedholz, janitor	25 00	
Chas. Wescott, horse	3 00	
R. Whitman, janitor	20 00	
Harry Whittlesey, labor	14 00	
Frank Welke, farm dairy assistant	15 00	
Mrs. S. N. Whittlesey, board	20 00	
Eugene Warner, sanding	237 66	
Frank Yates, day fireman	41 85	
A. Ystand, supervisor	34 00	
		$26,815 02

Detail of University Pay Roll, 1902–03.

UNIVERSITY PAY ROLL, 1902–1903.

$37,021.58.

DETAIL.

To whom paid and for what purpose.

Mabel Ashard, bell girl	$149 38	.....
G. A. Anderson, student machinist	14 79	.....
Mary Antony, charwoman	60 00	.....
Mrs. Altzheimer, charwoman	41 25	.....
J. C. Babcock, janitor	600 00	.....
Geo. H. Bailey, laborer	19 05	.....
Leslie Burd, chief clerk	1,100 00	.....
Wm. J. Bertke, student machinist	48 50	.....
Mary Best, charwoman	4 38	.....
L. C. Burke, sorting cards	6 80	.....
Ida Brown, charwoman	52 51	.....
Ida M. Burgess, bell girl	32 00	.....
Mrs. Brenan, charwoman	13 75	.....
J. W. Belling, cleaning shop	2 25	.....
Mrs. Roemer, charwoman	2 50	.....
E. Buehler, arranging card catalog, zool. dept.	10 00	.....
J. P. Butler, janitor	38 08	.....
Henry Beglinger, laborer	25 20	.....
Belle Boucher, charwoman	38 75	.....
John Bauhs, drayman	490 00	.....
Richard Burchell, laborer	13 20	.....
James C. Ball, laborer	41 85	.....
John Boltz, janitor	500 00	.....
O. H. Baldwin, proof reading catalog	51 75	.....
H. E. C. Brandt, assistant Dean Turneaure	12 30	.....
L. Backhaus, team work	19 80	.....
L. P. Biehle, laborer	53 55	.....
Jennie Brown, charwoman	8 13	.....
John E. Coyle, laborer	46 20	.....
John Conohan, janitor	600 00	.....
W. A. Chapman, clerk Law School	16 66	.....
H. Carthew, student examining papers	5 00	.....
H. L. Cook, student janitor	9 60	.....
Mary Caffrey, charwoman	19 38	.....
Sarah Conners, charwoman	6 25	.....
Harold J. Cook, page at library	52 50	.....
S. W. Cheney, student machinist	4 80	.....
Anna Curtain, charwoman	17 50	.....
Chas. Coyne, carpenter	72 50	.....
J. N. Cadby, labor	79 10	.....
Frank Chech, steam fitter	445 50	.....
Mrs. Conohan, charwoman	3 75	.....
Esther R. Concklin, student assistant, C. H.	20 00	.....
Henry A. Cook, collecting insects	3 40	.....
Guy W. Crane, student help, library	70 05	.....
Maggie Connors, charwoman	17 50	.....
Wm. Crowley, fireman	375 00	.....
P. Conner, fireman	135 00	.....
A. R. Crathorne, care lantern	88 00	.....
Mary Davey, charwoman	20 00	.....
Florence Daggett, stenographer	540 00	.....
John Doescher, janitor	600 00	.....
Catherine Daggett, charwoman	24 38	.....
Minnie Daniels, charwoman	22 50	.....
Hugo Dohr, carpenter	627 25	.....
G. Diebold, laborer	34 05	.....

University of Wisconsin.

Minnie Eschenbach, stenographer	341 75	
H. M. Esterly, drafting	180 89	
E. A. Ekens, draughtsman	3 00	
Thos. Ellis, engineer	835 00	
Mrs. Field, charwoman	2 50	
H. C. Fish, assisting registrar	16 90	
Lizzie Ferley, charwoman	58 75	
Alice Fay, charwoman	13 34	
Samuel Gyles, carpenter	622 37	
R. G. Griswold, assistant Dean Turneaure	9 90	
Arlene Grover, stenographer	300 00	
W. Godding, laborer	9 45	
Daniel Green, carpenter	192 50	
E. S. Gillespie, laborer	43 05	
Mary A. A. Glen, stenographer and clerk	720 00	
Kate Healy, charwoman	5 63	
G. O. Haugen, student clerk, law	183 34	
Josie Hanson, bell girl	8 00	
H. M. Hobbins, student examining papers	5 00	
William Hammersly, caretaker Camp Randall	480 00	
John Hickey, janitor	600 00	
Ray L. Hankinson, student machinist	33 52	
R. J. Holden, student janitor	3 00	
F. Horstman, assistant mechanician	154 00	
Mrs. Henzen, charwoman	5 00	
Mrs. Hinzie, charwoman	1 25	
H. C. Hockett, stenographer	317 46	
F. R. Hiestand, addressing S. S. circulars	29 60	
H. P. Howland, student janitor	138 20	
F. Hinze, laborer	12 15	
W. Haynes, laborer	119 63	
Val. F. Herrlein, laborer	254 31	
E. T. Hancock, geol. work	4 75	
C. H. Hoiby, carpenter	495 75	
R. S. Hoyt, student machinist	52 05	
Mrs. Emma Harrington, charwoman	22 50	
J. D. Jarvis, cleaning arms, etc.	17 80	
W. B. Jayne, janitor, physics dept.	39 20	
M. E. Jahr, laborer	29 40	
Grace Koch, bell girl	8 00	
J. Kempf, laborer	41 40	
Geo. R. Keachie, student machinist	11 63	
W. Kunerth, student janitor	74 80	
Jennie Knudson, charwoman	1 25	
Otto F. Karberg, tool room and labor	251 52	
Joseph C. Link, laborer	348 06	
Wm. Lamphere, fireman	210 00	
W. A. Lee, clerk, gymnasium	200 00	
T. Lathrop, laborer	20 60	
F. W. Lucas, student, examining papers	5 00	
L. H. Lathrop, student carpenter	43 75	
Anna Lenz, charwoman	20 00	
S. J. Lisberger, student machinist	22 40	
George Leonard, messenger	213 00	
Walter Leonard, janitor	475 00	
F. B. Laney, student janitor	27 00	
Mary Lemberger, charwoman	22 50	
Geo. R. Livermore, draughting for architect	10 75	
Norman Lee, student mech.	9 00	
H. K. Leonard, student, janitor	94 73	
Mary McCann, charwoman	27 50	
Sarah H. Miner, alphabetizing	12 00	
F. W. MacKenzie, student assistant, library	60 95	
A. O. Mosher, student machinist	4 00	
E. Mahoney, charwoman	87 63	
Nellie Marx, charwoman	13 75	
R. B. McConnell, teamster	480 00	
Roy Musser, messenger	87 00	
Tillie Marks, charwoman	17 50	
W. F. Marx, blacksmith	480 00	
Wm. Marquette, student assistant, Bi. Lab.	10 00	
Walter H. McIntosh, carpenter	221 18	
Amelia Murphy, charwoman	21 25	
Paul Moseley, janitor	32 30	
J. E. McCarthy, engineer	775 00	
F. C. Marvin, student machinist	50 10	

Detail of University Pay Roll, 1902–03.

H. L. McDonald, student machinist	6 30	
The Mueller Co., steam fitting	102 00	
Ernst Morschhauser, janitor	540 00	
Willis Morse, janitor	600 00	
Geo. B. Merrick, accountant	900 00	
Irving Mutchler, chief carpenter	900 00	
Mautz Bros., painting grand stand	9 80	
Edward L. Miles laborer	366 40	
F. M. Cramer, charwoman	17 20	
M. McGowan, charwoman	23 75	
Magnus Nelson, elevator man	500 00	
H. B. North, pharmacy store keeper	135 00	
Michael Nolan, night watch	540 00	
Gertrude B. Nutting, alphabetizing	10 00	
Kate Nolan, charwoman	89 50	
Elizabeth V. O'Laughlin, night watch, Ladies' Hall	298 00	
Thos. O'Dair, laborer, farm	15 50	
Nellie O'Brien, charwoman	12 50	
W. E. Okey, janitor	75 00	
Frank C. Parker, student janitor and machinist	124 47	
Clarence H. Pratt, student machinist	125 30	
E. Pope, laborer	26 35	
Geo. A. Perham, student janitor Geol.	128 00	
L. Patten, student laborer	1 60	
M. Peck, laborer	9 75	
I. A. Palmer, painter	8 75	
Wm. Post, janitor	660 00	
L. Purcell, electrician	88 50	
Mary E. Pickarts, music ladies' hall	320 00	
J. J. Quan, janitor	600 00	
D. B. Richardson, student janitor	5 40	
Mabel Randolph, stenographer and asst., School of Com.	900 00	
V. Ross, janitor	35 00	
L. D. Rowell, student machinist	8 25	
J. H. Rider, janitor	600 00	
Mrs. Rasmussen, charwoman	21 25	
A. M. Russell, janitor	1 00	
Lucy Reese, chamber maid	268 30	
H. C. Russell, janitor	234 44	
Carl Rodlund, carpenter	680 75	
G. Rasmussen, painter	22 50	
M. H. Robinson, cleaning arms	18 95	
Henry C. Rowan, clerk, Moot Court	25 00	
Edward Reynolds, farm laborer	33 00	
Mrs. J. Ryan, charwoman	18 75	
M. Roberts, charwoman	18 75	
M. Roemer, charwoman	14 40	
S. E. Sandberg, steam fittter	767 00	
John Stock, elect. mech.	353 07	
E. E. Sater, carpenter	66 39	
Theresa Shadauer, charwoman	6 25	
G. Schmelzer, foreman grounds	740 00	
Ben. Schmelzer, laborer	3 73	
F. A. St. Sure, student janitor	13 00	
Lottie Swain, charwoman	7 50	
F. Schumm, laborer	71 43	
Etta Steel, charwoman	36 88	
G. A. Scott, repairing apparatus	7 30	
Fannie G. Sanford, stenographer	690 00	
Lizzie Schmidt, charwoman	17 50	
Walter Stock, machinist	445 00	
Wm. M. Small, janitor	420 00	
A. W. Steffen, janitor	420 00	
Katherine Spencer, stenographer	540 00	
M. Starr, laborer	33 60	
Violet Slack, herbarium work	310 78	
F. N. Siegel, student machinist	11 90	
Rena S. Sprague, bell girl C. H.	18 08	
George Scherer, laborer	77 85	
Joseph Starr, messenger, president's office	107 50	
Mrs. May Steel, charwoman	3 13	
Matilda L. Snyder, clerk and typewriting	302 28	
G. M. Simmons, student machinist	63 60	
A. T. Stewart, student machinist	19 73	
C. Stringer, student machinist	2 47	
J. R. Townsend, student machinist	69 12	

University of Wisconsin.

Mary Towers, charwoman	17 50	.....
Mrs. Thompson, charwoman	2 50	.....
Mrs. Tauchen, charwoman	3 75	.....
Andrew Thompson, electrician	840 00	.....
Wm. Urban, student janitor	44 80	.....
Jessie Upfield, stenographer	600 00	.....
R. J. Usher, assistant, library	206 95	.....
W. A. Vivian, student janitor	12 00	.....
Nettie Vetter, bell girl	78 04	.....
H. I. Ward, student electrician	1 20	.....
H. C. Wolff, lantern work	10 50	.....
George Westbury, page at Library	102 00	.....
L. Woolevert, laborer	14 05	.....
Geo. Williams, student help at library	24 88	.....
Wm. Walker, engineer	584 58	.....
Anna Weise, charwoman	17 50	.....
E. Whitney, messenger	2 00	.....
Saml. Wilkie, fireman	196 50	.....
A. G. Worthing, clerk Obs.	186 00	.....
O. B. Zimmerman, machinist	42 50	.....
Mrs. W. Carroll, charwoman	12 50	.....
		$37,021 58

Detail of University Pay Roll, 1903–04.

UNIVERSITY PAY ROLL, 1903–1904.

$47,620.83.

DETAIL.

To whom paid and for what purpose.

B. F. Anger, exposition work	$76 62	
Harry C. Alford, draughtsman	242 24	
Mary Antony, charwoman	53 76	
Clara Alsheimer, charwoman	85 65	
W. Armstrong, laborer	69 47	
Miss Alsheimer, charwoman	2 50	
W. B. Anderson, student helper	19 55	
R. C. Allen, janitor	9 40	
H. Alligan, laborer	43 95	
T. Alligan, laborer	16 75	
A. G. Allen, labor on models	2 50	
L. Backhaus, teamster, with team	83 27	
O. Beglinger, laborer	41 31	
John Bauhs, drayman	565 00	
Chester Brown, fireman	136 30	
Vivian F. Brown, messenger	72 00	
Kate Beyler, night watch Chadbourne Hall and charwoman	272 50	
John C. Babcock, janitor	600 00	
John Bolzt, janitor	540 00	
Ida Brown, charwoman	28 75	
Anna Beyler, charwoman	42 49	
Kate Brennan, charwoman	80 65	
Alfred Butler, janitor	175 00	
E. W. Breitkreutz, student machinist and clerk	23 50	
J. C. Ball, laborer	100 42	
Mary Brown, charwoman	28 13	
Minnie Burke, charwoman	5 00	
Wm. Burmeister, laborer	66 98	
L. D. Burling, stenographer	36 10	
Wm. Bergen, messenger	10 00	
O. H. Baldwin, catalogue and monitor work	98 65	
W. J. Benedict, draughting	65 50	
J. E. Boynton, exp'n work	53 40	
E. S. Burnett, student machinist	93 20	
Arthur Boggess, assistant to registrar	3 20	
Hugo E. Brandt, student assistant	10 40	
Leslie Burd, chief clerk	122 21	
Ella Barton, addressing envelopes	3 20	
L. P. Biehle, carpenter	108 53	
Emma Bolzt, charwoman	13 75	
Maggie Beyler, charwoman	7 50	
Chas. Bovet, laborer	11 25	
Ida Baumgarth, stenographer Registrar's Office	10 00	
John Boyle, labor	21 00	
James Barry, laborer	17 50	
Josephine Beyler, charwoman	3 13	
Chas. O. Coyne, carpenter	730 23	
Frank Cheeh, steam fitter	281 52	
G. W. Crane, student helper, library	198 55	
A. R. Crathorne, care of lantern	96 00	
M. H. Crissy, stenographic work	229 08	
Ray W. Clark, student clerk, law	140 08	
Carolyn M. Comstock, president's secretary	179 50	
A. E. Carpenter, counter clerk	237 50	
John E. Conohan, janitor	600 00	
E. G. Cole, assistant to registrar	28 70	

University of Wisconsin.

Fred A. Chamberlain, assistant to electrician	313 53	
Frank Casserly, laborer	124 70	
Anna Curtin, charwoman	2 50	
Mrs. Conohan, charwoman	2 50	
Bert Cramton, messenger	29 25	
Wm. Crowley, fireman	45 00	
Geo. G. Curtis, student asst. Law	50 00	
W. Carroll, charwoman	3 12	
Maggie Church, charwoman	16 25	
A. H. Christman, janitor greenhouse Sci. Hall	31 00	
B. Comb, laborer	4 90	
Mary Caffrey, charwoman	19 37	
B. Dressler, machinist	325 16	
W. Diebold, teamster	126 00	
John Dresen, laborer and janitor	308 36	
Hugo Dohr, carpenter	745 18	
John Doescher, janitor and bell line	600 00	
G. A. Diestler, student janitor	3 75	
Godliep Diebold, carpenter	223 08	
A. L. Drury, addressing envelopes	4 50	
Catherine Daggett, charwoman	16 25	
Mary Davy, charwoman	13 75	
H. L. Dessert, student, labor	12 20	
Ed. Daggett, painter	9 00	
Minnie Daniels, charwoman	22 50	
Florence Daggett, stenographer	135 00	
T. Dempsey, laborer	1 75	
Thos. Ellis, engineer	840 00	
Minnie Eschenbach, stenographer	332 00	
Isaac Elliott, student janitor	111 20	
V. Esser, laborer	33 40	
Otto Foss, fireman	87 80	
Roy Fitch, messenger and labor	173 55	
Alice Fay, substitute bell girl	48 00	
Hugo T. Fischer, janitor	106 00	
Philip Fosdick, fireman	330 62	
Louena Findorff, assistant to registrar	135 00	
Wm. Faber, mason	151 15	
Kate Fuss, charwoman	12 50	
Lizzie Fuss, charwoman	8 75	
Charles Foss, laborer	45 28	
A. E. Foye, engineer	120 00	
Jane Fries, bell girl	8 00	
Theresa Felber, charwoman	11 63	
T. P. Fahey, laborer	70 97	
Mary Fitzpatrick, stenographic work	11 25	
Alex. Friedrich, clerk	15 00	
Henry Gemry, painter	120 90	
W. H. Godding, mason	652 13	
Samuel Gyles, carpenter	588 23	
Mary A. Glen, stenographer and clerk	720 00	
John Gaffney, janitor	243 46	
H. A. Grann, carpenter	258 44	
C. Gallagher, laborer	17 68	
John Gunzelmann, laborer	19 00	
H. P. Gratz, laborer	15 40	
Alice M. Gray, secretary to president	60 83	
R. G. Griswold, student assistant	10 59	
Arlene Grover, stenographer	75 00	
W. A. Hetherington, helper at forge	91 11	
Wm. Hammersley, care of Camp Randall	527 92	
V. Herrleln, laborer	545 97	
Fred Holstman, mechanician	777 35	
W. R. Harvey, student asst. in library	13 10	
S. H. Hunt, bill and filing clerk	526 54	
John J. Haak, laborer	434 40	
John Hickey, janitor	600 00	
W. H. Hansen, laborer	2 00	
E. T. Hancock, janitor	6 75	
Fred Hinze, laborer	3 85	
R. L. Hankinson, student machinist	32 94	
R. S. Hoyt, student machinist	98 92	
Kjarban Hansen, mason	112 80	
Emma Harrington, charwoman	23 12	
John Hart, laborer	4 55	
Jas. Haney, laborer	7 00	

Detail of University Pay Roll, 1903–04.

R. Y. Holden, surveying	1 50	
Thos. Holt, addressing envelopes	10 80	
M. P. Hackett, fireman	4 60	
Esther Hall, exposition work	5 22	
V. R. Holt, draughtsman	84 00	
Wm. Haynes, laborer	119 43	
R. H. Hoyt, carpenter	45 32	
W. H. Hering, fireman	10 00	
H. P. Howland, draughting	6 30	
H. C. Hockett, student stenographer	59 58	
G. O. Haugen, student clerk	16 66	
Fred R. Hunt, assistant to registrar	2 80	
J. G. Hayden, assistant to registrar	4 00	
H. C. Hopson, janitor physics department	4 00	
Mrs. John Haak, charwoman	2 50	
Sada M. Jordan, exposition work	56 70	
John Jones, janitor	300 00	
J. D. Jarvis, cleaning rifles, etc.	29 30	
W. B. Jane, janitor	22 26	
M. Jahr, student laborer	18 00	
W. Jones, laborer	83	
Henry Koffshinsky, fireman	68 58	
William Kunerth, student janitor	91 00	
L. A. Kalverstraw, natatorium caretaker	25 30	
J. A. Kelly, laborer	114 88	
A. J. Kohn, student cleaner	4 87	
Wm. Keyes, hauling gravel	1 00	
Phoebe Kohlhepp, charwoman	36 26	
W. Kessler, laborer	60 28	
D. H. Keyes, blue printing	6 37	
E. Kearney, student machinist	2 40	
J. Kelly, laborer	17 50	
G. E. King, student clerk	10 75	
V. P. Kaub, laborer	14 17	
James Lynch, care of pumps	163 22	
A. J. Lettow, laborer	247 72	
Walter Lyford, laborer and electrician	257 96	
R. W. Lathrop, steam fitter	103 89	
Wm. Lamphere, laborer and fireman	440 94	
Walter T. Leonard, janitor	480 00	
L. H. Lathrop, carpenter and electrician	335 63	
F. Leverentz, carpenter	66 64	
Mary Lemberger, charwoman	43 75	
John Linderstrom, mason water works	29 33	
Jos. Link, janitor	98 30	
Mrs. Wm. Link, charwoman	1 25	
C. M. Larson, surveying	8 00	
Timothy Lyons, blue printing	2 10	
Geo. Livermore, draughtsman	18 00	
Selma Langehan, stenographic work	22 00	
Frank W. Lucas, monitor work	5 25	
George Leonard, messenger	78 00	
Anna Lenz, charwoman	13 75	
L. Lathrop, changing locker combinations	16 50	
W. A. Lee, anthropometric clerk	20 00	
J. J. Long, carpenter	22 40	
G. M. Link, painting boat	5 00	
R. B. McConnell, teamster	367 40	
Henry Melentin, electrician	78 96	
Wm. Moehlman, carpenter	246 68	
Louis Moehlman, carpenter	246 96	
Irving Mutchler, chief carpenter	973 69	
Edward L. Miles, steam fitter	520 00	
Emma H. Maynard, stenographer	150 00	
George B. Merrick, accountant	991 67	
Ernst Morschhauser, janitor	540 00	
Willis Morse, janitor	600 00	
F. W. MacKenzie, student stenographer	131 25	
W. F. Marx, helper forge room	299 50	
J. E. McCarthy, engineer	585 00	
Elizabeth Mahoney, charwoman	111 50	
S. R. Millman, student assistant	3 15	
Thos. Moran, laborer	67 19	
Michael Moran, laborer	68 94	
Adolph Mueller, laborer	14 17	
Mrs. J. Murphy, charwoman	3 75	

University of Wisconsin.

James Maloney, teamster with team	32 40	
Mrs. H. McGowan, charwoman	3 75	
Anna L. Moore, typewriting	51 65	
C. McMullen, repairing pump	1 00	
K. H. Macumber, exposition work	10 80	
James McManus, carpenter	9 60	
W. H. McIntosh, carpenter	118 84	
E. A. Moritz, student contour work	3 40	
Flora McCramer, charwoman	10 00	
Tillie Marks, charwoman	21 25	
Emelia Murphy, charwoman	25 00	
Mary McCann, charwoman	15 00	
H. L. McDonald, student contour work	2 10	
A. G. McCreary, machinist	19 50	
Wm. McKenna, laborer	15 00	
W. D. Mifka, laborer	23 10	
Harry Miles, laborer	44 45	
John J. Meyer, sprinkling	3 00	
Donald MacArthur, student machinist	175 40	
Susie P. Nichols, herbarium asst.	360 00	
M. Nolan, night watchman	540 00	
H. B. North, pharmacy storekeeper	175 00	
Kate Nalon, charwoman	114 25	
W. O. Naset, blue printing	2 80	
Gertrude B. Nutting, special work	8 10	
Gustave Neuberg, student clerk Law	33 36	
M. Nelson, elevator man	30 00	
Jennie Olsen, work on model	65 25	
R. C. Oaks, student machinist	33 67	
John O'Keefe, laborer	21 00	
C. E. Pape, carpenter	469 84	
L. M. Post, mechanician	715 90	
A. J. Powers, tool room boy	242 45	
Wm. Post, janitor	660 00	
C. H. Pratt, student machinist	95 72	
Frank Parker, cleaning	69 83	
W. Post, laborer	6 31	
Lee Patten, laborer	3 50	
Ruby E. Peck, stenographic work	2 25	
J. Pieh, laborer and team	2 00	
J. J. Quan, janitor	600 00	
Gabriel Rasmussen, painter	765 74	
Carl Rodlund, carpenter	687 55	
Jesse Russell, fireman	505 47	
Mabel Randolph, stenographer and assistant	900 00	
Lucy Reese, chambermaid	223 12	
J. H. Rider, janitor	600 00	
Emma Ryan, charwoman	33 75	
Mary Ruttgers, charwoman	7 50	
W. J. Rowley, student machinist	17 60	
F. B. Rowley, student machinist	23 40	
Gilbert E. Ryder, addressing envelopes	6 80	
E. F. Riley, team work	30 00	
V. H. Reineking, cleaning instruments	3 00	
H. Russell, janitor	20 00	
J. Ryder, student laborer	40	
Mollie Rommelfanger, charwoman	7 50	
O. Row, carpenter	5 43	
Will Spalding, student assistant	120 05	
A. T. Stewart, student draughtsman	27 48	
Frank Schumm, laborer	124 43	
John Schmelzer, laborer	11 38	
G. Schmelzer, foreman grounds	780 00	
August Schlaak, carpenter	41 16	
Halvor Sale, carpenter	444 92	
S. E. Sandberg, steam fitter	780 00	
Chas. Schott, fireman	111 75	
Edward N. Strait, student assistant	71 71	
Fannie G. Sanford, stenographer and clerk	600 00	
Tillie L. Snyder, record work	277 58	
Katherine Spencer	595 00	
W. M. Small, janitor	475 00	
A. W. Steffen, janitor	469 61	
Lottie Schnell, assistant to registrar	59 69	
Mrs. F. C. Smith, charwoman	63	
Henry H. Severin, collecting bugs	5 70	

Detail of University Pay Roll, 1903–04.

C. O. Squabeck, carpenter	41 75	
Helen L. Sumner, stenographer and assistant	150 00	
E. E. Sater, electrician	4 50	
Thos. Stabilo, mason	16 20	
Etta Steel, charwoman	30 00	
H. Scheibel, laborer	51 43	
Louis C. Sears, mailing catalogues	2 90	
A. Schmitt, janitor	17 45	
Lottie Swain, charwoman	17 50	
Mrs. Elizabeth Scheibel, charwoman	6 25	
Bernard Schmelzer, laborer	32 85	
F. J. Schurz, blacksmith helper	60 00	
Anna Schmidt, charwoman	12 50	
Clara Springmann, charwoman	20 00	
Joseph Starr, messenger	15 00	
Violet Slack, herbarium work	40 00	
R. G. Sears, assistant registrar	2 15	
Bernice Stephenson, charwoman	1 13	
A. J. Smith, student machinist	43 00	
G. M. Simmons, student asst.	85 95	
O. R. Smith, assistant registrar	23 10	
Andrew O. Thompson, electrician	831 92	
Florence Turneaure, stenographer	328 50	
Violet S. Timberlake, asst. registrar's office	339 00	
A. T. Twesme, caretaker natatorium	22 20	
Antonia Tauchen, charwoman	6 25	
R. J. Usher, student helper	102 20	
Wm. Urban, student janitor	61 70	
Jessie Upfield, stenographic work	100 00	
Nettie Vetter, bell girl	191 37	
V. Valanti, laborer	1 23	
T. Valanti, laborer	5 25	
R. G. Walter, work on model	90 15	
E. B. Westcott, work on model	369 52	
Roscoe Whitman, janitor	94 90	
Julia M. Wilkinson, stenographer	425 00	
George Willett, janitor	320 00	
A. B. Whitney, student janitor	52 26	
H. S. Wildermuth, fireman	230 15	
Henry C. Wolff, assistant registrar	8 00	
George Westbury, page at library	177 00	
Frances Wadsworth, president's secretary	203 33	
Harry Wulfing, carpenter	47 35	
L. B. Woolever, laborer	33 08	
John Wehrle, laborer	5 08	
L. D. Wallace, laborer	5 33	
N. H. Wetzler, cleaning instruments	2 00	
M. A. Whiting, student machinist	30 15	
Ole Wigdahl, fireman	$103 23	
Anna Wiese, charwoman	13 75	
Edward Whitney, messenger	2 25	
H. F. Whelan, teamster	4 00	
George A. Works, janitor	23 40	
F. A. Whiting, machinist	18 97	
A. G. Worthing, student clerk	25 20	
		$47,620 88

University of Wisconsin.

AGRICULTURAL INSTITUTES, 1902–1903.

$5,145.00

DETAIL.

To whom paid and for what purpose.

Mrs. Helen Armstrong, cooking teacher	$165 00	.....
Alex. A. Arnold, beef and swine expert	80 00	.....
E. L. Aderhold, dairy expert	20 00	.....
W. C. Bradley, assistant	280 00	.....
Thos. Convey, dairy expert	255 00	.....
Miss Effie M. Close, report of cooking school	25 00	.....
R. J. Coe, conductor	260 00	.....
H. M. Culbertson, conductor	260 00	.....
Florence J. Daggett, report of cooking school	25 00	.....
D. B. Foster, dairy expert	160 00	.....
Jas. Fisher, swine expert	85 00	.....
N. E. France, bee expert and fruit	80 00	.....
C. P. Goodrich, dairy expert	255 00	.....
Nellie E. Griffiths, clerk and stenographer	600 00	.....
Mrs. Adda F. Howie, dairy expert	195 00	.....
Geo. C. Hill, assistant	225 00	.....
David Imrie, assistant	205 00	.....
Mrs. Jennie A. Jamison, cooking teacher	35 00	.....
John Jones, janitor	60 00	.....
Mrs. Nellie K. Jones, domestic science, lecture	25 00	.....
Mrs. A. L. Kelly, reporter	120 00	.....
Geo. B. McGilvra, general farming expert	35 00	.....
L. P. Martiny, horse, dairy and swine expert	65 00	.....
C. E. Matteson, poultry expert	205 00	.....
Miss F. O. Norton, reporter	100 00	.....
E. Nordman, assistant	170 00	.....
R. E. Roberts, sheep and swine expert	205 00	.....
F. H. Scribner, conductor	260 00	.....
L. E. Scott, assistant	280 00	.....
W. F. Stiles, assistant	205 00	.....
Delbert Utter, assistant	205 00	.....
		$5,145 00

Detail of Agricultural Institute Pay Roll, 1903–04.

AGRICULTURAL INSTITUTES, 1903–1904.

$5,293.09.

DETAIL.

To whom paid and for what purpose.

E. L. Aderhold, butter and cheese	$165 00	.....
A. S. Alexander, diseases	20 00	.....
Alex. A. Arnold, beef and swine	137 50	.....
W. C. Bradley, conductor	280 00	.....
Mrs. J. W. Bates, domestic science	50 00	.....
Thos. Convey, dairy and poultry	150 00	.....
R. J. Coe, conductor	150 00	.....
David Charles, janitor	30 00	.....
H. M. Culbertson, expert dairy	230 00	.....
D. B. Foster, assistant	200 00	.....
N. E. France, bees and fruit	60 00	.....
C. P. Goodrich, dairy and poultry	250 00	.....
Nellie E. Griffiths, stenographer and clerk	590 30	.....
John L. Herbst, fruits and poultry	105 00	.....
Geo. C. Hill, assistant	225 00	.....
Mrs. Addie F. Howie, dairy and poultry	186 25	.....
Frank Hall, education	20 00	.....
David Imrie, assistant	205 00	.....
E. C. Jacobs, expert dairy	85 00	.....
John Jones, janitor	29 04	.....
Mrs. A. L. Kelly, Sten.	135 00	.....
C. E. Matteson, poultry and fruit	185 00	.....
L. P. Martiny, assistant	220 00	.....
E. Nordman, dairy and sheep	205 00	.....
R. E. Roberts, sheep and swine	120 00	.....
F. Scribner, assistant	280 00	.....
Adella Sater, cooking teacher	150 00	.....
W. F. Stiles, assistant	110 00	.....
L. E. Scott, conductor	260 00	.....
H. C. Taylor, expert dairy	25 00	.....
Delbert Utter, assistant	185 00	.....
Geo. Wylie, conductor	250 00	.....
		$5,293 09

University of Wisconsin.

AGRICULTURAL COLLEGE,

$36,026.81.

Detail of Milk Pay Roll for the Year 1902–1903.

Wm. Albers	$73 71	
John Albrecht, Jr.	436 33	
C. Austin, hauling	2,001 21	
Chas. Albrecht	61 77	
R. S. Arthur	10 58	
Thos. S. Arthur	45 07	
Carl Bakken	163 86	
Michael Bilse	135 60	
D. Bryne	59 14	
P. W. Brown	105 91	
Frank Bryant	159 62	
Chas. Buss	709 24	
Seth Bartlett	550 25	
Judson Blizzard	201 33	
Edward Backus	104 84	
L. D. Bryant	108 35	
Wm. Behnke	45 10	
Fred Behnke	69 67	
Wm. Backus	121 89	
Henry Brandt	28 23	
W. L. Carlyle	1,620 60	
J. P. Comstock	77 63	
Thos. Curwen	155 61	
Wm. Collins	225 83	
John Conlin	178 53	
W. R. Clarke	26 05	
M. H. Conlin	23 53	
Peter Comstock	22 12	
Henry Dinkler	246 56	
Peter Delmar	34 68	
J. L. Davidson	243 23	
Wm. Dais	47 28	
C. J. Dodge	12 70	
Carl Dreger	246 43	
Chas. Easerman	220 12	
Frank Fromming	424 42	
Gus. Fisher	284 68	
Chas. H. Farr	128 69	
Peter Fergen	175 46	
Geo. Farr	3 15	
Gus. Farr	5 30	
Mrs. S. H. Farley	11 50	
R. D. Gallagher	59 78	
Richard Gallagher	200 16	
Robert F. Gallagher, hauling	395 46	
Wm. Genske	121 76	
H. H. Gay	7 92	
R. Grabbiet	440 69	
Wm. H. Gallagher	237 38	
E. L .Gallagher	101 07	
G. F. Good	247 92	
S. E. Good	141 98	
W. Good	82 54	
W. Gilbert	147 31	
Fred Genske	46 76	
Wm. Gugel	216 45	
E. C. Hammersley	476 46	
Aug. Homberg	125 34	
N. Henderson	129 97	

Detail of Milk Pay Roll, 1902–03.

James Hassett	50 37	
Isaac Hart	914 90	
H. Homberg	223 68	
J. L. Hurlburt	200 19	
Wm. Herling	8 14	
Alfred Huston	263 86	
A. Henderson	297 01	
Wm. Homberg	459 74	
D. W. Huston	1,057 65	
C. A. Heidenreich	183 47	
C. Hoff	26 47	
Geo. Hammersley	41 04	
Hulett Hallock	53 94	
Christian Kleine	355 53	
L. H. Kleinheinz	70 17	
John Killian	158 84	
Fred Knickmeier	18 55	
Thos. Killian	126 65	
Christian Lueck	171 75	
John Luebcke	263 83	
A. E. Lansing	181 06	
Wm. Lubcke	151 03	
Henry Marks	448 81	
Wm. Maher	181 43	
L. Meincke	213 08	
Chas. Meyer	170 33	
W. H. Miller	483 00	
Vincel Malec	1,250 02	
Wm. McKee	18 95	
Frank Main	338 91	
Thos. Maher	90 87	
C. H. Messerschmidt	52 69	
Model Creamery	45 60	
Dennis McKee	18 34	
Henry Niebuhr	116 39	
C. Pogymiller	246 91	
Wm. Pierstorff	626 01	
Henry Peters	311 89	
Henry Pepper	195 88	
Thos. Purcell	158 29	
Wm. Pollow	144 88	
Chas. Pierstorff	275 74	
Joseph Pearson	1 34	
Frank Piper	238 76	
David Piper	459 91	
Mrs. Kate Rodes	136 21	
C. H. Rodefeld	284 82	
Wm. Radke	3 25	
M. Rotman	300 95	
Geo. Regal	81 34	
Geo. Stace	220 91	
Mary E. Synon	111 40	
E. Schaffer	227 23	
Chas. Schroeder	251 36	
Frank Schroeder	314 51	
Geo. Schwenkert	224 99	
Barbara Schultz	217 60	
Wm. Stekelberg	1,472 93	
Casper Storck	284 93	
John Scott	253 45	
H. Steinhauer	89 14	
Daniel Shaw	44 94	
John Slater	345 94	
E. Schimming	169 16	
John Schwenn	247 53	
Martin Schantz	36 48	
Wm. Schaffer	105 49	
B. F. Stickle	26 75	
Fred Schimming	119 34	
Geo. Sprecher	160 00	
J. E. Showers	492 07	
L. D. Synon	14 08	
Stagner Bros.	304 83	
Casper Schluter	64 93	
Eli Showers	62 62	
John Sharp	78 11	

University of Wisconsin.

R. Schimming	290 59	
John Schimming	64 74	
Mrs. E. Schimming	131 17	
Ole Solverson	33 57	
Frank Swenson	37 21	
Frank Swanson	81 64	
O. F. Toepfer	153 72	
Albert Teckham	363 51	
Andrew Torbleau	211 20	
John Tiede	136 40	
R. J. Tiedeman	39 51	
Otto Toepfer	41 99	
J. H. Terry	28 78	
J. F. Tiedeman	41 08	
Aug. Toepfer	36 52	
Louis Thielke	70 94	
Fred Tillotson	170 66	
John Ullmer	135 05	
Levi Uphoff, hauling	253 50	
F. Uphoff	524 83	
Chas. Vetter	824 39	
Henry Wolter	261 93	
A. O. White	330 41	
L. J. Walbridge	167 71	
Stanley West	162 66	
J. L. Williams	197 05	
Ernst Weber	109 87	
Myron R. White	80 60	
Edw. Worth	24 88	
Ernest Zink	51 98	
Wm. Zink	70 78	
		$36,026 81

Detail of Milk Pay Roll, 1903–04.

AGRICULTURAL COLLEGE,

$42,096.37.

Detail of Milk Pay Roll for the Year 1903–1904.

Wm. Albers, milk	$34 64	
C. Austin, hauling milk	2,898 49	
John Albrecht, milk	339 65	
F. W. Allis, milk	1,041 19	
R. J. Atwood, milk	24 63	
Judson Blizzard, milk	205 66	
Seth Bartlett, milk	426 37	
Chas. Buss, milk	857 17	
Preston W. Brown, milk	52 72	
D. Byrne, milk	154 70	
Mike Buse, milk	107 41	
Carl Bakken, milk	209 21	
A. Bitney, milk	36 50	
Fred Bennke, milk	367 99	
Wm. Behnke, milk	423 60	
L. D. Bryant, milk	98 94	
Edward Backus, milk	78 46	
Henry Brandt, milk	13 87	
Wm. Backus, milk	197 84	
Thos. Curwen, milk	160 35	
J. P. Comstock, milk	152 98	
John Conlin, milk	158 16	
Wm. Collins, milk	221 52	
W. Dresen, milk	12 05	
Henry Dinkler, milk	296 87	
J. L. Davidson, milk	223 79	
Chas. Easerman, milk	145 34	
Peter Fergen, milk	234 32	
F. Farley, milk	3 54	
Chas. Farr, milk	64 51	
F. E. Fenne, milk	7 54	
Gus Fischer, milk	284 60	
R. D. Gallagher, milk	81 24	
Wm. Gilbert, milk	623 66	
S. E. Good, milk	151 15	
G. F. Good, milk	159 05	
Gallagher & Schessler, milk	105 92	
Wm. Gallagher, milk	328 44	
R. Grabbiet, milk	426 08	
H. H. Gay, milk	58 45	
Richard Gallagher, milk	163 01	
Geo. Gill, milk	19 53	
Wm. Good, milk	61 79	
Wm. Genske, milk	15 35	
E. L. Gallagher, milk	96 89	
L. W. Gay, milk	155 54	
W. M. Gay, milk	51 46	
Robt. F. Gallagher, milk	304 55	
Geo. Hammersley, hauling milk	630 00	
Geo. Hammersley, milk	348 73	
C. Hoff, milk	28 56	
Albert Herrling, milk	2 93	
Young Hallock, milk	46 98	
W. Hoppman, milk	29 95	
J. L. Hurlbut, milk	409 49	
H. Hallock, milk	19 24	
H. C. Hoppmann, milk	76 31	
A. Henderson, milk	221 80	
Alfred Huston, milk	373 28	

University of Wisconsin.

N. Henderson, milk	116 11	
Aug. Homberg, milk	166 43	
E. C. Hammersley, milk	501 92	
C. A. Heidenreich, milk	122 37	
D. W. Huston, milk	959 30	
Wm. Homberg, milk	391 68	
Henry Homberg, milk	276 35	
Jas. Hassett, milk	82 15	
C. Haight, milk	215 84	
J. A. Huston, milk	49 06	
Chas. Hathaway, milk	14 63	
J. Johnson, milk	287 51	
M. J. Kinney	38 57	
L. H. Kleinheinz, milk	171 12	
C. Kanouse, milk	29 62	
Christ Kleine, milk	255 98	
Fred Knickmeier, milk	109 11	
Danford L. Larkin, milk and hauling	372 79	
A. E. Lansing, milk	134 25	
J. Latham, milk	134 93	
D. Larkin, milk and hauling	160 72	
M. Leslie, milk	49 41	
Paul Lamberty, milk	7 85	
Wm. Lubcke, milk	110 09	
T. La Crosse, milk	33 24	
Christ Lueck, milk	91 48	
John Lubcke, milk	117 82	
W. H. Miller, milk	480 03	
C. H. Messerschmidt, milk	224 19	
Wm. Maher, milk	122 19	
Henry Marks, milk	253 27	
Timothy, milk	88 98	
Wm. McKee, milk	368 80	
Vincel Malec, milk	1,531 95	
S. McGaw, milk	86 37	
F. J. McKee, milk	64 50	
M. Madsen, milk	152 83	
Henry Marks, Jr., milk	24 45	
Frank Main, milk	16 94	
Chas. Meyer, milk	110 13	
Ludwig Meincke, milk	76 57	
Dennis McKee, milk	208 23	
M. Mauston, milk	2 15	
Henry Niebuhr, milk	87 57	
Chris. Paulson, milk	108 00	
C. P. Pledger, milk	222 69	
Thos. Purcell, milk	132 48	
Jos. Person, milk	27 35	
Mrs. Eva Pledger, milk and hauling	176 14	
C. Pierstorff, milk	369 11	
Wm. Pollow, milk	348 25	
Henry Peters, milk	282 84	
Wm. Pierstorff, milk	364 59	
C. Pogvmiller, milk	212 13	
Henry Pepper, milk	250 67	
Mrs. Kate Rhodes, milk	191 31	
Wm. Radke, milk	127 32	
C. H. Rodefeld, milk	279 24	
Casper Storck, milk	331 06	
Wm. Steckelberg, milk	1,777 08	
Julius Schultz, milk	262 73	
Geo. Schwenkert, milk	292 10	
Martin Schantz, milk	59 06	
Schimming Bros., milk	116 05	
Henry Stelter, milk	30 88	
E. Schaffer, milk	31 17	
Benj. F. Stickle, milk	16 17	
Wm. Schaffer, milk	114 57	
Barbara Schutz, milk	82 66	
Casper Schlueter, milk	102 89	
Daniel Shaw, milk	20 71	
John Slater, milk	344 83	
Frank Swanson, milk	92 22	
H. A. Steinhauer, milk	92 43	
H. J. Sutherland, milk	101 81	
Mary E. Synon, milk	4 30	

Detail of Milk Pay Roll, 1903–04.

M. Schaffer, milk	53 71	
L. D. Synon, milk	51 28	
George Stacy, milk	122 20	
Stagner Bros., milk	251 31	
Edward Sykes, milk	6 89	
R. Susner, milk	114 30	
John Scott, milk	303 08	
Frank Schroeder, milk	321 68	
John Sharp, milk	287 67	
Chas. Schroeder, milk	261 69	
Edw. Showers, milk	387 00	
A. Sykes, milk	75 95	
Peder O. Sundoe, milk	100 26	
J. E. Showers, milk	407 73	
George Sprecher, milk	148 78	
Fred Schimining, milk	110 37	
John Schwenn, milk	209 48	
Ernst Schimining, milk	153 34	
V. S. Sykes, milk	66 56	
Otto Toepfer, milk	99 87	
Andrew Tarbleau, milk	166 06	
J. Tierney, milk	35 77	
Albert Teckham, milk	129 23	
Herbert Thieber, milk	30 96	
John Tiede, milk	138 91	
J. H. Terry, milk	33 01	
Sidney Terwilliger, milk	44 14	
R. J. Tiedeman, milk	123 20	
W. M. Terwilliger, milk	103 46	
University Farm, milk	1,767 40	
John Ullmer, milk	5 85	
Chas. Vetter, milk	1,059 14	
West Middleton Dairy Assn., milk	3,077 83	
Mrs. R. W. Waldron, milk	11 01	
Weichmann Bros., milk	12 86	
A. O. White, milk, hauling	101 50	
J. C. Woodward, milk, hauling	463 06	
Mrs. John Waltersheit, milk	12 37	
L. J. Walbridge, milk	134 14	
Henry Wolter, milk	262 34	
J. L. Williams, milk	165 10	
Stanley West, milk	194 16	
Wm. Zink, milk	41 93	
Ernest Zink, milk	80 58	
		$42,096 37

University of Wisconsin.

AGRICULTURAL COLLEGE.

DAIRY AND SHORT COURSE INSTRUCTORS.

$2,766.26.

DETAIL.

To whom paid and for what purpose.

1902–03.

$1,446.39..

G. H. Benkendorf, dairy machinery	$120 00	.....
J. R. Danks, herdsman	120 00	.....
Peter Dukleth, farm dairy	133 32	.....
Ole Esker, separator	33 33	.....
Jas. A. Ford, assistant dairy farm	83 32	.....
J. H. Godfrey, buttermaker	125 00	.....
Ernest Greenwood, assistant dairy farm	30 00	.....
Jas. Hutton, horseman	100 00	.....
L. P. Haskins, assistant	12 75	.....
F. Kleinkeinz, shepherd	120 00	.....
Fred Marty, cheese	60 00	.....
Martin Meyers, separator	80 00	.....
John McCready, milk tester	100 00	.....
Hugh Nisbet, cheese	100 00	.....
A. J. Roycroft, helper	12 00	.....
H. Sandell, assistant	50 00	.....
Wm. Verthein, pasteurizer	100 00	.....
F. F. Zimmerman, cheese	66 67	.....
		$1,446 39

1903–04.

$1,319.87.

Fred Ballantine, helper	$20 00	.....
G. H. Benkendorf, engineer	135 00	.....
Peter Dukleth, assistant	169 75	.....
G. A. Freeman, swine herdsman	25 00	.....
W. H. Freund, cheese making	66 66	.....
J. H. Godfrey, butter maker	140 00	.....
L. P. Haskins, assistant	13 75	.....
Ralph Harder, assistant	15 00	.....
C. N. Holkins, separator assistant	66 66	.....
J. G. Moore, milk testing assistant	133 32	.....
Fred Marty, cheese making	133 32	.....
Martin Meyer, pasteurizer	100 00	.....
J. W. Moore, cheese making	66 66	.....
M. Nelson, assistant	2 50	.....
Isaac Nosovitch, separator, assistant	80 00	.....
H. Sandell, assistant swine herdsman	50 00	.....
E. C. Townsend, assistant	93 75	.....
Frank Welke, assistant	9 50	.....
		$1,319 87

Detail of Band Pay Roll, 1902–03, 1903–04.

BAND PAY ROLL, 1902–03, 1903–04.

$645.30.

1902–03.

$330.30.

Robert Ewald, musician	$29 30	
Harry Gardner, musician	25 80	
Albert G. Hinn musician	27 20	
Alexander Kasberg, musician	28 60	
Chas. Nitschke, instructor	120 00	
A. Pfund, musician	26 50	
Arthur W. Quan, musician	15 00	
Jas. A. Stewart, musician	30 00	
S. E. Washburn, musician	27 90	
		$330 30

1903–04.

$315.00.

Arthur J. Clark, member	$30 00	
Howard B. Gates, member	30 00	
Albert G. Hinn, member	30 00	
Wm. R. Harvey, member	30 00	
Franklin H. Mann, member	30 00	
Chas. Nitschke, instructor	120 00	
Walter H. Stephens, member	15 00	
Jas. A. Stewart, member	30 00	
		$315 00

Tabulated Statement of Disbursements by Regents of the University of Wisconsin for fiscal year ending June 30, 1903.

	Salaries.	Apparatus.	Furniture.	Heat, Light and Water.	Library.	Repairs, Insurance and Building.	Postage, Printi'g and Advertisi'g, Freight and Express.	Salaries and Expenses, Institute Workers.	Expenses of Regents and Visitors.	President's Contingent, Clerk and Office Expenses.	Live Stock, Seeds, Tools, Feed, Farm Exp., etc.	Janitors and Labor.	Armory, Traveling and Incidental Expenses.	Cranberry Investigation.	Tobacco investigation.	Miscellaneous.	Totals.
Agr'l Coll. and Experiment Station	$29,930 45	$852 77	$721 01	$5,342 30	$832 11	$9,418 69	$3,304 70			$2,452 55	$49,215 71	$18,214 30	$2,094 87	$31 93	$68 31		$122,479 70
College Letters and Science	167,062 64	4,860 40	1,583 87			111 89	512 48			2,835 81		6,287 96	1,780 51				185,035 56
College Engineering	40,438 20	21,585 62	794 50	5,217 15		1,064 74	494 78			546 40		2,521 06	564 47				73,226 92
College of Law	11,224 30		34 30	550 91	1,229 55		85 50			240 00		296 25	1 05				13,661 86
School of Pharmacy	7,668 50	67 75	112 30	554 91			25 95					267 50	3 31				8,700 22
Washburn Observatory	4,540 00	281 78	165 80	284 07		352 02	46 70			186 00		540 00	98 73				6,495 10
General Library	5,924 69		84		11,417 16		149 18					440 00	2 68				17,934 55
Agricultural Institute Fund	3,970 00		45				4,315 76	$5,650 80		550 00		55 00	50				14,542 51
Summer Session	10,598 85						872 97					202 60	13 50				11,687 92
Administration	9,937 50						236 08		$1,295 98	7,025 94			85 63				18,581 13
Printing and Advertising							7,323 83										7,323 83
Repairs and Improvements						11,460 78											11,460 78
Heat and Light				31,693 80													31,693 80
Laboratory Supplies																$18,800 33	18.800 33
Roads and Grounds																4,954 68	4,954 68
General Account																5,326 91	5,326 91
Agricultural College Building																95,422 53	95,422 53
Expenses Library Building, (To bal. one-half)																750 59	750 59
School Economics Library Fund																814 89	814 89
School Commerce Library Fund																375 60	375 60
Anatomical Labo'ty, (fitting up room)																9,430 77	9,430 77
Wergeland Book Fund																121 95	121 95
Hebrew Lectureships and Scholarships																355 00	355 00
William F. Allen Scholarship																250 00	250 00
John C. Freeman Scholarship																250 00	250 00
Sheboygan Graduate Scholarship, German Philology																300 00	300 00
B. K. Miller Japanese Scholarship																50 00	50 00
Biblical Alliance Scholarships																1,290 00	1,290 00
Gustav A. Kletzsch Scholarship in Bacteriology																400 00	400 00
Chicago Social Settlement Fellowship																85 00	85 00
Jackson Professorship of Law																1,000 00	1,000 00
Income Doyon Bequest																13 75	13 75
Lewis Medal Fund, principal																100 00	100 00
Louis Lotz Scholarship																50 00	50 00
Lillian Paige Allis Scholarship in German																150 00	150 00
Political Science Library Fund																500 00	500 00
Amelia E. H. Doyon Scholarship																250 00	250 00
Jermain-Pflueger-Kuemstad and Yahr-Lange Scholarship in Pharmacy																25 00	25 00
Johnson Endowment Fund, interest																300 00	300 00
Henrik Wergeland Scholarship																200 00	200 00
University Grounds																8,000 00	8,000 00
Lewis Medal Fund, interest																18 00	18 00
Total	$291,295 13	$27,648 32	$3,413 07	$43,643 14	$13,478 82	$22,408 12	$17,367 93	$5,650 80	$1,295 98	$13,836 70	$49,215 71	$28,824 67	$4,645 25	$31 93	$68 31	$149,585 00	$672,408 88

Tabulated Statement of Disbursements by Regents of the University of Wisconsin for fiscal year ending June 30, 1904.

Department in which Expended.	Salaries.	Apparatus.	Furniture.	Heat, Light and Water.	Library.	Repairs, Insurance and Building.	Postage, Printi'g and Advertisi'g, Freight and Express.	Salaries and Expenses, Institute Workers.	Expenses of Regents and Visitors.	President's Contingent, and Clerk and Office Expenses.	Live Stock, Seeds, Tools, Feed, Farm Exp., etc.	Janitors and Labor.	Armory, Traveling and Incidental Expenses.	Cranberry Investigation.	Tobacco Investigation.	Miscellaneous.	Totals.
Agr'l Coll. and Experiment Station	$33 691 16	$1,239 98	$1,113 91	$7,589 46	$1,654 84	$18 044 75	$4,159 09			$2,982 58	$60,766 75	$21,358 22	$2,731 15	$2,500 00	$1,403 11		$159,235 00
College Letters and Science	184.790 93	12,983 12	2,323 86			1,544 92	698 57			3,051 41		6.695 33	2,489 52				214,507 66
College Engineering	47.241 74	13,765 94	720 14	6,966 19	5 77	1,707 58	560 14			463 50		2,623 03	736 35				74.790 38
College of Law	13.241 55		6 74	734 16	1,029 11	56	143 38			263 45		281 25	100 65				15,800 85
School of Pharmacy	4,600 00	69 57	66 12	650 79		36 40	67 40					306 25	57 82				5,854 35
Washburn Observatory	4,540 00	182 77		352 21		519 33	17 50			44 05		540 00	36 77				6,232 63
General Library	6,713 37		4 00		15,749 58		154 05			405 00		480 00	4 53				23,510 53
Agricultural Institute Fund	2.200 00		11 40				4.744 02	$7,583 71		590 30		59 04	11 40				15,199 87
Summer Session	9,175 00						476 55					169 70	29 10				9,850 35
Administration	9,750 00						977 32		$1,034 15	7,386 59			68 25				19,216 31
Printing and Advertising							4,664 30										4.604 30
Repairs and Improvements						30,938 98											30,938 98
Heat and Light				41,871 64													41,871 64
Laboratory Supplies																$18,634 78	18,634 78
Roads and Grounds																6,078 98	6,078 98
General Account																6,028 22	6.028 22
Agricultural College Building																32,577 47	32,577 47
25 M. Equipment Agr. Coll. Building																23,556 15	23,556 15
Water Works																11,053 53	11,053 53
Chemical Laboratory Building																2,715 10	2,715 10
Cold Storage Plant																3.202 59	3.202 59
St. Louis Exposition																2,557 91	2,557 91
School Economics Library Fund																126 38	126 38
School Commerce Library Fund																171 22	171 22
Sheboygan Graduate Scholarship German Philology																300 00	300 00
Gustav A. Kletzsch Scholarship in Bacteriology																400 00	400 00
N. A. Pennoyer Scholarship																50 00	50 00
B. K. Miller Japanese Scholarship																50 00	50 00
Amelia E. H. Doyon Scholarship																250 00	250 00
Lillian Paige Allis Scholarship in German																150 00	150 00
Louis Lotz Scholarship																50 00	50 00
Christian R. Stein Scholarship																50 00	50 00
Johnson Endowment Fund																224 00	224 00
Lewis Medal Fund, interest																18 00	18 00
Jackson Bequest, income																1,000 00	1,000 00
The Adams' Estates																4.951 43	4,951 43
University Park																24.338 47	24.338 47
University Grounds																9,000 00	9,000 00
The Allis Fund																26 60	26 60
Refund of Students' Fees																1,749 68	1,749 68
Total	$315,943 75	$28,241 38	$4,246 17	$58,164 45	$18,439 30	$52,792 52	$16,662 32	$7,583 71	$1,034 15	$15,186 88	$60,766 75	$32,512 82	$6,265 54	$2,500 00	$1,403 11	$149,310 51	$771,053 36

BIENNIAL REPORT

OF THE

COMMISSIONERS

OF THE

PUBLIC LANDS

OF THE

STATE OF WISCONSIN

For the Fiscal Years Ending June 30, 1903, and Jnne 30, 1904

MADISON
DEMOCRAT PRINTING COMPANY, STATE PRINTER
1904

CLERICAL FORCE.

The following persons constituted the clerical force of the State Land Office since January, 1902:

B. J. CASTLE ..... *Chief Clerk*

G. M. HOTSCHICK ..... *Assistant Chief Clerk*

WM. H. BENNETT ..... *Bookkeeper*

MATT LAMPERT ..... *General Clerk*

HATTIE G. MILHAUPT ..... *Stenographer*

BIENNIAL REPORT

OF THE

Commissioners of the Public Lands

OF THE

STATE OF WISCONSIN,

For the Biennial Fiscal Term Ending June 30, 1904.

OFFICE OF THE COMMISSIONERS OF PUBLIC LANDS,
MADISON, WISCONSIN, Sept. 1, 1904.

To His Excellency, ROBERT M. LAFOLLETTE,
Governor of the State of Wisconsin:

As required by law we have the honor to submit the following report of the transactions of this office during the biennial fiscal term ending June 30, 1904. The reports of the secretary of state and state treasurer exhibit detailed statements of the receipts and disbursements on account of the several funds affected by our action and to them we respectfully refer.

All sales reported herein were made either through forfeiture or under law applicable to each case.

The table herein marked, exhibit "A", shows in detail the sale of lands from June 30th, 1902 to June 30th, 1904, the number of acres sold in each county, the several classes of such lands, and amount sold for.

Most of these sales were made between January 11, 1904, and June 30, pursuant to chapter 450, laws of 1903. The

General Report.

"amount sold for" means the total price of the lands. In many cases only partial payment was made at the time of purchase, leaving balances due, much of which is outstanding at the date of this report. All these balances, however, are payable within six months from date of purchase, with interest at the rate of 7 per cent. per annum.

Preliminary to these sales, each tract was appraised, and a complete list thereof published. Said appraisal was based on reports of official examiners and other information obtainable as to character of soil, quantity and kind of timber, etc., of each tract. The appraisal was in most cases higher than the price at which the lands were held prior to the time they were withdrawn from market in 1899, yet in several cases purchasers bid more than the appraised value. This and the further fact that about 40,000 acres were sold within six months, indicate that the prices fixed are generally regarded as reasonable. The average price of lands sold since January 11th, 1904, when sales under the law of 1903 began, is $3.81 per acre, exclusive of city and village lots. The average price at which these lands were held when withdrawn from market in 1899, was less than $2.00 per acre.

State Lands Sold.

EXHIBIT "A."—*Statement of various classes of state lands sold during the two years ended June 30, 1904. Includes sales on which partial payments were made, and also fully paid sales.*

COUNTY.	SCHOOL LANDS.		UNIVERSITY LANDS.		NORMAL SCHOOL LANDS.		SWAMP LANDS.		AGGREGATE.	
	Acres.	Sold for.	Acres.	Sold for.	Acres.	Sold for.	Acres.	Sold for.	Acres.	Sold for.
Adams	520.44	$1,570					405.77	$1,042	926.21	$2,612
Barron	80	1,000					329.46	1,020	409.46	2,020
Bayfield	720	1,385					891.14	1,490	1,611.14	2,875
Buffalo	160	815					209.10	1,125	369.10	1,940
Burnett	360	700					2,842.58	8,845	3,202.58	9,545
Calumet							80	100	80	100
Chippewa	53.10	340					501.80	2,680	554.90	3,020
Columbia	.36	5					40.24	252	40.60	257
Crawford							122.68	430	122.68	430
Dane							81.44	850	81.44	850
Dodge	160	1,180					47.96	55	207.96	1,235
Door	48	95					324.60	961	372.60	1,056
Douglas	320	1,235					1,559.93	7,775	1,879.93	9,010
Dunn	40	120					118.75	595	158.75	715
Eau Claire	120	500	81.39	$125			42.25	80	243.64	705
Florence							120.15	310	120.15	310
Fond du Lac		602						2,850		3,452
Forest†							760	4,360	760	4,360
Grant							105.84	450	105.84	450
Gates	160	415					2,113.74	4,660	2,273.74	5,075
Iron*	40	120					575.99	3,085	615.99	3,205
Jackson	1,027.58	3,342			40	$400	700.58	2,282	1,768.16	6,024
Juneau	30	150					120.18	350	150.18	500
Kewaunee							40	85	40	85
Langlade	40	200					1,868.95	7,275	1,908.95	7,475
Lincoln	120	345					2,380.90	14,605	2,500.90	14,950
Manitowoc							40	300	40	300
Marathon	40	180					1,335.85	5,480	1,375.85	5,660
Marinette	360	2,395					3,512.67	12,420	3,872.67	14,815
Marquette†	80	920				4,000	58.07	145	138.07	5,065
Monroe	240	420					451.45	1,760	691.45	2,180
Oconto	80	230			497.63	1,170	958.60	4,035	1,536.23	5,435
Oneida	42	90					1,903.17	12,740	1,945.17	12,830
Outagamie							67.92	225	67.92	225
Pepin							121.40	390	121.40	390
Pierce							68.21	160	68.21	160
Polk	312.84	961					1,133.82	2,808	1,446.66	3,769
Portage	59.74	205	152.23	395	34.42	180	894.35	2,240	1,140.74	3,020
Price	81.78	115					2,608.15	5,962	2,689.93	6,077
Richland							26.80	125	26.80	125
Sawyer	240	1,600					2,187.47	7,840	2,427.47	9,440
Shawano	120	280					423.19	2,430	543.19	2,710
Sheboygan							40	455	40	455
Taylor	40	245					600	3,710	640	3,955
Trempeal'au							2.40	15	2.40	15
Vernon							149.96	343	149.96	343
Vilas*	842.86	5,595					2,049.99	9,460	2,892.85	15,055
Washburn	64.18	125			27.25	280	787.98	2,050	879.41	2,455
Waukesha‡							3.77	848.25	3.77	848.25
Waupaca							248.66	1,127	248.66	1,127
Waushara	160	345					40	50	200	395
Wood							41	126	41	126
Total	6,762.88	$27,825	233.62	$520	599.30	$6,030	36,138.91	$143,856.25	43,734.71	$178,231.25

* Includes state park lands sold in 1902 and 1903.
† City and village lots.
‡ Special sale for R. R. uses, from Industrial School land at Waukesha.

Total Dues.

TOTAL DUES.

The following table shows the amounts due the several funds upon lands held on certificates in the different counties outstanding for the fiscal term ending June 30, 1904, on which the state receives annually seven per centum interest.

This statement, compared with same in former reports, shows a large and continuous decrease of principal and income from this source, which is accounted for by annual payments on outstanding certificates.

Total Dues.

Statement of amounts due on Certificates of Land Sales for various funds, on June 30, 1904.

Counties.	School fund.	University fund.	Agr. college fund.	Normal school fund.	Drainage fund.	Aggregate paid.	Aggregate due.
Adams	$1,307 00			$314 00		$279 00	$1,621 00
Ashland	111 00					74 00	111 00
Barron	112 00						112 00
Bayfield	65 00						65 00
Brown	182 04					36 00	182 04
Buffalo	28 00				$49 00	215 00	77 00
Burnett	565 00						565 00
Calumet	20 00			20 00		40 00	40 00
Chippewa	186 00					180 00	186 00
Clark	74 00						74 00
Columbia	639 00			75 00		265 00	714 00
Crawford	478 46						478 46
Dane	56 00			77 00	149 00	116 00	282 00
Douglas	258 00						258 00
Dunn	164 00			74 00		349 00	238 00
Eau Claire	32 00	$483 00				823 00	515 00
Florence	568 00						568 00
Forest	111 00					37 00	111 00
Grant	167 00					81 00	167 00
Green Lake						85 00	
Iowa						41 00	
Iron	111 00						111 00
Jackson	857 00			83 00		893 80	940 00
Juneau	448 00					798 00	448 00
Kenosha	181 00						181 40
La Crosse	237 40						237 00
Lafayette	25 00						25 00
Langlade	185 00					666 00	185 00
Lincoln	90 00					90 00	
Manitowoc	342 00			112 00			454 00
Marathon	81 00					28 00	81 00
Marquette	190 00			70 00	135 00	45 00	395 00
Monroe	272 00					200 00	272 00
Oconto	849 00		$35 00	724 00		219 00	1,608 00
Oneida	27 00						27 00
Outagamie	274 00			15 00		92 00	289 00
Pepin		349 00				230 00	349 00
Pierce	50 00	1,225 00				226 30	1,275 00
Polk	1,226 00		15,325 00	86 00		8,242 00	16,637 00
Portage	72 00					416 00	72 00
Racine	537 00						537 00
Richland	502 15					287 66	502 15
Rock	314 00						314 00
St. Croix	1,388 36					650 00	1,388 36
Sauk	265 00					56 90	265 00
Sawyer	52 00						52 00
Shawano	592 30			107 00		301 00	699 30
Taylor			37 00				37 00
Trempealeau	136 00					27 00	136 00
Vernon	893 74					324 86	893 14
Vilas	105 00						105 00
Washburn	187 00					412 00	187 00
Washington	25 00						25 00
Waukesha	90 00						90 00
Waupaca	271 00					367 00	271 00
Waushara	442 00			237 00		332 00	679 00
Winnebago	42 00				182 00		224 00
Wood						121 00	
Total	$16 334 95	$2,057 00	$15,397 00	$1,949 00	$ 515 00	$17,750 02	$36,252 95

Forfeiture and Loans.

FORFEITURE OF STATE LANDS.

The following tables show the number of acres held on certificates in the several counties and the amounts due that were forfeited for the non-payment of interest during the fiscal years ending June 30, 1903 and 1904.

Lands forfeited for year ending June 30, 1903.

County.	Class.	Acres.	Amount due.	Sale Dec. 23, 1902.
Pierce	University	41 01	$86 36	Bid in by Geo. N. McCutchson.
Richland	School	40	10 50	Bid in by W. H. Pier.

State lands forfeited for the year ending June 30, 1904.

County.	Class.	Acres.	Amount due.	Sale Dec. 17, 1903.
Dunn	Normal	40	$13 05	Bid in by H. Kelkenburg.
Monroe	Normal	40	60 25	Bid in by Wm. R. McCaul.
Oconto	Normal	40	53 08	Bid in for state, now vacant.
Vernon	School	80	11 60	Bid in by R. B. Morrison.

LOANS TO SCHOOL DISTRICTS.

There is a constantly increasing demand from school districts for loans from the trust funds, to build or enlarge school houses. This class of investment of the trust funds has grown during the past two years, from July 1st, 1902, to June 30, 1904, from $582,175 to $873,526; and there are now many applications on file, awaiting the time when funds will be available for other loans of this class. These loans generally being of small amounts, from $100 to $1,000 and the interest and installments of the principal being payable annually, the clerical labor in connection therewith required of this office increases yearly in volume and importance.

Following are tables showing amounts of loans to districts in various counties, payments of principal and interest during the years from June 30, 1902, to June 30, 1904, and amount now outstanding in each district.

Loans to School Districts.

DETAILED STATEMENT OF SCHOOL DISTRICT LOANS.

Amount paid during two years ended June 30, 1904, and amount outstanding in each district June 30, 1904.

District.	Town, village or city.	County.	Fund.	Interest rate.	Paid in 1902-4.	Outstanding June 30, 1904.
Jt. 2	Richfield and Colburn	Adams	School.	4	$100 00	In full.
Jt. 1	Monroe and Big Flats	do	do	3½	49 20	$24 60
5	Preston	do	do	4	80 00	In full.
2	Colburn	do	do	4	142 86	285 71
3	Richfield	do	do	4	100 00	50 00
Jt. 3	Adams and Lincoln	do	do	3½	120 00	420 00
4	Dell Prairie	do	do	3½	100 00	In full.
Jt. 1	Adams and Preston	do	do	3½	.....	2,000 00
Jt. 1	Adams and Preston	do	do	3½	.....	1,000 00
5	Colburn	do	do	3½	200 00	400 00
Jt. 1	Adams and Preston	do	do	3½	.....	720 00
5	Lincoln	do	do	3½	.....	500 00
	Morse board of school directors	Ashland	School.	4	800 00	1,600 00
1	Cumberland	Barron	School.	4	200 00	In full.
11	Cumberland	do	do	4	48 00	96 00
Jt. 6	Barron and Stanfold	do	do	4	80 00	In full.
8	Stanfold	do	do	4	54 00	108 00
7	Clinton	do	do	4	100 00	In full.
11	Turtle Lake	do	do	4	39 00	78 00
5	Barron	do	do	4	80 00	In full.
16	Cumberland	do	do	4	60 00	120 00
9	Clinton	do	do	4	100 00	50 00
8	Clinton	do	do	4	120 00	In full.
10	Turtle Lake	do	do	3½	80 00	40 00
8	Maple Grove	do	do	3½	120 00	60 00
3	Maple Grove	do	do	3½	64 40	193 20
7	Chetek	do	do	3½	52 00	286 00
Jt. 1	Town and city of Barron	do	do	3½	1,400 00	4,900 00
6	Cumber and	do	do	3½	200 00	1,150 00
9	Chetek	do	do	3½	100 00	200 00
Jt. 5	Rice Lake and Stanfold	do	do	3½	50 00	175 00
17	Cumberland	do	do	3½	150 00	450 00
6	Dallas	do	do	3½	315 00	1,102 50
6	Maple Grove	do	do	3½	46 00	154 00
Jt. 5	Chetek city and town and Dover	do	do	3½	400 00	1,600 00
10	Chetek	do	do	3½	100 00	400 00
1	Stanley	do	do	3½	225 00	675 00
Jt. 2	Cedar Lake, Rice Lake and Oak Grove	do	do	3½	80 00	720 00
Jt. 2	Town and city of Cumberland	do	do	3½	1,000 00	14,000 00
Jt. 5	Chetek city and town and Dover	do	do	3½	400 00	5,600 00
1	Maple Grove	do	do	3½	80 00	720 00
4	Cedar Lake	do	do	3½	100 00	900 00
3	Stanfold	do	do	3½	.....	1,000 00
6	Turtle Lake	do	do	3½	.....	600 00
5	Lakeland	do	do	3½	.....	900 00
	Washburn school directors	Bayfield	School.	4	2,500 00	In full.
	Washburn school directors	do	do	4	2,000 00	In full.
	Bayfield high school	do	do	4	5,000 00	2,500 00
2	City of Green Bay	Brown	Norm'l	4	280 00	140 00
5	Suamico	do	School.	3½	184 00	92 00
3	Lawrence	do	do	3½	200 00	600 00
2	City of DePere	do	do	3½	1,000 00	3,000 00
3	Maxville	Buffalo	School	4	100 00	In full.
Jt. 1	Dover and Naples	do	do	3½	400 00	In full.
Jt. 1	Mondovi city and town and Naples	do	do	3½	666 67	4,000 00

Loans to School Districts.

DETAILED STATEMENT OF SCHOOL DISTRICT LOANS—Con.

District.	Town, village or city.	County.	Fund.	Interest rate.	Paid in 1902-4.	Outstanding June 30, 1904.
5	Dover	Buffalo	School.	3½	$300 00	$300 00
Jt. 1	Mondovi city and town and Naples	do	do	3½	.....	6,000 00
5	Rusk	Burnett	School.	4	100 00	In full.
6	Wood Lake	do	do	4	100 00	In full.
6	Rusk	do	do	4	20 00	In full.
3	Wood Lake	do	do	4	50 00	In full.
2	Grantsburg	do	do	3½	200 00	In full.
10	Grantsburg	do	do	3½	30 00	15 00
7	Grantsburg	do	do	3½	200 00	400 00
4	La Follette	do	do	3½	50 00	200 00
7	Rusk	do	do	3½	100 00	400 00
Jt. 1	City and town of Chilton	Calumet	School.	3½	.....	10,500 00
11	Edson (city of Stanley)	Chippewa	School.	4	800 00	800 00
7	Wheaton	do	do	4	100 00	In full.
9	Edson	do	do	4	160 00	240 00
8	Edson	do	do	4	150 00	75 00
7	Edson	do	do	4	120 00	180 00
2	Auburn	do	do	4	50 00	50 00
3	Wheaton	do	do	4	220 00	330 00
Jt. 2	Edson and village of Boyd	do	do	4	600 00	1,200 00
13	Edson	do	do	4	100 00	200 00
4	Wheaton	do	do	4	140 00	350 00
4	Anson	do	do	4	200 00	100 00
11	Edson	do	do	3½	120 00	300 00
15	Edson	do	do	3½	100 00	300 00
1	Anson	do	do	3½	200 00	200 00
8	Sampson	do	do	3½	50 00	150 00
4	Edson	do	do	3½	120 00	300 00
2	Anson	do	do	3½	200 00	100 00
8	Arthur	do	do	3½	100 00	50 00
6	Edson	do	do	3½	200 00	In full.
14	Edson	do	do	3½	175 56	438 88
Jt. 8	Wheaton and Tilden	do	do	3½	200 00	500 00
10	Wheaton	do	do	3½	200 00	550 00
Jt. 3	Sampson and Rusk	Gates and Chippewa	School.	3½	200 00	400 00
10	Wheaton	do	do	3½	60 00	150 00
1	Sigel	do	do	3½	70 00	630 00
2	Wheaton	do	do	3½	200 00	1,000 00
6	Sigel	do	do	3½	200 00	800 00
4	Sampson	do	do	3½	200 00	In full.
Jt. 4	Bloomer town and village	do	do	3½	1,000 00	9,000 00
5	Edson	do	do	3½	.....	1,000 00
Jt. 4	Bloomer town and village	do	do	3½	.....	5,000 00
2	Pine Valley	Clark	School.	6	50 00	In full.
2	Loyal	do	do	4	300 00	In full.
Jt. 3	York and Grant	do	do	4	200 00	In full.
Jt. 1	Colby city and town	do	do	4	200 00	In full.
4	Hixon	do	do	4	118 70	In full.
Jt. 1	Thorp, Withee and village of Thorp, etc.	do	do	4	300 00	In full.
Jt. 1	Mayville, Colby, village of Abbottsford, etc.	do	do	4	220 00	440 00
Jt. 1	Hixon and Hoard	do	do	3½	100 00	250 00
6	Warden	do	do	3½	150 00	In full.
5	Warden	do	do	3½	120 00	360 00
7	Levis	do	do	3½	69 00	207 00
1	Pine Valley	do	do	3½	60 00	180 00
4	Levis	do	do	3½	200 00	100 00
1	Washburn	do	do	3½	100 00	200 00
6	Fremont	do	do	3½	100 00	200 00

Loans to School Districts.

DETAILED STATEMENT OF SCHOOL DISTRICT LOANS—Con.

District.	Town, village or city.	County.	Fund.	Interest rate.	Paid in 1902 4.	Outstanding June 30, 1904.
2	Withee	Clark	School-	3½	$67 00	$100 00
4	Hixon	do	do	3½	200 00	In full.
7	Warden	do	do	3½	100 00	150 00
5	Lynn	do	do	3½	200 00	300 00
1	Withee	do	do	3½	100 00	200 00
Jt. 4	Thorp and Withee	do	do	3½	133 34	266 66
4	Washburn	do	do	3½	100 00	350 00
4	Shirwood	do	do	3½	.....	600 00
5	Hoard	do	do	3½	90 00	360 00
5	Longwood	do	do	3½	100 00	900 00
4	Hixon	do	do	3½	400 00	400 00
1	Shirwood	do	do	3½	62 50	437 50
Jt. 2	Withee and Rosebury	do	do	3½	100 00	400 00
2	Hewitt	do	do	3½	100 00	900 00
1	Maxville	do	do	3½	60 00	540 00
Jt. 2	Beaver and Warner	do	do	3½	280 00	420 00
6	Lynn	do	do	3½	100 00	400 00
3	Reeseburg	do	do	3½	100 00	600 00
2	Hewitt	do	do	3½	200 00	1,800 00
7	Fremont	do	do	3½	.....	800 00
1	Longwood	do	do	3½	.....	3,000 00
Jt. 5	Village of Rio, Otsego and Lowville	Columbia	School	4	300 00	600 00
Jt. 2	Randolph, Courtland, Springdale and village of Cambria	do	do	4	2,000 00	1,000 00
2	Randolph	do	do	3½	200 00	400 00
1	Wyocena	do	do	3½	800 00	3,200 00
Jt. 7	Newport, etc	do	do	3½	.....	400 00
Jt. 6	Freeman and Seneca	Crawford	School.	4	100 00	In full.
Jt. 11	Utica and Clayton	do	do	4	240 00	240 00
Jt. 2	Eastman and Marietta	do	do	4	50 00	In full.
Jt. 4	Clayton and village of Soldiers Grove	do	do	4	500 00	750 00
6	Clayton	do	do	4	80 00	In full.
9	Prairie du Chien	do	do	4	220 00	In full.
Jt. 2	Wauzeka, Village and Town	do	do	3½	190 00	475 00
6	Wauzeka	do	do	3½	100 00	100 00
Jt. 2	Marietta and Eastman (Village, Steuben)	do	do	3½	.....	400 00
Jt. 11	Wauzeka and Marietta	do	do	3½	66 00	198 00
2	Village of Wauzeka	do	do	3½	300 00	3,700 00
1	Oregon	Dane	School.	4	1,800 00	1,800 00
1	Oregon (2d loan)	do	do	4	200 00	300 00
Jt. 5	Christiana, Oakland, etc	do	do	4	270 00	In full.
1	Blue Mounds	do	do	4	600 00	300 00
3	Blue Mounds	do	do	3½	200 00	In full.
Jt. 7	Albion and Fulton	do	do	3½	400 00	200 00
Jt. 9	Crossplains and Springdale	do	do	3½	160 00	480 00
11	Madison	do	do	3½	600 00	600 00
Jt. 5	Deerfield, Village and Town	do	do	3½	500 00	1,750 00
Jt. 3	Stoughton City & Dunkirk Town	do	do	3½	5,000 00	In full.
Jt. 4	Christiana and Albion	do	do	3½	1,000 00	In full.
Jt. 5	Roxbury, Berry, Dane & Springfield	do	do	3½	100 00	250 00
8	Dunn	do	do	3½	1,000 00	1,000 00
Jt. 1	Madison and Middleton	do	do	3½	300 00	900 00
Jt. 4	Montrose, Exeter and Village Belleville	do	do	3½	1,000 00	5,000 00
Jt. 2	Black Earth and Mazomanie, Town and Village	do	do	3½	600 00	900 00
Jt. 2	Bristol and Sun Prairie, Town and Village	do	do	3½	1,600 00	6,400 00
Jt. 4	Montrose, Village Belleville, etc	do	do	3½	200 00	2,200 00

Loans to School Districts.

DETAILED STATEMENT OF SCHOOL DISTRICT LOANS—Con.

District	Town, village or city.	County.	Fund.	Interest rate	Paid in 1902-4.	Outstanding June 30, 1904.
Jt. 1	Blackearth, Village and Town	Dane	School	3½		$10,500 00
	Verona High School	do	do	3½		6,000 00
Jt. H.S.	Williamstown & Village Mayville	Dodge	School.	4	$2,000 00	In full.
7	Oak Grove	do	do	3½		2,000 00
7	Oak Grove (2d loan)	do	do	3½		3,000 00
4	Clyman	do	do	3½	300 00	800 00
Jt. 6	Lowell and Village of Reeseville	do	do	3½		6,500 00
2	Egg Harbor	Door	School.	4	200 00	In full.
Jt. 3	Nessewaupe and Sturgeon Bay	do	do	4	188 90	94 40
3	Gibraltar	do	do	4	100 00	100 00
1	Claybanks	do	do	3½	200 00	In full.
1	Nessewaupe	do	do	3½	400 00	In full.
4	Nessewaupe	do	do	3½	200 00	100 00
6	Liberty Grove	do	do	3½	200 00	In full.
Jt. 8	Nessewaupe and Sturgeon Bay	do	do	3½	100 00	300 00
1	Washington	do	Univ'y.	3½		1,125 00
	Superior School Directors	Douglas	School.	4	500 00	In full.
	Nebagamain School Directors	do	do	3½	1,000 00	2,500 00
5	Hay River	Dunn	School.	4	55 00	55 00
Jt. 8	Stanton and Tiffany	do	do	4	30 00	In full.
3	Otter Creek	do	do	4	86 00	42 00
4	Weston	do	do	4	200 00	In full.
Jt. 6	Taintor and Otter Creek	do	do	4	30 00	60 00
Jt. 5	Sheridan and Newhaven	do	do	4	90 00	135 00
3	Hay River	do	do	4	140 00	In full.
6	Stanton	do	do	3½	115 00	In full.
2	Tiffany	do	do	3½	100 00	100 00
4	Weston	do	do	3½		125 00
Jt. 7	Colfax and Taintor	do	do	3½	80 00	280 00
Jt. 5	Grant and Colfax	do	do	3½	200 00	200 00
2	Grant	do	do	3½	100 00	150 00
Jt. 4	Grant and Otter Creek	do	do	3½	100 00	350 00
3	Rock Creek	do	do	3½	300 00	150 00
3	Colfax	do	do	3½	260 00	910 00
5	Weston	do	do	3½	200 00	200 00
6	Rock Creek	do	do	3½	100 00	150 00
2	Eau Galle	do	do	3½	400 00	600 00
2	Otter Creek	do	do	3½	50 00	250 00
	City of Eau Claire	E'u Claire	School.	4	4,000 00	16,000 00
3	Clear Creek	do	do	4	200 00	100 00
6	Clear Creek	do	do	3½	60 00	150 00
Jt. 1	Bridge Creek, Otter Creek and Lincoln	do	do	3½	600 00	In full.
Jt. 3	Fairchild, Town and Village	do	do	3½	2,000 00	2,000 00
Jt. 1	Bridge Creek, Otter Creek and Lincoln	do	do	3½		500 00
Jt. 3	Fairchild, Town and Village	do	do	3½	2,000 00	2,000 00
4	Seymour	do	do	3½	466 66	233 34
2	Pleasant Valley	do	do	3½	100 00	400 00
Jt. 4	Luddington and Lincoln	do	do	3½	100 00	500 00
Jt. 4	Seymour, etc	do	do	3½	200 00	600 00
Jt. 1	Bridge Creek and City of Augusta	do	do	3½	1,133 33	15,866 67
3	Union	do	do	3½		1,800 00
5	Homestead	Florence	School.	3½	200 00	600 00
1	Homestead	do	do	3½	600 00	300 00
3	Commonwealth	do	do	3½	70 00	630 00
12	Metomen	Fond d'L'c	School.	4	1,000 00	In full.
Jt. 11	Fond du Lac and Friendship	do	do	3½	1,200 00	4,200 00
Jt. 11	Fond du Lac and Friendship	do	do	3½	300 00	1,200 00

Loans to School Districts.

DETAILED STATEMENT OF SCHOOL DISTRICT LOANS—Con.

District.	Town, village or city.	County.	Fund.	Interest rate	Paid in 1902-4.	Outstanding June 30, 1904.
Jt. 2	Osceola and Forest	F'nd du L'c	School.	3½	$200 00	$600 00
Jt. 12	Auburn, Ashford, Village Abbottsford	....do	do	3½		7,000 00
8	Big Bend	Gates	School.	4	100 00	In full.
2	Atlanta	....do	do	3½	100 00	200 00
10	Big Bend	....do	do	3½	140 00	560 00
1	True	....do	do	3½	400 00	2,000 00
9	Big Bend	....do	do	4	118 00	295 00
17	Big Bend	....do	do	3½	84 00	210 00
10	Big Bend	....do	do	3½		400 00
Jt. 2	Big Bend, Bruce, Atlanta, etc	do	do	3½		1,200 00
Jt. 1	Atlanta, Thornapple, Vil. Bruce	....do	do	3½		5,000 00
	High School, Wingville	Grant	School.	4	2,000 00	2,000 00
2	Fennimore	....do	do	4	1,455 00	In full.
Jt. 11	Castle Rock and Wingville	....do	do	4	40 00	60 00
Jt. 1	Boscobel, Marion & Watterstown	....do	do	4	2,000 00	3,000 00
Jt. 10	Lima and Ellenboro	....do	do	4	160 00	In full.
12	Lancaster	....do	do	4	260 00	In full.
Jt. 1	Boscobel, Marion & Watterstown	....do	do	3½		1,000 00
Jt. 1	Potosi, Town and Village	....do	do	3½	720 00	360 00
4	Smelser	....do	do	3½	467 00	In full.
10	Potosi	do	do	3½	200 00	100 00
7	Liberty	....do	do	3½	180 00	180 00
2	Liberty	....do	do	3½	300 00	450 00
Jt. 4	Platteville, City and Town	....do	do	3½	1,000 00	1,000 00
4	Bloomington	....do	do	3½	220 00	880 00
3	Lancaster	....do	do	3½	1,250 00	1,250 00
2	Watterstown	....do	do	3½	160 00	1,440 00
2	Ellenborg	....do	do	3½	100 00	900 00
Jt. 6	Hickory Grove and Fennimore	....do	do	3½	100 00	200 00
Jt. 13	Brooklyn, Union, Oregon and Rutland	Green	School.	4	600 00	1,200 00
8	Albany	....do	do	3½	510 00	1,785 00
7	Exeter	....do	do	3½	300 00	900 00
Jt. 11	Moscow, Perry and York	Iowa	School.	4	100 00	In full.
1	Moscow	....do	do	4	360 00	360 00
2	Ridgeway	....do	do	3½	600 00	300 00
Jt. 8	Highland, Village and Town	....do	do	3½	600 00	2,100 00
4	Mifflin	....do	do	3½	600 00	1,800 00
1	Arena	....do	do	3½	600 00	2,400 00
15	Brigham	....do	do	3½	666 66	4,333 34
1	Waldwick	....do	do	3½	160 00	640 00
4	Vaughn	Iron	School.	4	120 00	240 00
1	Vaughn	....do	do	3½	1,333 33	7,333 33
Jt. 4	Hixton and Curran	Jackson	School.	4	400 00	In full.
Jt. 4	Hixton and Curran	....do	do	4	120 00	In full.
Jt. 1	Albion & City of Bl'ck River Falls	....do	do	4		8,000 00
Jt. 1	Albion & City of Bl'ck River Falls	....do	do	4	400 00	800 00
Jt. 10	Hixton and Albion	....do	do	4	50 00	In full.
Jt. 8	Albion and Irving	....do	do	4	133 33	66 66
7	Hixton	....do	do	3½	100 00	100 00
4	City Point	....do	do	3½	100 00	In full.
Jt. 1	Melrose and Irving	....do	do	3½		2,580 00
Jt. 8	Garden Valley, Alma & Cleveland	....do	do	3½	80 00	240 00
Jt. 7	Manchester and Brockway	....do	do	3½	66 67	133 33
5	Millston	....do	do	3½	80 00	320 00
Jt. 1	Melrose and Irving	....do	do	3½		2,000 00
Jt. 1	Alma and Garden Valley	....do	do	3½		2,500 00
1	Palmyra	Jefferson	School.	4	2,200 00	2,200 00

Loans to School Districts.

DETAILED STATEMENT OF SCHOOL DISTRICT LOANS—Con.

District.	Town, village or city.	County.	Fund.	Interest rate.	Paid in 1902-4.	Outstanding June 30, 1904.
Jt. 8	Aztalan and Farmington	Jefferson.	School.	4	$700 00	$1,050 00
1	Village of Waterloo	....do	Norm'l	4	2,000 00	1,000 00
6	Armenia (now Finley)	Juneau ..	School.	4	50 00	In full.
2	Armenia	....do	.. do ..	4	114 25	In full.
7	Armenia	....do	.. do ..	4	106 00	212 00
6	Armenia	....do	.. do ..	3½	50 00	150 00
Jt. 1	Wonewoc, Town and Village, Summit, etc	....do	.. do .	3½	2,000 00	6,000 00
1	Finley	....do	.. do ..	3½	200 00	400 00
Jt. 1	New Lisbon, City, Town and Clearfield	....do	.. do ..	3½	.....	10,000 00
6	Cutler	....do	.. do ..	3½	130 00	130 00
7	Cutler	.. do	.. do .	3½	100 00	150 00
Jt. 9	Kildare and village of Lyndon	....do	.. do ..	3½	200 00	800 00
4	Clearfield	....do	do ..	3½	200 00	200 00
5	Clearfield	....do	.. do ..	3½	29 00	101 50
5	Kingston	....do	.. do ..	3½	200 00	100 00
Jt. 3	Clearfield and Germantown	....do	.. do ..	3½	50 00	100 00
Jt. 1	Lindina, Lemonwier and City Mauston	....do	.. do ..	3½	1,000 00	3,500 00
2	Fountain	....do	.. do ..	3½	200 00	400 00
Jt. 4	Wonewoc and Hillsboro	....do	.. do ..	3½	266 66	533 34
2	Cutler	.. do	.. do ..	3½	100 00	400 00
8	Armenia	....do	.. do ..	3½	.....	400 00
Jt. 1	Ahnapee and City Algoma	Kewaunee	School.	4	400 00	800 00
Jt. 3	Casca and Luxemburg	....do	.. do ..	3½	400 00	2,200 00
3	Shelby	La Crosse	School.	3½	200 00	In full.
5	Shelby	....do	.. do ..	3½	200 00	700 00
Jt. 6	Hamilton and Village West Salem	....do	.. do ..	3½	.....	2,500 00
1	New Diggings	LaFay'te.	School.	4	200 00	In full.
9	Willow Springs	....do	.. do ..	4	184 00	92 00
6	Shullsburg	....do	.. do ..	3½	2,000 00	6,000 00
Jt. 5	Belmont, Village and Town	....do	.. do ..	3½	1,066 66	6,933 34
Jt. 5	Belmont, Village and Town	....do	.. do ..	3½	266 66	1,733 34
3	Belmont	....do	.. do ..	3½	.....	700 00
2	Rolling	Langlade	School.	4	60 00	In full.
1	Rolling	....do	.. do ..	4	90 00	90 00
5	Rolling	....do	.. do ..	4	192 00	288 00
4	Norwood	....do	.. do ..	4	64 00	96 00
3	Norwood	....do	do ..	4	50 00	100 00
7	Antigo	....do	.. do ..	3½	95 00	332 50
6	Langlade	....do	.. do ..	3½	150 00	450 00
1	Polar	....do	.. do ..	3½	300 00	300 00
6	Evergreen	....do	.. do ..	3½	600 00	1,800 00
5	Norwood	....do	Univ ..	3½	.....	300 00
4	Polar	....do	School.	3½	.....	1,800 00
4	Scott	Lincoln ..	School.	4	80 00	160 00
3	Harrison	....do	.. do .	3½	100 00	In full.
4	Buss II	....do	.. do ..	3½	120 00	360 00
1	Harrison	...do	.. do ..	3½	100 00	500 00
Jt. 4	Manitowoc T'n and City Maniotw'c	Manit'w'c	.. do ..	4	1,000 00	2,000 00
2	Easton	Marathon	School.	5	30 00	In full.
Jt. 5	Cassell and Village of Edgar	....do	.. do ..	3½	109 00	In full
1	Hull	....do	.. do ..	4	100 00	50 00
1	Hull	....do	.. do ..	4	55 00	27 50
5	Day	....do	.. do ..	4	120 00	60 00
5	Eldron	....do	.. do ..	4	60 00	60 00
3	Frankfort	....do	.. do ..	4	120 00	120 00
5	Frankfort	....do	.. do ..	4	80 00	80 00

Loans to School Districts.

DETAILED STATEMENT OF SCHOOL DISTRICT LOANS—Con.

District.	Town, village or city.	County.	Fund.	Interest rate.	Paid in 1902-4.	Outstanding June 30, 1904.
1	Harrison	Marathon	School.	4	$83 32	In full.
6	Emmett	....do	.. do ..	4	50 00	In full.
1	Pike Lake	....do	.. do ..	4	105 00	$157 50
7	Weston	....do	.. do ..	4	50 00	In full.
4	Rib Falls	....do	.. do ..	4	200 00	In full.
3	Wien	....do	.. do ..	4	100 00	250 00
5	Wien	....do	.. do ..	3½	100 00	300 00
4	Wien	....do	.. do ..	3½	200 00	300 00
1	Plover	....do	.. do ..	3½	100 00	50 00
5	Cleveland	....do	.. do ..	3½	200 00	300 00
5	Halsey	....do	.. do ..	3½	120 00	360 00
Jt. 7	Emmett and Cleveland	....do	.. do ..	3½	160 00	In full.
2	Knowlton	....do	.. do ..	3½	280 00	In full.
1	Village of Mosinee	....do	.. do ..	3½	1,600 00	4,800 00
2	Franzen	....do	.. do .	3½	200 00	100 00
4	Bergen	....do	.. do ..	3½	75 00	In full.
2	Wien	....do	.. do ..	3½	280 00	280 00
5	Texas	....do	.. do ..	3½	300 00	150 00
2	Weston	....do	.. do ..	3½	500 00	In full.
Jt. 4	Plover and Norrie	....do	.. do ..	3½	160 00	80 00
14	Mosinee	....do	.. do ..	3½	100 00	100 00
Jt. 2	Halsey, Reitbrock, Vil. Athens, etc	....do	.. do ..	3½	440 00	1,320 00
1	Halsey and Reitbrock	....do	.. do ..	3½	40 00	20 00
2	Stettin	....do	.. do ..	3½	250 00	125 00
3	Weston	....do	.. do ..	3½	118 00	354 00
4	Pike Lake	....do	.. do ..	3½	100 00	250 00
5	Pike Lake	....do	.. do ..	3½	177 00	88 50
5	Weston	....do	.. do ..	3½	200 00	100 00
1	Frankfort	....do	.. do ..	3½	45 00	157 50
2	Eldron	....do	.. do .	3½	100 00	200 00
4	Cleveland	....do	.. do ..	3½	160 00	640 00
5	Cassell	....do	.. do ..	3½	160 00	560 00
3	Franzen	....do	.. do ..	3½	280 00	280 00
1	Franzen	....do	.. do ..	3½	200 00	300 00
6	Texas	....do	.. do ..	3½	100 00	400 00
8	Emmett	....do	.. do ..	3½	400 00	In full.
4	Hewitt	....do	.. do ..	3½	100 00	400 00
3	Franzen	....do	.. do ..	3½	.....	300 00
3	Johnson	....do	.. do .	3½	200 00	800 00
1	Norrie	....do	.. do ..	3½	400 00	400 00
Jt. 2	McMillan and Day	....do	.. do ..	3½	100 00	800 00
5	Bergen	....do	.. do .	3½	100 00	200 00
Jt. 1	Kronwetter and Knowlton	....do	.. do ..	3½	.....	1,000 00
1	Eau Pleine	....do	.. do ..	3½	.....	700 00
3	Spencer	....do	.. do ..	3½	.....	800 00
4	Bern	....do	.. do ..	3½	.....	200 00
11	Coleman	Marinette	School.	4	50 00	50 00
7	Peshtigo	....do	.. do ..	4	50 00	75 00
4	Peshtigo	....do	.. do ..	4	150 00	300 00
4	Grover	....do	.. do ..	4	100 00	150 00
5	Coleman	....do	.. do ..	4	100 00	In full.
	Crivitz School Directors	....do	.. do ..	4	200 00	300 00
8	Peshtigo	....do	.. do ..	4	100 00	200 00
9	Peshtigo	....do	.. do ..	4	160 00	In full.
10	Peshtigo	....do	.. do ..	3½	66 00	165 00
11	Peshtigo	....do	.. do ..	3½	166 68	166 64
7	Amberg	....do	.. do ..	3½	700 00	2,100 00
12	Peshtigo	....do	.. do ..	3½	80 00	280 00
8	Coleman	....do	.. do ..	3½	266 67	In full.
8	Peshtigo	....do	.. do ..	3½	60 00	210 00
8	Coleman	....do	.. do ..	3½	200 00	200 00
6	Peshtigo	....do	.. do ..	3½	90 00	360 00
2	Coleman	....do	.. do ..	3½	100 00	100 00
2	Grover	....do	.. do ..	3½	.....	800 00
13	Peshtigo	....do	.. do ..	3½	.....	500 00

Loans to School Districts.

DETAILED STATEMENT OF SCHOOL DISTRICT LOANS—Con-

District.	Town, village or city.	County.	Fund.	Interest rate.	Paid in 1902-4.	Outstanding June 30, 1904.
1	Montello	Marque'te	School	4	$1,320 00	$1,320 00
1	Moundville	do	do	3½	500 00	2.000 00
5	City of Wauwatosa	Milw'kee.	School.	4	2,000 00	In full.
Jt. 16	Wauwatosa, Greenfield, Mil. City.	do	do	4	2,000 00	1,000 00
Jt. 6	Milwaukee City and Wauwatosa.	do	do	3½	1,260 00	3,150 00
5	Greenfield	do	do	3½	2,000 00	7,000 00
17	Greenfield	do	do	3½	1,000 00	4,000 00
9	Lake	do	do	3½	1,600 00	6,400 00
8	Lincoln	Monroe	School	4	30 00	15 00
4	Byron	do	do	4	32 60	65 20
8	Scott (formerly Byron)	do	do	4	31 12	62 20
6	Portland	do	do	4	50 00	In full.
Jt. 1	Portland, Jefferson, Vil. Cashton.	do	do	3½	600 00	3,000 00
Jt. 1	Portland, Jefferson, Vil. Cashton.	do	do	3½	466 67	2.566 67
2	Grant	do	do	3½	50 00	400 00
Jt. 6	Byron and Scott	do	do	3½	100 00	350 00
1	Ridgeville, Sheldon, Vil. Norwalk	do	do	3½	2,600 00	2 600 00
6	Tomah	do	do	3½	150 00	150 00
Jt. 1	City of Tomah	do	School	3½	.....	20,000 00
1	Wilton Town & City, Wellington etc	do	do	3½	1,000 00	9,000 00
3	Lynne	do	do	3½	32 50	292 50
Jt. 13	Greenfield, Adrian, Angelo. etc	do	do	3½	30 00	270 00
1	City of Tomah	do	do	3½	333 33	4,666 67
2	Byron	do	do	3½	100 00	800 00
4	Grant	do	do	3½	50 00	450 00
Jt. 7	Ridgeville and Sheldon	do	do	3½	80 00	320 00
Jt. 1	Wilton, Town and Vil., Wellington, etc	do	do	3½	.....	2,500 00
3	Gillett	Oconto	School	4	500 00	1,000 00
3	Pensaukee	do	do	4	70 00	105 00
	Armstrong School Directors	do	do	4	200 00	In full.
3	Little River	do	do	4	212 50	212 50
3	Pensaukee	do	do	4	40 00	In full.
3	Brazeau	do	do	4	150 00	In full.
3	Maple Valley	do	do	3½	300 00	In full.
2	Oconto Falls	do	do	3½	200 00	300 00
2	Lena	do	do	3½	400 00	1,200 00
4	Lena	do	do	3½	100 00	300 00
1	Gillett	do	do	3½	312 50	781 25
2	Maple Valley	do	do	3½	220 00	770 00
8	Pensaukee	do	do	3½	200 00	300 00
3	Little Suamico	do	do	3½	200 00	700 00
3	Lena	do	do	3½	100 00	50 00
3	Breed	do	do	3½	200 00	300 00
7	Oconto Falls	do	do	3½	.....	550 00
4	Chase	do	do	3½	400 00	200 00
3	Spruce	do	do	3½	220 00	770 00
2	Oconto Falls	do	do	3½	.....	10,000 00
2	Brazeau	do	do	3½	150 00	1,350 00
2	Oconto Falls	do	do	3½	1,200 00	4,800 00
4	Maple Valley	do	do	3½	166 66	833 34
2	Lena	do	do	3½	150 00	1,350 00
8	Seymour	do	do	3½	.....	800 00
3	Howe	do	do	3½	.....	2,500 00
Jt. 6	Little River and Lena	do	do	3½	.....	2,800 00
4	Little River	do	do	3½	.....	500 00
	School Directors of Pelican	Oneida	School	4	500 00	In full.
	School Directors of Pelican	no	do	4	400 00	400 00
	School Directors of Pelican	do	do	4	300 00	600 00

Loans to School Districts.

DETAILED STATEMENT OF SCHOOL DISTRICT LOANS—Con.

District.	Town, village or city.	County.	Fund.	Interest rate.	Paid in 1902-4.	Outstanding June 30, 1904.
2	City of Appleton	Out'g'mie	School	4	$2,500 00	In full.
1	Bovina	do	do	4	100 00	$100 00
6	Bovina	do	do	4	100 00	50 00
4	Maine	do	do	4	78 57	In full.
Jt. 2	Kaukauna, Town and City, Little Chute, etc	do	do	4	2,500 00	3,750 00
1	City of Appleton	do	do	4	2,000 00	3,000 00
2	City of Appleton	do	do	4	19,500 00	In full.
4	Bovina	do	do	4	100 00	200 00
9	Seymour	do	do	4	100 00	150 00
1	Bovina	do	do	3½	200 00	300 00
6	Seymour	do	do	3½	180 00	630 00
4	Maine	do	do	3½	133 34	266 66
1	Bovina	do	do	3½	266 66	1,733 34
4	City of Appleton	do	do	3½	1,333 33	18,666 67
6	Black Creek	do	do	3½	300 00	3,300 00
8	Seymour	do	do	3½	.....	800 00
Jt. 1	Port Washington, City and Town	Ozaukee	School.	3½	1,000 00	14,000 00
2	Frankfort	Pepin	School.	3½	200 00	In full.
3	Pepin	do	do	3½	200 00	100 00
5	Albany	do	do	3½	100 00	350 00
1	Pepin	do	do	3½	866 66	5,633 34
7	Trimbelle	Pierce	Schoo	4	300 00	150 00
3	Union	do	do	4	260 00	130 00
8	River Falls	do	do	4	120 00	180 00
1	Diamond Bluff	do	do	4	90 00	In full.
3	Trimbelle	do	do	3½	125 00	312 50
11	Rock Elm	do	do	3½	466 66	233 34
6	River Falls	do	do	3½	100 00	1,100 00
6	Spring Lake	do	do	3½	375 00	2,625 00
Jt. 5	Lincoln and Village of Amery	Polk	School.	4	470 00	In full
4	Alden	do	do	4	110 00	55 00
3	Apple River	do	do	4	141 67	In full.
2	Osceola, village	do	do	4	800 00	1,600 00
2	Black Brook	do	do	4	27 00	In full.
Jt. 1	Alden and Osceola	do	do	4	100 00	In full.
4	Clayton	do	do	4	200 00	In full.
2	Farmington	do	do	4	200 00	200 00
1	Milltown	do	do	3½	100 00	100 00
1	Osceola	do	do	3½	100 00	100 00
6	Clear Lake	do	do	3½	80 00	200 00
3	Milltown	do	do	3½	200 00	In full.
3	Sterling	do	do	3½	120 00	60 00
2	St. Croix Falls	do	do	3½	100 00	50 00
7	Clear Lake	do	do	3½	100 00	200 00
3	Balsam Lake	do	do	3½	110 00	440 00
2	Clayton	do	do	3½	100 00	400 00
5	Clayton	do	do	3½	80 00	280 00
6	Clayton	do	do	3½	100 00	100 00
3	St. Croix Falls	do	do	3½	.....	2,450 00
3	Luck	do	do	3½	300 00	1,950 00
Jt. 1	Beaver and Apple River	do	do	3½	54 00	297 00
3	West Sweden	do	do	3½	600 00	2,100 00
Jt. 1	Sterling and Eureka	do	do	3½	333 34	166 66
1	Osceola	do	do	3½	.....	700 00
7	Amherst	Portage	School.	4	200 00	100 00
1	Grant	do	do	4	150 00	In full.
9	Clover	do	do	4	200 00	In full.
Jt. 6	Belmont and Almond	do	do	4	100 00	In full.
2	Carson	do	do	4	100 00	In full.
6	Hull	do	do	4	98 00	In full.

Loans to School Districts.

DETAILED STATEMENT OF SCHOOL DISTRICT LOANS—Con.

District.	Town, village or city.	County.	Fund.	Interest rate.	Paid in 1902-4.	Outstanding June 30, 1904.
Jt. 1	Eau Pleine, etc	Portage	School.	4	$200 00	In full.
7	Hull	do	do	4	100 00	In full.
4	Eau Pleine	do	do	4	119 60	In full.
1	Eau Pleine	do	do	4	116 00	$58 00
7	Carson	do	do	4	80 00	40 00
5	Carson	do	do	3½	100 00	400 00
Jt. 2	Almond (Oasis Waushara)	do	do	3½	.....	10,000 00
6	Pine Grove	do	do	3½	.....	1,500 00
3	Almond	do	do	3½	.....	1,300 00
2	Lake	Price	School.	4	400 00	In full.
11	Prentice (formerly Ogema)	do	do	3½	294 00	In full.
5	Prentice	do	do	3½	100 00	300 00
8	Ogema	do	do	3½	175 00	In full.
3	Catawba (formerly Kennan)	do	do	3½	200 00	200 00
4	Knox	do	do	3½	69 00	207 00
Jt. 2	Kennan and Catawba	do	do	3½	800 00	800 00
4	Kennan	do	do	3½	300 00	150 00
5	Lake	do	do	3½	80 00	In full.
7	Eisenstein (formerly Lake)	do	do	3½	200 00	300 00
3	Lake	do	do	3½	100 00	900 00
2	Park Falls, Village	do	do	3½	700 00	6,300 00
Jt. 1	Kennan and Georgetown	do	do	3½	180 00	720 00
2	Park Falls	do	do	3½	.....	3,000 00
Jt. 2	Prentice and Knox	do	do	3½	.....	600 00
21	Mt Pleasant	Racine	School.	3½	300 00	1,500 00
1	Waterford	do	do	3½	500 00	2,500 00
Jt. 18	Mt Pleasant and Caledonia	do	do	3½	.....	2,500 00
5	Forest	Richland	School.	3½	127 00	444 50
7	Ithica	do	do	3½	200 00	200 00
Jt. 1	Ithica, Richland, Orion, Beuna Vista	do	do	3½	650 00	In full.
Jt. 3	Beuna Vista, Lonerock, etc	do	do	3½	.....	6,450 00
Jt. 2	Richland and City R. Center	do	do	3½	1,200 00	7,800 00
Jt. 1	Buena Vista and Orion	do	do	3½	.....	3,000 00
Jt. 2	Richland and City R. Center	do	do	3½	1,133 34	7,366 66
Jt. 10	Rockbridge and Henrietta	do	do	3½	100 00	500 00
3	Westford	do	do	3½	92 86	557 14
Jt. 1	Center and Plymouth	Rock	School.	3½	600 00	300 00
6	Plymouth	do	do	3½	440 00	1,760 00
Jt. 8	Fulton and City of Edgerton	do	do	3½	.....	8,000 00
Jt. 5	Stanton and Star Prairie	St. Croix	School.	4	.....	600 00
Jt. 1	Hammond, Village and Town	do	do	4	200 00	100 00
2	Glenwood	do	do	4	100 00	In full.
Jt. 5	Stanton and Star Prairie	do	do	4	80 00	80 00
2	Stanton	do	do	4	240 00	360 00
Jt. 1	Cady (Lucas, Dunn Co.)	do	do	4	100 00	In full.
Jt. 8	Glenwood, Emerald, Baldwin, &c.	do	do	4	60 00	90 00
4	Forest	do	do	4	61 00	In full.
1	Ceylon	do	do	3½	260 00	650 00
5	St. Joseph	do	do	3½	120 00	360 00
Jt. 9	Hammond and Erin	do	do	3½	150 00	525 00
Jt. 1	New Richmond, Star Prairie, Stanton	do	do	3½	.....	700 00
Jt. 1	New Richmond, Star Prairie, Stanton	do	do	3½	.....	1,000 00
7	Baldwin	do	do	3½	160 00	640 00
3	Kinnickinnic	do	do	3½	400 00	200 00
3	Springfield	do	do	3½	100 00	900 00
6	Glenwood	do	do	3½	50 00	450 00
Jt. 4	Baldwin, Town and Village, and Hammond	do	do	3¼	766 66	10,733 34

Loans to School Districts.

DETAILED STATEMENT OF SCHOOL DISTRICT LOANS—Con.

District.	Town, village or city.	County.	Fund.	Interest rate.	Paid in 1902-4.	Outstanding June 30, 1904.
3	Hudson	St. Croix.	School.	3½	$100 00	$900 00
4	Ceylon	....do	.. do ..	3½		700 00
Jt. 2	LaValle, Town and Village	Sauk	School.	4	200 00	In full.
Jt. 7	Woodland (Westford, Richl'd Co)	....do	.. do ..	4	187 50	187 50
Jt. 9	Excelsior and Vil. Abelman	...do	. do ..	4	415 40	2,076 90
6	Baraboo	...do	.. do ..	3½	596 00	3,576 00
Jt. 5	Merimac, Town and Village, etc.	... do	Norm'l	3½		4,000 00
13	La Valle	....do	School.	3½	25 00	175 00
Jt. 1	Freedom, and Vil. N. Freedom	....do	.. do ..	3½	400 00	5,600 00
Jt. 2	Fairbanks, and Vil. Tigerton	Shawano.	School.	4	400 00	In full.
4	Angelica	....do	.. do ..	4	100 00	In full.
Jt. 1	Lessor, Angelica, Hartland, etc.	....do	.. do ..	4	80 00	40 00
1	Wittenberg	....do	.. do ..	4	160 00	160 00
6	Richmond	...do	.. do ..	4	111 12	111 08
Jt. 3	Maple Grove (Pittsfield)	....do	.. do ..	4	200 00	200 00
Jt. 7	Birnamwood, Town and Vil., etc.	....do	.. do ..	4	200 00	200 00
Jt. 6	Maple Grove (Pittsfield)	....do	.. do ..	4	83 20	83 20
7	Wescott (formerly Richmond)	....do	.. do ..	4		300 00
Jt. 6	Angelica, Green Valley, etc	....do	.. do ..	4	100 00	150 00
3	Germania	....do	.. do ..	4	75 00	37 50
3	Wittenberg	....do	.. do ..	4	840 00	1,260 00
Jt. 6	Birnamwood and Norrie	....do	.. do ..	4	200 00	300 00
4	Germania	....do	do ..	4	66 65	In full.
Jt. 5	Almon, Morris and Seneca	....do	.. do ..	4	100 00	In full.
Jt. 3	Herman, Grant, Seneca, Pella	....do	.. do ..	4	320 00	640 00
4	Grant	....do	.. do ..	4	100 00	50 00
6	Morris	....do	.. do ..	3½	225 00	112 50
1	Aniwa	....do	.. do ..	3½	200 00	200 00
Jt. 3	Lessor, Shawano and Cicero	....do	.. do ..	3½	100 00	100 00
3	Navarino	... do	.. do ..	3½	100 00	300 00
	City of Shawano	....do	.. do ..	3½	1,600 00	10,400 00
Jt. 7	Birnamwood, City and Town, etc	....do	.. do ..	3½	506 68	3,293 32
	City of Shawano	....do	.. do ..	3½	200 00	2,800 00
3	Richmond	....do	.. do ..	3½	90 00	810 00
5	Angelica	....do	.. do ..	3½	50 00	550 00
3	Wittenberg	....do	.. do ..	3½	500 00	7,000 00
1	Hutchins	...do	.. do ..	3½	120 00	1,080 00
2	Maple Grove	....do	.. do	3½		1,500 00
Jt. 2	Fairbanks and Village Tigerton	....do	do ..	3½		9,000 00
14	Holland	Sheboyg'n	School.	4	216 65	In full.
6	Sheboygan	....do	.. do ..	4	200 00	300 00
13	Mitchell	....do	.. do ..	3½	600 00	In full.
3	Lima	..do	.. do ..	3½	300 00	1,050 00
7	Sheboygan	....do	.. do ..	3½	200 00	1,300 00
1	Village Elkhart Lake	....do	. do ..	3½	400 00	5,600 00
5	Sheboygan	....do	. do ..	3½	100 00	900 00
Jt. 8	Plymouth, Town and City	....do	do ..	3½		20,000 00
6	Lyndon	....do	.. do ..	3½		7,000 00
2	Grover	Taylor	School.	4	232 00	In full.
2	Rib Lake	....do	.. do ..	4	120 00	240 00
Jt. 1	Grover and Cleveland	....do	.. do ..	4	400 00	In full.
Jt. 9	Hammel and Grover	...do	.. do ..	4	30 00	In full.
2	Medford	....do	.. do ..	4	83 34	166 66
2	Cleveland	do	.. do ..	4	280 00	In full.
4	Deer Creek	....do	.. do ..	3½	110 00	In full.
7	Little Black	...do	.. do ..	3½	100 00	100 00
11	Medford	....do	.. do ..	3½	50 00	In full.
1	Rib Lake	...do	.. do ..	3½	650 00	325 00
3	Deer Creek	....do	.. do ..	3½	150 00	375 00
7	Holway	...do	.. do ..	3½	100 00	350 00
5	Holway	....do	.. do ..	3½	300 00	150 0

Loans to School Districts.

DETAILED STATEMENT OF SCHOOL DISTRICT LOANS—Con.

District.	Town, village or city.	County.	Fund.	Interest rate.	Paid in 1902-4	Outstanding June 30, 1904.
5	Medford	Taylor	School.	3½	$100 00	$300 00
3	Chelsea	do	do	3½	200 00	500 00
1	Lincoln	Tremp'l'u	School.	4	500 00	In full.
1	Sumner	do	do	4	220 00	In full.
6	Hale	do	do	4	60 00	30 00
4	Pigeon	do	do	4	125 00	In full.
5	Pigeon	do	do	4	100 00	In full.
Jt. 5	Ettrick, Franklin, etc	do	do	4	75 00	112 50
Jt. 1	Hale, Pigeon and Lincoln	do	do	4	100 00	In full.
Jt. 6	Ettrick and Preston	do	do	4	50 00	150 00
Jt. 1	Hale, Chim. Rock and Burnside	do	do	4	100 00	350 00
13	Arcadia	do	do	4	200 00	500 00
Jt. 2	Lincoln, Preston, Vil. Whitehall	do	do	3½	500 00	2,500 00
1	Albion	do	do	3½	800 00	5,200 00
Jt. 2	Lincoln, Preston, Vil. Whitehall	do	do	3½	.....	1,500 00
2	Hale	do	do	3½	53 33	746 67
1	Pigeon	do	do	3½	200 00	800 00
Jt. 1	Preston and Village of Blair	do	do	3½	800 00	11,200 00
Jt. 1	Arcadia, Vil. & Town & Glencoe	do	do	3½	360 00	1,440 00
Jt. 7	Chimney Rock and Albion	do	do	3½	50 00	650 00
8	Chimney Rock	do	do	3½	.....	500 00
Jt. 1	Jefferson and Viroqua	Vernon	School.	5	100 00	In full.
Jt. 1	Jefferson and Viroqua	do	do	4	80 00	In full.
Jt. 9	Liberty, Vil. Viola, Kickapoo, &c.	do	do	4	670 00	In full.
7	Christiana	do	do	4	360 00	180 00
Jt. 9	Whitestown, Stark, Forest, Union	do	do	4	200 00	100 00
15	Stark	do	do	4	200 00	200 00
5	Hillsboro	do	do	4	100 00	200 00
Jt. 3	Wheatland (Freeman)	do	do	4	220 00	In full.
9	Jefferson	do	do	3½	160 00	480 00
Jt. 3	Hillsboro T. & Vil. & Greenwood	do	do	3½	533 34	2,933 32
Jt. 15	Stark and Village La Farge	do	do	3½	600 00	3,300 00
Jt. 7	Clinton and Webster	do	do	3½	200 00	400 00
Jt. 1	Kickapoo and Vil. Readstown	po	do	3½	.....	5,600 00
1	Stark	do	do	3½	120 00	420 00
1	Whitestown	do	do	3½	100 00	400 00
Jt. 9	Christiana and Coon	do	do	3½	100 00	400 00
5	Harmony	do	do	3½	133 34	866 66
3	Whitestown	do	do	3½	50 00	450 00
4	Franklin	do	do	3½	.....	1,000 00
Jt. 15	Stark and Village La Farge	do	do	3½	.....	5,000 00
3	Walworth	Walworth	School	4	200 00	In full.
Jt. 7	Walworth, Delavan, Geneva, Linn	do	do	3½	600 00	1,800 00
Jt. 1	Walworth, Town and Village	do	do	3½	1,000 00	9,000 00
4	Bloomfield	do	do	3½	400 00	600 00
3	Fontana (town of Walworth)	do	do	3½	400 00	1,600 00
7	Darien	do	do	3½	.....	5,000 00
	Minong School Directors	Washbu'n	School.	4	110 00	In full.
	Veazie School Directors	do	do	4	200 00	400 00
6	Basha	do	do	3½	450 00	In full.
3	Basha	do	do	3½	175 00	In full.
10	Spooner	do	do	3½	150 00	375 00
5	Minong	do	do	3½	200 00	700 00
4	Loomes (formerly Long Lake)	do	do	3½	533 32	3,466 68
7	Chicog	do	do	3½	107 70	592 30
9	Chicog	do	do	3½	.....	500 00
3	Chicog	do	do	3½	37 00	333 00
1	Spooner	do	do	3½	85 00	765 00
11	Chicog	do	do	3½	40 00	560 00
5	Spooner	do	do	3½	50 00	450 00
2	Chicog	do	do	3½	.....	600 00

Loans to School Districts.

DETAILED STATEMENT OF SCHOOL DISTRICT LOANS—Con.

District.	Town, village or city.	County.	Fund.	Interest rate.	Paid in 1902-4.	Outstanding June 30, 1904.
1	Erin	Wash'ton	School.	3½	.....	$1,000 00
1	Genesee	Wauk'sha	School.	4	$280 00	280 00
1	City of Clintonville	Waupaca	School	4	1,800 00	2,700 00
2	Little Wolf (1st Loan)	....do	.. do .	4	833 20	833 20
5	Matteson	....do	.. do ..	4	100 00	In full.
2	Little Wolf (2d Loan)	....do	.. do ..	4	.....	1,908 00
2	Wyoming	....do	.. do ..	3½	200 00	300 00
Jt. 1	Iola, Village and Town	....do	.. do ..	3½	1,200 00	4,800 00
5	Waupaca	..do	.. do ..	3½	200 00	200 00
Jt. 2	Mukwa and Lebanon	....do	.. do ..	3½	400 00	2,600 00
7	Farmington	....do	.. do ..	3½	100 00	600 00
Jt. 7	Scandinavia and St. Lawrence	....do	.. do ..	3½	.....	800 00
1	Farmington	....do	.. do ..	3½	.....	800 00
Jt. 1	Royalton, Little Wolf, Mukwa	....do	.. do ..	3½	.....	4,500 00
9	Hancock	Waushara	School.	3½	500 00	In full.
Jt. 9	Plainfield, T. & Vil. & Oasis	...do	.. do ..	3½	1,600 00	6,400 00
Jt. 9	Plainfield, T. & Vil. & Oasis	....do	.. do ..	3½	.....	2,800 00
Jt. 1	Dakota & Wautoma, Vil. & Town	....do	.. do ..	3½	1,600 00	6,400 00
4	Rose	....do	.. do ..	3½	200 00	600 00
Jt. 2	Rose and Springwater	....do	.. do ..	3½	800 00	5,200 00
Jt. 1	Dakota & Wautoma, Vil. & Town	....do	.. do ..	3½	.....	3,000 00
Jt. 2	Mt. Morris and Marion	....do	.. do ..	3½	50 00	550 00
5	Omro (2d Loan)	Winneb'o	School.	4	2,000 00	In full.
Jt. 2	Winneconne, Village and Town	....do	.. do ..	3½	1,200 00	4,800 00
Jt. 2	Winneconne, Village and Town	...do	.. do ..	3½	200 00	800 00
6	Oshkosh	....do	.. do ..	3½	104 55	1,045 45
1	Village of Nekoosa	Wood	School.	4	150 00	In full.
5	Remington	....do	.. do ..	4	80 00	120 00
6	Lincoln	.. do	.. do ..	4	50 00	In full.
6	Remington	... do	.. do ..	4	85 00	In full.
1	Grand Rapids	....do	.. do ..	4	200 00	500 00
Jt. 5	Auburndale and Arpin	....do	.. do ..	3½	60 00	150 00
2	Remington	....do	.. do ..	3½	160 00	80 00
4	Arpin	....do	.. do ..	3½	106 00	106 00
3	Arpin (formerly Vesper)	....do	.. do ..	3½	100 00	150 00
5	Rudolph	....do	.. do ..	3½	200 00	400 00
1	Seneca	... do	.. do ..	3½	75 00	225 00
5	Dexter	....do	.. do ..	3½	100 00	400 00
Jt. 1	Wood and City of Pittsville	... do	.. do ..	3½	200 00	700 00
4	Dexter	....do	.. do ..	3½	170 00	680 00
4	Rock	....do	.. do	3½	100 00	500 00
Jt. 4	Hansen and Seneca	....do	.. do ..	3½	150 00	450 00
5	Richfield	....do	.. do ..	3½	100 00	400 00
3	Carey	.. do	.. do ..	3½	50 00	350 00
1	Richfield	.. do	Univ.	3½	.....	600 00
6	Rock	....do	School.	3½	.....	500 00
6	Hansen	....do	.. do ..	3½	.....	600 00
1	Sherry	....do	.. do ..	3½	.....	600 00

The Productive Trust Funds.

THE PRODUCTIVE TRUST FUNDS.

The following statement shows the amount of Productive Trust Funds outstanding on the 30th day of June, 1904.

SCHOOL FUND.

Due on certificates of sale	$16,334 95
Due on School District loans	866,361 69
Due on Individual loans	1,910 74
Due on Racine City loans	297 80
Certificates of Indebtedness	1,563,700 00
Bonds—Durand City	23,800 00
Bonds—Wauwatosa City	16,000 00
Bonds—Amherst Village	2,000 00
Bonds—Grand Rapids City	58,000 00
Bonds—Ashland City	25,000 00
Bonds—Westby Village	2,700 00
Bonds—Ashland County	20,000 00
Bonds—Chilton Town	17,400 00
Bonds—Chilton City	7,600 00
Bonds—Columbus City	25,000 00
Bonds—Elroy City	13,350 00
Bonds—Eau Claire City	30,000 00
Bonds—Highland Village	2,800 00
Bonds—Milwaukee City	18,000 00
Bonds—Milwaukee School	60,000 00
Bonds—Stoughton City	10,000 00
Bonds—Superior City	250,000 00
Bonds—Wausau City	30,000 00
Bonds—Boscobel City	7,500 00
Bonds—Bayfield County	64,000 00
Loan—Brown County	30,450 00
Loan—Chippewa County	25,263 12
Loan—Oneida County	12,000 00
Loan—Trempealeau County	59,000 00
Loan—City of Chippewa Falls	5,000 00
Loan—City of Green Bay	20,000 00
Loan—City of Jefferson	2,000 00
Loan—City of Menasha	9,000 00
Loan—City of New London	1,000 00
Loan—City of Oconto	17,500 00
Loan—City of Phillips	1,600 00
Loan—S. D. Town of Florence	4,200 00
Loan—S. D. Town of Sugar Camp	1,040 00
Bonds—Tomahawk City Hall	8,800 00
Loan—B. of E. City of Madison	30,000 00
Loan—City of Waupaca	6,000 00
Loan—Town of Knight	2,500 00
Loan—S. D. Town of Washburn	2,000 00
Bonds—Oconomowoc City	9,500 00
Bonds—West Bend City	6,000 00

The Productive Trust Funds.

Bonds—Mondovi City	16,800 00
Loan—Richland County	20,000 00
Loan—Town of Superior	10,800 00
Loan—B. S. D. Town of Superior	1,500 00
Loan—Portage County	50,000 00
Loan—Ashland County	34,666 66
Loan—City of Mineral Point	29,000 00
Loan—City of Madison	25,000 00
Loan—Town of Bergen	1,500 00
Bonds—La Crosse County	1,000 00
Loan—B. S. D. Town of Morse	8,000 00
Loan—Grant County	26,338 00
Total	$3,609,212 96

UNIVERSITY FUND.

Due on Certificates of sale	$2,057 00
Due on School District Loans	2,025 00
Due on Individual loans	350 00
Certificates of Indebtedness	111,000 00
Loan—City of Antigo	9,000 00
Loan—S. D. Town of Newbold	1,500 00
Bonds—Greenwood City	2,000 00
Loan—B. of E. City of Ripon	250 00
Loan—B. S. D. Town of Brule	840 00
Loan—Village of Thorp	3,000 00
Loan—City of Sturgeon Bay	9,000 00
Loan—City of Rhinelander	5,400 00
Bonds—De Pere City	8,000 00
Loan—Town of Hixon	1,500 00
Loan—Town of Thorp	1,470 00
Loan—B. S. D. Town of Westboro	1,200 00
Loan—Town of Green Valley	2,450 00
Loan—B. S. D. Town of Elcho	1,750 00
Loan—B. of E. City of Madison	7,700 00
Loan—City of Rice Lake	4,500 00
Loan—Town of Port Wing	6,666 67
Loan—Town of Saxon	1,500 00
Loan—S. D. Town of Grant	1,280 00
Bonds—La Crosse County	9,000 00
Bonds—Stanley City	10,000 00
Loan—Village of Wonewoc	3,181 82
Loan—Village of Benton	3,000 00
Loan—City of New London	10,000 00
Total	$219,620 49

AGRICULTURAL COLLEGE FUND.

Due on Certificates of sale	$15,397 00
Certificates of Indebtedness	60,600 00
Bonds—Westby Village	4,000 00
Bonds—Eau Claire Bridge	15,000 00
Bonds—Black River Falls City	1,500 00

The Productive Trust Funds.

Bonds—Milwaukee City	20,000 00
Loan—Forest County	1,000 00
Loan—Iron County	9,000 00
Loan—City of Antigo	2,800 00
Loan—Town of Bayfield	3,500 00
Loan—B. of E. City of New London	11,000 00
Loan—B. of E. City of Sturgeon Bay	1,000 00
Loan—Town of Harrison	110 00
Loan—Town of Oconto Falls	2,400 00
Loan—B. of E. City and Town of Ripon	1,500 00
Loan—Village of Osseo	846 13
Loan—Town of Sumner	2,153 87
Loan—B. S. D. Town of Crandon	3,000 00
Loan—Town of Grantsburg	200 00
Loan—City of Wausau	37,500 00
Loan—City of Durand	1,000 00
Loan—Town of Eaton	800 00
Loan—Barron County	21,000 00
Loan—Town of Peck	1,500 00
Loan—Town of Manitowoc	2,000 00
Loan—Village of New Glarus	12,000 00
Loan—B. S. D. Town of Saxon	1,500 00
Loan—Town of Maine	500 00
Loan—City of Sturgeon Bay	10,500 00
Bonds—La Crosse County	30,000 00
Loan—Kewaunee County	20,000 00
Total	$293,307 00

NORMAL SCHOOL FUND.

Due on Certificates of Sale	$1,949 00
Due on School District loans	5,140 00
Due on Individual loans	1,650 00
Certificates of Indebtedness	515,700 00
Bonds—Berlin City	18,000 00
Bonds—Shawano City	15,000 00
Bonds—Stoughton City	20,000 00
Bonds—Ashland County	25,000 00
Bonds—Vernon County	15,000 00
Bonds—Ashland City	22,000 00
Bonds—Antigo City	18,000 00
Bonds—Beaver Dam City	6,000 00
Bonds—Edgerton City	5,000 00
Bonds—Eau Claire City	10,000 00
Bonds—Glenwood Town	9,000 00
Bonds—Hudson City	23,000 00
Bonds—La Crosse City	10,000 00
Bonds—Madison City	25,000 00
Bonds—Milwaukee City	20,000 00
Bonds—Manitowoc County	31,000 00
Bonds—Richland Center (Water)	2,000 00
Bonds—Merrill City (Bridge)	12,000 00
Bonds—Merrill City	35,000 00
Loan—Dunn County	10,000 00

The Productive Trust Funds.

Loan—Door County	45,000 00
Loan—Sawyer County	25,000 00
Loan—Chippewa County	24,947 38
Loan—Washburn County	27,250 00
Loan—Winnebago County	32,000 00
Loan—B. of E. City of Madison	30,000 00
Loan—B. of E. City of Grand Rapids	1,900 00
Loan—Village of Bloomer	1,000 00
Loan—Village of Hammond	332 00
Loan—Village of Whitefish Bay	2,400 00
Loan—City of Cumberland	1,180 00
Loan—City of Clintonville	1,200 00
Loan—City of Fond du Lac	12,000 00
Loan—City of Menomonie	30,000 00
Loan—City of Mineral Point	3,000 00
Loan—City of New London	7,000 00
Loan—City of Prairie du Chien	10,000 00
Loan—City of Phillips	2,000 00
Loan—City of Shawano	640 00
Loan—City of Waupaca	1,500 00
Loan—Town of Finley	1,100 00
Loan—Town of Mosinee	100 00
Loan—Town of Minocqua	1,500 00
Loan—Town of Remington	600 00
Loan—Town of Richmond	3,000 00
Loan—Town of Schoepke	750 00
Loan—Light Horse Squadron	30,000 00
Loan—Eau Claire County	105,000 00
Loan—City of Kewaunee	11,400 00
Loan—Town of W. Kewaunee	6,000 00
Loan—Town of Florence	1,500 00
Loan—City of Madison	7,500 00
Loan—S. D. Town of Minocqua	1,500 00
Bonds—Columbus City Hall	7,000 00
Bonds—Clinton City	5,500 00
Bonds—Cambridge village	7,500 00
Bonds—Cameron Village	3,000 00
Loan—Town of Eagle River	3,000 00
Loan—City of Portage	13,500 00
Loan—Town of Ettrick	500 00
Loan—Village of Galesville	2,000 00
Loan—B. S. D. Town of Brule	4,333 33
Loan—Kewaunee County	10,000 00
Loan—Grant County	72,000 00
Loan—B. S. D. Town of Crandon	11,200 00
Loan—Waupaca County	46,500 00
Loan—Village of Amery	2,100 00
Loan—Town of Cary	3,600 00
Loan—Town of Iron River	1,600 00
Loan—Shawano County	11,000 00
Loan—B. S. D. Town of Flambeau	7,000 00
Loan—B. S. D. Town of Jacobs	3,000 00
Loan—City of Sturgeon Bay	40,000 00
Loan—B. S. D. Town of Veazie	500 00
Loan—Village of Thorp	4,000 00
Loan—Town of Brule	2,857 13

Loans to Individuals.

Loan—City of Wausau	18,700 00
Loan—Town of Jacobs	6,000 00
Loan—City of Barron	12,566 66
Loan—B. S. D. Town of Wausaukee	7,000 00
Loan—Village of Wautoma	3,200 00
Loan—City of Colby	11,400 00
Loan—Town of Hiles	3,000 00
Loan—City of Black River Falls	12,000 00
Loan—City of Rice Lake	24,000 00
Loan—Town of Pelican	4,160 00
Bonds—La Crosse County	95,000 00
Loan—City of Eau Claire	28,500 00
Loan—Town of York	3,000 00
Loan—Town of Wien	1,500 00
Loan—Dunn County	14,000 00
Loan—B. of E. City of Grand Rapids	55,000 00
Loan—City of Madison	25,000 00
Loan—City of Marinette	15,000 00
Loan—B. of E. City of Madison	35,000 00
Loan—Trustees Village of Wonewoc	8,333 34
Loan—Town of Arpin	8,000 00
Loan—Village of Blanchardville	5,850 00
Total	$1,941,638 86

LOANS TO INDIVIDUALS.

Statement of Loans to Individuals, and on Racine City Lots, for the term ended June 30, 1904,—Compared with same for the term ended June 30, 1902.

County.	Due June 30, 1902.	Paid since June 30, 1902.	Due June 30, 1904.	Fund.
Adams	$200 00		$200 00	School.
Chippewa	300 00		300 00	School.
Dane	250 00	[$250 00		School.
Iowa	350 00		350 00	University
Iowa	799 24		799 24	School.
Juneau	300 00		300 00	Normal.
Manitowoc	450 00		450 00	Normal.
Marquette	461 50		461 50	School.
Monroe	500 00		500 00	Normal.
Racine	400 00		400 00	Normal.
Richland	125 00	125 00		Normal.
Waushara	350 00	200 00	150 00	School.
Racine city	297 80		297 80	School.
Total	$4,783 54	$575 00	$4,208 54	

Trespass Charges Collected.

TRESPASS CHARGES COLLECTED.

The following table shows the amount of moneys received and collected in the different counties and credited to the different funds from trespass on vacant and contracted state lands. All expenses incurred in looking up and a survey of such lands were collected of the trespassers and turned into the general fund. Moneys received from sales of material and stumpage have been turned into the treasury and placed to the credit of the funds entitled thereto:

Trespass charges collected. For two years ending June 30, 1904.

Fund.	County.	Fiscal year 1902-3.	Fiscal year 1903-4.	Total.
School	Oconto	$500 00		$500 00
General	Ashland	77 00		77 00
Genreal	Burnett	994 75	25 00	1,019 75
General	Forest		101 45	101 45
General	Lincoln	757 99	261 37	1,019 36
General	Oconto	57 00		57 00
General	Oneida	244 58		244 58
General	Price	651 18	61 70	713 18
General	Sawyer	65 00		65 00
General	Shawano	287 15		287 15
General	Vilas	250 00		250 00
General	Washburn	40 00	50 00	90 00
	Grand total	$3,924 95	$499 52	$4,424 47

Drainage fund receipts, July 1, 1902, to June 30, 1904.

County.	Principal.	Interest.	Total.	Remarks.
Dane	$116 00	$34 79	$150 79	
Waushara	45 00	3 15	48 15	Less int. refunded.
Buffalo		6 86	6 86	
Marquette		18 90	18 90	
Winnebago		28 42	28 42	
	$161 00	$92 12	$253 12	

Lands Held by the State.

Statement of lands of the several classes held by the state June 30, 1904.

County.	School lands.	Univ'rsity lands.	Agricult. college lands.	Normal school lands.	Swamp lands.	Total No. acres.
Adams	407.66			40	398.80	846.46
Ashland	161				5,602.61	5,763.61
Bayfield	520				5.442.23	5,962.23
Buffalo	40				210.62	250.62
Burnett	4,988.24				21,576.85	26,565.09
Chippewa					1,160	1,160
Clark	80	40			1,145.12	1,265.12
Columbia					47.83	47.83
Crawford	66.43				1,379.65	1,446.08
Dodge	320				92.60	412.60
Door	172				577.13	749.13
Douglas	2,320				5,750.30	8,070.30
Dunn	600				473.90	1,073.90
Eau Claire	480	248.03			411.12	1,139.15
Florence	40				3,763.01	3,803.01
Fond du Lac					40	40
*Forest	1,444.50				33,943.80	35,388.30
Grant					312.79	312.79
Gates	80.60				3,965.84	4,046.44
Green Lake					81.87	81.87
*Iron	1,329.80				24,056.61	25,386.41
Jackson	979.42			40	2,681.52	3,700.94
Jefferson	55.80				98.75	154.55
Juneau	394.50			80	305.61½	780.11
La Crosse					243.61	243.61
Langlade	200				5,043.39	5,243.39
Lincoln	441.85				13,720.21	14,162.06
Marathon	40				836.34	876.34
Marinette	800				10,171.27	10,971.27
Marquette	160				116.61	276.61
Monroe	920				320.50	1,240.50
Oconto	240			1,216.53	13,029.52	14,486.05
*Oneida	1,552.92				34,607.50	36,160.42
Outagamie					2,017.21	2,017.21
Pepin	80	36.90			61	177.90
Pierce					61.77	61.77
Polk	807.16		40		859.30	1,706.46
Portage					242.51	242.51
Price	680				28,356.88	29.036.88
Richland					18.78	18.78
Sawyer	400				12,313.01	12,713.01
Shawano					7,482.63	7.482.63
Taylor	80		80		8,189.59	8,349.59
Trempealeau					255.71	255.71
Vernon	80				741.34	821.34
Vilas	1,561.86				12,747.68	14,309.54
Washburn	2,504.53				11,059.12	13,563.65
Waupaca					274.31	274.31
Wood	120				616.98	736.98
Total	25,148.27	324.93	120	1,376.53	276,905.33	303,875.06

*Including lands reserved for forestry.

Recommendations.

The foregoing tables show the transactions of the land department for the fiscal term ending June 30th, 1904. We renew the recommendation made in the last biennial report that power be given to the Commissioners to sell timber separate from the land when such timber has been damaged by fire or wind.

For more than thirty years prior to Jan. 11, 1904, lands classed as swamp lands were sold only on full payment being made at the time of purchase, no distinction has been made by chapter 450 of the laws of 1903, in the terms upon which any State lands are to be sold. We recommend that all sales in the future be for cash only.

Respectfully submitted,

W. L. HOUSER,
Secretary of State,

JOHN J. KEMPF,
State Treasurer,

L. M. STURDEVANT,
Attorney General,

Commissioners of the Public Lands.