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Governor's message and accompanying documents. Volume II 1891

Madison, Wisconsin: Democrat Printing Company, 1891

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GOVERNOR'S MESSAGE
AND
ACCOMPANYING DOCUMENTS
OF THE
STATE OF WISCONSIN.

1891.

Vol.2.

CONTENTS:

Vol. 2.

- 1---State Board of Supervision.
- 2---Labor and Industrial Statistics.
- 3---Commissioner of Insurance.
- 4---Dairy and Food Commissioner.

Compliments of

The State Board of Supervision.

FOURTH BIENNIAL REPORT

OF THE

State Historical Society
OF WISCONSIN

MADISON - WIS.

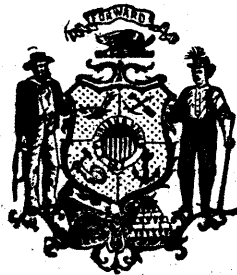
STATE BOARD OF SUPERVISION

OF

WISCONSIN CHARITABLE, REFORMATORY AND
PENAL INSTITUTIONS,

FOR THE

TWO FISCAL YEARS ENDING SEPTEMBER 30, 1890.



MADISON, WISCONSIN,
DEMOCRAT PRINTING COMPANY, STATE PRINTERS.
1891.

FOURTH BIENNIAL REPORT

OF THE

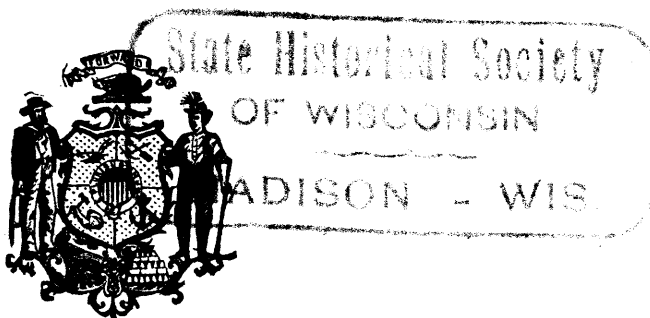
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1890
2

MEMBERS AND OFFICERS OF THE BOARD.

LEWIS A. PROCTOR, MILWAUKEE,	Term expires May 31, 1891.
CHARLES LULING, MANITOWOC,	Term expires May 31, 1892.
WILLIAM T. PARRY, PORTAGE,	Term expires May 31, 1893.
WILLIAM C. GILBERT, WAUSAU.	Term expires May 31, 1894.
NICHOLAS SMITH, JANESVILLE.	Term expires May 31, 1895.

PRESIDENT,
CHARLES LULING.

VICE-PRESIDENT,
WILLIAM T. PARRY.

SECRETARY.
DAVID S. COMLY.

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REPORT

OF THE

STATE BOARD OF SUPERVISION.

OFFICE OF THE STATE BOARD OF SUPERVISION,
MADISON, WIS., DECEMBER 1ST, 1890.

To the HON. WM. D. HOARD,
Governor of Wisconsin:

SIR:—The State Board of Supervision, as required by law, has the honor to present you this its fourth biennial report of the condition and affairs of the educational, charitable reformatory and penal institutions under its charge for the period from September 30th, 1888, to October 1st, 1890.

Provision by the state for the care and treatment of the insane, the education of the deaf and the blind, the securing of homes and education for the homeless children and those who have been abandoned by their natural protectors, the reclaiming of wayward and criminally-inclined youth and turning them into channels that lead to intelligent, upright and independent citizenship, and the confinement of criminals, with a view to their reformation as well as the protection of society, long since received the unqualified approval of all enlightened people, and is no longer a question of expediency, but simply one of methods. In founding and maintaining institutions for the accomplishment of these purposes, Wisconsin has exhibited a wisdom and liberality that has placed her in the front rank of progressive commonwealths; and in the system devised for their immediate control and management, it has secured one pre-eminently adapted to promote efficiency in their work and economy in their expenditures, to guard them against abuses and to protect them in the exercise of their legitimate functions.

Value and Condition of the Institutions.

An intelligent estimate of the value and character of public institutions is formed only after frequent and thorough inspection of them; so also a correct judgment of their needs results from familiarity with their work. Recognizing these facts as lying at the foundation of the system of management of the institutions under consideration, the Board of Supervision, by weekly visits to them, by careful inquiry into all their departments, by the study of the social and economic questions involved in their conduct, and by inspection of similar institutions in other states, has endeavored to make wise and thorough provision for the prosecution of their missions of mercy, and to form a just judgment of the extent to which they are accomplishing the objects sought in their founding. It is not, therefore, without abundant warrant that the statement is made that these institutions, in essential equipments, in the character and condition of buildings, in moral tone and in the extent and thoroughness of the work done, are fully up to the standard of the best thought of the times. The measure of their value to the unfortunate, and to their friends and to society at large, exceeds the limits of exact language, although this fact may not always be appreciated by their beneficiaries, or suffice to exempt them from criticism of the malicious or uninformed. The Board takes pleasure, therefore, in inviting from you, and from the public, the most thorough inquiry into their condition and management, assured that such inquiry will develop the fact that the public funds devoted to the maintenance of these beneficent institutions have been expended with wise economy and a proper regard for the sacredness of the trust involved.

The appropriations made by the last legislature, for the maintenance of the institutions during the biennial period, to close in three cases with the current calendar year, and in the others February 28th, 1891, will, unless something unforeseen should occur, suffice for the needs of all except

State Hospital—Changes and Improvements.

the State School for Dependent Children, and leave a surplus amounting in the aggregate to some \$42,500.

THE STATE HOSPITAL FOR THE INSANE.

The work in this institution has been carried forward, during the past two years, upon the same general plan which had marked its administration for some years previous; and the results thereof, as a whole, are very gratifying. A year ago, Dr. S. B. Buckmaster, who had creditably filled the office of superintendent for a series of years, resigned, to enter upon business in Chicago; and Dr. L. R. Head, a young gentleman of education and professional experience, both in private practice and in hospital work, was appointed his successor, and has zealously, and with intelligence, taken up the responsible duties of his position.

The total number of patients treated during the two years was 1,468, and the daily average for the years respectively was 483 and 502 — a slight decrease for the biennium as compared with the one preceding. The decrease is due to the removal of patients to county asylums and to a slight falling off in commitments.

There have been no extraordinary expenditures for the hospital since the last report, although two items under the head of repairs and renewals have involved a larger outlay than usual in that department. The heating apparatus in the west or female wing and in the central building has been entirely reconstructed with new material, at a total cost of \$5,693.66, and is now in most excellent condition. The main sewer and the branch from the east or male wing has been relaid in a more direct course, with new cement pipe, much to the improvement of the sanitary condition of the building. The expenditure involved was \$370.65. The hair mattresses throughout all the wards, which had long been in use, have been entirely renovated by taking to pieces, washing the ticks and picking over the hair. New ones have also been added, the cost of the whole amounting to

State Hospital—Unexpended Appropriations.

\$903.41. Other substantial improvements have been made or are making, all designed to increase the comfort and efficiency of the hospital.

A new ice house, very much needed, was built on the island at a point on the shore convenient to deep water, where ice of a very pure quality can be easily harvested. The structure is large and substantial, and will suffice for many years. Its cost was \$653.82. New and substantial sidewalks have replaced those worn out by long use; and other extensive improvements upon the grounds are in progress. In the making of all these improvements, as well as in the tilling of the farm, patients have contributed a large amount of work, thus greatly reducing the expenditures therefor, and at the same time improving their own mental and physical condition.

The farm is one of the finest in the country, being well arranged and highly cultivated, and repays the tillage with bountiful crops. It furnishes undeniable evidence that good farming pays.

There will be left of the appropriation on the 1st of January next about \$21,000.

Of an appropriation of \$600, made in chapter 283, laws of 1881, for rebuilding a laundry wall an unexpended balance of \$158.38 has been returned into the state treasury; and of an appropriation of \$10,000, made in chapter 71, laws of 1885, for a water tower and tank, an unexpended balance of \$424.96 has also been returned to the treasury.

THE NORTHERN HOSPITAL FOR THE INSANE.

The statistics of population in this institution for the past two years exhibit slight changes in the aggregate from those for the preceding two years. The total number under treatment was 2,007, and the daily average 630. The only feature of special note was an increase of 61 in the number of patients admitted. This, however, does not necessarily indicate an increase in the percentage of insane in

Northern Hospital—Commitments.

the district from which the hospital receives its patients. It may, and probably does, result mainly from an increase in the population of that district. There is, however, a growing disposition in the community to secure the commitment to the hospital of persons not proper subjects therefor, those who are not insane in the strict meaning of the word, but simply feeble-minded or senile. These may be very troublesome at home, and fit subjects for an asylum, but not for a hospital, since no medical treatment or regimen can ever benefit them. Yet every year persons of this class are taken to both the hospitals with papers, made out in due legal form, certifying that they are insane; and a superintendent may naturally hesitate, under the circumstances, to refuse them admission. Instances have occurred wherein persons have been committed as insane who were simply suffering from the ills of extreme age, and who died thereof within a few days after their reception into the hospital. Cases of this kind not only go to swell the numbers of nominally insane, but to decrease the percentage of cures, hence they are not looked upon with favor by hospital authorities.

The current expenses of the hospital for the biennial term just closed have not varied materially from those of previous years except in one particular, that is, water supply. By reason of long continued dry weather, the waters of Lake Winnebago receded until, in the fall of 1889, the intake pipe connecting the reservoir at the pump-house near the hospital buildings was left at the water level, and, therefore, useless as a means of securing water from the lake. The only source of supply of this indispensable article left was the artesian well, the water of which besides being inadequate for all demands is so hard as to be unsuited for laundry purposes. It, therefore, became necessary to construct, at once, a new connection with the lake; and an eight inch cast iron pipe was laid to the nearest point on the lake shore, a distance of eighteen hundred

Northern Hospital—Improvements.

feet. Here a new brick pump-house was erected, and from it a twelve inch intake pipe was laid into the lake a distance of six hundred feet. To this building the large duplex pump and boiler, theretofore reserved for use in case of fire, was removed and connections made with the new tank and with the fire mains about the buildings. This system secures the hospital against another failure of the water supply so long as the lake remains within ten feet of its present level. The total cost of this indispensable improvement was \$5,896.03.

The last legislature made an appropriation of \$8,000 for a water tower and tank, which had become necessary to a better distribution of water throughout the buildings, and to relieve them from the weight of the tanks in the garrets, and the injury resulting from condensation and an occasional overflow. Accordingly a tower, tasteful in design and substantial in construction, has been erected of brick upon a stone sub-structure, and in the top is placed a wooden tank, with a capacity of eighteen hundred barrels, the base of which is above the ridge of the highest building, thus insuring a pressure that will carry the water to the highest point required. The entire cost of the work was \$7,460.59.

A new ice house was erected at a point on the lake shore farther removed from the other buildings, and better adapted for the securing of pure ice. The structure is strongly built, is of approved plan, and cost \$604.94. Sheds for cattle and wagons, commodious and substantial in construction, were erected at a cost of \$484.69.

The green house, which has proved of great value to the hospital in various ways, is in process of re-construction, made necessary by the decay of timber, and with the purpose of securing greater economy and effectiveness in the heating.

Much has been done to improve the grounds and buildings, and they are throughout in excellent condition—at-

Northern Hospital—Surplus of Appropriations.

tractive, comfortable, and in keeping with the purpose of the institution.

The farm has yielded bountifully and contributed much to the sustenance and comfort of the large household. The work, for the most part, is done by patients, and is the most healthful in which they can be engaged, care being taken to guard them against excessive exertion. With the large amount of this kind of labor, and that of persons necessarily employed, more land could be cultivated without much additional expense; and the board would, therefore, recommend the purchase of a tract of land adjoining the farm on the north, and embracing some forty acres, provided it can be had for a reasonable sum. In addition to the considerations already mentioned, there are others which render this tract desirable to the state; it is high and well drained, is of good quality—suitable for tillage or pasture, is convenient to the hospital and its addition to the farm would improve its boundary and make it ample for all purposes for all time to come.

The stock on the farm has been increased and greatly improved during the last two years, and is now, in all respects, such as it is believed is most profitable to maintain.

The appropriations made to the institution for the current term will suffice for all ordinary purposes and leave a surplus of about \$4,000.

Of an appropriation of \$5,700 made by the legislature of 1885, for the purchase of real estate, \$291.75 has been returned to the state treasury.

THE SCHOOL FOR THE DEAF.

There is no better illustration of the practical value of education than is afforded by this institution. The congenitally deaf who come here without previous schooling, present the lowest order of mental development, unless the congenitally blind be excepted. (This statement, of course,

School for the Deaf—Its Work.

does not include those mentally defective by nature.) They are without all that knowledge which comes to the normal youth through the sense of hearing, and their reasoning powers are correspondingly defective. A year's training in the school, works a transformation that appears marvelous to those who are unfamiliar with the systematic and persistent mental drill to which they are subjected; and when the course of study prescribed in the school is completed, it is difficult to discover wherein they are inferior, either in personal bearing or mental development, to youth of similar age who have full possession of all the senses. They think clearly and express themselves intelligently, and are ready to take up the labors of life in such a way as will insure their successful discharge. Few of the graduates of the school, and few even of those who have taken only a part of the course, have failed to receive, along with their intellectual culture, a moral impress that will be permanent. This is one of the best features of the institution training, and is one point of its superiority over other forms of education for this class of youth.

In addition to the very thorough course of training in the branches taught in the full graded schools, there is an industrial department in which the male pupils, taking the full course, get a practical knowledge of some one of the trades of type-setting and printing, boot and shoe making, carpentry, cabinet making and baking. The girls are instructed in house work in its various forms, sewing, and a few in type-setting. The industrial training thus received is of great value to the pupils, not only as a method of developing their faculties, but, in many cases, is the means of opening up to them, when they leave school, an avenue to remunerative employment.

A class of four graduated in 1889, and one of eleven in 1890; and their appearance in the closing exercises of their school life was alike creditable to them, to their instructors and to the institution; and no one who witnessed these ex-

School for the Deaf—Improvements.

ercises, reflecting upon the toil and effort on the part of both teacher and pupil which led up to them, could fail of a feeling of pride in the liberality and wisdom of the state in its provision for this unfortunate class.

The total enrollment of pupils for the year ending September 30th 1889 was 226, and the average attendance for that time 191. The enrollment for the year ending with September 1890 was 223, and the average attendance 182. The reason for the falling off in the average attendance during the last biennial term as compared with the previous one is explained in the superintendent's report. There is a large number of deaf of school age in the state who are not attending any school, and measures should be taken to enforce such attendance, for education is of more importance to them than to hearing youth, and the best interests of society are involved in the effort to relieve them from the condition of dependence to which their physical defect consigned them.

The legislature, at its last session, appropriated \$6,000 for the erection of a gymnasium including a natatorium and water-closets. This sum was wholly expended in the erection of a two-story brick building forty by sixty feet, the second story being devoted to gymnasium purposes, and the first story to a large swimming pool, bath rooms and a play room for the smaller boys. In connection is a large water-closet for boys, so arranged that the vault can be thoroughly flushed with the water from the swimming pool. The entire cost of the building with the addition for closets was \$6,106.71. The expense of equipping the gymnasium was \$337.83.

The unsatisfactory character of the light furnished by the old gasoline gas machinery suggested the propriety of changing to the system of electric lighting; and, in the spring of 1889, an electric plant of the Edison pattern was contracted for and set up at cost of \$2,641 for boiler, engine, dynamo, wiring and incandescent lamps for the en-

School for the Blind—Its Importance.

tire institution. The system has proven satisfactory, furnishing a better and clearer light than that from gasoline, and ultimately at less cost. To preclude the necessity of running the machinery all night to furnish the night lights, a storage battery was put in last spring at an expense of \$1,110.82 for sixty cells of the Pumpelly patent.

The large dining room for the pupils, being the semi-basement of the assembly building, was in need of a new floor, and one of cement tile was put in, at a cost of \$765.49, as being the most wholesome, the most durable and therefore the most economical.

The board approves the recommendation of the superintendent that a water tower be erected of sufficient height to give a pressure that would be of service in case of fire and give a more effective distribution of water through the buildings. Such a tower with tank and the necessary connections could probably be constructed for \$6,000.

It is anticipated that there will remain of the appropriation for the current term \$6,000.

THE SCHOOL FOR THE BLIND.

The total enrollment of pupils for the two years was 122—the largest in the history of the school; the average daily attendance, however, was but slightly in excess of that for the preceding biennial period, being 82.

Work in the various departments of the school has been faithfully prosecuted, and good progress has been made by the pupils in the development of physical and mental faculties, and in the acquirement of that knowledge which will contribute to their pleasure not only, but to their independence in the future. It is a source of regret that while the state is liberally maintaining schools for the blind and the deaf, there are within its limits not a few of these unfortunates who are of proper age for school, who are not availing themselves of the privileges so freely offered, while by others they are indifferently accepted, and made secondary

School for the Blind—Improvements.

to matters of much less importance. Others still have neglected them until the most favorable time for profiting by them has entirely passed. A strict compulsory education law should be made applicable to these two classes, if the state desires the largest possible return for its liberality in their behalf.

The principal features of expenditure, beyond what is ordinarily required, was for lighting the buildings. The old gasoline apparatus had, by long use, become so defective as to require renewal throughout to make it sufficient to meet all requirements. It was deemed better economy, however, instead of renewing this gasoline plant, to put in electric light machinery; and a contract was entered into for an Edison dynamo, capable of operating 120 lamps of sixteen candle power each, an automatic high speed engine capable of running the same, a boiler, and 200 lamps, with the wiring therefor. The entire cost of this plant ready for use was \$2,589. Additional room at the engine and boiler house was necessary, and a brick addition, sixteen by twenty-eight feet, was erected, at a cost of \$731.39. It is believed that this plant will be adequate to the needs of the institution for years to come, unless it should be materially enlarged. To obviate the necessity for running the machinery all night to supply light where needed after the hour of retiring, it was thought prudent to add a storage battery, and this work has been completed since the close of the fiscal term covered by this report. Its cost, therefore, which was \$1,300, will be charged in the current term.

To insure an adequate supply of water for the institution, it became necessary to improve the pumping facilities, and a new deep-well steam pump was purchased and put in place, which, with the necessary pipe, cost \$675. The water problem, which at the time of the last report, was causing some anxiety, has thus been satisfactorily and economically solved.

State School—Its Work.

Another item of unusual but necessary expenditure was the purchase of a steam clothes wringer, which was placed in the laundry at an expense of \$170.

Adjoining the grounds of the school, on the east, is a tract of land embracing some twenty-six acres, the purchase of which is recommended by the superintendent, as desirable in the interests of the school. This recommendation the board approves, provided the land can be had at a reasonable price. It is desirable for pasture, and its purchase would add much to the beauty of the school grounds, besides precluding the proximity to the school of undesirable neighbors.

It is estimated that there will remain of the appropriation for this institution a surplus of \$1,000, after providing for all ordinary expenditures up to March 1st, next.

THE STATE PUBLIC SCHOOL.

The fact that this institution, since its opening, four years ago, has received 566 dependent and neglected children, and that there are many more for whom admission is sought by counties, but for whom there is not room, is ample evidence that it was a social necessity. The children gathered into this school and temporary home appealed especially to the care of the state, both because they were practically without homes, and were in danger of coming to maturity in ignorance and vice. The work, therefore, of providing education and homes for them is not alone one of charity, but a measure of self-protection on the part of the state. Rescued at an early age from the influences and associations to which they were born, and placed in the school to go thence as soon as practicable, into private homes, and assured of a rudimentary education, there is reason to expect that a large majority of them will develop into useful citizens, and thus attest the wisdom of the efforts in their behalf.

It will be inferred from what has already been said that

State School—More Room Needed.

more room is needed to enable the institution to meet the demands made upon it; for, while its purpose is to furnish only a temporary home for these waifs, that is until places can be found for them in private families, the admissions steadily exceed the number of those placed out. This results from the difficulty of finding satisfactory homes and from the necessity of returning not a few of those sent out, either because the home does not prove to be what was anticipated or the child is unsatisfactory to those to whom he was committed. . This accumulation of numbers must be provided for, or the work of the school will be imperfectly done. Some statistics of the movement of the population of the school will illustrate what has just been said. Of the total number of children received from the opening of the school, 566, there had been placed in homes, up to the 1st of October last, 405; of whom 107 had been returned — a trifle over one-fourth. There were remaining in the school at the date named 289, a number considerably in excess of the real capacity of the five existing cottages. At least one other cottage, of the capacity of the larger ones now in use, should be erected at an early day. The cost of such a structure would be from eight to ten thousand dollars.

As suggested in the report of the superintendent, the assembly room and children's dining hall are too small for the present number of inmates, and any considerable addition thereto would require more school room. One new building and an addition to the school-house could be arranged to supply the needs in these directions, at an aggregate expense of not exceeding fifteen thousand dollars. The construction of these buildings would require some enlargement of the steam-heating plant, the principal expense of which would be in the procuring of one or two additional boilers.

Interesting facts regarding the work of the school will be found in the superintendent's report and accompanying

State School—Special Appropriations.

statistical tables; and it is only necessary to remark here that excellent results have been attained. Many of the children received have found homes, and friends, and an opportunity for education; while those still in the institution are receiving such training as will materially advance them toward intelligent citizenship and individual independence.

With an appropriation of \$6,000 made therefor by the last legislature, a two-story frame school-house, with stone basement, was erected, containing three class rooms, with necessary halls, upon each floor. The building will comfortably accommodate about 240 pupils, although, for some months past, twenty to thirty more have been crowded into it. A larger structure of brick would, in all respects, have been preferable, but the appropriation was inadequate thereto, it having been found, upon careful estimates, to suffice only for one of the character and dimensions erected. The rooms provided, however, are convenient, well ventilated, admirably lighted, and, to the extent of their capacity, have proven all that could be reasonably desired. The cost of the building complete was \$6,140.73. The building is heated by steam, taken from the boiler used in pumping the water supply and driving the laundry machinery, the piping and radiators in the building and the necessary connections costing \$785.

An appropriation of \$5,000 was also granted for the building of a hospital for the institution, "or, in lieu thereof, the purchase of a tract of land adjoining the grounds of the school, and converting the building thereon into a hospital in the discretion of the board." After careful consideration of the subject, the latter course was deemed the more economical, as well as the more desirable, since by it would be secured a tract of land contiguous to that of the school on the south and east, and embracing fifty-nine acres, all suitable either for tillage or pasture, and a two-story frame house suitable for hospital purposes. The price paid for

State School—Improvements.

the property was \$2,500. An acre of land, originally belonging to this tract, with a comfortable cottage thereon, and lying at the corner of the streets forming the west boundary of the school grounds and the south line of the tract just named, was also purchased for \$1,250, its proximity to the school and to the building designed for a hospital, making its control by the state extremely desirable, if not an absolute necessity. Deeds of this property to the state, approved by the attorney general, were taken and filed in the office of the secretary of state. This last named house was converted into a very comfortable hospital, provided with water from the artesian well, steam boiler, pipes and radiators for heating, bath tubs, closets, and other necessary appliances, at a total cost of \$1,318.41. Thus, at a comparatively small outlay, has the institution been provided with a hospital, adequate for its needs under all ordinary circumstances, and at the same time a valuable addition made to the farm and garden lands.

The legislature also granted an appropriation of \$2,000 for the erection of an additional barn. With this sum was built, on contract, a barn, thirty by forty feet, upon a stone basement, nine feet in height, a cattle shed twelve by one hundred and five feet, enclosing on the west the space between the old and the new barns, and a hog house twenty-four by forty-two feet, for the sum of \$1,975. With these structures and those previously erected, the institution is well provided for in the matter of farm buildings.


An ice house and cold storage building, for which an appropriation of \$2,000 was made, was erected at a cost of \$1,926.94. The dimensions of the ice house part are twenty by twenty-two feet, and the cold storage twenty by thirty feet, with a vegetable cellar underneath.

The boiler house was enlarged by a brick addition thirty-five by forty feet, two stories in height, at a cost of \$1,150. This was done in anticipation of the necessity for one or

State School—Recommendation.

more additional boilers to provide sufficient steam for the increasing demands therefor in heating and cooking.

Other improvements not specially provided for, but imperatively demanded by the best interests of the institution, were the construction of walks about the buildings, at a cost of \$631.64; the building of fences on the lines of the lands, costing \$495.71; grading and graveling the roads through the grounds, at an expenditure of \$371.09; the purchase and planting of trees in the grounds about the buildings and along the road in front, at an outlay of \$186.50; and the placing of fire-escapes and other improvements upon cottages, costing in the aggregate \$825.37.

Owing to a larger increase in the population than was expected, and to other unanticipated causes, the expenditures for the maintenance of the institution will exceed the appropriations by about \$10,000. This deficiency has been provided for in the manner specified in chapter 289, laws of 1880. 

The necessity for inspecting the homes of applicants for children before granting their requests, the accompanying of the children to the homes selected and visiting them thereafter, in order to insure their proper treatment, devolves much travel and labor upon the state agent—more than can be done to the best advantage by one man; and it is suggested by the superintendent and approved by the board that another agent be appointed and the work divided between them. This would add at least two thousand dollars to the expense of the school, but the work of securing homes for the children and guarding them against ill usage would be much more satisfactorily done.

THE INDUSTRIAL SCHOOL FOR BOYS.

The number of commitments to the school for the two years past was the largest in its history, being 339—164 for the year ending with September, 1889, and 175 for the year closing September 30, 1890. The whole number of

The Industrial School—Statistics.

different boys in the school for the years named was 540 and 581 respectively — the last number being 32 in excess of the highest in any year preceding. The average number present during the years was 392 and 421. From these figures it will be seen that the school is growing in population and importance, and it is believed by the board in usefulness also. For while boys released from the school in a few cases drift again into evil ways, the great majority of them go forth, not only with a fair rudimentary education, but with fixed purpose toward honest citizenship. Without the training here received many would have attained to manhood practically illiterate if not vicious; for habitual abstention from school, leading often to the committing of petty offenses, is the most frequent cause assigned in the records for commitment to the institution,

Statistical tables accompanying the report of the superintendent present some very important facts from an educational point of view. Of 319 boys received during the last biennial term, the average age of whom was fourteen years, 235 entered the first or primary grade in school, 42 the second grade, 27 the third, 7 the fourth, and 8 the fifth. There were 72 who could not write, and 83 whose knowledge of reading did not extend beyond the chart or first reader, while 100 others could read but indifferently in the second reader. During the two years there were released on parol 292. Of this number 168 entered the first grade when committed to the school, 81 the second grade, 26 the third, and 6 the fourth; yet, when released, 170 had advanced to the fifth grade, 58 to the fourth, 34 to the third, 17 to the second, while only 13 remained in the first. Stated in another form, 30 advanced one grade, 46 two grades, 76 three grades, 69 four grades, and 48 five grades. Taking into consideration the fact that the average term of detention in the institution is less than three years, this record will compare favorably with those of the public schools of the state, and

The Industrial School—Its Discipline.

illustrates very forcibly what can be done in compulsory education.

As stated in former reports, it has been the policy of the management to conform the discipline, as far as practicable, to that of a well regulated school, and to impress upon the boys the fact that they are there for mental, moral and industrial training, and not for punishment. The rules and regulations, and the corrections for their violation, are as mild as consistent with good order and effective work in the various departments of the institution. Harshness and cruelty find no place therein. Appeal is constantly made to the boy's better nature, and an effort to awaken in him an ambition for an honest, independent life. Such appeals rarely fail, as evidenced by the progress which the many make in their studies and the steadiness which they exhibit in their work when released.

Each boy works half the day and attends school the other half, and is allowed ample time for recreation. A military drill under the direction of a competent instructor was instituted last winter, and continued up to the present time, for the purpose of developing in the pupils a better carriage, more orderly habits, and that strength and facility of muscular movement which are necessary to the best success in any calling. The results of this drill are manifest in the directions named, and in stimulating a desire for improvement in personal appearance and bearing.

For several years past instruction has been regularly given in band music to a class of boys selected with reference to their capacity therefor; and gratifying progress has been made by them in the acquirement of musical skill. The organization has also exerted, in various ways, a salutary influence, besides affording pleasure to the entire school in the music rendered upon the grounds from time to time, and on holidays and other public occasions.

Beside the work necessary about the buildings, and in the laundry, bakery and kitchen, engine and boiler rooms,

The Industrial School—Employment of the Boys.

the labor of the boys is employed in the knitting factory, tailor shop, shoe shop and the farm and garden. The manufacture of boots for sale, which hitherto has formed a large part of the industries of the institution, has been abandoned. The work could not be carried on without a loss, except by a large outlay for machinery and skilled labor, and that would involve more capital than could with safety be drawn from the appropriations for the maintenance of the institution, since sales of the manufactured articles and collections therefor are often slow and uncertain. The product of hand labor, especially when that labor is unskilled, cannot successfully compete in price with that from machinery, even though the labor be not paid. The board did not, therefore, feel warranted in asking for a special appropriation for enlarging the business and endeavoring to make it successful in competition with great and thoroughly equipped factories conducted by private enterprise. It did not believe that the benefits to the boys would justify the effort, even though assured of financial success. It is quite probable that the industries now carried on at the institution can be, and ought to be, increased in number; but such increase should be only with the purpose of more thoroughly realizing the idea of industrial training.

The knitting factory, into which the greater part of the labor of the smaller boys is now turned, requires but little capital, and the manufactured articles are readily sold. Shoes sufficient for supplying the boys and a few for sale are now made by hand, under the direction of one foreman, sixteen of the larger boys being employed thereat. The manual training resulting from this kind of work is no doubt more advantageous to them than that obtained in a factory fully equipped with machinery.

The tailor shop furnishes employment to thirty-five boys, who, under the instruction of an experienced tailor, make all the suits worn by the inmates of the institution; and

The Industrial School—Special Appropriations.

many gain such knowledge of the trade that, with some further instruction and practice, after being released, they can earn wages sufficient for self-support.

During the greater portion of the year, the farm and garden furnish healthful employment for a large number of boys—employment which most of them prefer to any other, and which gives them an industrial equipment that will prove of practical value to them under any circumstances, and especially should they adopt the farmer's calling.

In the bakery, in the laundry, in the engine and boiler rooms, in the paint and carpenter shops and in work elsewhere boys are gaining knowledge and experience which will serve them in after life. The knowledge of how to work, that is how to direct one's physical energies, is the prerequisite of all skilled effort, and the more varied that knowledge the easier will be the acquirement of skill in any particular trade.

An appropriation of \$5,400 was granted by the last legislature for the purchase of a tract of land containing about twenty-seven acres, near the school buildings, and very desirable on account of its proximity, its beautiful grove, its convenience for pasture and other purposes and to improve the boundary of the institution lands. The wisdom of its purchase will be conceded by all who see it. The price paid was \$5,350.

Another appropriation of \$4,000 was accorded for the erection of a water tower and tank, the wooden tanks in the garret of one of the shop buildings, which, for many years, had served as the reservoirs for the institution, having become decayed and having through leaking proven a source of injury to floors and ceilings. Their location, moreover, was not high enough to give the water pressure desirable for the best service. A tower of cut stone, of graceful proportions and very substantial in construction, was erected to a height of fifty feet, on the top of which

The Industrial School—Increase of Numbers.

was placed a steel tank of nearly one thousand barrels capacity. The expenditure involved in the work, including the piping, was \$3,767.54. The structure is not only one of the most useful on the grounds but an ornament as well.

Another appropriation of \$2,000 was granted for the erection of a barn and the removal of the hog house, which at times was offensive, to a greater distance from the cottages. With this appropriation a barn fifty-four by one hundred feet was built and furnished in a convenient and substantial form, an old barn and adjoining sheds removed into more convenient and symmetrical positions, and the hog house placed at such a distance from the dwellings that it is no longer an offense, and is also much improved in its internal arrangement. Much of the work on all these improvements was done by older boys under the direction of the institution carpenter. The expenditure in these improvements was \$2,045.09.

Other substantial improvements of buildings and grounds have been made — largely by the labor of boys, and all are now in excellent condition.

It is estimated that there will remain of the appropriation for current expenses at the end of the appropriation year, January 1st, 1891, \$2,000.

The large increase in the population of the school during the past year, if continued through the present one, will necessitate the providing of additional room, and the readiest way in which this could be accomplished would be to transform some of the present school rooms into dormitories and sitting rooms, and build a school house of size sufficient to furnish all the class room required. At least four of the school rooms now in use are unsuited, either by location or insufficient light, for educational work; and, besides remedying these defects, a separate school building would afford many advantages in the prosecution of the work of the institution over the existing system of detached class

The Prison—Increase in Population.

rooms. A building ample for all requirements could be erected for about twelve thousand dollars.

It is suggested by the superintendent that the welfare of the boys released from the school might be promoted by the appointment of an officer whose duty it should be to visit them, learn their condition, advise and encourage them in well-doing, and when one is found pursuing evil courses promptly to return him to the school. There is little doubt that such a measure would prove a stimulus to the boys released to efforts to establish and maintain a character for steadiness and industry, and prove a help to many in a most critical period of their lives. It is worthy of consideration whether the expense that would be involved in realizing this scheme could be made, in any other way, so thoroughly to promote the object of the institution.

THE STATE PRISON.

The number of convicts received at the prison during the year ending September 30th, 1889, was 291, and the average number in confinement for the year was 463. The number received in the year ending with September last was 283, and the average number for the year was 522, or 59 in excess of that for the year previous, and 81 more than in the year ending with September, 1888. The prison is now full, and provision for further increase in numbers can only be made by placing two convicts in a cell, a measure which is objectionable, regarded both as to health and morals.

The time is near, if it has not already arrived, when measures should be taken either to enlarge the existing prison or to build another. The percentage of convicts to population in Wisconsin has always been small as compared with that in other states, and is so now; but there is little ground to hope that it will always so remain; indeed, the marked increase in the number of commitments during the past two years over those for any previous period is an

The Prison—More Room Needed.

evidence that the exceptional condition of the state just noted can not be expected to continue. But even if it should continue, the natural increase in population would render more prison room a necessity. It would be a gratifying social condition if there were reasons to hope that such would not be the result.

The necessity for more room being granted, the question then arises, shall it take the form of an addition to the existing prison, or of a new one in another locality? An addition to the buildings now occupied would be the more economical both in construction and management, but a new one located at some place possessing ample commercial facilities would have the financial advantage of rendering the prison labor more valuable, and the moral superiority of permitting a classification of convicts with regard to age and character, thus giving more reason to expect success in efforts for their reformation. Such a prison reserved for the young men and boys under twenty years of age, convicted of their first offense and not yet hardened in crime—a place where they could be separated entirely from all association with professional criminals and abandoned transgressors, would present the most favorable conditions for thorough reformatory work. Such work the state is bound by the considerations of humanity and social protection to undertake and to provide the means for its prosecution in the manner that gives best promise of success. The board, therefore, recommends that a new and separate prison be established, and that it be devoted in its arrangement and management to a realization, as far as practicable, of the purposes thus outlined.

During the year ending September 30th, 1889, the average number of convicts daily employed on contract with M. D. Wells, in the manufacture of boots and shoes, was 344, or 63.31 per cent. of the whole number in prison; and the aggregate receipts therefrom were \$52,452.68. In the year ending with September last, the average daily num-

The Prison—Receipts from Labor.

ber of convicts employed on contract was 393, or 64.26 per cent. of the whole number, and the receipts amounted to \$60,220.10, making a total of earnings for the two years of \$112,672.78. The percentage of those employed on contract was larger during the last biennial term than in any one preceding since the contract system was adopted. The convicts not employed on contract embrace those working about the buildings and on the farm and those who, from old age, sickness and other disability, are incapable of effective labor.

The present contract with M. D. Wells & Co., on which they pay fifty cents a day for all the men assigned them, will expire December 31st, 1892. Experience has proved the contract system the most satisfactory of any yet devised for employing convict labor, notwithstanding all that has been said against it. No other system has proven so successful financially, and under none other have the conditions been more favorable for the improvement of the convict. "Seeing is believing"; and those who are honestly disposed to doubt these statements are invited to study the system from actual observation of its workings. In the Wisconsin prison the convicts are under the exclusive control of the warden and his officers, the contractor having nothing whatever to do with the discipline. He furnishes skilled foremen to instruct the convicts regarding their work, but this is all done under the eye of the prison guard, and they can suffer no imposition, but may gain much practical mechanical knowledge therefrom—knowledge which many of them can, upon their release, if they so will, utilize in gaining an honest livelihood. There is nothing necessarily connected with the system which conflicts in the least degree with any effort on the part of the authorities, or any desire on theirs, for their physical, mental or moral improvement. The board is thoroughly convinced, from a careful study of the whole question, and from long and close observation of the working of the system in our own

The Prison—Improvements.

prison, that any change from this method of employing the prisoners would be to the detriment of all the public interests involved, would in no respect improve the present condition or prospects of the convicts, or result in any appreciable advantage to private enterprises or organized trades. When the time arrives for making a new contract efforts will be resumed, if the matter remains in the hands of the board, to secure the introduction into the prison shops of a variety of industries, and to obtain a higher price for the labor of the convicts. Former efforts in this direction would undoubtedly have succeeded but for the persistent and ill-advised agitation against prison labor; and the fact that the prison is not the most favorably located for manufacturing purposes.

Of the appropriation of \$40,000, made by the last legislature to supplement the earnings of the convicts in meeting the expenses of the prison, there had been expended up to October 1st, 1890, \$19,386.28, the greater part of which was expended in making permanent improvements named in the appropriation bill and others demanded by exigencies not foreseen at the time of making the last report. In fact what may strictly be termed the running expenses of the prison, exclusive of expenditures in permanent improvements, are now nearly covered by the receipts from convict labor. It is anticipated that there will remain of the appropriation at the end of the term for which it was made, February 28, 1891, \$8,500.

The large increase in the number of convicts made necessary a considerable addition to the shop room if all available labor was to be employed on the contract. Accordingly, in the spring of this year, a two story brick extension sixty-two by fifty feet was erected at the north end of the old building, and one of the same dimensions at the south end, making four additional rooms, all well lighted and of most substantial construction. This enlargement of shop room has enabled the contractors to employ all the convicts

The Prison—Improvements.

assigned them, and the arrangement has resulted in largely swelling the receipts. The board, therefore, feels amply justified in making the expenditure, which amounts to \$8,398.66.

Another expenditure for a permanent improvement, which was greatly needed and which was specifically provided for in the appropriation above named, was for placing in the central building and in the cell rooms steam heating appliances. Previously these buildings were heated by coal and wood stoves. The change has resulted in securing more even and thorough heating at less cost and trouble. The outlay involved was \$6,732.35.

The prison has never possessed a laundry adequate to its needs; neither have the facilities for the bathing of the prisoners been such as were desirable. The board, therefore, decided that an old one-story stone building, used for the tripple purpose of blacksmith shop, store-house for old machinery, etc., and carpenter shop, should be converted into a laundry and bath house, by adding to it a second story of brick, taking half the lower floor for a wash room and bathing room, leaving the other half for shops for the carpenter and blacksmith, and devoting the upper floor to drying and ironing appliances. The building will be ample for all the purposes named, and, with the equipments to be placed therein, will leave little, if anything, to be desired in this department. The work is not yet completed, and its cost can not, therefore, be exactly stated. It is not, however, a matter strictly within the purview of this report, since its expense will fall, for the most part, within the current fiscal year.

The board, in its last report, recommended the enactment of a law providing for some form of indeterminate sentences, whereby criminals might be committed to prison, there to remain until it should be determined, by persons vested with the authority, that they might be released upon parol, to remain at large so long as their conduct should be

The Prison—Indeterminate Sentences.

blameless, but to be promptly returned to prison upon the first infraction of law or the terms of their parol. This idea was embodied in chapter 390, laws of 1889, wherein persons "convicted of felony, except for murder in the first and second degrees, who have not previously been convicted of felony and served a term in a penal institution, may, in the discretion of the court, receive a general sentence of imprisonment in a state prison," and this imprisonment may be terminated by the State Board of Supervision paroling the prisoner at any time after he has completed the minimum term prescribed by law for his offense; but he may not be kept beyond the maximum term for that offense. Under this law the board, by your approval, adopted rules and regulations to govern the granting of parols, and had them published for distribution among the prisoners; and it determined to meet at the prison, in a body, once in three months, to consider applications for parol, and inquire into the character and conduct of the applicants. The first meeting for this purpose was held the third week in July, when two prisoners were paroled. The second meeting was held the third week in October, when parols were granted to four of the applicants—one of them a woman. The applications were supported by letters from citizens of the places where the prisoners resided, and in one or two cases by the committing judge or prosecuting attorney. In all cases those paroled had made a good record in prison, and their offenses were modified in character by circumstances. No unfavorable report has yet been heard of any of the paroled, and it is probably too soon to judge intelligently of the practical results of the law.

The board also recommended the payment to deserving prisoners of a small portion of their earnings. This scheme was embodied in chapter 217, laws of 1889, and the board was authorized to carry it into effect. A scale of credits and debits was adopted under which a prisoner, whose record is clear, may be credited with six per cent. of his earnings

The Prison—Convicts' Earnings.

the first year and two per cent. for each year thereafter. By the scale of forfeits adopted for black marks a prisoner may lose a portion, or all but five dollars, of his earnings.

Since the last report, a change has occurred in the office of warden. Col. Geo. W. Carter, who for nearly ten years filled the position, resigned in August, 1889, and Capt. George Weeks, of Dane county, was appointed to succeed him, entering upon the duties of the office October 15th of that year.

STATISTICAL TABLES.

Appended to this report are tables showing the movement of population in the several institutions, the expenditures for each during the past two years and estimates of those required for the two years to come. The first table gives the total cost by years of each institution, the average population, the yearly and weekly per capita cost, and the total and per capita cost of all the institutions together.

The second table shows the movement of population—that is the total and average number of persons in each institution and the record regarding them. From this it appears that the whole number of persons cared for during the time under consideration was 4,954.

The third table presents a statement of the current expense account of each institution for each fiscal year of the biennial term, taking into account the supplies on hand at the beginning and close of each year. A study of it will result in a fairly comprehensive knowledge not only of the cost of the maintenance of the institutions, but of the various departments of expenditure.

The fourth table contains a classified estimate of the expenditures necessary for the institutions for the coming two years, and the appropriations to meet the same. These estimates are based upon the expenditures of the years covered by this report, addition being made in the case of institutions where an increase of population is anticipated

Tables of Expenditure.

and where some unusual expense may be required. It is believed by the board that these estimates are as low as consistent with safety in the conduct of the institutions; but however large the appropriations may be, only what is really necessary will be expended. In evidence of this the board refers to the fact, already set forth, that in all the institutions, save one, a surplus from appropriations will remain, amounting in the aggregate to some forty thousand dollars, and also to similar facts from former years.

As a result of the abandonment of the manufacture of boots for sale at the Industrial School for Boys, and the consequent reduction of the force in the shop, it is found that of the appropriation of \$15,000, made in 1876 for the purpose of carrying on that business, \$10,000 will no longer be needed, but will revert to the credit of the state.

The fifth table sets forth the average population and total and per capita cost of the several institutions from the year 1873 to 1882, and from the last named year to the present time. The last mentioned period represents that in which the institutions have been managed by this board. It will be seen, by a comparison of the divisions of the table, that in all the institutions save two the average per capita cost is less in the latter period than in the former. While this may be due in part to larger populations in the latter years and to other causes, such as decline in prices of some articles of general use, the table is evidence that the present system of management is, to say the least, more economical than the former, while, at the same time, much more effective. But it is more than that—it has saved to the state many thousands of dollars, as can easily be demonstrated not only by the statistics here given, but by the records of this office.

The expenses of the members of the board have been, as in former years, materially lessened by the liberality of

Conclusion.

the railroad companies in granting them free transportation over their lines within the state.

Reports of superintendents of the institutions with statistics of population and expenses will be found appended to these pages, to all of which attention is invited.

In the discharge of their official duties the members of the board have diligently sought to conduct the affairs of the institutions under their charge in such manner as would best promote the welfare of the inmates and the reflex good of society; and, while the results have not always been equal to their wishes, they are confident that the state is reaping substantial and permanent advantages from its broad and enlightened beneficence.

CHARLES LULING,
LEWIS A. PROCTOR,
NICHOLAS SMITH,
WILLIAM T. PARRY,
WILLIAM C. GILBERT.

Cost of Maintaining the Institutions.

TOTAL COST.

Average population, yearly and weekly cost per capita.

INSTITUTIONS.	TOTAL COST.		Average population.		Yearly cost per capita.		Weekly cost per capita.	
	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.
State Hospital for the Insane.....	\$35,203 55	\$100,106 11	484	502	\$196 71	\$199 41	\$3 78	\$3 83
Northern Hospital for the Insane.....	114,554 51	118,613 25	641	616	178 71	192 55	3 41	3 70
School for the Deaf.....	37,293 57	36,745 70	191	182	195 25	201 90	3 75	3 88
School for the Blind.....	19,850 72	21,986 27	84	89	230 37	274 83	4 43	5 29
Industrial School for Boys.....	56,927 05	57,226 31	392	421	145 22	135 93	2 75	2 61
State Prison.....	62,020 53	61,401 51	463	522	133 95	117 63	2 58	2 26
State Public School.....	34,700 91	33,324 33	211	253	164 46	151 72	3 16	2 92
Total for all Institutions.	\$129,035 90	\$131,463 48	2,466	2,516	\$ 70 31	\$168 66	\$3 28	\$3 21

STATEMENT OF CURRENT EXPENSES

At the several institutions for the fiscal years ending September 30, 1889, and 1890, 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 Hosp. for Insane		Northern Hosp. for Ins.		School for Deaf.		School for Blind.	
	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.
Amusements and means of instruction.....	\$153 44	\$223 53	\$244 92	\$210 36	\$670 98	\$374 00	\$110 22	\$298 82
Barn, farm and garden.....	*3,307 40	*4,882 92	*5,221 76	*6,425 43	*77 32	*396 81	*364 43	*382 53
Boot and shoe factory.....					204 73	464 37		
Clothing.....	4,836 00	5,814 50	6,882 53	7,313 43	155 94	174 25		
Discharged patients.....	136 50	169 35	263 37	157 50				
Discounts.....	*178 85	*203 79	*187 75	*126 05	*49 36	*42 91	*11 54	*14 96
Drug and medical department.....	790 46	1,942 49	879 10	1,315 37	185 13	161 18	102 35	66 45
Engines and boilers.....	2,059 90	581 95	330 73	480 14	66 36	206 93	114 64	405 53
Elopers.....	15 25	109 97	136 90	110 04				
Exchange.....								
Freight and express (not otherwise classified)...	17 98	19 79	29 62	29 89	32 60	38 00	25	
Fire apparatus.....	26 75	284 06	795 14	*30	4 25	25 27	1 09	90
Fuel.....	9,083 50	12,317 54	13,347 14	13,060 21	3,773 37	4,224 29	2,496 69	3,216 23
Furniture.....	619 43	219 95	256 14	138 46	302 90	284 45	18 55	139 87
Gas and other lights.....	1,814 89	1,847 18	1,706 29	1,740 54	682 74	480 62	598 16	318 14
House furnishing.....	2,660 61	3,478 46	3,334 33	7,211 43	565 76	768 16	385 99	509 80
Laundry.....	594 61	467 41	1,156 79	826 85	148 58	175 45	237 09	185 97
Laboratory.....								
Library.....	91 30	263 52	76 47	60 90	113 76	118 90		
Machinery and tools.....	98 45	103 59	89 02	118 51	39 87	123 28	8 45	9 43
Miscellaneous.....	13 87	581 75	281 93	364 57	164 65	258 11	186 00	312 25
Officers' expenses.....	66 68	161 93	137 09	119 53	88 19	147 33	22 85	59 95
Printing office.....					544 58	471 07		
Printing, postage, stationery and telegraph.....	537 68	555 01	608 50	569 88	264 33	366 28	195 74	323 35
Repairs and renewals.....	4,371 82	5,574 56	4,174 13	4,286 23	1,488 99	909 64	511 90	1,096 19
Restraints.....	*23 80	46 00	62 35	134 06				
State Board of Supervision.....	3,271 80	3,271 80	3,768 48	3,768 48	1,257 45	1,257 45	748 49	748 49
Subsistence.....	36,209 37	35,302 07	44,596 90	44,150 43	10,809 88	9,695 18	6,186 47	6,226 32
Surgical instruments and appliances.....	33 04	50 08	51 69	97 85				
Tobacco.....	355 05	369 71	615 80	580 24				
Wages and salaries.....	30,855 72	31,436 62	36,138 66	38,320 13	15,855 21	16,461 21	7,818 70	8,518 81
Work departments.....							*11 94	*58 06
Indebtedness previous year.....	4 50							5 32
Totals.....	\$98,718 60	\$105,192 82	\$119,964 02	\$125,165 03	\$37,420 25	\$37,185 42	\$19,738 63	\$22,441 82
* Gains deducted.....	3,510 05	5,086 71	5,409 51	6,551 78	126 68	439 72	387 91	455 55
Net expenditures.....	\$95,208 55	\$100,106 11	\$114,554 51	\$118,613 25	\$37,293 57	\$36,745 70	\$19,350 72	\$21,986 27
Deduct receipts for maintenance of patients.....	1,560 06	1,999 12	543 73	822 85				
Cost to the state.....	\$93,648 49	\$98,106 99	\$114,010 78	\$117,790 40				

Current Expenses.

STATEMENT OF CURRENT EXPENSES—Continued,

At the several institutions for the fiscal years ending September 30, 1889 and 1890, 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.	Industrial School for Boys.		State Prison.		State Public School.	
	1889.	1890.	1889.	1890.	1889.	1890.
Amusements and means of instruction.....	\$912 28	\$814 54	\$246 08	\$60 14	\$364 06	\$368 26
Accounts receivable.....			*73 71	*462 67		
Armory.....			9 32	4 60		
Agents' expenses.....					524 01	946 26
Barn, farm and garden.....	*2,925 48	*4,429 32	*1,989 44	*1,897 04	*1,420 80	*1,216 89
Boot and shoe factory.....	3,236 86	4,035 08				
Clothing.....	5,188 26	6,453 26	3,779 60	3,944 26	4,193 77	4,781 23
Children's transportation.....						102 09
Convict's earnings.....				458 07		
Discharges.....			1,741 41	2,490 00		
Discounts.....	*107 01	*116 84	*36 03	*188 18	*67 51	*65 65
Drug and medical department.....	556 79	382 66	344 57	509 24	598 59	440 92
Engines and boilers.....	126 71	695 48	75 06	467 70	75 91	39 59
Escapes.....	128 10	431 07	445 31	174 26	10 25	3 88
Exchange.....			16 00	20 87	2 50	1 75
Fire apparatus.....	126 53			16 00	7 80	23 05
Freight and express (not otherwise classified).....	75 22	78 10	18 40	18 65	11 70	11 50
Fuel.....	4,921 26	4,786 70	7,822 39	5,506 67	4,265 27	3,613 79
Furniture.....	*6 35	90 11				189 21
Gas and other lights.....	1,330 18	1,373 97	1,048 43	984 69	701 01	738 19
House furnishing.....	2,509 38	2,429 18	1,320 24	2,987 29	606 34	1,040 67
Laundry.....	125 24	134 57	263 98	135 32	125 15	148 70
Library.....	146 60	89 70			95	12 30
Machinery and tools.....	106 63	20 84	7 50	108 92	15 86	15 77
Miscellaneous.....	430 56	428 71	48 35	162 99	494 25	241 71
Officer's expenses.....	43 92	103 40	25 19	98 91	112 00	141 15
Printing, postage, stationery and telegraph.....	565 83	601 44	329 39	332 16	264 04	257 88
Repairs and renewals.....	3,411 87	2,189 63	1,990 75	1,638 05	1,458 12	1,503 86
Sock factory.....	*1,660 50	*2,074 29				
State Board of Supervision.....	1,723 09	1,723 09	2,063 04	2,063 04	1,167 65	1,167 65
Subsistence.....	18,511 34	18,916 83	23,418 12	22,031 64	10,222 34	11,074 75
Tobacco.....			277 20	260 40		
Wages and salaries.....	17,449 74	18,067 80	18,768 75	19,473 80	11,020 44	12,803 21
Indebtedness previous year.....			60 63	51 63		
Totals.....	\$61,626 39	\$63,846 76	\$64,119 71	\$68,949 85	\$36,242 01	\$39,666 87
*Gains deducted.....	4,699 34	6,620 45	2,099 18	2,547 84	1,541 04	1,283 54
Net expenditures.....	\$56,927 05	\$57,226 31	\$62,020 53	\$61,401 51	\$34,700 97	\$38,384 33
Deduct receipts from prisoners' earnings.....			52,452 68	60,320 10		
Cost to the state.....			\$9,567 85	\$1,181 41		

Current Expenses.

Movement of Population.

MOVEMENT OF POPULATION

In the several institutions for the biennial period ending September 30, 1890.

	STATE HOSPITAL.		NORTHERN HOSPITAL.		SCHOOL FOR DEAF.		SCHOOL FOR BLIND.		INDUST. SCHOOL FOR BOYS.		STATE PRISON.		STATE PUBLIC SCHOOL.	
	Year 1889.	Year 1890.	Year 1889.	Year 1890.	Year 1889.	Year 1890.	Year 1889.	Year 1890.	Year 1889.	Year 1890.	Year 1889.	Year 1890.	Year 1889.	Year 1890.
Number present or enrolled October 1, 1888, '89.....	478	475	610	639	192	173	85	89	376	406	438	507	203	303
Admitted during the year....	267	248	388	370	34	50	19	18	164	175	291	283	137	128
Total	745	723	998	1,009	226	223	104	107	540	581	729	790	340	431
Adopted.....													1	3
Indentured and on trial.....													95	135
Returned to counties.....													7	2
Died.....	33	26	59	70	3	2		2	1	1	4	10	8	1
Escaped.....									3	8	1	4		
Discharged, recovered.....	71	101	113	51										
Discharged, improved.....	81	36	125	149										
Discharged, unimproved.....	85	49	59	133										
Discharged, not insane.....			3	1										
Writ of habeas corpus.....											8			
Graduated.....					4	11								
Dismissed.....					10	1								
Transferred to hospitals for insane.....														
Released conditionally.....									122	141	3	2		
Sentence expired or reduced.....									8	8	190	211		
Pardoned.....											19	19		
Commutation of sentence.....														
Remanded for new trial.....											5	2		
Absent or dropped from roll.....						3	15	15						
Honorably discharged.....					4	2								
Trans. to Industrial School.....												2	1	1
Trans. to School for Blind.....													1	
No. present or enrl'd Sept. 30.....	475	511	639	605	205	204	89	90	406	423	507	532	232	289
Average for the year.....	484	502	641	616	191	182	84	80	392	421			211	253

Estimate of Appropriations Needed.

ESTIMATE OF EXPENDITURES AND THE APPROPRIATIONS

Required for each of the two coming Appropriation Years.

CURRENT EXPENSE ITEMS.	State Hos- pital for the Insane.	Northern Hospital for the Insane.	School for the Deaf.
Amusements and means of instruction.....	\$200 00	\$200 00	\$500 00
Agents' expenses.....			
Barn, farm and garden.....	1,500 00	1,500 00	800 00
Boot and shoe factory ..			1,000 00
Clothing.....	7,000 00	8,000 00	200 00
Children's transportation.....			
Convicts' earnings.....			
Discharges.....	200 00	300 00	
Drugs and medical department.....	2,000 00	2,000 00	200 00
Engines and boilers.....	1,500 00	1,500 00	300 00
Elopers.....	100 00	150 00	
Exchange.....			
Fire apparatus.....	300 00	300 00	100 00
Freight and express (not otherwise classified) ...	100 00	100 00	
Fuel.....	12,000 00	14,000 00	4,500 00
Furniture.....	500 00	500 00	300 00
Gas and other lights.....	2,000 00	2,000 00	700 00
House furnishing.....	3,500 00	3,500 00	700 00
Laundry.....	600 00	1,000 00	200 00
Library.....	200 00	200 00	200 00
Machinery and tools.....	100 00	100 00	100 00
Miscellaneous.....	400 00	400 00	200 00
Officers' expenses.....	150 00	200 00	150 00
Printing, postage, stationery and telegraph.....	600 00	600 00	350 00
Printing office.....			500 00
Repairs and renewals.....	5,000 00	5,000 00	1,200 00
Sock factory.....			
State Board of Supervision.....	2,300 00	3,800 00	1,300 00
Subsistence.....	38,000 00	45,000 00	10,500 00
Surgical instruments and appliances.....	200 00	200 00	
Tobacco.....	400 00	600 00	
Wages and salaries.....	33,000 00	39,000 00	17,000 00
Work departments.....			
Total.....	\$112,850 00	\$130,150 00	\$41,000 00
To be received from counties.....	40,162 92	48,060 80	
Receipts from sales, labor, etc.....			1,000 00
Balance.....	\$72,687 08	\$82,089 20	\$40,000 00
Probable surplus at close of present year.....	21,000 00	4,000 00	6,000 00
Probable deficiency at close of present year.....			
Appropriations necessary for first year.....	\$51,687 08	\$78,089 20	\$34,000 00
Appropriations necessary for second year.....	72,687 08	82,089 20	40,000 00
Total for period.....	\$124,374 16	\$160,178 40	\$74,000 00

*Estimate of Appropriations Needed.***ESTIMATE OF EXPENDITURES AND THE APPROPRIATIONS—
Continued.***Required for each of the two coming Appropriation Years.*

CURRENT EXPENSE ITEMS.	School for the Blind.	Industrial School for Boys.	State Prison.	State Public School.
Amusements and means of instruction.....	\$1,000 00	\$1,000 00	\$100 00	\$1,000 00
Agents' expenses.....	200 00	2,000 00	1,500 00	1,500 00
Barn, farm and garden.....		6,000 00		1,000 00
Boot and shoe factory.....		7,000 00	4,500 00	2,000 00
Clothing.....				500 00
Children's transportation.....				
Convicts' earnings.....			3,500 00	
Discharges.....				
Drugs and medical department.....	100 00	600 00	800 00	600 00
Engines and boilers.....	300 00	1,000 00	1,000 00	1,800 00
Elopers.....		500 00	300 00	100 00
Exchange.....				
Fire apparatus.....	50 00	200 00	100 00	100 00
Freight and express (not otherwise class- fied).....		100 00		100 00
Fuel.....	3,000 00	5,000 00	7,500 00	5,000 00
Furniture.....	200 00	300 00	300 00	500 00
Gas and other lights.....	500 00	1,500 00	1,000 00	800 00
House furnishing.....	500 00	3,000 00	2,000 00	1,200 00
Laundry.....	200 00	300 00	300 00	400 00
Library.....	100 00	200 00	200 00	100 00
Machinery and tools.....	100 00	200 00	100 00	300 00
Miscellaneous.....	300 00	500 00	200 00	200 00
Officers' expenses.....	100 00	150 00	200 00	200 00
Printing, postage, stationery and telegraph	300 00	100 00	500 00	300 00
Printing office.....				
Repairs and renewals.....	1,000 00	3,000 00	3,000 00	2,000 00
Sock factory.....		3,000 00		
State Board of Supervision.....	750 00	1,750 00	2,100 00	1,000 00
Subsistence.....	6,500 00	21,000 00	21,000 00	14,000 00
Surgical instruments and appliances.....			100 00	
Tobacco.....			300 00	
Wages and salaries.....	9,000 00	19,000 00	20,000 00	14,000 00
Work department.....	100 00			
Total.....	\$24,400 00	\$78,000 00	\$13,600 00	\$48,700 00
To be received from counties.....		10,419 33		
Receipts from sales, labor, etc.....	100 00	9,000 00	60,000 00	
Balance.....	\$24,300 00	\$58,590 67	\$13,600 00	\$48,700 00
Probable surplus at close of present year.....	1,000 00	2,000 00	8,500 00	
Probable deficiency at close of present year.....				10,000 00
Appropriations necessary for first year.....	\$23,300 00	\$51,590 67	\$5,100 00	\$53,700 00
Appropriations necessary for second year.....	21,300 00	58,590 67	12,600 00	48,700 00
Total for the period.....	\$47,600 00	\$115,181 34	\$18,700 00	\$107,400 00

COMPARATIVE STATEMENT

Of the average number of inmates and total and per capita cost for current expenses at the several state institutions in Wisconsin for the fiscal years from October 1, 1873, to September 20, 1890, inclusive.

Year ending Sept. 30.	STATE HOSPITAL.			NORTHERN HOSPITAL.			SCHOOL FOR DEAF.			SCHOOL FOR BLIND.			SCHOOL FOR BOYS.			STATE PRISON.		
	Total current expense.	Average number.	Cost per capita.	Total current expense.	Average number.	Cost per capita.	Total current expense.	Average number.	Cost per capita.	Total current expense.	Average number.	Cost per capita.	Total current expense.	Average number.	Cost per capita.	Total current expense.	Average number.	Cost per capita.
1874.....	\$6,567 08	337	\$250 94	\$62,551 34	233	\$335 02	40,500 00	146	\$277 33	\$19,000 00	60	\$316 66	\$43,453 02	293	\$148 03	\$31,750 00	214	\$146 02
1875.....	98,885 75	364	271 65	86,623 73	258	336 14	31,624 00	132	262 30	18,000 00	59	305 08	45,156 70	300	150 52	43,054 87	240	179 39
1876.....	101,611 63	334	304 23	106,945 97	400	267 45	28,165 64	145	194 25	18,000 00	60	300 00	48,149 49	299	161 37	42,427 85	261	162 55
1877.....	96,886 92	310	261 50	132,174 17	543	243 42	37,583 36	155	242 47	16,500 55	67	247 62	46,321 31	341	135 84	43,737 32	290	150 81
1878.....	95,035 85	380	250 01	130,799 81	543	240 88	30,000 00	140	214 28	17,418 32	77	226 86	48,721 45	380	128 21	43,233 74	337	128 58
1879.....	102,530 47	425	245 96	120,278 16	554	219 00	30,000 00	143	209 79	18,653 54	73	255 53	42,866 72	425	100 86	40,270 08	328	122 77
1880.....	141,020 39	550	256 40	128,189 76	529	242 89	27,961 54	132	211 83	17,800 76	67	263 68	51,650 78	427	120 90	44,082 88	304	145 01
1881.....	129,998 37	566	229 68	118,741 41	521	227 91	38,586 83	172	224 34	16,330 73	65	251 24	46,214 07	404	114 39	45,871 11	283	162 09
Av.....	106,570 81	416	\$256 33	110,825 54	448	\$247 58	\$33,427 68	146	\$229 55	\$17,713 20	66	\$268 37	\$16,566 69	359	\$129 85	\$41,803 48	282	\$148 17
1882.....	\$95,648 37	469	\$201 94	\$98,100 02	529	\$185 56	\$34,375 94	176	\$195 32	\$16,726 17	63	\$265 49	\$49,733 01	321	\$154 51	\$47,751 33	336	\$142 12
1883.....	96,545 70	476	202 82	114,735 48	567	202 36	35,666 30	188	189 71	16,670 48	57	291 95	42,038 73	291	144 46	50,031 29	363	137 83
1884.....	91,722 22	510	179 85	117,110 52	613	191 07	38,536 37	205	187 98	17,525 32	63	277 52	42,329 74	300	140 77	53,949 52	398	135 15
1885.....	94,547 11	515	183 59	121,536 58	626	194 15	37,585 39	205	188 34	19,434 80	62	313 46	45,613 27	292	156 21	54,944 03	443	124 03
1886.....	94,206 59	523	180 13	106,502 85	637	167 19	39,043 07	195	200 22	17,484 46	66	264 92	41,947 44	300	139 62	62,163 40	456	136 32
1887.....	95,213 15	516	184 52	112,076 02	650	172 42	35,515 30	198	179 37	19,630 52	73	268 91	45,583 12	334	136 48	59,335 53	448	122 42
1888.....	93,154 83	479	194 48	125,219 62	634	197 51	37,109 29	206	182 57	20,365 41	84	242 45	49,104 25	359	136 78	61,073 87	441	138 49
1889.....	95,208 55	484	196 71	114,554 51	641	178 71	37,293 57	191	195 25	19,350 72	84	230 37	56,927 95	392	145 22	62,020 53	463	133 95
1890.....	100,106 11	502	199 41	118,616 25	616	192 55	36,745 70	182	201 90	21,986 27	80	274 83	57,226 31	421	135 93	61,401 51	522	117 63
Av.....	\$95,150 29	497	\$191 45	114,272 09	613	\$186 41	\$36,930 10	194	\$190 36	\$18,797 13	70	\$268 53	\$47,822 55	334	\$143 18	\$56,962 33	430	\$132 47

Comparative Statement.

County Population and Quotas in Hospitals.

COUNTY QUOTAS IN HOSPITALS.

Table showing the quota or number of patients each county is entitled to have in the state hospitals for the insane, based upon the population as shown by the census of 1890, taking effect January 1, 1891.

County.	Population.	Quota.	County.	Population.	Quota.
Adams	6,887	5	Marathon	28,154	22
Ashland	19,961	15	Marinette	20,303	16
Barron	15,392	12	Marquette	9,669	7
Bayfield	7,230	5	Milwaukee	235,737	.....
Brown	39,009	30	Monroe	23,130	18
Buffalo	15,975	12	Oconto	15,030	11
Burnett	4,393	3	Oneida	4,965	4
Calumet	16,616	13	Outagamie	38,603	30
Chippewa	25,069	19	Ozaukee	14,885	11
Clark	19,876	15	Pepin	6,924	5
Columbia	28,312	22	Pierce	20,366	16
Crawford	15,960	12	Polk	12,961	10
Dane	59,554	46	Portage	23,881	18
Dodge	44,928	34	Price	5,250	4
Door	15,663	12	Racine	36,143	28
Douglas	13,405	10	Richland	19,095	15
Dunn	22,566	17	Rock	43,201	33
Eau Claire	30,671	24	St. Croix	23,081	18
Florence	2,602	2	Sauk	30,563	23
Fond du Lac	44,006	34	Sawyer	1,975	2
Forest	1,012	2	Shawano	19,229	15
Grant	36,649	28	Sheboygan	42,381	33
Green	22,700	17	Taylor	6,684	5
Green Lake	15,152	12	Trempealeau	18,858	14
Iowa	22,166	17	Vernon	25,126	19
Jackson	15,768	12	Walworth	27,743	21
Jefferson	33,434	26	Washburn	2,925	2
Juneau	17,102	13	Washington	22,637	17
Kenosha	15,574	12	Waukesha	33,141	25
Kewaunee	16,161	12	Waupaca	26,732	20
La Crosse	38,760	30	Waushara	13,490	10
La Fayette	20,266	16	Winnebago	50,008	38
Langlade	9,435	7	Wood	18,901	14
Lincoln	11,975	9			
Manitowoc	37,649	29	Total	1,683,697	1,108

Treasurer's Statement.

REPORT OF THE TREASURER.

MADISON, Wis., October 1st, 1890.

*To the State Board of Supervision of Wisconsin Charitable,
Reformatory and Penal Institutions:*

GENTLEMEN—Herewith I hand you my report as treasurer of the several institutions under your charge, for the two years ending September 30th, 1890.

Yours very respectfully,

M. C. CLARKE.

WISCONSIN STATE HOSPITAL FOR THE INSANE.

		Year ending September 30, 1889.		Year ending September 30, 1890.	
CURRENT EXPENSE FUND.					
1888.					
Oct. 1	Balance		\$15,123 51		\$10,769 43
1889.					
Sept. 30	By state treasurer, to date		82,813 44		105,675 15
Sept. 30	By steward, to date		4,193 90		5,237 59
Sept. 30	Transferred from railroad track scales fund.....				132 55
Sept. 30	To warrants paid to date.....	\$91,361 42		\$108,793 92	
	Balance.....	10,769 43		13,020 80	
		\$102,130 85	\$102,130 85	\$121,814 72	\$121,814 72
Sept. 30	Balance		\$10,769 43		13,020 80
	Less outstanding warrants as reported by sec'y of board.....		8,748 05		10,763 98
	Balance available		\$2,021 38		\$2,256 82
CEMENTING BASEMENT.					
1888.					
Oct. 1	Balance		\$37 70		37 70
	To balance	\$27 70		37 70	
	Balance available		\$37 70		\$37 70
RAILROAD TRACK SCALES.					
1888.					
Oct. 1	Balance		\$132 55		\$132 55
1890.					
Sept. 30	Transf. to current expense fund			\$132 55	
REBUILDING LAUNDRY WALL.					
1888.					
Oct. 1	Balance		\$158 38		\$158 38
1890.					
Sept. 26	To warrant paid state treasurer, chap. 33, laws 1882.. ..			\$158 38	
WATER TOWER.					
1890.					
Oct. 1	Balance		\$424 96		\$424 96
Sept. 26	To warrant paid state treasurer, chap. 33, laws 1882.....			\$424 96	

Treasurer's Statement.

NORTHERN HOSPITAL FOR THE INSANE.

		Year ending Sept 30, 1889.		Year ending Sept. 30, 1890.	
1888.	CURRENT EXPENSE FUND.				
Oct. 1	Balance.....		\$14,887 16		\$8,953 53
Sept. 30	By State Treasurer to date.....		109,606 49		130,537 19
" "	By steward to date.....		4,480 03		4,788 55
" "	To warrants paid to date.....	\$120,020 15		\$128,814 25	
" "	Balance	8,953 53		15,465 02	
		\$128,973 68	\$128,973 68	\$144,279 27	\$144,279 27
" "	Balance		\$8,953 53		\$15,465 02
" "	Less outstanding warrants as reported by Sec'y of Board.....		11,873 53		16,507 62
Oct. 1	Balance available.....	Overdraft.	\$2,920 00	Overdraft.	\$1,042 60
	FIRE MAIN AND HYDRANT'.				
" "	Balance.....		\$204 36		
" "	To warrants paid to date.....	\$204 36			
1888.	PURCHASE OF REAL ESTATE.				
Oct. 1	Balance		\$291 75		\$291 75
Sept. 30	To balance	\$291 75			
" "	To warrant paid State Treas- urer, chap. 33, Laws 1882.....			\$291 75	
		\$291 75	\$291 75	\$291 75	\$291 75
	WATER TOWER AND RESERVOIR, AND MAKING NECESSARY CON- NECTIONS.				
1889.					
Oct. 1	Balance				\$480 91
Sept. 30	By State Treasurer to date.....		\$4,000 00		\$4,000 00
" "	To warrants paid to date.....	\$3,519 09		\$3,923 56	
" "	Balance	480 91		557 35	
		\$4,000 00	\$4,000 00	\$4,480 91	\$4,480 91
" "	Balance.....		\$480 91		\$557 35
" "	Less outstanding warrants as reported by Sec'y of Board.....		211 91		17 94
Oct. 1	Balance available.....		\$269 00		\$539 41

Treasurer's Statement.

SCHOOL FOR THE DEAF.

		Year ending September 30, 1889.		Year ending September 30, 1890.	
1888.	CURRENT EXPENSE FUND.				
Oct. 1	Balance.....		\$4,010 49		\$7,562 43
Sept. 30	By State Treasurer to date.....		37,700 19		38,211 13
Sept. 30	By steward to date.....		1,877 33		1,733 39
Sept. 30	By transfers.....		4 01		8 55
Sept. 30	By transferred from gymnasium, etc., fund.....				137 24
Sept. 30	To warrants paid to date.....	36,024 94		43,920 33	
Sept. 30	To transfer	4 65			
Sept. 30	Balance.....	7,562 43		3,732 41	
		<u>\$43,592 02</u>	<u>\$43,592 02</u>	<u>\$47,652 74</u>	<u>\$47,652 74</u>
Sept. 30	Balance.....		\$7,562 43		\$3,732 41
Sept. 30	Less outstanding warrants as reported by secy. of board.....		5,035 82		3,394 11
Oct. 1	Balance available.....		<u>\$2,526 61</u>		<u>\$338 30</u>
1889.	BUILDING WATER OR EARTH CLOSETS.				
Oct. 1	Balance.....		\$243 95		\$243 95
	Transfer to gymnasium, etc.....			\$243 95	
1889.	GYMNASIUM, INCLUDING NATATORIUM AND WATER CLOSETS.				
Oct. 1	Balance.....				\$1,541 08
1889.					
Sept. 30	By state treasurer to date.....		6,000 00		
Sept. 30	By transfer.....		4 65		
Sept. 30	By building water or earth closets fund.....				243 95
Sept. 30	To warrants paid to date.....	\$4,459 56		\$1,639 24	
Sept. 30	To transfers.....	4 01		8 55	
Sept. 30	To transferred to current expense fund.....			137 24	
Sept. 30	Balance.....	1,541 08			
		<u>\$6,004 65</u>	<u>\$6,004 65</u>	<u>\$1,785 03</u>	<u>\$1,785 03</u>
Sept. 30	Balance.....		\$1,541 08		
Sept. 30	Less outstanding warrants as reported by secy. of board.....		671 96		
Sept. 30	Balance available.....		<u>\$869 12</u>		

Treasurer's Statement.

SCHOOL FOR THE BLIND.

		Year ending September 30, 1889.		Year ending September 30, 1890.	
1888.	CURRENT EXPENSE FUND.				
Oct. 1	Balance.....		\$2,496 28		\$4,984 29
Sept. 30	By State Treasurer to date.....		21,680 18		23,388 10
Sept. 30	By steward to date.....		685 29		597 82
Sept. 30	To warrants paid to date.....	\$19,877 46		\$26,862 99	
Sept. 30	Balance	4,984 29		2,106 72	
		<u>\$24,861 75</u>	<u>\$24,861 75</u>	<u>\$28,969 71</u>	<u>\$28,969 71</u>
Sept. 30	Balance.....		\$1,984 29		\$2,106 72
Sept. 30	Less outstanding warrants as reported by sec'y of board		2,067 37		\$1,859 94
Oct. 1	Balance available.....		\$2,916 92		\$246 78

INDUSTRIAL SCHOOL FOR BOYS.

		Year ending September 30, 1889.		Year ending September 30, 1890.	
1888.	CURRENT EXPENSE FUND.				
Oct. 1....	Balance		\$7,643 01		\$10,257 17
Sept. 30..	By State Treasurer to date.....		50,386 96		36,929 23
	By Steward to date		32,688 98		29,561 00
	By new fence, balance to close.....		38 86		
	By purchase of about 27 acres of land, balance to close		50 00		
	To warrants paid to date.....	\$80,505 55		\$71,502 57	
	To building barn and removing piggery.....	45 09			
	Balance	10,257 17		5,244 88	
		<u>\$90,807 81</u>	<u>\$90,807 81</u>	<u>\$76,747 45</u>	<u>\$76,747 45</u>
	Balance		\$10,257 17		\$5,244 88
	Less outstanding warrants as reported by Sec'y of Board...		6,110 42		7,902 96
Oct. 1....	Balance available		\$4,146 75	Overdraft	\$2,658 06
NEW FENCE.					
1888.					
Oct. 1....	Balance		\$167 01		
1889.					
Sept. 30..	To warrants paid to date.....	\$128 15			
	Bal. to Current Expense Fund.	38 86			
		<u>\$167 01</u>	<u>\$167 01</u>		

Treasurer's Statement.

INDUSTRIAL SCHOOL FOR BOYS.—Continued.

		Year ending Septem- ber 30, 1889.		Year ending Septem- ber 30, 1890.	
PURCHASE OF ABOUT 27 ACRES OF LAND.					
1888. Oct. 1	By State Treasurer to date.....		\$5,400 00		
1889. Sept. 30	To warrants paid to date.....	\$5,350 00			
	Current Expense Fund to bal	50 00			
		\$5,400 00	\$5,400 00		
WATER TOWER AND RESERVOIR.					
1889. Oct. 1	Balance				\$1,936 41
Sept. 30	By State Treasurer to date.....		\$4,000 00		
Sept. 30	To warrants paid to date	\$2,063 59		\$1,703 95	
Sept. 30	Balance	1,936 41		232 46	
		\$4,000 00	\$4,000 00	\$1,936 41	\$1,936 41
Sept. 30	Balance		\$1,936 41		\$232 46
Sept. 30	Less outstanding warrants as reported by Sec'y of Board..		50 81		
Oct. 1	Balance available.....		\$1,885 60		\$232 46
BUILDING BARN AND REMOVING THE PIGGERY.					
1889. Sept. 30	By State Treasurer to date....		\$2,000 00		
Sept. 30	By current Expense Fund to balance.....		45 09		
Sept. 30	To warrants paid to date	\$2,045 09			
		\$2,045 09	\$2,045 09		

Treasurer's Statement.

WISCONSIN STATE PRISON.

		Year ending September 30, 1889.		Year ending September 30, 1890.	
CURRENT EXPENSE FUND.					
Balance.....			\$7,288 75		\$12,135 52
By state treasurer to date.....			14,396 75		8,006 79
By steward for convict labor, to date.....			52,452 63		60,230 10
By steward for sundries, to date.....			2,510 73		3,174 89
To warrants paid to date.....	\$64,513 39			\$70,792 56	
Balance.....	12,135 52			12,744 72	
		\$76,648 91	\$76,648 91	\$83,537 28	\$83,537 28
<hr/>					
Balance.....			\$12,135 52		\$12,744 72
Less outstanding warrants as reported by Sec'y of Board....			6,614 75		5,601 38
Balance available			\$5,520 77		\$7,143 34

Treasurer's Statement.

STATE PUBLIC SCHOOL.

		Year ending September 30, 1889.		Year ending September 30, 1890.	
CURRENT EXPENSE FUND.					
1888.	Balance		\$2,279 66		\$6,611 60
Oct. 1	By State Treasurer to date.....		44,882 24		42,370 52
Sept. 30..	By Steward to date.....		177 03		388 32
	By Hospital Fund.....				150 69
	By Barn Fund.....				25 00
	By Ice House and Cold Storage Fund.....				73 06
	To warrants paid to date.....	\$40,727 33		\$47,130 69	
	To transfer.....				2 85
	To Building and Improvement Fund.....			129 06	
	To School-house Fund			140 73	
	Balance	6,611 60		2,221 56	
		\$47,338 93	\$47,338 93	\$49,622 04	\$49,622 04
	Balance		\$6,611 60		\$2,221 56
	Less outstanding warrants as reported by Sec'y of Board.....		3,146 01		4,095 42
	Balance available		\$3,465 59	Overdraft	\$1,873 86
BUILDINGS AND IMPROVEMENTS.					
1889.	Balance		\$616 96		\$40 69
Oct. 1	From Current Expense Fund.....				129 06
Sept. 30..	To warrants paid to date.....	\$576 27		\$169 75	
	Balance	40 69			
		\$616 96	\$616 96	\$169 75	\$169 75
	Balance		\$40 69		
HOSPITAL.					
Sept. 30..	Balance				\$929 10
	By State Treasurer to date.....		\$5,000 00		
	By transfer, error in charge				264 95
	To warrants paid to date.....	\$4,070 90		\$1,043 36	
	To Current Expense Fund.....			150 69	
	Balance	929 10			
		\$5,000 00	\$5,000 00	\$1,194 05	\$1,194 05
	Balance		\$929 10		
	Less outstanding warrants as reported by Sec'y of Board.....		607 21		
	Balance available		\$321 89		
BARN.					
Sept. 30..	Balance				\$200 00
	By State Treasurer to date.....		\$2,000 00		
	To warrants paid to date.....	\$1,800 00		\$175 00	
	To Current Expense Fund.....			25 00	
	Balance	200 00			
		\$2,000 00	\$2,000 00	\$200 00	\$200 00
	Balance		\$200 00		

Treasurer's Statement.

STATE PUBLIC SCHOOL — Continued.

		Year ending September 30, 1889.		Year ending September 30, 1890.	
1889. Sept. 30..	ICE HOUSE AND COLD STORAGE.				
	Balance.....				\$800 00
	By State Treasurer to date.....		\$2,000 00		
	To warrants paid to date.....	\$1,200 00		\$724 09	
	To transfers.....			2 85	
	To Current Expense Fund.....			73 06	
	Balance.....	800 00			
		\$2,000 00	\$2,000 00	\$800 00	\$800 00
	Balance.....		\$800 00		
	Less outstanding warrants reported by Secretary of Board.....		43 10		
	Balance.....		\$756 90		
1889. Sept. 30..	SCHOOL HOUSE.				
	Balance.....				\$677 87
	By State Treasurer to date.....		\$6,000 00		
	By Current Expense Fund.....				140 73
	To warrants paid to date.....	\$5,322 33		\$818 40	
	Balance.....	677 67			
		\$6,000 00	\$6,000 00	\$818 40	\$818 40
	Balance.....		\$677 67		

FOURTH BIENNIAL REPORT

OF THE

Wisconsin State Hospital for
the Insane,

FOR THE

TWO FISCAL YEARS ENDING SEPT. 30, 1890.

OFFICERS.

LOUIS R. HEAD, M. D.,	-	-	-	-	SUPERINTENDENT.
E. P. TAYLOR, M. D.,	{	-	-	-	ASSISTANT PHYSICIANS.
F. A. LYMAN, M. D.,					
S. J. M. PUTNAM,	-	-	-	-	STEWARD.
LUDVIG EILERTSEN,	-	-	-	-	ASSISTANT STEWARD.
Miss ELIZABETH WHITEHEAD,	-	-	-	-	MATRON.
M. C. CLARKE,	-	-	-	-	TREASURER.

STATE HOSPITAL.

REPORT OF THE SUPERINTENDENT.

To the State Board of Supervision:

GENTLEMEN:— I respectfully submit, for your consideration, the fourth biennial report of the Wisconsin State Hospital for the Insane.

The change of executive officers, made necessary by the resignation of Dr. S. B. Buckmaster, in November, 1889, has caused, I hope, no diminution in the effectiveness of the hospital. My full appreciation of its general efficiency led me to believe that all interests would be best subserved by following, in the main, the lines pursued heretofore. No disorganization has been caused from unnecessary interference with the routine work of the hospital, nor from sweeping changes among the officers and employes; and, while compared with a service of ideal excellence, there have been numerous delinquencies on the part of employes, the exhibition of intelligence, patience and fidelity in the discharge of one of the most severe duties of life has been truly praiseworthy.

The use, for the past year, of slight restraint as a prohibitory measure against the removal and destruction of clothing and self-mutilation, having been a departure from the recent professions of the hospital, may perhaps demand a word of explanation. The slight restraint involved in the use of the muff or canvas mitten is all that has been allowed, and no restraint whatever has been applied except upon my personal order, after a careful investigation as to its advisability. As a result of its restricted and judicious use in the hospital for the past year, there is not a male patient who requires seclusion; but three or four among

State Hospital for the Insane.

the females who require it for short periods, and every patient goes properly clothed and takes regular daily exercise out of doors.

In the light of my observations and experience, I believe moderate restraints, applied under severe restrictions, to be humane and beneficial, and that those who advocate total non-restraint are carrying a most beneficent reform too far.

It has been my endeavor to afford every patient admitted ample medical treatment of whatever form the case seemed to demand. No case received has been regarded so hopeless, but that earnest efforts have been put forth for the amelioration of the condition, if not in the hope of recovery.

Believing that the medical superintendent's largest field of usefulness lies in a close personal supervision of the patients and their moral as well as medical treatment, I have made it a point to visit the wards each day.

Much attention has been given to the rapid improvement of nutrition. Experience in a private hospital, where this fundamental principle could be carried to its ultimate limit, has taught me the invaluable nature of the information found in the fortnightly weight reports. The taking on of thirty or forty pounds of flesh, to most recent cases, whether maniacal or depressed, means complete recovery or advancement toward it. This seems a commonplace statement; it is so, but one that, I fear, is too often lost sight of in the administration of large hospitals. The methods used to speedily counteract the depraved physical condition so unmistakably revealed in the appearance of most of the patients admitted here, involved much extra labor on the part of physicians and supervisors, and also some slight additional expense, all of which I believe the results have warranted.

When it is taken into consideration that the average duration of disease before admission to the hospital, of those who recovered, is nearly nine months, the recoveries of the

Superintendent's Report.

past year amounting to 101, or 40.7 per cent. of the admissions and 47.6 per cent. of the discharges, including deaths, ought, certainly, to amply reward all for the severe labors expended and encourage to renewed efforts.

The conversion of the seventh female ward, located in the center building, and occupied by a few quiet patient, into the eighth male ward seemed necessary, in view of the crowded condition of some of the male wards. The few patients occupying it were easily distributed among the front wards, and about thirty male patients selected for its occupancy.

Through the very ready recognition, on the part of your Honorable Board, of the real necessities of the hospital, many substantial improvements have been made during the past two years. The work of replacing the old pine floors with hard wood, begun some time ago, has been nearly completed, very few floors remaining unchanged, and those, with very few exceptions, are in rooms where carpeting is used.

The recently finished work of putting in new heating apparatus for the administration building and the rear wards on the female side completes the change throughout the hospital, and insures additional comfort for patients and officers alike.

The bricking of the basement floors, which was begun last spring and is being steadily carried forward, I regard as a necessary sanitary measure. The work is being done by attendants and patients, and will afford occupation during the winter to quite a number.

The purchase of new mattresses, and the renovation of the old ones, accomplished during the past summer, was much needed. The hospital is at present admirably supplied with all that appertains to good rest.

Much has been done upon the wards with fresh paint, new carpets and rugs and pretty pictures, to increase their homelike appearance.

State Hospital for the Insane.

While the natural beauty of our grounds excels that of the surroundings of any hospital I have ever visited, very little has as yet been done toward developing the possibilities everywhere so apparent. The execution of a general plan of improvement was begun during the summer and is being pushed forward as fast as the resources at command will permit. The work has been of real benefit to a large number of patients who have been afforded healthful and interesting employment.

The wearing of a uniform, selected and required during the past year, has very much improved the appearance of the corps of attendants.

The organization of a training school for attendants was among my plans for the past year, but the demands made upon my time by regular hospital work have made it necessary to postpone its execution for the present.

The ample general library has afforded much pleasure to the patients.

From 130 to 150 books are drawn each month. Nearly 100 volumes which had become dilapidated, through severe usage, have been rebound and made available for distribution.

The amusements have been regularly kept up, and have been of the usual variety. To those who have so kindly assisted at the entertainments I wish to render due acknowledgements.

The usual religious exercises have been observed.

To the editors of the leading papers of the state we are indebted for a continuance of their courtesy in placing the hospital upon their mailing list. To the *Wisconsin State Journal* and to Postmaster Bryant, of Madison, our acknowledgments are due for the gift of a large amount of reading matter.

The general health of the hospital has been excellent, as is proven by the low death rate of 3.59 per cent. La Grippe, which swept over the country during the early spring of

Superintendent's Report.

1890, prostrated a considerable number of our patients, but did not result fatally to any. The results of the observations of the cases here during their sickness and convalescence, and the large number of patients since admitted, where competent physicians have assigned the influenza as the cause of mental derangement, indicate very plainly the profound impression which the disease always made and very often left upon the nervous system.

The statistical tables accompanying this report show that there were remaining in the hospital September 30, 1888, 478. The admissions for the year numbered 267. The discharges for the year numbered 270, including 71 recovered, 81 improved, 85 unimproved, and 33 deaths. The number remaining September 30, 1889, was 475; the daily average under treatment for the year, 483; the percentage of recoveries, 27. During the past year the admissions numbered 248. The discharges for the year numbered 212, including 101 recovered, 36 improved, 49 unimproved, and 26 deaths. The number remaining September 30, 1890, was 511. The daily average for the year was 502; the percentage of recoveries, 40.7. The whole number of admissions for the period was 515; whole number of discharges, 482; whole number of recoveries, 172; percentage of recoveries for the period, 33.4.

I would respectfully call the attention of the board to the matter of more adequate provision for the employment of our patients during that portion of the year unsuitable for their occupation out of doors. The furnishing of shops where our brooms can be manufactured, and shoes, clothing and furniture repaired, would be a wise provision.

The addition of Turkish bath rooms seems almost a necessity in view of the benefits to be derived from their judicious use.

The morgue now in use is unsuitable for the purpose, and I would earnestly recommend the provision of a proper building, with suitable rooms also for laboratories.

State Hospital for the Insane.

The resignation of Dr. S. B. Buckmaster, in November, 1889, was the most important change occurring in the hospital during the period. Dr. Buckmaster had been connected with the hospital for ten years, the last five as its superintendent. His administration was always most efficient, and all who knew the Doctor, officially or socially, will join in wishing him Godspeed in his new labors.

Dr. Geo. A. Post, who, for a year, served acceptably as second assistant physician, resigned in November, 1889, to become the assistant physician at Oakwood Retreat, Lake Geneva, Wis.

The vacancy caused by the resignation of Dr. Post was filled by the appointment of Dr. Francis A. Lyman, of Chicago. Dr. Lyman's thorough education, his general hospital experience and conscientious work, have made him a valuable assistant.

To Dr. E. P. Taylor, first assistant, I am indebted for valuable aid during the past year, and to the balance of the officers I wish to acknowledge my appreciation of their general efficiency.

In conclusion, gentlemen, I beg leave to acknowledge my many obligations to you for the very generous treatment accorded to me.

Very Respectfully,

LOUIS R. HEAD,

Medical Superintendent.

MENDOTA, September 30, 1890.

Statistical Tables.

STATISTICS,

FOR THE TWO YEARS ENDING SEPTEMBER 30, 1890.

TABLE NO. 1.

Movement of Population.

	1889.			1890.		
	Male.	Female.	Total.	Male.	Female.	Total.
Remaining September 30, 1888...	272	206	478	.....	.....	.....
Remaining September 30, 1889.....	.....	.....	.....	267	208	475
Admitted during the year... ..	164	103	267	151	97	248
Whole number treated.....	436	309	745	418	305	723
Discharged recovered.....	45	26	71	64	37	101
Discharged improved.....	53	28	81	14	22	36
Discharged unimproved.....	54	31	85	22	27	49
Died.....	17	16	33	18	8	26
Whole number discharged.....	169	101	270	118	94	212
Remaining September 30, 1889....	267	208	475	.....	.....	.....
Remaining September 30, 1890....	.....	.....	.....	300	211	511
Daily average under treatment.	274	209	483	293	209	502

TABLE NO. 2.

Admissions and discharges from beginning of hospital.

	1889.			1890.		
	Male.	Female.	Total.	Male.	Female.	Total.
Admitted.....	2,849	2,319	5,168	3,000	2,416	5,416
Discharged recovered.....	806	642	1,448	870	679	1,549
Discharged improved.....	671	520	1,191	685	542	1,227
Discharged unimproved.....	724	632	1,357	746	660	1,406
Died.....	379	314	693	397	322	719
Not insane.....	2	2	4	2	2	4

State Hospital for the Insane.

TABLE NO. 3.

Number attacked at various ages during 1889 and 1890.

AGE.	1889. WHEN ATTACKED.			1890. WHEN ATTACKED.		
	Male.	Female.	Total.	Male.	Female.	Total.
Less than 15 years....	2	.....	2	4	1	5
Between 15 and 20 years.....	11	12	23	17	6	23
Between 20 and 30 years.....	46	30	76	43	33	76
Between 30 and 40 years.....	31	25	56	31	29	60
Between 40 and 50 years.....	29	15	44	20	20	40
Between 50 and 60 years.....	18	9	27	19	4	23
Over 60 years.....	11	3	14	6	4	10
Unknown.....	16	9	25	11	.....	11
Not insane.....	.....	.....	.....	.....	.....	.....
Totals.....	164	103	267	151	97	248

TABLE NO. 4.

Number at each age from beginning of hospital.

AGE.	WHEN ATTACKED.		
	Male.	Female.	Total.
Less than 15 years.....	74	49	123
Between 15 and 20.....	249	206	455
Between 20 and 30.....	864	756	1,620
Between 30 and 40.....	620	598	1,218
Between 40 and 50.....	494	382	876
Between 50 and 60.....	296	211	507
Over 60 years.....	200	114	314
Unknown.....	201	98	299
Not insane.....	2	2	4
Total.....	3,000	2,416	5,416

Statistical Tables.

TABLE NO. 5.

Nativity of patients admitted.

NATIVITY.	1889.	1890.	From the beginning.	NATIVITY.	1889.	1890.	From the beginning.
Austria.....			11	Kansas.....	1		1
Bavaria.....		1	14	Kentucky.....			15
Belgium.....			2	Maine.....	3	4	74
Bohemia.....			56	Massachusetts..	4	1	81
Canada.....	5	4	121	Maryland.....			4
Cuba.....			3	Michigan.....	1	3	32
Denmark....	3		42	Missouri.....			5
England.....	9	5	237	Minnesota.....	1	1	15
France.....	1		13	New Hampshire ..		2	51
Germany.....	32	28	788	New Jersey.....	1		19
Holland.....			2	New York.....	29	14	697
Ireland.....	13	20	498	North Carolina..			3
Isle of Man....	1		3	Ohio.....	8	8	151
Isle of Wight...			1	Pennsylvania...	9	10	174
New Brunswick	1		9	Rhode Island....		1	6
Norway.....	36	40	543	South Carolina..			8
Nova Scotia...			13	Tennessee.....			4
Poland.....	2		11	Vermont.....	3	2	100
Sweden.....	3	4	78	Virginia.....			16
Switzerland...	5	4	67	Wisconsin.....	69	80	944
Scotland.....	5		57	On ocean.....			6
Wales.....	1		51	United States...	4	2	30
Alabama.....			2	Unknown.....	6	4	143
Connecticut....	1	2	66	Italy.....	1		3
Illinois.....	6	4	70	Mississippi.....			1
Indiana.....	2	3	49	West Indies.....			1
Nebraska.....			1	Finland.....			1
Newfoundland.			1				
Iowa.....	1	1	14	Total.....	267	243	5,416.

State Hospital for the Insane.

TABLE NO. 6.

Residence of patients admitted.

COUNTY.	1889.		1890.	
	Admitted.	Remaining.	Admitted.	Remaining.
Adams.....	4	7	1	7
Barron.....	5	8	6	10
Buffalo.....	4	10	8	17
Burnett.....		4	1	4
Columbia.....	13	13	8	16
Crawford.....	2	11	4	12
Dane.....	25	44	23	39
Dunn.....	12	17	10	23
Eau Claire.....		3		3
Grant.....	19	20	12	24
Green.....	9	13	11	16
Iowa.....	7	7	4	8
Jackson.....	5	15	7	21
Jefferson.....			1	1
Juneau.....	6	16	11	17
La Crosse.....	22	26	13	26
La Fayette.....	12	15	10	18
Monroe.....	7	14	10	18
Pepin.....		3	1	4
Pierce.....	5	19	8	23
Polk.....	5	12	3	13
Richland.....	5	11	5	11
Rock.....	27	29	20	30
St. Croix.....	10	21	12	26
Sauk.....	12	22	15	19
Trempealeau.....	6	18	7	19
Vernon.....	13	16	15	8
Walworth.....	12	18	13	19
Washburn.....		3	1	4
Waukesha.....	2	3		3
State at large.....	18	57	7	51
Sawyer.....			1	1
Total.....	267	475	248	511

Statistical Tables.

TABLE NO. 7.

Duration of insanity before entrance of those admitted.

DURATION.	1889.			1890.			FROM THE BEGINNING.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Less than 3 months.....	44	39	83	51	34	85	948	683	1,631
Between 3 and 6 months ..	36	13	49	12	11	23	319	291	610
Between 6 and 12 months .	25	14	39	16	9	25	333	313	646
Between 1 and 2 years.....	10	7	17	10	10	20	284	233	517
Between 2 and 3 years.....	12	6	18	15	4	19	194	147	341
Between 3 and 5 years.....	9	7	16	18	12	30	210	191	401
Between 5 and 10 years....	8	3	11	8	8	16	182	202	384
Between 10 and 20 years...	2	4	6	5	6	11	117	136	253
Between 20 and 30 years...	....	2	2	1	1	2	33	28	61
Over 30 years.....	....	....	....	....	....	....	6	8	14
Unknown.....	18	8	26	15	2	17	372	182	554
Not insane.....	....	....	....	....	....	....	2	2	4
Total	164	103	267	151	97	248	3,000	2,416	5,416

State Hospital for the Insane.

TABLE NO. 8.
Ratio of deaths for nineteen 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	498	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	745	17	16	33	3.89	5.17	4.43
1890.....	418	305	723	18	8	26	4.30	2.62	3.46

TABLE NO. 9.

Recovered of those attacked at the several ages, from the beginning.

AGE WHEN ATTACKED.	NUMBER ADMITTED.			NUMBER RECOVERED.			PER CENT. RECOVERED.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Less than 15 years.....	74	49	123	10	11	21	13.51	22.44	17.07
Between 15 and 20 years.	249	206	455	86	83	169	34.53	40.29	37.14
Between 20 and 30 years.	864	756	1620	272	256	528	31.49	33.86	32.59
Between 30 and 40 years.	620	598	1218	196	153	349	31.61	25.56	28.65
Between 40 and 50 years.	494	382	876	144	93	237	29.14	24.34	26.74
Between 50 and 60 years.	296	211	507	94	48	142	31.75	22.74	27.25
Over 60 years.....	200	114	314	59	29	88	29.50	25.43	27.47
Unknown.....	201	98	299	9	6	15	4.47	6.12	5.80
Not insane.....	2	2	4	.....	.....	.....	.....	.....	.....
Total.....	3000	2416	5416	870	679	1549	29.00	28.10	28.55

Statistical Tables.

TABLE NO. 10.

Recovered after various durations of disease, before treatment, from the beginning.

DURATION OF DISEASE BEFORE ADMISSION.	NUMBER ADMITTED.			NUMBER RECOVERED.			PER CENT. RECOVERED.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Less than three months...	948	683	1631	411	305	716	43.35	44.67	44.01
Between 3 and 6 months...	319	291	610	136	120	256	42.63	41.23	41.93
Between 6 and 12 months...	333	313	646	93	102	195	27.92	32.58	30.25
Between 1 and 2 years...	284	233	517	65	52	117	23.30	22.31	22.80
Between 2 and 3 years...	194	147	341	33	17	50	17.01	11.56	14.28
Between 3 and 5 years...	210	191	401	29	27	56	13.80	14.13	13.96
Between 5 and 10 years...	182	202	384	19	15	34	10.43	7.42	8.92
Between 10 and 20 years...	117	136	253	7	6	13	5.97	4.41	5.19
Between 20 and 30 years...	33	28	61	.....	.....	.....	.....	.....	.....
Over 30 years.....	6	8	14	.....	.....	.....	.....	.....	.....
Unknown.....	372	182	554	77	35	112	20.69	19.23	19.96
Not insane.....	2	2	4	.....	.....	.....	.....	.....	.....
Total	3000	2416	5416	870	679	1549	29.	28.10	28.55

TABLE NO. 11.

Duration of treatment of those recovered from the beginning.

DURATION OF TREATMENT.	NUMBER RECOVERED.		
	Male.	Female.	Total.
Less than three months.....	283	133	416
Between 3 and 6 months.....	265	231	496
Between 6 and 12 months.....	198	193	391
Between 1 and 2 years.....	95	85	180
Between 2 and 3 years.....	18	26	44
Between 3 and 5 years.....	8	9	17
Between 5 and 10 years.....	3	2	5
Total	870	679	1,549
Average duration of treatment, months.....	7.23	8.68	7.87

State Hospital for the Insane.

TABLE NO. 12.

Whole duration of disease of those recovered from the beginning.

DURATION OF DISEASE.	NUMBER RECOVERED.		
	Male.	Female	Total.
Less than 3 months.....	93	31	124
Between 3 and 6 months.....	159	121	280
Between 6 and 12 months.....	256	220	476
Between 1 and 2 years.....	167	155	322
Between 2 and 3 years.....	47	43	90
Between 3 and 5 years.....	43	39	82
Between 5 and 10 years.....	26	29	55
Between 10 and 20 years.....	5	4	9
Between 20 and 30 years.....	1	2	3
Unknown.....	73	35	108
Total.....	870	679	1,549
Average duration of disease, months.....	15.23	18.39	16.55

Statistical Tables.

TABLE NO. 13.
Number of deaths from the beginning, and the causes.

CAUSES.	1889.			1890.			FROM THE BEGINNING.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Bony tumor of brain .....	.....	.....	.....	.....	.....	.....	.....	1	1
Cerebro spinal meningitis .....	.....	.....	.....	.....	.....	.....	.....	1	1
Cerebral hemorrhage .....	.....	1	1	.....	.....	.....	20	12	32
Chlorosis .....	.....	.....	.....	.....	.....	.....	.....	5	5
Chronic diarrhoea .....	.....	.....	.....	.....	.....	.....	2	1	3
Cystitis .....	.....	.....	.....	.....	.....	.....	3	.....	3
Cyanche maligna .....	.....	.....	.....	.....	.....	.....	1	.....	1
Cancer .....	.....	1	1	.....	.....	.....	2	3	5
Chronic pleurisy .....	.....	.....	.....	.....	.....	.....	1	1	2
Dysentery .....	.....	.....	.....	.....	.....	.....	5	7	12
Dropsy .....	.....	.....	.....	.....	.....	.....	2	.....	2
Embolism .....	.....	.....	.....	.....	1	1	1	1	2
Exhaustion from chronic mania	2	4	6	.....	.....	.....	41	67	108
Exhaustion from acute mania	3	1	4	6	2	8	53	30	83
Exhaustion from melancholia .....	.....	.....	.....	.....	.....	.....	13	17	30
Exhaustion, senile	1	.....	1	.....	.....	.....	6	5	11
Epilepsy	3	5	8	1	.....	1	33	21	54
Erysipelas .....	.....	.....	.....	.....	1	1	.....	3	3
Fracture of skull .....	.....	.....	.....	.....	.....	.....	1	.....	1
Gastritis .....	.....	.....	.....	.....	.....	.....	.....	1	1
Gastro-enteritis .....	.....	.....	.....	.....	.....	.....	2	3	5
Gangrene of lung .....	.....	.....	.....	.....	.....	.....	.....	1	1
General paresis	1	.....	1	2	.....	2	54	4	58
Hepatitis, acute .....	.....	.....	.....	.....	1	1	1	1	2
Inanition .....	.....	.....	.....	.....	.....	.....	2	6	8
Intemperance .....	.....	.....	.....	.....	.....	.....	1	.....	1
Locomotor ataxia .....	.....	.....	.....	.....	.....	.....	1	.....	1
Marasmus .....	.....	.....	.....	.....	.....	.....	41	31	72
Meningitis, acute .....	.....	.....	.....	.....	.....	.....	.....	2	2
Nephritis, acute .....	.....	.....	.....	3	.....	3	3	1	4
Organic disease of brain	3	1	4	1	1	2	26	11	37
Osteo sarcoma of scapula .....	.....	1	1	1	2	3	1	.....	1
Phthisis pulmonalis .....	.....	.....	.....	.....	.....	.....	26	52	78
Puerperal mania .....	.....	.....	.....	.....	.....	.....	.....	1	1
Purpura hemorrhagica .....	.....	.....	.....	.....	.....	.....	2	.....	2
Phlegmonous erysipelas .....	.....	.....	.....	.....	.....	.....	3	.....	3
Pneumonia .....	.....	.....	.....	.....	.....	.....	7	8	15
Peritonitis .....	.....	.....	.....	.....	.....	.....	5	1	6
Pluritic abscess .....	.....	.....	.....	1	.....	1	2	.....	2
Stomach, perforating ulcer of .....	.....	.....	.....	.....	.....	.....	1	.....	1
Stomach, cancer of .....	.....	.....	.....	.....	.....	.....	.....	1	1
Suicide .....	.....	1	1	.....	.....	.....	9	7	16
Septicæmia .....	.....	.....	.....	.....	.....	.....	4	1	5
Typhoid fever .....	.....	.....	.....	.....	.....	.....	3	6	9
Valvular disease of heart	2	.....	2	2	.....	2	16	8	24
Symphadeuoma .....	.....	1	1	.....	.....	.....	.....	1	1
Strangulated hernia	1	.....	1	.....	.....	.....	1	.....	1
Accident	1	.....	1	1	.....	1	2	.....	2
Total	17	16	33	18	8	26	397	322	719

State Hospital for the Insane.

TABLE No. 14.

Attributed causes of insanity in 3,248 cases—1876 to 1890 inclusive.

ATTRIBUTED CAUSE OF IN-SANITY.	1889.			1890.			IN 3,248 CASES.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Bright's disease							1		1
Childbirth		6	6		9	9		110	110
Change of life		3	3		3	3		32	32
Chorea							1	2	3
Cerebral hemorrhage	1		1		2	2	4	3	7
Cerebral softening							1		1
Cerebral congestion							1		1
Cerebral anæmia								1	1
Diphtheria								1	1
Debility		2	2	7	1	8	10	10	20
Domestic trouble	2	3	5	1	1	2	26	46	72
Disappointment				1	1	2	10	5	15
Epilepsy	8	7	15	8	4	12	96	41	137
Fever							1	2	3
Fever, typhoid				1		1	1	2	3
Fright	1	1	2	1		1	6	17	23
Grief					4	4	15	34	49
Heredity	23	28	51	16	17	33	365	359	724
Heredity with childbirth		1	1		1	1		10	10
Heredity with miscarriage								1	1
Heredity with injury of head							9	1	10
Heredity with typhoid fever							1		1
Heredity with change of life								3	3
Heredity with domestic trouble							2	2	4
Heredity with old age								1	1
Heredity with poverty							1		1
Heredity with uterine disease								2	2
Heredity with intemperance				1		1	16	3	19
Heredity with epilepsy							2	3	5
Heredity with grief								2	2
Heart, disease of							1		1
Intemperance	8		8	13	1	14	124	6	130
Injury of head	6		6	4	2	6	68	15	83
Idiocy	1		1				7	2	9
Infantile cerebral disease								2	2
La Grippe				2		2	2		2
Locomotor ataxia							2		2
Malaria								1	1
Masturbation	7	1	8	9		9	83	3	86
Menstrual derangement		1	1					16	16
Meningitis							5	2	7
Old age	3		3	2		2	34	14	48
Overwork	2	1	3	2	3	5	20	19	39
Opium habit	2	1	3	1	1	2	5	4	9
Privation							3	2	5

Statistical Tables.

TABLE No. 14.—Continued.

Attributed cause of insanity in 3,248 cases — 1876 to 1890 inclusive — Con.

ATTRIBUTED CAUSE OF IN- SANITY.	1889.			1890.			IN 3,248 CASES.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Protracted lactation.....								1	1
Pecuniary embarrassment.....	2	1	3	6		6	44	8	52
Prostration, nervous.....								3	3
Religious excitement.....	6	6	12	3	2	5	31	26	57
Rheumatism							3	1	4
Sexual excess.....							3	2	5
Seduction								5	5
Struck by lightning.....				1		1	2		2
Sunstroke	2		2	3		3	42	3	45
Syphilis	1		1	1		1	7	3	10
Tuberculosis.....							4	1	5
Uterine diseases.....								12	12
Unknown	88	41	129	68	45	113	803	518	1321
Worry and anxiety.....	1		1				9	11	20
Not insane.....							2	2	4
Total.....	164	103	267	151	97	248	1873	1375	3248

State Hospital for the Insane.

TABLE NO. 15.

Form of insanity in 3,248 cases — 1876 to 1890, inclusive.

FORM OF INSANITY.	1889.			1890.			In 3,248 cases.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Adolescent insanity .....	.....	.....	.....	.....	1	1	.....	1	1
Dementia, acute.....	.....	.....	.....	1	.....	1	3	4	7
Dementia, chronic.....	1	.....	1	.....	3	3	117	64	181
Dementile, senile.....	.....	.....	.....	2	1	3	23	15	38
Dipsomania.....	.....	.....	.....	6	1	7	36	4	40
General paresis.....	1	.....	1	.....	.....	.....	10	1	11
Hysteria.....	.....	3	3	.....	2	2	.....	34	34
Idiocy.....	1	.....	1	1	.....	1	9	3	12
Mania, acute.....	86	40	126	44	27	71	598	339	937
Mania, subacute.....	11	5	16	20	11	31	101	64	165
Mania, chronic.....	39	21	60	38	23	61	337	265	602
Mania, epileptic.....	8	10	18	11	3	14	94	40	134
Mania, puerperal.....	.....	1	1	.....	3	3	.....	64	64
Mania, recurrent.....	.....	.....	.....	2	.....	2	32	25	57
Melancholia, acute.....	14	18	32	10	15	25	396	313	709
Melancholia, subacute.....	2	1	3	6	1	7	29	22	51
Melancholia, chronic.....	1	4	5	8	6	14	74	99	173
Melancholia, recurrent.....	.....	.....	.....	.....	.....	.....	10	14	24
Mysophobia.....	.....	.....	.....	.....	.....	.....	.....	1	1
Stuporous insanity.....	.....	.....	.....	2	.....	2	2	1	3
Not insane.....	.....	.....	.....	.....	.....	.....	2	2	4
Total	164	103	267	151	97	248	1873	1375	3248

TABLE NO. 16.

Statistics of the Hospital from July 14, 1860, to September 30, 1890 (Hospital year ending September 30, each year).

WHOLE NUMBER.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.*	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	Totals.
Males admitted.....	23	50	49	62	51	44	57	55	95	109	82	81	92	115	73	82	99	61	90	103	125	109	96	130	139	137	142	149	171	164	151	3,000
Females admitted.....	22	56	40	61	53	43	38	59	80	100	86	83	74	97	70	78	82	83	58	111	90	75	73	84	104	114	115	103	107	103	97	2,416
Whole number admitted.....	45	106	89	123	112	87	95	114	175	209	168	164	166	212	143	160	181	144	148	214	215	184	169	214	239	241	247	252	285	267	248	5,416
Whole number treated.....	45	147	192	254	300	257	272	294	555	455	522	524	521	585	457	507	557	498	520	607	723	770	676	677	708	778	756	783	792	745	723	.....
Males discharged.....	..	23	23	44	64	31	50	61	51	58	92	83	83	148	44	70	98	62	76	54	64	159	100	125	94	158	136	151	178	169	118	2,700
Females discharged.....	4	21	28	22	66	46	42	53	58	34	80	80	65	123	66	62	101	54	61	46	53	124	93	83	77	111	89	125	136	101	94	2,205
Whole number discharged.....	4	44	61	66	130	80	92	114	109	91	172	163	148	271	110	132	199	116	137	100	137	283	193	208	171	269	225	276	314	270	212	4,905
Males recovered.....	..	13	12	24	23	16	19	30	25	31	31	23	33	21	11	16	19	21	14	21	23	28	33	48	31	45	49	43	57	45	64	870
Females recovered.....	1	3	13	13	33	17	23	19	30	21	22	31	27	18	20	16	15	24	21	16	19	32	16	23	27	31	25	27	30	26	37	679
Whole number recovered.....	1	19	25	37	56	33	42	49	55	51	53	54	60	39	31	32	34	45	35	37	42	60	49	71	58	76	74	70	87	71	101	1,549
Males died.....	..	3	14	8	9	7	6	7	7	8	18	14	11	9	12	11	10	17	18	9	19	19	12	18	18	22	21	17	18	17	18	397
Females died.....	1	7	7	1	8	6	1	3	8	5	14	1	14	13	12	9	10	11	12	7	16	14	16	8	12	21	16	12	19	16	8	322
Whole number died.....	1	10	21	9	17	13	7	1	15	13	32	29	25	22	24	20	20	28	20	16	35	33	28	26	30	43	37	29	37	33	26	719
Whole number improved.....	1	8	8	16	21	25	20	33	32	14	41	52	26	76	32	53	40	21	36	36	47	65	59	47	54	68	44	62	62	81	36	1,227
Whole number unimproved.....	1	7	7	4	36	9	13	22	7	13	45	34	37	134	23	27	105	21	26	11	13	125	56	63	29	82	70	110	428	85	49	1,406
Whole number remaining at end of year.....	41	103	131	188	170	177	180	185	246	364	360	355	373	314	347	375	357	382	393	507	586	487	463	469	537	509	531	601	478	475	511	.....
Not insane.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1	..	..	..	..	..	..	..	4
Daily average each year.....	..	90	117	162	187	179	181	185	203	310	362	359	365	329	337	361	334	370	379	425	550	566	469	476	510	514	523	516	479	483	502	.....

Statistical Tables.

State Hospital for the Insane.

TABLE NO. 17.—1889 AND 1890.

ADMITTED DURING 1889.	CONDITION AT LAST DISCHARGE.													Per cent. on admis- sions for this year.
Number of previous attacks.	Male.	Female.	Total.	Recovered.			Improved.			Unimproved.			Unknown (not in this hospital.)	
				Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.		
One previous attack	18	17	35	6	4	10	3	1	4	...	...	...	21	13.10
Two previous attacks	8	6	14	5	3	8	1	...	1	1	...	1	4	5.24
Three previous attacks	3	1	4	1	...	1	1	...	1	...	...	...	2	1.49
Four previous attacks	1	...	1	...	...	...	...	...	...	...	...	...	1	.37
Five previous attacks .....	...	1	1	...	...	...	...	1	1	...	...	...	...	.37
Six or more previous attacks	5	5	10	3	1	4	...	1	1	...	...	...	5	3.74
Totals	35	30	65	15	8	23	5	3	8	1	...	1	33	24.26
1890.														
One previous attack	18	22	40	10	6	16	2	3	5	1	...	1	18	16.13
Two previous attacks	8	6	14	6	4	10	...	1	1	...	...	...	3	5.64
Three previous attacks	1	1	2	1	...	1	...	1	1	...	...	...	...	.80
Four previous attacks	2	1	3	1	1	2	...	...	...	...	...	...	1	1.20
Five previous attacks .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Six or more previous attacks	5	...	5	...	...	...	...	...	...	...	...	...	5	2.01
Totals	34	30	64	18	11	29	2	5	7	1	...	1	27	25.80

TABLE No. 18.—1889 and 1890.

NUMBER OF PREVIOUS ATTACKS.	DISCHARGED DURING 1889.			CONDITION AT LAST DISCHARGE.											
	Male.	Female.	Total.	Recovered.			Improved.			Unimproved.			Unknown. (Not in this hospital.)		
				Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
One previous attack	22	12	34	10	6	16	2	1	3	2	...	2	10	6	16
Two previous attacks.....	9	6	15	3	2	5	2	1	3	2	...	2	2	3	5
Three previous attacks.....	1	1	2	1	...	1	...	1	1	...	...	...	...	...	...
Four previous attacks.....	1	1	2	...	1	1	...	...	...	...	...	...	1	...	1
Many previous attacks....	6	6	12	2	2	4	...	...	...	...	...	...	4	4	8
Total.....	39	26	65	16	11	27	2	2	4	4	...	4	17	13	30
DISCHARGED DURING 1890.															
One previous attack	19	21	40	8	4	12	4	1	5	...	1	1	7	15	22
Two previous attacks.....	7	6	13	4	3	7	1	1	2	...	...	...	2	2	4
Three previous attacks.....	2	...	2	1	...	1	...	...	...	...	...	...	1	...	1
Four previous attacks..	2	...	2	1	...	1	...	...	...	...	...	...	1	...	1
Many previous attacks.....	6	1	7	1	...	1	...	1	1	...	...	...	5	...	5
Total.....	36	28	64	15	7	22	5	3	8	...	1	1	16	17	33

Statistical Tables.

State Hospital for the Insane.

TABLE NO. 19.

Occupation of patients admitted.

	1889.	1890.		1889.	1890.
Cigarmaker		1	None	10	13
Baker	1		Painter	2	2
Barber	1		Physician	2	4
Blacksmith		2	Salesman	1	1
Cabinet maker		1	Sailor		1
Carpenter	4	2	Saloon keeper		1
Clerk	1	2	School boy	3	1
Cooper		1	School girl	1	1
Domestic	17	18	School teacher	7	1
Dressmaker	1	4	Shoemaker	1	1
Farmer	72	60	Speculator	4	1
Harness-maker	1		Teacher		1
House wife	69	72	Unknown	2	1
Laborer	57	49	Vagrant	2	1
Publisher	1	1	Weaver	1	
Printer	1	1			
Marble cutter	1	1	Total	267	248
Merchant	4	3			

Statistical Tables.

TABLE NO. 20.

Hereditary transmission in patients admitted during 1889 and 1890.

	1889.	1890.	Total.
Father insane.....	7	8	15
Mother insane.....	8	7	15
Father and mother insane.....	2	1	3
Father and brother insane.....	1	3	4
Father and cousin insane.....	2	.....	2
Mother and brother insane.....	.....	2	2
Mother and sister insane.....	2	.....	2
Mother and aunt insane.....	.....	1	1
Mother and grandmother insane.....	.....	2	2
Mother, brother and cousin insane.....	1	1	2
Mother, sister and aunt insane.....	.....	1	1
Mother, grandmother and aunt insane.....	1	.....	1
Mother, brother and sister insane.....	.....	2	2
Mother, sister and aunt insane.....	1	.....	1
Brother insane.....	4	8	12
Brother and sister insane.....	3	.....	3
Sister insane.....	9	8	17
Sister and aunt insane.....	.....	1	1
Grandfather, brother, sister and uncle insane.....	.....	1	1
Grandfather insane.....	3	1	4
Grandmother insane.....	1	1	2
Grandmother and mother insane.....	.....	1	1
Grandmother and aunt insane.....	1	1	2
Uncle insane.....	7	2	9
Uncle and cousin insane.....	.....	1	1
Aunt insane.....	3	2	5
Uncle and aunt insane.....	2	.....	2
Two uncles insane.....	1	1	2
Cousin insane.....	7	5	12
Cousin and grandfather insane.....	.....	1	1
Total.....	66	62	128

State Hospital for the Insane.

MATRON'S REPORT.

*Articles made in Wisconsin State Hospital for the Insane, Mendota, from
September 30th, 1888, to October 1st, 1890.*

Aprons	670	Pillow slips.....	1,745
Bed spreads.....	94	Pillow ticks.....	101
Blankets.....	786	Pillows, small cotton.....	39
Caps.....	12	Sheets.....	2,027
Carpets.....	16	Shirts, colored.....	662
Chemises.....	296	Skirts.....	600
Clothes bags.....	14	Sun-bonnets.....	26
Coffee bags.....	60	Straw ticks.....	156
Cotton mattresses.....	31	Shelf spreads.....	72
Dresses.....	826	Shrouds.....	9
Dress waists.....	28	Sleeves.....	24 prs.
Drawers.....	613	Strong suits.....	71
Hats trimmed.....	72	Rugs.....	24
Iron holders.....	128	Table cloths.....	99
Jackets.....	36	Table napkins.....	240
Mattress ticks.....	143	Towels of all kinds.....	2,885
Masquerade articles.....	34	Window shades.....	73
Mittens.....	1 pr.	Window curtains.....	109
Night dresses.....	400	Under waists.....	18

Current Expense Funds.

STATEMENT OF CURRENT EXPENSE FUND.—1889.

1888.				
Oct.	1	Balance.....		\$44,376 99
1889.				
Jan.	1	From counties.....		33,780 35
Mar.	8	Appropriation, chap. 57, laws of 1889.		133,000 00
Sept.	30	Steward for board and clothing patients during the year.		1,560 06
"	"	From steward for sundries..		2,633 84
1889.				
Aug.	31	Transferred for expense Board of Supervision	\$3,271 80	.....
Sept.	30	Paid on account of current expenses this year.....	88,110 38	.....
		Balance appropriation in State Treasury... \$121,806 58		
		Balance in hands of treasurer of institution..... 2,021 38		
		Balance in hands of steward of institution. 141 10	123,969 06	.....
			<u>\$215,351 24</u>	<u>\$215,351 24</u>

STATEMENT OF CURRENT EXPENSE FUND.—1890.

1889.				
Oct.	1	Balance available		\$123,969 06
1890.				
Jan.	1	From counties.....		\$35,909 89
Sept.	30	Steward for board and clothing patients during the year.....		1,999 12
"	"	Steward for sundries... ..		3,238 47
"	"	Bal. Railroad Track Scales, as per chap. 33, laws 1882.....		132 55
Sept.	16	Transferred for expense Board of Supervision.....	\$3,271 80	.....
"	30	Paid on account of current expenses this year.....	110,904 29	.....
		Balance appropriation in State Treasury..... \$48,769 52		
		Balance in hands of treasurer of institution..... 2,256 82		
		Balance in hands of steward of institution. 46 66	51,073 00	.....
			<u>\$165,249 09</u>	<u>\$165,249 09</u>
1890.				
Oct.	1	Balance available		\$51,073 00

State Hospital for the Insane.

STATEMENT OF At the Wisconsin State Hospital for the Insane

CLASSIFIED ITEMS.	Inventory September 30, 1888.	Purchased during the year.	Transfer'd to this ac- count dur- ing the year.	Total.
Amusement and instr...	\$2,167 20	\$152 39		\$2,319 59
Barn, farm and garden..	15,977 43	3,124 26		19,101 69
Clothing.....	1,333 16	5,448 82		6,781 98
Discharged patients.....		145 50		145 50
Discount.....				
Drug and medical dept..	455 88	733 54		1,189 42
Engines and boilers.....	18,608 85	2,149 13		20,757 98
Elopers.....		15 25		15 25
Freight and Express		17 98		17 98
Fire apparatus.....	1,294 12	108 01		1,402 13
Furniture.....	16,550 21	151 16		16,701 37
Fuel.....	12,115 00		405 00	12,520 00
Gas and other lights.....	1,737 04	2,139 16		3,876 20
Hides and pelts.....			992 96	992 96
House furnishing	24,973 27	2,716 86		27,690 13
Laundry.....	2,850 19	413 51		3,263 70
Library.....	3,806 96	90 80		3,897 76
Lumber.....	706 75	656 16		1,362 91
Machinery and tools....	4,738 20	96 43		4,834 63
Miscellaneous.....	884 40	219 24		1,103 64
Officers' expenses		66 68		66 68
Printing, postage, sta- tionery and telegraph..	266 38	599 48		865 86
Repairs and renewals....	2,176 87	5,988 99	207 78	8,373 64
Real estate, including buildings, etc	541,335 93		1,083 41	542,419 34
Restraints.....	271 20			271 20
Scraps.....			14 27	14 27
Special attendance.....			15 00	15 00
Subsistence.....	2,396 13	30,673 38	5,992 59	39,062 10
Surgical instruments and appliances	686 61	8 65		695 26
Tobacco	7 72	394 94		402 66
Wages and salaries.....		31,007 45		31,007 45
Indebtedness.....		4 50		4 50
Laundry improvements..	401 31	492 36		893 67
Wagon and tool shed....		87 26		87 26
Ice house.....		587 34	35 13	622 47
Wood shed.....			102 48	102 48
Total	\$655,740 81	\$88,289 23	\$8,848 62	\$752,878 66
Discount		178 85		
		\$88,110 38		660,941 91
Net expenses.....				\$91,936 75

Add amount assigned to this institution and set apart by the Secretary of

*Statement of Current Expenses.***CURRENT EXPENSES***for the fiscal year ending September 30, 1889.*

Inventory September 30, 1889.	Cash re- ceived on this account during the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
\$2,166 15			\$2,166 15		\$153 44
15,555 25	\$456 25	\$6,397 59	22,409 09	\$3,307 40	
1,719 36	226 62		1,945 98		4,836 00
	9 00		9 00		136 50
		178 85	178 85	178 85	
398 96			398 96		790 46
18,348 08	100 00	250 00	18,698 08		2,059 90
					15 25
					17 98
1,375 38			1,375 38		26 75
16,081 94			16,081 94		619 43
3,436 50			3,436 50		9,083 50
1,667 00	394 31		2,061 31		1,814 89
	992 96		992 96		
24,994 31	35 21		25,029 52		2,660 61
2,669 09			2,669 09		594 61
3,806 46			3,806 46		91 30
1,155 13		207 78	1,362 91		
4,736 13			4,736 18		98 45
989 35	100 42		1,089 77		13 87
					66 68
328 18			328 18		537 68
3,849 26	68	151 88	4,001 82		4,371 82
542,419 34			542,419 34		
295 00			295 00	23 80	
	14 27		14 27		
	15 00		15 00		
1,718 93	140 84	992 96	2,852 73		36,209 37
662 22			662 22		33 04
36 06	11 55		47 61		355 05
	136 73	15 00	151 73		30,855 72
		893 67	893 67		4 50
		87 26	87 26		
622 47			622 47		
		102 48	102 48		
\$649,030 60	\$2,633 84	\$9,277 47	\$660,941 91	\$3,510 05	\$95,446 80
					3,510 05
					\$91,936 75
					3,271 80
					\$95,208 55

State for salaries and expenses of

Board of Supervision...

State Hospital for the Insane.

STATEMENT OF

At the Wisconsin State Hospital for the Insane

CLASSIFIED ITEMS.	Inventory September 30, 1889.	Purchased during the year.	Transfer'd to this ac- count dur- ing the year.	Total.
Amusements & instructi'n	\$2,166 15	\$206 58		\$2,372 73
Barn, farm and garden..	15,555 25	2,473 20		18,028 45
Clothing	1,719 36	5,441 79		7,161 15
Discharged patients		169 35		169 35
Discount				
Drug and medical dep't..	398 96	1,887 17		2,286 13
Engines and boilers.....	18,348 08	630 09		18,978 17
Elopers		109 97		109 97
Freight and express (not classified)		19 79		19 79
Fire apparatus.....	1,375 38	452 70		1,828 08
Furniture	16,081 94	376 33		16,458 27
Fuel	3,436 50	18,878 04	\$450 00	22,764 54
Gas and other lights.....	1,667 00	544 43		2,211 43
Hides and pelts			1,077 59	1,077 59
House furnishing.....	24,994 31	5,552 05		30,546 36
Laundry	2,669 09	442 49		3,111 58
Library	3,806 46	231 21		4,037 67
Lumber	1,155 13			1,155 13
Machinery and tools	4,736 18	135 19		4,871 37
Miscellaneous.....	989 35	161 90		1,151 25
Officers' expenses		161 93		161 93
Printing, postage, station- ery and telegraph....	328 18	526 14		854 32
Repairs and renewals....	3,849 26	9,771 11	48 47	13,668 84
Real est., inc. build'gs, etc	542,419 34	100 00	15,228 86	557,748 20
Restraints.....	295 00	51 00		346 00
Scraps			172 29	172 29
Subsistence.....	1,718 93	30,854 78	6,140 00	38,713 71
Surgical instruments and appliances	662 22	46 44		708 66
Tobacco.....	36 06	352 82		388 88
Wages and salaries		31,500 23		31,500 23
Ice house.....	622 47	31 35		653 82
Totals.....	\$649,030 60	\$111,108 08	\$23,117 21	\$783,255 89
Discounts		203 79		
		\$110,904 29		\$686,421 58
Net expenses				\$96,834 31

Add amount assigned to this institution and set apart by the Secretary

Statement of Current Expenses.

CURRENT EXPENSES

for the fiscal year ending September 30 1890.

Inventory September 30, 1890.	Cash rec'd on this ac- count dur- ing the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
\$2,149 20			\$2,149 20		\$223 53
15,010 17	\$1,311 20	\$6,590 00	22,911 37	\$4,882 92	
1,230 88	115 77		1,346 65		5,814 50
					169 35
		203 79	203 79	203 79	
342 22	1 32		343 64		1,942 49
18,396 22			18,396 22		581 95
					109 97
					19 79
1,544 02			1,544 02		284 06
16,238 29			16,238 29		219 98
10,447 00			10,447 00		12,317 54
195 08	169 20		364 28		1,847 15
	1,077 59		1,077 59		
26,978 24	89 66		27,067 90		3,478 46
2,644 17			2,644 17		467 41
3,767 15	7 00		3,774 15		263 52
1,094 66	12 00	48 47	1,155 13		
4,767 78			4,767 78		103 59
488 90	80 60		569 50		581 75
					161 93
299 31			299 31		555 01
2,921 99		5,172 29	8,094 28		5,574 56
557,748 20			557,748 20		
300 00			300 00		46 00
	172 29		172 29		
2,201 19	132 86	1,077 59	3,411 64		35,302 07
658 58			658 58		50 08
13 80	5 37		19 17		369 71
	63 61		63 61		31,436 62
		653 82	653 82		
\$669,437 15	\$3,238 47	\$13 745 96	\$686,421 58	\$5,086 71	\$101,921 02
					5,086 71
					\$96,834 31
of State, for salaries and expenses of the Board of Supervision					3,271 80
					\$100,106 11

State Hospital for the Insane.

STATEMENT OF SPECIAL APPROPRIATION FUNDS.

CLASSIFIED ITEMS.	Balance available Oct 1, 1889	Returned to state treasury.	Transfer'd to current expense fund.	Balance available Oct 1, 1890
Cementing basement.....	\$937 70	.....	.....	\$937 70
Curbing rear basement windows and grading.....	300 00	.....	.....	300 00
Railroad track scales.....	132 55	.....	\$132 55	.....
Rebuilding laundry wall.....	158 38	\$158 38	.....	.....
Water tower and reservoir and connections.....	424 96	424 96	.....	.....
Totals.....	\$1,953 59	\$583 34	\$132 55	\$1,237 70

STATEMENT OF MONEYS RECEIVED AT THE INSTITUTION.

CLASSIFICATION.	Year ending Sept. 30, 1889.	Year ending Sept. 30, 1890.
Barn, farm and garden.....	\$456 25	\$1,311 20
Board and clothing patients.....	1,560 06	1,999 12
Clothing.....	226 62	115 77
Discharged patients (refunded).....	9 00	.....
Drug and medical department.....	.....	1 32
Engines and boilers.....	100 00	.....
Gas and other lights.....	394 31	169 20
Hides and pelts.....	992 96	1,077 59
House furnishing.....	35 21	89 66
Library.....	.....	7 60
Lumber.....	.....	12 00
Miscellaneous.....	100 42	80 60
Repairs and renewals.....	68	.....
Scraps.....	14 27	172 29
Special attendance.....	15 00	.....
Subsistence.....	140 84	132 86
Tobacco.....	11 55	5 37
Wages and salaries.....	136 73	63 61
Totals.	\$4,193 90	\$5,237 59

In addition to the foregoing, there was received as taken from patients, for safe keeping, during the two years, the sum of \$1,169.03, and there was refunded to patients upon discharge \$856.70. During the same period the relatives and friends of patients contributed, for their use and pleasure, clothing and other property to the value of \$6,651.60.

Farm and Garden Products.

FARM AND GARDEN PRODUCTS.

ARTICLES.	FOR THE YEAR ENDING SEPT. 30, 1889.		FOR THE YEAR ENDING SEPT. 30, 1890.	
	Quantity.	Amount.	Quantity.	Amount.
Asparagus.....	2,547 lbs.	\$101 88	462 lbs.	\$18 48
Apples.....	83½ bu.	41 75	70½ bu.	52 88
Beef cattle.....	12 hd, 14,344 lbs.	371 45	9 hd., 11,090 lbs.	277 40
Beans.....	116 bu.	87 01	91½ bu.	68 62
Beans, lima.....	13 bu.	13 00	.....	.....
Beets.....	465 bu.	116 25	216½ bu.	54 13
Boar.....	1	10 00	.....	.....
Cabbage.....	2,669 hds.	80 07	4,862 hds.	145 86
Cauliflower	253 hds.	7 59	617 hds.	18 51
Celery.....	800 hds.	24 00	150 doz.	30 00
Carrots.....	44 bu.	22 00	207 bu.	103 50
Currents.....	263 qts.	13 15	64 qts.	3 20
Cucumbers.....	44½ bu.	22 13	47 bu.	23 50
Corn.....	1,800 bu.	630 00	2,300 bu.	1,035 00
Corn, green.....	152½ bu.	76 25	135 bu.	67 50
Corn, seed.....	24 bu.	36 00	.....	.....
Corn stalks.....	70 tons	280 00	75 tons	262 50
Calves.....	36	182 00	57	194 00
Cabbage plants...	300	75	50	25
Greens.....	75½ bu.	18 88	55 bu.	13 75
Grapes.....	3,025 lbs.	151 25	365 lbs.	18 25
Gooseberries.....	.....	.....	52 qts.	4 16
Hay.....	140 tons	980 00	157 tons	942 00
Horse radish.....	13 bu.	13 00	8½ bu.	8 50
Lettuce.....	109½ bu.	54 75	69 bu.	34 50
Milk.....	183,589 lbs.	2,753 84	182,860 lbs.	2,742 92
Mangles.....	1,500 bu.	225 00	1,800 bu.	270 00
Oats.....	1,837 bu.	367 40	2,854 bu.	998 90
Onions.....	170½ bu.	85 25	348½ bu.	174 25
Pigs.....	45	280 00	33	129 00
Pork, dressed.....	34 hd, 11,434 lbs.	686 04	98 hd, 23,358 lbs.	1,051 11
Pork, live.....	.....	.....	94 hd, 29,300 lbs.	1,025 50
Pie plant.....	2,974 lbs.	59 48	2,896 lbs.	57 92
Parsley.....	12½ bu.	12 25	3 bu.	3 00
Peas.....	116 bu.	116 00	43½ bu.	43 50
Potatoes.....	1,639½ bu.	588 20	941 bu.	663 90
Parsnips.....	90½ bu.	27 15	50 bu.	25 00
Pumpkins.....	6 loads.	6 00	15 loads	15 00
Posts, hard wood.	100	5 00	.....	.....
Radishes.....	12½ bu.	12 75	44 bu.	44 00
Rutabagas.....	266½ bu.	66 63	438 bu.	109 50
Spinnage.....	164 bu.	82 00	33½ bu.	16 75
Straw.....	60 tons	240 00	60 tons	240 00
Strawberries.....	523 qts.	41 84	252 qts.	20 16
Squash, summer..	62 bu.	15 50	63 bu.	15 75
Squash, Hubbard.	4,000 lbs.	40 00	1,600 lbs.	16 00
Sow.....	1	10 00	.....	.....
Tomatoes.....	190½ bu.	95 25	177 bu.	88 50
Turnips.....	.....	.....	80 bu.	20 00
Wood, mixed.....	90 cords	405 00	100 cords	450 00
Totals.....	.....	\$9,553 74	.....	\$11,597 15

FOURTH BIENNIAL REPORT

OF THE

NORTHERN HOSPITAL FOR THE INSANE

FOR THE

TWO FISCAL YEARS ENDING SEPT 30, 1890.

6—B. S.

OFFICERS.

CHARLES E. BOOTH, M. D.,	-	-	-	SUPERINTENDENT.
WILLIAM F. WEGGE, M. D. }				
E. A. TAYLOR, M. D.,	}	-	-	ASSISTANT PHYSICIANS.
F. E. GROVE.	-	-	-	STEWARD.
HENRY DEHDE,	-	-	-	ASSISTANT STEWARD.
MISS KATE HALE,	-	-	-	MATRON.
M. C. CLARKE,	-	-	-	TREASURER.

NORTHERN HOSPITAL.

REPORT OF THE SUPERINTENDENT.

To the State Board of Supervision:

GENTLEMEN:—As required by law, I have the honor to report the operations of the Northern Hospital for Insane, for the two years ending September 30, 1890.

By referring to the records I find that, from the opening of this institution, there have been admitted 4,601 patients, of whom 16 have been discharged not insane, 1,034 recovered, 1,344 improved, 828 not improved, and 774 died.

From the date of last report 753 patients — 410 males and 348 females — have been admitted. Of the total number under treatment there were discharged 4 not insane, 164 recovered, 274 improved, 192 not improved, and 129 died. The percentage of recoveries upon the admissions is 21.7 per cent., and the percentage of deaths is 17 per cent.

At the date of the last report, September 30, 1888, there were 610 inmates. There were received during that year, from September 30, 1888, to October 1, 1889, 388 patients. During the same period there were discharged, for all causes, 359, leaving 639 patients in hospital October 1, 1889.

During the past year there have been received 370 patients, and during the same period there have been discharged, for all causes, 404; leaving in the hospital, at this date, 605, as per annexed tables.

Of the whole number admitted during the time covered by this report, 559 — 300 males and 259 females — had never been treated in hospitals before.

Many of the improvements in and about the hospital, which were being made at the time of my last report, have been carried forward to a very satisfactory completion. Notable among the new works of the past two years has

Northern Hospital for the Insane.

been the erection of a water tower, constructed of stone and brick, of a very attractive architectural design, one hundred and fifteen feet in height, which is supplied with water from a pumping station situated upon the lake shore, thus affording an abundance of soft water for bathing and general cleaning purposes through the hospital, as well as an inexhaustible supply for the laundry and for fire protection. This, with the addition of that from the artesian well, from which the entire hospital is supplied for drinking and culinary purposes, renders our system of water supply as ample and perfect as the most fastidious could desire.

In the place of the old ice house, which, on account of age, could no longer be used, a new one has been erected south of the old site, near what is known as "Hospital Point." This change in location is a very laudable one, since the water is much deeper and purer at this point than in the bay; hence a much better supply of ice, at a less cost, is secured.

I am further pleased to report that the old green house which was too much out of repair to be of further use, and too rotten to be improved upon, has been replaced by an entirely new structure, the benefits of which are markedly apparent upon our wards, in blooming plants, and in the dining-rooms, by early and late vegetables, in the production of which, you will kindly allow me to say, our gardener, Mr. Otto, has few superiors.

The improvements in the hospital grounds have continued until now all that portion fronting the south wing has been, by a process of grubbing, pruning, ploughing, seeding and sodding, converted into a very pleasant park with winding walks leading here and there, to and among vine-covered rockeries and capacious flower beds. Since these grounds are situated directly in front of the wards, they furnish a source of much pleasant attraction and comment for the

Superintendent's Report.

inmates of these apartments, thus aiding in rendering the time of their confinement less burdensome.

The grounds in front of the north wing are undergoing a similar process of improvement. The patients' parks to the rear of the building, and upon the lake front, continuously receive the necessary attention to keep them pleasant and attractive.

Since the last report the building has undergone a thorough renovation from basement to garret. The calcimine with which the ceilings were originally covered, has, by a process of scrubbing, been entirely removed (a work of no small moment, when we consider the hundreds of apartments thus treated), and a liberal supply of whitewash applied in its stead, which is renewed from time to time as necessity indicates. I refer to this from its marked cleansing, purifying and healthful effects in an institution so great as this.

Much repainting of walls and wood-work has been done, and many new floors of hard-wood have been laid throughout the different apartments.

No disinfectants (so called) have been employed in or about the hospital for more than two years. I would not be opposed to their use, if necessary, but I have learned that, with a liberal supply of soap, clean water and pure air, they are entirely superfluous.

A small quantity of water is allowed to continually drip into the urinals and closets, which, with unobstructed sewers, obviates any annoyance in this direction.

In the care of our patients, their general pleasant appearance and demeanor are noteworthy, and reflect much credit upon those in whose immediate charge they are. That many should desire to go home is quite natural, and we are pleased to observe this as a condition not incompatible with health.

Restraints are seldom required. All restraining appliances are kept in the superintendent's office, and only is-

Northern Hospital for the Insane.

sued by the officer in charge. But two requests for such appliances have been made within the past year, and both, on investigation, were denied. Seclusion has been employed, in a few instances, upon the violent female wards, seldom exceeding, however, thirty minutes at any one time. Kind, cheering, sympathetic words and acts are far more potent than the devices of the strap-maker or the muscles of the herculean in the care of the insane.

All wards, especially those of the most insane, are liberally supplied with flowers and birds. This step was taken with much misgiving as to its result; but now, after months of trial, it is pleasant to note that their influence has a marked effect in the production of quietude and pleasantness upon the minds of the most disturbed.

The hospital bedding has been receiving especial attention during the present season. All pillows and hair mattresses have been renovated and re-made. Nearly all beds are now supplied with hair mattresses of good quality, only a few being otherwise provided for use in the care of the violently destructive or extremely untidy. Good beds are a factor of great importance in the production of sleep to the nervous and mentally disturbed; which is a matter demanding much consideration in an institution of this character. For the aged, feeble and paretic (a class who are usually untidy), in whom the circulation is generally feeble, and bed sores easily produced, we find that a hair mattress, protected by a rubber sheet, with a coarsely woven cotton blanket between it and the cotton sheet, provides a first class bed. The blanket acts as an absorbent, taking up the moisture, leaving the bed comparatively dry and comfortable, which is far from being the case where there is nothing under the sheet but a rubber blanket, or still worse, a cotton mattress that has been laundried a few times. Since the introduction of this precaution bed sores have become exceedingly rare in this institution.

Religious services are held regularly each Sabbath after-

Superintendent's Report.

noon, in the amusement hall. The clergy of the several denominations of Oshkosh alternate with each other in conducting the same, for which they receive a moderate compensation from the state, and are entitled to our sincere thanks for their kind interest in the institution. The choir participating in these services is made up of volunteers from among the attendants, and adds much to the interest of these exercises.

Our Friday night dances are continued, and are a source of interest and pleasure to a large number of our patients, their attendance upon which being entirely voluntary. That there is a great permanent benefit derived from these amusements, by many, there can be no doubt.

The Arion band, of Oshkosh, has given us one voluntary evening entertainment, and has kindly placed itself at our disposal for more. For its entertainments our amusement hall is deficient in capacity.

Our Glee and Dramatic clubs give a number of entertainments each winter.

On the wards billiards, cards, checkers, etc., together with instrumental and vocal music, furnish pleasant recreation.

The health of the inmates of the institution has been excellent during the time covered by this report, except during the prevalence of La Grippe, the past winter, from which quite a number were prostrated, but no fatalities were suffered from this cause.

During the pleasant weather the patients are required to spend as much of the day in the open air as is possible; frequently, for days together, not a patient is left indoors. This out-door life has much to do in bringing about and sustaining their physical health.

From 75 to 80 per cent. of our patients are employed a greater or less portion of each day. All whose mental and physical conditions permit are invited to join in the work of the several departments of the institution; the choice of

Northern Hospital for the Insane.

the patients, as well as their adaptability to a certain class of work, is always considered. Hence, with the farm, garden, bakery, laundry, sewing-room, carpenter and machine shops, or other departments, to choose from, each can usually find congenial employment.

Thus, each department becomes one of the curative factors of the institution, by aiding in establishing a direct line of thought, which is necessary in their employment, preventing the continual dwelling upon delusions, as in the case of non-employment, as well as aiding in securing refreshing and restful sleep, and in many other ways conducing to a healthful condition.

Doctor Adolph Roos, one of the hospital staff at the time of my last report, and whose services were of the highest order, resigned in May, 1889, to go into general practice in the city of Oshkosh. I am pleased to say that I am now ably assisted by Drs. W. F. Wegge and E. A. Taylor.

The physical examinations of the patients, as adopted just before the last report, are still continued, and prove a valuable aid in the care of our patients.

The harmonious workings of the hospital still remain undisturbed; officers and employes have worked hard to promote the welfare of the patients and the success of the institution; to each of whom I now publicly render my sincere thanks.

For the advice and assistance, which has been so kindly extended by you, in the various and complex duties of my position, I desire to express my sincere gratitude.

Yours, Very Respectfully,

CHAS. E. BOOTH,
Superintendent.

WINNEBAGO, September 30, 1890.

Statistical Tables.

STATISTICS.

TABLE NO. 1.

Movement of population from May 11th, 1873 to October 1st, 1890.

	Male.	Female.	Total.	Male.	Female.	Total.
Total number admitted.....				2,511	2,090	4,601
Discharged not insane.....	8	8	16			
Discharged recovered.....	564	470	1,034			
Discharged improved.....	710	634	1,344			
Discharged unimproved.....	453	375	828			
Died.....	411	363	774			
Total number discharged.....				2,146	1,850	3,996
Total number in hospital September 30, 1890.....				365	240	605

TABLE NO. 2.

Movement of population for two years ending September 30th, 1890.

	1889.			1890.		
	Male.	Female.	Total.	Male.	Female.	Total.
Remaining Sept. 30, 1888 and 1889	356	254	610	357	282	639
Admitted during the year.....	208	180	388	202	168	370
Whole number treated.....	564	434	998	559	450	1,009
Discharged recovered.....	66	47	113	24	27	51
Discharged improved.....	71	54	125	74	75	149
Discharged unimproved.....	33	26	59	54	79	133
Died.....	35	24	59	42	28	70
Not insane.....	2	1	3		1	1
Whole number discharged.....	207	152	359	194	210	404
Remaining Sept. 30, 1889.....	357	282	639			
Remaining Sept. 30, 1890.....				365	240	605
Daily average under treatment.	372	269	641	368	248	616

Northern Hospital for the Insane.

TABLE NO. 3.

Age of those admitted during the two years.

	Male.	Female.	Total.
Five to ten years....	2	.....	2
Ten to fifteen years.....	3	4	7
Fifteen to twenty years.....	16	20	36
Twenty to twenty five years.....	41	36	77
Twenty-five to thirty years.....	63	46	109
Thirty to thirty-five years.....	49	55	104
Thirty five to forty years.....	43	29	72
Forty to fifty years.....	92	66	158
Fifty to sixty years.....	53	59	112
Sixty to seventy years.....	28	25	53
Over seventy.....	15	4	19
Unknown.....	5	4	9
Total.....	410	348	758

TABLE NO. 4.

Civil condition and education of those admitted.

CIVIL CONDITION.	Male.	Female.	Total.	EDUCATION.	Male.	Female.	Total.
Married.....	171	196	367	Collegiate.....	5	1	6
Single.....	195	106	301	Good.....	25	26	51
Widowed.....	29	42	71	Common.....	305	294	599
Divorced.....	3	3	6	None.....	42	18	60
Unknown.....	12	1	13	Unknown.....	33	9	42
Total.....	410	348	758	Total.....	410	348	758

*Statistical Tables.*TABLE NO. 5.
Parentage of those admitted.

	Male.	Female.	Total.		Male.	Female.	Total.
American	101	85	186	Irish	56	45	101
African	2	.....	2	Indian. ....	.....	1	1
Austrian	1	.....	1	Norwegian	24	16	40
Belgian	4	2	6	Polish	5	5	10
Bohemian	16	7	23	Swedish	11	7	18
Canadian	9	4	13	Scotch	11	3	14
Dutch	2	4	6	Swiss	2	2	4
Danish	9	7	16	Welsh	1	1	2
English	14	24	38	Italian	2	.....	2
French	6	4	10	Unknown	13	6	19
Finland	3	.....	3				
German	118	125	243	Total	410	348	758

TABLE NO. 6.
Occupation of those admitted.

	Male.	Female.	Total.		Male.	Female.	Total.
Agent	3	.....	3	Merchant	4	.....	4
Architect	1	.....	1	Miller	2	.....	2
Barber	1	.....	1	Miner	2	.....	2
Blacksmith	3	.....	3	None	28	30	58
Book binder	1	.....	1	Painter	10	.....	10
Brewer	1	.....	1	Paper maker ..	2	.....	2
Butcher	3	.....	3	Physician	3	.....	3
Carpenter	6	.....	6	Policeman	1	.....	1
Clerk	6	.....	6	Peddler	1	.....	1
Cook .....	.....	1	1	Potter	1	.....	1
Conductor	1	.....	1	Printer	1	.....	1
Contractor	2	.....	2	Reporter	1	.....	1
Cooper	4	.....	4	Saloon-keeper ..	7	.....	7
Dentist	1	.....	1	Sailor	2	.....	2
Domestic .....	.....	40	40	Shoemaker	2	.....	2
Dressmaker .....	.....	10	10	Shipwright	1	.....	1
Farmer	134	.....	134	School teacher ..	2	8	10
Furrier	1	.....	1	Soldier	1	.....	1
Gardener	1	.....	1	Stenographer ..	1	.....	1
Hotel keeper	1	.....	1	Student	1	1	2
Housekeeper .....	.....	248	248	Tailor	7	.....	7
Knitter .....	.....	1	1	Tanner	1	.....	1
Laborer	125	.....	125	Unknown	14	8	22
Laundress .....	.....	1	1	Wood-worker ..	1	.....	1
Lumberman	10	.....	10	Wagon-maker ..	1	.....	1
Machinist	3	.....	3				
Mason	2	.....	2	Total	410	348	758
Mechanic	3	.....	3				

Northern Hospital for the Insane.

TABLE NO. 7.

Form of insanity in those admitted.

		Male.	Female.	Total.
Mania.....	{ Acute	75	60	135
	{ Chronic.....	87	41	128
Melancholia	{ Acute	59	74	133
	{ Chronic.....	17	37	54
	{ Primary.....	15	6	21
Dementia ..	{ Secondary	28	12	40
	{ Senile	11	15	26
Paranoia.....		13	35	48
Recurrent insanity.....		24	18	43
Dementia paralytica.....		6	3	9
Neurotic in-	{ Hysteria.....	...	18	18
sanity....	{ Epilepsy.....	28	10	38
	{ Hypochondriasis.....	4	7	11
	{ Chorea.....	...	1	1
Toxic insan-	{ Morphine.....	1	1	2
ity	{ Alcohol.....	28	4	32
	{ Syphilis	12	3	15
Imbecility .....		...	2	2
Idiocy.....		1	...	1
Not insane.....		1	1	2
Total		410	348	758

Statistical Tables.

TABLE NO. 8.

Duration of insanity previous to admission.

	Male.	Female.	Total.		Male.	Female.	Total.
One day	1	...	1	Sixteen months.....	1	1	2
Three days.....	9	3	12	Eighteen months.....	3	3	6
Seven days.....	36	30	66	Twenty months.....	...	1	1
Ten days.....	2	5	7	Two years... ..	20	18	38
Two weeks	25	11	36	Three years.....	22	10	32
Three weeks.....	8	12	20	Four years.....	16	8	24
Four weeks.....	18	25	43	Five years.. . . .	7	14	21
Five weeks .....	...	1	1	Six years	4	9	13
Six weeks.....	13	11	24	Seven years.....	7	5	12
Seven weeks.....	1	...	1	Eight years.....	6	2	8
Ten weeks.....	...	1	1	Ten years.....	14	16	30
Two months.....	22	12	34	Twelve years	1	2	3
Three months....	15	14	29	Thirteen years.....	...	1	1
Four months.....	11	9	20	Fifteen years	5	2	7
Five months.....	7	3	10	Seventeen years.....	...	1	1
Six months	21	16	37	Twenty years	4	7	11
Seven months.....	4	6	10	Twenty-two years....	...	2	2
Eight months.....	8	8	16	Twenty-five years....	3	3	6
Nine months.....	2	8	10	Thirty-five years....	...	1	1
Ten months.....	1	2	3	Thirty-nine years....	1	...	1
Twelve months	27	17	44	Unknown.....	51	42	93
Fifteen months.....	...	1	1	Several years	4	5	9
Total.....	410	348	758				

Northern Hospital for the Insane.

TABLE NO. 9.

Probable exciting causes of insanity in those admitted.

	Male.	Female	Total.		Male.	Female.	Total.
Apoplexy	2	.....	2	Love affair.....	3	5	8
Business troubles	4	.....	4	Masturbation ..	20	2	22
Cerebral soften'g	1	.....	1	Meningitis	1	.....	1
Chmacterium.....	.....	8	8	Menstrual			
Epilepsy	24	8	32	trouble .....	.....	7	7
Excitement .....	.....	2	2	Morphine habit .....	.....	1	1
Exposure	1	.....	1	Overwork	5	8	13
Family trouble..	4	6	10	Previous attack	13	4	17
Fright	4	6	10	Puerperal state. ....	.....	14	14
Grief	1	11	12	Religious ex-			
Hereditv.....	6	11	17	citement.....	12	6	18
Ill health.....	12	21	33	Senility.....	1	1	2
Ill treatment....	.....	1	1	Syphilis.....	1	1	2
Injury	13	4	17	Trouble.....	24	24	48
Insolation	11	1	12	Unknown.....	200	183	383
Insomnia	1	.....	1	Uterine trouble .....	.....	4	4
Intemperance...	41	1	42	Worry.....	2	2	4
Jealousy.....	2	6	8				
La Grippe.....	1	.....	1	Total	410	348	758

Statistical Tables.

TABLE No. 10.

Hereditary transmission in patients and the insane relatives of those admitted.

	Male.	Female.	Total.
Father insane.....	5	11	16
Mother insane.....	8	14	22
Brother insane.....	8	8	16
Sister insane.....	14	16	30
Son insane.....	1	.....	1
Aunt insane.....	4	8	12
Cousin insane.....	5	6	11
Mother and aunt insane.....	2	.....	2
Father and aunt insane.....	.....	1	1
Father, sister and son insane.....	1	.....	1
Uncle insane.....	6	3	9
Grandfather, grandmother and aunt insane.....	1	.....	1
Father and sister insane.....	1	2	3
Father and un- ^{le} insane.....	1	.....	1
Brother and sister insane.....	3	.....	3
Mother and grandmother insane.....	.....	2	2
Niece insane.....	.....	1	1
Mother and brother insane.....	.....	1	1
Father, two brothers, sister and cousin insane.....	.....	1	1
Mother, uncle and aunt insane.....	.....	1	1
Two cousins insane.....	.....	1	1
Father and nephew insane.....	.....	1	1
Two sisters insane.....	1	4	5
Grandmother insane.....	1	3	4
Mother and sister insane.....	1	.....	1
Two aunts insane.....	1	.....	1
Grandfather and aunt insane.....	1	.....	1
Father and grandfather insane.....	1	1	2
Grandmother and uncle insane.....	.....	1	1
All brothers and sisters insane.....	.....	1	1
Father, brother and aunt insane.....	1	.....	1
Sister and two cousins insane.....	.....	2	2
Brother and niece insane.....	1	.....	1
Mother, brother, uncle and granddaughter insane.....	1	.....	1
Grandfather insane.....	1	5	6
Mother and two brothers insane.....	.....	1	1
Father and brother insane.....	1	.....	1
Father and two aunts insane.....	.....	1	1
Grandfather and two cousins insane.....	1	.....	1
Two aunts and one cousin insane.....	.....	1	1
Uncle and aunt insane.....	1	.....	1
Two brothers, uncle and cousin insane.....	.....	1	1
Aunt and cousin insane.....	1	.....	1
Two sisters and brother insane.....	.....	1	1
Brother, two sisters and niece insane.....	.....	1	1
Brother and uncle insane.....	1	.....	1
Total.....	75	100	175

Northern Hospital for the Insane.

TABLE NO. 11.

Hereditary predisposition in those admitted who threatened or attempted suicide or homicide.

	Attempted homicide.		Attempted suicide.		Threatened suicide and homicide.		Attempted suicide and homicide.		Threatened homicide.		Threatened suicide.		Committed homicide.		Total.
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Father			1						1			1			3
Mother				1											1
Brother	2		1	2					1		1				7
Sister				5							1		1		2
Brother and sister				1					1						1
Two brothers and mother				1											1
Uncle		1													1
Aunt				2											2
Two aunts				1											1
Uncle and aunt											1				1
Mother, sister and niece			1												1
Cousin											1				1
Uncle insane											1				1
Son											1				1
Sister insane	1								3						4
Mother, uncle and aunt				1											1
Cousin insane												1			1
Father, two brothers and sister ..												1			1
Grandfather insane						1									1
All sisters insane						1									1
Nephew insane			1												1
Cousin and grand-uncle										1					1
Father, brother and aunt											1				1
Total	3	1	4	14		2			6	1	7	3	1		42

Statistical Tables.

TABLE NO. 12.

Form of insanity in those who recovered.

	Male.	Female.	Total.		Male.	Female.	Total.
Acute mania	34	22	56	Nurotic insanity.			
Chronic mania	8	2	10	Hysteria.....	...	8	8
Acute melancholia....	15	32	47	Hypochondriasis....	1	1	2
Chronic melancholia..	2	1	3	Epilepsy.....	1	1	2
Primary dementia....	2	1	3	Chorea.....	...	1	1
Paranoia.....	1	2	3	Toxic insanity.			
Recurrent insanity....	7	1	8	Mania a potu.....	18	2	20
				mania de opio.....	1	...	1
Total.....					90	74	164

TABLE NO. 13.

Cause of insanity in those who recovered.

	Male.	Female.	Total.		Male.	Female.	Total.
Unknown	43	29	72	Epilepsy.....	1	1	2
Worry.....	2	1	3	Chinacterium.....	...	3	3
Anxiety	3	1	4	Heredity	1	2	3
Puerperal state.....	...	8	8	Tranmatism.....	2	1	3
Ill health.....	4	7	11	Masturbation	2	...	2
Intemperance.....	19	2	21	Menstrual derange-			
Morphine.....	1	...	1	ment.....	...	2	2
Fright .....	...	2	2	Domestic trouble....	...	1	1
Meningitis.....	2	...	2	Jealousy.....	...	1	1
Insolation	3	...	3	Uterine disease.....	...	2	2
Trouble.....	1	6	7	Love affairs.....	1	1	2
Overwork	3	...	3	Insomnia.....	...	1	1
Religious excitement..	2	3	5				
Total.....					90	74	164

Northern Hospital for the Insane.

TABLE NO. 14.

Those who threatened or attempted homicide, etc.

	Male.	Female.	Total.
Attempted suicide.....	23	35	58
Threatened	17	15	32
Attempted homicide.....	8	3	11
Threatened.....	20	6	26
Threatened homicide and suicide.....	5	4	9
Attempted homicide and suicide.....	2	1	3
Homicide.....	1	1	2
Total.....	76	65	141

TABLE NO. 15.

Duration of insanity in those who died.

	Sept. 30, '88 Sept. 30, '89.			Sept. 30, '89, Sept. 30, '90.			Grand total.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Between 1 and 2 weeks.....				2		2	2		2
Between 2 and 3 weeks.....		1	1					1	1
Between 3 and 4 weeks.....		1	1					1	1
Between 1 and 3 months.....	3	2	5	4	2	6	7	4	11
Between 3 and 6 months.....	2	1	3	2	4	6	4	5	9
Between 6 and 12 months.....	5	3	8	5	4	9	10	7	17
Between 1 and 2 years.....	11	2	13	6	1	7	17	3	20
Between 2 and 3 years.....	5	4	9	5	3	8	10	7	17
Between 3 and 4 years.....	2	1	3	2	4	6	4	5	9
Between 4 and 5 years.....	1	1	2	1		1	2	1	3
Between 5 and 6 years.....		1	1	7		7	7	1	8
Between 6 and 7 years.....		1	1	2	3	5	2	4	6
Between 7 and 8 years.....	1		1		1	1	1	1	2
Between 8 and 10 years.....		1	1	1		1	1	1	2
Between 10 and 12 years.....	2		2	1	2	3	3	2	5
Between 12 and 15 years.....					1	1		1	1
Between 15 and 20 years.....		1	1	1		1	1	1	2
Between 20 and 25 years.....	1		1		1	1	1	1	2
39 years.....					1	1		1	1
Unknown.....	2	4	6	3	1	4	5	5	10
Total.....	35	24	59	42	28	70	77	52	129

Statistical Tables.

TABLE No. 16.

Duration of insanity before admission and time under treatment of those who recovered.

[illegible]

Northern Hospital for the Insane.

TABLE NO. 17.

CAUSE OF DEATH.	Sex.	AGE AT TIME OF DEATH.																Total.
		Unknown.	10 to 15 yrs.	15 to 20 yrs.	20 to 25 yrs.	25 to 30 yrs.	30 to 35 yrs.	35 to 40 yrs.	40 to 45 yrs.	45 to 50 yrs.	50 to 55 yrs.	55 to 60 yrs.	60 to 65 yrs.	65 to 70 yrs.	70 to 75 yrs.	75 to 80 yrs.	80 to 85 yrs.	
Org. disease of heart.	M.	..	..	..	..	..	1	..	..	1	1	..	..	1	..	..	..	4
	F.	..	..	..	..	..	..	1	..	..	..	..	1	1	..	..	..	3
Asthma	M.	..	..	..	1	3	5	6	1	1	1	..	1	3	2	1	..	25
	F.	..	..	..	1	1	1	2	1	1	..	2	3	1	..	..	1	14
Pulmonary oedima..	M.	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	2
	F.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pernicious aenemia..	M.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F.	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Paresis	M.	..	..	..	..	1	3	..	3	1	1	..	1	..	1	..	..	11
	F.	..	..	1	..	..	..	..	..	2	1	1	..	..	..	..	..	4
Cardiac paralysis	M.	..	..	..	2	1	..	..	..	1	..	1	..	1	1	..	..	7
	F.	..	..	1	1	1	..	..	1	..	1	..	1	..	1	..	..	7
Cerebral aenemia....	M.	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1
	F.	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Cerebral hemorrhage	M.	..	..	..	1	..	..	..	..	..	2	1	..	1	..	..	..	5
	F.	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	2
Pulmonary gangrene	M.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F.	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	2
Strangulation	M.	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	2
	F.	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Pneumonia.....	M.	..	..	..	..	2	..	..	1	..	1	..	1	1	..	..	..	6
	F.	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
Epilepsy	M.	..	..	..	1	..	2	..	..	..	..	..	..	..	..	1	..	4
	F.	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Dysentery.....	M.	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
	F.	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Enterocolitis.....	M.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F.	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Phthisis	M.	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..	..	3
	F.	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
Cirrhosis hepatis....	M.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F.	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Chronic meningitis ..	M.	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
	F.	..	..	..	..	2	..	2	..	..	..	..	..	..	..	..	..	4
Pericarditis	M.	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Laryngitis	F.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
gangrenosa	M.	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
	F.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis pulmonalis..	M.	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	2
	F.	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Peritonitis, acute	M.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F.	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	2
Diphtheria	M.	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
	F.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Typhoid fever.....	M.	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
	F.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bright's disease.....	M.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F.	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	2
Senile exhaustion....	M.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F.	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	2
Total.....		1	1	3	10	11	19	16	12	7	11	8	10	11	5	3	1	129

Statistical Tables.

TABLE NO. 18.

CAUSE OF DEATH.	Sex.	FORM OF INSANITY WHEN ADMITTED.												Total.
		Ac. mania	Ch. mania	Ep. mania	Rec. man.	Dipsom'n	Ac. mel.	Ch. mel.	Pri. dem.	Sec. dem.	Sen. dem.	Dem. par.	Paranoia.	
Organic disease of heart.....	M.	2	1					1						4
	F.	2	1					1			1			3
Asthenia	M.	2	2			1	2	4		4	8	2		25
	F.			1	1		2	3		2	5	1		14
Pulmonary.....	M.			1			1							2
	F.													
Pernicious anemia.....	M.													
	F.													
Paresis	M.	1						1						1
	F.				2		2		1	2	3	4		11
Cardiac paralysis.....	M.	3	3											4
	F.		1				3			1				7
Cerebral hemorrhage.....	M.	1	2	1							1	1	1	7
	F.				1					1				5
Cerebral anemia.....	M.													2
	F.									1				
Pulmonary gangrene.....	M.													1
	F.													
Strangulation	M.	1			1			1		1				2
	F.													2
Pneumonia.....	M.	1	2		2			1			1			1
	F.													6
Epilepsy	M.	1		2				1						1
	F.			1						1				4
Dysentery.....	M.		1											1
	F.													1
Entero-colitis	M.									1				1
	F.													
Phthisis pulmonalis	M.	2	2								1			1
	F.											1		5
Cirrhosis hepatis	M.						1	1						2
	F.		1											1
Pericarditis	M.									1				1
	F.			1	1			2						4
Chronic meningitis.....	M.										1			1
	F.													
Larynxgitis gangrenosa	M.						1							1
	F.													
Acute peritonitis.....	M.													
	F.		1		1									2
Diphtheria	M.										1			1
	F.													
Typhoid fever.....	M.	1												1
	F.													
Bright's disease.....	M.													
	F.						1				1			2
Senile exhaustion.....	M.													
	F.								1	1				2
Total.....		15	17	6	9	1	14	15	1	17	24	9	1	129

TABLE NO. 19.

Condition at last discharge of patients who have had more than one attack.

NUMBER OF PREVIOUS ATTACKS.	CONDITION AT LAST DISCHARGE.												Grand total.		
	Recovered.			Improved.			Unimproved.			Unknown.					
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
One previous attack	3	1	4	15	15	30	3	3	6	6	11	17	27	30	57
Two previous attacks	3	3	6	17	16	33	...	3	3	9	4	13	29	26	55
Three previous attacks...	3	...	3	5	4	9	...	2	2	4	4	8	12	10	22
Four previous attacks.....	2	1	3	2	...	2	...	...	...	...	1	1	4	2	6
Many previous attacks.....	...	...	...	...	1	1	...	1	1	...	2	2	0	4	4
Total.....	11	5	16	39	36	75	3	9	12	19	22	41	72	72	144

TABLE NO. 20.

Condition at last discharge of patients admitted during the period who have had more than one attack.

NUMBER OF PREVIOUS ATTACKS.	CONDITION AT LAST DISCHARGE.												Grand total.		
	Recovered.			Improved.			Unimproved.			Unknown.					
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
One previous attack.....	5	6	11	24	20	44	....	....	....	11	16	27	40	42	82
Two previous attacks...	2	2	4	13	10	23	....	1	1	6	7	13	21	20	41
Three previous attacks..	1	.....	1	2	3	5	....	....	....	....	1	1	3	4	7
Four previous attacks...	.....	.....	.....	1	.....	1	....	....	....	....	....	....	1	....	1
Many previous attacks..	.....	.....	.....	.....	1	1	....	....	....	1	....	1	1	1	2
Total.....	8	8	16	40	34	74	....	1	1	18	24	42	66	67	133

Statistical Tables.

Northern Hospital for the Insane.

TABLE NO. 21.

Showing number of patients in the Northern Hospital for the Insane from the several counties, and from the state at large, September 30, 1890.

Ashland.....	8	Marinette.....	13
Bayfield	5	Marquette.....	7
Brown.....	18	Milwaukee	2
Calumet.....	14	Oconto.....	13
Clark	5	Oneida.....	3
Chippewa.....	23	Outagamie	9
Dodge.....	7	Ozaukee.....	14
Door.....	22	Portage	22
Douglas.....	4	Price.....	2
Dane.....	1	Racine.....	16
Eau Claire.....	33	Shawano.....	7
Forest.....	1	Sheboygan.....	16
Fond du Lac.....	24	Taylor	8
Florence	4	Washington.....	8
Green Lake.....	23	Waukesha.....	26
Jefferson	17	Waupaca.....	19
Juneau	1	Waushara.....	12
Kenosha	6	Winnebago	34
Kewaunee.....	7	Wood	10
Langlade.....	5	State at large	86
Lincoln	6		
Manitowoc	16	Total	605
Marathon	26		

Statistical Tables.

MATRON'S REPORT.

Articles made in the Northern Hospital for the Insane from October 1, 1889, to October 1, 1890.

Aprons.....	949	Lambrequins.....	29
Awnings.....	1	Mattress ticks.....	230
Bed-spreads.....	310	Mangle-sheets.....	36
Bureau-covers.....	85	Mittens, restraint.....	6 pair
Billiard table covers.....	1	Night-dresses.....	518
Caps....	155	Over-alls.....	5 pair
Camisoles.....	12	Pillow ticks.....	666
Combination suits.....	25	Pillow slips ..	2,459
Curtains, amusement hall....	4	Sheets.....	2,454
Curtains, clothes.....	65	Shirts.....	1,419
Curtains, window.....	1,613	Skirts.....	1,228
Coffee bags.....	25	Sun-bonnets.....	150
Clothes-bags.....	7	Stack-covers.....	1
Chemises.....	983	Straw ticks.....	172
Carriage covers.....	3	Sacques.....	12
Dresses.....	1,662	Sideboard covers.....	6
Drawers.....	2,273	Table-spreads.....	100
Holders.....	263	Table cloths.....	287
Ironing sheets.....	16	Towels.....	3,774
Jackets, cook's.....	76	Wrappers.....	1,775

Northern Hospital for the Insane.

STATEMENT OF

At the Northern Hospital for the Insane

CLASSIFIED ITEMS.	Inventory Sept. 30, 1888.	Purchased during the year.	Transfer'd to this ac- count dur- ing the year.	Total.
Amusements & instruction.	\$1,967 64	\$260 88		\$2,228 52
Barns, farm and garden....	12,933 92	4,891 42	\$72 80	17,898 14
Clothing.....	2,517 88	6,789 02		9,306 90
Discharged patients.....		273 37		273 37
Discount.....		52		52
Drug and medical dep't....	1,692 98	991 04		2,084 02
Engines and boilers	23,522 54	222 32		23,744 86
Elopers.....		158 74		158 74
Freight and express (not classified).....		29 62		29 62
Fuel.....	11,956 55	9,544 24	15 00	21,515 79
Furniture.....	11,904 90	172 39		12,077 29
Fire apparatus.....	2,338 00	1,112 72		3,450 72
Gas and other lights.....	1,578 92	2,442 09		4,021 01
Hides and pelts.....			1,141 18	1,141 18
House furnishing.....	20,292 14	4,718 92	875 00	25,886 06
Laboratory.....	1,715 89			1,715 89
Laundry.....	2,702 31	424 58	668 20	3,795 09
Library.....	2,445 50	132 47		2,577 97
Machinery and tools.....	2,085 22	100 31		2,185 53
Miscellaneous.....	124 86	558 13		682 99
Officers' expenses.....		137 09		137 09
Printing, postage, stationery and telegraph.....	325 01	525 18		850 19
Repairs and renewals.....	1,014 81	4,298 98		5,313 79
Restraints.....	172 16	26 40		198 56
Real estate, including build- ings, etc.....	729,215 64		1,089 63	730,305 27
Scraps.....			135 30	135 30
Subsistence.....	3,560 39	39,885 18	6,318 90	49,764 47
Surgical instruments and appliances.....	281 60	126 45		408 05
Special attendance.....			1,198 83	1,198 83
Tobacco.....	78 48	555 55		634 03
Wages and salaries.....		37,626 62		37,626 62
Wagon and corn shed.....		484 69		484 69
Ice house.....		457 94	147 00	604 94
Totals.....	\$833,827 34	\$116,946 86	\$11,661 84	962,436 04
Discounts.....		188 27		
		\$116,758 59		851,650 01
Net expense.....				110,786 03

Add amount assigned to this institution and set apart by the Secretary of

Statement of Current Expenses.

CURRENT EXPENSES

for the fiscal year ending September 30, 1889.

Inventory September 30, 1889.	Cash re- ceived on this account during the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
\$1,983 60			\$1,983 60		\$244 93
154 57 50	\$453 50	\$7,208 90	23,119 90	\$5,221 76	
2,180 94	243 43		2,424 37		6,882 53
	10 00		10 00		263 37
		188 27	188 27	187 75	
1,203 27	1 65		1,204 92		879 10
23,374 13	40 00		23,414 13		330 73
	21 84		21 84		136 90
					29 63
8,095 80	05	72 80	8,168 65		13,347 14
11,821 15			11,821 15		256 14
2,655 58			2,655 58		795 14
2,104 72	210 00		2,314 72		1,706 29
	1,141 18		1,141 18		
22,550 03	1 70		22,551 73		3,334 33
1,715 89			1,715 89		
2,638 30			2,638 30		1,156 79
2,501 50			2,501 50		76 47
2,096 51			2,096 51		89 03
233 31	167 75		401 06		281 93
					137 09
239 99	1 70		241 69		608 50
874 00	88 36	177 30	1,139 66		4,174 13
136 21			136 21		62 35
730,290 27	15 00		730,305 27		
	135 30		135 30		
3,357 86	20 33	1,809 38	5,167 57		44,596 90
354 86	1 50		356 36		51 69
	1,198 83		1,198 83		
18 18	05		18 23		615 80
	184 13	1,303 83	1,487 96		36,138 66
		484 69	484 69		
		604 94	604 94		
\$835,863 60	\$3,936 30	\$11,850 11	\$851,650 01	\$5,409 51	\$116,195 54
					5,409 51
					\$110,786 03
					3,768 48
					\$114,554 51

State for salaries and expenses of the Board of Supervision...

Northern Hospital for the Insane.

STATEMENT OF

At the Northern Hospital for the Insane

CLASSIFIED ITEMS.	Inventory September 30, 1889.	Purchased during the year.	Transfer'd to this account during the year.	Total.
Amusements and instr..	\$1,983 60	\$174 60		\$2,158 20
Barn, farm and garden..	15,457 50	3,660 21	\$191 29	19,309 00
Clothing.....	2,180 94	7,489 55		9,670 49
Discharged patients.....		157 50		157 50
Discount.....				
Drug and medical dept..	1,203 27	979 66		2,182 93
Engines and boilers.....	23,374 13	467 83		23,841 96
Elopers.....		110 04		110 04
Freight and express (not classified).....		30 14		30 14
Fuel.....	8,095 80	18,647 75	24 00	26,767 55
Furniture.....	11,821 15	192 09		12,013 24
Fire apparatus.....	2,655 58	2 67		2,658 25
Gas and other lights.....	2,104 72	1,956 69		4,061 41
Hides and pelts.....			1,696 94	1,696 94
House furnishing.....	22,550 03	6,455 12	875 00	29,880 15
Laboratory.....	1,715 89			1,715 89
Laundry.....	2,638 30	436 51	395 00	3,469 81
Library.....	2,501 50	113 90		2,615 40
Machinery and tools.....	2,096 51	131 80		2,228 31
Miscellaneous.....	233 31	543 67		776 98
Officers' expenses.....		119 53		119 53
Printing, postage, sta- tionery and telegraph..	239 99	669 67		909 66
Repairs and renewals....	874 00	4,797 36		5,671 36
Restraints.....	136 21	5 35		141 56
Real estate, including buildings, etc.....	730,290 27		6,765 72	737,055 99
Scraps.....			210 78	210 78
Subsistence.....	3,337 86	39,680 28	5,644 23	48,662 37
Surgical instruments and appliances.....	354 86	81 12		435 98
Special attendance.....			638 89	638 89
Tobacco.....	18 18	572 79		590 97
Wages and salaries.....		39,073 90		39,073 90
New pump house.....		5,896 03		5,896 03
Green house.....		1,139 96		1,139 96
Totals.....	\$835,863 60	\$133,585 72	\$16,441 85	\$985,891 17
Discount.....		126 05		
		\$133,459 67		871,046 40
Net expense.....				\$114,844 77

Add amount assigned to this institution and set apart by the Secretary of

Statement of Current Expenses.

CURRENT EXPENSES

for the fiscal year ending September 30, 1890.

Inventory September 30, 1890.	Cash re- ceived on this account during the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
\$1,947 84			\$1,947 84		\$210 36
18,159 85	\$487 41	\$7,087 17	25,734 43	\$6,425 43	
2,312 70	44 36		2,357 06		7,313 43
					157 50
		126 05	126 05	126 05	
867 31	25		867 56		1,315 37
23,361 82			23,361 82		480 14
					110 04
	25		25		29 89
13,516 05		191 29	13,707 34		13,060 21
11,874 78			11,874 78		138 46
2,658 55			2,658 55	30	
1,881 80	439 07		2,320 87		1,740 54
	1,696 94		1,696 94		
22,666 17	2 55		22,668 72		7,211 43
1,715 89			1,715 89		
2,642 96			2,642 96		826 85
2,554 50			2,554 50		60 90
2,109 80			2,109 80		118 51
245 26	167 15		412 41		364 57
					119 53
336 23	3 55		339 78		569 88
825 27	23 33	536 53	1,385 13		4,286 23
7 50			7 50		134 06
737,055 99			737,055 99		
	210 78		210 78		
2,286 07	133 93	2,091 94	4,511 94		44,150 43
336 13	2 00		338 13		97 85
	638 89		638 89		
10 37	36		10 73		580 24
	114 88	638 89	753 77		38,320 13
		5,896 03	5,896 03		
1,139 96			1,139 96		
\$350,512 80	\$3,965 70	\$16,567 90	\$371,046 40	\$6,551 78	\$121,396 55
					6,551 78
					\$114,844 77
State for salaries and expenses of the Board of Supervision...					3,768 48
					\$118,613 25

Northern Hospital for the Insane.

STATEMENT OF CURRENT EXPENSE FUND — 1889.

1888.				
Oct. 1	Balance			\$41,463 89
1889.				
Jany. 1	From counties			51,369 87
March 8	Appropriation chap. 57. laws of 1889			136,000 00
Sept. 30	From steward for board and clothing patients during the year			543 73
	From steward for sundries			3,936 30
Aug. 31	Transferred for expense of Board of Supervision	\$3,768 48		
Sept. 30	Paid on account of current expenses this year	116,758 59		
	Balance appropriation in state treasury			\$115,607 54
	Balance in hands steward of institution			\$99 17-\$115,706 71
	Less over draft on treasurer of institution ...	\$2,020 00	\$112,786 71	
			\$333,313 78	\$233,313 78

STATEMENT OF CURRENT EXPENSE FUND — 1890.

1889.				
Oct. 1	Balance available			\$112,786 71
1890.				
Jany. 1	From counties			52,689 19
Sept. 30	From steward for board and clothing patients during the year			823 85
	From steward for sundries			3,965 70
Sept. 16	Transferred for expense Board of Supervision	\$3,768 48		
	Paid on account of current expense this year	133,459 67		
	Balance appropriation in state treasury			\$33,991 06
	Balance in hands of steward of institution ...			87 84-\$34,078 90
	Less over draft on treasurer of institution ...	\$1,012 60	\$33,036 30	
			\$170,264 45	\$170,264 45
1890.				
Oct. 1	Balance available			\$33,036 30

Statement of Moneys Received.

STATEMENT OF SPECIAL APPROPRIATION FUNDS.

CLASSIFIED ITEMS.	Balance avail- able Oct. 1, 1888.	Appro- priations 1889.	Expended during biennial period.	Return- ed to state treas- ury.	Balance avail- able Oct. 1, 1890.
Fire main and hydrants....	\$204 36	.....	\$204 36	.....	.....
Purchase of real estate....	291 75	.....	.....	\$291 75	.....
Water tower and reservoir and making connections.	.....	\$8,000 00	7,460 59	.....	\$539 41
Totals	\$496 11	\$8,000 00	\$7,664 95	\$291 75	\$539 41

STATEMENT OF MONEYS RECEIVED AT THE INSTITUTION.

CLASSIFICATION.	Year ending Sept. 30, 1889.	Year ending Sept. 30, 1890.
Barn, farm and garden.....	\$453 50	\$487 41
Board and clothing patients	543 73	822 85
Clothing	243 43	44 36
Discharged patients refunded	10 00	.....
Drug and medical department	1 65	25
Engines and boilers.....	40 00	.....
Elopers.....	21 84	.....
Freight and express .....	.....	25
Fuel	05	.....
Gas and other lights	210 00	439 07
Hides and pelts.....	1,141 18	1,696 94
House furnishing	1 70	2 55
Miscellaneous	167 75	167 15
Printing, postage, stationery and telegraph	1 70	3 55
Repairs and renewals.....	88 36	23 33
Real estate.....	15 00	.....
Scraps	135 30	210 78
Subsistence	20 33	133 93
Surgical instruments and appliances	1 50	2 00
Special attendance	1,198 83	638 89
Tobacco	05	36
Wages and salaries.....	184 13	114 88
Total.....	\$1,480 03	\$4,788 55

The amount of money taken from patients upon admission during the two years covered by this report is \$756.17, and the amount refunded, \$648.35. During the same period the relatives and friends of patients contributed, for their use and pleasure, clothing and other property to the estimated value of \$6,481.51.

Northern Hospital for the Insane.

FARM AND GARDEN PRODUCTS.

ARTICLES.	FOR THE YEAR ENDING SEPT. 30, 1889.		FOR THE YEAR ENDING SEPT. 30, 1890.	
	Quantity.	Value.	Quantity.	Value.
Asparagas.....	506 bchs.	\$20 24	991 bchs.	\$39 64
Beef.....	12 hd., 14,750 lbs	481 79	7 hd., 9,050 lbs.	304 37
Beans, string.....	151½ bu.	227 24	131½ bu.	197 63
Beans, Lima.....	.....	.....	58½ bu.	87 75
Beans, pickled.....	.....	.....	14 bbls.	70 00
Beets.....	228½ bu.	160 13	214½ bu.	149 97
Beets, sugar.....	631 bu.	372 60	670 bu.	402 00
Beet top.....	90½ bu.	45 25	115½ bu.	57 75
Cabbage, early....	878 hds.	17 56	1,350 hds.	27 00
Cabbage, winter..	9,800 hds.	245 00	9,646 hds	385 84
Carrots.....	538 bu.	377 80	319½ bu.	224 45
Cress.....	12 bchs.	72	.....	.....
Cauliflower.....	.....	.....	60 hds.	3 25
Cucumbers.....	154½ bu.	154 13	225½ bu.	225 25
Corn, green.....	280½ bu.	280 25	300 bu.	120 00
Corn.....	3,225 bu.	1,290 00	2,240 bu.	896 00
Cornstalks.....	85 tons	255 90	55 tons	165 00
Calves.....	55 hds.	143 50	55 hd.	234 90
Celery.....	10,055 hds.	251 37	3,690 hds.	92 25
Colts.....	.....	.....	2 hd.	100 00
Horse radish.....	20 bu.	30 00	10 bu.	15 00
Hay.....	240 tons	1,920 00	200 tons	1,600 00
Ice.....	45 tons	45 00	50 cords.	50 00
Lettuce.....	1,449 bchs.	57 96	1,362 bchs.	56 14
Milk.....	96,208 qts.	1,914 16	89,446 qts.	1,788 92
Mangel wurzels ..	1,937 bu.	484 25	1,728 bu.	432 00
Oats.....	4,250 bu.	850 00	3,500 bu.	1,225 00
Oat straw.....	175 tons	875 00	175 tons	875 00
Onions, green	55 bchs	3 30	315 bchs.	18 18
Onions, dry.....	1,104½ bu.	464 00	325½ bu.	133 80
Parsley.....	42 bchs.	2 10	29 bchs.	1 45
Parsnips.....	482 bu.	120 50	330 bu.	82 50
Peas.....	188½ bu.	188 25	26½ bu.	26 50
Peppers.....	33½ doz.	3 35	57 doz.	5 70
Pork.....	37 hds, 9,891 lbs.	569 83	25 hds., 6850 lbs.	394 75
Pigs.....	32 hds.	288 00	112 hd.	626 00
Radishes.....	718 bchs.	35 90	1,731 bchs.	86 55
Rhubarb.....	1,019 bchs.	40 76	1,537 bchs.	61 48
Rutabagas.....	315½ bu.	126 30	344½ bu.	137 80
Salsify.....	135 bu.	135 00	52 bu.	52 00
Sage.....	80 bchs.	80	.....	.....
Savory.....	36 bchs.	1 80	200 bchs.	10 00
Spinnage.....	115½ bu.	46 20	125½ bu.	50 20
Squash, summer..	633 hds.	12 66	.....	.....
Squash, winter....	12,800 lbs.	256 00	8,781 lbs.	175 62
Strawberries.....	1,979 qts.	197 90	1,448 qts.	144 80
Tomatoes.....	288½ bu.	288 25	155½ bu.	155 50
Thyme.....	64 bchs.	3 20	200 bchs.	10 00
Wood.....	5 cords	15 00	8 cords	24 00
Total.....		\$13,298 05		\$12,021 93

FOURTH BIENNIAL REPORT

OF THE

WISCONSIN SCHOOL FOR THE DEAF,

FOR THE

TWO FISCAL YEARS ENDING SEPT. 30, 1890.

8—B. S.

OFFICERS AND TEACHERS.

JOHN W. SWILER	- - - - -	SUPERINTENDENT.
EDGAR D. FISKE	- - - - -	CLERK.
SARAH D. GIBSON	- - - - -	MATRON.
ELLEN L. McLEAN	- - - - -	ASSISTANT MATRON.
O. W. BLANCHARD	- - - - -	Boy's SUPERVISOR.
M. C. CLARKE	- - - - -	TREASURER.

LITERARY DEPARTMENT.

TEACHERS.		
W. A COCHRANE, A. M.,	B. T. BENSTED,	ANNIE M. GRAY.
J. S. LONG, A. B.,	W. F. GRAY,	IVA C. PEARCE,
WARREN ROBINSON, A. M.,	MARY H. FISKE,	ELEANOR McCOY,
	ELIZABETH G. BRIGHT.	

ORAL DEPARTMENT.

EMILY EDDY,	ELSIE M. STEINKE,	ALLIE I. HOBART.
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ART DEPARTMENT.

EVA L. CUTLER	- - - - -	TEACHER.
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CALISTHENICS.

ELIZABETH G. BRIGHT,	- - - - -	J. S. LONG.
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INDUSTRIAL DEPARTMENT.

C. F. BADGER	- - - - -	FOREMAN OF PRINTING OFFICE.
JNO. BEAMSLEY	- - - - -	- FOREMAN OF SHOE SHOP.
DANIEL E. LEE	- - - - -	- FOREMAN OF CABINET SHOP.
GEORGE BAKER	- - - - -	- FOREMAN OF BAKERY.

SCHOOL FOR THE DEAF.

REPORT OF THE SUPERINTENDENT.

To the State Board of Supervision:

GENTLEMEN:— In this, the fourth biennial report of the Wisconsin School for the Deaf, which includes its history for the two years closing September 30, 1890, I desire to present a brief review of its work, to call your attention to the evidences of progress, and to invite your frequent personal inspection of the school. I trust that its thorough and exhaustive work will merit your commendation; that the product of the trade schools will show improvement in quantity and quality, and that the repairs and renewals, for which you have judiciously provided, will meet your approbation.

This school began its work in the month of July, 1852, with eight pupils. Annual sessions have since been held, and eight hundred and sixty-nine children have belonged to the school.

One hundred and sixty-six of these have graduated after completing a ten years' course of study.

There were four graduates in 1889 and eleven in 1890. The daily record of these years shows that the average health of the school has been excellent, and that regular and faithful attention to duty has enabled most of the pupils to secure a high average scholarship.

One hundred and seventy-three pupils were present September 30, 1889; two hundred and twenty-three different pupils were in school during the year, and the number present at this date is one hundred and seventy-four. See statistical tables hereto appended.

School for the Deaf.

HEALTH.

A healthful location, with rapid and complete drainage, wholesome food and good water, regular hours and a careful medical supervision, enables me to report good health in every case.

Though many of these children have been enfeebled by diseases in early life, impairing vitality, and rendering them susceptible to disease, but few have been seriously ill. Where there are many young children the diseases incident to childhood may be expected; of these we have had as follows: Two cases of scarlet fever, in the fall of 1889, were so completely isolated that contagion was prevented; chicken pox and mumps ran through the school, the former in October, 1888, the latter during the following winter, sixty cases, but without fatal or alarming results. In the spring of 1889 there were eighteen cases of whooping-cough among the little girls. The new pupils and all others needing it, to the number of fifty-four, have been vaccinated.

There have been three cases of fatal illness since the date of the last biennial report. The first of these was Georgia Safford, of Neillsville, an advanced pupil, a fine christian character and a most interesting young woman of eighteen, who had been in the school seven terms and was well up in the studies of the first class. She was taken sick in the latter part of November, 1889; after a month's illness, she died December 14th, a victim of pneumonia.

The second case was Frank A. Davis, of Dodgeville, who was attacked by acute bronchitis, which, after a few days, ended the bright young life of this interesting boy.

The third fatal case was that of a little nine year old boy, Thorwald Peterson, who came to school September 4, 1890, and died the 29th of the same month, of inflammation of the brain, following an illness of four days.

Superintendent's Report.

ATTENDANCE.

The school has been smaller than for the two preceding years. This decreased attendance is due, somewhat, to the local schools for the deaf in different cities in the state, but still more to the fact that some who have deaf children will not allow them the benefits of school; or, at most, send them but one or two terms.

This report shows that twelve new pupils, over fifteen years of age, have come into the school since September 1, 1889. One young man was twenty-four years old, and another was twenty-seven when first admitted; each of them spent one year in school, doing unusually well, and were then kept at home, although they both wished to come back. A compulsory education law would be a blessing for such cases as these. A circular letter of inquiry in regard to uneducated deaf children was sent, last summer, to all school district clerks in the state. Responses to this letter name eighty-five deaf people, under twenty-five years of age, who have never been in any school. Of these three were over twenty-one years of age, twenty-two were under six years, and thirteen were enrolled in the school this term. Forty-seven, between the ages of six and twenty-one, are still out of school, notwithstanding the repeated efforts that have been made to secure their attendance.

THE SCHOOL.

A uniform course of study, with regular writing and drawing lessons, diligently applied by a corps of experienced teachers, has produced most gratifying results.

Fifty new pupils have been admitted since September 1, 1889. Most of them are doing well; all are learning something. Twenty-one are in the oral classes, and twenty-nine under sign instruction.

With but few exceptions the class of 1890 has been taught by articulation. They can both speak and understand the

School for the Deaf.

speech of others. There are now, as before, three oral classes, including thirty-four members, that are taught by articulation exclusively; and besides these ten other speaking pupils receive vocal lessons daily. The practical utility of oral instruction in schools where signs are used, has been called in question by some who advocate the pure oral method; but the young men and women of the class of 1890 possess a general culture, an exact knowledge of affairs, literary excellence and ability to speak that will compare favorably with the scholarship of any school.

Your attention is also invited to the oral classes now under instruction, and to the manifest improvement in writing and drawing.

GYMNASIUM.

The new gymnasium was opened a year ago. Prof. J. S. Long is the director, giving daily instruction in physical exercises to all the boys. The year's work has surpassed my expectations, and the exhibition of athletic feats at the close of the term showed a great gain over previous attainments. It was also a pleasant occasion to all who were privileged to attend. There is still great need of further improvement in that line, which, we trust, succeeding years may bring. The swimming pool and auxiliary baths have been popular and useful. Although the girls' gymnasium is not so well equipped, their physical training, by means of calisthenics and light gymnastics, has been continued.

CHANGES.

There have been a few changes of the official corps. The school has retained all its tried and trusted teachers except Jas. Jos. Murphy, who was compelled to resign March 11, 1890, on account of impaired health.

J. S. Long, a graduate of the Iowa school, and of the National Deaf Mute College, at Washington, D. C., was appointed a year ago.

Superintendent's Report.

In February, 1889, S. B. O'Neal, boys' supervisor, was succeeded by W. D. Eckerson, who remained till the end of the term.

O. W. Blanchard, boys' supervisor, was engaged September 1, 1889.

All other teachers and officers of the school remain at their posts of duty, with enlarged experience and increased efficiency.

THE TEACHERS' WORK.

The noteworthy results of the class-room are produced by their devotion to duty, and by their skill in awakening interest, holding the attention, and drawing out intelligent thought. There is no room in this school for any but the best teachers, no praise too high for those who always do their best. A deaf mute's education requires hard work on the part both of teacher and pupil. This work is unique; success is attained only when the undivided attention of the most intelligent, active men and women is applied to it, in connection with a knowledge of boy and girl nature, and an insight into modes of thought and action displayed by those in whom the usual avenues of approach are closed. There is no other calling in which the rewards of faithful service are so great, none requiring more complete devotion.

IMPROVEMENTS.

Among the notable improvements is the stage scenery, which contributes to the instruction and enjoyment of the school. The deep well, one hundred and ninety-one feet, promises an abundant supply of water. The electric light, with its motive power, dynamo, and storage battery, produces the best and most reliable light that the school has ever had. The substantial tile floor and the new ceiling in the pupils' dining room, are permanent improvements of value. New walks and new plumbing have each contributed to the general welfare.

School for the Deaf.

Our system of water supply would afford a much more reliable distribution for ordinary use, and for fire protection, by being provided with a suitable water tower and stand pipe, separate from all other buildings.

MISCELLANEOUS.

The Washington Centennial Inauguration Day, April 30, 1889, was distinguished by appropriate exercises, among others, by the planting of a memorial elm. The eloquent address by Lewis A. Proctor, of your Board, increased the interest of the day.

Governor Hoard kindly gave the school a day, and was present at the commencement of 1889.

Members of certain classes, with their teachers, gave an exhibition before the Southeastern Wisconsin Teachers' Association at Waukesha, April 2, 1890, in which they illustrated the methods of the school.

The orchestra from the School for the Blind has furnished the music at the closing of this school for several years, and, in so doing, has added much to the interest and enjoyment of those occasions. As a school, and as individuals, we feel indebted to them for the important part they have so kindly taken in these public exercises.

The railroads in the state have also placed us under obligations for favors in the transportation of pupils.

The reading room has been well supplied with newspapers, some of which were sent gratuitously to the school and others in exchange for the TIMES. All have had an appreciative reading.

The reference and circulating library should be more complete, and philosophical apparatus is needed in the school for illustrative purposes.

CONVENTION OF INSTRUCTORS OF THE DEAF.

The twelfth convention of American instructors of the deaf convened at the state institution, New York city,

Superintendent's Report.

August 23d to 28th. Though the convention was large, most completeness marked every provision of its entertainment. Fifty different schools were represented by three hundred and forty-six delegates. The Wisconsin school had a larger delegation than any other western state school. The papers and discussions covered a wide range of topics, all treating of methods that the tests of use and experience had approved. The oral system had full recognition, and the utility of signs was maintained by many able advocates. The entire proceedings of the convention were pervaded by the utmost harmony and good feeling. A strong fraternal regard characterized the actions of members on every occasion. A section of the convention, with its own officers, was organized as an "Association to Promote the Teaching of Speech to the Deaf."

In closing this, my eleventh annual report, and of the school the thirty-ninth, I wish to express my high appreciation of the generous estimate which your Board has placed upon our work, and to say that I need your continued confidence and esteem, your co operation and support, in order that the school may continue to educate all in Wisconsin who need and seek its instruction.

Respectfully submitted,

JOHN W. SWILER,
Superintendent.

DELAVER, WIS., October 1. 1890.

School for the Deaf.

STATISTICS.

TABLE NO. 1.

Movement of population for the biennial term ending September 30, 1890.

	1888 and 1889.			1889 and 1890.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Admitted after September 30, 1888 and 1889				6	2	8
Readmitted after September 30, 1888 and 1889.....	9	3	12	7	3	10
Admitted September, 1889 and 1890	10	7	17	14	11	25
Readmitted September, 1889 and 1890	4	1	5	4	3	7
Total admissions for the year.	23	11	34	31	19	50
Pupils present September 30, 1888 and 1889	129	63	192	114	59	173
Total attendance for the year.	152	74	226	145	78	223
Graduated June 12, 1889 and 1890	3	1	4	4	7	11
Honorably discharged June, 1889 and 1890.....	4	.....	4	2	.....	2
Time expired.....	2	.....	2	.....	.....	.....
Dismissed	8	.....	8	1	.....	1
Died in school.....	.....	1	1	2	.....	2
Died at home	1	1	2	.....	.....	.....
Attending other schools.....	.....	.....	.....	3	.....	3
Names on the roll September 30, 1889 and 1890.....	134	71	205	133	71	204
Pupils present September 30, 1889 and 1890	114	59	173	114	60	174
Absentees.....	20	12	32	19	11	30

Statistical Tables.

TABLE NO. 2.

Average monthly attendance.

	Year 1888-9.	Year 1889-90.		Year 1888-9.	Year 1889-90.
October	193	177	March	191	185
November.....	200	183	April	189	188
December	200	184	May	188	184
January	197	186	June	185	183
February	193	185	September	170	170
<hr/>					
Average attendance for the term 1888-9				191	
Average attendance for the term 1889-90				182	

TABLE NO. 3.

Cause of deafness in cases admitted during the two years ending September 30, 1890.

Abscess in ear.....	2	Hydrocephalus.....	1
Cerebral meningitis.....	6	Sand in ears.....	1
Congenital	19	Scarlet fever.....	6
Croup.....	2	Spinal meningitis.....	10
Dentition.....	1	Typhoid fever.....	1
Diphtheria..	1		

TABLE NO. 4.

Nativity of pupils received during the biennial period.

American.....	14	German.....	9
Belgian	2	Irish..	4
Canadian.....	3	Norwegian.....	4
Danish.....	2	Polish	2
English	2	Swedish	1

School for the Deaf.

TABLE NO. 5.

Age of new pupils when hearing was lost.

At birth	19	Between 4 and 5 years	4
Between 1 and 2 years	6	Between 5 and 6 years.....	1
Between 2 and 3 years.....	12	Between 6 and 7 years.	1
Between 3 and 4 years	6	Between 7 and 8 years.....	1

TABLE NO. 6.

Age of new pupils when admitted.

At seven years.....	1	At fifteen years	2
At eight years	10	At sixteen years.....	2
At nine years.....	9	At seventeen years	2
At ten years.....	5	At eighteen years....	1
At eleven years.....	2	At nineteen years	3
At twelve years.....	2	At twenty-four years.....	1
At thirteen years.....	5	At twenty-seven years.....	1
At fourteen years.....	4		

Statistical Tables.

TABLE NO. 7.

Age and classification of the school June, 1891, based on attendance September 30, 1890.

CLASS.	TEACHER.	Number in class.										General average.	
		10 terms.	9 terms.	8 terms.	7 terms.	6 terms.	5 terms.	4 terms.	3 terms.	2 terms.	1 term.		
No. 1	W. A. Cochrane.....	10	3	4	2	1	..	..	..	..	..	8.9
2	W. F. Gray.....	9	1	5	2	1	..	..	..	..	..	6.6
3	E. M. Steinke.	11	..	..	4	3	1	2	1	..	..	6.8
4	B. T. Bensted.....	14	2	2	3	6	..	1	..	..	..	7.8
5	M. H. Fiske.....	16	..	1	2	1	9	3	..	..	..	6.3
6	J. S. Long.....	19	1	1	1	3	3	8	2	..	..	6.0
7	A. I. Hobart.....	12	..	..	..	..	..	1	3	3	4	3.0
8	I. C. Pearce.....	15	..	..	..	..	2	1	11	1	..	4.2
9	W. Robinson.....	13	..	..	..	..	2	3	7	1	..	4.4
10	E. McCoy.....	16	..	..	..	..	..	..	15	1	..	2.9
11	A. M. Gray.....	15	..	..	..	..	..	..	4	11	..	2.2
12	E. Eddy.....	10	..	..	..	..	..	..	..	..	10	1.0
13	E. G. Bright.....	14	..	..	..	..	..	..	..	2	12	1.1
Total attendance.....		174	7	13	14	15	17	19	24	24	18	23	4.87
													*

*Average age of the whole school June, 1891.

J. S. Long, boys teacher of gymnastics.

E. G. Bright, girl's teacher of gymnastics.

Whole number taught articulation, 44.

E. L. Cutler, drawing and writing classes, 2, 3, 4, 5, 6, 7, 8, 10 and 11, from 8 to 11:50 A. M., and 1 to 2 P. M.

School for the Deaf.

SESSION ROLL SEPTEMBER 30, 1890.

Name.	Town.	County.	Adm't'd
Allikson, Sievert.....	Westly.....	Vernon.....	1883
Anderson, Huldah.....	Holmen.....	La Crosse.....	1890
Arbatowski, John.....	Polonia.....	Portage.....	1885
Beck, Lizzie.....	Stevens Point.....	Portage.....	1890
Beringer, Nicholas.....	Manitowoc.....	Manitowoc.....	1889
Bohling, William.....	Sheboygan.....	Sheboygan.....	1882
Bortle, Charles.....	Eau Claire.....	Eau Claire.....	1883
Boyd, Mary.....	Chippewa Falls.....	Chippewa.....	1885
Bretthauer, Herman.....	Muscoda.....	Grant.....	1888
Brownson, Carrie.....	Fond du Lac.....	Fond du Lac.....	1890
Broten, Laura.....	Hudson.....	St. Croix.....	1888
Buss, Henry.....	Calamine.....	La Fayette.....	1882
Buxton, Minnie.....	Viroqua.....	Vernon.....	1890
Buxton, Lillie.....	Viroqua.....	Vernon.....	1890
Campbell, John M.....	Wiota.....	La Fayette.....	1890
Carney, Thomas.....	Kenosha.....	Kenosha.....	1881
Carney, Julia.....	Kenosha.....	Kenosha.....	1888
Conrad, James.....	Hartford.....	Washington.....	1884
Crehan, Maggie.....	Prairie du Chien.....	Crawford.....	1886
Creuzer, Julia.....	Alma.....	Buffalo.....	1889
Childs, Clara.....	Prescott.....	Pierce.....	1889
Danewscefski, August.....	Muskego.....	Waukesha.....	1888
Devine, George.....	Manitowoc.....	Manitowoc.....	1886
Dickey, Chauncey.....	Neillsville.....	Clark.....	1882
Doyle, Bridget.....	Calamine.....	La Fayette.....	1889
Dowling, Michael.....	Baraboo.....	Sauk.....	1883
Drinkwine, William.....	Fond du Lac.....	Fond du Lac.....	1888
Eckerson, Bertha.....	Delavan.....	Walworth.....	1887
Einolf, Annie.....	Chilton.....	Calumet.....	1889
Ensign, Winfield S.....	Augusta.....	Eau Claire.....	1880
Erickson, Mary.....	Niles.....	Manitowoc.....	1890
Erickson, Edward.....	Niles.....	Manitowoc.....	1890
Etheridge, May Belle.....	Merrill.....	Lincoln.....	1887
Fedkenheur, William.....	Deerfield.....	Dane.....	1890
Fenendahl, Ernest.....	Gardner.....	Door.....	1890
Felton, Minnie.....	Richland Center.....	Richland.....	1886
Fleming, Gertie.....	Jefferson.....	Jefferson.....	1889

Session Roll.

Name.	Town.	County.	Adm't'd
Fosdick, Ruby.....	Shawano.....	Shawano.....	1885
Foster, Alma.....	Luck.....	Polk.....	1883
Franke, Herman.....	Johnson's Creek ..	Jefferson.....	1880
Freiberg, Albert.....	Van Dyne.....	Fond du Lac....	1883
Galagan, Bernard.....	Darlington.....	La Fayette.....	1885
Gierloff, Frederic.....	Walworth.....	Walworth.....	1882
Gilkey, George F.....	Oconto.....	Oconto.....	1890
Goff, James.....	Stoughton.....	Dane.....	1884
Goff, Milton.....	Stoughton.....	Dane.....	1886
Grimm, Ida.....	Beloit.....	Rock.....	1888
Groom, Frances.....	Cassville.....	Grant.....	1883
Grebel, Emma.....	Beaver Dam.....	Dodge.....	1887
Guerin, Peter.....	Manawa.....	Waupaca.....	1886
Gutzmer, Herman.....	Concord.....	Jefferson.....	1885
Hanson, Edward.....	Onalaska.....	La Crosse	1882
Haraldsen, Jens.....	Kilburn.....	Columbia.....	1884
Harter, William.....	Milwaukee.....	Milwaukee.....	1883
Harter Frank.....	Milwaukee.....	Milwaukee.....	1890
Harvey, Leonard.....	Eagle Corners.....	Richland.....	1890
Hayford, Charles.....	Wrightstown.....	Brown.....	1883
Heibner, Louisa.....	Monroe.....	Green.....	1888
Heibner, August.....	Monroe.....	Green.....	1888
Heicher, William.....	Milwaukee.....	Milwaukee.....	1884
Hensel, Ruth.....	Arcadia.....	Trempealeau....	1880
Herald, Clarence.....	Oconto.....	Oconto.....	1890
Herrick, Arrilla.....	East Troy.....	Walworth.....	1889
Hodgson Jay.....	Arena.....	Iowa.....	1884
Hoffman, John.....	Boyd.....	Chippewa.....	1882
Hollands, John.....	Oshkosh.....	Winnebago.....	1889
Hopkins, Nettie.....	Weyauwega.....	Waupaca.....	1889
Horne, George.....	Whitewater.....	Walworth.....	1885
Huhn, Elizabeth.....	Racine.....	Racine.....	1888
Irving, Thomas.....	Kenosha.....	Kenosha.....	1887
Jacobson, Carrie.....	Bruce.....	Chippewa.....	1887
Jankewecz, Roman.....	Milwaukee.....	Milwaukee.....	1886
Jerdee, Malina.....	Nora.....	Dane.....	1890
Jones, Tracey.....	Darien.....	Walworth.....	1886
Kerwin, James D.....	Camp Douglas.....	Juneau.....	1889
Keyes, William.....	East Troy.....	Walworth.....	1884
Kimball, Philip.....	Lake Geneva.....	Walworth.....	1882
Kirst, Louis.....	Milwaukee.....	Milwaukee.....	1888
Kleman, Angnst.....	Kinetz.....	Marathon.....	1889
Kohler, Christian.....	Milwaukee.....	Milwaukee.....	1886
Kopieski, William.....	Oshkosh.....	Winnebago.....	1887
Krajewski, Frank.....	La Crosse.....	La Crosse.....	1889
Kreuger, Frank.....	Merrill.....	Lincoln.....	1890
Kuehn, Rudolph.....	Dale.....	Outagamie.....	1889
Kuspa, Valentine.....	Milwaukee.....	Milwaukee.....	1888

School for the Deaf.

Name.	Town.	County.	Adm't'd
Landry, Joseph F.	Woodville	St. Croix	1888
Landry, Minnie L.	Woodville	St. Croix	1888
Layng, Elmer J.	Clear Lake	Polk	1890
Maertz Ernest	New London	Waupaca	1888
Malley, William	Milwaukee	Milwaukee	1890
Marvin, Charles	Fairchild	Eau Claire	1888
May, Helen	Ft. Atkinson	Jefferson	1884
McChesney, Hallie	Turtle Lake	Barron	1889
McCloud, Oscar	Fox Lake	Dodge	1887
McGuire, Francis	Chippewa Falls	Chippewa	1890
Meehan, Arthur	Darlington	La Fayette	1888
Mittlesdorf, Gustav	East Farmington	Polk	1883
Morrison, Florence	Millard	Walworth	1886
Morreau Severrine	Chippewa Falls	Chippewa	1885
Molster, Mary	Merton	Waukesha	1886
Mueller, Jacob	Romeo	Marathon	1878
Muellen, Joseph	Shullsburg	La Fayette	1887
Murnen, Margaret	Springdale	Dane	1890
Myers, George	Weyauwega	Waupaca	1884
Murphy, Josephine	La Crosse	La Crosse	1881
Napel, Frederick	Oshkosh	Winnebago	1889
Negus, Ida	Jefferson	Jefferson	1890
Nehring, Ida	Tusten	Waukhara	1885
Nelson, Edward	Fontenoy	Brown	1886
Newell, Cora Dale	Eau Claire	Eau Claire	1890
Nichols, John	Eau Claire	Eau Claire	1889
Neiwirth, John	Hilbert	Calumet	1890
Nimke, Matilda	Berlin	Green Lake	1889
Nolan, Thomas	Greenbush	Sheboygan	1882
Nys, Julius	Green Bay	Brown	1889
O'Brien, Annie	Irving	Jackson	1886
O'Hara, James	Hurley	Ashland	1885
O'Leary, Stephen	Eau Claire	Eau Claire	1887
Orlebeke, John	Sheboygan Falls	Sheboygan	1882
Orth, Henry	Cooperstown	Manitowoc	1882
Olson, Karl J.	Eau Claire	Eau Claire	1888
O'Neil, William	La Crosse	La Crosse	1885
O'Rourke, Patrick	Kendalls	Monroe	1887
Parish, George	Milwaukee	Milwaukee	1884
Partridge, William	Dancy	Marathon	1887
Pelmar, Charles	Delafield	Waukesha	1883
Peterson, John, Jr.	Grantsburg	Burnett	1887
Peterson, Thorwold	Fontenoy	Brown	1890
Peterson, Catrine	Luck	Polk	1889
Phillips, Alsada	Bay View	Milwaukee	1882
Pierson, Jessie	Beloit	Rock	1885
Pocan, Henry	Marinette	Marinette	1883
Pond, Andrew	Readstown	Vernon	1883
Porsorski, Stanislaus	Berlin	Green Lake	1887
Powers, Mary	Colfax	Dunn	1884

Session Roll.

Name.	Town.	County.	Adm't'd
Rodda, Edward.....	Hazel Green.....	Grant.....	1886
Redmond, Walter.....	Neillsville.....	Clark.....	1886
Retzlaff, Herman....	Belle Plain.....	Shawano.....	1887
Reynolds, Francis.....	Cedarburg.....	Ozaukee.....	1888
Reinke, Emil.....	Van Dyne.....	Fond du Lac....	1887
Rhode, Henry.....	Wautoma.....	Waushara.....	1888
Richter, Emma.....	Janesville.....	Rock.....	1884
Rosenberg, Bertha.....	Elk Mound.....	Dunn.....	1885
Rolfson, Charles.....	Waterford.....	Racine.....	1887
Roth, William.....	Westfield.....	Marquette.....	1882
Ruh, Herman.....	Kiel.....	Manitowoc.....	1883
Ryan, Patrick.....	Milwaukee.....	Milwaukee.....	1888
Schildhauer, Ellen.....	New Holstein.....	Calumet.....	1887
Schuster, Walter.....	Middleton.....	Dane.....	1879
Schumacher, Velma.....	Racine.....	Racine.....	1887
Schumacher, Alice.....	Racine.....	Racine.....	1887
Sharp, Elizabeth.....	Muscoda.....	Grant.....	1881
Skinner, Frank.....	Edgerton.....	Rock.....	1890
Snyder, Albert.....	Fort Atkinson.....	Jefferson.....	1883
Stendahl, Alfred.....	Pigeon Falls.....	Trempealeau.....	1882
Stiles, Mary.....	Beloit.....	Rock.....	1886
Spartz, Michael.....	Newberg.....	Washington.....	1885
Swanson, Fred.....	Mason.....	Bayfield.....	1887
Thompson, Addie A.....	Milwaukee.....	Milwaukee.....	1890
Topping, Albert.....	Arnott.....	Portage.....	1888
Torgerson, Gustav.....	Christiana.....	Dane.....	1880
Urban, Otto.....	Hamburg.....	Marathon.....	1886
Vigen, Simon O.....	Eaton.....	Manitowoc.....	1890
Wartzok, Anna.....	Sauk City.....	Sauk.....	1883
Weddig, Augusta.....	Madison.....	Dane.....	1884
Weed, Sylvia.....	Downing.....	Dunn.....	1890
Whitt, Laura.....	Soldier's Grove....	Crawford.....	1887
Willdey, Anna.....	Delavan.....	Walworth.....	1887
Winkleman, Gustav.....	Milwaukee.....	Milwaukee.....	1885
Wood, Emery.....	Marshall.....	Dane.....	1887
Wolf, Herman.....	East Farmington..	Polk.....	1889
Yaeger, Otto.....	Merrill.....	Lincoln.....	1886
Zarling, Heinrich.....	Cedarburg.....	Ozaukee.....	1889
Ziegenhagen, Herman...	Burnett.....	Dodge.....	1885

School for the Deaf.

TERMS OF ADMISSION.

The school, which has a healthful and beautiful location at Delavan, on the southwestern division of the Chicago, Milwaukee & St. Paul Railway, is maintained by the State of Wisconsin for the education of those children within her borders who, on account of deafness, are unable to receive instruction in the common school. It has three departments:

First— The school proper in which the pupils are taught writing, reading, composition, arithmetic, geography, history, natural science, penmanship, and drawing. In the oral department, instruction in lip-reading and oral speech is given to semi-mutes and capable congenital mutes. The course of training also includes calisthenics and light gymnastics.

Second— The shops, where the pupils are taught printing, cabinet-making, shoe-making, and baking.

Third— The domestic department, in which pupils discharge various household duties, and learn baking and sewing.

The law provides that all deaf and dumb residents of this State, of proper age and suitable capacity to receive instruction, shall be received and taught free of charge. The regular course of instruction occupies about eight years.

The day is divided into hours for labor, study and recreation, with the design of securing habits of industry and of 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.

Upon request, a blank form of application is sent to those desiring to send children to the school; and 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 application.

Terms of Admission.

Candidates for admission should not be under eight, nor more than twenty years of age, of sound moral principles, and good physical health.

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 first Wednesday in September and continues forty weeks. The proper time for the admission of pupils is the beginning of the term, and parents should make every effort to secure their presence at that 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. Pupils 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.

Eight terms will be required to complete the course of study by most of those without previous instruction.

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, applications for admission and inquiries in regard to deaf children or their education, should be addressed

JOHN W. SWILER, Superintendent,
Delavan, Wis.

School for the Deaf.

STATEMENT OF

At the Wisconsin School for the Deaf for

CASSIFIED ITEMS.	Inventory September 30, 1888.	Purchased during the year.	Transfer'd to this ac- count dur- ing the year.	Total.
Amusement and instruction	\$1,699 49	\$664 79	\$49 00	\$2,413 28
Barn, farm and garden....	1,254 07	976 94	2 50	2,233 51
Boot and shoe factory.....	705 59	905 19	556 60	2,167 38
Clothing.....	472 10	100 24	119 31	691 65
Discount.....				
Drug and medical dep't. . .	5 50	188 13		193 63
Engines and boilers.....	5,769 45	77 71		5,847 16
Freight and express, (not classified).....		32 60		32 60
Fuel.....	2,988 25	2,349 25		5,337 50
Furniture.....	4,594 65	96 80	167 85	4,859 30
Fire apparatus.....	204 95	54 25		259 20
Gas and other lights.....	636 95	785 24		1,422 19
House furnishing.	5,480 27	615 45		6,095 72
Laundry.....	903 65	118 56	39 52	1,061 73
Library.....	1,295 80	115 60		1,411 40
Machinery and tools.....	624 75	33 62		658 37
Miscellaneous.....	175 00	177 15		352 15
Officers' expense.....		88 19		88 19
Printing, postage, station- ary and telegraph.....	33 22	258 97	24 00	316 19
Printing office.....	852 57	196 56	600 00	1,649 13
Repairs and renewals.....	594 27	2,031 70		2,625 97
Real estate, including build- ings, etc.....	103,227 21			103,227 21
Subsistence.....	540 01	10,424 04	612 52	11,576 57
Wages and salaries.....		17,009 81		17,009 81
Totals.....	\$132,057 75	\$37,300 79	\$2,171 30	171,529 84
Discounts.....		49 36		
		\$37,251 43		135,493 72
Net expenses.....				\$36,036. 12

Add amount assigned to this institution and set apart by the Secretary of

Statement of Current Expenses.

CURRENT EXPENSES.

the fiscal year ending September 30, 1889.

Inventory September 30, 1889.	Cash receiv- ed on this account during the year.	Transferred from this ac- count dur- ing the year.	Total.	Gained.	Expended.
\$1,741 90	40	.....	\$1,742 30	.....	\$670 98
1,267 70	\$430 61	\$612 52	2,310 83	\$77 32	.....
910 35	932 99	119 31	1,962 65	.....	204 73
351 59	184 12	.....	535 71	.....	155 94
.....	.....	49 36	49 36	49 36	.....
8 50	.....	.....	8 50	.....	185 13
5,780 80	.....	.....	5,780 80	.....	66 36
.....	.....	.....	.....	.....	32 60
1,564 13	.....	.....	1,564 13	.....	3,773 37
4,556 40	.....	.....	4,556 40	.....	302 90
254 95	.....	.....	254 95	.....	4 25
670 75	68 70	.....	739 45	.....	682 74
5,529 26	70	.....	5,529 96	.....	565 76
913 15	.....	.....	913 15	.....	148 58
1,297 64	.....	.....	1,297 64	.....	113 76
618 50	.....	.....	618 50	.....	39 87
187 50	.....	.....	187 50	.....	164 65
.....	.....	.....	.....	.....	88 19
32 15	19 71	.....	51 86	.....	264 33
913 90	132 65	58 00	1,104 55	.....	544 58
855 03	90 00	191 95	1,136 98	.....	1,488 99
103,227 21	.....	.....	103,227 21	.....	.....
718 97	8 20	39 52	766 69	.....	10,809 88
.....	4 60	1,150 00	1,154 60	.....	15,855 21
\$131,400 38	\$1,872 68	\$2,220 66	\$135,493 72	\$126 68	\$36,162 80
.....
.....	.....	.....	.....	.....	126 68
.....	.....	.....	.....	.....	\$36,036 12
State for salaries and expenses of the Board of Supervision...	.....	.....	.....	.....	1,257 45
.....	.....	.....	.....	.....	\$37,293 57

School for the Deaf.

STATEMENT OF

At the Wisconsin School for the Deaf

CLASSIFIED ITEMS.	Inventory September 30, 1889.	Purchased during the year.	Transfer'd to this ac- count dur- ing the year.	Total.
Amusements and instruction	\$1,741 90	\$757 23	\$70 25	\$2,569 38
Barn, farm and garden.....	1,267 70	718 02	.....	1,985 72
Boot and shoe factory.....	910 35	746 33	555 00	2,211 68
Clothing.....	351 59	134 08	135 44	621 11
Discount.....	.....	.....	.....	.....
Drug and medical dep't.....	8 50	166 18	.....	174 68
Engines and boilers.....	5,780 80	146 48	.....	5,927 28
Freight and express (not classified).....	.....	38 00	.....	38 00
Fuel.....	1,564 13	4,278 16	.....	5,842 29
Furniture.....	4,556 40	311 15	209 85	5,077 40
Fire apparatus.....	254 95	94 82	.....	349 77
Gas and other lights.....	670 75	4,167 19	22 20	4,860 14
House furnishing.....	5,529 26	670 31	.....	6,199 57
Laundry.....	913 15	138 65	31 10	1,082 90
Library.....	1,297 64	126 71	.....	1,424 35
Machinery and tools.....	618 50	166 28	.....	784 78
Miscellaneous.....	187 50	270 61	.....	458 11
Officers' expenses.....	.....	147 33	.....	147 33
Printing, postage, stationery and telegraph.....	32 15	404 78	53 50	490 43
Printing office.....	913 90	138 64	608 00	1,660 54
Repairs and renewals.....	855 03	2,236 52	.....	3,091 55
Real estate, including build- ings, etc.....	103,227 21	.....	6,977 20	110,204 41
Subsistence.....	718 97	8,811 11	751 41	10,281 49
Wages and salaries.....	.....	17,659 82	.....	17,659 82
Totals.....	\$131,400 38	\$42,328 40	\$9,413 95	183,142 73
Discounts.....	.....	42 91	.....	.....
		\$42,285 49		147,654 48
Net expense.....				\$35,488 25

Add amount assigned to this institution and set apart by the Secretary

Statement of Current Expenses.

CURRENT EXPENSES

for the fiscal year ending September 30, 1890.

Inventory September 30, 1890.	Cash re- ceived on this account during the year.	Transferred from this account during the year.	Total.	Gained.	Expended
\$2,194 48	\$0 90	.....	\$2,195 38	.....	\$374 00
1,395 50	235 62	\$751 41	2,382 53	\$396 81	.....
788 42	823 45	135 44	1,747 31	.....	464 37
274 31	172 55	.....	446 86	.....	174 25
.....	.....	42 91	42 91	42 91	.....
13 50	.....	.....	13 50	.....	161 18
5,698 15	.....	22 20	5,720 35	.....	206 93
.....	.....	.....	.....	.....	38 00
1,618 00	.....	.....	1,618 00	.....	4,224 29
4,792 95	.....	.....	4,792 95	.....	284 45
324 50	.....	.....	324 50	.....	25 27
4,364 52	15 00	.....	4,379 52	.....	480 62
5,431 41	.....	.....	5,431 41	.....	768 16
907 45	.....	.....	907 45	.....	175 45
1,305 45	.....	.....	1,305 45	.....	118 90
661 50	.....	.....	661 50	.....	123 28
187 50	12 50	.....	200 00	.....	258 11
.....	.....	.....	.....	.....	147 33
39 15	85 00	.....	124 15	.....	366 28
969 80	120 42	99 25	1,189 47	.....	471 07
847 93	221 14	1,112 84	2,181 91	.....	909 64
110,204 41	.....	.....	110,204 41	.....	.....
552 01	3 20	31 10	586 31	.....	9,695 18
.....	43 61	1,155 00	1,198 61	.....	16,461 21
\$142,570 94	\$1,733 39	\$3,350 15	\$147,654 48	\$439 72	\$35,927 97
.....	.....	.....	.....	.....	439 72
.....	.....	.....	.....	.....	\$35,488 25

of State for salaries and expenses of the Board of Supervision.

1,257 45

\$36,745 70

School for the Deaf.

STATEMENT OF CURRENT EXPENSE FUND, 1889.

1888.				
Oct. 1	Balance			\$24,249 88
1889.				
March 8	Appropriation, chap. 57, laws of 1889..			79,000 00
Sept. 30	From steward for sundries during the year.....			1,872 68
Aug. 31	Transferred for expenses Board of Supervision	\$1,257 45		
Sept. 30	Paid on account of current expenses this year.....	37,251 43		
	Balance appropriation in state treasury.....	\$63,944 37		
	Balance in hands of treasurer of institution.....	2,526 61		
	Balance in hands of steward of institution.....	142 70	\$66,613 68	
			\$105,122 56	\$105,122 56

STATEMENT OF CURRENT EXPENSE FUND, 1890.

1889.				
Oct. 1	Balance available.....			\$66,613 68
1890.				
Sept. 30	From steward for sundries during the year.....			1,733 39
Sept. 30	Balance app. for gymnasium etc., as per chap. 33, laws 1882.....			137 24
Sept. 16	Transferred for expenses Board of Supervision	\$1,257 45		
Sept. 30	Paid on account of current expenses this year.....	42,285 49		
Sept. 30	Balance appropriation in state treasury	\$24,475 79		
	Balance in hands of treasurer of institution... ..	338 30		
	Balance in hands of steward of institution.....	127 28	24,941 37	
			\$68,484 31	\$68,484 31
1890.				
Oct. 1	Balance available			\$24,941 37

Statement of Moneys Received.

STATEMENT OF SPECIAL APPROPRIATION FUNDS.

CLASSIFIED ITEMS.	Balance avail- able Oct. 1, 1888.	Appro- priation 1889.	Trans- fers.	Total.	Ex- pended during biennial period.	Trans- fers.	Total.	Balance avail- able Oct. 1, 1890.
Building water or earth closets.....	\$243 95			\$243 95		\$243 95	\$243 95	
Purchase of real es- tate	1,000 00			1,000 00				1,000 00
Gymnasium, includ- ing natatorium and water closets..		\$6,000 00	\$248 60	6,248 60	\$6,111 36	137 24	6,248 60	
Totals	\$1,243 95	\$6,000 00	\$248 60	\$7,492 55	\$6,111 36	\$381 19	\$6,492 55	\$1,000 00

STATEMENT OF MONEYS RECEIVED AT THE INSTITUTION.

CLASSIFICATION.	Year ending Sept. 30, 1889.	Year ending Sept. 30, 1890.
Amusements and means of instruction.....	\$0 40	\$0 90
Barn, farm and garden	430 61	235 62
Clothing and expense of pupils..	184 12	172 55
Gas and other lights.....	68 70	15 00
Gymnasium.....	4 65	
House furnishing.....	70	
Miscellaneous.....		12 50
Printing, postage, stationery and telegraph.....	19 71	85 00
Printing office.....	132 65	120 42
Repairs and renewals	90 00	221 14
Subsistence.....	8 20	3 20
Shoe shop	932 99	823 45
Wages and salaries.....	4 60	43 61
	\$1,877 33	\$1,733 39

School for the Deaf.

FARM AND GARDEN PRODUCTS.

ARTICLES.	FOR YEAR ENDING SEPT. 30, 1889.		FOR YEAR ENDING SEPT. 30, 1890.	
	Quantity.	Amount.	Quantity.	Amount.
Apples.....	30 bu.	\$12 00	.....	.....
Beef.....	1,063 lbs.	62 16	1,645 lbs.	\$86 36
Calves.....	2	2 00	4	5 00
Hay.....	.....	.....	5 tons	20 00
Milk.....	68,813 lbs.	581 73	65,682 lbs.	666 25
Pork.....	5,246 lbs.	255 24	5,812 lbs.	220 42
Totals .....	.....	\$913 12	.....	\$998 03

FOURTH BIENNIAL REPORT

OF THE

WISCONSIN SCHOOL FOR THE BLIND,

FOR THE

TWO FISCAL YEARS ENDING SEPT. 30, 1890.

OFFICERS AND TEACHERS.

MRS. SARAH C. LITTLE, A. M.,	-	-	-	-	-	SUPERINTENDENT AND STEWARD.
MISS LIZZIE J. CURTIS,	-	-	-	-	-	MATRON.
M. C. CLARKE,	-	-	-	-	-	TREASURER.
MISS S. AUGUSTA WATSON,	}	-	-	-	-	LITERARY TEACHERS.
MISS EMMA M. WILLIAMS,						
SAMUEL M. SMITH,						
MISS CLARA YALE MORSE,	-	-	-	-	-	KINDERGARTEN.
MRS. JOANNA H. JONES,	}	-	-	-	-	TEACHERS OF MUSIC.
MISS ELIZABETH A. VAN AKIN,						
MISS LAURA D. ENGLESON,						
MISS ANGIE B. McKIBBEN	-	-	-	-	-	TEACHER OF GIRLS' WORK.
MRS. ELLEN HANSON,	-	-	-	-	-	TEACHER OF WEAVING.
JOSEPH O. PRESTON,	-	-	-	-	-	TEACHER OF NETTING, CANE SEATING AND BROOM MAKING.

SCHOOL FOR THE BLIND.

REPORT OF THE SUPERINTENDENT.

To the State Board of Supervision:

GENTLEMEN:—I herewith present to you the forty-first annual and fourth biennial report of this school:

October 1, 1888, the number of pupils enrolled was.....	85
Number admitted during the year.....	19
Total enrollment.....	104
Dropped from the roll during the year.....	15
Remaining on the roll October 1, 1889.....	89
Number admitted during the year.....	18
Total enrollment.....	107
Dropped from the roll during the year.....	15
Died during the year	2
Remaining on the roll October 1, 1890.....	90

The entire number enrolled during the time covered by this report is one hundred and twenty-two, fifty-six females and sixty-six males. The average attendance during the year ending September 30, 1889, was eighty-four, and during the year ending September 30, 1890, was eighty.

It will be noted that, with a little larger enrollment, the average attendance has been less during the last than during the preceding year. This is due, in a large part, to the lack of appreciation, on the part of parents, of the necessity of regular and continuous attendance upon school. It might be supposed that all parents and the older members of the school would realize that, to make good proficiency in their studies, pupils must be in their places promptly at the beginning of the session and remain until its close, unless prevented by serious illness. But it is the experience of all schools for the blind that there are many who allow trifles

School for the Blind.

to delay the return of scholars after the summer vacation, or to call them away during the progress of a term. Irregularity in attendance is a serious evil in any school, but in a school for the blind, where the instruction is chiefly oral, the evil is greatly increased, and the absent pupil alone does not suffer loss, but the interests of the entire class are involved.

Two members of the school have been withdrawn by their permanent removal from the state. Three of those whose names appear on the roll have died at their homes. Emma Smiley, of Buffalo county, closed her connection with the school, on account of failing health, in the spring of 1889, and died in January, 1890. Frank Wilcox, of Milwaukee, left school in October, 1889, and died, after several weeks of suffering, from the same brain disease which occasioned his blindness. Anna Klein, of Oshkosh, struggled bravely with consumption, but went to her home in November, 1889, and died in January, 1890. The general health of the household has been good, and we have escaped all epidemics, except "la grippe," and this was less severe than in many places in its effects upon our household.

The teaching in this school is in three departments: the literary, the musical and the industrial. For the younger children the kindergarten is an invaluable introduction to all these departments. Here the little blind child learns to play and work with others, and finds himself, not an isolated being, different from his associates, but one of a little company with common interests and equal rights. Here he begins, under the most favorable auspices, and almost without realizing that he is doing anything besides playing, the study of form, number, reading, and a variety of natural sciences. He acquires skill in the use of the needle, scissors, knife, and especially of his own hands. Awkward fingers are trained to do accurate work, stiff ones to do

Superintendent's Report.

delicate work, and ungainly motions are replaced by others more agile and graceful.

We aim to give our scholars a substantial English education. They are taught reading, writing, arithmetic, geography, grammar, history, and most of the branches usually included in high school courses. A blind child must be carefully taught many things which another child sees and learns so naturally that it seems almost as though the knowledge were intuitive. For example, a young lady, city bred, blind from birth, a good student, and a skillful musician, once acknowledged that not until she had reached adult years had she learned that a horse's face was not formed like a human face. She had heard and read of a horses' eyes, nose, mouth and ears, and how was she to know that the objects represented by these words were so different from the familiar ones called by the same name? What is out of reach of a blind child's hand is to him, practically, as far away as if on the moon. The examination of objects and of models, begun in the kindergarten, must be continued throughout the entire course of education of the blind. A large and well-filled cabinet is a very necessary part of the outfit of a well-equipped school for the blind.

As heretofore, the musical department has received a large share of attention. Instruction has been given upon the piano, cabinet organ, violin and other orchestral instruments, and in vocal music and harmony. A brass band of nine pieces, led by one of the pupils, has been organized, and has made very commendable progress. Two choirs and the orchestra meet for daily instruction and practice. No other department of the school arouses more interest in the minds of pupils or their friends. But often a love for music is mistaken for musical talent and results which can never be attained are expected to follow instruction in music. It is especially unfortunate for scholars to gain the impression that music is the only study worthy of their at-

School for the Blind.

tention, or to fail to realize that, in order to make the best progress, even in music, their minds must be broadened by intellectual culture. Our practice is to give all an opportunity to develop whatever musical talent they possess, while not allowing them to neglect either the literary or the industrial department. All have a chance to learn to sing, and nearly all who make reasonable progress in literary studies are given a trial upon some musical instrument. Some are dropped after a short trial if their case seems hopeless. Some, even of this class, are continued for a considerable time, because of the great anxiety of their friends. Still others are given a longer trial than would otherwise be done, because some pupils, by patient perseverance, have made good players and successful teachers, only after many discouragements and long practice and instruction. Others learn easily and become highly proficient. A tendency to be satisfied with superficial attainments, and "to think of themselves more highly than they ought to think," is not peculiar to blind persons, but is very unfortunate in its effects upon their success in life. Parents and friends may do much to jeopardize the prospects of the pupils by injudicious flattery, and by encouraging them to enter upon a musical career while lacking the necessary qualifications. During the next biennial period at least one new piano will be required for the proper equipment of the musical department.

Every pupil above the kindergarten spends at least one hour daily in some industrial pursuit, and some are engaged in some kind of work from two to four hours daily. The girls have done a large amount of sewing, plain and ornamental knitting, crocheting, and various kinds of fancy work. Some of them are exceedingly slow in acquiring skill in any handiwork, while others succeed remarkably well, and do work that compares very favorably with that of the same kind done by sighted people. The girls take care of their own rooms, but it is not practic-

Superintendent's Report.

able, at present, to give them practice in other kinds of housework. They might do much while at their homes during the summer vacations, if their friends had sufficient confidence in their ability to give them an opportunity. The blind girl, whose mother requires her to do her share of the housework with her sisters, is very fortunate, and is much more likely to have a happy and useful womanhood than the less fortunate girl whose friends are too ready to wait upon her, and, in their mistaken kindness, shut her out from her share in the family employments.

The boys weave rag carpets, make hammocks and fly-nets, and corn brooms. Most who leave the school are skilled in all these handicrafts, and are prepared to follow one pursuit or another, as circumstances may favor. * * *

Not unfrequently pupils are brought to us who are not only blind, but, to some degree, feeble minded. It is not easy to draw the line and say where the defect ceases to be simply an abnormal development, incident to circumstances, and becomes imbecility. Some of these children are necessarily discharged, after a brief trial of school life. Others are retained because they learn a little, and it is difficult to send them away from their only chance for instruction, and thus deprive them of their only hope for improvement. But a school of this kind is not the best place for such children. They require individual training by processes that differ from those used for the rest of the school; and even if the teachers were skilled in these processes, their time is needed for those to whom this school is specially adapted. Experience has abundantly demonstrated that children of quite a low grade, mentally, can be so educated as greatly to improve their condition. The number who are blind as well as feeble minded is, of course, not large, but there are, as is well known, a large number of children in the state who need training that is adapted to feeble minds. Let us hope that Wisconsin will

School for the Blind.

soon lose the unenviable distinction of being nearly the only one of the states of equal rank that has failed to provide suitably for that unfortunate class of children.

Last spring, in connection with the School for the Deaf, an attempt was made to spread through the state, especially in the rural districts, information respecting the provision the state has made in these institutions for the education of deaf and blind children. A circular describing this school, and that for the deaf, at Delavan, was mailed to each school district clerk in the state. With these circulars were enclosed postal cards, which the clerk was desired to return, with such information as he had respecting the children of his district who could not be instructed in the common schools on account of defective sight or hearing. By this means information was obtained respecting forty-three blind youths, about half of whom are either still too young to come to school, or are incapacitated in some way, or the address given was so imperfect, that they cannot be reached. Of the remaining half, ten have applied for admission here (nine of whom have already been received), and we may reasonably expect others to come at some time. * * * * *

About \$450 has been expended in painting chiefly inside the main building. More painting is greatly needed, and each year some should be done in order to put and keep the house in good condition. The pine floors of many rooms and halls are showing the result of years of wear, and the work of replacing them with hard wood has been commenced none too soon.

Directly east of the grounds of the school is a lot containing about twenty-six acres, which it has long been considered desirable to add to the institution property, but it has only recently come into the market. The main building stands in the eastern portion of the land now owned by the school. It cannot be many years before the east wing should be extended to the same size as the west wing.

Superintendent's Report.

Already the lack of adequate room for some purposes begins to be felt, and an addition of ten or fifteen scholars will require an enlargement of accommodations. Whenever the east wing is built, the girls' play ground, already smaller than the boys', will be seriously diminished. Any other additions to the buildings, as for example, a school house, should be made in that direction, but there is not room on the land now belonging to the school. As the school increases more acreage for pasture becomes necessary. To provide for these present and prospective needs of the school, I would suggest the importance of asking from the legislature, authority to purchase the plat of ground referred to, and an appropriation for that purpose.

The railroads of the state have continued to grant favors to our pupils, and, in their behalf, I desire to make grateful acknowledgment of this kindness, and to thank the men in charge of the trains for their unvarying patience and kindness in caring for our pupils while traveling to and from their homes.

Thanking you, gentlemen, for your uniform kindness and consideration, and expressing the hope that the degree of success which has hitherto attended our efforts to lighten the burdens of the blind youth of Wisconsin may be continued in still greater measure, and that the Divine favor may constantly abide with us, I hereby submit this report.

Very respectfully,

SARAH C. LITTLE.

Superintendent.

JANESVILLE, October 1, 1890.

School for the Blind.

CATALOGUE OF PUPILS — BOYS.

Names.	Residence, County.	Names.	Residence, County.
Herbert W. Adams.	Crawford.	Eugene A. McDon-	
Andrew Anderson.	Barron.	ald	Brown.
Archie Belongia....	Oconto.	Edwin McMurphy.	Pierce.
Fred. Alfred Belon-		Stanislaus Metes-	
gia	Oconto.	ske.....	La Crosse.
John Berger.....	Langlade.	Frank J. Murray..	Racine.
James Madison		Carl Nelson.....	Pierce.
Biggs.....	Richland.	Nels Nelson.....	Brown.
Albert H. Bitter...	Milwaukee.	Arthur F. J.	
Anthony L. Bronson	Rock.	Nitschke.....	Milwaukee.
Rudolph Buckser...	Milwaukee.	Peter J. Oren.....	La Fayette.
Frank A. Buss . . .	Dunn.	Edward Ouradnik.	Kewaunee.
Thomas Carney....	Trempealeau.	Alpheus S. Par-	
Roy Withington		seneau.	Columbia.
Carter	Rock.	Jay John Perry...	Shawano.
Harry W. Cook....	Dodge.	Peter L. Peterson.	Winnebago.
Andrew Donhardt..	Wood.	Frank Thomas	
Walter E. Dowd...	Walworth.	Pratt	Dane.
Samuel J. Drew...	Marinette.	James Price.....	Dane.
Alfred J. Emmett...	Taylor.	Edward A. Raabe.	Milwaukee.
Seward Garthwaite	Grant.	Randolph Rathbun	Adams.
Edward Genrich...	Milwaukee.	Adam Rickert....	Columbia.
Joseph Gockel	Grant.	Peter S. Robertson	Marquette.
Carl Groth.....	Milwaukee.	Charles Root.....	Waukesha.
Benj. Francis Has-		Hayes Rouse.....	Brown.
kell.....	Vernon.	Willard Rouse...	Brown.
Joseph C. Heil.....	Portage.	Henry J. Schardt.	Milwaukee.
Charles Hoffman..	Barron.	Oscar W. Scheets.	Waukesha.
Chester C. Hulbert.	La Crosse.	Theodore W.	
Everett H. Huntoon	Pierce.	Schnittke.....	Eau Claire.
Hans Jansen.....	Waushara.	George L. Schultz.	Monroe.
Edward A. Johnson	Monroe.	Frank N. Siegel...	Milwaukee.
Theodor Kessnich..	Dane.	William Smith....	Green.
Michael Korn.....	Taylor.	John Welch.....	Dane.
Joseph Langen-		Edward Weller...	Monroe.
kamp.....	Manitowoc.	*Frank Wilcox....	Milwaukee.
John F. Lytge.....	Milwaukee.	Mark Williams...	Columbia.
Freddie Manring..	Rock.	George Fred. Wolf	Pierce.
		Otto F. Wuttke...	Milwaukee.

* Deceased.

Catalogue of Pupils.

CATALOGUE OF PUPILS—GIRLS.

Names.	Residence, County.	Names.	Residence, County.
Helen Grace Adams	Monroe.	Margaret A. Mc-	
Jessie R. Anderson.	La Fayette.	Grath.....	Rock.
Della L. Baxter....	Waushara.	Lizzie L. Miller...	Eau Claire.
Louisa Belongia ..	Oconto.	Lizzie E. Nix. ...	Waukesha.
Emma E. Bentzin..	Barron.	Minnie M. O'Con-	
Mary Blair.....	Barron.	nor.....	Dane.
Hattie Flor nce		Carrie May Palmer	Rock.
Brooks.....	Wood.	Mary C. Peterson .	Winnebago.
Elizabeth M. Bryce.	Racine.	Katherine Postle..	Chippewa.
Winnie Carney....	Rock.	Mary Louise Pundt	Milwaukee.
Minnie Christianson	Milwaukee.	Anna Elizabeth	
Anna Belle Collins.	Rock.	Ruetten.....	Brown.
Irma Cornet.	Kewaunee.	Anna May Russel .	Milwaukee.
Mamie Cotta.....	Bayfield.	Amanda H.	
Almina V. Crego...	Marinette.	Scheets.	Waukesha.
Eva Daigneau.....	Richland.	Clara Belle Schell-	
Sarah Daniels.....	Barron.	inger.....	Rock.
Margaret W. Davies	Racine.	*Mary Emma	
Anna M. Davies....	Racine.	Smiley.....	Buffalo.
Sarah Elizabeth		Sarah Bertha	
Emerson.....	Rock.	Squire	Sheboygan.
Alma W. Erdman..	Winnebago.	Martha M. Swen-	
Jessie M. Foster....	Rock.	nes.....	La Crosse.
Ida May Flick.....	Dane.	Anna Toren Tol-	
Louisa M. Green-		ofson.....	Winnebago.
wood.....	Brown.	Margaret Agnes	
Stella Gertrude		Trainer.....	Juneau.
Guernsey.....	Rock.	Helen Louise	
Maud Grace Has-		Tuttle.....	Sauk.
kins.	Rock.	Hester A. Wash-	
Mary I. Hedburg...	Pierce.	burn.....	Walworth.
Ernestine J. Hoag-		Anna Wears.....	St. Croix.
lan.	Milwaukee.	Ottillie Wertz	Calumet.
Luella Johnson....	Milwaukee.	Pearl W. Woolver-	
May Jones.	Rock.	ton.....	Walworth.
*Anna Klein.....	Langlade.	Anna M. Zimmer	
Mary Ann Langdo..	Brown.	man	Jefferson.
Della Mildred Mc		Lizzie A. Zimmer	
Fate.....	Fond du Lac.	man.....	Jefferson.

* Deceased.

School for the Blind.

ADMISSION OF PUPILS.

The Wisconsin School for the Blind, located in Janesville, is maintained by the state for the benefit of its blind children of school age.

The term begins the second Wednesday of September in each year, and a session of forty weeks is held. During the school year, tuition, books, board and washing are furnished free to all children and youth who can not see to study in the common schools, and whose parents or guardians are citizens of Wisconsin. During the summer vacation of twelve weeks all pupils return to their homes, and their parents are expected to provide clothing and incidental expenses throughout the year.

Although pupils are received between the ages of eight and twenty years, it is considered desirable that children should begin their education as early as possible. The school has a well-established kindergarten department under a competent teacher, and here the younger children learn many things of the utmost importance in their future study and development. Especial attention is paid to object teaching and physical activity and development, thus training both the body and mind, and introducing gradually the regular routine of school study.

Instruction is given in the common branches, including reading and writing, arithmetic, grammar, geography, algebra, geometry, civil government, history, and some natural sciences. At graduation, the pupils who have completed a course equivalent to an ordinary English high school course are given diplomas certifying to the work accomplished.

Especial attention is paid to music, both vocal and instrumental. Instruction is also given in various trades, with a view to fitting the students for self support. The boys are taught weaving of rag carpets, cane-seating, hammock-netting and broom-making. The girls are taught

Admission of Pupils.

sewing, both by hand and machine, knitting, crocheting and some kinds of fancy work.

Since the state has made such ample provision for its blind children, it is the desire of those in charge that all parents or guardians should be informed of this school, and that all blind children of the State may avail themselves of the advantages here offered.

Applications for admission should be made to the superintendent, who will furnish blank forms of application on request. In cases where the applicant has considerable sight, a doctor's certificate is required, stating the amount of vision, and whether the defect is sufficient to prevent study in the common schools.

Applicants for admission should be sound in body and mind, and of good moral principles.

Each pupil should be furnished with a trunk containing a year's supply of plain, comfortable clothing, plainly marked with the full name.

It is expected that all pupils will enter at the opening of the term and remain through the year, unless prevented by sickness. The superintendent may, at any time, require the removal of pupils, whose condition, mental, moral, or physical, is not such as to warrant their remaining at school.

For additional information address the superintendent,

MRS. SARAH C. LITTLE,

Janesville, Rock Co., Wisconsin.

School for the Blind.

STATEMENT OF

At the Wisconsin School for the Blind

CLASSIFIED ITEMS.	Inventory September 30, 1888.	Purchased during the year.	Transfer'd to this account during the year.	Total.
Amusements and instr...	\$4,632 10	\$605 25	.....	\$5,237 35
Barn, farm and garden..	1,501 35	611 65	.....	2 113 00
Discount.....			.....
Drug and medical dept..	11 05	103 35	.....	114 40
Engines and boilers.....	606 00	111 90	.....	717 90
Freight and express (not classified).....		25	.....	25
Fuel.....	2,522 95	2,348 39	.....	4,871 34
Furniture.....	3,310 60	63 85	.....	3,374 45
Fire apparatus.....	105 40	53 89	.....	159 29
Gas and other lights.....	150 05	646 91	.....	796 96
House furnishing.....	3,404 50	453 35	.....	3,857 85
Laundry.....	585 30	308 39	.....	893 69
Machinery and tools.....	219 55	2 75	.....	222 30
Miscellaneous.....	20 00	214 40	.....	234 40
Officers' expenses.....		22 85	.....	22 85
Printing, postage, sta- tionery and telegraph..	71 25	209 54	.....	280 79
Repairs and renewals...	76 10	496 58	.....	572 68
Real estate, including buildings, etc.....	162,119 45		.....	162,119 45
Subsistence.....	540 44	5,525 81	\$750 35	6,816 60
Wages and salaries.....		7,822 16	.....	7,822 16
Work departments.....	556 15	178 25	.....	734 40
Totals.....	\$180,432 24	\$19,779 52	\$750 35	\$200,962 11
Discount.....		11 54	.....
		\$19,767 98		182,359 88
Net expenses.....				\$18,602 23

Add amount assigned to this institution and set apart by the Secretary of

*Statement of Current Expenses.***CURRENT EXPENSES***for the fiscal year ending September 30, 1889.*

Inventory September 30, 1889.	Cash re- ceived on this account during the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
\$5,034 10	\$93 03		\$5,127 13		\$110 22
1,463 65	263 43	\$750 35	2,477 43	\$364 43	
		11 54	11 54	11 54	
12 05			12 05		102 35
602 50	76		603 26		114 64
					25
2,374 65			2,374 65		2,496 69
3,355 30	60		3,355 90		18 55
158 20			158 20		1 09
150 00	48 80		198 80		598 16
3,459 20	12 66		3,471 86		385 99
656 60			656 60		237 09
218 85			218 85		3 45
47 00	1 40		48 40		186 00
					22 85
84 05	1 00		85 05		195 74
54 95	5 83		60 78		511 90
162,119 45			162,119 45		
616 30	13 83		630 13		6,186 47
	3 46		3 46		7,818 70
505 85	240 49		746 34	11 94	
\$180,912 70	\$685 29	\$761 89	\$182,359 88	\$387 91	\$18,990 14
					387 91
					\$18,602 23
					748 49
					\$19,350 72

State for salaries and expenses of the Board of Supervision...

School for the Blind.

STATEMENT OF

At the Wisconsin School for the Blind

CLASSIFIED ITEMS.	Inventory, September 30, 1889.	Purchased during the year.	Transfer'd to this ac- count dur- ing the year.	Total.
Amusement and instr....	\$5,034 10	\$323 85		\$5,357 95
Barn, farm and garden..	1,463 65	819 51		2,283 16
Discount.....				
Drug and medical dep't..	12 05	68 45		80 50
Engines and boilers	602 50	1,139 63		1,742 13
Fuel.....	2,374 65	3,604 63	\$28 00	6,007 28
Furniture.....	3,355 30	121 87		3,477 17
Fire apparatus.....	158 20	90		159 10
Gas and other lights....	150 00	2,922 24		3,072 24
House furnishing.....	3,459 20	735 20		4,194 40
Laundry.....	656 60	242 87		899 47
Machinery and tools....	218 85	14 43		233 28
Miscellaneous.....	47 00	317 25		364 25
Officers' expenses.....		59 95		59 95
Printing, postage, sta- tionery and telegraph..	84 05	330 05		414 10
Repairs and renewals....	54 95	1,155 04		1,209 99
Real estate, including buildings, etc	162,119 45		731 39	162,850 84
Subsistence.....	616 30	5,413 66	844 66	6,874 62
Wages and salaries.....		8,519 67		8,519 67
Work department.....	505 85	166 94		672 79
Indebtedness.....		5 32		5 32
Boiler house.....		731 39		731 39
Storage battery.....		28 62		28 62
Totals	\$180,912 70	\$26,721 47	\$1,604 05	\$209,238 22
Discounts.....		14 96		
		\$26,706 51		188,000 44
Net expense.....				\$21,237 78

Add amount assigned to this institution and set apart by the Secretary of

Statement of Current Expenses.

CURRENT EXPENSES.

for the fiscal year ending September 30, 1890.

Inventory, September 30, 1890.	Cash re- ceived on this account during the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
\$5,024 45	\$34 68		\$5,059 13		\$298 82
1,544 70	248 33	\$872 66	2,665 69	\$382 53	
		14 96	14 96	14 96	
14 05			14 05		66 45
1,333 10	3 50		1,336 60		405 53
2,791 05			2,791 05		3,216 23
3,337 30			3,337 30		139 87
158 20			158 20		90
2,741 00	13 10		2,754 10		318 14
3,684 30	30		3,684 60		509 80
713 50			713 50		185 97
223 85			223 85		9 43
52 00			52 00		312 25
					59 95
90 75			90 75		323 35
90 65	23 15		113 80		1,096 19
162,850 84			162,850 84		
635 60	12 70		648 30		6,226 32
	86		86		8,518 31
470 15	260 70		730 85	58 06	
					5 32
		731 39	731 39		
28 62			28 62		
\$185,784 11	\$597 32	\$1,619 01	\$188,000 44	\$455 55	\$21,693 33
					455 55
					\$21,237 78
					748 49
					\$21,986 27

State for salaries and expenses of Board of Supervision.

School for the Blind.

STATEMENT OF CURRENT EXPENSE FUND, 1889.

1888.				
Oct. 1	Balance.....			\$9,424 25
March 8	Appropriation, chap. 57, laws of 1889..			49,000 00
Sept. 30	From steward for sundries during the year.....			685 29
1889.				
Aug. 31	Transferred for expenses Board of Supervision.....	\$748 49		
Sept. 30	Paid on account of current expenses this year.....	19,767 98		
	Balance appropriation in State Treasury.....	\$35,594 57		
	Balance in hands of treasurer of the institution....	2,916 92		
	Balance in hands of steward of the institution....	81 58	38,593 07	
			\$59,109 54	\$59,109 54

STATEMENT OF CURRENT EXPENSE FUND, 1890.

1889.				
Oct. 1	Balance available.....			\$38,593 07
1890.				
Sept. 30	From steward for sundries during the year.....			597 32
Sept. 16	Transferred for expenses Board of Supervision.....	748 49		
Sept. 30	Paid on account of current expenses this year.....	26,706 51		
	Balance appropriation in State Treasury.....	\$11,457 98		
	Balance in hands of treasurer of the institution...	246 78		
	Balance in hands of steward of the institution....	30 63	11,735 39	
			\$39,190 39	\$39,190 39
Oct. 1	Balance available.....			\$11,735 39

Statement of Moneys Received.

STATEMENT OF MONEYS RECEIVED AT THE INSTITUTION.

CLASSIFICATION.	Year ending Sept. 30, 1889.	Year ending Sept. 30, 1890.
Barn, farm and garden.....	\$263 43	\$248 33
Engines and boilers.....	76	3 50
Furniture.....	60	.....
Gas and other lights.....	48 80	13 10
House furnishing.....	12 66	80
Means of instruction.....	93 03	34 68
Miscellaneous.....	1 40	.....
Printing, postage, stationery and telegraph.....	1 00	.....
Repairs and renewals.....	5 83	23 15
Subsistence.....	13 83	12 70
Wages and salaries.....	3 46	86
Work departments.....	240 49	260 70
	\$685 29	\$597 32

School for the Blind.

FARM AND GARDEN PRODUCTS.

ARTICLES.	FOR THE YEAR ENDING SEPT. 30, 1889.		FOR THE YEAR ENDING SEPT. 30, 1890.	
	Quantity.	Amount.	Quantity.	Amount.
Asparagus.....	240 bunches	\$12 00	224 bunches	\$11 20
Beans, string.....	4 bushels	2 00	2 bush.	1 20
Beets.....	85 bushels	34 00	12 bush.	8 40
Cabbage.....	1,005 heads	40 20	550 heads	27 50
Corn, green.....	183 dozen	9 15	75 dozen	7 50
Corn stalks.....		10 00		
Grapes.....	125 lbs.	5 00	50 lbs.	2 50
Hay.....	8 tons	48 00	7½ tons	52 50
Horse radish.....		1 00		1 00
Lettuce.....	175 heads	1 75	800 heads	8 00
Milk.....	44,670 lbs.	446 70	50,106 lbs.	501 06
Mangels.....	770 bush.	154 00	620 bush.	124 00
Parsnips.....	2 bush.	1 50		
Peas, green.....	7 bush.	7 00	5 bush.	5 00
Pie plant.....	580 lbs.	11 60		10 00
Potatoes.....	692 bush.	156 70	296 bush.	226 75
Pork, fresh.....			75 lbs.	6 00
Radishes.....	30 bunches	1 50		3 00
Sage.....		50		50
Squash, summer.....		1 50		
Squash, Hubbard.....			510 lbs.	15 30
Tomatoes.....	75 bush.	30 00	50 bush.	25 00
Turnips.....	13 bush.	3 25		
Wood.....			7 cords	28 00
Totals.....		\$977 35		\$1,064 41

SECOND BIENNIAL REPORT

OF THE

STATE PUBLIC SCHOOL,

FOR THE

TWO FISCAL YEARS ENDING SEPT 30, 1890.

OFFICERS.

ROBERT T. ROBERTS,	SUPERINTENDENT AND STEWARD.
ALLEN RUSK,	STATE AGENT AND ASST. STEWARD.
F. W. BOEHMER,	CLERK.
M. C. CLARKE,	TREASURER.

MATRONS.

MRS. MAGGIE A. ROBERTS,	MISS ANGIE L. FANNING.
MRS. MAGGIE WARE,	MISS METTIE JENNESS.
MRS. ANNIE B. WILLIAMS,	MISS LUCY SULLIVAN.
MISS ELIZABETH STOGDILL.	

TEACHERS.

MRS. LOTTIE C. SIBREE,	MISS ETTA KILLMER.
MRS. JESSIE L. HUNGERFORD,	MISS ALICE M. SAWYER.
MISS ELLA BOOMER,	MISS NELLIE JONES.

STATE PUBLIC SCHOOL.

REPORT OF THE SUPERINTENDENT.

To the State Board of Supervision:

GENTLEMEN:— It is with pleasure I offer you the second biennial report of the Wisconsin State Public School for Dependent and Neglected Children.

Since September 30, 1888, 265 children have been received into the institution. The total number received since the opening of the school, October 1st, 1886, is 566.

HOME AND SCHOOL WORK.

The home and school work of the institution has been as successful as we might expect. In the five families, the matrons have endeavored to discharge the duties of mothers as far as this is possible. It is difficult for the matron to give to each child the personal attention that the child may desire and need when she has from 60 to 70 children in her care. It is very interesting to notice how soon the children improve in bodily appearance and deportment.

In the school our teachers have endeavored to discharge their duties faithfully, directing their efforts, first and most of all, to have the children learn to read and write in the English language. The unfavorable condition to the most satisfactory results in this department is the constant change in our population. Our new school-house has added much to make this part of our work more successful.

PLACING CHILDREN IN HOMES.

The most important part of our great work, and in many respects the most difficult, is the work of securing good homes for the children. Since the opening of the school,

State Public School.

405 children have been placed in homes. Of this number 107 have been returned. Some of the children have never been placed out, and some have been placed out three or four times. The reasons, real and imaginary, on account of which the children are returned are many. When we consider the former surroundings of most of our children, the short time many of them have remained in the school, and that there is but one man to investigate the homes, to place the children in homes, and to visit them, it is not, perhaps, to be wondered at that about one-third of the children placed are returned.

HEALTH.

The children, generally, have been in excellent health. Our hospital has been a great blessing in affording us a place where the sick ones could be at once isolated and cared for in particular by a competent nurse. Within the last two years four deaths have occurred among the children in our care. One of these died in the institution; three died in the homes where they had been placed. Two of these deaths were occasioned by accidents — one boy was shot, the other was drowned.

OUR NEEDS.

Judging from the applications which are made for the admission of children into the school, it is very evident that, in order to meet the demand in this respect, we need to have more room. At least one cottage is necessary. Our present dining and assembly rooms are too small to accommodate our present population. With an additional cottage or two, I would respectfully ask you to consider the advisability of erecting one building for a dining hall and one building for school and assembly rooms. Our present dining and assembly halls can be converted into rooms for other purposes. We need a dining room for our teachers and matrons; the only room designed as a reception room

Superintendent's Report.

is now used for a dining room. The sleeping rooms for our employes are crowded; the present assembly room would make ample provision for them. With these additional buildings, I think the institution will be well fitted for the great work it has to do.

BOILER.

One of the most pressing needs is another boiler. The present boiler is used for laundry work, for heating the school-house and for cooking. I fear that its capacity for work will not equal the demand upon it in cold weather. If I was not conscious of your entire familiarity with our work in all of its departments, I would be constrained to give a much more minute report of the work.

Allow me to assure you that your frequent visits here have been much valued by myself and all who are engaged with me in the work.

Following are the tables, giving in detail the movement of our population and other statistics of interest and importance.

Trusting that our efforts to attain the great object for which the institution was established do, on the whole, meet with your approval, and will receive in the future, as in the past, your devoted attention and support, and that the Father of the fatherless will continue to bless us, I most respectfully submit to you this report and remain as ever, your obedient servant,

ROBT. T. ROBERTS,
Superintendent.

SPARTA, October 1, 1890. .

State Public School.

STATISTICS.

TABLE NO. 1.

Number and disposition of children admitted.

	1888-89.			1889-90.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Number received	83	54	137	80	48	128
Number in homes on trial						
Sept. 30.....	39	32	71	42	49	91
Number indentured.....	27	21	48	30	26	56
Number adopted.....		1	1	.....	3	3
Number returned to counties.	3	4	7	1	1	2
Number escaped.....						
Number died.....	1	2	3	1	.....	1
Number committed to indus-						
trial school.....	1	.....	1	1	.....	1
Number attending school for						
blind	1	.....	1	.....	.....	.....
Number in school Sept. 30 ...	155	77	232	203	86	289

TABLE NO. 2.

Ages of children admitted.

	1888-89.			1889-90.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Between 3 and 4 years.....	.....	5	5	6	2	8
Between 4 and 5 years.....	4	5	9	7	7	14
Between 5 and 6 years.....	2	4	6	7	8	15
Between 6 and 7 years.....	6	4	10	7	6	13
Between 7 and 8 years.....	8	5	13	5	7	12
Between 8 and 9 years.....	9	6	15	9	4	13
Between 9 and 10 years.....	14	6	20	15	7	22
Between 10 and 11 years.....	17	4	21	9	1	10
Between 11 and 12 years.....	9	4	13	8	2	10
Between 12 and 13 years.....	7	7	14	6	1	7
Between 13 and 14 years.. ...	7	4	11	1	3	4
Total.....	83	54	137	80	48	128

Statistical Tables.

TABLE NO. 3.

Number of children and disposition thereof since the beginning.

Number received up to September 30, 1890.....	.....	566
Number in homes on trial September 30, 1890.....	91	.....
Number in homes on indenture, September 30, 1890.....	151	.....
Number adopted.....	4	.....
Number died in homes or at school.....	9	.....
Number returned to counties ..	13	.....
Number sent to industrial school.....	6	.....
Number in School for Blind.....	1	.....
Number escaped and not heard from.....	2	.....
Number in school September 30, 1890.....	289	.....
	566	566

TABLE NO. 4.

Number received and indentured each month and year.

MONTH.	1888-89.						1889-90.					
	Received.			Indentured.			Received.			Indentured.		
	Boys.	Girls.	Total	Boys.	Girls.	Total	Boys.	Girls.	Total	Boys.	Girls.	Total
October.....	9	2	11	1	1	2	4	.....	4	1	1	2
November...	12	4	16	5	1	6	6	5	11	3	2	5
December...	5	9	14	2	.....	2	7	10	17	.....	1	1
January.....	7	2	9	.....	1	1	4	1	5	3	1	4
February....	9	4	13	2	1	3	7	6	13	11	12	23
March.....	8	8	16	2	.....	2	6	4	10	4	4	8
April.....	7	5	12	.....	4	4	10	6	16	1	.....	1
May.....	10	9	19	.....	1	1	9	4	13	2	2	4
June.....	2	5	7	3	.....	3	5	2	7	1	.....	1
July.....	5	4	9	.....	3	3	8	3	11	.....	.....	.....
August.....	1	0	1	8	8	16	2	.....	2	2	3	5
September...	8	2	10	4	1	5	12	7	19	2	.....	2
Total	83	54	137	27	21	48	80	48	128	30	26	56

State Public School.

TABLE NO. 5.

Average number of children in school by month and year.

MONTH.	1888-89.			1889-90.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.
October	124	62	186	157	73	230
November	129	55	184	159	63	222
December	135	60	195	168	69	237
January	139	64	203	173	72	245
February	147	62	209	179	74	253
March	148	63	211	180	74	254
April	148	67	215	180	73	253
May	146	72	218	188	78	266
June	151	76	227	186	78	264
July	149	76	225	184	82	266
August	151	75	226	190	80	270
September	151	76	227	195	82	277
Average for the year	143	67	211	178	75	253

TABLE NO. 6.

Parentage of children admitted during the year ending Sept. 30.

	1889.	1890.	Total.
Number of orphans	12	10	22
Number having father living	39	39	78
Number having mother living	30	21	51
Number having both parents living	54	62	116
Number whose parents are separated	5	7	12
Number abandoned by father	57	50	107
Number abandoned by mother	15	18	33
Number whose father was convicted of crime	17	15	32
Number whose mother was convicted of crime	8	2	10
Number whose father was intemperate	43	41	84
Number whose mother was intemperate	6	2	8
Number whose father is or was insane	2	.....	2
Number whose mother is or was insane	10	9	19
Number who came from poorhouses	21	21	42

Statistical Tables.

TABLE NO. 7.

Nationality of parents of children committed.

American.....	313	Negro.....	6
Belgian.....	1	Norwegian.....	32
Bohemian.....	6	Poles.....	5
Danish.....	1	Scotch.....	7
Dutch.....	3	Welsh.....	7
English.....	12	Unknown, or not given in order	10
French.....	13		
German.....	138		
Irish.....	12		566

TABLE NO. 8.

Present age of children in school.

	Boys.	Girls.	Total.
Number between the ages of 3 and 4.....	3	2	5
Number between the ages of 4 and 5.....	8	4	12
Number between the ages of 5 and 6.....	11	5	16
Number between the ages of 6 and 7.....	17	4	21
Number between the ages of 7 and 8.....	10	9	19
Number between the ages of 8 and 9.....	21	8	29
Number between the ages of 9 and 10.....	28	11	39
Number between the ages of 10 and 11.....	40	8	48
Number between the ages of 11 and 12.....	19	6	25
Number between the ages of 12 and 13.....	19	9	28
Number between the ages of 13 and 14.....	17	7	24
Number between the ages of 14 and 15.....	6	8	14
Number between the ages of 15 and 16.....	2	2	4
Number between the ages of 16 and 17.....	2	3	5
	203	86	289

TABLE NO. 9.

Present standing of school:

Number in kindergarten.....	34
Number reading chart.....	21
Number reading in primer.....	11
Number reading in first reader.....	24
Number reading in second reader.....	71
Number reading in third reader.....	54
Number reading in fourth reader.....	36
Number reading in fifth reader.....	12
Number in introductory geography.....	41
Number in grammar school geography.....	32
Number in physiology.....	12
Number in "grammar proper".....	12
Number working in numbers.....	142
Number working in arithmetic.....	78

State Public School.

TABLE NO. 10.

Number received from each county.

COUNTIES.	1888-89.			1889-90.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Adams.....						
Ashland.....	1		1			
Barron.....				1	3	4
Brown.....	1	2	3	3		3
Buffalo.....	1		1			
Catunet.....				1		1
Chippewa.....				1		1
Clark.....	1		1			
Columbia.....				2	1	3
Crawford.....	3	1	4	4	3	7
Dane.....	8	4	12	4		4
Dodge.....	1		1	2	2	4
Door.....						
Dunn.....	1	3	4			
Eau Claire.....	2	2	4	3		3
Fond du Lac.....	1		1	3	1	4
Grant.....				2	2	4
Green.....	4	5	9	3	1	4
Green Lake.....						
Jackson.....	2	1	3	1	1	2
Jefferson.....	2	2	4	1	1	2
Juneau.....		1	1	4		4
Kenosha.....						
Kewaunee.....				4	2	6
La Crosse.....	2	2	4			
La Fayette.....						
Langlade.....	4	4	8			
Lincoln.....		1	1	1		1
Manitowoc.....	4		4	1		1
Marathon.....	2		2			
Marquette.....						
Milwaukee.....	13	3	16	2	5	7
Monroe.....	1	1	2		3	3
Oneida.....				2		2
Oconto.....						
Outagamie.....				4		4
Pepin.....						
Pierce.....	6	3	9			
Polk.....					1	1
Price.....				2		2
Portage.....	1		1	1		1
Richland.....	4		4	1	1	2
Rock.....	2	3	5	5	1	6
St. Croix.....	1	1	2	2	1	3
Sauk.....	3		3	2	3	5
Shawano.....	2		2	2	1	3
Sheboygan.....	1	1	2			
Taylor.....	1	1	2	2	5	7
Trempealeau.....				1	2	3
Vernon.....	2	2	4		2	2
Walworth.....	2	3	5	1		1
Washburn.....						
Washington.....				1	1	2
Waupaca.....						
Waushara.....				4	1	5
Winnebago.....	2	6	8	2	3	5
Wood.....	2	2	4	4	1	5
Totals.....	83	54	137	80	48	128

Statement of Expense Funds.

STATEMENT OF CURRENT EXPENSE FUND — 1889.

1888.				
Oct. 1	Balance.....			\$144 49
1889.				
Mar. 1	Appropriation, chap. 457, laws 1885, to date.....			19,818 90
	Appropriation, chap. 57, laws of 1889.			78,000 00
Sept. 30	Steward for sundries during the year.			177 03
1889.				
Aug. 31	Transferred for expenses Board of Su- pervision	\$1,167 65		
Sept. 30	Paid on account of current expenses during the year.....	41,599 56		
	Balance appropriation in State Treasury... \$51,769 01			
	Balance in hands of treas- urer of institution..... 3,465 59			
	Balance in hands of steward of institution. 138 61			
		55,373 21		
		\$98,140 42		\$98,140 42

STATEMENT OF CURRENT EXPENSE FUND — 1890.

1889.				
Oct. 1	Balance available			\$55,373 21
1890.				
Sept. 30	Steward for sundries during the year			388 32
	Balance appropriation for hospital, as per chap. 33, laws 1882.....			150 69
	Balance appropriation for barn, as per chap. 33, laws 1882.....			25 00
	Balance appropriation for ice house and cold storage, as per chap. 33, laws 1882			73 06
Sept. 16	Transferred for expenses Board of Su- pervision.....	\$1,167 65		
30	Paid on account of current expenses during the year.....	47,975 27		
	Bal. to app. for buildings and improve- ments, as per chap. 33, laws 1882..	129 06		
	Bal. to app. for school house.	140 73		
	Bal. appropria- tion in State Treasury..... \$8,230 84			
	Bal. in hands of steward of in- stitution 240 59			
		\$8,471 43		
	Less overdrafts on treasurer of institution	1,873 86		
		6,597 57		
		\$56,010 28		\$56,010 28
Oct. 1	Balance available			\$6,597 57

State Public School.

STATEMENT OF

At the State Public School for the

CLASSIFIED ITEMS.	Inventory Sept. 30, 1888.	Purchased during the year.	Transfer'd to this ac- count dur- ing the year.	Total.
Amusements & instruction.	\$654 29	\$745 12	\$10 90	\$1,410 31
Agent's expenses.....		524 01		524 01
Barn, farm and garden.....	3,102 63	2,566 96		5,669 59
Clothing.....	608 37	5,122 66		5,731 03
Discount.....				
Drug and medical dep't....	6 35	600 40		606 75
Engines and boilers	1,924 63	139 83		2,064 46
Elopers.....		10 25		10 25
Freight, and express.....		11 70		11 70
Fire apparatus.....	363 78	1,485 86		1,849 64
Fuel.....	2,545 20	3,869 71		6,414 91
Furniture.....	3,474 54	323 24	75 50	3,873 28
Gas and other lights.....	991 38	712 20		1,703 58
House furnishing.....	5,710 56	1,329 81	63 00	7,103 37
Interest and exchange.....		2 50		2 50
Laundry.....	996 17	139 02		1,135 19
Library.....		68 50		68 50
Machinery and tools.....	90 76	51 65		142 41
Miscellaneous	55 81	494 30		550 11
Officers' expenses.....		112 00		112 00
Printing, postage, stationery and telegraph	107 50	275 39		382 89
Repairs and renewals.....	27 81	1,719 55		1,747 36
Real estate, including build- ings, etc.....	89,267 45		659 85	89,927 30
Subsistence.....	84 77	8,001 74	2,476 80	10,563 31
Wages and salaries.....		11,034 08		11,034 08
Tank and water supply.....		159 78		159 78
Sidewalks	189 17	320 21		509 38
Fences.....		485 02		485 02
Horse barn.....		255 07		255 07
Heating and water pipes ..		735 42		735 42
Roads.....		371 09		371 09
Totals....	\$110,201 17	\$41,667 07	\$3,286 05	155,154 29
Discounts.....		67 51		
		\$41,599 56		121,620 97
Net expense.....				33,533 32

Add amount assigned to this institution and set apart by the Secretary of

Statement of Current Expenses.

CURRENT EXPENSES

fiscal year ending September 30, 1889.

Inventory September 30, 1889.	Cash re- ceived on this account during the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
\$1,046 25			\$1,046 25		\$364 06
4,259 19	\$108 90	\$2,721 80	7,089 89	\$1,420 30	524 01
1,535 17	2 09		1,537 26		4,193 77
		67 51	67 51	67 51	
8 16			8 16		598 59
1,988 55			1,988 55		75 91
					10 25
					11 70
1,841 84			1,841 84		7 80
2,149 64			2,149 64		4,265 27
3,926 51			3,926 51	53 23	
951 67	50 90		1,002 57		701 01
6,497 03			6,497 03		606 34
					2 50
1,010 04			1,010 04		125 15
67 55			67 55		95
126 55			126 55		15 86
55 86			55 86		494 25
					112 00
118 85			118 85		264 04
139 84		149 40	289 24		1,458 12
89,927 30			89,927 30		
339 47	1 50		340 97		10,222 34
	13 64		13 64		11,020 44
		159 78	159 78		
509 38			509 38		
485 02			485 02		
		255 07	255 07		
735 42			735 42		
371 09			371 09		
\$118,090 38	\$177 03	\$3,353 56	\$121,620 97	\$1,541 04	\$35,074 36
					1,541 04
					\$33,533 32

State for salaries and expenses of the Board of Supervision...

1,167 65

\$34,700 97

*State Public School.*STATEMENT OF
At the State Public School for the

CLASSIFIED ITEMS.	Inventory September 30, 1889.	Purchased during the year.	Transfer'd to this ac- count dur- ing the year.	Total.
Amusements and instr..	\$1,046 25	\$465 73		\$1,511 98
Agent's expenses.....		946 26		946 26
Barn, farm and garden..	4,259 19	2,252 46		6,511 65
Children's transportation		102 09		102 09
Clothing.....	1,535 17	5,639 18		7,174 35
Discount.....				
Drug and medical dept..	8 16	461 97		470 13
Engines and boilers.....	1,988 55	48 01		2,036 56
Flippers.....		3 88		3 88
Freight and express.....		11 50		11 50
Fire apparatus.....	1,841 84	20 95		1,862 79
Fuel.....	2,149 64	5,447 95		7,597 59
Furniture.....	3,926 51	1,058 55	\$98 75	5,083 81
Gas and other lights.....	951 67	830 50		1,782 17
House furnishing.....	6,497 03	2,702 96		9,199 99
Interest and exchange..		1 75		1 75
Laundry.....	1,010 04	123 13		1,133 17
Library.....	67 55	5 75		73 30
Machinery and tools.....	126 55	42 08		168 63
Miscellaneous.....	55 86	314 41		370 27
Officers' expenses.....		141 15		141 15
Printing, postage, sta- tionery and telegraph..	118 85	320 38		439 23
Repairs and renewals....	139 84	2,571 77		2,711 61
Real estate, including buildings, etc.....	89,927 30	349 14	20,872 65	111,149 09
Subsistence.....	339 47	8,609 65	2,508 40	11,457 52
Wages and salaries.....		12,814 02		12,814 02
Sidewalks.....	509 38	122 26		631 64
Fences.....	485 02	10 69		495 71
Heating and water pipes	735 42			735 42
Roads.....	371 09			371 09
Steam heating.....		1,211 26		1,211 26
Boiler house.....		1,150 00		1,150 00
Additional school-house.		261 49		261 49
Totals.....	\$118,090 38	\$48,040 92	\$23,479 80	\$189,611 10
Discount.....		65 65		
		\$47,975 27		152,394 42
Net expenses.....				\$37,216 68

Add amount assigned to this institution and set apart by the Secretary of

Statement of Current Expenses.

CURRENT EXPENSES

for the fiscal year ending September 30, 1890.

Inventory September 30, 1890.	Cash re- ceived on this account during the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
\$1,143 47	\$0 25		\$1,143 72		\$368 26
4,705 12	216 33	\$2,807 09	7,728 54	\$1,216 89	946 26
2,392 96	16		2,393 12		102 09
29 21		65 65	65 65	65 65	4,781 23
1,996 97			29 21		440 92
			1,996 97		39 59
					3 88
					11 50
1,839 74			1,839 74		23 05
3,983 80			3,983 80		3,613 79
4,894 60			4,894 60		189 21
977 18	66 80		1,043 98		738 19
8,159 32			8,159 32		1,040 67
984 47			984 47		1 75
61 00			61 00		148 70
152 86			152 86		12 30
57 56	71 00		128 56		15 77
					241 71
					141 15
181 35			181 35		257 88
274 78	9 35	924 12	1,208 25		1,503 36
111,149 09			111,149 09		
369 15	13 62		382 77		11,074 75
	10 81		10 81		12,803 21
		631 64	631 64		
		495 71	495 71		
		735 42	735 42		
		371 09	371 09		
		1,211 26	1,211 26		
		1,150 00	1,150 00		
		261 49	261 49		
\$143,352 63	\$388 32	\$8,653 47	\$152,394 42	\$1,282 54	\$38,499 22
					1,282 54
					\$37,216 68
					1,167 65
					\$38,384 33

State for salaries and expenses of the Board of Supervision...

State Public School.

STATEMENT OF SPECIAL APPROPRIATION FUND.

	Bal. availa- ble Oct. 1, 1888.	Appro- priations 1889.	From cur- rent ex- pense fund.	Total.	Ex- pended during biennial period.	Bal. to cur- rent ex- pense fund.	Total.
Building and Improvement Fund.....	\$616 96		\$129 06	\$746 02	\$746 02		\$746 02
Barn.....		\$2,000 00		2,000 00	1,975 60	\$25 00	2,000 00
Hospital.....		5,000 00		5,000 00	4,849 31	150 69	5,000 00
Ice house and cold storage..		2,000 00		2,000 00	1,926 94	73 06	2,000 00
chool-house.....		6,000 00	140 73	6,140 73	6,140 73		6,140 73
Totals.....	\$616 96	\$15,000 00	\$269 79	\$15,886 75	\$15,638 00	\$248 75	\$15,886 75

STATEMENT OF MONEYS RECEIVED AT THE INSTITUTION.

CLASSIFICATION.	Year ending Sept. 30, 1889.	Year ending Sept. 30, 1890.
Amusements and means of instruction.....		\$0 25
Barn, farm and garden.....	\$108 90	216 33
Clothing.....	2 09	16
Gas and other lights.....	50 90	66 80
Miscellaneous.....		71 00
Repairs and renewals.....		9 35
Subsistence.....	1 50	13 62
Wages and salaries.....	13 64	10 81
Totals.....	\$177 03	\$388 32

The amount of money taken from children upon admission during the two years covered by this report is \$74.34, and the amount refunded is \$59.62, leaving a balance of \$40.05 with the steward of the school.

Farm and Garden Products.

FARM AND GARDEN PRODUCTS.

ARTICLES.	FOR THE YEAR ENDING SEPT. 30, 1889.		FOR THE YEAR ENDING SEPT. 30, 1890.	
	Quantity.	Value.	Quantity.	Value.
Beans.....	16 bush.	\$16 00	32½ bush.	\$25 30
Beets.....	5½ bush.	4 51	62 bush.	27 49
Beets.....			168 bunches	16 80
Beef.....	1,528 lbs.	122 24	176 lbs.	79 35
Butter.....			4 lbs.	72
Carrots.....	½ bush.	20	41 bush.	18 45
Carrots.....			17 bunches	85
Cabbage.....	190 heads	8 16	761 heads	31 55
Corn, ears.....			540 bush.	216 00
Corn, green.....	370 doz.	12 24	500½ doz.	26 07
Corn fodder.....			680 shocks	40 80
Cucumbers.....	1,136 doz.	76 14	2,085½ doz.	98 95
Hay.....			61 tons	335 50
Lettuce.....	136 pans	15 40	50 pans	5 30
Milk.....	125,859 lbs.	1,538 69	133,402 lbs.	1,334 02
Oats.....			310 bush.	124 00
Oat straw.....			3 tons	12 00
Onions, green.....	1,139 b'ch's.	31 36	992 bunches	46 96
Onions, dry.....	58 bush.	23 80	102 bush.	81 60
Pork.....	2,656 lbs.	212 48		
Potatoes.....	638 bush.	143 50	626½ bush.	476 75
Peas.....	26½ bush.	10 70	32½ bush.	30 38
Pie-plant.....	16 lbs.	16		
Radishes.....	9½ bush.	7 30		
Radishes.....	84 bunches	4 20	876 bunches	39 93
Raspberries.....	110 quarts	11 00	250 quarts	25 00
Rutabagas.....			20 bush.	9 00
Squash.....	86	2 70	222	12 02
Strawberries.....	476 quarts	43 48	290 quarts	21 50
Tomatoes.....	14 pecks	2 26	40½ bush.	29 36
Turnips.....	7½ bush.	5 38	93½ bush.	42 07
Veal.....	110 lbs.	8 80	370 lbs.	28 98
Totals.....		\$2,300 70		\$3,236 70

FOURTH BIENNIAL REPORT
OF THE
INDUSTRIAL SCHOOL FOR BOYS,
FOR THE
TWO FISCAL YEARS ENDING SEPT. 30, 1890.

12—B. S.

OFFICERS.

W. H. SLEEP,	- . - - - - -	SUPERINTENDENT AND STEWARD.
MRS. W. H. SLEEP,	- - . - - - -	MATRON.
M. MADSON,	- - - - - - -	ASSISTANT STEWARD.
M. C. CLARKE,	- - - - - - -	TREASURER.

TEACHERS.

EPHRAIM DIXON,	- - - - - - -	PRINCIPAL.
MRS. W. H. McILROY,	- - - - . - -	ASSISTANT.
MISS MARIETTA LOVE,	- - - - - - -	ASSISTANT.
MISS NELLIE BISHOP,	- - - - . - -	ASSISTANT.
MISS EMMA WEIMAN,	- - - - - - -	ASSISTANT.
C. H. JOHNSON,	- - - - - - -	ASSISTANT.
S. P. GILMORE,	- - . - - - -	ASSISTANT.
F. S. WHEELER,	- - - - - - -	ASSISTANT.
J. B. STOCKMAN,	- - - - . - -	ASSISTANT.

INDUSTRIAL SCHOOL FOR BOYS.

REPORT OF THE SUPERINTENDENT.

To the State Board of Supervision:

GENTLEMEN:— I have the honor to submit to your honorable board the report of this institution for the biennial period ending September 30th, 1890.

Accompanying this are several statistical tables, and the report of the principal teacher, showing the condition of the several departments of school. By reference to table number one, it will be seen that the present number in school is 423, an excess of 47 over the number enrolled October 1st, 1888. With this number of inmates, all the cottages are filled to their ordinary capacity. Should there be a like increase during the next two years, the institution would be in an overcrowded condition. There being no alternative but to receive all who may be legally committed, the necessity for providing additional room, and that quite soon, is apparent.

HEALTH.

In the spring of 1888 scarlet fever was quite prevalent in this locality, and that disease finally appeared in our midst. By adopting careful sanitary measures and isolating each patient as soon as the first symptom of the disease became apparent, it was confined to a small number — there being fourteen cases only, with one death resulting therefrom.

I must also record the death of another boy last August, who died from the effects of acute catarrhal jaundice. There were 160 cases of La Grippe at the time that disease was prevalent throughout the country; fifty cases of measles during the past summer and several cases of tonsillitis this fall; but, under favorable conditions and care-

Industrial School for Boys.

ful nursing, no serious results have followed. The singular fact may be recorded of two instances of fractured arms resulting from throwing a base ball. One other fracture of the arm was occasioned by the carelessness of a boy in placing his hand in the clothes wringer while in motion. These were the principal cases requiring surgical treatment.

SCHOOL.

There has been no change from previous years in the time allotted to school and work, excepting that time which is devoted to band practice and military drill. The latter feature of training was begun last January, with Captain L. K. Wright as instructor, and has been continued with quite satisfactory results. The sixty Springfield rifles which were furnished by the state through the kindness of the quartermaster-general, are used by a company of boys selected and drilled in the manual of arms.

The band, under the instruction of Prof. T. W. Williams, is making favorable progress. At the present time there are nearly forty boys receiving musical instruction.

I would especially invite your attention to the statistics in the principal's report, which shows the progress made by the boys in the school department. We may justly claim, as stated in a former report, that more than eighty per cent. of the boys received here, by reason of their low grade of scholarship, must necessarily enter the primary departments of school. For various causes, many have attended school but a limited time. In some cases this may be attributed to indifference on the part of the parents, but in the main it is due to a disposition to truancy on the part of the boy, and the inability of the parents to keep him in school. In determining the educational standing of the boy when received, he is carefully examined by the principal teacher, and by him assigned to the grade to which his standing entitles him.

Superintendent's Report.

EMPLOYMENT AND INDUSTRIES.

Tables 8 to 10, inclusive, show the amount of manufactured articles produced in the boot and shoe factory, sock factory and tailor shop. Besides this there has been a large amount of work done at carpentering, painting and repairing and extending of water and gas pipes and similar mechanical work, under the direction of those having charge of these several departments. The boys have assisted largely in the building of the new barn and remodeling of others, and in making repairs throughout the institution. To specify all the improvements would be somewhat cumbersome. I will, however, mention some of the more important items. The building of a large barn fifty-four by one hundred feet, for stabling cattle, storing grain, hay, etc.; removing the piggery to a location distant from the cottages, thereby avoiding the unpleasant odor therefrom. Several new floors have been laid in different buildings; the roof of number 7 cottage has been newly shingled, new tables made for dining rooms and knitting factory; and new outside stairs to some of the family cottages have been built. There has also been considerable painting done in the family cottages and other buildings, besides the painting of barns, wagons, sleighs, etc. ; With the appropriation for that purpose a water-tower has been built of Waukesha stone, in the most substantial manner, fifty feet in height, having a steel tank with a capacity of nearly one thousand barrels.

FARM AND GARDEN.

Although the usual amount of labor and attention has been given to the cultivation of the farm and garden, yet, by reason of the unfavorable seasons, the products of the same as shown in table 11, are not equal to those of some former years.

I deem it unnecessary to refer, except in a very brief

Industrial School for Boys.

manner, to the needs of the school, as they suggest themselves to my own mind, since your visits here are of frequent occurrence, and on such occasions the requirements of the institution are under your consideration. Yet I will ask your forbearance, and beg to make some recommendations which I know you will be pleased to consider and, I trust, support.

The class-rooms where the boys attend school, as you are aware, are located in different buildings, in some instances where there is much unavoidable noise and confusion. Besides several of these rooms are poorly lighted and without sufficient ventilation. Under these conditions, I think it would be a judicious policy to erect a school building, which in point of convenience and adaptation to its purpose, would be equal in all respects to any of our common school buildings.

STATE AGENT.

While it has always been made an object, to some extent, by correspondence and inquiry, to keep trace of the boys, who from time to time, go out from our school into the world, and to keep informed in regard to their progress and welfare, yet the efforts in this direction are insufficient. Considering the youth and inexperience of boys who are released, would it not be wisdom on the part of the state to further extend this supervisory care, by appointing some person, whose special business it shall be, as far as practicable, to look after and encourage this class in making a success in life? This question has frequently arisen in my own mind, and now may I ask your further consideration of it?

LIBRARY.

There are six hundred and thirty-one volumes in the library, the greater number of which are in a fair condition. These embrace some of the most popular works of history, biography and travel, as well as a good collection of books

Superintendent's Report.

of narrative and fiction. We have also by subscription a number of weekly and monthly periodicals, which are circulated among the boys. It being some length of time since any new books have been added to the library, and as the boys, in the main, are eager for something new and interesting to read, I would heartily recommend the purchasing of a considerable number of new books.

CONCLUSION.

Before closing this report I may be permitted to state that a great many persons, who were resorters at Waukesha, have visited our institution, some of whom were merely sight-seers, but many others have manifested a deep interest in the work being carried on here, and oft-times expressed their pleasure and approval, and left behind many cheering words of praise and encouragement.

ACKNOWLEDGMENTS.

I desire to acknowledge the contribution of periodicals and other reading matter, and to thank the donors therefor.

For your wise counsel and kind forbearance at all times, and the uniform kindness extended to my family and associates here, I tender my sincerest thanks.

WILLIAM H. SLEEP,
Superintendent.

WAUKESHA, October 1st, 1890.

Industrial School for Boys.

STATISTICS.

TABLE NO. 1.

Movement of population.

	1888.	1889.
Number on roll October 1st.....	376	406
Received by commitment.....	157	162
Returned from, "out on ticket".....	7	11
Returned escapes.....		2
	540	581
Released on parol.....	122	141
Discharged; 18 years old; law of 1882.....	8	8
Escaped.....	3	8
Died.....	1	1
On roll October 1st.....	406	423
	540	581
Average number of boys during the year.....	392	421
Highest number of boys at any one time.....	417	438
Lowest number of boys at any one time.....	374	404
Total number enrolled since July, 1860.....	2817	2979
Total number dismissed, escaped and died.....	2411	2556
Leaving on record as above.....	406	423

Statistical Tables.

TABLE NO. 2.

Number of inmates received each year from the opening of the school.

FOR THE YEAR ENDING —	Number committed.		Total from be- ginning.	Number returned.		Total received dur- ing 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	43	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	.....	.....	544
Sept. 30, 1880....	108	.....	1,801	10	.....	118	430	.....	.....	549
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

Industrial School for Boys.

TABLE NO. 3.

Nationality of parents of those received during the biennial period.

American.....	76	Negro.....	2
Bohemian.....	5	Norwegian.....	8
Belgian.....	5	Polish.....	24
Danes.....	1	Scotch.....	5
English.....	20	Swedes.....	4
French.....	16	Swiss.....	1
German.....	82	Welsh.....	3
Irish.....	66		
Indian.....	1		319
			<hr/>

TABLE NO. 4.

Social and domestic relations.

Both parents living.....	151	Mother and stepfather.....	15
Parents separated.....	31	Father and stepmother.....	27
No parents.....	25		
Mother only.....	43		319
Father only.....	27		<hr/>

TABLE NO. 5.

Birthplace of inmates.

States.		Countries.	
Colorado.....	1	Bohemia.....	2
Illinois.....	9	Belgium.....	2
Indiana.....	2	Canada.....	7
Iowa.....	3	England.....	2
Kansas.....	2	Germany.....	18
Massachusetts.....	1	Holland.....	1
Michigan.....	9	Ireland.....	1
Minnesota.....	7	Norway.....	2
Missouri.....	3	Poland.....	9
New York.....	8	Switzerland.....	1
Ohio.....	7	Unknown.....	12
Tennessee.....	1		
Vermont.....	1		
West Virginia.....	1		
Wisconsin.....	207	Total.....	319
			<hr/>

Statistical Tables.

TABLE NO. 6.

Showing how many boys were committed from the different counties, for what offense, and their age when committed.

COUNTIES.	Total number of boys committed.	OFFENSES.							AGE OF BOYS WHEN COMMITTED.									
		Assault.	Arson.	Burglary.	Forgery.	Incorrigibility.	Larceny.	Receiving stolen goods.	Vagrancy.	Between 9 and 10 years of age.	Between 10 and 11 years of age.	Between 11 and 12 years of age.	Between 12 and 13 years of age.	Between 13 and 14 years of age.	Between 14 and 15 years of age.	Between 15 and 16 years of age.	Between 16 and 17 years of age.	Between 17 and 18 years of age.
Ashland	3						3						1					
Barron	2					1	1					1						
Brown	14			1		4	9				1		2	1				
Calumet	1								1			1						
Chippewa	2					5	2		1		1	1	2	2				
Clark	2					1	1									1		1
Columbia	2					1	1					1				1		1
Crawford	2					5						1						
Dane	5			1		2	1		1				1	2	1	2		
Dodge	2			1		1					1			1		1		
Door	1						1											
Dunn	3					3							1	1	1			
Eau Claire	7	2	2			1	2					2	1	1	1	2	1	
Fond du Lac	10		1			5	4				1	1		3	4	1		
Florence	2					2										2		
Grant	7					5	2					1			1	5		
Green	1					1										1		
Green Lake	1					1									1			
Iowa	1					1						1						
Jackson	4	1			1	2							1		1	1	1	
Jefferson	4					3	1						1	3	1			
Juneau	3						3								1			
Kenosha	4		2			1	1					1			1		2	
Kewaunee	1					1										3		
La Crosse	19	1				1	16		1	1	2	1	3	1	4	1	4	2
La Fayette	5					2	3			1					1		1	
Langlade	4					1	3				2				1			
Lincoln	1						1									1		
Manitowoc	6					4	2									1		
Marathon	4		1			1	2					1	1		2	3		
Milwaukee	73				2		38		33		4	9	9	15	12	11	10	7
Marinette	3					2	1							2	1			
Monroe	7		1			1	3		2				1	2	4	1	1	
Oconto	3					2	1				1			1	1			
Ooutagamie	12					11	1				2	4		2	1	3		
Ozaukee	1					1									1			
Pepin	2				1										1		1	
Pierce	5		5											1		2	1	1
Portage	1		1															
Price	2					2								1				
Polk	2					1	1								1	1		
Racine	5			1		3	1				1	2			1			
Richland	2			1			1								1		1	
Rock	16		5	2		1	6		2		1	1	1			4	3	1
Sauk	5					4	1											4
St. Croix	1					1						2	1	1			1	
Sheboygan	5			2		2	1						1			1		
Taylor	8	1		2		3	1		1		2	1			1		2	1
Trempealeau	1					1									1		1	3
Vernon	6	1					5								2	3	1	
Walworth	6					3	3			2		2		2				
Washburn	2						1	1						1	1			
Waukesha	8			1		1	1		5					1	1	2	3	
Winnebago	10	2				2	5		1		2	2	1	1	2	1	1	
Wood	1						1								1			
Total	319	6	2	28	6	96	132	1	48	4	21	37	29	46	59	61	37	25

Industrial School for Boys.

TABLE NO. 7.

Division of labor at the close of the biennial period, number of boys employed.

As pickets	4	Officer's kitchen.....	6
Bakery and boys' kitchen.....	11	Paint shop.....	4
Bath and play rooms	10	Sock factory.....	221
Boot and shoe factory.....	16	Store	2
Carpenter shop.....	4	School room	4
Dining rooms.....	10	Tailor shop.....	35
Dormitories.....	10	Teamsters, in care of stock, and	
Engine room.....	4	all other outside work.....	46
Errand boys.....	2		
Laundry.....	32		423
Office.....	2		==

TABLE NO. 8.

Amount of work done in boot and shoe factory during the biennial period.

Men's and boy's boots, dozens	511
Men's and boy's shoes, dozens... ..	910
Boots and shoes repaired, dozens.....	323

TABLE NO. 9.

Amount of work done in sock factory.

Machine made socks, dozens.....	23,117
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TABLE NO. 10.

Amount of work done in tailor shop.

Aprons.....	132
Blouses.....	266
Caps	228
Jackets	1,013
Overalls.....	327
Pants	1,508
Vests	233

Principal's Report.

PRINCIPAL'S REPORT.

To W. H. Sleep, Superintendent of Wisconsin Industrial School:

I herewith present the report of the school for two years ending September 30, 1890:

	1889.	1890.
Number under instruction at the commencement of the year.....	376	406
Number newly committed during the year	157	162
Number returned during the year.....	7	13
Number under instruction during the year.....	540	581
Number that left during the year.....	134	158
Number now in attendance.....	406	423
Number received, could not write.....	34	38
Number began reading from chart.....	25	23
Number began reading from 1st reader.....	37	46
Number began reading from 2d reader....	52	48
Number began reading from 3d reader.....	36	30
Number began reading from 4th reader.....	7	15
Total.....	157	162
	1889.	1890.
Number had no knowledge of numbers.....	9	14
Number could add.....	58	50
Number could subtract.....	22	24
Number could multiply.....	21	19
Number could divide.....	25	27
Number could factor	8	11
Number in fractions	9	13
Number in denominate numbers	5	4
Total.....	157	162
Number entered first grade	120	115
Number entered second grade	18	24
Number entered third grade.....	13	14
Number entered fourth grade.	2	5
Number entered fifth grade	4	4
Total.....	157	162

Industrial School for Boys.

The following statement shows progress, during detention, of boys released in each of the years reported:

	1889.	1890.
Whole number released.....	134	158
Number of these entering first grade.....	78	90
Number of these entering second grade.....	43	38
Number of these entering third grade.....	6	20
Number of these entering fourth grade.....	2	4
Number of these entering fifth grade.....	5	6
Total.....	134	158
Number released in first grade.....	8	5
Number released in second grade.....	13	4
Number released in third grade.....	16	18
Number released in fourth grade.....	27	31
Number released in fifth grade.....	70	100
Total.....	134	158
Number who advanced one grade.....	19	11
Number who advanced two grades.....	18	28
Number who advanced three grades.....	31	45
Number who advanced four grades.....	31	38
Number who advanced five grades.....	23	25
Number who did not advance a grade.....	12	11
Total.....	134	158

Nearly all of the number who did not advance entered either the highest grade or stayed here but a short period.

The boys are divided into two classes, which alternately work and attend school. In each session of the school there are *now* six grades, though formerly only five.

The course of study for each session is the same.

	1889.	1890.
Number attending school first session.....	195	201
Number attending school second session.....	211	223
Total.....	406	423

Principal's Report.

FIRST SESSION SCHOOLS.

FIRST GRADE — MISS N. BISHOP, TEACHER.

	1889.	1890.
Number in attendance.....	30	32
Number in chart.....	4	3
Number in first reader	26	29
Number instructed in language.....	30	32
Number instructed in numbers.....	30	32
Number writing on slates.....	30	32

SECOND GRADE — MISS M. LOVE TEACHER.

	1889.	1890.
Number in attendance.....	36	38
Number in second reader.....	36	38
Number instructed in language.....	36	38
Number instructed in numbers.....	36	38
Number in spelling and penmanship.....	36	38

THIRD GRADE — S. P. GILMORE, TRACHER.

	1889.	1890.
Number in attendance.....	37	38
Number in third reader	37	38
Number instructed in language.....	37	38
Number in first book arithmetic	37	38
Number in primary geography.....	37	38
Number in spelling and penmanship.....	37	38

Industrial School for Boys.

FOURTH GRADE — C. H. JOHNSON AND F. WHEELER, TEACHERS.

	1889.	1890.
Number in attendance	37	35
Number in third reader	37	35
Number instructed in language.....	37	35
Number in first book arithmetic.....	37	35
Number in primary geography.....	37	35
Number in spelling and penmanship.....	37	35

FIFTH GRADE — MRS. W. H. MCILROY, TEACHER.

	1889.	1890.
Number in attendance.....	27	32
Number in fourth reader.....	13	16
Number in third reader.....	14	16
Number in second book arithmetic.....	13	16
Number in first book arithmetic	14	16
Number in Swinton's Language Book	27	32
Number in complete geography	13	16
Number in primary geography	14	16
Number in physiology	13	16
Number in spelling and penmanship	27	32

SIXTH GRADE — MISS E. WEIMAN, TEACHER.

	1889.	1890.
Number in attendance	28	26
Number in grammar	28	26
Number in orthoepy	28	26
Number in second book arithmetic	28	26
Number in complete geography	28	26
Number in U. S. history	28	26
Number in spelling and penmanship.....	28	26

Principal's Report.

SECOND SESSION SCHOOLS.

FIRST GRADE — MISS E. WEIMAN AND S. P. GILMORE, TEACHERS.

	1889.	1890.
Number in attendance	32	34
Number in first reader	32	34
Number instructed in language	32	34
Number instructed in numbers	32	34
Number writing on slates	32	34

SECOND GRADE — MISS M. LOVE AND MISS N. BISHOP, TEACHERS.

	1889.	1890.
Number in attendance	40	40
Number in second reader	40	40
Number instructed in language	40	40
Number instructed in numbers	40	40
Number in first book arithmetic	28	15
Number in primary geography	15	14
Number in spelling and penmanship	40	40

THIRD GRADE — C. H. JOHNSON, TEACHER.

	1889.	1890.
Number in attendance	42	42
Number in third reader	42	42
Number instructed in language	42	42
Number in first book arithmetic	42	42
Number in primary geography	42	42
Number in spelling and penmanship	42	42

Industrial School for Boys.

FOURTH GRADE — Mrs. W. H. McILROY, TEACHER.

	1889.	1890.
Number in attendance.....	36	38
Number in fourth reader.....	18	19
Number in third reader.....	18	19
Number in Swinton's Lang. Book.....		38
Number in primary geography.....	36	38
Number in first book arithmetic.....	18	38
Number in second book arithmetic.....	18	.....
Number in spelling and penmanship.....	36	38

FIFTH GRADE.— F. WHEELER, TEACHER.

	1889.	1890.
Number in attendance.....	30	32
Number in fourth reader.....	30	32
Number in Swinton's Lang. Book.....	30	32
Number in second book arithmetic.....	30	32
Number in complete geography.....	30	32
Number in physiology.....	15	16
Number in spelling and penmanship.....	30	32

SIXTH GRADE.— E. DIXON, TEACHER.

	1889.	1890.
Number in attendance.....	31	36
Number in Reed & Kellogg's Grammar.....	31	36
Number in orthoepy.....	31	36
Number in complete arithmetic.....	11	7
Number in second book arithmetic.....	20	29
Number in complete geography.....	31	30
Number in U. S. history.....	31	24
Number in civil government.....	18	9
Number in spelling and penmanship.....	31	36

Principal's Report.

The two new grades which have been added since our last report, gives us six grades in each session, this has reduced the number in the different rooms to an average of thirty-five pupils each.

In most of the grades there are three classes, and in each of the others there are two classes, which really represent different grades. This gives an excellent opportunity for grading new boys.

Our system of promotions is not the most complete, nor can it well be, as it must necessarily depend upon the room in the lower grades rather than upon a specified attainment of the pupils.

We have written examinations quarterly, but these are not made the test of promotions. In cases where we can be guided by scholarship it is determined by the teachers, from the general class work and monthly records which are kept of each boy. In many cases boys are promoted from class to class in the different rooms, and a few are advanced a grade, between the regular promotions, thus affording the bright and studious boys the privilege of making more rapid progress than the class. I am pleased to report that this advantage is accepted by so many.

I desire to thank you for your unremitting efforts in behalf of the schools and your hearty co-operation in the work.

Too much praise cannot be awarded to the class teachers for their patient toil in a field requiring persistent and long-continued efforts.

Respectfully,

E. DIXON,

Principal

Industrial School for Boys.

STATEMENT OF CURRENT EXPENSE FUND — 1889.

1888.				
Oct. 1	Balance			\$6,771 43
1889.				
Jany. 1	From counties			10,052 55
March 8	Appropriation, chap. 57, laws of 1889			95,000 00
Sept. 30	From steward from boot and shoe factory during the year			25,881 05
	From steward from sock factory during the year			6,540 16
	From steward for sundries during the year			267 77
	Bal. new fence appropriation, as per chapter 33, laws 1882			38 86
	Bal. purchase of about 27 acres of land, as per chapter 33, laws 1882			50 00
1889.				
Aug. 31	Transferred for expenses Board of Supervision	\$1,723 09		
Sept. 30	Paid on account boot and shoe factory	17,054 01		
	Paid on account sock factory	5,457 14		
	Paid on account of current expenses	58,813 93		
	Transferred to build'g, barn and removing piping, as per chap. 33, laws 1882	45 09		
	Balance appropriation in state treasury	\$57,280 10		
	Balance in hands of treasurer of institut'n	4,446 75		
	Balance in hands of steward of institution	81 71	61,508 56	
			\$144,601 82	\$144,601 82

Current Expense Funds.

STATEMENT OF CURRENT EXPENSE FUND—1890.

1889.				
Oct. 1	Balance available.....			\$61,508 56
1890.				
Jany. 1	From counties.....			10,334 28
Sept. 30	From steward from boot and shoe factory during the year.....			20,499 88
	From steward from sock factory during the year.....			8,894 88
	From steward for sundries during the year.....			166 24
Sept. 16	Transferred for expense State Board of Supervision.....	\$1,723 09		
Sept. 30	Paid on account boot and shoe fac- tory.....	6,415 05		
	Paid on account sock factory.....	11,318 51		
	Paid on account current expenses...	55,552 46		
	Balance appro- priation in state treas- ury.....	\$28,962 01		
	Balance in hands of steward of institution... 90 80	\$29,052 81		
	Less over draft on treas- urer of institution ...	\$2,658 08	\$26,394 73	
		\$101,403 84	\$101,403 84	
1890.				
Oct. 1	Balance available.....			\$26,394 73

Industrial School for Boys.

STATEMENT OF

At the Industrial School for Boys for

CLASSIFIED ITEMS.	Inventory September 30, 1888.	Purchased during the year.	Transfer'd to this account during the year.	Total.
Amusements and instruction	\$1,634 68	\$928 47	.....	\$2,563 15
Barn, farm and garden..	10,837 08	2,011 11	.....	12,848 19
Boot and shoe factory...	46,070 24	17,054 01	.....	63,124 25
Clothing	2,098 95	4,713 91	\$1,850 00	8,662 86
Discount .....	.....	.....	.....	.....
Drug and medical dept..	69 05	558 73	.....	627 78
Engines and boilers.....	1,474 65	115 78	600 00	2,190 43
Elopers .....	.....	128 10	.....	128 10
Freight and express (not classified) .....	.....	75 22	.....	75 22
Fire apparatus	5,170 02	148 22	.....	5,327 24
Fuel	3,149 55	5,155 21	.....	8,304 76
Furniture	4,530 65	221 40	.....	4,752 05
Gas and other lights.....	3,230 50	1,316 58	.....	4,627 08
Hides and pelts .....	.....	.....	39 48	39 48
House furnishing	9,770 94	6,524 96	.....	16,295 90
Laundry	807 94	119 93	.....	927 90
Library	314 30	214 20	.....	528 50
Machinery and tools.....	857 83	113 45	.....	971 28
Miscellaneous .....	.....	430 56	.....	430 56
Officers' expenses .....	.....	43 92	.....	43 92
Printing, postage, sta- tionery and telegraph..	398 68	594 43	.....	993 11
Repairs and renewals....	377 05	3,441 46	.....	3,818 51
Real estate, including buildings, etc	202,700 00	.....	11,095 09	213,795 09
Scraps .....	.....	.....	81 20	81 20
Subsistence	1,582 73	14,585 53	4,214 94	20,383 20
Sock factory	3,116 32	5,457 14	.....	8,573 46
Wages and salaries.....	.....	17,449 74	.....	17,449 74
Totals	\$298,250 16	\$81,432 09	\$17,880 71	\$397,562 96
Discounts .....	.....	107 01	.....	.....
		\$81,325 08		342,359 00
Net expense .....	.....	.....	.....	\$55,203 96

Add amount assigned to this institution and set apart by the Secretary of

Statement of Current Expenses.

CURRENT EXPENSES

the fiscal year ending September 30, 1889.

Inventory September 30, 1889.	Cash rec'd on this ac- count dur- ing the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
\$1,650 87			\$1,650 87		\$912 28
11,452 23	\$106 50	\$4,214 94	15,773 67	\$2,925 48	
32,156 34	25,881 05	1,850 00	59,887 39		3,236 86
3,472 60	2 00		3,474 60		5,188 26
		107 01	107 01	107 01	
70 99			70 99		556 79
2,063 72			2,063 72		126 71
					128 10
					75 22
5,200 71			5,200 71		126 53
3,377 50	6 00		3,383 50		4,921 26
4,758 40			4,758 40	6 35	
3,289 50	7 40		3,296 90		1,330 18
	39 48		39 48		
10,082 08	4 44	3,700 00	13,786 52		2,509 38
802 66			802 66		125 24
381 90			381 90		146 60
264 65			864 65		106 63
		600 00			430 56
					43 92
427 28			427 28		565 83
318 95	6 49	81 20	406 64		3,411 87
213,795 09			213,795 09		
	81 20		81 20		
1,818 12	14 26		1,871 86		18,511 34
3,693 80	6,540 16	39 48	10,233 96	1,660 50	
					17,449 74
\$299,077 39	\$32,688 98	\$10,592 63	\$342,359 00	\$4,699 34	\$59,903 30
					4,699 34
					\$55,203 96
State, for salaries and expenses of the Board of Supervision					1,723 09
					\$56,927 05

Industrial School for Boys.

STATEMENT OF

At the Industrial School for Boys for

CLASSIFIED ITEMS.	Inventory September 30, 1889.	Purchased during the year.	Transfer'd to this ac- count dur- ing the year.	Total.
Amusements and instruc- tion	\$1,650 87	\$1,350 02	.....	\$3,000 89
Armory .....	.....	49 15	.....	49 15
Barn, farm and garden...	11,452 23	1,428 00	.....	12,880 23
Boot and shoe factory....	32,156 34	6,415 05	.....	38,571 39
Clothing	3,472 60	5,392 92	\$1,861 25	10,726 77
Discount .....	.....	.....	.....	.....
Drug and medical dep't..	70 99	374 87	.....	445 86
Engines and boilers.....	2,063 72	966 13	.....	3,029 85
Elopers .....	.....	431 07	.....	431 07
Freight and express (not classified) .....	.....	78 10	.....	78 10
Fire apparatus.....	5,200 71	2 40	.....	5,203 11
Fuel	3,377 50	4,457 55	.....	7,835 05
Furniture	4,758 40	192 76	.....	4,951 16
Gas and other lights.....	3,289 50	1,368 72	.....	4,658 22
Hides and pelts .....	.....	.....	16 00	16 00
House furnishing.....	10,082 08	3,086 76	.....	13,168 84
Laundry	802 66	85 43	.....	888 09
Library	381 90	64 70	.....	446 60
Machinery and tools	264 65	98 34	.....	362 99
Miscellaneous.....	.....	430 66	.....	430 66
Officers' expenses .....	.....	103 90	.....	103 90
Printing, postage, station- ery and telegraph....	427 28	612 69	.....	1,039 97
Repairs and renewals....	318 95	3,007 65	.....	3,326 60
Real estate, including buildings, etc.....	213,795 09	.....	700 00	214,495 09
Scraps .....	.....	.....	55 07	55 07
Subsistence.....	1,818 12	14,019 68	4,924 40	20,762 20
Sock factory.....	3,693 80	11,318 51	.....	15,012 31
Wages and salaries .....	.....	18,067 80	.....	18,067 80
Totals.....	\$299,077 39	\$73,402 86	\$7,556 72	\$380,036 97
Discounts .....	.....	116 84	.....	.....
		\$73,286 02		324,533 75
Net expenses				\$55,508 22

Add amount assigned to this institution and set apart by the Secretary of

Statement of Current Expenses.

CURRENT EXPENSES

the fiscal year ending September 30, 1890.

Inventory September 30, 1890.	Cash re- ceived on this account during the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
\$2,186 35			\$2,186 35		\$814 54
49 15			49 15		
12,353 15	\$32 00	\$4,924 40	17,309 55		
12,246 58	20,499 88	1,789 85	34,536 31	\$4,429 32	4,035 08
4,262 71	10 70		4,273 41		6,453 36
		116 84	116 84		
63 20			63 20	116 84	382 66
2,334 37			2,334 37		695 48
					431 07
					78 10
5,203 11			5,203 11		
3,048 35			3,048 35		4,786 70
4,861 05			4,861 05		90 11
3,279 30	4 95		3,284 25		1,373 97
	16 00		16 00		
10,734 17	5 49		10,739 66		2,429 18
753 52			753 52		134 57
356 90			356 90		89 70
342 15			342 15		20 84
	1 95		1 95		428 71
					103 90
438 53			438 53		601 44
379 80	2 10	755 07	1,136 97		2,189 63
214,495 09			214,495 09		
	55 07		55 07		
1,791 39	37 98	16 00	1,845 37		18,916 83
8,120 32	8,894 88	71 40	17,086 60	2,074 29	18,067 80
\$287,299 19	\$29,561 00	\$7,673 56	\$324,533 75	\$6,620 45	\$62,123 67
					6,620 45
					\$55,503 22
					1,723 09

State for salaries and expenses of the Board of Supervision...

\$57,226 31

Industrial School for Boys.

STATEMENT OF SPECIAL APPROPRIATION FUND.

CLASSIFIED ITEMS.	Bal. available Oct. 1, 1883.	Appropriations 1889.	From current expense fund	Total	Expended during biennial period.	Bal. to current expense fund.	Total.	Bal available Oct. 1, 1890.
New fence	\$167 01	.....	.....	\$167 01	\$128 15	\$38 86	\$167 01	.....
Building barn and removing piggery .....	.....	\$2,000 00	\$45 09	2,045 09	2,045 09	.....	2,045 09	.....
Water tower and reservoir .....	.....	4,000 00	.....	4,000 00	3,767 54	.....	3,767 54	\$232 46
Purchase of about twenty-seven acres of land .....	.....	5,400 00	.....	5,400 00	5,350 09	50 00	5,400 00	.....
Totals	\$167 01	\$11,400 00	\$45 09	\$11,612 10	\$11,290 78	\$38 86	\$11,379 64	\$232 46

STATEMENT OF MONEYS RECEIVED AT THE INSTITUTION.

CLASSIFICATION.	Year ending Sept. 30, 1889.	Year ending Sept. 30, 1890.
Barn, farm and garden	\$106 50	\$32 00
Boot and shoe factory	25,881 05	20,499 88
Clothing	2 00	10 70
Fuel	6 00	.....
Gas and other lights	7 40	4 95
Hides and pelts	39 48	16 00
House furnishing	4 44	5 49
Miscellaneous .....	.....	1 95
Repairs and renewals	6 49	2 10
Scraps	81 20	55 07
Subsistence	14 26	37 98
Sock factory	6,540 16	8,894 88
Total	\$32,688 98	\$29,561 00

Farm and Garden Products.

FARM AND GARDEN PRODUCTS.

ARTICLES.	1889.		1890.	
	Quantity.	Value.	Quantity.	Value.
Apples.....	14 bu.	\$5 60	3 bu.	\$2 25
Apples, Sib. crab.	15 bu.	9 00	6 bu.	3 60
Asparagus.....	12 bu.	24 00	20 bu.	40 00
Barley.....	.....	.....	400 bu.	240 00
Beans.....	80 bu.	140 00	65 bu.	113 75
Beets.....	168 bu.	30 24	181 bu.	32 58
Beef.....	2,307 lbs.	138 42	2,098 lbs.	125 88
Cabbage.....	2,440 hds.	73 20	700 hds.	21 00
Cauliflower.....	90 hds.	4 50	200 hds.	10 00
Calves.....	15	150 00	18	235 00
Celery.....	8,000 hds.	100 00	8,000 hds.	100 00
Carrots.....	1,500 bu.	270 00	1,000 bu.	150 00
Currents.....	9½ bu.	9 50	4 bu.	4 00
Corn.....	1,500 bu.	225 00	3,000 bu.	600 00
Corn stalks.....	70 tons	245 00	75 tons	262 50
Cucumbers.....	22 bu.	11 00	15 bu.	7 50
Green corn.....	66 bu.	26 40	54 bu.	21 60
Green peas.....	155 bu.	77 50	80 bu.	40 00
Hay.....	110 tons	1,100 00	160 tons	1,280 00
Lettuce.....	54 bu.	54 00	40 bu.	40 00
Clover seed.....	.....	.....	22½ bu.	83 75
Mangel wurzels..	2,000 bu.	250 00	800 bu.	100 00
Milk.....	19,674 galls.	1,967 40	21,409 galls.	2,140 90
Oats.....	4,700 bu.	940 00	3,240 bu.	1,215 00
Onions.....	326 bu.	97 80	78 bu.	78 00
Parsnips.....	50 bu.	10 00	50 bu.	10 00
Pie plant.....	11 bu.	5 50	40 bu.	20 00
Pigs.....	95	285 00	105	367 50
Pop corn.....	20 bu.	12 00	18 bu.	10 80
Potatoes.....	1,478 bu.	443 40	545 bu.	299 75
Pork.....	13,756 lbs.	687 80	24,509 lbs.	1,225 45
Pumpkins.....	20 loads.	20 00	75 loads	56 25
Radishes.....	2 bu.	6 00	2 bu.	6 00
Raspberries.....	14 bu.	42 00	3 bu.	9 00
Rye.....	.....	.....	225 bu.	146 25
Salsify.....	120 bu.	30 00	120 bu.	30 00
Spinnach.....	82 bu.	16 40	40 bu.	8 00
Strawberries.....	19 bu.	57 00	86 bu.	72 00
Straw.....	60 tons	240 00	60 tons	240 00
Squash.....	2 tons	20 00	4½ tons	56 25
Turkeys.....	110	84 50	106	53 00
Tomatoes.....	19 bu.	9 50	26 bu.	13 00
Turnips.....	100 bu.	30 00	75 bu.	22 50
Veal.....	716 lbs.	57 28	2,298 lbs.	183 84
Totals.....	.....	\$8,004 94	.....	\$9,776 90

FOURTH BIENNIAL REPORT
OF THE
WISCONSIN STATE PRISON,
FOR THE
TWO FISCAL YEARS ENDING SEPT. 30, 1890.

[illegible]

THE STATE PRISON.

REPORT OF THE WARDEN.

To the State Board of Supervision:

GENTLEMEN:—In obedience to the provisions of law, I herewith respectfully submit my report of the transactions of the Wisconsin State Prison from October 15, 1889, at which time I assumed the duties of warden, to September 30, 1890, also the inventory and tables, giving in detail the affairs of the prison for the past two years, together with the reports of the physician and chaplains.

There has been an increase of 79 prisoners in the number received since October 1, 1888, over the two years previous. The average number for the last four years has been:

For the year ending September 30, 1887.....	449
For the year ending September 30, 1888.....	441
For the year ending September 30, 1889.....	463
For the year ending September 30, 1890..	522

The average length of terms, exclusive of life terms and general term sentences, for the last two years has been 2 years 6 months and 2 days, against 2 years, 7 months and 27 days during the preceding 2 years. Chapter 390, laws of 1889, provides, that persons convicted of felony, except for murder in the first and second degrees, may in the discretion of the court, receive a general sentence, not to exceed the maximum term, provided by law. Under this law 28 prisoners have been received, 3 have been released on parole, but none of them have complied with the rules of the Board, governing discharges under this law.

During the past year, four new shops have been added to the factory building, making it 500 feet long, 54 feet wide,

The State Prison.

28 feet high. We have also commenced and nearly finished a new bath house and laundry, by remodeling the old blacksmith shop and adding another story to it.

I fully agree with my predecessor, as regards the risk of taking prisoners to work on the prison farm. Several escapes were made therefrom during the past year. It is my opinion that no prisoner should be taken outside the walls, unless he is dressed in stripes, that he may be recognized by the neighbors and passers-by.

None of the four prisoners that have escaped during the past year would probably have succeeded in getting away, had they been dressed in this manner; and I am of the opinion that the stripes for all of them would be conducive to good discipline. The gray clothing now worn is so common that at a distance of a few rods one is unable to distinguish a prisoner from a citizen in working clothes.

The past two years have brought us 61 prisoners, who are known to have been in prisons before, 50 of them are serving their second term, 9 their third term and 2 the fourth term, and at the close of this report we have 42 second termers, 11 third termers, 2 fourth termers and 1 for the fifth time. I believe there should be a provision of law giving prisoners sentenced for a third or fourth term a very long, if not a life sentence.

At the close of the year, we had 515 male and 17 female convicts, total 532, with only 504 cells in the male department. It will, therefore, be seen that additional cellroom will be required at once.

A new roof will have to be put on the north cellroom in a short time.

A separate, safe, and comfortable place for the keeping of insane convicts, seems to be required. They are now kept in the north end of the north cellroom, where their noise keeps the other men, who have to work during the day, awake.

Physician's Report.

We shall need a good and comfortable barn, to be located on the farm.

A dining room for prisoners would be economy for the state, in preventing the destruction of food, that seems in a great measure impossible under the present system of feeding in cells.

The receipts from contract labor and other sources will be nearly sufficient to meet the current expenses for the next two years. The amount of appropriation to be asked for will, in my opinion, depend on the improvements contemplated and to be made.

All of which is respectfully submitted.

GEO. WEEKS,
Warden.

WAUPUN, October 1, 1890.

PHYSICIAN'S REPORT.

To the State Board of Supervision.

GENTLEMEN:—I have the honor of submittnng for your consideration the following medical report:

Each prisoner, upon entering the institution, after being bathed and clad, is called into my office and thoroughly examined. A certificate of his physical and mental condition is furnished the superintendent of the factory to enable him to select work best adapted to the condition and ability of the prisoner. A like certificate is furnished the prison clerk and becomes a part of the general record.

At 5:30 A. M. the year around, Sundays excepted, there is a "sick call" in each cell room. Every man who requests to see the doctor is unlocked and examined, and, where necessary, is prescribed for. If not able to work he is excused and sent to the "sick cell." If only slightly indisposed, he is given medicine and goes about his usual work. Those who are found to be seriously sick go at once

The State Prison.

to the hospital. Connected with the hospital is a dispensary where all prescriptions are put up by the prison physician. Men in the sick cells and hospital are visited twice each day. There is a second sick call at noon, but at any hour of the day or night a sick prisoner may call the physician in charge.

Owing to various causes, there has been more medical business in the last two years than at any equal period in the history of the prison. In the first place, we have a greater number of men, and the crowded state of the prison is not favorable to the best hygienic and sanitary conditions. In the second place that terrible scourge known as "La Grippe," that swept over the country last winter occasioned an unprecedented amount of sickness. At one time as high as eighty patients were under medical care. As a direct result of the epidemic we had fifteen cases of pneumonia.

In the last two years fourteen have died, which, all things considered, is a light death rate. Four died of consumption; one of this number being in the last stages of the disease when received, and the other three had a clear history of inherited phthisis. One man killed himself by drinking "wood alcohol," and was beyond the reach of medical aid when found in his bed at night.

One man died of heart disease who had been given up by the medical profession before coming to prison. One died of inflammation of the stomach and liver. An insane woman serving a life sentence died of congestion of the brain; an old man died of cancer of the stomach; one of diabetes; two of pneumonia, and two life prisoners of old age.

Upon my recommendation and the application of the Warden, the Governor has transferred five insane convicts to the State Hospital.

I am pleased to note the near completion of a large and thoroughly equipped bath house.

Chaplain's Report.

Doubtless some steps will be taken in the near future to relieve the over crowded condition of the prison; otherwise grave responsibility will be incurred.

Respectfully submitted,

VICTOR KUTCHIN, M. D.,

Prison Physician.

CHAPLAIN'S REPORT:

To the State Board of Supervision:

GENTLEMEN:—It has become my duty again to make a report of the religious and educational work under the direction of the prison chaplain.

Some new departures have been made and more is being done in a religious way than at any time in the past eleven years. Reasonable success has followed the efforts put forth, and the future is full of promise. It is always a pleasure to work when we can hear in our hearts an echo of the words of the apostle: "For as much as ye know that your labor is not in vain in the Lord."

CHAPEL SERVICE.

Preaching is a means ordained of God for the conversion of the world. The gospel, preached in its simplicity, is never preached in vain.

Visible results may not always follow, but the "good seed," will bring forth fruit, even after many days. The preaching service in the chapel has been well attended, though this prison does not require its inmates to attend divine service on the sabbath. Special services have been held on Thanksgiving, Christmas and Easter Sunday.

"Flower Mission" has become an institution that we could not well dispense with, the annual service being looked forward to with eager expectation and remembered with pleasure by the majority of the prisoners. Flowers

The State Prison.

are sent to us in abundance from every part of the state and the ladies of Waupun are always ready to take hold and do what they can to further the success of the undertaking.

SOCIETY OF CHRISTIAN ENDEAVOR.

Within the last year I have organized such a society in this prison. The present membership is one hundred and twenty-eight; of this number eighty-four are "active members," and the rest "associate members." From the latter class at almost every meeting some ask to be advanced to "active membership." This is the only society of the kind in any prison in the world.

It has aroused great interest on every hand. Fraternal greetings were wired us from the great National Convention that met at St. Louis last June, and letters of cheer and encouragement have been received from almost every state in the Union. But, best of all, it is doing great good in this prison.

MEETING AT FEMALE PRISON.

A weekly prayer meeting is held at the female prison and is not without its encouraging features. The women have improved greatly in singing and have made some considerable advancement in a study of scripture. It is to be hoped that some have attained to a personal knowledge of God and of our Saviour Jesus Christ.

PRISON SCHOOL.

The prison school is doing rather better and more efficient work than formerly. A larger number has been in attendance, and the average standing is higher. The whole number enrolled for the two years past, was 436; present number enrolled, 83; average standing 85. We have three sessions of school a week, on Monday, Wednesday and Friday evenings. The Bennett law is in full force in the prison school, and a large number of foreigners are

Catholic Chaplain's Report.

being taught the English language. The progress made by all grades is simply wonderful, and the good accomplished by the school is, in my estimation, incalculable,

PRISON LIBRARY.

I am sorry to report the library in bad condition. Quite a number of volumes have been read to pieces and will have to be retired. With our number of prisoners we should have at least twice our present number of books.

PERSONAL WORK.

I see each man as soon as he comes into the prison, and assure him of my interest and desire to see him turn to a good life. As far as possible, I learn the history of each individual, and as a rule, find an explanation of his present in his past. What I can I do for each. My heart is often heavy when I think of how little is actually being done for the reformation of criminals. In hours of despondency I feel that someone else in my place might do more than I am able to accomplish.

I have given eleven of the best years of my life to this work and have only to regret that I have been able to do so little for that most miserable of all God's creatures—the prisoner.

VICTOR KUTCHIN,
Chaplain.

CATHOLIC CHAPLAIN'S REPORT.

To the State Board of Supervision:

GENTLEMEN:—As I perceive by the statutes of Wisconsin that the State Prison is designed to be reformatory as well as penal, I have always endeavored, to the utmost of my power, so far as within my proper sphere, to accomplish the end intended by the legislature. Of course my influence extends chiefly to the Catholic convicts. When I speak of Catholics in relation to the inmates of the prison,

The State Prison.

I desire to be understood to mean not regularly trained or instructed Catholics, who are seldom committed to prison, but those who, so far as they have any religious belief or religious knowledge, are of the Catholic faith, and can be influenced only by the Catholic religion. Such as these comprise more than one-third or nearly one-half of the entire number of convicts. A large proportion of them are well disposed to avail themselves of the benefits of religion, which in most instances was altogether ignored before entering the prison. That their good disposition may be brought to good effect, it is necessary that a real interest be shown and other proper methods adopted.

With reference to my work of the last nine or ten months I have little to say, as during that time I have not had the opportunity of doing my work as it ought to have been done. I have only to remark that I am pleased to observe that so many continue to evince their former religious interest, although I have been prevented from assisting them to perseverance by the stimulus of private and personal reproof, instruction or encouragement. On the other hand, I regret that so few of the recent comers appear ready to take advantage of their religious privileges. The reason is obvious: I have not been able to approach them for the performance of my duty in their regard.

Respectfully,

E. ALLEN,
Catholic Chaplain.

Statistical Tables.

STATISTICS.

TABLE NO. 1.

Admissions and discharges.

	Male.	Female.	Total.
Number of prisoners confined Oct. 1, 1888	424	14	438
Received during the year ending Sept. 30, 1889	284	7	291
Received during the year ending September 30, 1890.	272	11	283
	980	32	1,012
	Male.	Female.	
Discharged during the year ending Sept. 30, 1889.....	203	6	
Transferred to Hospital Insane	3		
Died	4		
Remanded for new trial	5		
Escaped.....	1		
Discharged during the year ending Sept. 30, 1890	222	8	
Transferred to Hospital Insane.....	2		
Transferred to Industrial School....	2		
Died	9	1	
Remanded for new trial	2		
Escaped.....	4		
Writ of habeas corpus	8		
Remaining Sept. 30, 1890.....			
	465	15	480
	515	17	532

Average number during the year

ending September 30, 1890.....	522
ending September 30, 1889.....	463
ending September 30, 1888.....	441
ending September 30, 1887.....	448
ending September 30, 1886.....	456
ending September 30, 1885.....	443
ending September 30, 1884.....	398
ending September 30, 1883.....	363
ending September 30, 1882.....	336
ending September 30, 1881.....	283
ending September 30, 1880.....	304

The State Prison.

TABLE NO. 2.

Whole number of days spent in prison.

	Year ending Sep- tember 30, 1889.		Year ending Sep- tember 30, 1890.	
<i>Whole number of days during the year.</i>				
Male.....	164,126		185,697	
Female	4,796		5,229	
Total		168,922		190,926
<i>Lost time.</i>				
Sundays and holidays.....	24,871		28,411	
Sick in hospital and cell room.....	2,092		4,188	
Solitary as per sentence.....	229		159	
Solitary as per punishment.....	340		103	
Dark cell.....	199		242	
Insane and idiotic.....	1,390		733	
Out on order of court.....	21		26	
Old age.....	1,061		521	
Total		30,203		34,383
<i>Labor not directly productive.</i>				
Hospital and buildings attendants.....	1,039		1,482	
Tier tenders and barber.....	3,164		3,211	
Inside gate and tobacco shop.....	626		626	
Kitchen.....	2,850		3,102	
Baker and butcher.....	741		741	
Laundry.....	1,245		1,380	
Barn, farm, garden and yard.....	9,833		9,974	
Tailor and shoeshop.....	1,328		1,343	
Clothing department.....	622		622	
Lamplighter and whitewasher.....	622		622	
Menders.....	1,830		1,515	
Female prisoners.....	4,796		5,229	
Total		28,696		29,847
<i>Productive labor.</i>				
Contractors.....	107,046		122,244	
Engine and boilers.....	1,068		1,297	
General repairs and new buildings.....	1,914	110,023	3,155	126,696
Total		168,922		190,926
Per cent. of lost time.....	17.87		18.04	
Per cent. indispensable labor.....	17.		15.63	
Per cent. productive labor.....	65.13		66.33	

TABLE NO. 3.

Consolidated statement of convict labor for the year ending September 30th, 1889.

Month.	Number of convicts employed.	Average num- ber employed per day.	Total number of hours.		Deduction for choremen.		Total number of days charged.			Amount received.	
October, 1888.....	8,763	325	87,627	30	1,752	33	8,587	4	57	\$4,293	75
November, 1888.....	8,340	321	83,397	....	1,667	56	8,172	9	4	4,086	45
December, 1888	8,103	324	81,028	....	1,620	33	7,940	7	27	3,970	37
January, 1889.....	8,817	326	88,169	50	1,763	23	8,640	6	27	4,320	32
February, 1889.....	7,974	332	79,742	10	1,594	51	7,814	7	19	3,907	36
March, 1889	8,735	335	87,349	25	1,746	59	8,560	2	26	4,280	12
April, 1889.....	8,843	340	88,431	20	1,768	37	8,666	2	43	4,333	13
May, 1889.....	9,103	348	91,032	15	1,820	38	8,921	1	37	4,460	58
June, 1889.	9,106	364	91,063	10	1,821	15	8,924	1	55	4,462	10
July, 1889.....	9,805	377	98,049	....	1,960	58	9,608	8	2	4,804	40
August, 1889.....	10,156	376	101,562	35	2,031	15	9,953	1	20	4,976	56
September, 1889.....	9,301	372	93,011	....	1,860	13	9,115	....	47	4,557	54
	107,046	344	1,070,463	15	21,409	11	104,905	4	4	\$52,452	68

Statistical Tables.

TABLE No. 3.

Consolidated statement of convict labor for the year ending September 30, 1890.

MONTH.	Number of convicts employed.	Average num- ber employed per day.	Total number of hours.		Deduction for choremen.		Total number of days charged.			Amount received.	
October, 1889.....	10,288	381	102,899	....	2,058	....	10,084	1	....	\$5,042	05
November, 1889....	9,933	397	99,347	55	1,986	57	9,736	....	58	4,868	05
December, 1889	9,906	381	99,144	45	1,982	53	9,716	1	52	4,858	09
January, 1890.....	10,504	390	105,023	22	2,100	28	10,292	2	54	5,146	14
February, 1890.....	9,179	382	91,835	30	1,836	42	8,999	8	48	4,499	94
March, 1890.....	9,865	379	98,703	10	1,974	64	9,672	9	6	4,836	45
April, 1890.....	10,273	395	102,728	....	2,054	33	10,067	3	27	5,033	67
May, 1890	10,656	395	104,632	20	2,092	38	10,253	9	42	5,126	98
June, 1890.....	10,109	404	101,118	15	2,022	22	9,909	5	53	4,954	79
July, 1890.....	10,566	406	105,696	20	2,113	55	10,358	2	25	5,179	12
August, 1890.....	10,439	401	104,416	45	2,088	20	10,232	8	25	5,116	42
September, 1890.....	10,526	405	105,291	20	2,105	49	10,318	5	31	5,159	27
Total	122,244	393	1,220,836	42	24,416	41	119,642	....	1	\$59,820	97

Per cent. of convicts employed on contract to number confined for the year ending.

September 30, 1890.....	64.26	September 30, 1887.....	62.71
September 30, 1889.....	63.31	September 30, 1886.....	61.80
September 30, 1888.....	61.92		

Statistical Tables.

TABLE NO. 4.

SUMMARY OF RECEIPTS.

Counties where convicted.

1889. 1890.		1889. 1890.			
Ashland.....	15	12	Marathon.....	4	6
Barron	8	1	Marinette.	5	11
Bayfield.....	1	3	Milwaukee	4	6
Buffalo.....	2	2	Oconto	2	1
Burnett	3	..	Outagamie	6	4
Brown	7	6	Ozaukee.....	1	1
Calumet.....	4	..	Oneida ..	1	2
Chippewa	14	10	Pepin.....	..	1
Clark	7	7	Pierce.....	1	1
Columbia	3	1	Price.....	4	4
Crawford	2	5	Portage.....	3	7
Dane.....	22	18	Polk.....	..	3
Dodge.....	6	1	Racine.....	5	10
Dunn.....	2	1	Richland	5	..
Douglas	8	13	Rock.....	10	9
Door	2	..	St. Croix.....	1	6
Eau Claire	12	7	Sauk.....	10	..
Fond du Lac.....	9	8	Sawyer.....	4	1
Florence	2	..	Sheboygan.....	3	2
Grant	2	9	Taylor.....	1	1
Green.....	3	2	Trempealeau .....	..	5
Green Lake.....	..	1	Vernon.....	1	4
Iowa.....	2	..	Walworth.....	3	3
Jackson.....	6	2	Washington.....	1	..
Juneau.....	2	7	Waukesha.....	5	14
Jefferson.....	9	3	Waupaca.....	2	5
Kenosha	6	7	Waushara.....	3	1
La Crosse.....	16	16	Winnebago	8	7
Langlade	4	1	Wood	7	3
Lincoln	1	2	Washburn.....	3	5
Manitowoc.....	..	2	U. S. courts	3	5
Monroe.....	3	7	Recaptured	2	..
				<hr/>	<hr/>
				291	283
				<hr/>	<hr/>

The State Prison.

Religious Instruction.

	1889.	1890.		1889.	1890.
Protestants.....	126	131	Buddhism.....	1	....
Catholics.....	117	103	No religion	47	49
				<u>291</u>	<u>283</u>
				<u>==</u>	<u>==</u>

Ages.

Under 20 years.....	29	27	From 50 to 60 years....	14	18
From 20 to 30 years...	142	127	From 60 to 70 years....	6	5
From 30 to 40 years....	66	69	From 70 to 80 years....	1	1
From 40 to 50 years....	33	36		<u>291</u>	<u>283</u>
				<u>==</u>	<u>==</u>

Sex.

Male.....	284	272	Female.....	7	11
				<u>291</u>	<u>283</u>
				<u>==</u>	<u>==</u>

Habits.

Intemperate..	88	73	Temperate.....	42	42
Moderate.....	161	168		<u>291</u>	<u>283</u>
				<u>==</u>	<u>==</u>

Conjugal relations.

Married.....	93	98	Widowers.....	12	13
Single.....	182	164	Divorced.....	3	5
Widows.....	1	3		<u>291</u>	<u>283</u>
				<u>==</u>	<u>==</u>

Color.

White	282	274	Indian.	2	2
Black.....	1	4	Half Indian.....	2	2
Mulatto.....	3	1	Chinese.....	1.....	....
				<u>291</u>	<u>283</u>
				<u>==</u>	<u>==</u>

Statistical Tables.

How often sentenced.

	1889.	1890.		1889.	1890.
First time.....	249	255	Fourth time.....	2.....	
Second time....	31	19	Reform school.....	6	3
Third time.....	3	6			
				<u>291</u>	<u>283</u>

Education.

Read and write.			French	1	2
English.....	221	231	Polish	1	2
German.....	17	10	Swede.....	1	1
Norwegian	8	5	Read only.....	10	9
Italian.....	1.....		Nelther read nor write.	31	22
Bohemian.....		1		<u>291</u>	<u>283</u>

Terms of sentence.

During life.....	6	14	Three years.....	26	30
Twenty years.....	3	3	Two years and six mo..	6	1
Fifteen years	1	1	Two years	54	45
Fourteen years....	1	1	One year and six mo...	22	15
Thirteen years.....	1	..	One year and three mo.	2	2
Twelve years.....	..	1	One year and two mo..	1	..
Ten years.....	4	3	One year.....	111	104
Nine years.....	1	..	Ten months	1	..
Eight years.....	1	4	Nine months	1	1
Seven years and six mo.	1	..	Seven and one half mo.	1	..
Seven years.....	3	2	Six months	13	4
Six years.....	2	3	General terms.....	7	21
Five years	11	16	Remainder of sentence.....		1
Four years.....	11	11		<u>291</u>	<u>283</u>

*Statistical Tables.**Profession or trade.*

	1889.	1890.		1889.	1890
Agents.....	4	7	Laundrymen.....	3	1
Brickmaker.....	1	..	Lawyers.....	..	2
Bricklayer.....	1	..	Lather.....	1	..
Bakers.....	1	1	Masons.....	5	3
Blacksmiths....	5	4	Morocco case maker....	..	1
Barbers.....	7	7	Miners.....	1	1
Boxmakers.....	..	2	Moulders.....	..	2
Brakemen.....	14	9	Machinists.....	5	..
Butchers.....	4	4	Musician.....	..	1
Bookkeepers.....	1	2	Painters.....	10	7
Banker.....	..	1	Printers.....	5	2
Brewer.....	1	..	Physicians.....	1	3
Clerks.....	6	7	Polisher.....	1	..
Carpenters.....	8	8	Photographer.....	..	1
Cooks.....	11	5	Peddlers.....	1	1
County officer.....	..	1	Porter.....	..	1
Cigar makers.....	1	2	Rivermen.....	3	1
Coopers.....	2	..	Steam fitters.....	1	2
Carver.....	1	..	Scalers.....	4	..
Cheese makers.....	..	2	Shingle packers.....	2	..
Cancer doctor.....	..	1	Silver platers.....	..	2
Engineers.....	1	2	Shoemakers.....	3	10
Electrician.....	1	..	Sailors.....	1	7
Farmers and farm lab'rs.	24	27	Saloonkeepers.....	3	5
Firemen.....	4	4	Showman.....	1	..
Fishermen.....	..	2	Stone cutters.....	2	4
Gardner.....	..	1	Seamstresses.....	1	2
Harnessmakers.....	1	1	Teamsters.....	1	7
Housekeepers.....	4	8	Tailors.....	2	1
Hotelkeeper.....	1	..	Tinsmiths.....	2	..
Hostlers.....	4	2	Trunkmakers.....	2	..
Hatter.....	1	..	Telegraph operator.....	1	..
Hunter.....	..	1	Weaver.....	1	..
Jeweler.....	..	1	Waiters.....	5	2
Laborers, no trade.....	102	90	Wood turner.....	..	1
Lumbermen.....	12	10	Well digger.....	..	1
				<u>291</u>	<u>283</u>

*The State Prison.**Nativity.*

		1889.	1890.			1889.	1890.
<i>Native —</i>				<i>Foreign —</i>			
Alabama.....	..	1		Atlantic ocean.....	..	1	
California.....	1	..		Austria.....	..	1	
Connecticut.....	..	2		Belgium.....	2	2	
Dakota.....	..	2		Bohemia.....	..	1	
Georgia.....	1	..		Canada.....	17	19	
Illinois.....	10	12		China.....	1	..	
Iowa.....	6	9		Denmark.....	3	1	
Indiana.....	6	..		England.....	9	11	
Kentucky.....	2	3		France.....	..	1	
Michigan.....	9	7		Finland.....	..	1	
Minnesota.....	3	10		Germany.....	31	33	
Missouri.....	3	1		Holland.....	1	..	
Maryland.....	..	3		Ireland.....	8	8	
Maine.....	2	2		Italy.....	2	..	
Massachusetts.....	3	4		Norway.....	14	11	
Mississippi.....	1	1		New Brunswick.....	1	..	
New York.....	39	31		Poland.....	1	2	
New Jersey.....	2	..		Spain.....	1	..	
Ohio.....	9	9		Sweden.....	6	2	
Pennsylvania.....	13	12		Scotland.....	2	1	
South Carolina.....	1	..		Switzerland.....	3	5	
Texas.....	1	2		Wales.....	..	1	
Tennessee.....	..	1		Unknown.....	1	..	
Vermont.....	1	2					
Virginia.....	..	2				102	101
Wisconsin.....	75	66				==	==
		188	182				
		==	==				

Nativity of parents.

	1889.	1890.
Father and mother born in the United States.....	81	85
Father and mother born in foreign countries.....	183	173
Father born in the United States, mother in foreign countries	7	8
Mother born in the United States, father in foreign countries.	12	9
Not known.....	8	8
	291	283
	==	==

*Statistical Tables.*TABLE NO. 5.
PRISONERS DISCHARGED.

	1889.	1890.
Expiration of time.....	35	25
Reduction of time.....	155	177
Governor's pardon.....	19	19
Parole.....		3
Governor's commutation of sentence....		1
President's commutation of sentence.....		2
Transferred to Hospital for the Insane.....	3	2
Transferred to Industrial School.....		2
Writ of habeas corpus.....		8
Remanded for new trial.....	5	2
Died.....	4	10
Escaped.....	1	4
	<u>222</u>	<u>258</u>

TABLE NO. 6.
PRISON POPULATION.*At the close of the year ending September 30th, 1890.**Counties where convicted.*

Adams.....	1	Marinette.....	18
Ashland.....	29	Marathon.....	6
Barron.....	7	Monroe.....	10
Bayfield.....	4	Oneida.....	2
Brown.....	12	Outagamie.....	6
Buffalo.....	2	Oconto.....	3
Burnett.....	2	Ozaukee.....	4
Calumet.....	5	Pierce.....	2
Chippewa.....	18	Pepin.....	1
Clark.....	9	Portage.....	9
Crawford.....	6	Polk.....	4
Columbia.....	4	Price.....	6
Douglas.....	18	Richland.....	13
Dane.....	34	Racine.....	14
Dodge.....	7	Rock.....	18
Dunn.....	3	St. Croix.....	10
Eau Claire.....	13	Shawano.....	2
Florence.....	1	Sauk.....	3
Fond du Lac.....	10	Sheboygan.....	6
Grant.....	9	Sawyer.....	3
Green.....	6	Taylor.....	1
Green Lake.....	5	Trempealeau.....	7
Iowa.....	3	Vernon.....	5
Jackson.....	8	Walworth.....	7
Jefferson.....	9	Waukesha.....	20
Juneau.....	12	Waupaca.....	7
Kenosha.....	9	Waushara.....	3
Langlade.....	4	Winnebago.....	16
La Crosse.....	27	Wood.....	11
Lincoln.....	3	Washburn.....	7
Milwaukee.....	29	U. S. Courts.....	6
Manitowoc.....	3		

The State Prison.

Color.

White	511	Indian	7
Black	8	Half Indian	3
Mulatto	3		<u>3</u>
			532
			<u>==</u>

Ages.

Under 20 years	47	From 50 to 60 years	47
From 20 to 30 years	204	From 60 to 70 years	17
From 30 to 40 years	144	From 70 to 80 years	9
From 40 to 50 years	64		<u>3</u>
			532
			<u>==</u>

Army record.

Served during the rebellion in the United States army or navy	44
Served during the rebellion in the Confederate army	3

Physical and mental condition.

Insane	12	Blind one eye	7
Idiots	2	Chronic diseases	6
Crippled	13	Phs. and ment. condition good ..	491
Blind	1		<u>3</u>
			532
			<u>==</u>

How often sentenced.

First time	469	Fourth time	2
Second time	42	Fifth time	1
Third time	11	Reform school	7
			<u>3</u>
			532
			<u>==</u>

Statistical Tables.

Education.

Read and write English.....	385	Read and write Holland only....	1
Read and write German only....	40	Read and write Italian only.....	3
Read and write Swedish only....	3	Read and write French only.....	1
Read and write Norwegian only.....	9	Read English only.....	21
Read and write Danish only.....	1	Read German only.....	2
Read and write Polish only....	3	Read French only.....	1
Read and write Bohemian only..	1	Neither read nor write	61
			<hr/>
			532
			<hr/>
Able to speak English	479	Speak Swedish only.....	2
Speak German only	34	Speak Holland only.....	5
Speak Bohemian only	4	Speak Finish only.....	1
Speak Polish only.....	4	Speak Indian only.....	1
Speak Norwegian only	1	Speak Italian only.....	1
			<hr/>
			533
			<hr/>
Attended Public School.....	411	Attended Seminary.....	12
Attended High School.....	16	Attended College.....	8
Attended Normal School.....	1	No School.....	84
			<hr/>
			539
			<hr/>

Crime.

Assault with intent to kill....	16	Murder	97
Assault with intent to do bodily harm.....	12	Manslaughter	15
Assault with intent to rape...	15	Obstructing railroad track....	3
Assault with intent to rob....	1	Obtaining money or goods on false pretenses	3
Abandoning family	2	Producing death by procuring an abortion	3
Arson	3	Perjury.....	2
Abduction	1	Polygamy.....	1
Aiding prisoners to escape....	1	Poisoning.....	1
Adultery.....	13	Rape	21
Burglary.....	117	Receiving stolen goods	1
Bribing an officer.....	1	Robbery	12
Bigamy.	3	Selling liquor to Indians.....	2
Embezzlement.....	5	Sodomy	1
Forgery	24	Vagrancy	2
Fornication.....	3	Violation Sec. 5440 U. S. S...	1
Horse stealing.....	27	Using mail for fraudulent purposes	1
Incest	9		<hr/>
Keeping house of ill-fame	12		532
Larceny	101		<hr/>

*The State Prison.**Terms of sentence.*

During life.....	68	Six years.....	9
Thirty years.....	2	Five years.....	41
Twenty-five years.....	1	Four years and six months.....	8
Twenty-two years.....	1	Four years.....	27
Twenty years.....	14	Three years and six months....	1
Eighteen years.....	3	Three years.....	58
Sixteen years.....	1	Two years and six months.....	4
Fifteen years.....	10	Two years.....	84
Fourteen years.....	6	One year and six months.....	19
Thirteen years.....	1	One year and three months....	2
Twelve years.....	5	One year.....	98
Ten years.....	13	Nine months.....	1
Nine years.....	5	Six months.....	4
Eight years.....	15	General terms.....	25
Seven years.....	11		
			<u>532</u>

TABLE No. 7.

LIFE PRISONERS.

Number confined October 1, 1888.....	60
Received during the year ending September 30, 1889.....	6
Received during the year ending September 30, 1890.....	14
	<u>80</u>
Discharged on Governor's pardon.....	2
“ on commutation of sentence.....	1
“ on writ of habeas corpus.....	1
Died.....	5
Escaped.....	1
Remanded for new trial.....	2
	<u>12</u>
Remaining in prison September 30, 1890.....	68
	<u>=</u>

Color.

White.....	59	Indian.....	4
Black.....	3	Half Indian.....	2
			<u>68</u>
			<u>=</u>

Conjugal Relations.

Married.....	33	Widowers.....	4
Single.....	28	Widows.....	3
			<u>68</u>
			<u>=</u>

*Statistical Tables.**Sex.*

Male.....	63	Female, ..	5
			<u>68</u>
			<u>=</u>

Age.

From 20 to 30 years	14	From 50 to 60 years	15
From 30 to 40 years	19	From 60 to 70 years	1
From 40 to 50 years	17	From 70 to 80 years	3
			<u>68</u>
			<u>=</u>

Total number of life prisoners received since organization of the prison.

Murder first degree.....	148
Murder second degree.....	11
Desertion	1
Rape	4
	<u>164</u>
	<u>=</u>

Discharged on —

Governor's pardon	41
Writ of habeas corpus.....	5
Order of supreme court.....	12
Order of secretary of war.....	1
Removed to Hospital Insane.....	7
Died.....	23
Commutation of sentence.....	3
Escaped.....	2
Committed suicide.....	2
	<u>96</u>
	<u>=</u>
Remaining September 30, 1890.....	68
	<u>=</u>

TABLE NO. 8.

Female prisoners.

Number confined October 1, 1888.....	14
Received during the year ending September 30, 1889.....	7
Received during the year ending September 30, 1890.....	11
	<u>32</u>
	<u>=</u>
Discharged on reduction of time.....	14
Died.....	1
	<u>15</u>
	<u>=</u>
Remaining September 30, 1890.....	17
	<u>=</u>

The State Prison.

Ages.

Under 20 years.....	1	From 40 to 50 years.....	4
From 20 to 30 years.....	3	From 50 to 60 years.....	4
From 30 to 40 years.....	5		<u>17</u>
			<u>==</u>

Conjugal Relations.

Married.....	9	Widows.....	7
Single.....	1		<u>17</u>
			<u>==</u>

Crime.

Adultery.....	2	Producing death by procuring an abortion.....	1
Keeping house of ill fame....	6	Selling liquor to Indians.....	1
Murder 1st degree.....	5		<u>17</u>
Murder 2d degree.....	2		<u>==</u>

Terms.

During life.....	5	Three years.....	1
Twenty-five years.....	1	One year and six months....	1
Eighteen years.....	1	One year.....	6
Four years.....	1	One to three years.....	1
			<u>17</u>
			<u>==</u>

TABLE NO. 9.

General term sentences.

Received during the year ending Sept. 30, 1889.....	7
Received during the year ending Sept. 30, 1890.....	21
	<u>28</u>
Discharged on parole.....	3
	<u>25</u>
Remaining Sept. 30th, 1890.....	<u>==</u>

Crime.

Burglary.....	13	Larceny.....	6
Bigamy.....	1	Manslaughter.....	1
Horse stealing.....	2	Robbery.....	1
Keeping house of ill fame.....	1		<u>25</u>
			<u>==</u>

*Statistical Tables.**Terms.*

From 5 to 15 years.....	1	From 1 to 7 years.....	2
5 to 10 years.....	3	1 to 5 years.....	9
2 to 15 years.....	3	1 to 3 years... ..	5
2 to 4 years.....	1	Six months to 1 year.....	1
			<u>25</u>

TABLE NO. 11.

Exhibit of United States prisoners.

No. on Register.	Where convicted.	Term of sentence.	Date of sentence.	Crime.
4706	Eastern District.....	Two years.....	July 16, 1889..	Making false affidavit.
4829	Western District.....	Fifteen months.	Dec. 16, 1889..	Selling liquor to Indians.
4833	Western District.....	Eighteen mo'ths	Dec. 20, 1889..	Selling liquor to Indians.
4948	Eastern District.....	Two years.....	May 17, 1890..	Violation Sect. 5440, U. S. S.
5040	Eastern District.....	During life.....	Sept. 22, 1890.	Rape.
5043	Western District.....	Eighteen mo'ths	Sept. 27, 1890.	Using mail for fraudulent purposes.

The State Prison.

TABLE NO. 10.

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 same 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	.....	3
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
Total.....	.....	.....	.....	549	72	8	27

Current Expense Funds.

STATEMENT OF CURRENT EXPENSE FUND, 1889.

1888.				
Oct. 1	Balance			\$1,008 24
1889.				
March 8	Appropriation, chap. 57, laws 1889. .			40,000 00
Sept. 30	Steward for convict labor during the year.....			52,452 68
	Steward for sundries during the year			2,510 73
1889.				
Aug. 31	Transferred for expenses Board of Supervision	\$2,063 04		
Sept. 30	Paid on account of current expenses during the year	64,611 43		
	Balance appropriation in state treasury.....	\$23,540 21		
	Balance in hands of the treasurer of the institution.....	5,520 77		
	Balance in hands of the steward of the institution.....	230 20	29,297 18	
			\$95,971 65	\$95,971 65

STATEMENT OF CURRENT EXPENSE FUND, 1890.

1889.				
Oct. 1	Balance available.....			\$29,297 18
1890.				
Sept. 30	Steward for convict labor during the year.....			60,220 10
	Steward for sundries during the year			3,174 87
Sept. 16	Transferred for expenses Board of Supervision	\$2,063 04		
Sept. 30	Paid on account of current expenses during the year.....	69,819 96		
	Balance appropriation in state treasury	\$13,470 38		
	Balance in hands of treasurer of institution	7,143 34		
	Balance in hands of steward of institution.....	195 43	20,809 15	
			\$92,692 15	\$92,692 15
1890.				
Oct. 1	Balance available.....			\$20,809 15

*The State Prison.*STATEMENT OF
At the Wisconsin State Prison

CASSIFIED ITEMS.	Inventory September 30, 1888.	Purchased during the year.	Transfer'd to this ac- count dur- ing the year.	Total.
Amusement and instruction	\$2,432 85	\$91 08		\$2,523 93
Armory	616 70	4 42		621 12
Accounts receivable	337 17			337 17
Barn, farm and garden	5,498 40	807 32	25 00	6,330 72
Bills receivable	2,680 18			2,680 18
Board			80 36	80 36
Clothing	822 38	4,234 94		5,057 32
Convicts discharged		1,792 71		1,792 71
Convicts escaped		445 31		445 31
Discount				
Drug and medical dep't.	389 36	266 42		655 78
Engines and boilers	13,194 20	409 85	1,066 97	14,671 02
Freight and express		18 40		18 40
Fire apparatus		70 02	650 00	720 02
Fuel	10,334 95	2,396 65		12,731 60
Gas and other lights	814 92	1,051 54		1,866 46
House furnishing	11,341 72	1,224 33		12,566 05
Interest and exchange		16 00		16 00
Laundry	1,070 75	187 00		1,257 75
Machinery and tools	1,702 83			1,702 83
Miscellaneous	304 90	89 50		394 40
Offices' expense		25 19		25 19
Old stock and materials	183 00			183 00
Printing, postage, station- ery and telegraph	71 16	354 03		425 19
Repairs and renewals	515 83	2,331 25	182 00	3,029 08
Real estate, including build- ings, etc.	368,972 81		900 00	369,872 81
Scraps			205 92	205 92
Subsistence	518 58	22,799 08	1,224 49	24,542 15
Tobacco	62 76	217 52		280 28
United States			167 14	167 14
Wages and salaries		18,768 75		18,768 75
Steam heating		6,925 52		6,925 52
Indebtedness		60 63		60 63
Totals	\$121,865 45	\$64,647 46	\$4,501 83	491,014 79
Discounts		36 03		
		\$64,611 43		431,057 30
Net expenses				\$59,957 49

Add amount assigned to this institution and set apart by the Secretary of

Statement of Current Expenses.

CURRENT EXPENSES.

the fiscal year ending September 30, 1889.

Inventory September 30, 1889.	Cash receiv- ed on this account during the year.	Transferred from this ac- count dur- ing the year.	Total.	Gained.	Expended.
\$2,277 85			\$2,277 85		\$246 08
611 80			611 80		9 32
73 71	\$20 00	\$317 17	410 88	\$73 71	
5,855 95	1,239 72	1,224 49	8,320 16	1,989 44	
		2,680 18	2,680 18		
	80 36		80 36		
1,243 22	4 50	30 00	1,277 72		3,779 60
	41 30	10 00	51 30		1,741 41
					445 31
		36 03	36 03	36 03	
311 21			311 21		344 57
13,968 27	7 69	620 00	14,595 96		75 06
					18 40
720 02			720 02		
4,432 62	476 59		4,909 21		7,822 39
818 03			818 03		1,048 43
11,128 11	37 70	80 00	11,245 81		1,320 24
					16 00
993 77			993 77		263 98
1,027 33	50	667 50	1,695 33		7 50
289 90	56 15		346 05		48 35
					25 19
	1 00	182 00	183 00		
76 00		19 80	95 80		329 39
504 40	28 01	505 92	1,038 33		1,990 75
369,872 81			369,872 81		
	205 92		205 92		
772 38	144 15	207 50	1,124 03		23,418 12
63 08			63 08		277 20
	167 14		167 14		
					18,768 75
5,258 55		1,666 97	6,925 52		60 63
\$420,299 01	\$2,510 73	\$8,247 56	\$431,057 30	\$2,099 18	\$62,056 67
					2,099 18
					\$59,957 49
					2,063 04
					\$62,020 53

State for salaries and expenses of the Board of Supervision..

The State Prison.

STATEMENT OF

At the Wisconsin State Prison

CLASSIFIED ITEMS.	Inventory September 30, 1889.	Purchased during the year.	Transfer'd to this ac- count dur- ing the year.	Total.
Amusements and instruction	\$2,277 85	\$70 69	\$25 00	\$2,373 54
Armory	611 80	80		612 60
Accounts receivable	73 71			73 71
Barn, farm and garden	5,855 95	1,195 28		7,051 23
Clothing	1,243 22	4,741 01		5,984 23
Convicts discharged		2,500 00		2,500 00
Convicts escaped		174 26		174 26
Convicts' earnings		458 07		458 07
Discount				
Drug and medical dep't.	311 21	489 84		801 05
Engines and boilers	13,968 27	293 37		14,261 64
Freight and express		18 65		18 65
Fire apparatus	720 02			720 02
Fuel	4,432 62	2,923 86		7,356 48
Gas and other lights	818 03	1,021 09		1,839 12
House furnishing	11,128 11	2,907 84		14,035 95
Interest and exchange		20 87		20 87
Laundry	993 77	111 03		1,104 80
Machinery and tools	1,027 33	40 75		1,068 08
Miscellaneous	289 90	267 84	399 13	956 87
Officers' expenses		122 11		122 11
Printing, postage, stationery and telegraph	76 00	390 88		466 88
Repairs and renewals	504 40	1,825 18		2,329 58
Real estate, including build- ings, etc.	369,872 81		15,131 01	385,003 82
Scraps			173 64	173 64
Subsistence	772,38	20,797 97	1,771 73	23,342 08
Tobacco	63 08	342 99		406 07
United States			124 55	124 55
Wages and salaries		19,473 80		19,473 80
Steam heating	5,258 55	123 80	1,350 00	6,732 35
New shop building		8,937 39		8,937 39
Bath house		707 09		707 09
Indebtedness		51 63		51 63
Totals	\$420,299 01	\$70,008 09	\$18,975 06	509,282 16
Discounts		188 13		
		\$69,819 96		449,943 69
Net expense				\$59,338 47

Add amount assigned to this institution and set apart by the Secretary

Statement of Current Expenses.

CURRENT EXPENSES

for the fiscal year ending September 30, 1890.

Inventory September 30, 1890.	Cash re- ceived on this account during the year.	Transferred from this account during the year.	Total.	Gained.	Expended.
\$2,313 40			\$2,313 40		\$60 14
608 00			608 00		4 60
462 67	\$73 71		536 38	\$462 67	
5,763 61	1,412 93	\$1,771 73	8,948 27	1,897 04	
2,008 07	1 90	30 00	2,039 97		3,944 26
		10 00	10 00		2,490 00
					174 26
					458 07
		188 13	188 13	188 13	
291 76			291 76		509 29
12,263 74	755 23	775 00	13,793 94		467 70
					18 65
704 02			704 02		16 00
1,781 31	68 50		1,849 81		5,506 67
804 38	100 05		904 43		934 69
10,949 56	99 10		11,048 66		2,987 29
					20 87
969 48			969 48		135 32
959 16			959 16		108 92
333 90	459 98		793 88		162 99
	23 20		23 20		98 91
134 72			134 72		332 16
404 64	51 98	234 91	691 53		1,638 05
385,003 82			385,003 82		
	173 64		173 64		
996 63	229 26	84 55	1,310 44		22,031 64
145 67			145 67		260 40
	124 55		124 55		
					19,473 80
		6,732 35	6,732 35		
		8,937 39	8,937 39		
707 09			707 09		
					51 63
\$427,605 63	\$3,574 00	\$18,764 06	\$449,943 69	\$2,547 84	\$61,886 31
					2,547 84
					\$59,338 47
					2,063 04
					\$61,401 51

of State for salaries and expenses of the Board of Supervision.

The State Prison.

STATEMENT OF MONEYS RECEIVED AT THE INSTITUTION.

CLASSIFICATION.	Year ending Sept, 80, 1889.	Year ending Sept. 30, 1890.
Accounts recivable	\$20 00	\$73 71
Barn, farm and garden	1,239 72	1,412 93
Board	80 36	.....
Clothing	4 50	1 90
Convicts discharged	41 30	.....
Convict labor	52,452 68	59,820 97
Engines and boilers	7 69	755 20
Fuel	476 59	68 50
Gas and other lights .....	.....	100 05
House furnishing	37 70	99 19
Machinery and tools	50	.....
Miscellaneous	56 15	459 98
Officers' expenses .....	.....	23 20
Old stock and materials	1 00	.....
Repairs and renewals	28 01	51 98
Scraps	205 92	173 64
Subsistence	144 15	229 26
United States	167 14	124 55
	\$54,963 41	\$63,394 97

Farm and Garden Products.

PRODUCTS FROM FARM AND GARDEN.

ARTICLES.	FOR YEAR ENDING SEPT. 30, 1889.		FOR YEAR ENDING SEPT. 30, 1890.	
	Quantity.	Value.	Quantity.	Value.
FORAGE.				
Barley	500 bush.	\$225 00	316.20 bush.	\$158 20
Corn	2,500 bush.	500 00	2,200 bush.	550 00
Cornstalks.....	.....	50 00	.....	60 00
Hay, clover.....	8 tons	64 00	15 tons	105 00
Hay, marsh.....	20 tons	80 00	15 tons	60 00
Mangles	20 loads	30 00	.....	.....
SUBSISTENCE.				
Beets	125 bush.	31 25	1,000 bush.	250 00
Beans	100 bush.	150 00	4 bush.	2 40
Celery	210 heads	10 50	.....	.....
Cabbage	8,000 heads	240 00	3,175 heads	95 25
Carrots	125 bush.	31 25	100 bush.	25 00
Corn .....	.....	.....	59 bush.	29 50
Cucumbers.....	20 bush.	10 00	.....	.....
Onions	500 bush.	250 00	272 bush.	136 00
Potatoes	3,700 bush.	1,110 00	2,668 bush.	1,600 80
Parsnips	10 bush.	7 50	25 bush.	12 50
Pumpkins.....	20 loads	20 00	15 loads	15 00
Peas	100 bush.	100 00	18½ bush.	18 75
Squashes.....	100	8 00	100	8 00
Turnips	50 bush.	12 50	50 bush.	12 50
Tomatoes.....	10 bush.	7 50	20 bush.	15 00
Totals .....	.....	\$2,937 50	.....	\$3,153 90

STATE OF WISCONSIN.

FOURTH BIENNIAL REPORT

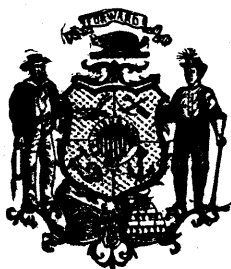
OF THE

COMMISSIONER

OF

Labor and Industrial Statistics.

1888—1889.



MADISON, WISCONSIN,
DEMOCRAT PRINTING COMPANY, STATE PRINTERS.
1890.

PLEASE ACKNOWLEDGE RECEIPT OF BOOK.

FOR INDEX TO INDUSTRIES SEE PAGE VIII.

FOURTH BIENNIAL REPORT

OF THE

COMMISSIONER

OF

Labor and Industrial Statistics

WISCONSIN.

1888—1889.

H. M. STARK, COMMISSIONER.

MATT J. SIMPELAAR,	-	-	-	<i>Deputy Commissioner.</i>
HENRY CLAYMIER,	-	-	-	<i>Factory Inspector.</i>
G. G. LANG,	-	-	-	<i>Assistant Inspector.</i>



MADISON, WISCONSIN,
DEMOCRAT PRINTING COMPANY, STATE PRINTERS,
1890.

BUREAU OF LABOR AND INDUSTRIAL STATISTICS,
MADISON, WIS., September 30th, 1890.

HON. W. D. HOARD,

Governor of Wisconsin:

Dear Sir—I have the honor to transmit herewith the Fourth Biennial Report of this Bureau, as required by section 10, chapter 247, laws of 1885.

Yours respectfully,


Commissioner.

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INTRODUCTORY.

The Commissioner takes pleasure in congratulating the people of the state of Wisconsin upon the general prosperity and healthy growth of our manufacturing industries.

The comparative pay roll for the whole state, representing 1,248 manufacturers, employing 81,604 persons, shows that in the year 1888, they paid out in wages, \$27,009,916.65, and in 1889, \$30,169,452.81—an increase of \$3,472,391.31. New firms established in 1889, paid out in wages, \$760,349.71. In other words, a net increase of nearly four million dollars in the space of one year. No better index of the general welfare of the people could be given.

As an additional sign of the healthy material growth of Wisconsin, Table A, pages 116a to 121a, shows that over seven million dollars was spent for new factory buildings and new machinery.

This Report represents more than 90 per cent. of all persons employed in factories.

The tables and the averages, per capita, and classification of daily wages are absolutely correct.

THE WORK OF THE BUREAU.

The scope of work and the duties of the Bureau are constantly broadening and increasing. The legislature of 1889 passed three new laws affecting the executive and statistical labors. The first limits the age at which children are allowed to work at 13 instead of 12 years of age, and includes commercial establishments as well as factories and workshops. The second gives the inspectors authority over office buildings, tenement houses, assembly halls and theaters, to enforce means of escape in case of fire, and limits hotels exempt from these provisions to those which are designed for occupancy by twenty-five or more, instead of fifty persons. The third law establishes weekly payment of wages, with the natural exceptions.

The Fourth Report is made to cover the two calendar years, 1888 and 1889. It was deemed best to do this because only a very small percentage of the manufacturers have their books laid out to cover intermediate periods. For that reason the Commissioner has decided to call annually, about January 1, for the desired data of wages, etc.

INSPECTION.

The inspectors visited and made report upon 1,902 factories, 376 hotels, 61 churches, 58 schools and colleges, and 55 meeting halls or other buildings coming within the scope of the Wisconsin Personal Safety Laws.

The main part of inspection in the city of Milwaukee was done during the months of January to May, 1890; hence, this Report includes only the orders issued to manufacturing establishments.

The Synoptical Report of Inspection is not devoid of statistical interest, inasmuch as it contains a minute description of every manufacturing plant in the state, together with the number of male and female operatives, the total steam and water horse-power, the number of stationary engines and boilers, and the kind of elevators in use. The remarks by the inspectors accompanying each description, make a record of accidents which have occurred during the last two years.

The Commissioner is happy to note that the work of the Bureau is being better appreciated from year to year. No longer is there reason for complaint on account of reluctance on the part of manufacturers to furnish required information; on the contrary, ready, explicit and even cheerful compliance is shown in letters and actions all over the state. The orders of the inspectors are complied with without a murmur, and not a few manufacturers suggest that an inspector of steam boilers be added to the personnel of the Bureau.

Applications for copies of the Report are received every day from all parts of the United States and the civilized world at large.

INDIVIDUAL STATISTICS.

The relations between the Bureau and the artisan classes have grown into an almost personal character, as is shown by the Index to Correspondents.

The reports from individual workmen are fully and accurately made out, without any reservation or equivocation. Their remarks and trade notes, reproduced under the proper headings, bear the mark of more than ordinary intelligence and thought. There is a total absence of that sophistical language which characterized their correspondence only a few years ago, and even now so superabundant in some of the Reports of Eastern States. This confidence was gained, first, by prompt and courteous correspondence, and, secondly, by a systematic and judicious distribution of the limited edition of the Reports of the Bureau.

THE PRESS.

The press of Wisconsin is in full sympathy with the work of the Bureau, and to its co-operation is due the full and exact statistics of the Building Trades in the present volume. This co-operation was gained chiefly by furnishing and preparing statistical and industrial items of local interest. The mass of information coming to the Bureau from day to day, but either too bulky to preserve for the formal report, and yet very interesting if used immediately, is very great, and much appreciated by editors and publishers.

STRIKES.

Strikes and lockouts during the last two years have been so few and of such narrow extent, as not to deserve space in this Report. The few dis-

turbances that did occur were absolutely local and proved failures in nearly every instance.

CHILD LABOR.

The Wisconsin Bureau cannot furnish statistics of child labor, for the simple fact that there is no child labor in this state, in the strict sense of the word. Our inspectors have been very diligent in this matter, because of the annoyance created by irresponsible persons and newspapers, who keep harping upon the subject. To set this matter at rest the following affidavit has been secured from a few leading manufacturers who are constantly accused of violation of the law:

MILWAUKEE, March 31, 1890.

We, the undersigned manufacturers, hereby certify, that, to the best of our knowledge and belief, we have in our employ no children under legal age (13), and that we will refuse employment to all children under 14 years of age. This certificate is made at the personal solicitation of the Commissioner of Labor and Industrial Statistics.

KIECKHEFER BROS. & CO.,
NATIONAL KNITTING CO.,

Per S. M. LEVY, Vice Pres.

F. A. WALSH & CO.,
GEUDER & PAESCHKE MFG. CO.,

Per WM. GEUDER, Pres.

KALAMAZOO KNITTING CO.,

Per CARL FRESCHL, Pres.

WM. GRAF & CO.

MILWAUKEE, Wis., July 29, 1890.

Your letter of the 26th inst., addressed to Mr. Fred. Bock, superintendent of our bottling department, has been referred to us, and in reply we wish to assure you that there are now no children in our employ under 14 years of age. When you visited our bottling department on the 22d inst., we were under the impression that 14 years was the minimum age, and discharged all *under* 14 years. Respectfully yours,

PABST BREWING CO.

NOTICE.

The limited edition of this Report allows only one copy to every twenty employes. Manufacturers are requested to place one copy in the general workshop, or one in each shop, and to distribute the remainder judiciously, to such employes as can and will appreciate them. Single copies will be forwarded upon application, *prepaid*, to any address within the state of Wisconsin. Applicants from other states must enclose 12c. in postage stamps. Trades organizations, secret and benevolent societies, will receive a copy of this Report in exchange for a copy of their constitutions and by-laws. Editors of newspapers and trade journals publishing reviews of any part of this Report are requested to mail a copy of same to the Bureau.

In conclusion, the Commissioner desires to return thanks to all persons who have in any way contributed to the data from which this Report is compiled.

Respectfully,

H. M. STARK,

Commissioner.

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STATISTICS
OF THE
BUILDING TRADES.

CHAPTER I.

THE BUILDING TRADES.

STATISTICS OF WAGES, ANNUAL EARNINGS, LOST WORKDAYS, ETC.

The Statistics of the Building Trades, which form the leading subject of this report, are based upon the answers of two hundred and forty-eight contractors; the *written* statements of five hundred and thirty-eight workmen; the inquiries and direct reports of the secretaries of Master Builders' Associations; the personal investigations by officers of the Bureau, and the information furnished by numerous persons prominently identified with the out-door trades.

The great mass of data thus gathered has been compiled in comprehensive form, and "sifted" again and again, until it is confidently believed to be the fullest investigation of the subject ever made.

The work was accompanied with a great many difficulties, the chiefest obstacle in the way of obtaining reports complete enough for tabulation being the lack of any system of book or time-keeping among many of the smaller contractors, as well as among the workmen. Consequently more than 30 per cent. of the reports received were rejected. However, the number of perfect reports sent in by employers was sufficient to make them fairly representative of this important branch of industry, comprising two thousand six hundred and sixty-two workmen engaged in all branches of the building trades.

The detailed pay-rolls of one hundred and forty-two firms exhibit the number of lost workdays, and the possible annual earnings at the trades, perhaps more clearly than could be accomplished by any census.

Notwithstanding all the difficulties connected with the work, the remarkable fact is revealed that the results obtained, after analyzation of the one hundred and forty-two pay-rolls, agree in all essentials with the statements of individual workmen as to wages, earnings and lost workdays.

The success attained in the investigation of the subject is the result of the general willingness on the part of contractors, workmen, and others to whom the inquiries were directed.

Previous to the opening of the building season of 1889, and before any formal blanks were sent, the following circular letter was issued to contractors:

Madison, Wis., March 20, 1889.

DEAR SIR: This department intends to devote a chapter of its Fourth Biennial Report to the statistics of the building trades. It is desirable that all employers keep accurate account of the total wages paid to, and the total number of hours worked by, each individual workman.

The blank form calling for such statistics will be issued during the month of December, next, to be returned properly filled out, on or about January 15, 1890.

SECTION 8, chapter 247, laws of 1885. The said commissioner shall have power to prescribe blank forms, and transmit them to employers, which shall be filled out clearly and completely, under oath, by the person or persons to whom they are sent, with the facts, statistics and statements asked for, and returned to him within such reasonable time as he may fix. In case any owner or occupant, or his agent, shall refuse to admit any officer of the said bureau to his workshop or factory, he shall forfeit the sum of ten dollars for each and every offense, and if he shall, through his agent or otherwise, neglect, fail or refuse to fill out the blank forms, and verify and return them as required, he shall forfeit the sum of ten dollars for each and every day the said blanks may be so delayed beyond the time fixed by the commissioner for their return. The forfeits named and provided in this act shall be sued for in the name of the state, by the district attorney of the proper county, upon complaint of any officer of said bureau, or any citizen, and shall be paid into the school fund.

The blank to be issued will leave ample room for reporting several workmen in each trade separately. The blank should be accurately filled out in the manner of the sample hereto annexed. You will render this office a great service by mailing a list of names and addresses of the men now in your employ.

Trusting to your cheerful co-operation in facilitating the gathering of the desired statistics, I remain,

Respectfully yours,

H. M. STARK, Commissioner.

[SAMPLE REPORT.]

NAME OF WORKMAN.	OCCUPATION.	Total Wages paid him in 1889.	Total No. hours Worked.
William Mueller.....	Stone Mason	\$586 40	1,466
Thos. Jones	Bricklayer	502 50	1,340
Frank Brown	Hodcarrier	350 00	1,591
John James.....	Carpenter	325 00	1,444
Peter Holmes	Painter.....	600 00	3,000
Elijah Johnson.. ..	Stone Cutter	700 12	1,867
Fritz Krøeger.....	Plasterer	465 22	1,551
Geo. Bischoff.....	Lather	362 20	1,811
Wm. Amundson	Paperhanger.....	525 80	2,286
C. D. Bartlett	Tinsmith.....	445 90	2,477
Patrick Haley.....	Plumber.....	720 15	2,057
Johnnie Wicks.....	Plumber's helper	310 00	3,100
Christ. Behrends.....	Slate roofer	560 00	2,240
Albert Gross	Composition roofer.....	350 00	2,800
Cornelius Tack.....	Well digger.....	225 00	1,500
Wm. Arnolds	Awning maker.....	345 00	1,725
John Smidt	Laborer.....	340 00	2,260
Freddie Bird	Apprentice.....	130 00	3,100
Richard Burke.. ..	Foreman	1,250 10	2,778

The formal blank, issued in January, 1890, which was an exact imitation of the sample shown above, contained the following:

INSTRUCTIONS.

This blank is the property of the State of Wisconsin, and must be returned, properly filled out, on or before the first day of February, 1890, in the stamped envelope inclosed, to H. M. STARK, Commissioner of Labor and Industrial Statistics, Madison, Wis., in accordance with the provisions of Section 8, chapter 247, Laws of 1885.

The blank should, as nearly as possible, be filled out in the manner and style as printed in the "Sample Report" on second page of this letter, plainly stating the trade, subdivision of the trade, or the class of labor of each workman.

The word "laborer" should only be used in case a certain workman is not regularly employed at any distinct branch of work. If he be a hod-carrier, mortarmaker, or digger, the fact should be stated.

In addition to the formal statistical questions, a few pertinent interrogatories have been formulated on the fourth page of this letter, answers to which are respectfully invited, in order to make the Fourth Report of the Bureau valuable historically as well as statistically. These latter questions have been suggested by the proceedings at the conventions of the National Association of Builders of the United States. Fill out only such of them upon which you have positive information, or a decided opinion. The claims of our foreign-born workmen, for instance, that they are better mechanics than those who learned their trade in this country, ought to be, as far as Wisconsin is concerned, definitely settled.

If there be a way to improve the predest condition of the apprentice in any of the building trades, the Bureau would like to receive your suggestions. If there are conditions connected with the trades which work unsatisfactorily or damaging to contractors, in reference to our present lien laws, or the absence of the uniformity of contract, or the relations between employers and their workmen, or the relations between the architect and the contractor, such remarks will receive close attention, and be published, properly classified under their respective headings. A separate sheet of paper should be used if you desire to write at length upon any subject.

Respectfully,

H. M. STARK, *Commissioner*.

We hereby certify that the following Report to the Bureau of Labor and Industrial Statistics of Wisconsin is a correct statement of the wages paid to, and the number of hours worked for us, by each of the workmen named, during the year 1889, to the best of our knowledge and belief.

[SCOTT, HUBBELL & TAYLOR.]

The non-statistical questions above referred to were formulated as given below, and the answers will be found in their proper place in this chapter.

How many of your workmen, commenced as apprentices with you?
 How many apprentices have you employed in 1889?
 Have you any system or rule of promotion of apprentices? If so, what are their earnings during the first year? \$; second year? \$.; third year? \$.; fourth year? \$.
 Is it true that the best workmen in the building trades are those who served their apprenticeship in Europe?
 Do you experience any trouble in hiring first-class workmen?
 Do you not find that the best workmen, as a rule, are those who commenced learning their trade before their eighteenth year?
 If any strike has occurred among the workmen in your employ in 1889, please give particulars?
 Have any accidents occurred to workmen in your employ during 1889?
 Please give particulars

The blank issued to workmen, was accompanied by the following letter:

MADISON, JULY 15, 1889.

DEAR SIR: The bureau in its fourth biennial report, desires to exhibit reliable statistics upon earnings and wages in all branches of the Building Trades. To accomplish this it will be necessary for all who receive this letter, to faithfully answer the questions in the accompanying blank form, and return the same in the enclosed stamped envelope to the Commissioner, at Madison.

In addition to the formal answers, you are requested to give any other information in regard to the general condition of business in your locality, and more particularly in relation to your own trade.

Replies will be treated as confidential, and your name will not be printed in connection with your answers to the statistical questions, as they are to be used only in the aggregate wages and earnings. But where you add general information, it will give weight and importance to your views and opinions if you allow your name to be printed. Such additional information should be written on separate sheets.

If you are unable to write in English, you may answer the questions and write letters in your native language.

A copy of the printed report, when published will be sent free of charge to all who answer the questions.

Yours truly,

H. M. STARK, Commissioner

The letter had the desired effect, and reports were received even from the remotest parts of the state in English, German, Norwegian, Bohemian, Swedish, French, Polish and Dutch. The remarks made whenever they proved to be pertinent and intelligent, were edited and freely translated. They will be found printed in connection with the tables of the trades and under the headings of the various subjects of which they speak.

The following is a copy of the blank issued to workmen, covering trade, social and personal questions:

STATE OF WISCONSIN.

BUREAU OF LABOR AND INDUSTRIAL STATISTICS.

Report of.....
Of.....
County.....


TRADE QUESTIONS.

1. What is your trade?.....
2. What wages are paid in your locality, at your trade, per hour, to a good workman?
 - a. Highest.....Cents.
 - b. Lowest.....Cents.
 - c. Average.....Cents.
3. During how many, and what months of the year do you find employment at your trade?

If possible state how many days you worked each month.

May, 1888.....days.	November, 1888.....days.
June, 1888.....days.	December, 1888.....days.
July, 1888.....days.	January, 1889.....days.
August, 1888.....days.	February, 1889.....days.
September, 1888.....days.	March, 1889.....days.
October, 1888.....days.	April, 1889.....days.
4. How many hours per day do you work—

In winter?.....	In summer?.....
-----------------	-----------------

5. What is considered a fair day's work at your trade, at any particular job?
 6. How many years of apprenticeship, or service, are required to make a skilled workman at your trade?
 7. Does your trade require an outlay on your part for tools? If so, what is the value of a good and complete outfit? \$.....
How much expense per year to keep tools in good repair? \$.....
 8. How many years have you worked at your trade?.....
 9. How many days from May 1, 1888, to May 1, 1889, have you lost through lack of work at your trade?.....
 10. What were your total earnings at your trade, from May 1, 1888, to May 1, 1889?.....
 11. Are the chances of finding employment, in the town where you live, encouraging enough for men of your trade to acquire homes of their own?.....
-  Please explain your answer to question No. 11, as fully as possible, using separate sheet of paper if necessary.

PERSONAL QUESTIONS.

- a. Name in full?.....
 - b. Post-office address — Residence... ..
 - c. Age.....
 - d. Where born?— Country.....
 - e. In what manner, and at what times are your wages paid?.....
 - f. Do you own a home?.....
 - g. Do you take a newspaper?.. .. Daily?.....
Weekly?..... Monthly?.....
-
- h. Did you learn your trade in Europe or America?.....
 - i. What trade or occupation did you follow in the old country?.....
 - j. What wages did you receive there per hour?.....
Per week?..... Per month?.. ..
 - k. How many hours for a day's work in the old country?.....
 - l. How does your financial and social condition compare with that of Europe?

REMARKS.

Under this head you are invited to write freely upon any subject of interest to wage-workers, with special request to say whether or not you desire your name printed to them.

The comparative statistics, which will be found immediately following the Wisconsin tables, were obtained through the courtesy of secretaries of local building associations and city officers of thirty-seven leading cities of other states, in answer to the following circular letter and a blank prepared for the purpose, during the busiest part of the building season:

MADISON, Wis., September 10, 1889.

DEAR SIR — This department is at present engaged in gathering statistical data relating to all branches of the building trades. The fourth biennial report will be entirely devoted to the subject.

For the purpose of obtaining a reliable table of wages paid in the leading cities in the United States, we issue this letter to the secretaries of all associations and exchanges affiliated with the National Association of Builders, with urgent request to fill out the accompanying blank form, and return the same to this office before October 1 next, if possible.

By complying with this request you will render this department, and the people at large, a great service.

A bound copy will be forwarded to you as soon as the report is issued. We shall be happy to reciprocate similar services at any time.

Yours very respectfully,

H. M. STARK, Commissioner.

The Bureau is indebted to the workmen of the state for the cordiality shown in their answers to the inquiries as well as for the openness in their general remarks bearing upon the subject under investigation. Some of them may be disappointed in not finding their remarks published in the report. To these we will say, that they will find their thoughts expressed by some one, and that for want of space, only a few remarks upon any one subject could be given. But the volume of correspondence accompanying the statistical reports of individual workmen was very large. It embraced remarks and views upon every subject, if ever so remotely connected with the questions asked. Politics, temperance, religion, unions, socialism, trusts, monopolies, emigration, the single tax system, etc., were freely discussed. All of these, except a very few which were clear and logical, had to be omitted from this report. The remarks directly relating to the building trades, or the general conditions of the workmen in the localities reported, are reproduced under the headings "Trade Notes" and "Home Ownership." This wholesale omission may cause some dissatisfaction among the correspondents of the Bureau. But it should be borne in mind that the last Legislature, from economical motives, reduced the number of pages of *all* official reports, including the report of this Bureau. Another reason, however, is the fact that the majority of the workmen whose remarks upon such subjects as the "Eight-hour day," "Monopolies and trusts," "Organization," and kindred subjects, are very deficient in the statistical part of their report of earnings, wages and lost time, the most valuable part of this work. For these reasons, the Commissioner decided to print only such remarks as were made by those whose reports were complete in every respect, and had the moral courage to add their names to their remarks. Those whose letters were accompanied with "please don't publish my name," need not look for their "*views*."

The several tables, and the accompanying notes and remarks made by the correspondents, afford an interesting study to all who love to inquire into the conditions of the workingmen of America. The report is submitted without comment, because the tables are exceedingly eloquent; and because the workmen as well as the employers, speak for themselves. They certainly may be considered the best of judges.

TABLE I.—INDIVIDUAL STATISTICS.—*Showing the Earnings from May 1, 1888, to May, 1889, and the Number of Workdays lost during said year, in the several branches of the Building Trades; also the Daily Income from each Trade, for 365 days, based upon the earnings reported.*

BRICKLAYERS, MASONS AND PLASTERERS.

Office number.	Trade.	Location.	Total earnings at trade from May 1, 1888, to May 1, 1889.	Daily income from trade for 365 days.	No. of work-days lost from May 1, 1888, to May 1, 1889.
222	Bricklayer and plasterer	Antigo	\$550 00	\$1 51	159
247	Bricklayer	Baraboo	432 00	1 18	167
201	Bricklayer and plasterer	Delavan	540 00	1 48	130
78	Bricklayer	Janesville	648 00	1 78	96
210	Bricklayer	Jefferson	583 50	1 60	148
169	Bricklayer and plasterer	Manitowoc	560 00	1 53	90
198	Bricklayer	Milwaukee	655 20	1 80	100
313	Bricklayer	Milwaukee	731 68	2 00	112
477	Bricklayer	Milwaukee	400 00	1 10	190
486	Bricklayer	Milwaukee	530 00	1 45	110
516	Bricklayer	Milwaukee	650 00	1 78	125
523	Bricklayer	Milwaukee	704 00	1 94	125
524	Bricklayer	Milwaukee	717 00	1 97	147
530	Bricklayer	Milwaukee	600 00	1 65	115
539	Bricklayer	Milwaukee	350 00	96	193
543	Bricklayer	Milwaukee	600 00	1 65	150
44	Bricklayer	Racine	300 00	82	150
STONE MASONS.					
428	Mason	Alma Center	\$600 00	\$1 65	130
561	Mason	La Crosse	400 00	1 10	150
382	Mason	Milwaukee	372 00	1 02	197
387	Mason	Milwaukee	546 00	1 50	128
397	Mason	Milwaukee	450 00	1 23	200
439	Mason	Milwaukee	650 00	1 78	120
469	Mason	Milwaukee	400 00	1 10	182
527	Mason	Milwaukee	522 00	1 43	82
550	Mason	Milwaukee	1,000 00	2 74	83
STONE CUTTERS.					
557	Stone cutter	La Crosse	\$300 00	\$0 82	150
32	Stone cutter	Madison	550 00	1 51	100
452	Stone cutter	Milwaukee	537 50	1 48	150
491	Stone cutter	Milwaukee	950 00	2 60	78
503	Stone cutter	Milwaukee	500 00	1 37	100
508	Stone cutter	Milwaukee	607 45	1 65	138
547	Stone cutter	Milwaukee	450 00	1 23	138
559	Stone cutter	Milwaukee	735 00	2 01	102
562	Stone cutter	Oshkosh	540 00	1 48	120
19	Stone and marble cutter	Platteville	1,050 00	2 88	None.
PLASTERERS.					
318	Plasterer	Darand	\$350 00	\$0 96	150
114	Plasterer	Janesville	500 00	1 37	118
558	Plasterer	La Crosse	336 00	92	195
381	Plasterer	Milwaukee	800 00	2 19	60
388	Plasterer	Milwaukee	386 00	1 05	165
440	Plasterer	Milwaukee	553 00	1 52	30
449	Plasterer	Milwaukee	497 00	1 37	132
450	Plasterer	Milwaukee	548 80	1 51	125
495	Plasterer	Milwaukee	270 00	74	165
458	Plasterer	Milwaukee	250 00	69	143
543	Plasterer	Milwaukee	600 00	1 64	150
264	Plasterer	Poynette	200 00	55	155
258	Plasterer	Stevens Point	600 00	1 64	145
HOD CARRIERS.					
173	Hod carrier	Milwaukee	\$300 00	\$0 82	175
354	Hod carrier	Milwaukee	273 00	75	130
380	Hod carrier	Milwaukee	362 00	99	60
456	Hod carrier	Milwaukee	328 12	90	112

TRADE NOTES.

M. A. BASS, Chilton — There is not over six months' work per year in this town. About ten years ago Chilton was a pretty good place; but very little building has been done during the last four or five years. Property has decreased about 30 per cent. in value during that time.

C. E. STEWART, Durand — A common laborer in this town is better off than a man with a trade, because he finds more steady employment.

J. J. SPANGLER, Jefferson — Brickbuilding of late years has been on the decrease in this city.

MARTIN H. FINNERTY, Madison — There are over thirty stone cutters in this city, but there is not work enough to keep three of them steadily employed.

HERMAN BRUSS, Milwaukee — Wages are fair enough; but employment too uncertain. We lose so much time by delays and bad weather, that it is difficult to make ends meet.

F. KRIZ, Milwaukee — There is some piece-work done here, which is paid at the rate of 13 to 15 cents per square foot, rock stone.

HERMAN FLECK, Milwaukee — Sharpening tools costs us 25 cents per day. An ordinary set of tools is worth \$30; a complete set for all kinds of stone, \$50. Good workmen generally have two sets of tools. We figure on seven months' work. In winter I sometimes work in marble yards, making \$2.50 to \$3 per day. The trade in the old country is different only so far as the kinds of stone is concerned. Stone cutters who learned their trade in Germany, like myself, have difficulty for about two months after they start to work here, studying the grain of certain stone, and adapting their tools. There are many stone cutters from other points in the city this summer.

JOHN LAW, Milwaukee — The stone cutters' union has sixty-six members. There are about 195 non-union stone cutters in the city. We work only eight hours per day. We consider ourselves lucky if we find work six months out of the year. Lifting is the hardest part of the work.

P. E. WOOD, Milwaukee — One-half of the stone cutters, as a rule, are idle during the winter months. Work seldom starts up fairly before the first of June.

No. 452, Milwaukee — I believe that the only thing which has kept up our wages, is the eight-hour work-day as fixed by the Union of the United States and Canada. Under our regulations a boss can not employ more than three apprentices. We are also doing all we can to stem the tide of emigration from Europe.

No. 491, Milwaukee — There are about 150 stone-cutters in this city, 75 of whom can not work in yards because they are not thorough mechanics. I work in a yard and do all kinds of building stone work. We have a local union, subordinate to the National union. A man must be a first-class workman before he can become a member. We issue traveling cards

to our members which are recognized all over the country. Our standard of wages is \$3.50 per day of eight hours.

J. B. KING, Oshkosh — As a rule, workmen in this city live beyond their means, and are constitutionally “hard up,” just because they do not feel to work at anything besides their trades. Whenever there is anything to do, they are so anxious to get work that they will accept very low wages, thus not only injuring themselves, but the whole trade.

W. C. FENNELL, Racine — The year 1888 was an unusually dull year for building in this city, and the outlook now is no better, and wages a trifle lower than last year. I would like to remark, that having learned my trade in England, I served a seven years’ apprenticeship.

J. H. FRANCIS, Racine — The trouble with our trade in this city is, that the bosses take two or three apprentices every year, so that they may always have a stock of cheap labor on hand.

F. A. WOOD, Salesville — I predict that within five years there will be great distress among the men engaged in the building trades, if the tide of emigration is not stemmed pretty soon. In this little village there are at least three more masons than there is work for. Any one in need of one, has his choice of four.

J. M. GORNEY, Watertown — This is a very poor town for men of my trade. I believe that the men of the building trades here do not have an income of 75 cents for every day of the year. Mine is not quite a dollar a day.

JOHN HANSON, Waupaca — This location depends largely upon the potato crop. Last year’s yield was a good one, but prices were enormously low, which makes money scarce, and consequently but little building is going on.

K. KNAAK, Wein — Not much work at the trade here; this county is newly settled.

HOME OWNERSHIP.

Replies to the question: “Are the chances of finding employment, in the town where you live, encouraging enough for men of your trade to acquire homes of their own?”

RICHARD GRANT, Chippewa Falls — This is a good town; all the masons, except three, own their homes.

E. HOLLAND, Janesville — Most of our plasterers learned their trade in this city, and remain with the same contractor year after year. The majority of us own homes. Strangers do not stand any show, except at a time when there is a big rush.

JOHN LANTRY, Manitowoc — Chances not very good in this city. There are too many half-skilled workmen, and too many people anxious to hire that class of labor. I have lived here 34 years, and yet, in 1886 and 1887, I was obliged to go to Chicago, Milwaukee and Kenosha to find work, because there was nothing to do at home. I like to work with good work-

men and like to receive respectable living wages, and work ten hours per day.

A. CHMELIRZ, Milwaukee — Any saving man can have a home of his own in this city. I have been eight years in this country and own a nice home. I have been working on my own account for three years. I think ten hours work is not too much for a healthy man, and \$3.25 is well paid for ten hours work. I think there is no good in unions.

CORNELIUS DALY, Milwaukee — The chances are good. Mostly all the masons in this city own their homes.

THOMAS SMITH, Milwaukee — The chances of acquiring a home in this city are as good as anywhere else, provided the man is a good mechanic, sober and industrious. A poor mechanic is not as well off as a common laborer, because he is often out of work. There are too many of that class in the city.

No. 491, Milwaukee — Most of the stone cutters here own homes and are well-to-do. During the busy season some strangers find work for a few months, but there is not much chance for them of making a home unless they are first-class workmen, sober and industrious.

No. 574, Milwaukee — I think three-fourths of the masons here own homes. Milwaukee is a very good city for masons. A great many buildings are going up this summer. Hod carriers' wages are 20 and 22½ cents per hour on union jobs; \$1.75 on non-union jobs. Union eight, non-union ten hours per day.

J. & F. W. FIELDHOUSE, Montfort — The three masons now here can do all the work, and more, to be done. Each has a home of his own.

HOUSE CARPENTERS, JOINERS, MILLWRIGHTS.

Office number.	Trade.	Location.	Total earnings at trade from May 1, 1888, to May 1, 1889.	Daily income from trade for 365 days.	No. of work-days lost from May 1, 1888, to May 1, 1889.
272	Carpenter and joiner	Alma Center	\$275 00	\$ 75	146
246	Carpenter	Amherst	200 00	55	150
287	Carpenter	Antigo	300 00	82	150
143	Carpenter and joiner	Antigo	400 00	1 10	100
186	Carpenter	Antigo	750 00	2 06	None
555	Carpenter	Appleton	409 50	1 12	130
93	Carpenter and joiner	Ashland	700 00	1 92	24
168	Carpenter	Ashland	587 00	1 60	58
110	Carpenter	Baldwin	400 00	1 10	104
631	Carpenter	Barre Mills	300 00	82	140
195	Carpenter and joiner	Beloit	750 00	2 06	None
305	Carpenter	Bloom City	309 05	85	37
45	Carpenter	Bloomington	200 00	55	150
79	Carpenter	Boscobel	600 00	1 64	None
115	Carpenter	Bristol	650 00	1 78	None
220	Carpenter	Cataract	405 00	1 11	100
83	Carpenter	Chippewa Falls	300 00	82	125
498	Carpenter	Columbus	600 00	1 64	None
87	Carpenter	Dallas	175 00	48	90
240	Carpenter	Durand	400 00	1 10	115
122	Carpenter	Eagle Point	400 00	1 10	None
11	Carpenter	Eau Claire	625 00	1 71	None
152	Carpenter and joiner	Eau Claire	308 00	85	100
325	Carpenter	Eau Claire	420 00	1 15	None
384	Carpenter	Eau Galle	300 00	82	54
310	Carpenter and farmer	Easton	200 00	55	125
252	Carpenter and joiner	Emerald Grove	600 00	1 64	None
71	Carpenter	Fall River	800 00	2 19	152
112	Carpenter	Fall River	430 00	1 18	84
58	Carpenter and joiner	Fond du Lac	400 00	1 10	38
161	Carpenter and joiner	Fond du Lac	450 00	1 23	30
263	Carpenter and contractor	Fond du Lac	450 00	1 23	60
147	Carpenter and joiner	Fort Atkinson	600 00	1 64	84
133	Carpenter and joiner	Fox Lake	700 00	1 92	None
14	Carpenter and joiner	Grand Rapids	480 00	1 31	160
431	Carpenter	Grand Rapids	548 00	1 51	36
20	Carpenter	Green Bay	395 00	1 08	65
154	Carpenter	Green Bay	280 00	77	104
141	Carpenter and joiner	Hartford	500 00	1 37	103
130	Carpenter and joiner	Hillsboro	252 00	69	183
371	Carpenter	Horicon	300 00	82	17
300	Carpenter	Independence	800 00	2 19	None
31	Carpenter	Janesville	550 00	1 51	None
33	Carpenter and joiner	Janesville	300 00	82	139
38	Carpenter	Janesville	582 40	1 60	None
49	Carpenter	Janesville	350 00	1 04	120
56	Carpenter	Janesville	325 00	89	130
94	Carpenter	Janesville	432 00	1 18	109
96	Carpenter	Janesville	400 00	1 10	90
98	Carpenter and joiner	Janesville	457 25	1 26	60
333	Carpenter	Janesville	579 85	1 59	25
40	Carpenter	Jefferson	400 00	1 10	None
5	Carpenter	La Crosse	550 00	1 51	36
85	Carpenter and millwright	La Crosse	353 00	97	114
298	Carpenter and joiner	La Crosse	250 00	69	160
320	Carpenter	La Crosse	254 05	70	110
487	Carpenter	Layton Park	1,000 00	2 74	50
277	Carpenter	Lyons	286 00	79	150
137	Carpenter	Madison	600 00	1 64	None
158	Carpenter	Madison	500 00	1 37	75
307	Carpenter	Madison	554 30	1 52	44
556	Carpenter	Marinette	434 00	1 19	98
170	Carpenter and builder	Marshfield	1,000 00	2 74	52
178	Carpenter	Medford	330 87	90	162
254	Carpenter	Medford	460 00	1 26	120
255	Carpenter and joiner	Medford	330 00	90	109
256	Carpenter	Medford	305 00	84	67
270	Carpenter and builder	Medford	225 00	61	150
317	Carpenter and joiner	Medford	465 00	1 27	106

HOUSE CARPENTERS, JOINERS, MILLWRIGHTS.—Continued.

Office number.	Trade.	Location.	Total earnings at trade from May 1, 1888, to May 1, 1889.	Daily income from trade for 365 days.	No. of work-days lost from May 1, 1888, to May 1, 1889.
328	Carpenter and joiner.	Medford.	\$358 00	\$ 98	115
299	Carpenter and millwright	Merrillan.	760 00	2 08	None
209	Carpenter.	Milladore.	350 00	96	100
206	Carpenter.	Millard.	486 00	1 33	78
202	Carpenter and joiner.	Milton.	550 00	1 51	30
297	Carpenter and joiner.	Milton.	270 00	74	125
25	Carpenter.	Milton Junction.	500 00	1 37	104
175	Carpenter.	Milton Junction.	490 00	1 34	104
53	Carpenter.	Milwaukee.	313 50	86	91
192	Carpenter.	Milwaukee.	450 00	1 23	52
193	Carpenter.	Milwaukee.	524 00	1 44	54
196	Carpenter.	Milwaukee.	317 94	88	130
197	Carpenter.	Milwaukee.	385 20	1 05	175
207	Carpenter.	Milwaukee.	535 00	1 46	60
208	Carpenter.	Milwaukee.	425 00	1 16	90
211	Carpenter.	Milwaukee.	382 00	1 04	70
213	Carpenter.	Milwaukee.	375 00	1 03	60
225	Carpenter.	Milwaukee.	400 00	1 10	100
226	Carpenter.	Milwaukee.	643 50	1 77	12
227	Carpenter.	Milwaukee.	450 00	1 23	130
228	Carpenter.	Milwaukee.	700 00	1 92	None
229	Carpenter.	Milwaukee.	450 00	1 23	None
261	Carpenter.	Milwaukee.	450 00	1 23	100
268	Carpenter.	Milwaukee.	388 46	1 07	40
276	Carpenter.	Milwaukee.	400 00	1 10	104
280	Carpenter.	Milwaukee.	616 00	1 68	None
281	Carpenter.	Milwaukee.	363 00	1 00	100
284	Carpenter.	Milwaukee.	400 00	1 10	93
285	Carpenter.	Milwaukee.	660 00	1 81	60
289	Carpenter.	Milwaukee.	650 00	1 78	50
293	Carpenter.	Milwaukee.	292 65	81	128
295	Carpenter.	Milwaukee.	440 00	1 21	98
311	Carpenter.	Milwaukee.	218 00	60	50
312	Carpenter.	Milwaukee.	450 00	1 23	44
315	Carpenter.	Milwaukee.	900 00	2 46	None
329	Carpenter.	Milwaukee.	300 00	82	150
330	Carpenter.	Milwaukee.	475 00	1 30	100
334	Carpenter.	Milwaukee.	400 00	1 10	27
336	Carpenter.	Milwaukee.	321 34	88	93
346	Carpenter.	Milwaukee.	330 00	90	30
351	Carpenter and joiner.	Milwaukee.	407 47	1 12	102
352	Carpenter.	Milwaukee.	390 00	1 07	120
353	Carpenter.	Milwaukee.	360 00	98	30
355	Carpenter.	Milwaukee.	466 00	1 28	78
361	Carpenter.	Milwaukee.	666 00	1 82	14
362	Carpenter.	Milwaukee.	280 00	77	170
364	Carpenter.	Milwaukee.	388 21	1 07	111
366	Carpenter.	Milwaukee.	150 00	43	200
367	Carpenter.	Milwaukee.	400 00	1 10	97
373	Carpenter.	Milwaukee.	200 00	55	158
374	Carpenter.	Milwaukee.	250 00	68	100
375	Carpenter.	Milwaukee.	750 00	2 06	76
376	Carpenter.	Milwaukee.	500 00	1 37	30
379	Carpenter.	Milwaukee.	415 00	1 14	90
383	Carpenter.	Milwaukee.	250 00	68	150
389	Carpenter.	Milwaukee.	480 00	1 31	104
391	Carpenter.	Milwaukee.	300 00	82	150
394	Carpenter.	Milwaukee.	225 00	62	64
396	Carpenter.	Milwaukee.	350 00	96	100
01	Carpenter and joiner.	Milwaukee.	462 70	72	160
404	Carpenter.	Milwaukee.	360 00	97	112
407	Carpenter.	Milwaukee.	500 00	1 37	75
408	Carpenter.	Milwaukee.	350 00	96	113
409	Carpenter.	Milwaukee.	350 00	96	150
411	Carpenter.	Milwaukee.	180 00	50	207
413	Carpenter.	Milwaukee.	585 00	1 60	50
415	Carpenter.	Milwaukee.	300 00	82	155
418	Carpenter.	Milwaukee.	600 00	1 64	90
419	Carpenter.	Milwaukee.	270 00	74	150

HOUSE CARPENTERS, JOINERS, MILLWRIGHTS.—Continued.

Office number.	Trade.	Location.	Total earnings at trade from May 1, 1888, to May 1, 1889.	Daily income from trade for 305 days.	No. of work-days lost from May 1, 1888 to May 1, 1889.
420	Carpenter.....	Milwaukee.....	\$320 00	\$ 88	104
421	Carpenter.....	Milwaukee.....	380 00	1 04	83
422	Carpenter.....	Milwaukee.....	700 00	1 92	12
423	Carpenter.....	Milwaukee.....	600 00	1 64	None
425	Carpenter.....	Milwaukee.....	610 00	1 67	40
427	Carpenter.....	Milwaukee.....	305 00	83	85
429	Carpenter.....	Milwaukee.....	480 75	1 32	68
433	Carpenter.....	Milwaukee.....	508 00	1 39	45
438	Carpenter.....	Milwaukee.....	500 00	1 37	60
442	Carpenter.....	Milwaukee.....	346 00	95	1 40
446	Carpenter.....	Milwaukee.....	616 20	1 68	52
448	Carpenter.....	Milwaukee.....	341 60	93	97
454	Carpenter.....	Milwaukee.....	700 00	1 92	21
459	Carpenter.....	Milwaukee.....	500 00	1 37	50
460	Carpenter.....	Milwaukee.....	600 00	1 64	26
461	Carpenter.....	Milwaukee.....	475 00	1 30	90
466	Carpenter.....	Milwaukee.....	374 50	1 03	96
467	Carpenter.....	Milwaukee.....	600 00	1 64	21
468	Carpenter.....	Milwaukee.....	412 00	1 13	104
470	Carpenter.....	Milwaukee.....	169 00	46	196
471	Carpenter.....	Milwaukee.....	700 00	1 92	30
474	Carpenter.....	Milwaukee.....	430 00	1 18	100
476	Carpenter.....	Milwaukee.....	400 33	1 10	100
485	Carpenter.....	Milwaukee.....	300 00	82	90
489	Carpenter.....	Milwaukee.....	316 00	86	52
500	Carpenter.....	Milwaukee.....	468 00	1 29	78
504	Carpenter.....	Milwaukee.....	416 00	1 14	100
506	Carpenter.....	Milwaukee.....	400 00	1 10	108
507	Carpenter.....	Milwaukee.....	305 00	83	146
509	Carpenter.....	Milwaukee.....	345 00	94	120
510	Carpenter.....	Milwaukee.....	472 50	130	102
511	Carpenter.....	Milwaukee.....	309 60	85	52
512	Carpenter.....	Milwaukee.....	400 00	1 10	90
514	Carpenter.....	Milwaukee.....	544 00	1 22	None
515	Carpenter.....	Milwaukee.....	350 00	96	140
518	Carpenter.....	Milwaukee.....	375 00	1 03	100
522	Carpenter.....	Milwaukee.....	600 00	1 64	64
525	Carpenter.....	Milwaukee.....	250 00	68	150
526	Carpenter.....	Milwaukee.....	520 87	1 43	78
529	Carpenter.....	Milwaukee.....	500 00	1 37	98
532	Carpenter.....	Milwaukee.....	260 00	71	120
533	Carpenter.....	Milwaukee.....	480 00	1 31	104
535	Carpenter.....	Milwaukee.....	350 00	96	130
536	Carpenter.....	Milwaukee.....	325 00	89	78
541	Carpenter.....	Milwaukee.....	418 00	1 15	104
548	Carpenter (finisher).....	Milwaukee.....	1,000 00	2 74	None
560	Carpenter.....	Milwaukee.....	416 00	1 14	102
338	Carpenter.....	Oconomowoc.....	659 00	1 81	20
12	Carpenter.....	Oconto.....	577 50	1 58	28
21	Carpenter.....	Oshkosh.....	215 00	59	155
551	Carpenter.....	Oshkosh.....	490 50	1 34	105
16 5	Carpenter.....	Paoli.....	400 00	1 10	104
90	Carpenter.....	Peshtigo.....	547 00	1 50	30
34 89	Carpenter.....	Plainfield.....	200 00	55	150
6	Carpenter.....	Poynette.....	600 00	1 64	60
8 0	Carpenter.....	Poynette.....	209 57	58	187
534	Carpenter.....	Prescott.....	432 50	1 19	140
3	Carpenter and joiner.....	Racine.....	600 00	1 64	None
13	Carpenter.....	Racine.....	500 00	1 37	None
24	Carpenter.....	Racine.....	450 00	1 23	70
51	Carpenter.....	Racine.....	450 00	1 23	104
62	Carpenter.....	Racine.....	600 00	1 64	12
92	Carpenter.....	Racine.....	537 75	1 48	None
104	Carpenter.....	Racine.....	750 00	2 06	None
108	Carpenter.....	Racine.....	350 00	96	54
139	Carpenter.....	Racine.....	423 00	1 16	135
153	Carpenter.....	Racine.....	404 00	1 11	95
159	Carpenter.....	Racine.....	350 00	96	130
144	Carpenter and joiner.....	Ripon.....	500 00	1 37	20

HOUSE CARPENTERS, JOINERS, MILLWRIGHTS.—Continued.

Office number.	Trade.	Location.	Total earnings at trade from May 1, 1888, to May 1, 1889.	Daily income from trade for 365 days.	No. of work-days lost from May 1, 1888, to May 1, 1889.
146	Carpenter.....	Ripon.....	\$369 63	\$1 01	116
150	Carpenter and builder.....	Ripon.....	507 00	1 39	85
76	Carpenter.....	Ripon.....	650 00	1 78	118
18	Carpenter.....	Rolling Prairie.....	450 00	1 23	70
294	Carpenter.....	Rolling Prairie.....	479 00	1 31	40
363	Carpenter and farmer.....	Sawyer.....	397 65	1 09	None
113	Carpenter and joiner.....	Sharon.....	487 50	1 34	47
257	Carpenter.....	Sharon.....	200 00	.55	180
279	Carpenter.....	Sharon.....	384 00	1 05	50
816	Carpenter.....	Sharon.....	300 00	.82	129
117	Carpenter.....	Somers.....	475 00	1 30	50
66	Carpenter.....	Springfield Corners.....	120 00	.33	229
7	Carpenter and joiner.....	Stevens Point.....	550 00	1 51	50
145	Carpenter.....	Stevens Point.....	497 00	1 37	60
242	Carpenter.....	Stevens Point.....	950 00	2 60	60
224	Carpenter.....	Stevens Point.....	750 00	2 06	40
17	Carpenter.....	Tomah.....	400 00	1 10	100
335	Carpenter.....	Vesper.....	440 00	1 21	30
37	Carpenter.....	Washburn.....	400 00	1 10	78
125	Carpenter.....	Washburn.....	540 00	1 48	55
39	Carpenter.....	Watertown.....	225 00	.61	150
67	Carpenter.....	Watertown.....	235 81	.64	100
72	Carpenter.....	Watertown.....	750 00	2 06	30
88	Carpenter.....	Watertown.....	438 28	1 20	62
111	Carpenter.....	Watertown.....	350 00	.96	104
149	Carpenter.....	Watertown.....	450 00	1 23	39
183	Carpenter.....	Watertown.....	425 00	1 16	17
190	Carpenter.....	Watertown.....	349 66	.96	90
191	Carpenter and joiner.....	Watertown.....	408 00	1 12	90
358	Carpenter and joiner.....	Watertown.....	427 00	1 16	56
416	Carpenter.....	Watertown.....	300 00	.82	110
41	Carpenter and joiner.....	Waukesha.....	565 00	1 55	25
189	Carpenter.....	Waukesha.....	700 00	1 92	30
368	Carpenter.....	Waukesha.....	504 45	1 38	74
248	Carpenter.....	Waupun.....	280 00	.77	100
280	Carpenter and builder.....	Wauwatosa.....	400 00	1 10	52
218	Carpenter.....	Wein.....	183 75	.50	190
344	Carpenter.....	Wein.....	105 00	.29	240
9	Carpenter and millwright.....	West Superior.....	800 00	2 19	None
120	Carpenter and joiner.....	West Superior.....	525 00	1 44	104
121	Carpenter and joiner.....	West Superior.....	500 00	1 37	125
136	Carpenter and joiner.....	West Superior.....	472 00	1 30	176
238	Carpenter.....	West Superior.....	607 00	1 66	40
538	Carpenter.....	West Superior.....	500 00	1 37	40
545	Carpenter.....	West Superior.....	261 25	.72	152
546	Carpenter.....	West Superior.....	563 50	1 54	67
549	Carpenter.....	West Superior.....	416 00	1 14	102
69	Carpenter and millwright.....	White Creek.....	600 00	1 64	None
4	Carpenter.....	Whitewater.....	410 00	1 12	104
138	Carpenter and builder.....	Whitewater.....	500 00	1 37	130
160	Carpenter and joiner.....	Whitewater.....	500 00	1 37	90
464	Carpenter.....	Williamsburg.....	385 00	1 05	75
MILLWRIGHTS.					
552	Millwright.....	Appleton.....	487 50	1 34	155
216	Millwright.....	Milwaukee.....	786 00	2 15	None
350	Millwright.....	Milwaukee.....	445 00	1 22	135
356	Millwright.....	Milwaukee.....	650 00	1 78	100
365	Millwright.....	Milwaukee.....	787 00	2 15	None
519	Millwright.....	Milwaukee.....	650 00	1 78	None

TRADE NOTES.

ELISHA MOSS, Amherst — It does not seem to make any difference here whether a man is a good carpenter or not. The one that works the cheapest, as a rule, gets the work. As long as he can pound and make a great racket he is considered a good man.

CHAS. P. BRACE, Antigo — There are some drawbacks to our trade in this city. In the first place there is not work enough for all of us, and payments are too irregular. Lots sell from \$50 to \$100 each, but materials to build a home can be got on short time only.

J. W. GODFREY, Appleton — We go from one town to another to find employment, unless one is lucky enough to get a steady job in one of our numerous paper mills.

JOHN SIBBALD, Ashland — For the intelligent wageworker Ashland and surrounding country is good. Our lumber industry is developed, from the cutting down of the trees in the forest until loaded on vessels or cars. So is the iron industry, from taking the ore out of the ground until loaded on vessels, giving employment to a great number of men. Millwrights find employment at good pay. The prospects for wageworkers in and around Ashland are good.

A. D. STREET, Ashland — What this world is in need of just now, is not more mechanics, but more thorough, reliable ones.

ABRAHAM G. MOON, Beloit — In this city a good workman who is sober, honest, and takes pride in doing his work well, and is always on hand, has no trouble in getting work and holding it. For one of the opposite sort the road is "rocky."

A. H. DE GROFF, Berlin — Skilled workmen can usually find employment most of the time in the year, and by being frugal can save enough to purchase a building lot and material to build with; then when they are out of employment they can erect their own house. By doing this they can acquire a home. If there be a large family to educate and clothe, however, it would be almost impossible to save enough to buy a home. A large percentage of the joiners of this city are half-skilled workmen. The most of that class are Polish and Germans. They hurt our trade by cutting wages, as they are obliged to do, in order to get work, and not being able to figure or estimate closely, bid on job work lower than it can be done at a living profit, compelling skilled workmen to take jobs lower than the work can be done in a good workmanlike manner and make a living profit. The foreign laborers have hurt all tradesmen in this country more than any other one thing and our trade will continue to get worse as long as Uncle Sam extends his arms to receive the ignorant foreigner, and places them above the educated and intelligent native.

J. E. DIXON, Bristol — The average carpenter of to-day has not learned sufficiently of the trade to build a house or barn. But they are on the list,

and it is a continual loss of time and money to a contractor to find that he has hired a man one day and is obliged to discharge him the next.

J. F. DAHLBERG, Curtis — Mechanics here all have small farms and earn but little at their respective trades, making up by selling timber, railroad ties, etc. About the only people that are doing well are the storekeepers by charging 20 per cent. too much for their goods, while settlers can not sell for cash.

GORDON MARSH, Fond du Lac — There are few carpenters here who get over \$2 per day, except those who are able to take charge of a job, who may get \$2.50 for a little while. We expect very little work at the trade between Nov. 15 and March 1. Contractors are taking jobs so low that in some instances the man working by the day earns the most money.

IRVING SPITZER, Fort Atkinson — We have to fight much against the competition of farmers who learned part of the trade in their youth, and come to town to work at the trade for very low prices, during seasons when there is not much to do at the farm.

PETER GRIMM, Grand Rapids — I have left the trade, last year, and moved from Milwaukee here to cultivate a farm, when I can not find work at my trade. My total earnings in 1885, were \$429; in 1886, \$471.37; in 1888, \$473.64, which I do not think sufficient for a man who has worked eighteen years at the trade of hardwood finishing.

F. MYERS, Hillsboro — Age begins to tell on me. I am now past 73, and have only one wish to make; namely, that by an act of some kind, the good and experienced workman could be protected against the competition of the "jack-knife" carpenters, or "wood murderers," as they are very properly called. It would be better for the trade as well as the country at large.

JOHN NELSON, Janesville — I served my apprenticeship in Ireland, receiving no compensation until the last year. I was bound for five years, and paid ten pounds sterling at the end of the first year, and ten pounds more, or twenty pounds sterling in all to learn the trade. The fifth year I received half wages, or 1 shilling 6 pence per day.

W. S. POTTER, Janesville — The city of Janesville is a very thrifty place. Good men can find plenty of work at their trade between May and December. After that time only the very best men are employed. The city is improving very fast in the building line. We are much in need of a carpenters' union.

E. SCHWEIGER, Jefferson — There is not much building going on in the city, but quite a little in the country. Country work pays best.

GEO. F. NOBLE, Kilbourn City — So much of the finer qualities of work is now being done by machinery, that with one year's experience a person with natural skill can earn average wages. I found out long ago that working by the day at the carpenter's trade is a slow way of making a living; years ago we did very well. The country is a poor place for all classes of mechanics. Common laborers, I think, do quite as well as carpenters.

H. EDWARDS, La Crosse — I think contractors should pay their help every week; in so doing the laborer could settle his accounts more regularly.

DAVID C. BUGLARS, Mauston — Good mechanics generally find employment in and around town during eight months of the year. This is quite a social town, good to bring up a family, as our school facilities can not be excelled in any place of its size.

O. D. POLLARD, Medford — This place has recently been incorporated, and the city has bonded itself in the sum of \$10,000, to be used as inducement for the location of factories here. Shaw Brothers have built a large tannery here employing about fifty men. The business prospects of the city are good, and there will soon be a demand for a higher class of carpenter work. He that would be a good mechanic must consider himself a poor one. He cannot afford to get along without any of the excellent trade publications. They serve to enliven his interest in his work, and tend to keep him at home evenings, instead of mingling with chronic grumblers. There will be more demand for his services, and he will feel proud of his trade.

PETER BIEGEL, Milwaukee — The chances of finding employment in the city are not very good. I have the good fortune of having a job all the year round, while many consider themselves lucky if they find work two-thirds of the time. So many trades are closely related to ours, that cabinet-makers, house carpenters and other woodworkers find no difficulty in hiring out as millwrights. I would therefore suggest and advise all mechanics to see to it that the apprentices learn the trade thoroughly, as the only means of securing good wages and doing good work.

AUG. F. BRANDT, Milwaukee — My total earnings from May 1, 1888, to May 1, 1889, were \$407.47. My expenses were like this: For working clothes, \$19; new tools, \$5.60; interest on my home, \$35; taxes, \$12; repairs and improvements on house, \$22; wood and coal, \$31; total, \$124.60, leaving \$283.73 for household expenses and dress for self, wife and three children. I lost 102 days. Following is my tool account for the last five years:

	1884.	1885.	1886.	1887.	1888.	Total.
Lost	\$2 00	\$2 50	\$1 25	.....	\$2 30	\$8 05
Stolen.....	15 00	3 25	1 45	\$ 95	1 00	21 65
Broken.....	1 50	3 00	1 90	1 00	2 50	9 90
Wear of files, etc.....	2 00	2 85	2 00	2 00	3 40	12 25
Totals	\$20 50	\$11 60	\$6 60	\$3 95	\$9 20	\$51 85

A good and complete outfit of tools is worth \$200, which the carpenter must keep intact by buying new patents.

JOHN BREMHARD, Milwaukee — The greatest trouble in our trade is that too many contractors start up without any capital.

J. M. EGAN, Milwaukee — Support a family and save \$150 per year, is about all that a skilled carpenter can do in this city. As for the half-

skilled man, he has a hard enough job in supporting himself and save nothing. A majority of the house carpenters are idle three or four months per year, owing to the severity of our winters. The carpenters who have steady work are those employed in the railroad shops and factories, at from 15 to 18 cents per hour. During five months of the year they work only eight hours per day at same rate of wages.

C. F. ESTES, Milwaukee — There are two distinct classes of carpenters — those who simply “rough up” a building, and the finishers. The former receive 17 cents per hour, with a loss of all wet days; the latter receive 25 cents per hour with full time. There is a good demand for these for about ten months of the year. The average man cannot learn the trade in five years, so as to be able to put up any building. Not one in five men knows the full use of a steel square; not one in twenty can lay out and put on a complicated roof; not one in fifty can lay out and put up circular work, such as towers, verandas, etc., nor can one man in fifty lay out and build complicated stairs. We all lack education in the most important branches of our trade, and skilled workman are getting scarce.

FRED GROTENRATH, Milwaukee — I wish to state that only a few years ago it took thirty-five to forty skilled men six months to build a 500 barrel mill. At the present time, with the improved machinery, the same number of men can build a mill with 1,000 barrels capacity in two months.

AUG. KOELLNER, Milwaukee — Our trade is going down year by year. A good mechanic can not find work enough, because too many men who can only handle a saw and a hammer call themselves carpenters, nowadays.

C. W. KOEPP, Milwaukee — My opinion is that there are as many bosses in the city as there are jobs. The general answer to a man looking for work is, “This is our last job, and when that’s done, we will have nothing to do ourselves.”

W. B. LUENBURG, Milwaukee — A young man must serve about six years to make a skilled workman. At first he must learn to pick lumber; then he must go through a sash, door and blind factory, because he never will learn to make even a window frame while at a building; the contractor has them made in the factory; there he will have to serve a time at framing, which is the principal part of the trade, in order to make a good mechanic. He must study geometry and learn architectural drawing. A long time will be required to learn pine and hard-wood finishing, because there are so many different kinds of wood, and ways of doing it.

WM. LUTZ, Milwaukee — I joined the so-called carpenter’s union, but had to leave it, because I could not get work while being a member. Times are hard this season, as it is very difficult to find work.

ALBERT MAASS, Milwaukee — Our trade is getting poorer every year. The rate of wages this year is from 2 to 2½ cents per yard. If a lather had to make his living from the trade alone, he would starve.

ORMOND A. MACK, Milwaukee — Our trade has become sadly degenerated.

Mill furnishing establishments now simply send a foreman to a job ordering him to hire local carpenters cheaply. Thus the employer saves railroad fare. A poor carpenter in a flour mill is like a pig in a parlor. If a foreman were allowed to select his gang of men and take them with him from one job to another, the work would not only be done more rapidly and better, but, of course, much cheaper. Tearing out and rebuilding the work of men who have but a faint idea of the trade adds dollars to the cost of a job and multiplies the perplexities of the foreman.

M. MELZER, Milwaukee — I was out of work the month of October, 1888. Could not find any more work at the trade, so I left my family to work in the pineries of northern Michigan. I worked there from November 6, 1888, to March 28, 1889. There are too many carpenters in Milwaukee; I have lived here three years, and in all that time could not save anything.

A. MORTIMER, Milwaukee — I would say that the good mechanic has little trouble in finding pretty steady work; but the city has a surplus of poor workmen who work about seven months per year. The skilled man can take care of himself, but the poor one needs protection. A union in our trade only means expense, trouble, strike and destitution.

M. C. NELSON, Milwaukee — Many millwrights here are forced to accept ordinary carpenter's work, for lack of work at their trade.

GEORGE SHAFFER, Milwaukee — The trade is not near as good as it was twenty or more years ago.

D. R. TATE, Milwaukee — Wages at present are low, and there is not much work. The trade is not as good as it was a few years ago. There is so much competition now, that contractors have to figure very low, and, of course, can not pay high wages. A carpenter with a family, and a house and lot to keep up, must have work, or he will not be able to make his payments.

GEO. T. WALKER, Milwaukee — At this time (November, 1889), fully one-half of the carpenters in the city are out of work.

No. 435, Milwaukee — Work at our trade has not been good for more than two years. It is very difficult sometimes to find work, because so many are looking for jobs. I think it would be a good thing to have a place somewhere in the city where everybody looking for work and everybody in want of workers could go free of charge.

No. 537, Milwaukee — On the whole, since the eight hour strike of 1886, the building trades are not so good as they used to be. The strike brought a great many country carpenters to the city. Many of them now have to be satisfied with nine hours work per day. A goodly number of working-men's houses are being built, but they are generally for men of other trades.

E. E. FRINK, Milton — I would say to all carpenters, speaking from experience: To be successful you must have good tools, and keep them in good order. Do first-class work. Never make a promise that you can not fulfill. Do not contract more work than you can do, simply for the sake of keeping some one else from getting it. Do not profess to be a better

workman than you are. Study well the different branches of carpenter work, and memorize all you can, especially the square. The square is the greatest of all carpenter's tools; it requires more study than all the rest put together. Have you ever given it a thought how much knowledge and benefit can be derived from studying it well? I would urge every carpenter to practice with the square in draughting out his work, and use every effort to advance the trade.

HENRY REINGANZ, Milwaukee — The only thing that has spoiled our trade is the "wood butchers," who never learned the trade, and whose outfit of tools consists of a saw, a hammer and a hand ax, and work for \$1.25 a day. These are the men that build our houses nowadays, while the good mechanic is idle.

H. T. THOMPSON, Mount Morris — Our carpenters here are mostly farmers' boys, working for whatever wages they can get, which this year means at from 75 cents to \$1.25 per day of twelve hours. As there is considerable cheap work to be done in a farming country, these cheap hands have the preference always. This year the building trades are dull, and all contracts are let for about three-fourths of the usual price.

C. OSTRANDER, Poynette — As there are no factories here, the work is mostly outside the village, where mechanics work more hours and get their board. The cause of the low range of wages here is because the work to be done is of the rougher kind, such as building barns, sheds, etc., at which a cheap man can do as much work as one whose knowledge of the trade ought to be worth thirty cents per hour.

A. N. BARNEY, Ripon — I had all I could do last year, but this year is very dull. Money seems to be scarce; merchants complain; there is not a new house being built here this season. I hardly know why it is so.

H. F. BLANDIN, Racine — There has not been enough building going on in this city this year to furnish work to 5 per cent. of our carpenters. There was very little done in 1888. Our carpenters work in the factories mostly.

JOHN G. ROBERTS, Racine. — Our city seems to be quite busy at present, except in the building line. A county asylum is being built in the suburbs, but the contract was awarded to a Milwaukee firm; that did great harm to the local tradesmen of Racine. The lack of an organization of carpenters enables contractors to take advantage of their workmen and cut down wages. I don't think there is half a dozen carpenters in the city that get \$2.25 a day, and very few more get \$2; not very many \$1.75; most of them get \$1.25 and \$1.50, so, it's not very encouraging for men to come here at present, unless they are machinists; that branch is running full time. Some of the best carpenters in this city to-day, work in these shops; they make better wages. Workingmen's houses are very hard to get; hardly a house for rent in the city. I should think it very encouraging for speculating in more new homes, such as a workingman requires, a home that would rent from \$5 to \$8 a month.

JOHN B. GALLOP, Sharon — This is a delightful place, and the people are enterprising, but there is not enough work for the carpenters now here. From the middle of November until the first of March, there is very little for them to do. The contractors employ altogether too many apprentices and half-skilled men, whose knowledge of the trade does not extend beyond the use of the saw and hammer.

C. B. LIPPITT, Sharon — You will notice that I report that it takes seven years to learn the carpenter's trade. Well, some are not good workmen after twenty years, while others are pretty fair workmen in less time.

MAT COLLINS, Stevens Point — I would encourage no man to settle here, or in any other small northern town or city. Three-fourths of our carpenters do not find work at the trade over six months of the year. They are dependent upon other labor — some of them go to the woods. Considering the shortness of the season, wages are not high enough.

PERRY A. HART, Stevens Point — Too many half-skilled men rush in town during the busy season, keeping wages below prospering points. Common laborers do better in this part of the state than skilled mechanics. Rents are high, and it takes all a man can earn to make a good living.

WALTER BAPTIE, Washburn — This town is but a little over five years old; last fall we had a population of about 4,000. We have three large saw-mills, large coal docks, a warehouse for flour and merchandise by water, and an elevator which holds 900,000 bushels of grain. There is enough work for the carpenters now here.

ALBERT KRUGER, Watertown — There are very many carpenters in this town. They all make a living, and I think that's about the best they can do.

E. J. POIRIER, Watertown — Times, just now, are very dull, and a carpenter can not live on his wages alone. When business is brisk we make a very good living at wages of \$2.00 and \$2.25 per day.

H. AMELUNG, Wein — If a carpenter here has a farm to work during the dull building season, he can make a very fair living.

CHARLES HAMANN, Wein — Living here in the lumber region of Wisconsin, and but recently settled, most people being beginners only at farming and other occupations, wages in our trade are necessarily a trifle lower than in more populous districts. Consequently carpenters work at their trade during the summer months only. The balance of the year we take to work in the woods, pineries, saw-mills, etc.

L. M. PRESTON, Westfield — A few of the farmers around here are making the discovery that a good workman at \$1.75 per day is cheaper than a poor one at a dollar.

G. A. DIMMICK, West Superior — Work here is mostly of the plain and rougher kind, so that anybody who can nail up lumber can get work at fifteen to seventeen cents per hour. Half-skilled men get the preference; the contractors say the cheaper class of men is good enough. No room for first-class carpenters here.

ERICK ERICKSON, West Superior — At present the chances are good and

the outlook bids fair for a year or two more. But at times laborers and mechanics seem to flock in here so thickly as to cause many idle men in spite of all the improvements that are going on. Houses rent from \$10 to \$20 per month for less than five rooms; houses with from five to ten rooms bring \$30 to \$40 rent. A certain man here owns a house worth about \$2,500, which brings him a rental of \$100 per month, while he with his family occupy three rooms in the same house.

A. MCARTHUR, West Superior — Business in this town is almost purely speculative. Outside capital sustains trade. They build houses, streets, docks, etc., on the prospect of their becoming valuable in the future. There will be no insured stability until factories are built *and operated*. The public improvements are in advance of the business, and those who employ labor try to get it very cheap. Every year wages have been lower than the previous one. There is but very little to do during the winter months, and a mechanic having a family to support, needs his summer's savings during the winter, and therefore, cannot easily acquire homes. Owing to newspapers "booming" the town, every spring sees hundreds of carpenters arrive, who are forced to accept any wages, shut out those who have wintered here. The supply of labor is in excess of the demand. The system of sub-contracting injures the trade. The work is given to the "cheapest" man, no matter what his qualifications are. Other reasons why it is difficult to acquire a home here is the fictitious or "boom" values set on property shutting out the poor man, unless he goes out into the country a mile or two. Street improvement taxes are very high. The building of elevators at this point has created a horde of half-skilled carpenters.

F. W. MILLER, West Superior — Carpenters working in sash, door and blind factories do not get the highest wages here; outdoor workmen get a little better pay. I began work about the middle of April, and expect to have a couple of months longer this fall, at the rate of \$2 per day.

J. G. WATERSTON, West Superior — If it does not occupy too much space in the report, I would like to suggest that a great benefit to our trade would be an amendment to the excuse known as the lien law. There should be some means provided by our legislature whereby a mechanic has some guaranty that after performing a piece of work he shall receive the amount agreed upon, whether employed by the day or otherwise. But the law, as construed in this locality at the present time, the owner of the building merely shows a receipt in full from the contractor. A large proportion of our contractors are either men of neither principle nor property; it is an utter impossibility to collect a cent from them, and even if it could be collected, after paying the legal expenses (so-called), there is nothing left for the laborer. Amend the lien law so that receipts nor anything else can defraud the honest laborer of the amount he has earned, and so that it will not be so complicated that he must employ a lawyer at perhaps a compensation of 50 per cent. of the amount of the claim to explain the law to him, and, after all, assist in cheating him out of the balance.

H. G. WOOD, West Superior — The trouble with our trade in this place is that the Scandinavians are so numerous, and that they work for low wages, and contractors base their figures upon this class of labor. If people contemplating building would have their work done by the day, and hire good mechanics, instead of employing a contractor with a retenue of "jack-knife" carpenters, they would not only benefit themselves but ennoble the craft.

JAMES TAYLOR, Whitewater — Ours is a poor trade for a boy now-a-days. He is made to carry all the lumber, and if he learns anything at all, he must do so by watching others; journeymen in very few instances teach the boy anything.

HOME OWNERSHIP.

Replies to the question: "Are the chances of finding employment, in the town where you live, encouraging enough for men of your trade to acquire homes of their own?"

JOHN SIBBALD, Ashland — For those who like to live in this northern climate the prospects are favorable to find almost steady employment at good wages. At an outlay of from \$700 to \$800 a very good house and lot can be secured by paying a small sum down, with two or three years time to pay the balance. Most carpenters here own the houses they live in.

A. D. STREET, Ashland — The chances of acquiring a home are probably as good here as anywhere to the men now here and for those who come to stay. Property is in good demand, and a tradesman may realize something even by the rise of property values.

No. 135, Aztalan — Good chances. I have a home, a little place with seven acres of land, and keep a horse and a cow. This town is in need of a good blacksmith and horseshoer.

JOHN MACCALLUM, Chippewa Falls — Some of us own our homes, and together with a few months at the trade, and other work most of the year, we manage to make a living. Some go to the woods; others on the railroad, and divers other callings.

WM. A. EDDY, Easton — We country carpenters combine a small farm with our trade generally.

PETER KILBOTEN, Eau Claire — If a man has a wife and three or four children, and tries to live and dress middling well, it will take him about ten years to acquire a comfortable home.

S. J. KELLY, Eagle Point — Good chances to men willing to work. My home is worth \$1,400, and I made it clear in five years, and lived well. In winter I work at anything; at my trade in summer. Everything is cheap here — potatoes, 10 cents per bushel; hay, \$3 per ton, and everything else proportionately; so you see, if a man is willing to work he can make a living. Carpenter work was not as plenty this year as it used to be.

JULIUS LEY, Fond du Lac—Fond du Lac is not a great rushing place, but it has many advantages over cities of its size. We have buildings of all kinds, a good farming country all around us, and property has been slowly but steadily advancing during the last five years. A skilled mechanic anxious to work, can live here as well as elsewhere, and acquire a good home for less money than in any place I know of, for we have the best and cheapest building material of all kinds—stone, brick, sand, lime and lumber—right here.

GORDON MARSH, Fond du Lac—As far as my acquaintance goes, over half of the carpenters here own their homes, and the other half might if they did not try to support a saloon and a family at the same time. The saloon generally gets the support and the family “gets left.” I consider the saloon the worst enemy the laboring man has.

B. F. RUNYAN, Grand Rapids—Most of the mechanics in this city own their homes. It is much cheaper to build than to rent, as we can buy building lots on the installment plan, as well as the lumber to build with.

C. W. DALEY, Janesville—Any good, steady workman in this city can get work enough at wages enabling him to acquire his own home.

J. W. JONES, Janesville—This city has a population of about 12,000, and is slowly increasing in business and population; its mechanics as a rule are usually well employed and fairly situated, many owning their homes, and enjoying the comforts and pleasures of life in about the same degree as most people in their station. The rigors of climate deter outdoor workmen to reap the full benefit of their trades.

A. H. FRENCH, La Crosse—About nine-tenths of the carpenters employed in this city own their homes. But property is getting high; lots on the outskirts range from \$700 to \$900, and a small cottage can not be built for less than \$400 to \$500.

E. P. LEWIS, Lewiston—There is not work enough in this locality. Too many days of the year have to be fooled away. A man is doing very well if he gains a home of his own and makés a fair living. People generally seem to care very little for a man who is dependent upon his tools.

PETER DOYLE, Medford—Steady employment at the trade can not be expected in this locality. Still, all the carpenters here have managed to acquire homes of their own. It is customary with us, when carpenter work is scarce in winter, to seek employment in the woods, and consequently have work of some kind the year round.

J. C. HOFFMAN, Medford—Chances are good. I came to this town eleven years ago; I had nothing ahead, but was looking for work. I now own a house and lot in town worth about \$400, and 80 acres of land with improvements, worth about \$1,600. I think that was doing well enough for a man working by the day.

E. J. AUSTIN, Merrillan—The larger part of the work comes from farmers. Common to good carpenters get from \$2 to \$2.50 per day. All carpenters here own good homes.

J. P. DIX, Milwaukee—At least one-half the carpenters of this city have their own homes, and many are getting them. On the other hand, there are many, let circumstances be what they may, who would not have homes.

G. ELLINGSON, Milwaukee—I have been in this country nearly eight years, and all I have saved is about \$100. I have only three children, aged 6, 4 and 2 years respectively. I am a temperate man, and do not spend my money for liquor. House rent is about \$96 per year. Last winter wood was \$7 per cord, and coal \$7.50 per ton.

HENRY GOEHR, Milwaukee—I would advise every workman to try and get a home of his own, if he can find employment nine or ten months of the year. In ten or twelve years he will have saved enough in rent to pay for a small cottage, and a carpenter can always find some improvement to make that will keep him busy one or two months around his own home. It is not hard for a man now to get a home. If he can scratch up money enough to buy a lot for \$300 to \$500, he can loan money enough from building societies to build a house. I know men here that work for \$1.25 and \$1.50 per day, and have homes worth from \$1,500 to \$2,000, and will have them paid for in three or four years, if they keep on as they have for the last four or five years.

FRANZ R. ILLGEN, Milwaukee—Wer von Jugend auf fleissig and sparsam ist, dem mag es gelingen sich ein bescheidenes Heim zu erwerben.

EDWARD KOEPKE, Milwaukee—It is very difficult to find employment, but a diligent and economical man can acquire a little property after some time.

R. SMOLDERS, Milwaukee—Whether a good mechanic in this city owns a home or not, depends greatly upon himself. Thousands of workmen have done it, and thousands are striving for it now. Although I have not come so far yet, I have a few dollars in the savings bank, and will do my best to get rid of paying rent and moving from one place to another. I think Milwaukee is as good a city as can be found on the globe.

M. H. AINSLEY, Milton Junction—The trade is well supplied with workmen at this point. Some own their homes, some do not. A first-class plasterer could find employment here eight months in the year.

J. H. EDMONDS, Oconomowoc—In answer to this question, I must say, that if men practice a reasonable amount of economy, they can expect to get homes of their own. I am not a political prohibitionist, and not in favor of any sumptuary laws; but when I see men who I know do not make over \$375 per year, their table supplied with all the necessaries, and even some of the luxuries of life, seeing them well and comfortably dressed, and knowing that the homes they live in have been paid for, or are being paid for by their savings, then I must say that the chances of finding employment for the men who are now here, are encouraging enough for them to acquire homes of their own. At times work is so scarce that many are inclined to think

that this is a poor place to live. Under the head of general remarks I wish to say that I think it would be of just as much benefit to the working classes as to others, if we had a higher standard of education for the masses. The education which fifty years ago enabled a man to pass for a well-informed person, is to-day looked upon as ignorance. One of the laws I would like to see on the statute books, is one requiring all voters to be able to read the language of this country. This may seem rather a severe measure, but I have heard the same opinion expressed by many of the better class of foreigners.

J. B. CLARK, Patch Grove—Industrious men of steady habits, obtain employment easily and acquire good homes, as there are few demands here for extravagant expenditures. Land and wood are cheap. Good tools are a necessity, and a trade publication or a local paper a benefit. Strict observance of Sunday gives renewed vigor and prevents complaints against the ten-hour system.

No. 90, Peshtigo—This town is as good a place for wageworkers as can well be found. The Peshtigo Company, who employ a large number of men, use their men well, and pay them as good wages as they can get in any lumbering town in this country. The majority of the men have their own homes. The company sells them lots and furnishes lumber to build, upon monthly payments.

E. F. CURRIER, Plainfield—A man who is willing to work, temperate, and lives within his means, can acquire a home in a few years. I think there is too much fault-finding among the working classes, especially mechanics. They would not be anymore satisfied if six hours instead of ten were made a day's work, especially in large cities. There are too many strikes, too many leagues, and too much anarchy, although we live under "the best government for the poor man that the sun ever shone upon." Building here has been rather dull the last few years on account of low prices of farm products, so that farmers could not build as much as usual. It looks more favorable this year.

C. H. BUTLER, Poynette—All the carpenters in this place own quite comfortable homes, mostly free from incumbrances.

R. PEAT, Racine—The chances are good for skilled, sober and industrious workmen. The lack of either of these qualities is very unfavorable to success.

W. D. STACK, Watertown—There are carpenters enough here to do all the work. Most of them own their homes.

GEORGE HUNT, West Superior—I have no home here, and would not encourage anybody to come here and live.

F. W. MILLER, West Superior—Property is very high here. From \$750 up to \$20,000 is being paid for lots fronting 25 feet by 140 deep. All common people think it cheaper to pay rent, although rent is very high. Three rooms rent for \$10 per month. Street grading adds an assessment of about \$25 and upward per lot. This place lies very low, and is all red clay. I

think it is very unhealthy. A few years ago one could buy the same lot for \$25 or \$50, that is now beyond the reach of any man that depends upon his trade for a living. Wages ought to be at least three dollars per day in a place where drinking water has to be bought. You ought to see the glad faces when a rain storms come. There is a good deal of building going on in summer, but when winter sets in there is not much to do for anybody.

JAS. G. WATERSTON, West Superior — Land here is all cornered by speculators, and held beyond the reach of the working classes.

HENRY G. WOOD, West Superior — Owing to the fact that lots are held at enormously high prices, while wages are low, it is impossible for a mechanic to get a home of his own in this city.

C. W. SAXE, Whitewater — Chances are good for good workmen. Unskilled men may find work during the hurrying season, but he is discharged as soon as he is required to do a good job and fails. I would recommend every one to try and get a home. Many spare hours incident to our trade can be put to good use.

PAINTERS AND PAPERHANGERS.

Office number.	Trade.	Location.	Total earnings at trade from May 1, 1888, to May 1, 1889.	Daily income from trade for 365 days.	No. of work-days lost from May 1, 1888, to May 1, 1889.
95	Painter and paperhanger....	Albany	\$450 00	\$1 23	40
84	Painter.....	Allan's Grove	250 00	68	190
232	Painter and decorator	Antigo	650 00	1 78	75
157	Painter.....	Augusta	125 00	34	285
151	Painter.....	Beloit	450 00	1 23	None
65	Painter and paperhanger	Berlin	425 00	1 16	50
119	Painter.....	Buffalo City	300 00	82	185
54	Painter.....	Brodhead	375 00	1 03	125
319	Painter and decorator	Cadott	350 00	96	155
52	Painter.....	Cedarburg	346 00	95	35
393	Painter.....	Chilton	475 00	1 30	70
101	Painter and paperhanger.....	Delavan	475 00	1 30	95
314	Painter.....	Delavan	332 00	90	144
172	Painter.....	Durand	400 00	1 10	130
321	Painter.....	Durand	442 00	1 21	89
59	Painter and paperhanger.....	Elroy	323 00	89	145
390	Painter.....	Fifield	135 00	37	262
554	Painter.....	Fond du Lac	600 00	1 64	60
28	Painter and paperhanger.....	Honey Creek.....	350 00	96	75
46	Painter.....	Janesville	370 00	1 01	83
70	Painter.....	Janesville	535 75	1 47	36
77	Painter and paperhanger.....	Janesville	500 00	1 37	None
107	Painter.....	Janesville	525 00	1 44	50
260	Painter.....	Janesville	560 00	1 54	45
327	Painter and paperhanger.....	Kiel	375 00	1 03	100
15	Painter and paperhanger	La Crosse	700 00	1 92	104
123	Painter and decorator	La Crosse	720 00	1 98	5
337	Painter.....	La Crosse	248 35	68	96
171	Painter.....	Lyons	300 00	82	100
253	Painter and paperhanger.....	Lyons	280 00	77	151
296	Painter.....	Markesan	400 00	1 10	None
271	Painter.....	Medford	235 00	64	60
180	Painter.....	Merrillan	162 00	44	182
163	Painter.....	Milwaukee	264 00	72	134
199	Painter, fresco and sign	Milwaukee	1,000 00	2 74	None
205	Painter.....	Milwaukee	265 00	71	75
214 ²	Painter, fresco.....	Milwaukee	480 00	1 31	50
219	Painter.....	Milwaukee	612 00	1 67	None
223	Painter.....	Milwaukee	364 00	1 00	130
234	Painter.....	Milwaukee	600 00	1 64	None
250	Painter.....	Milwaukee	200 00	55	149
266	Painter.....	Milwaukee	360 00	98	None
273	Painter.....	Milwaukee	330 00	90	134
290	Painter.....	Milwaukee	325 00	89	130
292	Painter.....	Milwaukee	250 00	68	155
331	Painter.....	Milwaukee	380 00	1 04	100
342	Painter and decorator	Milwaukee	638 00	1 75	35
348	Painter, fresco and sign	Milwaukee	450 00	1 23	156
349	Painter.....	Milwaukee	500 00	1 37	100
360	Painter.....	Milwaukee	400 00	1 10	103
398	Painter, sign	Milwaukee	250 00	68	165
400	Painter, fresco.....	Milwaukee	450 00	1 23	105
402	Painter.....	Milwaukee	600 00	1 64	None
412	Painter.....	Milwaukee	350 00	96	140
414	Painter.....	Milwaukee	447 80	1 23	61
424	Painter.....	Milwaukee	475 00	1 30	66
432	Painter, sign	Milwaukee	936 00	2 55	90
445	Painter.....	Milwaukee	450 00	1 23	98
451	Painter and grainer	Milwaukee	424 00	1 16	75
453	Painter and grainer	Milwaukee	625 00	1 71	60
455	Painter.....	Milwaukee	495 00	1 36	110
462	Painter.....	Milwaukee	336 00	92	104
463	Painter.....	Milwaukee	342 00	93	156
492	Painter.....	Milwaukee	550 00	1 51	10
496	Painter.....	Milwaukee	523 00	1 45	24
497	Painter.....	Milwaukee	375 00	1 03	75
517	Painter.....	Milwaukee	285 00	79	150
528	Painter.....	Milwaukee	497 00	1 37	36

PAINTERS AND PAPERHANGERS.—Continued

Office number.	Trade.	Location.	Total earnings at trade from May 1, 1888, to May 1, 1889.	Daily income from trade for 365 days.	No. of work-days lost from May 1, 1888, to May 1, 1889.
243	Painter.....	Morrisonville.....	\$225 00	\$ 61	130
182	Painter.....	New Holstein.....	250 00	68	110
75	Painter.....	Omro.....	100 00	28	200
164	Painter and paperhanger....	Platteville.....	400 00	1 10	50
106	Painter.....	Racine.....	500 00	1 37	120
134	Painter and paperhanger....	Racine.....	350 00	96	60
426	Painter and artist.....	Racine.....	221 00	60	128
100	Painter.....	Ripon.....	450 00	1 23	70
225	Painter.....	Rolling Prairie....	200 00	55	120
275	Painter.....	Sharon.....	400 00	1 10	130
81	Painter.....	St. Croix Falls....	225 00	62	175
237	Painter.....	Union Grove.....	315 00	86	130
6	Painter.....	Unity.....	300 00	82	155
22	Painter.....	Viola.....	150 00	41	155
103	Painter.....	Washburn.....	400 00	1 10	60
119	Painter and paperhanger....	Watertown.....	450 00	1 23	51
85	Painter.....	Weyerhauser.....	600 00	1 64	153
<hr/>					
PAPERHANGERS.					
2	Paperhanger.....	La Crosse.....	500 00	1 37	155
97	Paperhanger.....	Milwaukee.....	800 00	2 19	None
214	Paperhanger.....	Milwaukee.....	550 00	1 51	66
499	Paperhanger.....	Milwaukee.....	591 50	1 62	40

TRADE NOTES.

W. A. WESTERMAN, Albany — The people of this place hire workmen only for such work as they cannot do themselves.

C. M. BUDLONG, Allen's Grove — There are too many unskilled men in our trade, and dividing the work with them cheats skilled labor out of its wage.

J. N. SCHNEIDER, Buffalo City — I consider myself lucky if I can put in six months per year at the trade. During the building season I go all over the country and surrounding towns to work. I raise all the vegetables needed in the family, have two cows and some pork, so it is not so very bad after all.

H. DREIER, Cedarburg — A first-class painter, paper-hanger, sign writer, carriage painter; in short, a man who is a master in all the branches of the trade, finds work here during the summer months; but in winter there is nothing to do.

IRA BEAUDETTE, Fond du Lac — Those dependent upon their trade, often have to leave town to seek work elsewhere.

JOHN F. DUNHAM, Janesville — There are about forty men employed at painting just now (June, 1889); one-half of them are men that served an apprenticeship, the other half are "spring painters," who work a while during the rush, and then go back to the farms, where they belong, and we do not see them again until the next spring. Quite a deal of building

was done here last season, some of them as fine residences as are built anywhere. Painting is being done better each year, and gradually getting in the ways of other cities.

L. A. CAMPBELL, Lyons—Since mixed paints have come into general use, it does not require so much skill to be a painter. Therefore, we have a large number of “daubers,” who are always ready to work for low wages, I do not think there is a remedy for that trouble. A skilled workman can find work at good figures, generally. But there is not enough of the higher grades of work to do.

JOHN G. BAUMANN, Milwaukee—I learned my trade in Germany, and paid seventy-five gulden per year to my principal during five years of apprenticeship. I have worked in many cities of the United States, but fresco painting is a very poor trade in Milwaukee. A good workman hates to work alongside of daubers. I have never seen so many painters together as in Milwaukee. Young men without any trade, sailors, whitewashers, etc., call themselves painters during the busy season. Even bosses, with extensive shops, who do not know how to handle the brush! The latter take contracts without any specifications, working cheaply and employing boys.

JOHN J. BAUMGARTNER, Milwaukee—Our trade is very much overrun by so-called tramps, some of them good men, but utterly untrustworthy. I would like to see some good, steady men come to Milwaukee to stay. Of course, we have some here, but the great majority know only one-half of the trade. I am opposed to trades unions for the reason that a good man puts himself on a par with a poor one, and must help the poor one to get better wages than he deserves, thereby sacrificing his own chances. What I would like to see is a society of painters to advance the men with good books on the trade, written by experts; lectures on chemistry as pertaining to the manufacture, etc., of the colors, and other ways and means for the workman to become more familiar with the materials and tools he uses. Our public library, to be sure, contains hundreds of just such works; but there is not one man out of a hundred who goes there for reference. If the men would stop agitating the eight-hour day (which is altogether impracticable in our trade) and turn their attention and spare cash to a school for themselves, they would become more competent, and without a doubt, receive better pay. Of all countries on the globe, Germany, I think, pays greatest attention to its mechanics. All the larger cities have a *Gewerbe halle* (trades school). Our manual training schools are patterned after them, but are greatly inferior. In our manual training schools they teach boys; over there they teach the young men that have a more or less practical knowledge of the business they are about to pursue, and can therefore, more readily understand and appreciate the lectures and theories advanced by experts. An apprentice here is supposed to serve three years; but it takes him from five to ten years to learn enough so as to be worth a skilled man's wages.

THOMAS CURZON, Milwaukee — Painting, generally, in this city is done in a very inferior manner, and by any untrained, unskilled "slap-dasher," who works at wages an honest man cannot subsist on. The fact of one having served a regular apprenticeship, goes for naught, and is utterly ignored. Materials of the cheapest and coarsest kind are used. Artistic workmanship and finish are almost unknown, except it be in the highest class of structures, or saloons. I know of a large school-house here being painted by the janitor, an ex-laborer, while good painters were idle. He imitated the graining of large double doors with a sponge. At the same time, the painter out of employment pays his share of the taxes for institutions of this kind.

H. DANIEL, Milwaukee — Even for the best fresco painter, work here is very unsteady. I have often been compelled to accept common work for want of it at my branch of trade. Just at present I am employed at painting fine statuettes in a factory.

CONRAD KRAEMER, Milwaukee — I have noticed that our trade, like all others, is running down considerably; that is to say, work has to be done cheaply, and the mechanic is obliged either to do his work poorer and more of it, or work for lower wages. To draw a parallel between the apprentice of to-day and ten years ago, I am fully convinced that he is not properly looked after to see that he learns the trade thoroughly. He also receives scant wages compared with ten years ago.

A. SEVIG, Milwaukee — There is a great deal of plain or common work here, such as I am doing, at which anyone with good judgment can work without having learned the trade.

No. 342, Milwaukee — Our trade is being ruined year by year. For about a month or six weeks in spring there is a great rush, when everybody is put to work whether they know anything about the trade or not, at about \$1.50 per day. As soon as the rush is over the skilled man is laid off, and the new man kept to work.

M. C. O'BRIEN, Morrisonville — The farmers around here are all well-to-do, and I work mostly for them, and get all the work I can do in the painting season, taking the work by the job, generally. The village is small and cannot support a painter steadily. The wages paid are from \$1.50 to \$2 a day, including board.

D. HAUSCHILDT, New Holstein — Wages are good enough, but employment rather uncertain.

H. L. CHADBURN, Ripon — A German can buy a home with wages of \$1 a day, where an American could not at \$2.50 per day.

E. J. JONK, Union Grove — I have a horse and wagon, and hunt up work for twenty miles around.

L. A. THOMPSON, Unity — Being sixty years of age, and having worked at the trade fully forty-five years, a word of advice to the working classes in the Labor Report may not be considered out of place. If you are willing to do honest work at a fair compensation; if you are industrious,

frugal and temperate; always willing to learn from others; satisfied, always, to attend strictly to your own business, and let others do the same, you are bound to succeed. If I were an employer, I would as soon employ the devil as a labor striker. One agitator will ruin a number of industrious and well-meaning, but inexperienced young men.

HOME OWNERSHIP.

Replies to the question: "Are the chances of finding employment, in the town where you live, encouraging enough for men of your trade, to acquire homes of their own?"

B. F. EDWARDS, Antigo — I came here from Chicago to better my condition, and have done so. I get the same wages here and pay less for a living. After working here about two years, I bought some lots and built a home. There are eight painters here who own homes, and as many more who do not. The former are all good workmen. Those that come here during the busy season, are mostly average or poor workmen. Resident painters always have the preference.

CHAS. W. HUNT, Brodhead — All our good workmen own homes; but there are some who picked up the trade by using ready mixed paints. The latter do not own their homes, and never will by the use of the brush. A good workman can always get work if there is any, at least I find it so. The use of mixed paints has done more to hurt the trade in small towns than it has in large cities. The man who cannot handle the brush is soon discharged in cities; but in the country, with his paint ready mixed, he will pass as a painter. Some of these "artists" work as low as a dollar per day. But I believe mixed paint has had its day here. What we do need is pure boiled oil and white lead.

H. S. MOODY, Elroy — I have had my share of the work during the four years that I have lived here; but I find that unless a man has other sources of income besides his trade, or a small farm to work, it is impossible for him to earn more than a fair living. A home of his own, or even a common school education for his children is entirely out of the question.

GEO. R. WILLIAMS, Janesville — Plenty of chances for good, steady workmen.

EMIL HANSKE, Kiel — For good men and skilled painters the chances are good enough; none others need apply for the "woods are full of them."

ED. J. COGSWELL, Paperhanger, Milwaukee — The chances of acquiring a home in this city are not as good as formerly. Real estate has been boomed up to such a high price that it is beyond the means of the average paperhanger. His wages and time are now more uncertain, not so many regular hands being kept in the shops as formerly. I find it quite as much as I can do with my wages ranging from \$500 to \$550 per year, to keep a comfortable home and live in a good, but economical way. The majority

of my acquaintances at the trade have not yet acquired homes of their own.

JULIUS KEMPIN, Milwaukee — Well, it is hard for a man at my trade to get a home of his own. The money earned during the busy season goes nearly all toward household expenses. Still, if a man is willing to work, and employment to be had, he can lay aside a little every year.

ALBERT S. PARR, Milwaukee — A man can do as well here as anywhere, if he be steady and industrious, sticks to the trade, a good workman, and does not drink too much "skee," which is a great failing with painters.

J. W. RICKERT, Milwaukee — I gave up painting because I could not make a home for my family, and hardly a good living, notwithstanding I entered the trade in my fourteenth year and worked at it for twenty years. I now have a steady job which suits me better.

JOSEPH RIFFLER, Milwaukee — There is work enough here for those who want to work, and understand their trade, with the exception of about two winter months. There are hundreds of men owning homes, who live happily and comfortably. Real estate is much cheaper than in other large cities, and a comfortable home can be put up and paid for in a few years. Milwaukee is a very cheap city to live in.

JOHN SNELL, Milwaukee — Most of the men at my trade own their homes; all can, if they wish to, but, of course, a few of them spend all their earnings. A paperhanger calculates to lose about six weeks in summer and six in winter. A number of them work by the piece, making from \$900 to \$1,300 per year. A friend of mine makes as high as \$40 per week, and works about forty weeks per year.

A SPECIAL LETTER.

ED. J. COGSWELL, Milwaukee — In this city there is plenty of room for labor reform and benefits to workingmen, before it can compare with the conditions of English cities. The relative difference between employer and employe is as great as the distance from here to there. The respect shown the mechanic by his employer in Great Britain, is evidenced by the fact that the boss himself is a master of his trade, and therefore better able to judge of the quality of work, and all the circumstances surrounding the business. The bosses here, for the most part, are employers of labor merely, and consequently have no other thought than getting as much return as possible from his workman, without knowing or even considering, what physical or mental energy was employed to produce it. Such has been my experience.

I cannot see a just reason why we, in this country, and especially in Wisconsin, with all its boundless resources, its minerals, metals, lumber, etc., a rich and fertile soil, capable of producing everything needful for our domestic use, with water and other means of travel and transporta-

tions to connect us with all other parts of the United States, as working-men, should not enjoy all the privileges that are enjoyed by any in other parts of the world; yet it is far from being so. In Great Britain, there is not a single factory or workshop where any kind of work is done on Saturday afternoons; in some cities 12 o'clock is the end of the Saturday work day, and none longer than 2 o'clock. See how far we are behind this. In England nine hours make a day's work; in Australia there is an eight-hour system, while we here have no time to attend to the wants of our families, such as recreation, or any out-door entertainment, except on Sunday, and then only to such places as base-ball games, beer gardens, etc., which do not tend to elevate the mind either morally or spiritually. Again, you will find men, who for want of time on week days, will be laying down or mending their sidewalks, and making the Sabbath day hideous with their hammerings; others are found painting fences, white-washing, etc., all or a greater part of which would be done if the afternoon on Saturday were free. You may travel from one end of Great Britain to the other, and not any such things would present themselves. There is a great cry of "Why don't the city enforce the Sunday laws, and bring about the much needed reform of closing theaters and saloons," which do about the best business on that day. We see our municipal court crowded on Monday mornings with victims of the previous day's debauch. Most of which could be done away if our business men and the legislators, would but give it their attention. There are and always will be men who will have pleasure, and spend a certain proportion of their income in these various ways; but after it is spent, it cannot be repeated till another week or pay day comes round. So, if Saturday were the day for picnics, and carousing, the money would be spent, and nothing is left then but for those men to stay at home or at least keep from breaking the state, or Christian laws that govern the Sabbath day.

This thing of early closing on Saturday is not an experiment, nor is it a new fangled fancy of my own, for it has been in effect with all the success the projectors of it anticipated for more than fifteen years in Britain; and I feel sure that the British employers of labor would not go back to the old way. I hope that the time is not far distant when we shall take such steps to bring about this reform, which I feel sure will be such a boon to our fellow workingmen who are tied down, to work each day alike.

PLUMBERS, STEAM AND GAS FITTERS.

Office number.	Trade.	Location.	Total earnings at trade from May 1, 1888, to May 1, 1889.	Daily income from trade for 365 days.	No. of work- days lost from May 1, 1888, to May 1, 1889.
73	Steam and gas fitter.....	Janesville	\$926	\$2 54	None
249	Steam and gas fitter.....	Janesville	625	1 71	16
1	Plumber	Milwaukee.....	620	1 70	None
27	Plumber	Milwaukee.....	700	1 92	6
203	Steam fitter.....	Milwaukee.....	660	1 81	None
406	Steam and gas fitter	Milwaukee.....	576	1 58	None
434	Plumber	Milwaukee.....	1,088	2 98	None
482	Steam and gas fitter	Milwaukee.....	658	1 80	49
521	Plumber	Milwaukee.....	519	1 42	None
TINSMITHS.					
553	Tinsmith.....	Marinette.....	939	2 57	None
262	Tinsmith.....	Milwaukee.....	475	1 30	6

TRADE NOTES.

ED. F. MORTIMER, Milwaukee — Since the strike of plumbers in 1885, the trade has almost come down to a level with the carpenter's trade, which is very poor in this city.

HENRY C. WILLIAMS, Milwaukee — We went out on a strike on April 23, 1885, and wages have been going down ever since. Before the strike we received \$3.00 and \$3.50 per day of ten hours. We were out nine weeks before we could get material to start a co-operative shop. The master plumbers and wholesale dealers combined against us. We could not buy any materials in Milwaukee for a month after we had started the shops, and had to get them from Chicago. After that we bought from the Thomas Wentworth Mfg. Co., in Milwaukee. During the first year we did nearly \$150,000 worth of work, and did even better the next year. We had thirty-five plumbers at work, but we failed last year, while R. J. Malcolm was manager. We did not get our money. We practically controlled the work of the city for three years. The master plumbers did all they could to hurt us, and succeeded at last in making us close up shop. I had to quit, and fifteen others had to quit, for we did not get our money. Some of them started shops of their own and are apparently doing well; but they have to join the Master Plumbers' association to get materials at wholesale rates. The workmen who embarked in the strike and the co-operative concern lost at least \$3,000 between them.

ANALYSIS OF TABLES OF INDIVIDUAL STATISTICS.

MASONRY.—The total earnings of 17 bricklayers, 9 stone masons, 13 plasterers and 10 stone cutters, during the year commencing May 1, 1888, and ending April 30, 1889, are reported to have been \$26,602.13, equal to a

general *per capita* of \$542.90, or a daily income from the trade of \$1.49 for every day of the year. The earnings of 32 of these men residing in the city of Milwaukee, and engaged in either of the trades mentioned is \$558.20; that is to say, \$15.30 above the general average, while the *per capita* earnings at all other points in Wisconsin is proportionally lower.

CARPENTRY.—The total earnings of 264 journeymen carpenters who made report to the Bureau, are given as \$115,326.25. This makes the *per capita* earnings for the year \$436.82, equal to a daily income from the trade, for three hundred and sixty-five days, of \$1.20. One hundred and eight of these carpenters residing in Milwaukee report their total earnings for the year to have been \$46,580.52, making the *per capita* earnings for Milwaukee \$431.30, or \$5.52 less than the general average, and \$9.37 less than the separate *per capita* of all other localities reported.¹

PAINTING.—The total earnings of 89 painters and paperhangers, during the same period, are reported as being \$36,612.40, equal to a *per capita* of \$412.05, or a daily income from the trade of \$1.13 for every day of the year. Amongst these eighty-nine there are thirty-five who reside in Milwaukee, whose total earnings are reported to be \$15,828.80, equal to a *per capita* of \$452.25, being \$40.20 above the general average for the state. On the other hand, the *per capita* for all points outside of Milwaukee is only \$391.55, equal to daily income of \$1.08, and for Milwaukee \$1.24.

The total number of days that the several building trades furnished employment to the 418 men comprised in the foregoing tables is 92,875, out of a possible total of 129,580, a loss, therefore, of 36,705 workdays for the year, or an average of 88 days. Of these 418 men, however, 50 report that they have steady employment, thus making the average in round numbers 100 lost workdays for the year.

The average earnings at the trades, for the year, of the fifty highest reported are \$751.74; of the fifty who worked every day, \$654.10; and of the fifty lowest, \$215.05.

In connection with the loss of time, the following statement obtained through courtesy of Sergeant SAMUEL W. RHODES, signal officer at the Milwaukee station, is hereto attached:

UNITED STATES SIGNAL SERVICE,

Office of the Observer,

MILWAUKEE, WISCONSIN, February 20, 1890.

H. M. STARK, *Commissioner of Labor and Industrial Statistics*, Madison, Wisconsin.

DEAR SIR:—I have the honor to transmit herewith a statement of the

¹ Ninety-one carpenters made report to the Bureau for the year 1887. Their total earnings were \$41,692, equal to a *per capita* of \$458.15, or a daily income from the trade of \$1.25. The *per capita* for 1889 is \$436.82, equal to a daily income of \$1.20. The slight difference in annual earnings of carpenters between those reported for 1887 and those for 1889, is accounted for by the fact that among the ninety-one there are several factory carpenters. The average annual earnings of 911 factory carpenters reported for the Third Biennial Report, were \$542 — nearly 25 per cent. higher than the earnings of house carpenters.

number of rainy days and half days, at Milwaukee during 1887, 1888 and 1889, and a statement of the number of days the wind attained a velocity of twenty-five miles per hour or over, during the same period, as requested in your favor of December 23, 1889.

Very respectfully,

SAM. W. RHODES,
Observer, U. S. Signal Service.

Statement Showing number of rainy days and half days, sufficient to cause a suspension of outdoor work, at Milwaukee, Wisconsin, during 1887, 1888 and 1889.

MONTH.	1887.		1888.		1889.	
	Days.	½ Days.	Days.	½ Days.	Days.	½ Days.
January.....	6	2	2	3	4	3
February.....	7	6	3	4	5	2
March.....	2	1	3	7	0	1
April.....	0	0	1	3	1	4
May.....	3	0	5	4	1	2
June.....	1	1	1	2	3	4
July.....	2	2	0	3	1	3
August.....	0	2	0	1	0	1
September.....	2	6	0	2	0	1
October.....	0	1	1	3	0	2
November.....	3	2	2	3	3	1
December.....	8	4	3	3	2	3
Total.....	34	27	21	38	20	27

I hereby certify that the above is a correct abstract from the records of this office.

SAM. W. RHODES,
Observer, U. S. Signal Service.

Signal Office, Milwaukee, Wis., February 20, 1890.

Statement Showing number of days the wind attained a velocity of twenty-five miles per hour and over, at Milwaukee, Wisconsin, during 1887, 1888 and 1889.

Month.	1887.	1888.	1889.	Remarks.
January.....	5	4	3	This data includes only the time between 6 A. M. and 6 P. M., and only such dates as when the wind blew at the rate of twenty-five miles per hour, or more, for two (2) hours or more. Squalls are not included.
February.....	4	5	4	
March.....	3	5	1	
April.....	4	4	2	
May.....	2	2	4	
June.....	0	2	2	
July.....	1	1	0	
August.....	0	2	0	
September.....	0	3	2	
October.....	5	3	3	
November.....	7	1	4	
December.....	8	4	5	
Total.....	39	36	30	

I hereby certify that the above is a correct abstract from the records of this office.

SAM. W. RHODES,

Observer, U. S. Signal Service.

Signal Office, Milwaukee, Wis., February 20, 1890.

TABLE II.—*Showing the Age at which two hundred and seventy-four Native and two hundred and fifty-one Foreign-born Workmen entered the trades:*

AGES.	Native.	Foreign-born.	AGES.	Native.	Foreign-born.
At 9 years of age.....	2	2	At 26 years of age.....	5	10
At 10 years of age.....	1	1	At 27 years of age.....	6	5
At 11 years of age.....	1	1	At 28 years of age.....	5	5
At 12 years of age.....	1	1	At 29 years of age.....	3	2
At 13 years of age.....	5	5	At 30 years of age.....	4	4
At 14 years of age.....	16	19	At 31 years of age.....	.....	5
At 15 years of age.....	22	31	At 32 years of age.....	6	2
At 16 years of age.....	24	30	At 33 years of age.....	2	2
At 17 years of age.....	23	16	At 34 years of age.....	.....	4
At 18 years of age.....	31	18	At 35 years of age.....	2	.....
At 19 years of age.....	23	13	At 36 years of age.....	1	1
At 20 years of age.....	23	22	At 38 years of age.....	2	3
At 21 years of age.....	14	13	At 39 years of age.....	2	1
At 22 years of age.....	14	11	At 40 years of age.....	2	.....
At 23 years of age.....	18	10	At 43 years of age.....	1	.....
At 24 years of age.....	12	5			
At 25 years of age.....	7	9	Totals.....	274	251

ANALYSIS.

Total number reported.....	525
Native.....	274
Foreign-born.....	251
Entered the trade after their 21st year.....	214
Native.....	112
Foreign-born.....	102
Percentage of whole number.....	40.76
Of native	21.33 per cent.
Of foreign-born.....	19.43 per cent.
Entered the trade after their 18th year.....	344
Native.....	189
Foreign-born.....	155
Percentage of whole number.....	65.52
Of native	36.00 per cent.
Of foreign-born	29.52 per cent.
Entered the trade before their 18th year....	181
Native.....	85
Foreign-born.....	96
Percentage of whole number.....	34.48
Of native ...	16.20 per cent.
Of foreign-born.....	18.28 per cent.

The above table fully justifies the complaint on the part of many skilled workmen, that the building trades are constantly disintegrated by unskilled men. The table shows that 101, nearly 20 per cent. of the whole number reported, began to work at their trades after having reached their twenty-fifth year. No wonder that carpenters and painters complain that theirs are mere "pick-up" trades. But the table incidentally removes the idea that the picking up is done exclusively by immigrants — for, of the 101 alluded to, 48 were born in the United States. What this great number of men were doing before they attained their majority, is a question which would be very difficult to investigate. One fact, however, is apparent — they failed at everything else, otherwise they would not resort to the poorest of all trades, as far as annual earnings are concerned.

No stronger, no more sincere plea was ever entered for the necessity of the establishment of trade schools, than the results shown in this plain table. Had these men received an industrial education, they would have been mechanics of *choice*, instead of mere chance and dire necessity. The old system of apprenticeship by indenture has died out with the advent of labor-saving machinery, and it is extremely doubtful whether at this late day it can be again inaugurated. Probably many of these men spent a few years of their youth in factories, because the manipulation of a machine is easily learned, and wages are at first better than those of an apprentice at any of the building trades. Ere long, however, they found that the years thus spent were practically wasted; that they had learned very little; and that the wages which were an inducement a few years before, have

not increased sufficiently to support themselves individually, much less a family.

Or, is it true, after all, as some writers hold, that the American boy is prevented from entering these trades on account of the great influx of immigrants with large families, who, with their sons, cause wages to be reduced to a standard upon which an American will not live? If so, who will suggest the remedy?

HOME OWNERSHIP.

The following table shows the home ownership among 448 workmen over 25 years of age, at the several building trades. The figures are very eloquent, in that they show that 69 per cent. of them own homes.

To the student of moral statistics, the table at once suggests the fact that the foreign-born workman is more energetic in the strife for a home than the native mechanic. While the former settles down with a definite purpose of obtaining a house and lot, the latter is more given to migrating from state to state, and from place to place. His idea is to see as much of this country as possible, before his fortieth year. The foreign-born workman cares little whether his home is near the shops or the place of employment; the native rather pays a high rent for a few rooms in a tenement house, in order to enjoy the pleasures which life near the business center of a city may afford. This is especially true of the mechanic in the city of Milwaukee. It is a sad commentary, indeed, that eleven out of forty-eight men of over fifty years of age, born and raised in this great country, report themselves homeless.

Whence the discrepancy in the number of homes owned by native workmen, as compared with the foreign-born mechanic? Let the student of moral statistics decide the question. "It is not the province of the statistician to offer opinions or to make assertions; let him furnish the facts and figures, and the reader will do the balance," the critic says. But this critic generally, is one who stands outside the pale of the class of people to whom reports of this kind are of the greatest value.

A volume made up of columns of dry figures only, would have little attraction, indeed, for the man whose youth has been spent on the farm or in the shop, and whose education is limited to the knowledge which pertains to his trade.

TABLE III.—INDIVIDUAL STATISTICS.—*Showing Home Ownership among four hundred and forty-eight Workmen over 25 years of age.*

AGE.	NATIVE.		FOREIGN-BORN.		TOTAL.	
	Own home.	No home.	Own home.	No home.	Native.	Foreign-born.
25 years of age.....	7	1		1	8	1
26 years of age.....	6	4		4	10	4
27 years of age.....	4	2	3	2	6	5
28 years of age.....	2	6	1	6	8	7
29 years of age.....	6	3	3	3	9	6
30 years of age.....	5	9	3	6	14	9
31 years of age.....	4		3		4	3
32 years of age.....	5	9	2	4	14	6
33 years of age.....	7	3	7	4	10	11
34 years of age.....	6	1	7	2	7	9
35 years of age.....	12	3	8	7	15	15
36 years of age.....	9	2	6	5	11	11
37 years of age.....	4	3	3	3	7	6
38 years of age.....	6	4	6	2	10	8
39 years of age.....	7	3	2	3	10	5
40 years of age.....	6		8	2	6	10
41 years of age.....	3	3	8	2	6	10
42 years of age.....	2	2	2	2	4	4
43 years of age.....	2	1	2	2	3	4
44 years of age.....	3	1	6	1	4	7
45 years of age.....	4		7	1	4	8
46 years of age.....	1	1	4		2	4
47 years of age.....	8	2	2	2	10	4
48 years of age.....	4	1	5		5	5
49 years of age.....	2		5		2	5
50 years of age.....	5		6	1	5	7
51 years of age.....	2	1	2	1	3	3
52 years of age.....	4	2			6	
53 years of age.....	5		5		5	5
54 years of age.....			3			3
55 years of age.....	6	1	1	1	7	2
56 years of age.....			4	1		5
57 years of age.....	1	2	3		3	3
58 years of age.....	2		3		2	3
59 years of age.....	1				1	
60 years of age.....	4		4	1	4	5
61 years of age.....	2		1		2	1
62 years of age.....	1		1		1	1
63 years of age.....			2			2
64 years of age.....			1			1
65 years of age.....			1			1
66 years of age.....	2				2	
67 years of age.....			1			1
68 years of age.....	1	1			2	
70 years of age.....	2		1	1	2	2
72 years of age.....			1			1
73 years of age.....	1				1	
74 years of age.....			1			1
75 years of age.....		1			1	
78 years of age.....		1			1	
Total.....	164	73	144	70	237	211

ANALYSIS.

Total number reporting.....	448
Native workmen.....	237 = 52.90 per cent.
Foreign-born.....	211 = 47.10 per cent.
Total number owning homes.....	308
Native workmen.....	164 = 53.25 per cent.
Foreign-born.....	144 = 46.75 per cent.
Percentage of whole number.....	68.75
By native workmen.....	36.61
By foreign-born.....	32.14
Percentage of total number of native workmen owning homes.....	65 per cent.
Percentage of total number of foreign-born workmen reporting owning homes, 68 per cent.	

RECAPITULATION.

TABLE IV.—*Showing the Range of Annual Earnings of Workmen in the several branches of the Building Trades, and the relative number of those who have acquired homes of their own.*

ANNUAL EARNINGS AT THE TRADES.	Number reported.	NUMBER AND PROPORTION WHO OWN HOMES.			
		In Milwaukee.	All other localities in Wisconsin.	Total.	Percentage owning homes.
\$1,000 and over.....	9	4	4	8	88.88
Between \$900 and \$1,000.....	4	3	1	4	100.
Between \$800 and \$900.....	7	1	3	4	57.14
Between \$700 and \$800.....	35	8	9	17	48.57
Between \$600 and \$700.....	44	15	24	39	88.63
Between \$500 and \$600.....	79	14	37	51	64.56
Between \$400 and \$500.....	104	19	55	74	71.15
Between \$300 and \$400.....	83	17	40	57	68.67
Between \$200 and \$300.....	44	8	23	31	70.45
Between \$100 and \$200.....	9	2	7	9	100.
Totals and averages.....	418	91	203	294	70.33

TABLE V.—*Showing the Range of Annual Earnings at the Several Building Trades, for the Year 1888-'89, based upon the Individual Reports of Four Hundred and Eighteen Workmen.*

ANNUAL EARNINGS AT THE TRADES.		Number.	Number owning homes.
Less than \$100	.....	None.	.....
Over \$100 and less than \$125	.....	3	2
Over \$125 and less than \$150	.....	2	2
Over \$150 and less than \$175	.....	4	4
Over \$175 and less than \$200	.....	3	2
Over \$200 and less than \$225	.....	13	7
Over \$225 and less than \$250	.....	8	7
Over \$250 and less than \$275	.....	20	12
Over \$275 and less than \$300	.....	8	5
Over \$300 and less than \$325	.....	30	20
Over \$325 and less than \$350	.....	18	14
Over \$350 and less than \$375	.....	27	18
Over \$375 and less than \$400	.....	17	5
Over \$400 and less than \$425	.....	44	26
Over \$425 and less than \$450	.....	16	16
Over \$450 and less than \$475	.....	27	16
Over \$475 and less than \$500	.....	22	15
Over \$500 and less than \$525	.....	27	22
Over \$525 and less than \$550	.....	16	11
Over \$550 and less than \$575	.....	14	12
Over \$575 and less than \$600	.....	8	6
Over \$600 and less than \$625	.....	30	24
Over \$625 and less than \$650	.....	6	4
Over \$650 and less than \$700	.....	14	10
Over \$700 and less than \$725	.....	12	8
Over \$725 and less than \$750	.....	2	2
Over \$750 and less than \$775	.....	7	5
Over \$775 and less than \$800	.....	2	1
Over \$800 and less than \$825	.....	5	4
Over \$825 and less than \$900	.....	1	.....
Over \$925 and less than \$950	.....	3	1
Over \$950 and less than \$1,000	.....	2	1
Over \$1,000 and less than \$1,050	.....	5	3
Over \$1,050 and less than \$1,075	.....	1	1
Over \$1,075 and less than \$1,100	.....	1	1
Totals	.....	418	288

Percentage owning homes, 69.

TABLE VI.—COMPARATIVE STATISTICS.—*Statement of Foreign-born Workmen in the various Building Trades, showing Monthly Wages received in Europe, as compared with Wisconsin, for twenty-six days' work; their Possible Earnings in their Native Countries, with Steady Employment, as compared with their Actual Earnings at the Trades in Wisconsin, from May 1, 1888, to May 1, 1889. Also, the Possible Annual Earnings in Wisconsin, working 310 days.*

Office number.	NATIVE COUNTRY.	TRADE.	Monthly wages in native country for twenty-six days' work.	Monthly wages in Wisconsin for twenty-six days' work.	Possible annual earnings in native country working 310 days.	Actual earnings in Wisconsin, from May 1, 1888, to May 1, 1889.	Number of days worked from May 1, 1888, to May 1, 1889.	Possible annual earnings in Wisconsin, working 310 days.
537	Bohemia...	Carpenter...	\$21 18	\$45 50	\$254 20	\$182 00	104	\$546 00
547	Bohemia...	Stone cutter...	19 24	68 12	230 88	450 00	172	817 44
397	Bohemia...	Mason.....	30 33	82 68	384 00	450 00	141	992 16
365	Denmark...	Millwright...	31 20	65 58	374 40	787 00	310	787 00
24	Denmark...	Carpenter....	21 70	48 62	260 40	450 00	240	579 70
398	England....	Painter.....	38 88	47 20	466 56	250 00	145	566 40
290	England....	Painter.....	28 60	46 50	343 20	325 00	180	558 00
214	England....	Paperhanger..	23 40	58 12	279 00	550 00	245	697 50
516	England....	Bricklayer....	41 17	84 50	494 00	600 50	185	1,014 00
555	England....	Carpenter....	36 00	58 50	432 00	409 50	182	702 00
194	England....	Mason.....	41 60	72 80	499 20	450 00	160	873 60
146	England....	Carpenter....	36 00	53 30	432 00	369 63	180	639 60
44	England....	Bricklayer....	40 00	48 62	480 00	300 00	160	583 44
559	France....	Stone cutter..	25 84	92 30	310 00	735 00	206	1,107 60
373	Germany...	Carpenter....	19 35	39 00	232 20	200 00	133	465 00
360	Germany...	Painter.....	24 00	52 00	288 00	400 00	207	620 00
402	Germany...	Painter.....	20 00	50 00	224 00	600 00	310	600 00
330	Germany...	Carpenter....	22 00	52 00	264 00	500 00	250	620 00
500	Germany...	Mason.....	37 44	78 00	449 28	445 00	150	930 00
197	Germany...	Carpenter....	18 72	58 50	224 64	385 20	169	702 00
395	Germany...	Stone cutter..	37 44	77 50	449 28	240 00	81	930 00
339	Germany...	Mason.....	26 00	74 10	312 00	520 18	183	889 20
312	Germany...	Carpenter....	18 00	56 66	216 00	450 00	266	680 00
262	Germany...	Mason.....	24 00	78 00	288 00	350 00	122	930 00
508	Germany...	Stone cutter..	31 20	92 30	374 40	607 45	171	1,107 60
518	Germany...	Carpenter....	26 00	40 30	312 00	325 00	210	483 60
515	Germany...	Carpenter....	17 16	53 30	205 92	350 00	170	589 60
492	Germany...	Painter.....	21 65	71 50	260 00	550 00	200	858 00
458	Germany...	Plasterer....	21 65	39 78	260 00	255 00	167	477 36
464	Germany...	Carpenter....	24 96	42 64	299 52	385 00	235	511 68
448	Germany...	Carpenter....	22 75	41 60	272 80	341 50	213	499 20
474	Germany...	Carpenter....	12 48	53 30	149 76	430 00	210	639 60
419	Germany...	Carpenter....	24 80	45 50	297 60	270 00	155	546 00
361	Germany...	Carpenter....	17 05	59 02	204 60	668 00	293	708 24
383	Germany...	Carpenter....	20 64	40 56	247 68	250 00	160	486 72
368	Germany...	Carpenter....	28 60	55 38	343 20	504 45	236	664 56
328	Germany...	Carpenter....	21 84	48 88	262 08	358 00	190	586 56
184	Germany...	Mason.....	10 40	102 70	124 80	700 00	177	1,232 40
254	Germany...	Carpenter....	39 00	62 92	468 00	460 00	190	755 04
255	Germany...	Carpenter....	26 00	43 68	330 00	312 00	201	524 16
162	Germany...	Mason.....	27 73	39 52	300 00	332 80	217	474 24
159	Germany...	Carpenter....	26 00	50 70	312 00	350 00	180	608 40
444	Holland....	Carpenter....	16 20	55 90	194 40	560 00	260	670 80
248	Holland....	Carpenter....	18 80	34 32	225 60	280 00	210	411 84
322	Ireland....	Mason.....	26 00	29 12	312 00	300 80	270	349 44
158	Ireland....	Carpenter....	31 20	55 38	374 40	500 00	235	664 56
106	Norway....	Painter.....	17 33	68 38	208 00	500 00	190	820 56
462	Norway....	Painter.....	14 04	42 64	168 48	336 00	206	511 68
545	Norway....	Carpenter....	17 33	42 90	208 00	261 25	158	514 80
363	Norway....	Carpenter....	17 34	33 80	208 00	360 00	280	405 60
134	Scotland..	Painter.....	36 00	36 40	432 00	350 00	250	436 80
239	Scotland..	Carpenter....	39 52	60 58	474 30	560 00	240	726 96
491	Scotland..	Stone cutter..	36 18	106 34	434 20	950 00	232	1,276 08
588	Sweden....	Carpenter....	19 38	48 10	232 50	500 00	270	577 20
53	Switzerland	Carpenter....	36 00	35 70	432 00	312 50	219	428 40
55	Wales....	Mason.....	15 50	81 90	182 00	446 00	142	982 80
92	Wales....	Carpenter....	35 00	59 02	420 00	537 75	237	708 24
18	Wales....	Carpenter....	21 00	55 90	252 00	500 00	232	670 80
			\$1,500 82	\$3,321 06	\$17,949 48	\$25,101 51	11,685	\$39,620 16

ANALYSIS.

Average number of days worked during year ending May 1, 1889.	202 days.
Average actual earnings in Wisconsin for same period ...	\$432 78
Average possible earnings in Europe, working 310 days	310 24
Average monthly wages in Wisconsin for twenty-six days' work.	57 26
Average monthly wages in Europe for twenty-six days' work.....	25 88
Average possible earnings in Wisconsin working 310 days.....	683 28
Average daily working time in Wisconsin, nine hours, thirty-one minutes.	
Average daily working time in Europe, ten hours, thirty-six minutes.	

Many months before the actual compilation of the data was commenced, a trial table was made up of twenty-seven reports of foreign-born workmen. It was thought at the time that the completion of the table would somewhat reduce the great contrast between the results of the tables, after being analyzed.

Against all expectation, the results of the table show little or no variation from the first. The actual earnings *per capita*, for the year, as shown by the trial table, were \$433.25; the table above shows \$432.78 — a difference of only forty-four cents, or less than one-eighth of a cent difference in daily wages. The difference between the average possible earnings was only \$4.23 — a difference of one and one-sixth part of a cent per day. The average monthly wages in Wisconsin as fixed by the trial table were \$57.03; the above table shows \$57.26, again less than one cent difference per day. These facts are cited to show the honesty of purpose of the workmen in answering the blanks sent out by the Bureau. It proves beyond cavil that the blank system is the only reliable one, if a representative number of them are returned.

ADDEN.

Replies to the question: "How does the present financial and social condition compare with that of Europe."

AUSTRIA-BOHEMIA.

No. 209 — Good; would not go back.

No. 537 — My financial condition is better socially about the same.

No. 397 — Better in America.

No. 381 — Look at the other side, tells the story. I made \$800 last year. Have been eight years in this country, and own a nice home.

No. 547 — I find but little difference.

No. 288 — My answer to your question That I am now 72 years of age; I have always been well satisfied with my condition in my adopted country, because I was better able to make a living with one hand, than in Austria with both.— MATHIAS BACHE, Lyons.

CANADA.

No. 90 — I find times at my trade better in this country than in Canada. Wages here are better, and more cash. I am a man who would demand cash could not get much to do; he must find his pay in trade of some kind, or go idle most of the time.

No. 283 — Much better here.

No. 12 — As soon as I had my trade I came to the United States, and I am here yet.

No. 319 — Better in every respect.— J. HASKINS, Cadott.

No. 321 — The difference between six and half a dozen.

DENMARK.

No. 365 — Made a good living in Europe and do so here. I cannot see much difference; still, I prefer this country.

No. 178 — Both in favor of Europe. Wages are good enough, but work is scarce. Mechanics of all classes find but part of the time; otherwise America would be preferable.— J. HANSON, Waupaca.

No. 393.— I think it is better here.— A. P. FELDT, Chilton.

GERMANY.

No. 309 — Far better in America.— F. GIESLER, Medford.

No. 184 — In a far better condition.— E. ULE, Stevens Point.

No. 131 — Far better here.— LOUIS J. MERRILL.

No. 127 (Saxony)—I earned more here than in Europe.— LEOPOLD SCHMUTZLER, Watertown.

No. 339 — A little better than that of the old country.— AUG. BRUMMUND, Milwaukee.

No. 215 — Better here. My wife and I tried to make an honest living in Germany, she working in a factory while I worked at my trade. We had three children at the time, and found that it cost more to have some one take care of the children, than my wife could earn in the factory.

No. 259 — My condition in America is better than it was in Germany.— WM. EQUITZ, Milwaukee.

No. 282 — One dollar in Europe goes farther than three dollars here.— WM. GREETHER, Milwaukee.

No. 251 — Two hundred per cent. better here than in the old country.— LEO. DRAWS, Milwaukee.

No. 508 — I would say 10 per cent. better here; but it should be understood to mean better meals only; you have to work 50 per cent. harder in this country.

No. 357 (Mason) — Not much difference; I made a living in Europe as well as here.

No. 458 — I found more permanent employment in Germany, while all necessities of life are cheaper; hence, I was financially better off over there.

No. 559 — My financial and social condition in Europe was better than in America.

No. 395 — I earned more in Germany, because I worked the year around.— EMIL CLEMENZ, Milwaukee.

No. 477 — Both in favor of the United States.

No. 159 — Not much difference; because I found employment nearly all the year, while here I have to be satisfied with six months' work.

No. 255 — Generally speaking, my condition is] better here, because a workingman has the same opportunities to extend his knowledge and acquaintance, enabling him to engage in business, something that cannot be said of Germany.

No. 254 — I do not find much difference; the fact is, my earnings were greater in Germany than here.

No. 368 — I don't think there is any difference in favor of this country. In Germany I worked the year around, with hardly any loss of time, and laid up a considerable sum of money.

No. 351 — I must say that I was better off in the old country with 20 Reichsmark per week, than here with 12 to 14 dollars. [20 Mark = 5 dollars.]

No. 515 — I got along better with my earnings in the old country, than here.

No. 518 — I am very well satisfied; am much improved in health, and live in a decent and civilized way. My lot in the old country was not a very bad one, yet I enjoy more recreation, pleasure, and the good things of life here.

No. 112 — Bavaria compares in such a way that I don't wish to go back.

No. 182 — I believe I did better in this country; but I also believe that it is nearly as good over there now as it is in this country at present. Wages are good enough, if employment were only more steady.

No. 360 — Very little difference; because work at my trade is more plenty in the old country. Here we have to lay off too often.— AUGUST TRUBE, Milwaukee.

No. 402 — As to my financial condition, it is undoubtedly better than it was in Europe; wages are higher here; socially, the condition of working-men is better in Europe. Of course, with such a mixture of nationalities we cannot expect any better.

No. 492 — Both in favor of this country.— G. HENRY LANDWEHR, Milwaukee.

No. 433 — A good workman can do better here.

No. 229 — I made a better living at my trade in Europe.

No. 367 — I do not find much difference; I did not earn as much in Germany, but the necessities of life are much cheaper there, and I found more steady work. However, times seems to be getting a little better.

No. 464 — I saved money enough in Germany to pay my way to this country, but I could not save enough to go back.

No. 374 — In Europe I had steady employment, and for that reason was better off than here.

No. 197 — About the same. It is a fact that I earn more money in this country, but the prices of the necessities of life are dearer, so that at the end of the year I am just as poor as I was at the beginning.

No. 442 — Was better off in the old country, as coachman.

No. 474 — Financially and socially better than in Europe.

No. 493 — A little better here.

No. 419 — I will stay here.

No. 448 — The conditions are about the same. While wages here are better, the annual earnings are quite uncertain.

No. 447 (Prussia) — I have lived in Wisconsin since 1854, and found it a great deal better here than in the old country at that time.

No. 185 — I think it is much better here.

No. 461 — The conditions were different from what they are now when I left the old country, many years ago. Particularly those who had learned their trade and made their "master-piece," were honored and respected. Even to-day a tramping *handwerksbursche* receives hospitality everywhere and is honorably treated by all strangers.

No. 533 (Bavaria) — Compared with that of Europe, my financial and social condition is a great deal better.

No. 529 — A little better.

No. 431 (Prussia) — As long as I am able to find work, I like it better in this country.

No. 535 — Taken altogether, I was just as well off in the old country, be-

cause work there was steady, and everything so much cheaper that \$20 would go as far as \$30 and even \$40 do in this country.

GREAT BRITAIN.

No. 516 (England) — All things considered, there is but very little difference. The Wisconsin winters are so long and so severe as to use up the summer savings.

No. 501 (England) — Not as good, because a man can not find work the greater part of the time. In York state where I lived six years, I found all the work I wanted at \$3 and \$3.50 per day.— Wm. BLENCOWE, Alma Center.

No. 244 (England) — My social condition is very good here; my financial condition might have been better, but for ill health. Both were pretty fair in Europe, but better here.

No. 398 (England) — Financially, I am in a much lower condition. Socially also. The climate of England is much milder, and consequently, more steady, and hours of labor shorter than in Wisconsin.

No. 290 (England) — About 15 per cent. better; when I was there, I visited places of amusement and used intoxicating drinks. On the average, I am a little better off; but all things reckoned up, it would hardly be discernible.

No. 146 (England) — About the same. I was able to work the year around in England.

No. 271 (England) — Financially I am much better off here. Socially, there is not much difference; if anything, it is better here — GEO. T. STEPHENSON, Medford.

No. 214 (England) — My financial condition may be a trifle better, but my social condition was much better in England. There, a mechanic is respected, especially by the townsfolk.— ED. J. COGSWELL.

No. 322 (Ireland) — About the same as in Europe; only I could not get a home that I could call my own in Europe, as I did here.— RICHARD GRANT, Chippewa Falls.

No. 169 (Ireland) — I never had any finances in Europe; but I thank the great God for His kind blessing in bringing me to the land of the free and the home of the brave.

No. 167 (Ireland) — I find that this is a better country for an honest workman to make a living in, and that the social distinctions are much less marked, while living and the educational advantages are much better.

No. 245 (Ireland) — Better, by far, financially. Have a home of my own, something I could never have acquired in the old country, besides other worldly goods not possessed by any one of my station in Ireland.— JAMES MURPHY, Stevens Point.

No. 114 (Ireland) — Very little difference. There is a better show for a man to get work in this country; but in the winter there is nothing to do in our trade.— EDWARD HOLLAND, Janesville.

No. 153 (Scotland)—I could scarcely make a comparison of my financial condition; because in Europe I was single, went wherever I thought I could do best, and did not have much outlay. I would not make a change now for European wages, however. The social conditions are about the same as in Europe, perhaps a little in advance of what they were when I left—eighteen years may make quite a difference.

No. 134 (Scotland)—I earn more money in this country, but my expenditures are greater here. We can almost work two more months in Great Britain. I make a living by my trade here; I did the same in Scotland. Painting is a very fair trade in Scotland.—DAVID TAIT, Racine.

No. 491 (Scotland)—In Europe I could save about 1£ sterling per week. Here I can save from \$12 to \$15, as I receive \$21 per week. I would lose about two months in a year in Europe; three winter months here.

No. 239 (Scotland)—I consider my condition in this country fifty per cent. better.—DAVID C. BEYLARS, Mauston.

□ No. 550 (Wales)—A great deal better.—HENRY M. JONES, Oshkosh.

No. 55 (South Wales)—Somewhat better, both socially and financially.—JOHN H. FRANCIS, Racine.

No. 92 (Wales)—I consider my adopted country a better one for a workingman by a great deal, because he is better paid and more appreciated, if he is industrious and capable of doing a fair day's work for a fair day's pay.—JOHN G. ROBERTS, Racine.

No. 13 (Wales)—In all respects much advanced.

HOLLAND.

No. 248—I never found as much work in this country as in Holland. But the wages here are better for all classes of labor, making living a good deal easier.

No. 577—I am now past my 74th year, and I thank a kind Providence for leading me and my numerous family to this country many years ago. Although I never suffered from poverty in Holland, and cannot boast of having acquired wealth here, I know that the conditions of the laboring classes in America are far superior to those of my native country.—JOHN REMEEUS.

No. 237—I came to America in April, 1869, with my trade, and by industry I acquired a home of my own. My financial condition is fully as good so far. Times are not so good at present. My social conditions are not as pleasant, owing to the mixture of all European nationalities here.

No. 444—Very little better, because the great majority of the working people spend their money as fast as it is earned. For a saving man, however, this country is a great deal better than the old; but as a dollar is divided into 100 cents, and in Holland at 250 cents, it follows that the same amount will go $2\frac{1}{2}$ times farther over there.

NORWAY.

No. 375.—In America far better than in Europe, a working man can live better in this country, wages in the old country being very small.

No. 11 — Taxes in Norway were high even on persons who had no real property at all. Over there a man's overcoat is seized for unpaid taxes. There is more money among the people in this country, and it passes from hand to hand faster than in Norway. If a man will deprive himself of some little unecessaries he may save some money. P. P. KILBATEN, Eau Claire.

No. 281 — I was better off in the old country, where I was sailing as first mate.

No. 293 — Was far better off in Norway, where I had steady work, either as carpenter or sailor, and living over there is cheaper than here. — GUSTAVE GABERIELSON, Milwaukee.

No. 460 — I am of the opinion that an honest workingman can get along better here than in the old country, provided he knows enough to take care of his earnings. — KARL M. TRONSEN, Milwaukee.

No. 325 — If a workingman improves his time and opportunities, and takes care of his earnings, then America is far better than Norway.

No. 462 — Far better than in Europe. Of course, it takes a long time to get over the debt incurred to come over to this country, but there is a possibility for that, where there would not be in the old country. — AUGUST SEVIG, Milwaukee.

No. 106 — A good deal better. — HANS M. CHRISTENSEN, Racine.

SWEDEN.

No. 538 — Somewhat better in regard to wages and personal liberty. But one dollar in Sweden seemed to go twice as far as here. Board there was \$1.50 per week; here I pay \$4.50; clothing, too, is somewhat cheaper there than here.

No. 441 — For my part, I will say that my financial condition does not compare with that of the old country; but I like this country very well, because I can make my living easier here than there. My social condition is about the same as in Sweden.

SWITZERLAND.

No. 405 — If I were not crippled, I would be much better off here than in the old country.

Of 124 foreign-born workmen who made report to the bureau, in answer to the question, how their financial and social condition compares with that of Europe, 75 answer that they have bettered their condition; 13 say

that they are faring worse, and 36 that they notice no difference. Their classification as to nationality is given in the appended table:

NATIVITY.	Better.	Worse.	No difference.
Bohemia.....	4	.....	1
Canada.....	4	.....	3
Denmark.....	3	1	.....
Germany.....	32	8	23
Great Britain.....			
England.....	4	2	5
Ireland.....	5	.....	2
Scotland.....	5	.....	.....
Wales.....	4	.....	1
Holland.....	4	.....	.....
Norway.....	7	2	1
Sweden.....	2	.....	.....
Switzerland.....	1	.....	.....
Totals.....	75	13	36

A DAY'S WORK.

Replies to the question: "What is considered a fair day's work at any branch of your trade?"

MASONRY.

No. 210 — A man averaging 1,500 bricks is a good mechanic.

No. 82 — One thousand to 2,000 bricks; or one cord of stone.

No. 57 — One hundred yards of plaster to a finish; $1\frac{1}{4}$ cord of stone; or, 2,000 brick.

No. 142 — Seventy-five yards of plastering; $1\frac{1}{2}$ cord stone.

No. 561 — One cord of stone.

No. 428 — One cord of rock; 100 yards two-coat plastering.

No. 74 — Plastering fifty yards; 600 bricks; or, $\frac{3}{4}$ cord stone.

No. 385 — Plastering 100 yards; 1,500 bricks; $\frac{3}{4}$ cord stone.

No. 236 — Plastering 100 yards; $1\frac{1}{2}$ cord stone.

No. 78 — Lay 2,500 bricks in ten hours.

No. 26 — Plastering 100 yards; 2,500 bricks; or, one cord stone.

No. 50 — On common cellar work one cord stone; on bridge work about two cords, using a derrick.

No. 247 — The best men lay from 2,500 to 3,000 bricks in ten hours.

No. 318 — Putting on browning, 160 yards; hard finish, 125 to 150 yards — plastering.

No. 222 — Plastering 125 yards; one cord stone.

No. 558 — Average, 200 yards plastering per day; sometimes as high as 300 yards.

No. 264 — Plastering from 75 to 80 yards.

No. 258 — Plastering 200 yards brown coat; or, 100 yards in finish.

No. 80 — Plastering 175 yards; one cord stone, laying 1,700 to 2,000 brick.

No. 201 — Average 150 yards of brown mortar; 100 yards of finish; 2,000 bricks; or, 100 feet of stone.

No. 200 — Plastering 125 yards two-coat work, and darby; or 400 yards scratch coat; or, 1,500 brick veneer work; or, 3,000 solid in twelve or sixteen inch wall; or, one cord of stone.

No. 313 — Laying from 1,000 to 1,500 bricks at particular work; or, from 3,000 to 4,000 at common or rough work, in eight hours.

No. 574 — On rough walls from sixteen to twenty inches thick, a good mason can lay 2,500 bricks; on pressed and veneer, from 300 to 500 in eight hours.

No. 527 — About 240 yards of plastering in ten hours.

No. 524 — Common brick, 2,500; select, 900 in ten hours.

No. 440 — Plastering 240 yards.

No. 378 — Lathing, 100 square yards in ten hours.

No. 495 — One hundred and thirty yards of plastering in ten hours.

No. 543 — Plastering, 100 yards browning; or, 80 yards finishing.

No. 439 — Sixty to seventy-five feet stone rubble masonry; or, from 1,500 to 2,000 bricks, according to thickness of wall, in eight hours.

No. 567 — One and a half cords of stone at common work; 200 yards plastering; 150 yards hard finish; veneer work, 800 brick; eight inch wall, 1,500; twelve inch, 3,000; sixteen inch, 4,500, etc.

No. 571 — Plasterer to finish fifty yards of three-coat work.

No. 557 — Cutting four window-sills.

No. 19 — Cutting four window-sills; or, two door-sills.

No. 562 — Cutting five cubic feet of bush-hammered stone — face squared up in good style.

No. 450 — Plastering 150 yards, mortar; or, 100 yards of finishing; or fifty yards sand coat, in eight hours.

No. 478 — Lathing 130 yards.

No 486 — At fine and particular work, 500 brick; at rough or ordinary work, 2,000 brick, in eight hours.

CARPENTRY.

No. 263 — For first class work, $2\frac{1}{2}$ to 3 squares shingling; three squares siding; four squares flooring.

No. 161 — Shingling, three squares, if well done.

No. 133 — Twelve bunches of shingles.

No. 122 — Four hundred feet lap siding; 300 feet flooring; 3,000 shingles.

No. 240 — Fit and hang six doors; lay 2,000 shingles; $3\frac{1}{2}$ squares siding.

No. 132 — Six to seven squares of siding; 2,500 shingles.

No. 242 — Twelve window frames; 3,500 shingles; 450 feet siding; 700 feet flooring; hanging ten doors.

No. 307 — Laying 2,000 shingles, or laying one square of hardwood flooring.

No. 224 -- Lay 3,000 shingles; make four window frames complete, blind, stop and parting strip; six squares six-inch pine flooring; two to two and one-half squares hardwood flooring.

No. 546 -- Difficult to state as there is such a variety of each kind of job. In casing inside can put on eighteen sides of one kind, and no more than five or six of others.

No. 126 -- Three thousand shingles; six squares of siding; five squares of matched pine flooring; four squares hardwood flooring; fit, trim and hang six doors.

No. 117 -- Laying 2,500 shingles and doing it well; four squares common flooring.

No. 145 -- Shingling three squares; siding two and one-half squares; laying four squares pine flooring. or one and one-half squares hardwood flooring.

No. 10 -- Fitting and hanging eight doors; laying 2,000 shingles; 1,000 feet flooring.

No. 202 -- To frame a 16x24 two-story house; lay 2,000 shingles; fit, hang and trim five common, or four panel doors; make five common window frames; lay 400 feet matched flooring; put on 300 feet common siding; 500 feet sheeting.

No. 297 -- Laying 2,000 shingles; or, three squares of flooring.

No. 270 -- Fitting and hanging ten doors.

No. 178 -- Laying 2,500 shingles; three squares siding; 600 feet flooring; or using 300 rough stuff.

No. 347 -- Lay 2,000 shingles; or make a window frame and fit the window, and case it up inside.

No. 113 -- Lay 2,500 shingles; eight squares fine flooring; twelve squares matched sheeting.

No. 93 -- Three window frames.

No. 246 -- Four check window frames for blinds.

No. 37 -- Four squares of flooring.

No. 68 -- Seven hundred feet flooring; 500 feet siding; 2,000 shingles; 100 yards lathing; hanging and trimming six to eight doors of ordinary size; three ordinary window frames.

No. 89 -- Laying 2,000 shingles; sheeting 500 sq. ft.; siding 350 ft.; laying 400 ft. flooring.

No. 265 -- Laying 2,000 shingles; fit, hang and trim six doors.

No. 129 -- Hang ten doors; lay 3,000 shingles; three to four squares siding; six to eight squares sheeting.

No. 21 -- Make a good four-panel door.

No. 346 -- Hanging twelve doors.

No. 208 -- Fit and hang ten doors, and mortise in five locks.

No. 276 -- Hang six pairs inside blinds; lay 3,000 shingles.

No. 292 -- Hang and finish eight doors.

No. 211 — Lay 3,000 shingles; hang eight doors; put casing on ten doors; or, hang four pairs of inside blinds.

No. 536 — Two squares flooring; two squares siding; two squares shingles; or, fit, hang seven doors complete.

No. 407 — Could hardly make any standard estimate; one boss works this way, another, some different way. Then again, the material has a great deal to do with it. For instance, four doors complete is a good day's work; but there are plenty of men who put up six or more.

No. 413 — Lay 5,000 shingles.

No. 418 — Four pairs of inside blinds; or fit and hang six doors.

No. 526 — Fit and hang ten doors; hang four pairs inside blinds; hang ten pairs outside blinds; make three common window frames.

No. 490 — Lay 2,000 shingles.

No. 427 — Laying 2,500 shingles; hang and fit six pine doors.

No. 217 — Fit and hang eight doors; make four common window frames; lay 2,000 shingles; five squares flooring.

No. 279 — Two thousand five hundred shingles.

No. 257 — Fit, hang (trim six to eight doors) fit and weight fourteen windows in eight hours.

No. 316 — Do not know what may be considered a fair day's work; but will tell you that six of us laid and nailed 19,500 shingles in twelve hours.

No. 72 — Hang and trim eight doors; lay 3,000 shingles; make four window frames.

PAINTING, PAPERHANGING, ETC.

No. 528 — Paint 60 to 70 square yards inside, or 110 to 120 square yards outside, plain work, frame dwelling.

No. 451 — Hang 15 to 30 rolls of paper; graining, 15 to 40 yards.

No. 453 — Six doors, or twelve half-doors.

No. 463 — One hundred square yards surface work.

No. 497 — Common outside work from 75 to 100 square yards.

No. 403 — Hanging 30 rolls wall paper.

No. 163 — Outside work, 75 square yards.

No. 205 — One hundred yards flat surface.

No. 292 — One hundred to 150 square yards.

No. 342 — Hanging 40 rolls paper; plain calsomining, 150 square yards.

No. 499 — From 25 to 40 rolls of paper and border, without helper.

No. 424 — Paint 22 pairs outside blinds; varnishing 33 pieces inside blinds; or paint 150 square yards.

No. 432 — Fifty feet of gold lettering, with shading, letters about four inches high.

No. 219 — One hundred to 125 square yards.

No. 314 — Twelve squares of plain work.

No. 269 — Six hundred feet, under favorable circumstances.

No. 105 — Outside work, plain surface, 10 squares.

No. 101 — Painting 10 to 12 squares per day; hanging parlor 20 rolls on side walls.

No. 390 — One color, 10 squares; 2 colors, 5 squares.

No. 118 — Seventy-five to 100 square yards, according to construction of building.

No. 554 — Eighty yards outside, or fifty yards inside work.

No. 65 — Twenty rolls of wall paper; 15 pair blinds, or 7 squares outside surface.

No. 2 -- Forty rolls of paper is a fair day's work on good walls and large rooms.

No. 164 — Seventy-five to eighty yards plain work; 15 to 18 wall paper.

No. 180 — From 35 to 50 yards, according to height of building.

No. 59 — Outside work, about 100 yards; paperhanging, 15 to 20 rolls.

No. 15 — Plain painting, 100 square yards; hanging, 20 rolls paper.

No. 327 — Twenty rolls of wall paper; or, 400 square yards of siding.

No. 359 — About six squares, or, 600 feet on the side of a building.

No. 172 — Two hundred yards, one coat, is a good day's work.

COMPLAINTS OF WORKMEN.

The complaints of workmen in the building trades are confined to two causes, (1) competition with unskilled or half-skilled men, and (2) uncertainty of employment. The complaints under these heads are very numerous, indeed, especially among carpenters and painters. There are very few complaints in regard to the payment of wages, which appears to be quite regular; namely, cash weekly, or every two weeks. Even from the small country places, the reports read "payment upon completion of job," or "on demand." This is certainly a very good feature. Of course, among such a large number, there are necessarily some men with imaginary complaints, as emigration, trusts and monopolies, "long hours," lack of organization, etc., but they are few. The Wisconsin workmen appear to have outgrown the influence that so-called labor leaders once had over them — for a far more healthy and logical tone characterizes the correspondence, printed under the heading "Trade Notes and Remarks," this time, than those of two years ago. They suggest one remedy, however, for the main evil of which they complain, namely, a regular and systematic apprenticeship.

EDUCATIONAL.

Out of the 538 journeymen builders who made report of their earnings at the trades, 283 are subscribers to daily newspapers; 468 take weeklies, and 131 take monthly magazines or trade journals. Only seventy-three report having no papers at all. Some of them have both daily and weekly papers, and some even three and four. In other words, 882 publications are patronized by the 538 workmen, or three papers for every two families. The fact that the report includes only journeymen engaged in the building trades, speaks well for the general intelligence of Wisconsin workmen.

THE BUILDING TRADES.

PART II.

EMPLOYERS' STATISTICS.

TABLE 00.—*Showing the different Rates of Wages per hour in all Branches of the Building Trades. Compiled from Two Hundred and Forty-eight Contractors' Reports, representing Two Thousand Six Hundred and Sixty-two Journeymen.*

BRICKLAYERS.

LOCATION.	Num-ber of Brick-layers rep'd.	NUMBER OF BRICKLAYERS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED:										
		45 cts.	42½ cts.	40 cts.	37½ cts.	35 cts.	32½ cts.	30 cts.	27½ cts.	25 cts.	22½ cts.	20 cts.
Ahnapee.....	2							1	1			
Appleton.....	27	1		1		3	3	11	4	3		1
Baraboo.....	1							1				
Beloit.....	2					1		1				
Black River Falls.....	6					2		4				
Chilton.....	6							3		2		1
Dodgeville.....	2							2				
Eau Claire.....	1							1				
Fort Atkinson.....	14							8	4	2		
Hartland.....	2							1				1
Janesville.....	7							6	1			
Madison.....	13							11		1		1
Mauston.....	1							1				
Mayville.....	5									1	3	1
Menomonee.....	4							2		2		
Milwaukee.....	20		10	7	3							
Monroe.....	2	1				1						
Neenah.....	1					1						
Oshkosh.....	3							1		1	1	
Rio.....	1									1		
River Falls.....	2			1				1				
Seymour.....	2							2				
Sharon.....	2							1		1		
Viroqua.....	1							1				
Waukesha.....	1							1				
West Depere.....	8								8			
Totals.....	136	2	10	9	3	8	3	60	18	14	4	5

NOTE.—Bricklayers generally, work eight hours per day in the city of Milwaukee.

STONE MASONS.

LOCATION.	Number of stone masons reported.	NUMBER OF STONE MASONS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.							
		37½ cts.	32½ cts.	30 cts.	27½ cts.	25 cts.	20 cts.	17½ cts.	15 cts.
Ahnapee.....	1		1						
Alma.....	2			1		1			
Appleton.....	16			3		12	1		
Arcadia.....	1						1		
Arena.....	1					1			
Baraboo.....	2					2			
Beloit.....	3			3					
Black River Falls.....	5			2		2	1		
Bloomer.....	1						1		
Cadott.....	1					1			
Chilton.....	4			1			1	2	
Eau Claire.....	1			1					
Fond du Lac.....	2					2			
Fort Atkinson.....	5					3	1		1
Hartland.....	3					2	1		
Janesville.....	5				1	1	1	1	1
Keysville.....	1					1			
La Crosse.....	1					1			
Madison.....	4			1	1	2			
Mauston.....	1						1		
Mayville.....	1						1		
Milwaukee.....	23	23							
Minnesota Junc.....	2							2	
Monroe.....	6			6					
Neenah.....	1			1					
Oshkosh.....	1					1			
Poysippi.....	2			2					
Racine.....	2		2						
Reedsburg.....	6					6			
Rhine.....	1						1		
River Falls.....	1					1			
Seymour.....	3					2	1		
Viroqua.....	1			1					
Washburn.....	2					2			
Waterloo.....	1					1			
Waukesha.....	1			1					
Wausau.....	2					2			
Total.....	116	23	3	23	2	46	12	5	2

NOTE.—Stone masons generally work eight hours per day in the city of Milwaukee.

PLASTERERS.

LOCATION.	Number of plasterers reported.	NUMBER OF PLASTERERS WORKING AT THE DIFFERENT RATES PER HOUR HERE SPECIFIED:							
		35 cents	32½ cents	30 cents	27½ cents	25 cents	24 cents	22½ cents	20 cents
Appleton.....	1				1				
Arena.....	1					1			
Beloit.....	3	1		2					
Black River Falls.....	3			1		2			
Cassville.....	1	1							
Chilton.....	1					1			
Hartland.....	2			1		1			1
Janesville.....	2			1		1			
Mauston.....	1			1					
Menomonie.....	2			2					
Milwaukee.....	13	2	1	8		2			
Monroe.....	1			1					
Neenah.....	1			1					
Oshkosh.....	1			1					
Rhine.....	1			1					
Rio.....	2			1		1			
Viroqua.....	1								
Waukesha.....	2			2					
Wausau.....	8				3	2	2	1	
Totals.....	47	4	1	23	4	11	2	1	1

STONE CUTTERS.

LOCATION.	Number of stone cutters reported.	NUMBER OF STONE CUTTERS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED:							
		47 cents	40 cents	35 cents	32½ cents	30 cents	27½ cents	25 cents	20 cents
Appleton.....	6			1	2	3			
Baraboo.....	2							2	
Cassville.....	1		1						
Chilton.....	1					1			
Janesville.....	1			1					
Madison.....	2					1			1
Milwaukee.....	3	1	2						
Neenah.....	1			1					
Oshkosh.....	1						1		
Viroqua.....	1					1			
Waukesha.....	4					3	1		
Totals.....	23	1	3	3	2	9	2	2	1

NOTE—Stone cutters generally, work eight hours per day in the city of Milwaukee.

MORTAR MIXERS.

LOCATION.	Number of mortar mixers reported.	NUMBER OF MORTAR MIXERS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.			
		20 cents	17½ cents	15 cents	12½ cents
Appleton.....	4	.....	3	1	.....
Baraboo.....	1	.....	.....	1	.....
Beloit.....	1	.....	.....	1	.....
Black River Falls.....	1	.....	.....	1	.....
Cassville.....	1	.....	.....	1	.....
Fond du Lac.....	1	.....	.....	1	.....
Fort Atkinson.....	4	.....	.....	2	2
Janesville.....	1	.....	.....	1	.....
Milwaukee.....	2	2	.....	.....	.....
Totals.....	16	2	3	9	2

HOD CARRIERS.

Location.	Number of hod carriers reported.	NUMBER OF HOD CARRIERS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.							
		22 cts.	20 cts.	17½ cts.	15 cts.	13½ cts.	12½ cts.	11 cts.	10 cts.
Ahnapee.....	4	.....	.....	.....	4	.....	.....	.....	.....
Appleton.....	27	.....	.....	1	26	.....	.....	.....	.....
Baraboo.....	2	.....	.....	.....	2	.....	.....	.....	.....
Beloit.....	3	.....	.....	.....	3	.....	.....	.....	.....
Berlin.....	1	.....	.....	.....	1	.....	.....	.....	.....
Black River Falls.....	6	.....	.....	.....	2	.....	4	.....	.....
Cadott.....	5	.....	.....	.....	5	.....	.....	.....	.....
Chilton.....	4	.....	.....	.....	4	.....	.....	.....	.....
Eau Claire.....	1	.....	.....	.....	1	.....	.....	.....	.....
Fond du Lac.....	1	.....	.....	.....	1	.....	.....	.....	.....
Fort Atkinson.....	11	.....	.....	.....	8	.....	3	.....	.....
Hartland.....	1	.....	.....	.....	1	.....	.....	.....	.....
Janesville.....	8	.....	.....	.....	8	.....	.....	.....	.....
Madison.....	3	.....	.....	.....	3	.....	.....	.....	.....
Mauston.....	1	.....	.....	.....	.....	.....	1	.....	.....
Mayville.....	3	.....	.....	.....	.....	.....	2	.....	1
Menomonie.....	6	.....	.....	.....	6	.....	.....	.....	.....
Milwaukee.....	35	22	7	6	.....	.....	.....	1	2
Minnesota Junction.....	3	.....	.....	.....	.....	.....	.....	.....	.....
Monroe.....	2	.....	.....	.....	2	.....	.....	.....	.....
Neenah.....	1	.....	.....	.....	1	.....	.....	.....	.....
Oshkosh.....	4	.....	.....	.....	4	.....	.....	.....	.....
Poysippi.....	1	.....	.....	.....	1	.....	.....	.....	.....
Reedsburg.....	2	.....	.....	.....	.....	2	.....	.....	.....
Seymour.....	2	.....	.....	.....	.....	.....	2	.....	.....
Viroqua.....	3	.....	.....	.....	3	.....	.....	.....	.....
Waterloo.....	1	.....	.....	.....	.....	.....	1	.....	.....
Waukesha.....	2	.....	.....	.....	2	.....	.....	.....	.....
Wausau.....	7	.....	.....	.....	7	.....	.....	.....	.....
Totals.....	150	22	7	7	95	2	13	1	3

NOTE. — Hodcarriers generally work eight hours per day in the city of Milwaukee.

CARPENTERS.

LOCATION.	No. of house carpenters reported.	NUMBER OF HOUSE CARPENTERS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.									
		30 cents	27½ cents	25 cents	22½ cents	21 cents	20 cents	17½ cents	16½ cents	15 cents	12½ cents
Alma	2				1		1				
Appleton	35			1	2		8	17		3	4
Arcadia	1						1				
Arena	1						1				
Ashland	59	2		16	14		26			1	
Baraboo	12						1	3		8	
Beloit	31			6	7		6	6		6	
Berlin	7						5			2	
Bloomer	1						1				
Chilton	5						5				
Dodgeville	3						1	2			
Durand	1						1				
Eau Claire	26			1			14	10		1	
Elkhorn	3						1			2	
Fond du Lac	47			1	1		21	9		15	
Fountain City	11			2	3		1	5			
Green Bay	29			2			19	3		5	
Hartland	2			2							
Hudson	3				3						
Janesville	34			1	3		26	3		1	
Jefferson	9						1	4		4	
Kenosha	2						1	1			
La Crosse	33				4		7	7	4	10	1
Lodi	4						1	1		2	
Madison	74			4	17		30	18		5	
Manitowoc	14						8	5		1	
Mauston	3			2			1				
Menomouie	24			1			4	2	5	9	3
Merrill	5			1	1		2	1			
Milwaukee	417	4	5	37	81	2	221	47		19	
Mineral Point	3			1				2			
Monroe	6			1			5				
Morrisonville	2							2			
Muscoda	3							1		1	1
Neenah	1			1							
Oconomowoc	26			1	6		11	8			
Oshkosh	16			2			13	1			
Platteville	5						1	4			
Plymouth	4						1	2		1	
Portage	2						2				
Racine	19				3		9	4		3	
Reedsburg	31				3		12	3		7	6
Rhine	1										1
Rio	9			1			6			2	
Ripon	7						5	2			
River Falls	24						6	2		15	1
Seymour	2						1			1	
Sharon	6				1		3	1			1
Sheboygan	5							5			
Shullsburg	10				4		6				
Stevens Point	14			2	8		2	1		1	
Stoughton	4			1			2	1			
Sun Prairie	4						2			1	1
Washburn	8			1	1		5	1			
Waterloo	3						1	2			
Waukesha	44				4		27	12		1	
Waupun	5				1		2	1		1	
Wausau	10	1		1	1		3	3		1	
West Depere	8			1			4	1		2	
West Superior	37			15	16		6				
Whitewater	8			2			4	1		1	
Totals	1,225	7	5	107	185	2	554	204	9	132	19

NOTE.—Milwaukee— one at 33 cents per hour.

REPORT OF THE

HOUSE PAINTERS.

LOCATION.	Number of house painters reported.	NUMBER OF HOUSE PAINTERS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.									
		32½ cents	25 cents	22½ cents	20 cents	18½ cents	17½ cents	15 cents	12½ cents	11¼ cents	10 cents
Alma.....	1			1							
Appleton.....	28				4		7	14	2		1
Arena.....	1		1								
Ashland.....	15		7		7			1			
Baraboo.....	3				1			2			
Beloit.....	6				4			2			
Berlin.....	6		2		2			2			
Chilton.....	1		1								
Eau Claire.....	10				9		1				
Fond du Lac.....	13		4		3			5			1
Green Bay.....	2				2						
Hartford.....	2							2			
Hartland.....	2		2								
Janesville.....	1				1						
Juneau.....	1				1						
Kenosha.....	6				3			1			
La Crosse.....	9			1	1		5	2			
Lake Mills.....	1										1
Madison.....	4				1		1	2			
Marinette.....	2				2						
Mauston.....	1				1						
Menomonie.....	2		1					1			
Merrill.....	1				1						
Milton Junction.....	2		1					1			
Milwaukee.....	273		12	65	127		48	13	5		3
Monroe.....	6	2	2	1		2					
Morrisonville.....	1				1						
Neenah.....	1		1								
Oshkosh.....	1		1								
Racine.....	1		1								
Randolph.....	2							1	1		
Rhinelanders.....	5		1		2		1				
Rio.....	1				1						
Sheboygan.....	7					2		4		1	
Stevens Point.....	4			2	2						
Sun Prairie.....	1							1			
Waterloo.....	1				1						
Waukesha.....	10				6		1	3			
Totals.....	434	2	37	70	183	2	68	57	8	1	6

NOTE.—Rhinelanders, one at 50 cents per hour.

GRAINERS.

LOCATION.	Number of grainers reported.	NUMBER OF GRAINERS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.				
		50 cents.	40 cents.	35 cents.	30 cents.	25 cents.
Milwaukee.....	11	2	2	1	3	3

PAPERHANGERS.

LOCATION.	Number of paper-hangers reported.	NUMBER OF PAPERHANGERS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.					
		30 cents.	27½ cents.	25 cents.	22½ cents.	20 cents.	17 cents.
Appleton.....	3					3	
Chilton.....	1					1	
Hartland.....	1			1			
La Crosse.....	2		1	1			
Marinette.....	1					1	
Merrill.....	1			1			
Milton Junction.....	1					1	
Milwaukee.....	11			3	5	2	1
Neenah.....	1	1					
Totals.....	22	1	1	6	5	8	1

DECORATORS.

LOCATION.	Number of decorators reported.	NUMBER OF DECORATORS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.				
		30 cents.	27½ cents.	25 cents.	22½ cents.	20 cents.
Milwaukee.....	8	1	1	2	2	2
Waukesha.....	1			1		
Totals.....	9	1	1	3	2	2

CALCIMINERS.

LOCATION.	Number of calciminers reported.	RATES PER HOUR.	
		22½ cents.	20 cents.
Milwaukee.....	3	2	1

REPORT OF THE

SIGN PAINTERS.

LOCATION.	Number of sign painters reported.	NUMBER OF SIGN PAINTERS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.		
		30 cents.	27½ cents.	25 cents.
Milwaukee...	4	1	1	2

PLUMBERS.

LOCATION.	Number of plumbers reported.	NUMBER OF PLUMBERS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.													
		45 cts.	40 cts.	35 cts.	30 cts.	27½ cts.	25 cts.	22½ cts.	20 cts.	17½ cts.	16½ cts.	15 cts.	13½ cts.	12½ cts.	10 cts.
Chippewa Falls	3	....	1	...	1	....	....	....	1	....	....	....	....	....	....
Fond du Lac...	4	....	....	....	....	....	1	....	1	....	1	1	....	....	....
Green Bay...	3	....	....	....	1	....	....	....	1	1	....	....	....	....	....
Janesville	2	....	....	....	1	....	....	....	1	....	....	....	....	....	....
Madison	3	....	....	....	1	....	1	....	1	....	....	....	....	....	....
Menomonie	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Milwaukee...	61	....	....	5	10	2	10	3	9	3	2	9	2	3	3
Monroe	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....
Neenah	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....
Oshkosh	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....
Racine	1	....	....	....	....	....	....	1	....	....	....	....	....	....	....
Sheboygan	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....
Totals	82	1	1	6	16	3	12	4	14	4	3	10	2	3	3

PLUMBERS' HELPERS.

LOCATION.	Number of plumbers' helpers reported.	NUMBER OF PLUMBERS' HELPERS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.										
		15 cts.	12½ cts.	13½ cts.	10 cts.	8½ cts.	6½ cts.	6 cts.	5½ cts.	5 cts.	4 1-6 cts.	3½ cts.
Chippewa Falls	3	...	1	...	...	...	...	...	...	1	1	...
Green Bay	1	...	...	...	1	...	...	...	...	...	...	...
Janesville	3	3	...	...	...	...	...	...	...	...	...	...
Madison	2	...	...	...	2	...	...	...	...	...	...	...
Milwaukee	56	...	...	1	2	10	6	1	17	15	4	4
Oshkosh	2	...	...	...	1	...	...	...	1	...	...	...
Racine	2	2	...	...	...	...	...	...	...	...	...	...
Sheboygan	2	...	...	...	1	...	...	...	1	...	...	...
Totals	71	5	1	1	4	3	10	6	1	20	16	4

STEAMFITTERS.

LOCATION.	Number of steam fitters reported.	NUMBER OF STEAMFITTERS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.						
		30 cts.	25 cts.	22½ cts.	20 cts.	17½ cts.	15 cts.	10 cts.
Fond du Lac.....	1							1
Janesville.....	4	2	1		1			
Madison.....	1				1			
Oshkosh.....	4			1		1	2	
Racine.....	1			1				
Totals.....	11	2	1	2	2	1	2	1

GASFITTERS.

LOCATION.	Number of gas fitters reported.	NUMBER OF GASFITTERS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.						
		30 cts.	27½ cts.	25 cts.	22½ cts.	20 cts.	15 cts.	10 cts.
Chippewa Falls.....	1			1				
Fond du Lac.....	2							2
Milwaukee.....	14	4	2	2	2	2	2	
(Bronzers).....	2				1	1		
Totals.....	19	4	2	3	3	3	2	2

SEWER LAYERS.

LOCATION.	Number of sewer layers reported.	NUMBER OF SEWER LAYERS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.		
		20 cents.	17½ cents.	16 cents.
Madison.....	1	1		
Milwaukee.....	8	1	5	2
Totals.....	9	2	5	2

REPORT OF THE

SEWER DIGGERS.

LOCATION.	Number of sewer diggers reported.	NUMBER OF SEWER DIGGERS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.				
		20 cents.	17½ cents.	16½ cents.	15 cents.	12½ cents.
Cassville.....	1	1				
Chippewa Falls.....	1				1	
Fond du Lac.....	1				1	
Green Bay.....	6				6	
Hartland.....	1				1	
Janesville.....	7				6	1
Milwaukee.....	54		9	2	43	
Oshkosh.....	1				1	
Racine.....	5				5	
Sheboygan.....	6		4		2	
Totals.....	83	1	13	2	66	1

TINSMITHS.

LOCATION.	Number of tin- smiths reported.	NUMBER OF TINSMITHS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.										
		35 cts.	25 cts.	22½ cts.	21¼ cts.	20 cts.	18½ cts.	17½ cts.	16 cts.	15 cts.	14 cts.	12½ cts.
Chilton.....	1							1				
Fond du Lac.....	1									1		
Hartland.....	1					1						
Menominee.....	1		1									
Milwaukee.....	33			1	3	10	3	4	3	7		2
Monroe.....	1	1										
Neenah.....	1					1						
Oshkosh.....	2			1		1						
Rhine.....	1								1			
Sheboygan.....	1								1			
Washburn.....	1		1									
Totals.....	44	1	2	2	3	13	3	5	5	7	1	2

GALVANIZED IRON WORKERS.

LOCATION.	Number of galvanized iron workers reported	NUMBER WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.				
		25 cents.	20 cents.	17 cents.	15 cents.	12 cents.
Milwaukee.. .. .	10	1	2	3	3	1

SLATERS.

LOCATION.	Number of slaters reported	NUMBER WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.				
		25 cents.	20 cents.	17 cents.	13½ cents.	12½ cents.
Milwaukee.....	8	2	3	1	1	1
Oshkosh.....	2	.....	2	.....	.....	.....
Totals.....	10	2	5	1	1	1

HOUSE MOVERS.

LOCATION.	Number of house movers reported	NUMBER WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.			
		27½ cents.	20 cents.	17½ cents.	15 cents.
Milwaukee.....	18	1	1	5	11

LABORERS.

LOCATION.	Number of laborers reported	NUMBER OF LABORERS WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.						
		20 cents	17½ cents	16 cents	15 cents	13½ cents	12½ cents	11½ cents
Appleton.....	16				16			
Arcadia.....	2				2			
Arena.....	1							1
Ashland.....	3				3			
Beloit.....	5				5			
Bloomer.....	6							6
Cassville.....	6				1		5	
Chilton.....	2				2			
Eau Claire.....	3				1		2	
Fond du Lac.....	2				2	1		
Fort Atkinson.....	4				2		2	
Hartland.....	1				1			
Janesville.....	1				1			
La Crosse.....	5				3		2	
Lodi.....	1				1			
Lodi.....	9				7	1		1
Madison.....	1						1	
Mauston.....	1							
Mayville.....	2						2	
Menomonie.....	4				1		1	1
Merrill.....	1				1			
Milwaukee.....	34				21		8	1
Monroe.....	3				3			
Monroe.....	2				2			
Oshkosh.....	1				1			
Racine.....	1						1	
Reedsburg.....	3						1	2
Rhine.....	1						1	
Rio.....	2				2			
River Falls.....	1				1			
Seymour.....	3						2	
Shullsburg.....	2		1		1			
Stevens Point.....	4				4			
Viroqua.....	1						1	
Washburn.....	2			2				
Waterloo.....	5				4			1
Waukesha.....	27			1	24		2	
West Superior.....	14	2	10		2			
Totals.....	190	2	11	3	113	2	30	2
								17

NOTE.— This table does not include special laborers, such as hod-carriers, sewer diggers or mortar mixers, they being tabulated separately.

TABLE VII — EMPLOYERS' STATISTICS — *Showing the Average Rate per hour; Annual Earnings and Daily Income from the Trade, based upon the foregoing tables.*

TRADES.	Average rate per hour.	Annual earnings at the trade based upon 225 ten- hour work- days.	Daily income from the trade for 365 days.
	cents.		
Bricklayers.....	31.0	\$697 50	\$1 91
Calciminers.....	21.6	486 00	1 33
Carpenters.....	19.8	445 50	1 22
Decorators.....	24.2	544 50	1 49
Galvanized iron workers.....	17.3	389 25	1 07
Gas-fitters.....	22.5	506 25	1 39
Grainers.....	34.5	776 25	2 13
Hod carriers.....	16.0	360 00	99
House movers.....	16.7	375 75	1 03
House painters.....	17.2	387 00	1 06
Laborers.....	14.3	321 75	88
Mortar mixers.....	15.8	355 50	97
Paper hangers.....	22.7	510 75	1 40
Plasterers.....	28.5	641 25	1 76
Plumbers.....	23.0	517 50	1 42
Sewer diggers.....	15.4	346 50	95
Sewer layers.....	17.7	398 25	1 09
Sign painters.....	26.9	605 25	1 66
Slaters.....	19.3	434 25	1 19
Steam fitters.....	20.7	465 75	1 27
Stone cutters.....	30.2	679 50	1 86
Stone masons.....	27.6	621 00	1 70
Tinsmiths.....	18.7	420 75	1 15

TABLE VIII — APPRENTICESHIP — *Showing proportion of Apprentices to Journeymen, as reported by contractors.*

DIVISIONS.	Number of journey- men reported	Number of apprenti- ces reported.	Proportion of Apprentices to Journeymen.
Masonry.....	322	25	One to every thirteen men.
Carpentry.....	1,225	99	One to every twelve men.
Painting.....	483	37	Two to every twenty-five men.
Plumbing, etc.....	112	83	Three to every four men.
Roofing.....	64	15	One to every four men.
Unskilled labor.....	456	.....	One laborer to every five skilled men.

TABLE IX.—EMPLOYERS' STATISTICS.—*Detailed Pay Roll for every business in the*

FIRM NAME.	Location.	Pay-roll for month of January, 1889.	Pay-roll for month of February, 1889.	Pay-roll for month of March, 1889.
Herman Berg.....	Milwaukee			
A. Buchholz.....	Milwaukee	\$51 20	\$52 80	\$185 40
Henry Buestrin.....	Milwaukee	752 20	646 45	725 27
Chas. L. Busse.....	Milwaukee	72 00	104 00	296 15
W. & A. Butzke.....	Milwaukee	36 56	65 23	151 44
S. Canner.....	Milwaukee	230 68	220 72	418 75
T. P. Collingbourne.....	Milwaukee	563 00	265 00	744 00
Jos. L. Cox.....	Milwaukee	60 65	65 48	85 84
Daase & Mortimer.....	Milwaukee			
Chas. Druse.....	Milwaukee			62 50
Ferge & Keiper Co.....	Milwaukee	788 60	1,367 93	2,183 10
E. Fielding.....	Milwaukee	143 12	143 50	270 56
Galke & Heidemann.....	Milwaukee	150 00	185 00	235 00
Thos. Gilbreath.....	Milwaukee	198 33	198 33	198 33
Haerting, Hennig & Geller.....	Milwaukee	44 65	59 25	204 41
H. G. Hahn.....	Milwaukee	15 30		78 10
S. V. Hanley.....	Milwaukee		198 40	228 03
Wm. Harper & Co.....	Milwaukee	465 57	502 73	933 32
Henry J. Heid.....	Milwaukee	14 00	32 55	63 76
Hoffman & Bauer.....	Milwaukee	481 12	389 60	399 19
John Horn.....	Milwaukee	52 00	41 00	150 00
J. Josten.....	Milwaukee	346 50	320 40	386 20
Kamerling & Ketele.....	Milwaukee	34 00	171 20	147 89
Fred. Karow.....	Milwaukee	24 00	40 00	46 80
Wm. Kasten.....	Milwaukee	228 90	363 65	384 75
Wm. Kasten.....	Milwaukee	200 00	150 00	259 00
Aug. Kelling.....	Milwaukee			31 00
Fred. Kinne.....	Milwaukee		10 56	63 20
Wm. Kohlmetz.....	Milwaukee			
H. F. Krause.....	Milwaukee	165 90	108 35	139 40
F. Kreig.....	Milwaukee			12 25
Jas. Leadbeater.....	Milwaukee	231 21	299 48	337 67
Wm. Leupold.....	Milwaukee			150 00
H. Luedeke.....	Milwaukee	80 00	80 00	30 00
Geo. E. Marshall.....	Milwaukee	55 00	5 07	86 55
M. Neff.....	Milwaukee		64 35	43 90
A. M. G. Neumann.....	Milwaukee	134 80	68 45	59 30
Chas. Polacheck & Bro.....	Milwaukee	536 03	502 08	895 38
P. Petersen & Son.....	Milwaukee	230 70	376 80	518 75
J. Roeder & Son.....	Milwaukee		105 53	358 20
Roehr & Noerenberg.....	Milwaukee			
Wm. Rutz.....	Milwaukee		75 00	120 00
H. Schlenstedt.....	Milwaukee	32 00	22 00	
Schmidt & Reitz.....	Milwaukee	139 99	60 06	1,245 82
F. Schmitt & Sons.....	Milwaukee	376 23	308 94	292 65
H. C. Schroeder.....	Milwaukee	149 80	53 40	192 00
J. Schweigert & Son.....	Milwaukee			42 00
Shepherd & Henes.....	Milwaukee	165 45	155 70	396 60
Geo. A. Spence & Co.....	Milwaukee	625 26	402 52	712 41
Theo. Spetz & Son.....	Milwaukee	111 20	69 60	133 75
A. Stollenwerk & Co.....	Milwaukee	273 21	345 63	436 93
P. Stoltenburg.....	Milwaukee			27 00
Cornelius Strauss.....	Milwaukee	85 00	75 00	147 00
Wm. Tellier & Son.....	Milwaukee			20 00
Otto Volkmann.....	Milwaukee	219 33	113 00	187 45
Westphal & Gloyer.....	Milwaukee			
Chas. F. Winkelman.....	Milwaukee	50 00	100 00	48 00
Wittig Plumbing Co.....	Milwaukee	70 00	70 00	65 00
Jas. B. Wright.....	Milwaukee	59 25	32 50	576 38
W. Ziemann.....	Milwaukee	175 00	135 00	294 00
Fred. Zwengel.....	Milwaukee	70 40	70 40	157 20
Total.....		\$8,997 84	\$9,292 64	\$16,657 18

month of the Year 1889, made by sixty-one Building Contractors, doing city of Milwaukee.

Pay roll for month of April, 1889.	Pay roll for month of May, 1889.	Pay roll for month of June, 1889.	Pay roll for month of July, 1889.	Pay roll for month of August, 1889.	Pay roll for month of Septem- ber, 1889.	Pay roll for month of October, 1889.	Pay roll for month of Novem- ber, 1889.	Pay roll for month of Decem- ber, 1889.
\$80 05	\$22 90	\$17 10	\$123 85	\$94 65	\$273 75	\$138 40	\$29 05	\$9 89
215 70	137 50	176 50	145 50	107 00	87 80	69 20	39 30	37 92
1,156 80	1,477 58	1,400 13	1,474 93	1,472 73	1,906 82	3,688 83	4,244 47	3,647 13
428 55	439 05	198 40	133 90	543 00	479 00	460 30	325 85	346 50
142 24	135 26	120 28	84 19	113 69	63 43	130 65	128 54	132 45
637 00	783 44	615 00	243 46	283 18	259 46	502 53	400 27	207 17
1,141 00	1,342 00	1,347 00	962 00	1,265 00	584 00	634 00	634 00	624 00
131 44	133 91	169 85	195 28	225 64	149 88	141 60	230 70	101 91
71 35	142 20	262 67	199 14	375 40	242 00	207 00	420 00	218 07
205 00	208 00	269 00	211 62	356 00	475 00	401 00	318 00	230 00
2,808 61	3,524 30	3,409 68	3,080 25	3,535 81	3,491 17	3,352 36	3,120 89	3,468 02
339 39	569 64	398 76	338 95	251 90	292 79	249 13	218 54	178 11
250 00	305 00	275 00	310 00	290 00	266 55	242 00	236 00	183 00
198 33	198 33	198 33	198 33	198 33	198 33	198 33	198 33	198 33
407 70	369 94	475 56	362 60	557 27	444 13	513 04	430 01	330 43
240 10	103 12	161 97	71 40	66 90	32 90	36 70	33 60	.....
316 83	499 43	417 43	410 18	392 66	399 09	425 01	368 30	293 29
1,254 23	1,386 76	1,162 97	930 34	1,319 76	962 69	801 65	612 33	518 49
77 65	152 80	321 21	306 65	283 90	92 17	92 31	7 77	35 15
488 39	637 08	619 41	617 02	596 99	644 95	755 91	666 56	621 53
225 00	200 00	161 00	194 00	100 00	182 00	205 00	134 00	37 64
750 03	1,030 60	930 00	740 10	630 06	780 00	420 70	360 10	340 00
201 10	196 20	136 27	138 85	197 80	153 37	93 31	39 64	169 69
95 00	143 00	142 00	154 00	147 00	146 00	140 00	94 00	9 40
336 49	358 19	733 25	620 05	292 72	791 04	597 65	383 42	175 99
295 00	358 00	316 00	411 00	367 00	360 00	339 00	618 00	381 00
150 00	124 00	120 00	134 00	110 00	117 00	70 00	.....	.....
150 81	165 05	145 00	70 80	56 90	61 00	108 40	95 70	14 00
.....	183 48	216 78	192 61	134 68	152 18	210 35	211 28	170 47
403 40	501 15	505 55	345 55	232 75	431 95	399 10	165 25	172 50
80 00	192 00	168 00	192 00	32 00	.....	.....	.....	.....
387 48	655 34	511 45	470 68	565 27	561 15	697 30	552 03	254 25
224 00	264 00	268 00	350 00	400 00	200 00	50 00	260 00	200 00
247 70	244 70	280 70	282 70	261 70	152 00	209 00	127 80	123 20
200 00	320 00	310 00	110 00	.....	90 00	170 00	41 52	.....
114 60	82 95	89 70	356 35	311 73	279 58	61 85	336 52	767 15
39 75	.....	22 40	151 60	108 40	107 40	110 18	61 34	112 14
1,002 61	978 30	1,266 13	915 86	893 50	1,338 43	1,088 00	903 90	853 19
595 45	826 60	1,191 57	1,154 00	1,484 25	644 60	508 60	603 10	753 20
420 75	1,000 37	521 92	542 86	350 91	133 62	125 31	140 48	82 44
53 00	105 40	129 50	219 00	168 00	153 75	132 15	84 80	22 75
150 00	180 00	180 00	180 00	180 00	180 00	180 00	120 00	90 00
671 32	754 30	690 25	800 53	1,592 90	1,199 71	787 25	326 02	217 85
1,573 69	1,285 09	743 37	646 20	600 89	226 12	229 39	401 04	175 82
342 43	473 50	617 23	507 96	929 88	779 59	742 56	817 92	477 70
622 17	975 31	717 62	963 40	541 57	461 05	426 00	480 30	636 15
19 00	20 00	13 94	20 00	23 00	28 00	27 00	16 20	.....
623 90	1,015 65	585 90	423 15	526 35	544 30	797 63	365 00	131 00
762 18	991 00	598 00	327 87	493 11	335 71	386 54	402 00	404 95
132 08	178 75	227 05	244 75	396 44	287 95	218 01	176 75	118 85
1,176 96	1,134 91	1,059 13	1,261 27	872 16	1,071 26	843 81	636 29	407 04
78 00	158 00	190 95	104 50	130 00	120 00	142 50	62 50	46 50
295 00	475 00	705 00	563 00	524 00	405 00	240 00	305 00	169 00
80 00	.....	80 00	80 00	80 00	80 00	50 00	56 00	43 85
288 30	302 24	188 00	179 00	243 30	213 09	257 20	110 25	.....
.....	40 80	289 14	357 60	255 32	214 57	218 62	91 15	.....
342 62	486 40	457 00	366 60	310 40	443 00	792 00	190 00	75 00
188 00	288 00	384 00	286 50	346 50	319 00	304 29	382 00	221 00
606 25	531 25	652 00	675 00	889 75	672 75	321 00	101 25	50 00
319 00	524 00	538 00	612 00	726 00	376 00	348 00	381 00	204 47
390 25	451 20	403 00	143 75	97 50	89 75	80 75	86 00	.....
\$25,313 68	\$30,662 97	\$29,496 05	\$26,988 68	\$28,783 55	\$26,227 83	\$26,168 40	\$23,382 06	\$19,489 58

TABLE X.—EMPLOYERS' STATISTICS.—*Detailed Pay-roll for every Business outside of the*

FIRM NAME.	Location.	Pay-Roll for month of January, 1889.	Pay-Roll for month of February 1889.	Pay-Roll for month of March, 1889.
A. A. Barron	Appleton	\$5 00	\$8 00	\$15 50
Lewis Cole	Appleton	179 40	180 37	170 00
Wm. Duvall & Co.	Appleton			
Hackworthy & Wilson	Appleton			
Henry Schneider	Appleton	27 15		58 65
H. C. Armstrong	Ashland		140 00	155 00
Du Mez & Son	Ashland			40 00
T. E. Pugh	Ashland			
Scott, Hubbell & Taylor	Ashland	649 69	548 77	646 29
Schaum Bros.	Ashland	92 75	20 00	63 00
Wm. Fitzgerald	Beloit			71 25
Gammon & Reynolds	Beloit			5 60
J. J. Voorhees	Beloit	52 25	9 50	99 59
M. H. Bass	Chilton			
Adolph Feldt	Chilton			
Geo. A. Bennes	Eau Claire	32 00	41 00	98 20
E. M. Fish & Co.	Eau Claire	548 85	296 00	397 26
John F. Lange	Elkhorn			
J. Thompson	Fond du Lac	53 20	88 65	159 79
Tripp & Collins	Fond du Lac			
B. McCann	Fort Atkinson			
G. O. Liesse	Green Bay	16 25	43 00	138 00
Edw. Thomas	Green Bay			
Suhl Bros.	Hartford			
Paul Keegan	Janesville			40 00
John W. Mills	Janesville	300 90	187 55	187 55
Edw. Ratheram	Janesville	22 50	171 44	429 54
Wray & Blair	Janesville	28 45	44 65	201 95
P. Wood	Kenosha			
A. H. Mitchell	La Crosse			30 60
O. M. Mitchell	La Crosse			42 99
Askeu & Mason	Madison	118 00	120 80	140 00
Jas. Bray	Madison			
D. R. Butler	Madison			
S. L. Chase	Madison	36 45	69 42	73 48
H. N. Moulton	Madison			
Thos. Regan	Madison	311 60	258 25	255 25
Silbernagel & Dean	Madison	219 71	152 42	314 86
M. Wilhelm	Madison			
D. Boehmer	Manitowoc			12 00
D. C. Buglass	Mauston			40 00
Geo. Machmiller	Mayville			
S. J. Bailey	Menomonie			
John Hitz	Menomonie			
A. H. Barber	Merrill			
John Charles	Mineral Point	36 00	61 00	79 00
E. Edleman	Monroe	48 00	37 90	59 00
J. Steinman	Monroe	232 62	56 87	342 45
Geo. W. Voght	Monroe			
L. Flotow	Oconomowoc	138 25	164 20	397 99
W. H. Crawford	Oshkosh	288 73	248 86	358 60
W. H. Frank	Oshkosh	100 00	100 75	100 00
H. Kleinhammer	Platteville			
A. W. Suhrke	Plymouth			46 50
H. C. Brodie	Portage	3 20	1 80	1 20
Thos. C. Williams	Randolph			
Reedsburg Building & Lumber Co	Reedsburg	290 75	143 57	85 45
J. Zimmerman, Jr.	Rhine			30 00
M. C. Radway	Ripon			
L. Mueller	Seymour			
F. W. Piehl	Seymour			
Krause & Darling	Sheboygan	108 62	114 96	145 50
F. Tessien	Sheboygan			
J. M. Moss	Stevens Pt.	68 20	75 80	325 60
Wm. Lake & Son	Viroqua			
James Kinney	Washburn			
A. T. Brown	Waterloo	34 75		50 00

month of the year 1889, made by Seventy-seven Building Contractors, doing city of Milwaukee.

Pay-Roll for month of April, 1889.	Pay-Roll for month of May, 1889.	Pay-Roll for month of June, 1889.	Pay-Roll for month of July, 1889.	Pay-Roll for month of August, 1889.	Pay-Roll for month of September, 1889.	Pay-Roll for month of October, 1889.	Pay-Roll for month of November, 1889.	Pay-Roll for month of December, 1889.
\$35 50	\$115 00	\$210 00	\$200 00	\$175 00	\$160 00	\$102 00	\$40 00	\$16 10
200 10	200 25	230 00	243 50	234 00	227 12	280 00	237 00	207 12
160 20	706 30	750 80	580 00	165 18	650 76	1,043 65	600 70	53 76
530 00	776 00	895 00	874 00	920 00	108 00	105 00	867 00	.....
160 29	158 14	203 41	149 00	153 00	73 45	214 63	124 20	68 38
225 24	475 12	400 00	180 12	.....	.....	.....	.....	.....
163 20	195 80	212 60	75 80	132 40	88 25	20 00	.....	.....
100 90	209 50	373 60	232 60	256 60	320 25	252 25	243 60	.....
1,533 10	1,212 67	1,490 03	1,715 61	1,997 17	2,199 40	1,206 12	1,992 23	727 29
103 02	103 00	260 00	52 00	190 00	180 00	200 00	145 00	63 82
444 50	464 75	423 00	339 00	396 00	239 75	243 00	112 00	.....
45 23	83 85	201 80	53 50	59 00	43 00	44 50	33 80	14 84
236 64	386 97	683 62	514 12	499 73	375 55	462 68	262 39	121 03
56 00	87 00	190 00	260 00	223 00	370 00	.....	.....	.....
40 00	75 00	45 00	45 00	45 00	45 00	40 00	45 00	.....
154 20	1,470 00	1,694 80	417 95	309 00	265 50	293 00	35 30	53 40
534 44	995 44	1,223 74	1,013 85	1,231 88	1,092 69	967 16	898 38	334 95
34 50	87 55	80 55	81 65	124 20	43 30	71 50	30 40	35 50
170 75	224 75	188 30	187 60	195 30	230 80	187 35	130 20	47 01
25 00	127 00	195 00	130 00	144 00	145 00	218 00	155 00	65 00
.....	160 00	182 50	750 75	690 50	86 50	.....	.....	.....
253 75	402 00	413 50	578 75	665 00	687 70	608 20	318 38	118 00
37 62	58 34	58 00	59 00	64 39	130 50	151 25	167 19	74 29
40 65	37 10	112 00	140 00	120 00	160 00	145 00	49 00	.....
75 00	125 00	250 00	365 00	325 00	240 00	165 00	42 00	24 00
262 50	300 90	262 50	300 90	300 90	300 90	375 00	450 00	450 00
1,147 44	1,179 65	1,070 07	1,043 75	1,537 73	1,128 95	1,087 60	754 65	448 46
181 91	214 28	257 88	349 37	557 40	502 20	604 25	372 98	187 15
148 27	113 86	115 70	63 97	47 95	58 22	52 20	50 92	44 27
257 15	472 31	160 75	110 55	24 00	99 62	52 47	8 40	148 48
27 42	49 99	39 44	97 06	284 40	107 80	94 80	246 00	74 30
240 80	327 25	328 00	306 00	535 00	319 50	317 70	175 28	960 08
38 68	67 80	85 40	94 00	92 26	76 00	51 13	.....	.....
31 30	272 15	206 75	186 95	307 95	526 65	382 35	269 40	85 00
41 07	239 07	361 92	362 06	219 27	27 90	11 40	36 30	26 10
45 57	141 82	143 09	270 92	187 00	.....	137 19	.....	9 00
377 95	738 35	415 70	566 55	647 00	563 15	462 95	353 18	371 94
596 38	769 73	758 56	804 22	804 58	770 06	801 56	480 92	270 60
50 00	80 00	75 00	90 00	87 50	27 00	27 00	27 00	27 00
99 82	174 40	272 30	282 37	515 84	452 80	383 50	354 40	53 60
53 00	65 25	75 00	57 50	105 00	50 00	70 00	.....	.....
.....	.....	375 00	225 00	175 00	360 00	185 00	482 25	.....
73 25	365 55	299 00	542 25	458 25	612 75	792 25	551 30	.....
58 50	58 50	58 50	58 50	58 50	58 50	58 50	29 25	.....
.....	.....	205 75	200 00	250 75	200 00	120 75	.....	.....
116 00	146 00	176 00	163 00	135 00	140 00	145 00	136 00	78 25
134 00	480 00	1,260 00	800 00	730 00	600 00	1,000 00	720 00	590 00
662 73	704 50	733 06	621 51	1,410 42	1,327 99	1,191 48	1,723 05	1,223 72
30 00	57 00	92 00	30 00	65 60	40 00	59 00	35 00	55 29
447 46	936 21	1,360 25	831 15	536 85	510 40	794 18	738 40	511 22
280 33	346 07	398 76	415 64	370 02	287 67	382 33	399 37	177 64
150 00	300 00	300 00	200 00	300 00	200 00	200 00	200 00	105 00
21 00	50 75	23 25	75 25	94 50	150 75	169 75	96 25	63 05
90 75	145 00	162 25	179 75	178 00	103 75	107 00	75 00	12 50
17 00	37 60	71 00	90 00	120 00	20 00	2 40	7 00	.....
65 00	80 00	65 00	68 60	100 75	28 00	53 50	50 00	42 00
124 50	205 85	161 00	453 93	612 94	567 56	586 96	490 55	334 39
54 00	120 00	150 00	190 00	90 00	90 00	60 00	40 00	.....
156 00	208 00	364 00	360 00	416 00	520 00	440 00	400 00	.....
.....	73 00	75 00	26 00	32 00	.....	38 00	96 00	32 00
326 00	432 75	445 37	452 50	427 87	484 00	422 25	311 01	.....
126 53	134 75	159 52	205 76	275 09	241 21	238 37	241 24	129 87
19 95	66 32	82 00	59 91	88 23	72 28	72 30	41 60	106 00
550 40	765 80	625 20	235 75	450 55	759 00	633 52	283 21	153 60
.....	450 00	455 00	455 00	455 00	455 00	455 00	500 00	.....
.....	200 00	200 00	250 00	250 00	100 00	30 00	32 75	37 5
84 00	103 00	100 50	162 50	155 50	275 00	275 00	173 00	137 0

TABLE X.—EMPLOYERS' STATISTICS.—*Pay-*

FIRM NAME.	Location.	Pay-Roll for month of January, 1889.	Pay-Roll for month of February 1889.	Pay-Roll for month of March, 1889.
C. M. Bentley & Son.....	Waukesha.....	\$15 25	\$35 00	\$137 00
P. R. Blair.....	Waukesha.....			85 80
A. Dieman.....	Waukesha.....	50 00	185 00	514 00
Sam'l Dodd.....	Waukesha.....	96 00	38 12	61 00
E. S. Howe.....	Waukesha.....	2 13	43 52	238 69
Waukesha Stone Co.....	Waukesha.....		24 92	997 94
John Miller.....	Wausau.....			
Jos. LeClair.....	West Depere.....		100 00	200 00
W. P. Simons.....	West Superior.....	569 41	322 43	468 36
C. M. Sikes & Co.....	Whitewater.....		13 00	49 75
Totals.....		\$4,775 06	\$4,147 52	\$8,659 58

TABLE XI.—*Showing the Percentage of Idleness among the Mechanics in the Building Trades in the City of Milwaukee, based upon the monthly Pay-rolls of Sixty-one Firms, representing Five Hundred and Ninety-three Workmen. Average number of Work-days for the year, 229.*

MONTHS.	Total wages paid out.	Number of men working.	Number of men idle.	PERCENTAGE.	
				Working.	Idle.
January.....	\$8,997 84	174	419	29.33	70.67
February.....	9,292 64	180	413	30.33	69.67
March.....	16,657 18	320	273	54	46.
April.....	25,313 68	489	104	82.50	17.50
May.....	30,662 97	593		100.	
June.....	29,496 05	573	20	96.20	3.80
July.....	26,988 68	523	70	88.16	11.84
August.....	28,783 55	554	39	93.50	6.50
September.....	26,227 83	507	86	85.50	14.50
October.....	26,168 40	506	87	85.33	14.67
November.....	23,382 06	452	141	76.25	23.75
December.....	19,489 58	376	217	63.50	36.50
Totals.....	\$271,460 46	437	156	73.75	26.25

roll for every month of the year 1889.—Continued.

Pay-Roll for month of April, 1889.	Pay-Roll for month of May, 1889.	Pay-Roll for month of June, 1889.	Pay-Roll for month of July, 1889.	Pay-Roll for month of August, 1889.	Pay-Roll for month of Septem- ber, 1889.	Pay-Roll for month of October, 1889.	Pay-Roll for month of Novem- ber, 1889.	Pay-Roll for month of Decem- ber, 1889.
\$175 75	\$175 75	\$226 50	\$200 75	\$141 00	\$132 80	\$30 75	\$30 80	\$26 60
130 60	252 69	212 53	292 89	395 52	146 93	239 60	200 62	118 75
708 00	727 00	835 00	897 00	894 00	917 00	929 00	745 00	697 00
71 00	126 50	119 25	53 60	71 61	24 00	47 00	176 00	255 48
739 65	701 84	676 09	80 75	130 20	297 90	466 90	227 50	154 62
1,204 83	1,459 87	1,025 15	1,167 49	1,047 69	844 66	1,039 01	839 52	765 96
.....	679 50	679 50	679 50	679 50	679 50	679 50	385 00	.....
600 00	700 00	800 00	800 00	880 00	150 00	150 00	150 00	700 00
287 25	781 04	309 07	257 45	380 87	599 57	721 03	737 53	626 15
111 25	189 72	140 30	265 37	285 95	265 00	193 25	129 00	8 74
\$16,481 82	\$25,403 90	\$29,016 11	\$26,274 77	\$28,712 29	\$25,433 49	\$24,939 97	\$21,581 40	\$12,122 80

TABLE XII.—Showing the Percentage of Idleness among the Mechanics in the Building Trades in all Parts of the State, except the City of Milwaukee, based upon the Monthly Pay-rolls of Seventy-seven Firms, Representing 563 Workmen. Average number of Work-days during 1889, 202.

MONTHS.	Total wages paid out.	Number of men working.	Number of men idle.	PERCENTAGE.	
				Working.	Idle.
January	\$4 775 06	93	470	16.50	83.50
February	4,147 52	81	482	14.33	85.67
March	8,659 58	169	394	30	70
April	16,481 82	321	212	57	43
May	25,403 90	493	70	87.50	12.50
June	29,016 11	563	.....	100	.....
July	26,274 77	509	54	90.50	9.50
August	28,712 29	557	6	99	1
September	25,433 49	493	70	87.50	12.50
October	24,939 97	484	79	86	14
November	21,581 40	418	145	74.34	25.66
December	12,122 80	237	326	42	58
Totals	\$227,548 71	368	195	65	35

THE BUILDING TRADES.

PART III.

COMPARATIVE STATISTICS.

TABLE XIII.—COMPARATIVE STATISTICS—*Showing the Standard Rate of Wages paid per Hour to First-class Workmen in the several Branches of Masonry, in leading Cities of Wisconsin.*

MASONRY.

LOCALITIES.	WAGES PER HOUR.						BY WHOM REPORTED.
	Stone masons.	Brick-layers.	Plasterers.	Lathers.	Stone cutters.	Hod carriers.	
	cents	cents	cents	cents	cents	cents	
Milwaukee.....	45	45	40	30	45	22	Richard Smith.
Appleton.....		35	30	15	35	15	Henry Hoffmann.
Ashland.....	25	35	35	20	40	17½	C. D. Cornell.
Baraboo.....	30	30	30	20		15	M. McGann.
Beaver Dam.....	25	25	25	20	30	12½	S. P. Doolittle.
Beloit.....	30	35	35	25	35	15	Wm. Fitzgerald, Cunningham Bros.
Chippewa Falls.....	35	40	30	25	35	15	W. P. Dodds.
Eau Claire.....	35	40			35	17½	E. M. Fish & Co.
Florence.....	40	40	35		40	20	Omer Huff.
Green Bay.....	25	25	25	20	20	15	
Hammond.....	25	25	30	20		17½	J. S. Wheeler.
Janesville.....	27½	30	30	20	30	15	E. Ratheram.
Kenosha.....	35	35	35			15	D. Warren, C. W. George.
La Crosse.....	30	40	35	20	35	17½	F. A. Gross, E. E. Barstow, F. Drake & Sons.
Madison.....	35	35				15	Thos. Davenport.
Manitowoc.....	25	25	25			15	Dan'l Boehmer, Ben. Herman.
Mauston.....	25	25	25	15	25	15	W. D. Pierce, S. K. Sykes.
Medford.....	30	30	30	25		15	O. D. Pollard.
Menomonie.....	30	35	30	25	40	15	F. E. Pease, H. H. Peck.
Merrill.....	35	35	35	25	40	17½	A. H. Barber.
Monroe.....	30	35	35	25	35	20	John Baumann.
Neillsville.....	25	30	30	30		20	J. G. Taylor, Frank Klinke, Jos. Herrian.
Oconto.....	30	37½	30		40	20	Wm. John McGee.
Oshkosh.....	27½	32½	30		33½	17½	Mayor E. E. Stevens.
Portage.....	30	30	30		30	12½	H. C. Brodie.
Port Washington.....	25	25	25				Jac. Schmiedler.
Prairie du Chien.....	35	35	30	15		15	C. C. Chase.
Richland Center.....	25	25	30	15	30	15	J. W. Fowler.
Ripon.....	30	30	30	20	25	15	W. E. Webb, S. A. Groesbeck.
Sheboygan.....	25	27½	27½		27½	14	Wm. C. Weeks.
Stevens Point.....	30	30	25		35	15	M. Collins.
Stoughton.....	25	30	25	17½		15	C. M. Burnett.
Superior.....	40	45	40	25		20	Fred. A. Dale.
Tomahawk.....	30	35	35	25		15	W. J. Henry, H. F. Hansen.
Waukesha.....	27½	35	30	20	35	15	E. S. Howe.
Wausau.....	30	30	30			15	J. A. Jones, F. Ross.

TABLE XIV.—COMPARATIVE STATISTICS — *Showing the Standard Rate of Wages paid per hour to First-class Workmen in the several Branches of Carpentry, in leading Cities of Wisconsin:*

CARPENTRY.

LOCALITIES.	WAGES PER HOUR.			BY WHOM REPORTED.
	Roughers.	Regular.	Finishers.	
	cents.	cents.	cents.	
Milwaukee	17½	20	25	Richard Smith.
Appleton	15	20	22½	Henry Hoffmann.
Baraboo	15	20	25	M. McGann.
Beaver Dam	12½	17½	22½	S. P. Doolittle.
Beloit	20	25	27½	Wm. Fitzgerald, Cunningham Bros.
Chippewa Falls ...	18	22	30	W. P. Dodds.
Eau Claire	17½	22½	30	E. M. Fish & Co.
Florence	20	25	25	Omer Huff.
Green Bay	15	18	20	J. S. Wheeler.
Hammond	20	22½	25	E. Ratheram.
Janesville	17½	22½	25	D. Warren, C. W. George.
Kenosha	20	25	30	F. A. Gross, E. G. Barstow, F. Drake & Sons.
La Crosse	17½	20	25	D. Boehmer, Ben Herman.
Manitowoc	17½	20	22½	S. K. Sykes, W. D. Pierce.
Mauston	20	25	25	O. D. Pollard.
Medford	20	22½	25	Frank E. Pease, H. H. Peck.
Menomonie	15	20	25	A. H. Barber.
Merrill	17½	20	25	John Baumann.
Monroe	20	.....	30	J. G. Taylor.
Neillsville	17½	20	25	W. John McGee.
Oconto	20	25	32½	Mayor E. E. Stevens.
Oshkosh	20	22½	27½	H. C. Brodie.
Portage	17½	20	.....	C. C. Chase.
Prairie du Chien ..	17½	20	22½	J. W. Fowler.
Richland Center ..	15	25	.....	W. E. Webb, S. A. Groesbeck.
Ripon	15	17	25	Wm. C. Weeks.
Sheboygan	17½	19	20	M. Collins.
Stevens Point	15	20	25	C. M. Burnett.
Stoughton	17½	20	25	Fred. A. Dale.
Superior	22½	25	30	W. J. Henry, H. F. Hansen.
Tomahawk	20	22½	27½	E. S. Howe.
Waukesha	17½	20	22½	J. A. Jones.
Wausau	20	25	30	

TABLE XV.—COMPARATIVE STATISTICS—*Showing the Standard Rate of Wages paid per Hour to First-class Workmen in the several Branches of Painting, in leading Cities of Wisconsin.*

PAINTING.

LOCALITIES.	WAGES PER HOUR.						BY WHOM REPORTED.
	House painters.	Grainers.	Fresco.	Sign.	Paper hangers.	Decorators.	
Milwaukee.	cents 22½	cents 30	cents 30	cents 27½	cents 25	cents 25	Richard Smith.
Appleton.	25	30			35	35	Henry Hoffmann.
Baraboo.	20	20	20	20	20	20	M. McGann.
Beaver Dam.	20	30	30	30	25	30	S. P. Doolittle.
Beloit.	cents 22½	30	30	30			Cunningham Bros.
Chippewa Falls.	25	25	40	30	35	40	W. P. Dodds.
Eau Claire.	20	30	Job	or	piece	work	E. M. Fish & Co.
Florence.	30	30	30	30			Ormer Huff.
Green Bay.	20	25	25	25	20	25	
Hammond.	20	25			25		J. S. Wheeler.
Janesville.	20	25		25			E. Ratheram.
Kenosha.	cents 22½	37½	40		25		David Warren.
La Crosse.	25	35	40	30	40	40	F. Drake & Sons.
Manitowoc.	25	25	Job	or	piece	work	Dan'l Boehmer.
Mauston.	20	25	25	25	20	25	S. K. Sykes.
Medford.	25	30		30	25		O. D. Polard.
Menomonie.	17½	22	25	25	20	22	Frank E. Pease.
Merrill.	cents 22½	25	25	25	20	30	A. H. Barber.
Monroe.	20	Most ly	job	or	piece	work	John Baumann.
Neillsville.	20	30		35	25		J. G. Taylor, J. Herrian.
Oconto.	25	27½	30	40	30	32½	Wm. J. McGee.
Oshkosh.	20	35	Piece	or	job	work	Mayor E. E. Stevens.
Portage.	25	35			30		H. C. Brodie.
Prairie du Chien.	25	27½		27½	30	35	C. C. Chase.
Richland Center.	20				30		J. W. Fowler.
Ripon.	20	25	20	25	20	20	W. E. Webb.
Sheboygan.	20	20			20		Wm. C. Weeks.
Stevens Point.	20	25	Job	or	piece	work	M. Collins.
Stoughton.	cents 22½		Job	or	piece	work	C. M. Burnett.
Tomahawk.	20	25	25	30	25	25	W. J. Henry, H. F. Hansen.
Waukesha.	20	30	40	35	25	25	E. S. Howe.
Wausau.	25	30	30				J. A. Jones.

NOTE.—Blanks generally denote that there is but little of such class work done in the locality, and if done at all, either job or piece work.

TABLE XVI.—COMPARATIVE STATISTICS—*Showing the Standard Rate of Wages paid per Hour to First-class Workmen at Plumbing, Steam and Gas Fitting in leading Cities of Wisconsin.*

PLUMBING, ETC.

LOCALITIES.	WAGES PER HOUR.				BY WHOM REPORTED.
	Plumb- ers.	Steam fitters.	Gas fitters.	Helpers.	
	cents.	cents.	cents.	cents.	
Milwaukee.....	35	25	30	7 *	Richard Smith.
Appleton.....	45	.45	35	15	Henry Hoffman.
Baraboo.....	50				M. McGann.
Beaver Dam.....	25	25	25	12½	S. P. Doolittle.
Chippewa Falls.....	40	.45	35	15	W. P. Dodds.
Eau Claire.....	35	25	25	10	J. P. Fox.
Green Bay.....	30	25	20	15	
Janesville.....	30	30	30	17½	E. Ratheram.
Kenosha.....	40	40	40	20	D. Warren.
La Crosse.....	30	35	30	15	F. A. Gross, F. Drake & S's.
Menomonie.....	30	30	30	15	Frank E. Pease.
Merrill.....	50	50	50	15	A. H. Barber.
Neillsville.....	30			17½	J. G. Taylor.
Oconto.....	35	30	35	20	William J. McGee.
Oshkosh.....	35				Webb & Rundle.
Portage.....	35		25	10	H. C. Brodie.
Prairie du Chien.....	30	35	35	12½	C. C. Chase.
Racine.....	25	.25	25	12½	Harry Morris & Co.
Ripon.....	30	25	20	15	W. E. Webb.
Sheboygan.....	30	25	25	20	William C. Weeks.
Stevens Point.....	30	25	40	20	M. Collins.
Waukesha.....	35	30	30	15	E. S. Howe.

* Apprentices.

TABLE XVII.—COMPARATIVE STATISTICS—*Showing the Standard Rate of Wages paid per Hour to First-class Workmen in the several Branches of Roofing. Also, to Excavators and General Common Laborers.*

ROOFING, ETC.—LABORERS.

LOCALITIES.	WAGES PER HOUR.						BY WHOM REPORTED.
	Tinsmiths.	Slate.	Composi- tion.	Gravel.	Diggers.	Common laborers.	
	cents	cents	cents	cents	cents	cents	
Milwaukee.....	25	25	25	25	15	15	Richard Smith.
Baraboo.....	25	.....	25	25	15	15	M. McGann.
Beaver Dam.....	.....	.....	.....	.....	12½	12½	S. P. Doolittle.
Beloit.....	30	.....	.....	.....	15	15	Wm. Fitzgerald.
Chippewa Falls.....	30	.....	40	35	17	14	W. P. Dodds.
Eau Claire.....	25	.....	.....	.....	15	15	E. M. Fish & Co.
Florence.....	25	.....	.....	.....	15	15	Omer Huff.
Green Bay.....	15	.....	.....	.....	15	15	
Janesville.....	20	30	.....	.....	15	15	E. Ratheram.
Kenosha.....	20	.....	*	*	15	12½	D. Warren.
La Crosse.....	25	30	25	25	17½	15	F. Drake & Sons.
Manitowoc.....	20	.....	.....	.....	15	15	Dan'l Boehmer.
Medford.....	22½	.....	.....	.....	15	15	O. D. Pollard.
Menomonie.....	20	.....	.....	.....	15	15	F. E. Pease.
Merrill.....	20	.....	25	22	17½	12½	A. H. Barber.
Neillsville.....	20	.....	25	25	17½	15	J. G. Taylor.
Oconto.....	30	.....	.....	.....	17½	20	Wm. J. McGee.
Portage.....	20	.....	.....	.....	12½	12½	H. C. Brodie.
Prairie du Chien.....	25	.....	.....	.....	12½	12½	C. C. Chase.
Richland Center.....	20	.....	.....	.....	12½	12½	J. W. Fowler.
Ripon.....	25	.....	.....	.....	12½	12½	W. E. Webb.
Sheboygan.....	25	.....	.....	.....	15	12½	Wm. C. Weeks.
Stevens Point.....	25	.....	.....	.....	15	15	M. Collins.
Tomahawk.....	20	.....	.....	.....	15	15	H. F. Hansen.
Waukesha.....	25	30	25	25	17½	12½	E. S. Howe.

* \$4 per 100 square feet.

RECAPITULATION.

TRADES.	Number Reported.	NUMBER OF MEN IN EACH SUBDIVISION OF THE BUILDING TRADES WORKING AT THE DIFFERENT RATES PER HOUR, HERE SPECIFIED.																														TRADES.				
		50c.	47c.	45c.	42½c.	40c.	37½c.	35c.	32½c.	30c.	27½c.	25c.	24c.	22½c.	22c.	21¼c.	21c.	20c.	18½c.	17½c.	17c.	16¾c.	16½c.	16c.	15c.	14c.	13¾c.	13½c.	13¼c.	12¾c.	12c.		11¼c.	11c.	10c.	
Bricklayers.....	136			2	10	9	3	8	3	60	18	14		4				5																	Bricklayers	
Calciminers.....	3													2				1																	Calciminers	
Carpenters.....	1,225								1	7	5	107		185			2	554		204			9			132						19			Carpenters	
Decorators.....	9									1	1	3		2				2																	Decorators	
Galvanized iron workers.....	10										1							2			3				3					1				Galvanized ironworkers		
Gasfitters.....	19									4	2	3		3				3							2									2	Gasfitters	
Grainers.....	11	2				2		1		3		3																							Grainers	
Hod carriers.....	150														22			7		7					95			2		13		1	3		Hodcarriers	
House movers.....	18										1							1		5					11										Housemovers	
House painters.....	434								2			37		70				183	2	68					57					3		1		6	Housepainters	
Laborers.....	180																	2		11				3	113			2		30		2		17	Laborers	
Mortar mixers.....	16																	2		3					9					2					Mortar mixers	
Paperhangers.....	22									1	1	6		5				8			1														Paperhangers	
Plasterers.....	47							4	1	23	4	11	2	1				1																	Plasterers	
Plumbers.....	82			1		1		6		16	3	12		4				14		4			3		10				2	3				3	Plumbers	
Sewer diggers.....	83																	1		13		2			66										Sewer diggers	
Sewer layers.....	9																	2		5				2											Sewer layers	
Sign painters.....	4							.....		1	1	2																							Sign painters
Slaters.....	10							.....			2							5			1						1				1				Slaters
Steamfitters.....	11									2		1		2				2		1					2									1	Steamfitters	
Stone cutters.....	23		1			3		3	2	9	2	2						1																		Stone cutters
Stone masons.....	116						23		3	23	2	46						12		5					2											Stone masons
Tinsmiths.....	44							1				2		2		3		13	3	5			5		7	1									Tinsmiths	
Totals.....	2,662	2	1	3	10	15	26	23	12	150	40	252	2	290	22	3	2	821	5	331	5	11	8	5	509	1	1	4	2	60	20	3	1	32	Totals	

EMPLOYERS' TRADE NOTES.

Appleton — I employ ten to fifteen carpenters eight to nine months of the year. — HENRY HOFFMANN.

Baraboo — Our painters do all work in their line, paperhanging, decorating sign painting, etc. There is but one plumber here; he does all the steam and gas fitting, and is not kept very busy then. The building trades furnish work about seven months. A few work the year round at small pay. None of the trades were very busy last year. — M. MCGANN.

Beloit — We have in our employ thirty carpenters, six masons, five laborers, five painters, one, lather, averaging nine months' work per year. This has been a very busy year; our city has increased nearly 2,000 in population. Splendid prospects for 1890. With all our new manufacturing interests, there must come a large increase in building here. — CUNNINGHAM BROS.

Chippewa Falls — Some very good buildings were put up this summer, thirteent of which aggregate a cost of over \$100,000, as reported to me by Mr. S. Snyder, architect. — W. P. DODDS.

Florence — The building trades give about seven months' employment per year. There has been considerable building this season, and will continue till after Christmas, if the weather permits. — OMER HUFF.

Kenosha — Masons find work about seven months per year; carpenters and painters part of the time throughout the winter. The rate of wages per hour is the same throughout the year, working only eight hours per day in winter. — DAVID WARREN.

Manitowoc — The wages of carpenters in this city depend upon ship-building, which is done mostly in winter time. When there is much ship-building the wages are higher than reported; if not, they are lower, because there are too many carpenters here. Mostly all house carpenters are engaged in work at the shipyard during the winter season. — DANIEL BOEHMER.

Manitowoc — Carpenters and painters in this city find work the year round, working in the shipyard in winter, and house work in summer. Bricklayers generally work by the piece, at \$2.50 per 1,000. — BEN. HERMAN.

Mauston. — Our best mechanics in the building trades find work ten or eleven months in the year; others about nine months. — W. D. PIERCE.

Menomonie. — The building trades furnish employment, usually, about eight months of the year. General common laborers, who work for lumber manufacturers, about ten or eleven months, working eleven hours per day. Of the latter class from 1,200 to 1,600 live at this place. — FRANK E. PEASE.

Neillsville. — Some of our workmen have work about nine months of the year, and some nearly all the year. — J. G. TAYLOR.

Oconto — The building trades give work about nine months of the year. Wages are about ten per cent. lower in winter. Hours of work, ten; over ten hours, extra pay according to class of work. Wages in the woods

range from \$30 to \$50 per month; camp boss, about \$75.— W. J. MCGEE.

Prairie du Chien— No regular work for laborers in our city more than eight months in the year. We have no factories. We have one saw-mill that runs in summer, employing 98 men, mostly laborers, whose wages are \$1.35 per day for eleven hours.— C. C. CHASE.

Ripon— Ten hours constitutes a day's work in our town. Wages vary from 12½ to 25 cents per hour; in a very few cases 30 cents. Ripon is an inland city without any factories. There are five shops. The building trades give employment about seven months of the year.— S. A. GROESBECK.

Stevens Point— A few men in the building trades have work throughout the year; others about seven months' steady work.— M. COLLINS.

Tomahawk— Building trades find employment about eight months of the year. We have some saw-mill building in winter, millwrights' wages ranging from 20 to 27½ cents per hour.— H. F. HANSEN.

COMPARATIVE STATISTICS.

Through courtesy of officers of Builders' Exchanges, and others, the Bureau is enabled to publish a comparative table of wages paid in the various building trades in thirty-nine cities located in all parts of the United States. It is very gratifying to find that in Milwaukee, as the leading city of Wisconsin, wages are quite up to the average, and in many instances, above the average of other cities.

The table comprises the comparative statistics for the following cities: Atlanta, Georgia; Baltimore, Maryland; Bismarck, North Dakota; Boston, Massachusetts; Brooklyn, New York; Buffalo, New York; Chicago, Illinois; Cincinnati, Ohio; Cleveland, Ohio; Concord, New Hampshire; Detroit, Michigan; East Saginaw, Michigan; Galveston, Texas; Grand Rapids, Michigan; Indianapolis, Indiana; Kansas City, Missouri; Lancaster, New Hampshire; Lexington, Virginia; Milwaukee, Wisconsin; Minneapolis, Minnesota; Montpelier, Vermont; Nashville, Tennessee; New Orleans, Louisiana; New York, New York; Norfolk, Virginia; Philadelphia, Pennsylvania; Providence, Rhode Island; Rochester, New York; St. Joseph, Missouri; St. Louis, Missouri; St. Paul, Minnesota; San Francisco, California; Santa Fe, New Mexico; Sioux City, Iowa; Syracuse, New York; Vicksburg, Mississippi; Washington, District of Columbia, and Wilmington, Delaware.

The general average wages per hour for all the building trades, is 29.2 cents for the United States, against 26.9 cents for Milwaukee.

TABLE XVIII.—*Showing the Comparative Rates paid per Hour in six main Branches of the Building Trades, in thirty-eight cities of the United States.*

NAMES OF CITIES.	Masonry.	Carpentry.	Painting, etc.	Plumbing, etc.	Roofing.	Common labor.	General rates per hour for all branches of the building trades.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
Milwaukee, Wis.....	37.8	21.8	26.7	30.0	24.5	15.0	25.9
Atlanta, Ga.....	21.4	21.6	30.3	29.2	19.3	7.5	21.5
Baltimore, Md.....	40.1	28.0	42.2	28.5	28.8	12.5	30.0
Bismarck, N. D.....	32.1	25.0	30.0	33.7	30.0	17.5	28.0
Boston, Mass.....	34.5	28.0	38.0	30.7	31.7	18.1	30.1
Brooklyn, N. Y.....	41.6	38.0	38.5	37.1	37.2	19.0	35.2
Buffalo, N. Y.....	30.8	25.0	28.3	31.5	26.2	15.0	26.1
Chicago, Ill.....	45.0	30.0	38.3	40.3	27.5	17.5	33.1
Cincinnati, Ohio.....	35.6	28.1	27.5	31.2	21.7	16.6	26.7
Cleveland, Ohio.....	33.3	25.0	27.5	31.2	27.5	16.2	26.7
Concord, N. H.....	26.7	22.5	23.3	25.6	30.0	15.0	23.8
Detroit, Mich.....	33.4	20.0	36.7	25.0	26.1	13.5	25.7
East Saginaw, Mich.....	28.8	22.3	28.2	28.3	.....	.....	26.9
Galveston, Texas.....	41.7	33.3	37.5	31.2	28.7	20.0	32.0
Grand Rapids, Mich.....	32.6	22.1	24.2	25.0	20.9	14.0	23.1
Indianapolis, Ind.....	37.9	22.5	42.5	28.1	26.2	14.5	28.6
Kansas City, Mo.....	34.2	29.2	51.4	30.0	27.5	17.5	31.6
Lancaster, N. Y.....	23.8	25.0	25.0	.....	.....	15.0	22.2
Lexington, Va.....	22.5	18.3	31.0	30.0	21.3	9.0	22.0
Minneapolis, Minn.....	31.2	25.0	31.7	27.5	25.0	16.2	26.1
Montpelier, Vt.....	25.7	22.7	25.3	26.2	27.5	16.5	23.9
Nashville, Tenn.....	31.7	21.7	26.3	33.1	19.4	14.0	22.7
New Orleans.....	27.5	25.3	22.5	25.6	24.4	15.0	23.3
New York, N. Y.....	40.8	39.0	52.2	39.0	34.3	16.9	37.0
Norfolk, Va.....	32.0	27.0	30.0	29.2	25.0	12.5	25.9
Philadelphia, Penn.....	38.5	31.0	32.2	29.6	25.0	17.5	28.9
Providence, R. I.....	31.5	25.0	42.0	27.2	24.5	16.2	27.7
Rochester, N. Y.....	31.1	24.3	33.7	25.8	24.4	16.5	25.9
St. Joseph, Mo.....	32.1	25.0	35.8	28.7	27.5	17.5	27.7
St. Louis, Mo.....	49.0	35.0	34.4	35.0	23.8	17.5	33.4
St. Paul, Minn.....	31.2	24.2	29.6	28.0	22.5	15.0	25.1
San Francisco, Cal.....	44.7	39.0	53.2	39.0	30.0	.....	41.2
Santa Fe, N. M.....	35.8	30.0	40.0	35.0	38.7	15.0	32.4
Sioux City, Iowa.....	33.7	24.2	32.5	30.0	28.7	16.5	27.6
Syracuse, N. Y.....	31.4	22.5	24.6	26.8	23.8	15.0	24.0
Vicksburg, Miss.....	25.5	26.7	28.3	22.5	25.0	11.3	24.8
Washington, D. C.....	43.0	33.3	33.3	40.0	32.0	12.5	32.3
Wilmington, Del.....	30.2	23.1	25.9	25.0	23.3	13.7	23.5
General rate per hour for 38 leading cities.....	33.7	26.1	33.2	29.3	25.3	14.6	27.4

MILWAUKEE WIS.

Reported by Richard Smith, Esq., Secretary Builders' and Traders' Exchange.

CLASSIFICATION OF MECHANICS.	WAGES PER HOUR.		HOURS OF LABOR PER DAY.	
	In summer.	In winter.	In summer.	In winter.
	Cents.	Cents.		
Stone masons.....	45	45	8	8
Bricklayers.....	45	45	8	8
Plasterers.....	40	40	8	8
Lathers.....	30	30	8	8
Hod carriers.....	22	22	8	8
Stone cutters.....	45	45	8	8
Carpenters — rough.....	17½	17½	10	8
Regular.....	20	20	10	8
Finishers.....	25	25	10	8
House painters — general.....	22½	20	10	8
Grainers.....	30	30	10	8
Fresco.....	30	30	10	8
Sign.....	27½	27½	10	8
Paperhangers.....	25	25	10	8
Decorators.....	25	25	10	8
Plumbers.....	35	35	10	8
Steam fitters.....	25	25	10	9
Gas fitters.....	30	30	10	9
Helpers.....	7	7	10	10
Tinsmiths.....	22½	22½	10	10
Roofers — slate.....	25	25	10	8½
Tin.....	25	25	10	8½
Composition.....	25	25	10	8
Gravel.....	25	25	10	8
Diggers.....	15	15	10	8
General common laborer.....	15	15	10	8

ATLANTA, GA.

Reported by Messrs. Bruce & Morgan, architects.

CLASSIFICATION OF MECHANICS.	WAGES.		Wages in Milwaukee.
	Per hour.	Per day.	
	cents.		cents.
Stone masons	20		45
Bricklayers	25		45
Pressed brick	35		
Plasterers	20		40
Lathers	15		30
Hod carriers	8		22
Stone cutters		\$2.75 @ \$3.00	45
Carpenters — rough	15		17½
Regular	20		20
Finishers	30		25
House painters, general		2.75 @ 3.00	22½
Grainers	30		30
Fresco		3.00 @ 4.00	30
Sign		3.00 @ 5.00	27½
Paperhangers	20		25
Decorators	30		25
Plumbers		3.00 @ 3.50	35
Steam fitters		3.00 @ 3.50	25
Gas fitters		2.00 @ 2.50	30
Helpers	12½		7
Tinsmiths	20		22½
Roofers — slate	20		25
Composition		1.50 @ 2.00	25
Gravel	20		25
Diggers	8		15
General common labor	7½		15

Ten hours per day, all the year. Building for the year 1889 has been very active, at least 25 per cent. more this year than in 1887 and 1888.

General rate for Atlanta per hour 21.5 cents

General rate for Milwaukee per hour 25.9 cents

BALTIMORE, MD.

Reported by the Secretary of the Builders' Exchange, and William Ferguson, Esq.

CLASSIFICATION OF MECHANICS.	Wages per hour.	Wages in Milwaukee.
	Cents.	Cents.
Stone masons.....	44 $\frac{2}{3}$	45
Bricklayers.....	45	45
Pressed brick.....	50	
Plasterers.....	33 $\frac{1}{3}$	40
Lathers.....	Piece.	30
Hod carriers.....	27 $\frac{1}{2}$	22
Stone cutters.....	40	45
Carpenters—rough.....	28	17 $\frac{1}{2}$
Regular.....	28	20
Finishers.....	28	25
House painters—general.....	27	22 $\frac{1}{2}$
Grainers.....	44 $\frac{2}{3}$	30
Fresco.....	55	30
Sign.....	Piece.	27 $\frac{1}{2}$
Paperhangers.....	Piece.	25
Decorators.....	Piece.	25
Plumbers.....	28 $\frac{1}{2}$	35
Steam fitters.....	28 $\frac{1}{2}$	25
Gas fitters.....	28 $\frac{1}{2}$	30
Helpers.....	17	7
Tinsmiths.....	27	22 $\frac{1}{2}$
Roofers—slate.....	33 $\frac{1}{3}$	25
Composition.....	27 $\frac{1}{2}$	25
Gravel.....	27 $\frac{1}{2}$	25
Diggers.....	12 $\frac{1}{2}$	15
General common laborer.....	12 $\frac{1}{2}$	15

NOTE.—Lathers, \$1.75 per 1,000. Paperhangers and decorators, piece work, regulated by the union. All persons engaged in the building trades in this city work the entire year nine hours per day, at same rate of wages for all seasons. Diggers and rude laborers work ten hours per day.

General rate for Baltimore, per hour..... 30.0 cents.

General rate for Milwaukee, per hour..... 25.9 cents.

BISMARCK, N. D.

Reported by John P. Hoagland, Esq.

CLASSIFICATION OF MECHANICS.	Wages per hour.	Wages in Milwaukee.
	Cents.	Cents.
Stone Masons.....	35	45
Brick layers	35	45
Plasterers	32½	40
Lathers	30	30
Hod carriers.....	20	22
Stone cutters	40	45
Carpenters — rough.....	24½	17½
Regular	25	20
Finishers	27½	25
House Painters, general.....	25	22½
Grainers	30	30
Fresco	35	30
Paperhangers	30	25
Plumbers	40	35
Steam fitters	40	25
Gas fitters	35	30
Helpers	20	7
Tinsmiths	30	22½
Diggers	17½	15
General common laborers.....	17½	15

Hours of labor, 10 in summer, 9 in winter.

General rate for Bismarck, per hour 28.0 cents.
 General rate for Milwaukee, per hour 25.9 cents.

BOSTON, MASS.

Reported by Wm. H. Sayward, Esq., Secretary of the National Builders Association.

CLASSIFICATION OF MECHANICS.	Wages per hour.	Wages in Milwaukee.
	Cents.	Cents.
Stone masons.....	40	45
Brick layers.....	40	45
Plasterers.....	40	40
Lathers.....	33	30
Hod carriers for masons.....	22	22
For plasterers.....	25	
Stone cutters, granite.....	31	45
Freestone.....	44	
Carpenters, rough.....	25	17½
Regular.....	28	20
Finishers.....	31	25
House painters — general.....	30	22
Grainers.....	50	30
Fresco.....	35	30
Sign.....	35	27½
Paperhangers.....	Piece	25
Decorators.....	40	25
Plumbers.....	40	35
Steam fitters.....	33	25
Gas fitters.....	35	30
Helpers.....	15	7
Tinsmiths.....	33½	22½
Roofers — slate.....	33½	25
Composition.....	30	25
Gravel.....	30	25
Diggers.....	17½	15
General common laborers.....	20	15
Iron workers.....	30	
Helpers.....	20	

NOTE.—These prices are given as average wages, circumstances governing changes. The accepted working-time is the same, either summer or winter; but when the time is lessened for want of light, the men are paid only for the time actually worked. Excepting steam fitters, and common laborers, all other branches work nine hours per day.

General rate for Boston, per hour..... 30.1 cents.

General rate for Milwaukee, per hour..... 25.9 cents.

BROOKLYN, N. Y.

Reported by F. J. Ashfield, Esq.

CLASSIFICATION OF MECHANICS.	WAGES.		Wages in Milwaukee.
	Per hour.	Per day.	Per hour.
	Cents.		Cents.
Stone Masous.....	45		45
Brick layers.....	45		45
Plasterers	45		40
Lathers.....		\$3.75	30
Hod carriers.....		\$2.50 @ 2.75	22
Stone cutters.....	45		45
Carpenters — rough.....		3.25	17½
Regular.....		3.25	20
Finishers.....		3.50 @ 4.00	25
House painters, general.....		3.00 @ 3.50	22
Grainers.....		3.00 @ 3.50	30
Fresco.....		3.50 @ 5.00	30
Sign.....		3.50 @ 4.00	27½
Paper hangers.....		2.50 @ 3.00	25
Decorators.....		3.00 @ 4.50	25
Plumbers.....		3.50 @ 4.00	35
Steam fitters.....		3.50 @ 4.00	25
Gas fitters.....		3.50 @ 4.00	30
Helpers, steam fitters.....		2.00	7
Plumbers helpers.....		\$4 per week.	
Tinsmiths.....		2.50 @ 4.00	22½
Roofers, slate.....		3.00 @ 4.00	25
Tin.....		3.00 @ 4.00	25
Composition.....		2.75 @ 3.75	25
Gravel.....		2.75 @ 3.75	25
Diggers.....		1.50 @ 2.25	15
General common laborers.....		1.25 @ 2.25	15

NOTE.— Nine hours is the general rule for a day's work. Prices of labor vary somewhat and are mostly regulated by the demand. The above are about the average. The trades furnish employment about nine months' of the year.

General rate for Brooklyn, per hour..... 35.2 cents.

General rate for Milwaukee, per hour 25.9 cents.

BUFFALO, N. Y.

Reported by Edward L. Cook, Esq., Sec'y Builders' Association Exchange.

CLASSIFICATION OF MECHANICS.	Wages per hour.	HOURS OF LABOR.		Wages in Milwaukee.
		In summer.	In winter.	
	cents.			cents.
Stone masons	33 $\frac{1}{8}$	9	9	45
Brick layers	33 $\frac{1}{8}$	9	9	45
Plasterers	33 $\frac{1}{8}$	9	9	40
Lathers	Piece.	9	9	30
Hod carriers	15	9	9	22
Stone cutters	39	9	9	45
Carpenters—rough.....	22	9	9	17 $\frac{1}{2}$
Regular	25	9	9	20
Finishers	28	9	9	25
House painters, general.....	25	9	8	22
Grainers	30	9	8	30
Fresco	30	9	8	30
Sign	No established price.			27 $\frac{1}{2}$
Paper hangers	Piece.	..	..	25
Decorators	Piece.			25
Plumbers	33 $\frac{1}{8}$	9	9	35
Steam fitters	33 $\frac{1}{8}$	9	9	25
Gas fitters	28	9	9	30
Helpers	Apprent'cs	9	9	7
Tinsmiths	25	10	9	22 $\frac{1}{2}$
Roofers—slate	30	10	9	25
Composition	25	10	9	25
Gravel	25	10	9	25
Diggers	15	10	10	15
General common laborers	15	10	10	15

Lathers, 2 $\frac{1}{2}$ cents per yard.

General rate for Buffalo, per hour..... 26.1 cents.

General rate for Milwaukee, per hour..... 25.9 cents.

CHICAGO, ILL.

Reported by James John, Esq., Secretary Builders' and Traders' Exchange.

CLASSIFICATION OF MECHANICS.	WAGES PER HOUR.		Wages per day.	HOURS OF LABOR PER DAY.		Wages in Mil- waukee.
	In summer.	In winter.		In summer.	In winter.	
	cents.	cents.	\$			cents.
Stone masons.....	45	40	.....	8	8	45
Bricklayers.....	45	40	.....	8	8	45
Plasterers.....	50	50	.....	8	8	40
Lathers.....	35	30	.....	8	8	30
Stone cutters.....	50	50	.....	8	8	45
Carpenters — rough.....	25	25	.....	8	8	17½
Regular.....	30	30	.....	8	8	20
Finishers.....	35	35	.....	8	8	25
House painters — general ..	25	25	.....	9	8	22
Grainers.....	40	40	.....	9	8	30
Fresco.....	Job.	Job.	.....	9	8	30
Sign.....	50	50	.....	9	8	27½
Paperhangers.....	Piece.	Piece.	.....	.....	.....	25
Decorators.....	Piece.	Piece.	.....	.....	.....	25
Plumbers.....	.....	.....	3.15@3.60	8	8	35
Steam fitters.....	.....	.....	3.00	9	9	25
Gas fitters.....	.....	.....	3.15@3.60	8	8	30
Helpers.....	(Boys \$5	to \$8 per	week.)	8	8	7
Tinsmiths.....	25	25	.....	10	9	22½
Roofers — slate.....	35	35	.....	8	8	25
Composition.....	25	25	.....	10	8	25
Gravel.....	25	25	.....	10	8	25
Diggers.....	17½	15	.....	10	9	15
General common laborers..	17½	15	.....	10	9	15

General rate for Chicago, per hour 33.1 cents.
 General rate for Milwaukee, per hour..... 25.9 cents

CINCINNATI, OHIO.

Reported by Wm. H. Stewart, Esq., Secretary Builders' Exchange.

CLASSIFICATION OF MECHANICS.	Wages per hour.	HOURS OF LABOR.		Wages in Milwaukee.
		In summer.	In winter.	
	cents.			cents.
Stone masons.....	36	9	9	45
Bricklayers.....	50	9	9	45
Plasterers.....	35	9	9	40
Lathers.....	20	9	9	30
Hod carriers.....	27½	9	9	22
Stone cutters.....	45	9	9	45
Carpenter—rough.....	25	9	9	17½
Regular.....	29	9	9	20
Finishers.....	30½	9	9	25
House painters—general.....	25	10	9	22
Grainers.....	Job			30
Fresco.....	30	9	9	30½
Sign.....	Piece			27½
Paper hangers.....	Piece			25
Decorators.....	Piece			25
Plumbers.....	35	9	9	30
Steam fitters.....	35	9	9	25
Gas fitters.....	35	9	9	30
Helpers.....	20	9	9	7
Roofers—slate.....	30	10	9	25
Composition.....	17½	10	9	25
Gravel.....	17½	10	9	25
Diggers.....	17	10	9	15
General common laborers.....	16½	10	9	15

City work, eight hours per day. Labor at other branches 10 and 9 hours; in winter about 8½ hours; Grainers work by the piece, averaging from 30 to 50 cents per hour. Sign painters work by the foot at from 10 cents to \$1.50. Paper hangers work by the roll at from 10 to 50 cents. Decorators same as paper hangers, sign painters and grainers. Lathing is done by the thousand; those hired by the day are mostly boys. Had to get the above figures from men at work, and averaged them as near as possible.

General rate for Cincinnati, per hour..... 26.7 cents.
 General rate for Milwaukee, per hour..... 25.9 cents.

CLEVELAND, OHIO.

Reported by M. E. Kavanaugh, Esq., Secretary Builders' Exchange.

CLASSIFICATION OF MECHANICS.	WAGES PER HOUR.		HOURS OF LABOR.		Wages in Milwaukee.
	In summer.	In winter.	In summer.	In winter.	
	cents.	cents.			cents.
Stone masons.....	33	33	9	9	45
Brick layers.....	42 $\frac{1}{2}$	42 $\frac{1}{2}$	8	8	45
Plasterers.....	27 $\frac{1}{2}$	22 $\frac{1}{4}$	10	10	40
Lathers.....	20	20	10	10	30
Hod carriers.....	21 $\frac{7}{8}$	20	8-9	8-9	22
Stone cutters.....	45	45	8	8	45
Carpenters—rough.....	20	20	10	10	17 $\frac{1}{2}$
Regular.....	25	22 $\frac{1}{2}$	10	10	20
Finishers.....	30	30	10	10	25
House painters—general.....	25	22 $\frac{1}{2}$	10	10	22
Grainers.....	25	22 $\frac{1}{2}$	10	10	30
Fresco.....	25	22 $\frac{1}{2}$	10	10	30
Sign.....	35	35	10	10	27 $\frac{1}{2}$
Paperhangers.....	25	25	10	10	25
Decorators.....	30	25	10	10	25
Plumbers.....	35	30	10	10	30
Steam fitters.....	35	30	10	10	25
Gas fitters.....	35	30	10	10	30
Helpers.....	20	20	10	10	7
Tinsmiths.....	25	25	10	10	22 $\frac{1}{2}$
Roofers—slate.....	35	30	10	10	25
Composition.....	25	25	10	10	25
Gravel.....	25	25	10	10	25
Diggers.....	17 $\frac{1}{2}$	15	10	10	15
General common laborers.....	15	12 $\frac{1}{2}$	10	10	15

General rate for Cleveland, per hour..... 26.7 cents.

General rate for Milwaukee, per hour.... 25.9 cents.

CONCORD, N. H.

Reported by Hon. Stillman Humphrey, Mayor of Concord, through E. B. Hutchinson, builder, and L. R. Fellows & Son, Stone and Brick Masons.

CLASSIFICATION OF MECHANICS.	Wages per hour.	HOURS OF LABOR.		Wages in Milwaukee.
		In summer.	In winter.	
	Cents.			Cents.
Stone masonss.....	27½	10	8	45
Brick layers.....	32½	10	8	45
Plasterers.....	30	10	8	40
Lathers.....	22½	10	8	30
Hod carriers.....	17½	10	8	22
Stone cutters.....	30	10	8	45
Carpenters—rough.....	20	10	8	17½
Regular.....	22½	10	8	20
Finishers.....	25	10	8	25
House painters—general.....	20	10	8	22
Grainers.....	27½	10	8	30
Paperhangers.....	22½	10	8	25
Plumber.....	35	10	10	30
Steam fitters.....	27½	10	10	25
Gas fitters.....	25	10	10	30
Helpers.....	15	10	10	7
Tinsmiths.....	30	10	10	22½
Roofers.....	30	10	10	25
Diggers.....	15			15
General common laborers.....	15	10	8	15

General rate for Concord, per hour 23.8 cents.
 General rate for Milwaukee, per hour 25.9 cents.

DETROIT, MICH.

Reported by W. J. Stapleton, Esq., Plasterer, 97 Cherry Street.

CLASSIFICATION OF MECHANICS.	Wages per hour.	HOURS OF LABOR.		Wages in Milwaukee.
		In summer.	In winter.	
	cents.			cents.
Stone masons.....	36	9	8	45
Brick layers.....	39	9	8	45
Plasterers.....	39	9	8	40
Lathers.....	25	10	8	30
Hod carriers.....	16 $\frac{3}{4}$	9	8	22
Stone cutters.....	45	8	8	45
Carpenters — rough.....	15	9	8	17 $\frac{1}{2}$
Regular.....	20	9	8	20
Finishers.....	25	9	8	25
House painters — general.....	25	9	8	22
Grainers.....	40	9	8	30
Fresco.....	45	9	8	30
Sign.....	40	9	8	27 $\frac{1}{2}$
Paperhangers.....	35	9	8	25
Decorators.....	35	9	8	25
Plumbers.....	25	9	8	30
Steam fitters.....	25	9	8	25
Gas fitters.....	25	9	8	30
Helpers.....	7	9	8	7
Roofers, slate.....	33 $\frac{1}{2}$	9	8	25
Composition.....	22 $\frac{1}{2}$	9	8	25
Gravel.....	22 $\frac{1}{2}$	9	8	25
Diggers.....	14	9	8	15
General common laborers.....	11@15	9@10	9	15

General rate for Detroit, per hour..... 25.7 cents.
 General rate for Milwaukee, per hour,..... 25.9 cents.

EAST SAGINAW, MICH.

Reported by Thomas Emery, Esq., Secretary of the Builders' Exchange.

CLASSIFICATION OF MECHANICS.	Wages per hour.	Wages in Milwaukee.
	cents.	cents.
Stone masons.....	30	45
Brick layers.....	36	45
Plasterers.....	33	40
Lathers.....	22	30
Hod carriers.....	17	22
Stone cutters.....	35	45
Carpenters—rough.....	20	17½
Regular.....	22¼	20
Finishers.....	25	25
House Painters, general.....	22¼	22
Grainers.....	28	30
Fresco.....	35	30
Paperhangers.....	28	25
Decorators.....	28	25
Plumbers.....	30	30
Steam fitters.....	30	25
Gas fitters.....	25	30

Stone cutters, plumbers, steam and gas fitters, work 10 hours per day; all other branches 9 hours.

General rate for East Saginaw, per hour.....26.9 cents.

General rate for Milwaukee, per hour.....29.8 cents.

GALVESTON, TEXAS.

Reported by Dan'l J. Buckley, Esq., City Clerk.

CLASSIFICATION OF MECHANICS.	Wages per hour.	HOURS OF LABOR.		Wages in Milwaukee per hour.
		In summer.	In winter.	
	cents.			cents.
Stone masons.....	40	10	10	45
Bricklayers.....	50	9	9	45
Plasterers.....	50	9	9	40
Lathers.....	40	9	9	30
Hod carriers.....	25	9	9	22
Stone cutters.....	45	9	9	45
Carpenters—rough.....	30	9	9	17½
Regular.....	35	9	9	20
Finishers.....	35	9	9	25
House painters—General.....	30	10	10	22
Grainers.....	40	10	10	30
Fresco.....	30			30
Sign.....	Piece			27½
Paperhangers.....	40	10	10	25
Decorators.....	40	10	10	25
Plumbers.....	35	10	10	30
Steam fitters.....	35	10	10	25
Gas fitters.....	35	10	10	30
Helpers.....	20	10	10	7
Tinsmiths.....	30	10	10	22½
Roofers, — slate.....	30	10	10	25
Composition.....	30	10	10	25
Gravel.....	25	10	10	25
Diggers.....	20	10	10	15
General common laborers.....	20	10	10	15

Rates of wages same at all seasons.

General rate for Galveston, per hour..... 32.0 cents

General rate for Milwaukee, per hour..... 25.9 cents.

GRAND RAPIDS, MICH.

Reported by John H. Hasken, Esq.

CLASSIFICATION OF MECHANICS.	Wages per hour.	HOURS OF LABOR PER DAY.		Wages in Mil- waukee.
		In summer.	In winter.	
	Cents.			Cents.
Stonemasons	30 to 45	9	9	45
Bricklayers	45	9	9	45
Plasterers	45	9	9	40
Lathers	17½ to 20	10	10	30
Hod carriers	16⅔ to 18	9	9	22
Stone cutters	30 to 35	10	8	45
Carpenters—rough	17½ to 20	10	8	17½
Regular	20 to 22¼	10	8	20
Finishers	25 to 30	10	8	25
House painters, general	20	10	8	22
Grainers	30 to 35	10	8	30
Fresco	30 to 35	10	8	30
Sign	35 to 40	10	8	27½
Paperhangers	20 to 22¼	10	8	25
Plumbers	25 to 30	10	8	30
Steam fitters	25 to 30	10	8	25
Gas fitters	25 to 30	10	8	30
Helpers	17½	10	8	7
Tinsmiths	20	10	8	22½
Roofers—slate	25 to 30	10	8	25
Composition	17½ to 20	10	8	25
Gravel	17½ to 20	10	8	25
Diggers	12½ to 15	10	.....	15
General common laborers	12½ to 15	10	.....	15

Rates of wages same at all seasons. All the trades furnish more or less work the year round, except masons, who average nine months per year.

The buildings put up in our city during 1887 and 1888 amounted to something over \$2,000,000.

General rate for Grand Rapids, per hour..... 23.1 cents.

General rate for Milwaukee, per hour.. 25.9 cents.

INDIANAPOLIS, IND.

Reported by C. Richart, Esq., Clerk Builders' Exchange.

CLASSIFICATION OF MECHANICS.	Wages per hour.	Wages in Milwaukee.
	cents	cents.
Stone masons.....	37½	45
Bricklayers.....	50	45
Plasterers.....	35	40
Lathers.....	27½	30
Hod carriers.....	27½	22
Stone cutters.....	50	45
Carpenters — rough.....	20	17½
Regular.....	22½	20
Finishers.....	25	25
House painters — general.....	25	22
Grainers.....	50	30
Fresco.....	60	30
Sign.....	30	27½
Paperhangers.....	40	25
Decorators.....	50	25
Plumbers.....	40	30
Steam fitters.....	35	25
Gas fitters.....	27½	30
Helpers.....	10	7
Tinsmiths.....	25	22½
Roofers — slate.....	30	25
Composition.....	25	25
Gravel.....	25	25
Diggers.....	15	15
General common laborers.....	14	15

“From careful inquiry in all the above trades, I feel confident that the wages given are in the main correct. The trades, and labor of all classes in our city, have been pretty well employed at above prices, with considerable work ahead for the balance of the season.”
[Sept., 1889.]

General rate for Indianapolis, per hour..... 28.6 cents.
General rate for Milwaukee, per hour. 25.9 cents.

KANSAS CITY, MO.

Reported by C. L. McDonald, Esq., Secretary Builders' and Traders' Exchange.

CLASSIFICATION OF MECHANICS.	WAGES.		HOURS OF LABOR.		Wages in Milwaukee.
	Per hour.	Per day.	In summer.	In winter.	
	cents.				cents.
Stone masons	35	.....	10	10	45
Bricklayers	45	.....	10	10	45
Plasterers	35	.....	10	9	40
Lathers	25	.....	10	9	30
Hod carriers	20	.....	10	9	22
Stone cutters	45	.....	9	9	45
Carpenters	22½	.....	10	9	17½
Regular	25	.....	10	9	20
Finishers	30	.....	10	9	25
House painters—general		\$2.50	9	9	22
Grainers		\$5.00 @ 6.00	9	9	30
Fresco		5.00 @ 6.00	9	9	30
Sign		5.00 @ 6.00	9	9	27½
Paperhangers		3.50 @ 4.00	9	9	25
Decorators		5.00 @ 6.00	9	9	25
Plumbers	40	.....	10	10	30
Steam fitters	45	.....	9-10	9-10	25
Gas fitters	25	.....	10	10	30
Helpers	10	.....	10	10	7
Tinsmiths	25	.....	10	9	22½
Roofers—slate	35	.....	10	10	25
Composition	25	.....	10	10	25
Gravel	25	.....	10	10	25
Diggers	17½	.....	10	.....	15
General common labor ..	15 @ 20	.....	10	10	15

General rate for Kansas City, per hour..... 31.6 cents.
 General rate for Milwaukee, per hour..... 25.9 cents.

LANCASTER, N. H.

Reported by Edward Spaulding, Esq.

CLASSIFICATION OF MECHANICS.	Wages per hour.	Wages in Milwaukee.
	cents.	cents.
Bricklayers	30	45
Plasterers	30	40
Lathers	20	30
Hod carriers	15	22
Carpenters — rough	20	17½
Regular	25	20
Finishers	30	25
House painters — general	25	22
Grainers	25	30
Diggers	15	15
General common laborers	15	15

Ten hours per day for all trades.

General rate for Lancaster, per hour..... 22.2 cents.

General rate for Milwaukee, per hour..... 25.9 cents.

LEXINGTON, VA.

Reported by J. W. Haughaworth, Esq.

CLASSIFICATION OF MECHANICS.	WAGES PER DAY.		Wages in Milwaukee.
	In summer.	In winter.	
			cents.
Stone masons	\$2 50	\$2 00	45
Bricklayers	3 50	2 50	45
Plasterers	2 00	1 50	40
Lathers	1 50	1 00	30
Hod carriers	1 00	1 00	22
Stone cutters	3 00	3 00	45
Carpenters — rough	1 25	1 25	17½
Regular	1 75	1 50	20
Finishers	2 50	2 00	25
House Painters — general	2 00	1 50	22
Grainers	3 00	.....	30
Fresco	4 00	3 00	30
Sign	4 00	3 00	27½
Paperhangers	2 50	.....	25
Plumbers	3 00	.....	30
Tinsmiths	1 75	.....	22½
Roofers — slate	2 50	.....	25
Diggers	1 00	1 00	15
General common laborers	80	75	15

Hours of labor, summer, 10; winter, 8.

General rate for Lexington, per hour..... 22.0 cents.

General rate for Milwaukee, per hour..... 25.9 cents.

MINNEAPOLIS, MINN.

Reported by B. Cooper, Esq., Contractor and Builder, 1,114 Yale Place.

CLASSIFICATION OF MECHANICS.	Wages per hour.	Hours of labor.	Wages in Milwaukee.
	cents.		cents.
Stone masons.....	25	9	45
Bricklayers.....	40	9	45
Plasterers.....	35	10	40
Lathers.....	27½	10	30
Hod carriers.....	20	9	22
Stone cutters.....	40	9	45
Carpenters—rough.....	22½	10	17½
Regular.....	25	10	20
Finishers.....	27½	10	25
House painters—general.....	25	9	22
Grainers.....	30	9	30
Fresco.....	40	9	30
Sign.....	35	9	27½
Paper hangers.....	30	10	25
Decorators.....	30	10	25
Plumbers.....	35	9	30
Steam fitters.....	35	9	25
Gas fitters.....	25	9	30
Helpers.....	15	9	7
Tinsmiths.....	25	10	22½
Roofers—slate.....	30	10	25
Composition.....	25	10	25
Gravel.....	20	10	25
Diggers.....	17½	10	15
General common laborer.....	15	10	15

“We pay about the same rate of wages per hour in winter as in summer, working by the hour, from 8 to 10 hours per day. We work the year round; but about one-third of the men do not find employment for three or four months of the year.”

General rate for Minneapolis, per hour..... 26.1 cents.

General rate for Milwaukee, per hour..... 26.9 cents.

MONTPELIER, VERMONT.

Reported by Geo. H. Guernsey, Esq., architect.

CLASSIFICATION OF MECHANICS.	Wages per hour.	Wages in Milwaukee.
	cents.	cents.
Stone masons.....	25@35	45
Bricklayers.....	30	45
Plasterers.....	25@30	40
Lathers.....	Piece	30
Hod carriers.....	15@17½	22
Stone cutters.....	20@35	45
Carpenters—rough.....	20	17½
Regular.....	22½	20
Finishers.....	25	25
House painters—general.....	20@27½	22
Grainers.....	25	30
Sign.....	25	27½
Paper hangers.....	25	25
Decorators.....	25@30	25
Plumbers.....	30	35
Steam fitters.....	30	25
Gas fitters.....	30	30
Helpers.....	15	7
Tinsmiths.....	25	22½
Roofers—slate.....	30	25
Diggers.....	15	15
General common laborers.....	15@17½	15

Lathers, 15 cents per bunch. Plumbers, jobbing, 40 cents per hour. Tinsmiths, jobbing, 35 cents per hour. "All trades are well employed during the summer and fall months, especially this year. Winter work is generally slack, except for a few very good workmen. Wages per hour are substantially the same in winter as in summer, but work less hours, and employment not as steady. The leading industries are machinery and granite cutting. Everything is flourishing and real estate advancing."

General rate for Montpelier, per hour..... 23.9 cents.
 General rate for Milwaukee, per hour..... 25.9 cents.

NASHVILLE, TENN.

Reported by S. D. Wright, Esq., carpenter and Builder, 169 North College street.

CLASSIFICATION OF MECHANICS.	Wages	Wages in
	per day.	Milwaukee.
		cents.
Stone masons	\$4 00	45
Stone cutters.....	4 00	45
Bricklayers	4 00	45
Plasterers.....	2 50	40
Lathers.....	2 00	30
Hod carriers.....	1 50	22
Carpenters — rough	1 50	17½
Regular.....	2 00	20
Finishers	3 00	25
House painters — general	1 75	22
Grainers	3 00	30
Fresco	3 00	30
Sign.....	3 00	27½
Paperhangers.....	2 00	25
Decorators.....	3 00	25
Plumbers	3 00	30
Steam fitters.....	2 50	25
Gas fitters.....	2 00	30
Helpers	1 75	7
Tinsmiths	1 75	22½
Roofers — slate	2 00	25
Composition	2 00	25
Gravel	2 00	25
Diggers	1 50	15
General common laborers	1 25	15

"We work by the day here. Ten hours is a day's work. We pay the same in winter as in summer, and make as much time as we can. We make no reduction for a few lost hours' and if the men work a few hours overtime, they do not charge for it.

General rate for Nashville, per hour..... 22.7 cents.
 General rate for Milwaukee, per hour..... 25.9 cents.

NEW ORLEANS, LA.

Reported by C. E. Dirmeyer, Esq., Secretary Mechanics', Dealers' and Lumbermen's Exchange.

CLASSIFICATION OF MECHANICS.	Wages per day.	Wages in Milwaukee.
		cents.
Stone masons.....	\$3.00	45
Bricklayers.....	3.00	45
Plasterers.....	2.75	40
Lathers.....	Piece	30
Hod carriers.....	2.00	22
Stone cutters.....	2.50 @ 3.50	45
Carpenters — rough.....	2.00 @ 2.25	17½
Regulars.....	2.50	20
Finishers.....	2.75 @ 3.00	25
House painters—general.....	2.00 @ 2.50	22
Plumbers.....	2.50	30
Steam fitters.....	3.50	25
Gas fitters.....	2.50	30
Helpers.....	1.75	7
Tinsmiths.....	2.25 @ 3.00	22½
Roofers, slate.....	2.50	25
Composition.....	1.75	25
Gravel.....	2.50 @ 3.00	25
Diggers.....	1.50	15
General common laborers.....	1.50	15

Bricklayers, nine hours per day. Lathers, three cents per yard.

Ten hours is considered a day's work; winter days being short, makes it generally nine hours. This rule applies to all branches of business in this city in which mechanical labor is employed. Labor is mostly employed by the day.

General rate for New Orleans, per hour..... 23.3 cents.

General rate for Milwaukee, per hour..... 25.9 cents.

NEW YORK, N. Y.

Reported by E. A. Vaughn, Esq., Secretary Mechanics' and Traders' Exchange.

CLASSIFICATION OF MECHANICS.	WAGES RECEIVED PER DAY.		Hours of labor.	Wages in Milwaukee.
	In summer.	In winter.		
				cents.
Stone masons.....	\$3 50	\$3.50	9	45
Bricklayers.....			9	45
Plasterers.....	4.50	4.50	9	40
Lathers.....	4.00	3.50	9	30
Hod carriers.....	2.50	2.50	9	22
Stone cutters — free stone.....	4.50	4.50	8	45
Blue stone.....	4.00	4.00	9	
Carpenters — rough.....	3.50	3.50	9	17½
Regular.....	3.50	3.50	9	20
House painters — general.....	4.00	4.00	9	22
Grainers.....	5.00	5.00	9	30
Fresco.....	5.00	5.00	9	30
Sign.....	Piece	Piece		27½
Paperhangers.....	Piece	Piece		25
Decorators.....	5.00	4.50	9	25
Plumbers.....	3.50	3.50	9	30
Steam fitters.....	3.50	3.50	9	25
Gas fitters.....	3.50	3.50	9	30
Tinsmiths.....	3.50	3.50	9	22½
Roofers — slate.....	3.00	3.00	9	25
Composition.....	3.00	3.00	9	25
Gravel.....	3.00	2.50	10	25
Diggers.....	2.00	1.75	10	15
General common laborers.....	1.50	1.50	10	15

“Mechanics in this city work by the day, except brick layers, who work by the hour, at 45 cents per hour. On Saturday, eight hours is a day's work.”

General rate for New York, per hour..... 37.0 cents.

General rate for Milwaukee, per hour..... 25.9 cents.

NEW YORK, N. Y.

Reported by Marc Eidlitz, Esq., Mason and Builder, 123 East 72d street.

CLASSIFICATION OF MECHANICS	Wages per hour.	WAGES PER DAY.		Hours of labor.	Wages in Milwaukee.
		In summer.	In winter.		
	cents.				cents.
Stone masons.....	45			9	45
Bricklayers.....	45			9	45
Plasterers.....		\$4.50	\$4.00	9	40
Lathers.....		4.50	4.00	9	30
Hod carriers, for masons.....	28			9	22
for plasterers.....		2.75	2.50	9	
Stone cut'rs, sand or free st'ne		4.50	4.00	8	45
Blue stone and granite.....		4.00	4.00	9	
Carpenters — rough.....		3.50	3.50	9	17½
Regular.....		3.50	3.50	9	20
Finishers.....		3.50@4.00	3.50	9	25
House painters — general.....		3.50	3.50	9	22
Grainers.....		4.00@5.00	4.00@5.00	9	30
Fresco.....		5.00	5.00	9	30
Sign.....	Piece	Piece	Piece		27½
Paperhangers.....	Piece	work, per	roll.		25
Decorators.....	Irregular,	up to \$5.00	per day.	9	25
Plumbers.....		3.50	3.50	9	30
Steam fitters.....			3.50	9	25
Gas fitters.....			3.50	9	30
Helpers, for steam fitters.....			2.00	9	7
for gas fitters.....		1.50	1.50	9	
Roofers.....		3.50	3.50	9	25
Diggers.....		1.75	1.75	10	15

Roofers include tinmiths engaged in tin and galvanized iron and copperwork connected with roofing.

NEW YORK, October 21st, 1889.

H. M. STARK, Esq. — *Dear Sir*: Enclosed please find list which you desired me to fill out. I have done so after enquiring of the different trades who work Union men. The builders who build to sell are also working Union men; but at times, when work is brisk, cannot get men to do their work when the regular builders are busy, and are compelled to offer higher wages, as the case has been this summer. Men at the kind of work mentioned above, (Bricklayers) received 50 cents per hour, while the regular builders paid but 45 cents. It might be well to remark that the mason builders have an agreement with the Unions for 45 cents per hour from February to February, 9 hours per day, but there are some months like December and January where we don't get quite 9 hours and still pay for it. I will also remark that the builders who build to sell frequently employ inferior mechanics, especially when business is not brisk, and pay whatever they can.

Very truly yours,

MARC EIDLITZ.

NORFOLK, VA.

Reported by L. T. Blick & Son, General Contractors, 51 Cove street.

CLASSIFICATION OF MECHANICS.	Wages per hour.	HOURS OF LABOR.		Wages in Mil- waukee.
		In sum- mer.	In win- ter.	
	cents.			cents.
Stonemasons	37½	10	9	45
Bricklayers	44	9	9	45
Plasterers	25	10	9	40
Lathers	20	10	9	30
Hod carriers	19½	9	9	22
Stone cutters	37½	10	9	45
Carpenters — rough	24	9	9	17½
Regular	27	9	9	20
Finishers	30	9	9	25
House painters — general	25	10	9	22
Grainers	30	10	9	30
Fresco	30	10	9	30
Sign	30	10	9	27½
Paperhangers	25	10	9	25
Decorators	40	10	9	25
Plumbers	25	10	9	30
Steam fitters	25	10	9	25
Gas fitters	25	10	9	30
Helpers	12½	10	9	7
Tinsmiths	25	10	9	22½
Roofers — slate	25	10	9	25
Diggers	12½	10	.....	15
General common laborers	12½	10	9	15

Stone masons and bricklayers are employed by the day, at \$3.75 and \$4, respectively.

General rate for Norfolk, per hour..... 25.9 cents.

General rate for Milwaukee, per hour..... 25.9 cents.

PHILADELPHIA, PA.

Reported by Wm. Harkness, Jr., Esq., Secretary Builders Exchange.

CLASSIFICATION OF MECHANICS.	Wages per hour.	HOURS OF LABOR.		Wages in Milwaukee.
		In summer.	In winter.	
	cents.			cents.
Stone masons	39	9	9	45
Bricklayers	45	9	9	45
Plasterers	39	9	9	40
Lathers	Piece	9	9	30
Hod carriers	30½	9	9	22
Stone cutters	39	9	9	45
Carpenters — rough	30	9	9	17½
Regular	30	9	9	20
Finishers	33	9	9	25
House painters — general	30	9	8	22
Grainers	Piece	9	9	30
Fresco	33½	9	9	30
Sign	Piece	9	9	27½
Paperhangers	Piece			25
Decorators	33½	9	8	25
Plumbers	39	9	9	30
Steam fitters	27½	10	10	25
Gas fitters	30	9	9	30
Helpers	22	9	9	7
Roofers — tin	30½	9	9	25
Slate	30	10	10	25
Composition	20	10	9	25
Gravel	20	10	9	25
Diggers	20	10	10	15
General common labor	15	10	10	15

Lathers, \$2 per thousand.

General rate for Philadelphia, per hour..... 28.9 cents.

General rate for Milwaukee, per hour..... 25.9 cents.

PROVIDENCE, R. I.

Reported by Wm. F. Cody, Esq., Secretary Mechanics' Exchange.

CLASSIFICATION OF MECHANICS.	WAGES PER HOUR.		HOURS OF LABOR.		Wages in Milwaukee.
	In summer.	In winter.	In summer.	In winter.	
	cents.	cents.			cents.
Stone masons.	30	30	10	9	45
Bricklayers.....	32½	32½	10	9	45
Plasterers.....	35	9	9	9	40
Lathers.....	Piece by the bunch.				30
Hod carriers.....	17½ to 22½	17½ to 22½	10	9	22
Stone cutters.....	40	40	9	9	45
Carpenters — rough.....	22½	22½	10	9	17½
Regular.....	25	25	10	9	20
Finishers.....	27½	27½	10	9	25
House painters — general.....	25	25	10	9	22
Grainers.....	40	40	10	9	30
Fresco.....	40 @ 50	40 @ 50	10	9	30
Sign.....	50	50	10	9	27½
Paperhangers.....	Piece by the roll			9	25
Decorators.....	50	50	10	9	25
Plumbers.....	30 @ 40	30 @ 40	10	9	30
Steam fitters.....	27½ @ 30	27½ @ 30	10	10	25
Gas fitters.....	25 @ 30	25 @ 30	10	10	30
Helpers.....	15 @ 20	15 @ 20	10	10	7
Tinsmiths.....	25	25	10	10	22½
Roofers — slate.....	25	27½	10	9	25
Composition.....	17½ @ 25	27½	10	9	25
Gravel.....	17½ @ 25	27½	10	9	25
Diggers.....	17½	17½	10	10	15
General common laborers....	15	15	10	9	15

General rate for Providence, per hour..... 27.7 cents.
 General rate for Milwaukee, per hour..... 25.9 cents.

ROCHESTER, N. Y.

Reported by J. H. Grant, Esq., Secretary Builders' and Building Supply Dealers' Exchange.

CLASSIFICATION OF MECHANICS.	WAGES PER HOUR.		HOURS OF LABOR.		Wages in Milwaukee.
	In summer.	In winter.	In summer.	In winter.	
	cents.	cents.			cents.
Stone masons	33 $\frac{1}{8}$	33 $\frac{1}{8}$	9	9	45
Bricklayers	33 $\frac{1}{8}$ @ 36	33 $\frac{1}{8}$	9	9	45
Plasterers	33 $\frac{1}{8}$ @ 36	33 $\frac{1}{8}$	9	9	40
Lathers	Piece	Piece			30
Hod carriers	17 $\frac{1}{2}$	17 $\frac{1}{2}$	9	9	22
Stone cutters	36	36	9	9	45
Carpenters — rough ..	16 $\frac{2}{3}$ @ 22	16 $\frac{2}{3}$ @ 22	9	8	17 $\frac{1}{2}$
Regular	27	27	9	8	20
Finishers	27	27	9	8	25
House painters—gen..	25	25	9	8	22
Grainers	39 @ 44 $\frac{1}{2}$	39 @ 44 $\frac{1}{2}$	9	8	30
Fresco	39 @ 44 $\frac{1}{2}$	39 @ 44 $\frac{1}{2}$	9	8	30
Sign	25	25	10	10	27 $\frac{1}{2}$
Paperhangers	35	35	10	10	25
Decorators	35	35	10	10	25
Plumbers	33 $\frac{1}{8}$	33 $\frac{1}{8}$	9	9	30
Steam fitters	30	30	9	9	25
Gas fitters	30	30	9	9	30
Helpers	10	10	9	9	7
Tinsmiths	30	30	10	10	22 $\frac{1}{2}$
Roofers — slate	27 $\frac{1}{2}$	27 $\frac{1}{2}$	10	10	25
Composition	20	20	10	10	25
Gravel	20	20	10	10	25
Diggers	15	15	10	9	15
Gen com. laborers	17 $\frac{1}{2}$	15	10	9	15

Lathers, 17 cents per 1,000.

General rate for Rochester, per hour..... 25.9 cents.
 General rate for Milwaukee, per hour..... 25.9 cents.

ST. JOSEPH, MO.

Reported by James O. Starks, Esq., Secretary Builders' and Traders' Exchange.

CLASSIFICATION OF MECHANICS.	Wages per hour.	HOURS OF LABOR.		Wages in Milwaukee.
		In summer.	In winter.	
	cents.			cents.
Stone masons	30	10	9	45
Bricklayers	50	10	9	45
Plasterers	35	10	9	40
Lathers	22½	10	9	30
Hod carriers — brick	20	10	9	22
Mortar	22½	10	9	
Stone cutters	45	10	9	45
Carpenters — rough	22½	10	9	17½
Regular	25	10	9	20
Finishers	27½	10	9	25
House painters — general	25	10	8	22
Grainers	30	10	8	30
Fresco	60	10	9	30
Sign	30	10	9	27½
Paper hangers	30	10	8	25
Decorators	40	10	8	25
Plumbers	40	8	8	30
Steam fitters	30	10	9	25
Gas fitters	30	8	8	30
Helpers	15	8	8	7
Tinsmiths	25	10	9	22½
Roofers — slate	35	10	9	25
Composition	25	10	9	25
Gravel	25	10	9	25
Diggers	20	10	9	15
General common laborers	15	10	9	15

Rate of wages same at all seasons.

General rate for St. Joseph, per hour 27.7 cents.
 General rate for Milwaukee, per hour 25.9 cents.

ST. LOUIS, MO.

Reported by Richard Walsh, Esq., Secretary Mechanics' Exchange.

CLASSIFICATION OF MECHANICS.	WAGES.		HOURS OF LABOR.		Wages in Milwaukee.
	Per hour.	Per day.	In summer.	In winter.	
	cents				cents.
Stone masons.....	50		8	8	45
Bricklayers.....	55		8	8	45
Plasterers.....	50		8	8	40
Lathers.....	Piece		8	8	30
Hod carriers.....		\$3.00 @ \$3.50	8	8	22
Stone cutters.....		3.00 @ 3.50	8	8	25
Carpenters.....	35		8	8	20
House painters.....		2.50 @ 3.00	8	8	22
Paperhangers.....	Piece				25
Decorators.....	Piece				25
Plumbers.....	40		8	8	30
Steam fitters.....	40		8	8	25
Gas fitters.....	40		8	8	30
Helpers.....		2.00	8	8	7
Tinsmiths.....		2.00 @ 3.00	10	10	22½
Roofers — slate.....	30		10	10	25
Composition.....		2.00	10	10	25
Gravel.....		2.00	10	10	25
General common laborers.....		1.50 @ 2.00	10	8	15

Rate of wages same in summer and winter. "In some of the above branches of industry, wages sometimes vary according to supply.

General rate for St. Louis, per hour..... 33.4 cents.
 General rate for Milwaukee, per hour..... 25.9 cents.

ST. PAUL, MINN.

Reported by H. R. P. Hamilton, Esq., Secretary Contractors' and Builders' Board of Trade.

CLASSIFICATION OF MECHANICS.	Wages per hour.	HOURS OF LABOR.		Wages in Milwaukee.
		In summer.	In winter.	
	cents.			cents.
Stone masons	27½	10	8	45
Bricklayers	40	9	8	45
Plasterers	35	9	8	40
Lathers	27½	9	8	30
Hod carriers	17½	9-10	8	22
Stone cutters	40	8	8	45
Carpenters — rough	20	10	8	17½
Regulars	25	10	8	20
Finishers	27½	10	8	25
House painters — general	25	10	8	22
Grainers	30	10	8	30
Fresco	35	10	8	30
Sign	35	10	8	27½
Paperhangers	25	10	8	25
Decorators	27½	10	8	25
Plumbers	37½	9	8	30
Steam fitters	30	9	8	25
Gas fitters	30	9	8	30
Helpers — plumbers	7	9	8	7
Steam fitters	15	9	8	.....
Tinsmiths	25	10	8	22½
Roofers — slate	25	10	8	25
Composition	20	10	8	25
Gravel	20	10	8	25
Diggers	15	10	8	15
General common laborers	15	10	8	15

“As far as I can learn the above hours and wages are ordinary, although in the busy season the wages may exceed the figures given by 10 per cent. Bricklayers, plasterers, stone cutters and plumbers, have strong unions, which affect the rate of wages, and the number of hours.”

General rate for St. Paul, per hour.....25.1 cents.
General rate for Milwaukee, per hour.....25.9 cents.

SAN FRANCISCO AND SACRAMENTO, CAL.

Reported by Hon. J. J. Tobin, Commissioner of Labor Statistics of California.

CLASSIFICATION OF MECHANICS.	Wages per hour.	Wages in Milwaukee.
	cents.	cents.
Stone masons	55	45
Bricklayers	55	45
Plasterers	62½	40
Lathers	33½	30
Hod carriers	33½	22
Stone cutters	39	45
Carpenters—regular	39	20
House painters—general	33½	22
Grainers	62	30
Fresco	75	30
Sign	62½	27½
Paperhangers	33½	25
Plumbers	39	30
Steam fitters	39	25
Gas fitters	39	30
Helpers	9	7
Roofers—composition	30	25

Hod carriers for plasterers, \$3.50 per day of 8 hours. "Our climate is so uniform that there is no difference in the rate of wages between winter and summer, and wage-earners can work the year round without intermission."

General rate for San Francisco and Sacramento, per hour..... 41.2 cents.

General rate for Milwaukee, per hour..... 28.7 cents.

SANTA FÉ, NEW MEXICO.

Reported by F. H. Brigham, Esq., Architect.

CLASSIFICATION OF MECHANICS.	Wages per hour.	Wages in Milwaukee.
	cents.	cents.
Stone masons.....	35	45
Bricklayers.....	45	45
Plasterers.....	40	40
Lathers.....	30	30
Hod carriers.....	15	22
Stone cutters.....	50	45
Carpenters—rough.....	20	17½
Regular.....	35	20
Finishers.....	35	25
House painters—general.....	30	22
Grainers.....	40	30
Fresco.....	50	30
Sign.....	50	27½
Paperhangers.....	30	25
Decorators.....	40	25
Plumbers.....	40	30
Steam fitters.....	40	25
Gas fitters.....	40	30
Helpers.....	20	7
Tinsmiths.....	30	22½
Roofers—slate.....	50	25
Composition.....	45	25
Gravel.....	30	25
Diggers.....	15	15
General common laborers.....	15	15

Rate of wages same at all seasons. All branches work ten hours in summer, and nine in winter, except painters, who work nine in summer, and eight in winter.

General rate for Santa Fé, per hour.. 32.4 cents.

General rate for Milwaukee, per hour..... 25.9 cents

SIOUX CITY, IOWA.

Reported by Frank Clark, Esq., Secretary Contractors' and Builders' Association.

CLASSIFICATION OF MECHANICS.	WAGES PER HOUR.		HOURS OF LABOR.		Wages in Milwaukee.
	In summer.	In winter.	In summer.	In winter.	
	cents.	cents.			cents.
Stone masons.....	40	30	10	8 @ 9	45
Bricklayers.....	45	45	10	8 @ 9	45
Plasterers.....	35	35	10	8 @ 9	40
Lathers.....	25	25	10	8 @ 9	30
Hod carriers.....	17½	17½	10	8 @ 9	22
Stone cutters.....	40	40	10	8	45
Carpenters — rough ..	20	17½	10	9	17½
Regular.....	25	25	10	9	20
Finishers.....	27½	25	10	9	25
House painters — gen.	25	25	10	9	22
Grainers.....	40	40	10	9	30
Fresco.....	20 @ 40	20 @ 40	10	9	30
Sign.....	40	40	10	9	27½
Paperhangers.....	30	25	10	9	25
Decorators.....	30	25	10	9	25
Plumbers.....	35	30	10	10	30
Steam fitters.....	30	25	10	10	25
Gas fitters.....	25	25	10	10	30
Helpers.....	12½	12½	10	10	7
Tinsmiths.....	25	25	10	10	22½
Roofers — slate.....	30	30	10	9	25
Composition.....	30	25	10	9	25
Gravel.....	30	25	10	9	25
Diggers.....	17½	15	10	10	15
Gen. com laborers....	15	15	10	10	15

Rate of wages for 1888, same as for 1889.

General rate for Sioux City, per hour..... 27.6 cents.

General rate for Milwaukee, per hour..... 25.9 cents.

SYRACUSE, N. Y.

Reported by Daniel O'Brien, Secretary Master Builders' Association.

CLASSIFICATION OF MECHANICS.	Wages per hour.	Wages in Milwaukee.
	cents.	cents.
Stone masons.....	40	45
Bricklayers.....	40	45
Plasterers.....	35	40
Lathers.....	22½	30
Hod carriers.....	17½	22
Stone cutters.....	33½	45
Carpenters — rough.....	20	17½
Regular.....	22½	20
Finishers.....	25	25
House painters — general.....	20	22
Grainers.....	30	30
Fresco.....	25	30
Sign.....	22½	27½
Paperhangers.....	25	25
Decorators.....	25	25
Plumbers.....	30	30
Steam fitters.....	30	25
Gas fitters.....	30	30
Helpers.....	17½	7
Tinsmiths.....	22½	22½
Roofers — slate.....	22½	25
Composition.....	25	25
Gravel.....	25	25
Diggers.....	15	15
General common laborers.....	15	15

Except in the masonry trades, ten hours constitutes a day's work in winter as well as summer. Bricklayers, stone cutters, etc., work nine hours per day. Rate of wages in all trades same for all seasons.

General rate for Syracuse, per hour..... 24.0 cents.
General rate for Milwaukee, per hour..... 25.9 cents

VICKSBURG, MISS.

Reported by Beck Brothers, Contractors.

CLASSIFICATION OF MECHANICS.	Wages per day.	Wages in Milwaukee per hour.
		cents.
Bricklayers	\$4.00	45
Plasterers	3.50	40
Lathers	1.75	30
Hod carriers	1.50	22
Stone cutters	3.50	45
Carpenters — rough	2.00	17½
Regular	2.50	20
Finishers	3.50	25
House painters — general	3.00	22
Paperhangers	2.50	25
Decorators	3.00	25
Plumbers	2.50	30
Steam fitters	2.50	25
Gas fitters	2.50	30
Helpers	1.50	7
Tinsmiths	2.50	22½
Diggers	1.25	15
General common laborers	1.00	15

Hours of labor: 10 in summer, 9 in winter, for all trades. *

General rate for Vicksburg, per hour..... 24.8 cents.

General rate for Milwaukee, per hour..... 25.9 cents.

WASHINGTON, D. C.

Reported by Thos. J. King, Esq., Secretary Builders' Exchange.

CLASSIFICATION OF MECHANICS.	WAGES.		Hours of labor.	Wages in Mil-waukee.
	Per hour.	Per day.		
	cents.			cents.
Stonemasons.....		\$4.50	8	45
Bricklayers.....	50		9	45
Plasterers.....	50		8	40
Lathers.....	50		8	30
Hod carriers, for masons..		2.25	9	22
For plasterers.....		2.50	9	
Stone cutters — soft stone.....	45		9	45
Granite.....	40		9	
Carpenters — rough.....	33 $\frac{1}{3}$		9	17 $\frac{1}{2}$
Regular.....	33 $\frac{1}{3}$		9	20
Finishers.....	33 $\frac{1}{3}$		9	25
House painters — general.....	33 $\frac{1}{3}$		9	22
Grainers.....	Piece	Piece		30
Fresco.....	33 $\frac{1}{3}$		9	30
Sign.....	Piece	Piece	9	27 $\frac{1}{2}$
Paperhangers.....	Piece	Piece	9	25
Decorators.....	33 $\frac{1}{3}$		9	25
Plumbers.....		4.00	9	30
Steam fitters.....		4.00	9	25
Gas fitters.....		4.00	9	30
Helpers.....		2.25	9	7
Tinsmiths.....	33 $\frac{1}{3}$		9	22 $\frac{1}{2}$
Galvanized iron workers.....		2.75	9	
Roofers — slate.....	33 $\frac{1}{3}$		9	25
Diggers.....	12 $\frac{1}{2}$		10	15
General common laborers.....	12 $\frac{1}{2}$		10	15

Common laborer, \$1 per day in winter.

General rate for Washington, per hour..... 32.3 cents.

General rate for Milwaukee, per hour..... 25.9 cents.

WILMINGTON, DEL.

Reported by A. L. Johnson, Esq.

CLASSIFICATION OF MECHANICS.	Wages per hour.	HOURS OF LABOR.		Wages in Milwaukee.
		In summer.	In winter.	
	cents			cents
Stone masons	33 $\frac{1}{2}$	9	9	45
Bricklayers	42	9	9	45
Plasterers	33 $\frac{1}{2}$	9	9	40
Lathers	25	10	9	30
Hod carriers — mortar men	28	9	9	22
Brick men	25	9	9	.....
Stone cutters	25	10	10	45
Carpenters — rough	20	10	9	17 $\frac{1}{2}$
Regular	22 $\frac{1}{2}$	10	9	20
Finishers	25	10	9	25
Stair builders	25	10	10	.....
House painters — general	22 $\frac{1}{2}$	10	.....	22
Grainers	40	10	.....	30
Fresco	30	10	.....	30
Sign	30	10	.....	27 $\frac{1}{2}$
Paperhangers	15	10	.....	25
Decorators	18	10	.....	25
Plumbers	25	10	9	30
Steam fitters	25	10	9	25
Gas fitters	25	10	9	30
Helpers	11	10	9	7
Roofers — slate	30	10	10	25
Composition	20	10	10	25
Gravel	20	10	10	25
Diggers	15	10	9	15
General common laborers	12 $\frac{1}{2}$	10	9	15

Rate of wages same at all seasons of the year. "Sign painters generally charge by the foot; grainers and frescoers by the job; paperhangers by the roll. House painters, tin smiths and roofers are generally paid by the day; they work till dark in the winter and are allowed a full day's pay."

General rate for Wilmington, per hour.. 23.5 cents

General rate for Milwaukee, per hour.... 25.9 cents

STATISTICS OF MANUFACTURE.

- I. CLASSIFIED DAILY WAGES.
- II. COMPARATIVE TOTAL WAGES FOR 1888 AND 1889.
- III. MINOR LABOR IN FACTORIES.
- IV. LOSSES BY FIRE FROM 1885 TO 1890.
- V. RELATIVE IMPORTANCE OF INDUSTRIES.
- VI. PER CAPITA ANNUAL WAGES—BY INDUSTRIES.

STATISTICS OF MANUFACTURE.

LABOR AND WAGES IN THE FACTORIES OF THE STATE OF WISCONSIN.

The statistics of manufacture, though secondary to this Report, are prominent by their compactness. Facts and figures beyond dispute take the place of any verbosity which might be employed. The following tables are compiled from a mass of data sufficient to make a volume of a thousand pages. They are submitted without comment. The results obtained are based upon a representation of more than 90 per cent. of all persons employed in the factories of Wisconsin. The remaining percentage, whose reports to the Bureau were defective, or who for valid reasons could not furnish the desired data, the Commissioner has reason to believe would not affect the averages or percentages.

If any statistical errors are found, the fault lies with the manufacturers, not the Bureau.

The Commissioner requests manufacturers to refer diligently to the tables of their respective lines of industry; to compare their pay rolls with the aggregates, per capita and averages found, and if they should discover discrepancies anywhere, to report them to the Bureau for further investigation. It is intended that this Report upon classified daily wages, and the growth or decline of any of our present manufacturing industries, shall stand as a basis for future reports.

AGRICULTURAL IMPLEMENTS AND MACHINERY.

Classification of daily wages.	Number of persons reported receiving specified wages.	Per-centages.
\$4 00 and over.....	41	1.42
3 50 but under \$4 00.....	43	1.49
3 00 but under 3 50.....	77	2.66
2 50 but under 3 00.....	210	7.24
2 00 but under 2 50.....	436	15.02
1 50 but under 2 00.....	816	28.12
1 25 but under 1 50.....	756	26.06
1 00 but under 1 25.....	245	8.44
75 but under 1 00.....	134	4.62
50 but under 75.....	131	4.52
Less than 50 cents.....	12	0.41
Totals.....	2,901	100.00

Minor labor, 9.55 per cent.

BASKETS.

\$4 00 and over.....	.....	.....
3 50 but under \$4 00.....	.....	.....
3 00 but under 3 50.....	.....	.....
2 50 but under 3 00.....	.....	.....
2 00 but under 2 50.....	16	13.67
1 50 but under 2 00.....	18	15.38
1 25 but under 1 50.....	28	23.93
1 00 but under 1 25.....	15	12.83
75 but under 1 00.....	18	15.38
50 but under 75.....	12	10.26
Less than 50 cents.....	10	8.55
Totals.....	117	100.00

Minor labor, 34.19 per cent.

BEEF AND PORK PACKING.

\$4 00 and over....	.....	.....
3 50 but under \$4 00.....	3	0.40
3 00 but under 3 50.....	7	0.94
2 50 but under 3 00.....	18	2.42
2 00 but under 2 50.....	108	14.52
1 50 but under 2 00.....	305	40.99
1 25 but under 1 50.....	192	25.81
1 00 but under 1 25.....	61	8.20
75 but under 1 00.....	31	4.17
50 but under 75.....	14	1.88
Less than 50 cents.....	5	0.67
Total.....	744	100.00

Minor labor, 6.72 per cent.

BEER AND MALT.

(INCLUDING BOTTLING ESTABLISHMENTS.)

Classification of daily wages.	Number of persons reported receiving speci- fied wages.	Per- centages.
\$4 00 and over	91	2.97
3 50 but under \$4 00.....	25	0.82
3 00 but under 3 50.....	45	1.48
2 50 but under 3 00.....	249	8.14
2 00 but under 2 50.....	756	24.70
1 50 but under 2 00.....	819	26.76
1 25 but under 1 50.....	402	13.14
1 00 but under 1 25.....	158	5.17
75 but under 1 00.....	165	5.36
50 but under 75.....	193	6.30
Less than 50 cents.....	158	5.16
Totals.....	3,061	100.00

Minor labor, 16.82 per cent.

BOILER WORKS.

\$4 00 and over.....	.....	.....
3 50 but under \$4 00.....	1	0.47
3 00 but under 3 50.....	6	2.80
2 50 but under 3 00.....	42	19.63
2 00 but under 2 50.....	26	12.15
1 50 but under 2 00.....	70	32.71
1 25 but under 1 50.....	43	20.09
1 00 but under 1 25.....	8	3.74
75 but under 1 00.....	12	5.61
50 but under 75.....	6	2.80
Less than 50 cents.....	.....	.....
Totals.....	214	100.00

Minor labor, 2.80 per cent.

BOOTS AND SHOES.

\$4 00 and over	59	3.00
3 50 but under \$4 00.....	16	0.81
3 00 but under 3 50.....	85	4.32
2 50 but under 3 00.....	121	6.15
2 00 but under 2 50.....	158	8.08
1 50 but under 2 00.....	439	22.31
1 25 but under 1 50.....	245	12.44
1 00 but under 1 25.....	240	12.20
75 but under 1 00.....	226	11.48
50 but under 75.....	262	13.32
Less than 50 cents	117	5.94
Totals.....	1,968	100.00

Minor labor, 30.74 per cent.

BOXES — PACKING.

Classification of daily wages.	Number of persons reported receiving speci- fied wages.	Per- centages.
\$4 00 and over.....	.....	.....
3 50 but under \$4 00.....	.....	.....
3 00 but under 3 50.....	1	0.49
2 50 but under 3 00.....	4	1.98
2 00 but under 2 50.....	31	15.35
1 50 but under 2 00.....	46	22.77
1 25 but under 1 50.....	43	21.29
1 00 but under 1 25.....	17	8.42
75 but under 1 00.....	28	13.86
50 but under 75.....	28	13.86
Less than 50 cents.....	4	1.98
Totals.....	202	100.00

Minor labor, 29.70 per cent.

BOXES — PAPER AND CIGAR.

\$4 00 and over.....	2	0.51
3 50 but under \$4 00.....	2	0.51
3 00 but under 3 50.....	2	0.51
2 50 but under 3 00.....	7	1.79
2 00 but under 2 50.....	17	4.35
1 50 but under 2 00.....	28	7.17
1 25 but under 1 50.....	24	6.14
1 00 but under 1 25.....	17	4.35
75 but under 1 00.....	85	21.72
50 but under 75.....	136	34.79
Less than 50 cents.....	71	18.16
Totals.....	391	100.00

Minor labor, 74.67 per cent.

BRICK AND DRAIN TILE.

\$4 00 and over.....	3	0.30
3 50 but under \$4 00.....	.....	.....
3 00 but under 3 50.....	10	1.00
2 50 but under 3 00.....	8	0.80
2 00 but under 2 50.....	30	2.98
1 50 but under 2 00.....	273	27.09
1 37½ but under 1 50.....	30	2.97
1 25 but under 1 37½.....	353	35.02
1 00 but under 1 25.....	198	19.63
75 but under 1 00.....	47	4.66
50 but under 75.....	42	4.16
Less than 50 cents.....	14	1.39
Totals.....	1,008	100.00

Minor labor, 10.21 per cent.

BRIDGE WORKS.

Classification of daily wages.	Number of persons reported receiving specified wages.	Per- centages.
\$4 00 and over.....	5	3.50
3 50 but under \$4 00.....	4	2.79
3 00 but under 3 50.....	4	2.79
2 50 but under 3 00.....	6	4.19
2 00 but under 2 50.....	19	13.29
1 50 but under 2 00.....	45	31.47
1 25 but under 1 50.....	51	35.67
1 00 but under 1 25.....	3	2.10
75 but under 1 00.....	6	4.20
50 but under 75.....		
Less than 50 cents.....		
Totals.....	143	100.00

Minor labor, none.

BROOMS AND BRUSHES.

\$4 00 and over.....		
3 50 but under \$4 00.....		
3 00 but under 3 50.....		
2 50 but under 3 00.....	1	1.57
2 00 but under 2 50.....	6	9.38
1 50 but under 2 00.....	19	29.69
1 25 but under 1 50.....	12	18.78
1 00 but under 1 25.....	4	6.25
75 but under 1 00.....	9	14.01
50 but under 75.....	8	12.50
Less than 50 cents.....	5	7.82
Totals.....	64	100.00

Minor labor, 20.31 per cent.

CHAIRS AND CHAIR STOCK.

Classification of daily wages.	Number of persons reported receiving specified wages.	Per-centages.
\$4 00 and over.....	18	0.76
3 50 but under \$4 00.....	6	0.25
3 00 but under 3 25....	19	0.84
2 50 but under 2 75.....	35	1.47
2 00 but under 2 50.....	90	3.80
1 75 but under 2 00.....	5	0.21
1 50 but under 1 62½.....	225	9.49
1 37½ but under 1 50.....	41	1.73
1 25 but under 1 37½.....	586	24.75
1 12 but under 1 25.....	166	7.00
1 00 but under 1 12.....	497	20.97
90 but under 1 00.....	33	1.39
80 but under 90.....	12	0.51
75 but under 80.....	215	9.07
50 but under 75.....	226	9.54
Less than 50 cents.....	195	8.24
Totals.....	2,369	100.00

Minor labor, 27.35 per cent.

MNFRS.' NOTES.—It is impossible for us to give the figures exactly; but we have computed one month which you can safely consider a very fair average for the year. In the matter of rate per capita, the rate is constantly shifting, as is also the number of hours worked per diem per capita. We find, however, in our experience covering several years, the average wages paid per capita to operatives employed in the factory, aside from foreman, is \$1.25 per day of ten hours. In giving the number of caners, we have taken one representative of each family. The work varies a great deal; in some cases they work but a small portion of the time, in others several hours per day.—SHEBOYGAN CHAIR Co.

In addition to the above we employ about 300 caners who do part of our seating. This work is paid by the piece, and done at home by parents and children.—CROCKER CHAIR Co

CIGARS.

\$4 00 and over.....	10	1.47
3 50 but under \$4 00.....	13	1.90
3 00 but under 3 50.....	29	4.25
2 50 but under 3 00.....	48	7.03
2 00 but under 2 50.....	191	27.97
1 50 but under 2 00.....	178	26.06
1 25 but under 1 50.....	36	5.28
1 00 but under 1 25.....	48	7.03
75 but under 1 00.....	31	4.54
50 but under 75.....	37	5.41
Less than 50 cents.....	62	9.07
Totals.....	683	100.00

Minor labor, 21.20 per cent.

CLOAKS.

Classification of daily wages.	Number of persons reported receiving specified wages.	Per-centages.
\$4 00 and over.....	1	0.50
3 50 but under \$4 00.....		
3 00 but under 3 50.....		
2 50 but under 3 00.....	1	0.50
2 00 but under 2 50.....	7	3.48
1 50 but under 2 00.....	3	1.49
1 25 but under 1 50.....	12	5.97
1 00 but under 1 25.....	34	16.91
75 but under 1 00.....	106	52.73
50 but under 75.....	28	13.96
Less than 50 cents.....	9	4.46
Totals.....	201	100.00

Minor labor, 18.40 per cent.

CLOTHING.

\$4 00 and over.....	52	5.13
3 50 but under \$4 00.....	12	1.18
3 00 but under 3 50.....	51	5.02
2 50 but under 3 00.....	25	2.46
2 00 but under 2 50.....	38	3.74
1 66½ but under 2 00.....	35	3.45
1 50 but under 1 66½.....	106	10.43
1 25 but under 1 50.....	146	14.37
1 00 but under 1 25.....	142	13.97
75 but under 1 00.....	126	12.40
60 but under 75.....	70	6.89
50 but under 60.....	184	18.11
Less than 50 cents.....	29	2.85
Totals.....	1,016	100.00

Minor labor, 20.96 per cent. — approximate.

MNFRS. NOTES.—It is next to an impossibility for us to give you the average number of employes who have received the above wages, for this reason, that we have on our books the names of between sixty and seventy tailors whom we employ almost constantly; some of these tailors have large shops in which they employ hands assisting them, all the way from two to sometimes as high as thirty. These hands are paid from the wages that we pay to their principals; but it is next to impossible to get a correct figure, as some of them will not give us the information, and with others it varies considerable from time to time.

—DAVID ADLER & SONS CLOTHING Co.

It is impossible for any clothing house to give a correct report in regard to wages paid to all persons engaged in the manufacturing of clothing, as a number of those employed work for different firms and on their own premises.—FRIEND BROS. CLOTHING Co.

COFFEE AND SPICE MILLS.

Classification of daily wages.	Number of persons reported receiving specified wages.	Per-centages.
\$4 00 and over.....	16	20.26
3 50 but under \$4 00.....	7	8.86
3 00 but under 3 50.....	3	3.79
2 50 but under 3 00.....	7	8.86
2 00 but under 2 50.....	6	7.59
1 50 but under 2 00.....	5	6.33
1 25 but under 1 50.....	3	3.79
1 00 but under 1 25.....	2	2.54
75 but under 1 00.....	4	5.07
50 but under 75.....	7	8.86
Less than 50 cents.....	19	24.05
Totals.....	79	100.00

Minor labor, 38 per cent.

COFFINS AND BURIAL CASKETS.

\$4 00 and over.....	.....	.....
3 50 but under \$4 00.....	.....	.....
3 00 but under 3 50.....	.....	.....
2 50 but under 3 00.....	.....	.....
2 00 but under 2 50.....	13	22.80
1 50 but under 2 00.....	14	24.56
1 25 but under 1 50.....	13	24.80
1 00 but under 1 25.....	5	8.78
75 but under 1 00.....	6	10.53
50 but under 75.....	6	10.53
Less than 50 cents.....	.....	.....
Totals.....	57	100.00

Minor labor, 21.06 per cent.

CONFECTIONERY AND STEAM BAKERIES.

\$4 40 and over.....	20	3.41
3 50 but under \$4 00.....	5	0.85
3 00 but under 3 50.....	28	4.77
2 50 but under 3 00.....	37	6.28
2 00 but under 2 50.....	46	7.82
1 50 but under 2 00.....	83	14.12
1 25 but under 1 50.....	35	5.95
1 00 but under 1 25.....	30	5.10
75 but under 1 00.....	24	4.08
50 but under 75.....	112	19.05
Less than 50 cents.....	168	28.57
Totals.....	588	100.00

Minor labor, 47.62 per cent.

COOPERAGE.

Classification of daily wages.	Number of persons reported receiving specified wages.	Per-centages.
\$4 00 and over.....	3	0.28
3 50 but under \$4 00.....	1	0.10
3 00 but under 3 50.....	31	2.92
2 50 but under 3 00.....	37	3.48
2 00 but under 2 50.....	191	17.99
1 75 but under 2 00.....	5	0.48
1 50 but under 1 75.....	268	25.24
1 25 but under 1 50.....	236	22.23
1 00 but under 1 25.....	129	12.14
75 but under 1 00.....	74	6.96
50 but under 75.....	87	8.19
Less than 50 cents.....		
Totals.....	1,062	100.00

Minor labor, 8.19 per cent.

COTTON AND LINEN MILLS.

\$4 and over.....		
3 50 but under \$4 00.....		
3 00 but under 3 50.....	4	0.70
2 50 but under 3 00.....	7	1.22
2 00 but under 2 50.....	17	2.96
1 50 but under 2 00.....	17	2.96
1 25 but under 1 50.....	142	24.78
1 00 but under 1 25.....	64	11.17
75 but under 1 00.....	153	26.71
50 but under 75.....	139	24.26
Less than 50 cents.....	30	5.24
Totals.....	573	100.00

Minor labor, 56.21 per cent.

CUT STONE.

\$4 00 and over.....	2	1.31
3 50 but under \$4 00.....	3	1.96
3 00 but under 3 50.....	19	12.42
2 50 but under 3 00.....	5	3.27
2 00 but under 2 50.....	19	12.42
2 50 but under 2 00.....	39	25.49
1 25 but under 1 50.....	60	39.21
1 00 but under 1 25.....	3	1.96
75 but under 1 00.....	3	1.96
50 but under 75.....		
Less than 50 cents.....		
Totals.....	153	100.00

Minor labor, 2 per cent.

DRUGS AND CHEMICALS.

Classification of daily wages.	Number of persons reported receiving specified wages.	Per-centages.
\$4 00 and over.....	.....	.....
3 50 but under \$4 00.....	.....	.....
3 00 but under 3 50.....	.....	.....
2 50 but under 3 00.....	1	1.96
2 00 but under 2 50.....	2	3.92
1 50 but under 2 00.....	12	23.53
1 25 but under 1 50.....	25	49.02
1 00 but under 1 25.....	4	7.85
75 but under 1 00.....	5	9.80
50 but under 75.....	2	3.92
Less than 50 cents.....	.....	.....
Totals.....	51	100.00

Minor labor, 3.92 per cent.

ELECTRIC LIGHT -- PUBLIC.

\$4 00 and over.....	1	1.41
3 50 but under \$4 00.....	1	1.41
3 00 but under 3 50.....	5	7.01
2 50 but under 3 00.....	8	11.27
2 00 but under 2 50.....	9	12.68
1 50 but under 2 00.....	23	32.40
1 25 but under 1 50.....	14	19.72
1 00 but under 1 25.....	4	5.64
75 but under 1 00.....	4	5.64
50 but under 75.....	2	2.82
Less than 50 cents.....	.....	.....
Totals.....	71	100.00

Minor labor, 8.46 per cent.

ELEVATORS -- CARRYING.

\$4 00 and over.....	2	2.90
3 50 but under \$4 00.....	1	1.45
3 00 but under 3 50.....	2	2.90
2 50 but under 3 00.....	8	11.16
2 00 but under 2 50.....	25	36.23
1 50 but under 2 00.....	12	17.38
1 25 but under 1 50.....	6	8.70
1 00 but under 1 25.....	4	5.80
75 but under 1 00.....	7	10.15
50 but under 75.....	2	2.90
Less than 50 cents.....	.....	.....
Totals.....	69	100.00

Minor labor, 13.05 per cent.

EXCELSIOR.

Classification of daily wages.	Number of persons reported receiving speci- fied wages.	Per- centages.
\$4 00 and over.....	.....	.....
3 50 but under \$4 00.....	.....	.....
3 00 but under 3 50.....	.....	.....
2 50 but under 3 00.....	.....	.....
2 00 but under 2 50.....	3	13.03
1 50 but under 2 00.....	5	21.72
1 25 but under 1 50.....	10	43.47
1 00 but under 1 25.....	4	17.40
75 but under 1 00.....	1	4.39
50 but under 75.....	.....	.....
Less than 50 cents.....	.....	.....
Totals.....	23	100.0

Minor labor, 4.39 per cent.

FLOUR AND FEED.

\$4 00 and over.....	41	4.64
3 50 but under \$4 00.....	15	1.66
3 00 but under 3 50.....	37	4.19
2 50 but under 3 00.....	71	8.03
2 00 but under 2 50.....	114	12.89
1 50 but under 2 00.....	273	30.85
1 25 but under 1 50.....	198	22.37
1 00 but under 1 25.....	109	12.32
75 but under 1 00.....	17	1.92
50 but under 75.....	10	1.13
Less than 50 cents.....	.....	.....
Totals.....	885	100.00

Minor labor, 2.34 per cent.

FOUNDRIES, MACHINE SHOPS, AND TOOLS.

\$4 00 and over.....	168	3.03
3 50 but under \$4 00.....	70	1.26
3 00 but under 3 50.....	234	4.22
2 75 but under 3 00.....	4	0.07
2 50 but under 2 75.....	615	11.07
2 25 but under 2 50.....	18	0.33
2 00 but under 2 25.....	1,069	19.23
1 75 but under 2 00.....	11	0.19
1 50 but under 1 75.....	1,156	20.19
1 25 but under 1 50.....	996	17.92
1 00 but under 1 25.....	370	6.66
75 but under 1 00.....	287	5.16
60 but under 75.....	33	0.59
50 but under 75.....	372	6.69
Less than 50 cents.....	155	2.79
Totals.....	5,558	100.00

Minor labor, 15.24 per cent.

FURNITURE.
(NOT INCLUDING CHAIRS.)

Classification of daily wages.	Number of persons reported receiving specified wages.	Per-centages.
\$4 00 and over.....	38	1.17
3 50 but under \$4 00.....	20	0.61
3 00 but under 3 50.....	74	2.26
2 50 but under 3 00.....	183	5.59
2 00 but under 2 50.....	396	12.10
1 50 but under 2 00.....	666	20.36
1 25 but under 1 50.....	653	19.96
1 00 but under 1 25.....	531	16.23
75 but under 1 00.....	306	9.35
50 but under 75.....	275	8.40
Less than 50 cents.....	130	3.97
Totals.....	3,272	100.00

Minor labor, 21.73 per cent.

FURS, GLOVES, MITTENS, ETC.

\$4 00 and over.....	3	1.48
3 50 but under \$4 00.....	5	2.47
3 00 but under 3 50.....	4	1.97
2 50 but under 3 00.....	15	7.39
2 00 but under 2 50.....	9	4.43
1 50 but under 2 00.....	43	21.18
1 25 but under 1 50.....	29	14.29
1 00 but under 1 25.....	46	22.66
75 but under 1 00.....	28	13.79
50 but under 75.....	18	8.86
Less than 50 cents.....	3	1.47
Totals.....	203	100.00

Minor labor, 24.14 per cent.

GALVANIZED IRON WORKS.

\$4 00 and over.....		
3 50 but under \$4 00.....		
3 00 but under 3 50.....	1	2.13
2 50 but under 3 00.....	6	12.76
2 00 but under 2 50.....	20	42.56
1 50 but under 2 00.....	10	21.26
1 25 but under 1 50.....	7	14.90
1 00 but under 1 25.....		
75 but under 1 00.....		
50 but under 75.....	3	6.39
Less than 50 cents.....		
Totals.....	47	100.00

Minor labor, 6.39 per cent.

GAS WORKS.

Classification of daily wages.	Number of persons reported receiving specified wages.	Per-centages.
\$4 00 and over.....	9	3.11
3 50 but under \$4 00.....	5	1.73
3 00 but under 3 50.....	7	2.42
2 50 but under 3 00.....	50	17.30
2 00 but under 2 50.....	66	22.84
1 50 but under 2 00.....	134	46.37
1 25 but under 1 50.....	9	3.11
1 00 but under 1 25.....	7	2.42
75 but under 1 00.....		
50 but under 75.....	1	0.35
Less than 50 cents.....	1	0.35
Totals.....	289	100.00

Minor labor, 0.70 per cent.

GLASS WORKS — BOTTLES.

\$4 00 and over.....	20	26.67
3 50 but under \$4 00.....		
3 00 but under 3 50.....		
2 50 but under 3 00.....	4	5.33
2 00 but under 2 50.....	12	16.00
1 50 but under 2 00.....	5	6.66
1 25 but under 1 50.....	24	32.00
1 00 but under 1 25.....		
75 but under 1 00.....		
50 but under 75.....	10	13.34
Less than 50 cents.....		
Totals.....	75	100.00

Minor labor, 13.34 per cent.

GLUE, INK, ETC.

\$4 00 and over.....	2	3.85
3 50 but under \$4 00.....		
3 00 but under 3 50.....		
2 50 but under 3 00.....		
2 00 but under 2 50.....	3	5.77
1 50 but under 2 00.....	4	7.69
1 25 but under 1 50.....	14	26.92
1 00 but under 1 25.....	6	11.54
75 but under 1 00.....		
50 but under 75.....	18	34.61
Less than 50 cents.....	5	9.61
Totals.....	52	100.00

Minor labor, 44.23 per cent.

GRANITE.

Classification of daily wages.	Number of persons reported receiving speci- fied wages.	Per- centages.
\$4 00 and over	67	17.40
3 50 but under \$4 00	13	3.36
3 00 but under 3 50	23	5.98
2 50 but under 3 00	40	10.40
2 00 but under 2 50	48	12.46
1 50 but under 2 00	62	16.10
1 25 but under 1 50	50	12.98
1 00 but under 1 25	59	15.35
75 but under 1 00	10	2.60
50 but under 75	10	2.60
Less than 50 cents	3	0.77
Totals	385	100.00

Minor labor, 5.97 per cent.

HATS AND CAPS.

\$4 00 and over	7	3.94
3 50 but under \$4 00	3	1.69
3 00 but under 3 50	6	3.37
2 50 but under 3 00	6	3.37
2 00 but under 2 50	13	7.30
1 50 but under 2 00	9	5.05
1 25 but under 1 50	8	4.49
1 00 but under 1 25	19	10.68
75 but under 1 00	94	52.81
50 but under 75	7	3.93
Less than 50 cents	6	3.37
Totals	178	100.00

Minor labor, 60.11 per cent.

IRON WORKS — MALLEABLE.

\$4 00 and over	5	0.71
3 50 but under \$4 00	5	0.71
3 00 but under 3 50	10	1.43
2 50 but under 3 00	22	3.12
2 00 but under 2 50	82	11.64
1 75 but under 2 00	70	9.94
1 50 but under 1 75	122	17.35
1 25 but under 1 50	129	18.32
1 00 but under 1 25	118	16.76
75 but under 1 00	58	8.24
50 but under 75	79	11.22
Less than 50 cents	4	0.56
Totals	704	100.00

Minor labor, 20.02 per cent.

IRON WORKS—FIG.

Classification of daily wages.	Number of persons reported receiving specified wages.	Per-centages.
\$4 00 and over.....	9	1.33
3 50 but under \$4 00.....	9	1.33
3 00 but under 3 50.....	4	0.59
2 50 but under 3 00.....	21	3.11
2 00 but under 2 50.....	26	3.85
1 75 but under 2 00.....	5	0.74
1 50 but under 1 75.....	410	60.74
1 25 but under 1 50.....	88	13.04
1 00 but under 1 25.....	102	15.11
75 but under 1 00.....	1	.15
50 but under 75.....		
Less than 50 cents.....		
Totals.....	675	100.00

Minor labor, none.

MFRS. NOTE—General wages 12½ cents per hour; in winter outside men work 8 hours at \$1, in summer 10 hours at \$1.25; inside men 12 hours the year round—365 days. WISCONSIN FURNACE CO., Fond du Lac, Wis.

KNIT GOODS.

\$4 00 and over.....	6	0.31
3 50 but under \$4 00.....	4	0.26
3 00 but under 3 50.....	14	0.91
2 50 but under 3 00.....	18	1.17
2 00 but under 2 50.....	12	0.78
1 50 but under 2 00.....	30	1.95
1 25 but under 1 50.....	17	1.12
1 00 but under 1 25.....	110	7.12
75 but under 1 00.....	318	20.63
50 but under 75.....	461	29.93
Less than 50 cents.....	552	35.82
Totals.....	1,542	100.00

Minor labor, 86.38 per cent.

MFRS. NOTES—Only five persons are working in the office; all others employed take the raw material home, and from what we learn, some work eight hours, and again some only six, four, two, or one hour per day, and some even don't touch the work in a week; so you see it is hard to make a correct report, as to range of wages—GREAT WESTERN KNITTING Co., Milwaukee, Wis.

It is utterly impossible for us to arrive at an accurate estimate, where employees are concerned, as they are coming and going and remaining for a day, a week or a month. The figures we have given you are as near correct as we can make them from our records, while they might vary, and undoubtedly would in one direction or another, for both years, they might give you sufficient amount of information to meet the requirements—BADGER KNITTING Co., Milwaukee, Wis.

LAUNDRIES — STEAM.

Classification of daily wages.	Number of persons reported receiving speci- fied wages.	Per- centages.
\$4 00 and over.....	.....	.....
3 50 but under \$4 00.....	.....	.....
3 00 but under 3 50.....	2	0.58
2 50 but under 3 00.....	7	2.02
2 00 but under 2 50.....	13	3.76
1 50 but under 2 00.....	31	8.96
1 25 but under 1 50.....	20	5.78
1 00 but under 1 25.....	104	30.06
85 but under 1 00.....	4	1.15
75 but under 85.....	91	26.31
66 but under 75.....	7	2.02
50 but under 66.....	60	17.34
Less than 50 cents.....	7	2.02
Totals.....	346	100.00

Minor labor, 47.69 per cent.

LEATHER.

\$4 00 and over.....	40	1.64
3 50 but under \$4 00.....	39	1.59
3 00 but under 3 50.....	61	2.49
2 50 but under 3 00.....	84	3.44
2 00 but under 2 50.....	113	4.63
1 60 but under 2 00.....	219	8.96
1 50 but under 1 60.....	898	36.75
1 25 but under 1 50.....	635	25.99
1 00 but under 1 25.....	221	9.04
75 but under 1 00.....	70	2.86
50 but under 75.....	47	1.92
Less than 50 cents.....	17	0.69
Totals.....	2,444	100.00

Minor labor, 5.47 per cent.

LITHOGRAPHY.

\$4 00 and over.....	36	12.59
3 50 but under \$4 00.....	18	6.29
3 00 but under 3 50.....	27	9.44
2 50 but under 3 00.....	33	11.54
2 00 but under 2 50.....	24	8.39
1 50 but under 2 00.....	19	6.65
1 25 but under 1 50.....	18	6.29
1 00 but under 1 25.....	16	5.59
75 but under 1 00.....	27	9.44
50 but under 75.....	34	11.89
Less than 50 cents.....	34	11.89
Totals.....	286	100.00

Minor labor, 33.22 per cent.

LUMBER, LATH, SHINGLES, POSTS, ETC.

Classification of daily wages.	Number of persons reported receiving specified wages.	Per-centages.
\$4 00 and over.....	448	1.89
3 50 but under \$4 00.....	317	1.34
3 00 but under 3 50.....	419	1.77
2 50 but under 3 00.....	808	3.41
2 00 but under 2 50.....	1,994	8.39
1 75 but under 2 00.....	448	1.88
1 60 but under 1 75.....	55	0.23
1 50 but under 1 60.....	8,252	34.73
1 37½ but under 1 50.....	141	0.59
1 25 but under 1 37½.....	7,631	32.33
1 00 but under 1 25.....	2,145	9.03
75 but under 1 00.....	565	2.37
50 but under 75.....	386	1.62
Less than 50 cents.....	99	0.42
Totals.....	23,758	100.00

Minor labor, 4.41 per cent.

MFERS. NOTES — These figures are somewhat of an approximate, as wages of men hired by the month and board, are figured as being paid fifty cents a day for board, which I estimate is about what it costs.— N. C. FOSTER, Fairchild, Wis.

Our report for the years 1888 and 1889, covers the summer operation of our saw and planing mill only. In addition to this, we operate in the pinery in winter, and give figures relating to that branch of the business. Total wages paid in 1888, \$27,000; total wages paid in 1889, \$29,000; number of men employed, 200; lowest wages paid, \$18.00 per month; highest wages paid, \$30.00 per month; average wages paid, \$22.00 per month. This includes board, as we board all of our men in the lumber camps. — C. H. NICHOLS LUMBER CO., Onalaska, Wis.

We run mill about eleven hours per day, but saw mill about ten hours per day, men are not at work while changing saws — average one hour per day. — LEAHY & BEEBE, Wausau, Wis.

MARBLE WORKS — STEAM.

\$4 00 and over.....	4	2.16
3 50 but under \$4 00.....	3	1.62
3 00 but under 3 50.....	9	4.86
2 50 but under 3 00.....	21	11.35
2 00 but under 2 50.....	36	19.45
1 50 but under 2 00.....	61	32.96
1 25 but under 1 50.....	25	13.50
1 00 but under 1 25.....	3	1.62
75 but under 1 00.....	13	7.08
50 but under 75.....	9	4.86
Less than 50 cents.....	1	0.54
Totals.....	185	100.00

Minor labor, 5.40 per cent.

MATTRESSES AND BEDDING.

Classification of daily wages.	Number of persons reported receiving specified wages.	Per-centages.
\$4 00 and over.....	5	1.30
3 50 but under \$4 00.....	1	0.32
3 00 but under 3 50.....	3	0.98
2 50 but under 3 00.....	22	7.18
2 00 but under 2 50.....	24	7.85
1 50 but under 2 00.....	84	27.36
1 25 but under 1 50.....	48	15.62
1 00 but under 1 25.....	28	9.42
75 but under 1 00.....	37	12.05
50 but under 75.....	52	16.94
Less than 50 cents.....	3	0.98
Totals.....	307	100.00

Minor labor, 29.97 per cent.

MINING—IRON, LEAD AND ZINC.

\$4 00 and over.....		
3 50 but under \$4 00.....		
3 00 but under 3 50.....		
2 50 but under 3 00.....	6	1.62
2 00 but under 2 50.....	92	24.80
1 50 but under 2 00.....	182	49.06
1 25 but under 1 50.....	67	18.06
1 00 but under 1 25.....	9	2.42
75 but under 1 00.....	5	1.35
50 but under 75.....	9	2.42
Less than 50 cents.....	1	.27
Totals.....	371	100.00

Minor labor, 4.04 per cent.

PAINTS, OILS AND GREASES.

\$4 00 and over.....	7	4.55
3 50 but under \$4 00.....	5	3.25
3 00 but under 3 50.....	6	3.89
2 50 but under 3 00.....	13	8.44
2 00 but under 2 50.....	9	5.84
1 50 but under 2 00.....	47	30.52
1 25 but under 1 50.....	42	27.27
1 00 but under 1 25.....	10	6.50
75 but under 1 00.....	1	0.65
50 but under 75.....	12	7.79
Less than 50 cents.....	2	1.30
Totals.....	154	100.00

Minor labor, 9.74 per cent.

PAPER AND PULP.

Classification of daily wages.	Number of persons reported receiving speci- fied wages.	Per- centages.
\$4 00 and over.....	28	1.53
3 50 but under \$4 00.....	35	1.92
3 00 but under 3 50.....	106	5.80
2 50 but under 3 00.....	49	2.67
2 25 but under 2 50.....	7	0.38
2 00 but under 2 25.....	93	5.08
1 75 but under 2 00.....	21	1.15
1 50 but under 1 75.....	422	23.08
1 25 but under 1 50.....	323	17.67
1 00 but under 1 25.....	157	8.59
75 but under 1 00.....	537	29.38
50 but under 75.....	45	2.52
Less than 50 cents.....	5	0.23
Totals.....	1,828	100.00

Minor labor, 32.11 per cent.

POTTERIES.

\$3 00 and over.....	.....	.....
3 50 but under \$4 00.....	.....	.....
3 00 but under 4 50.....	1	2.94
2 50 but under 3 00.....	2	5.88
2 00 but under 2 50.....	4	11.76
1 50 but under 2 00.....	6	17.64
1 25 but under 1 50.....	15	44.12
1 00 but under 1 25.....	2	11.78
75 but under 1 00.....	.....	.....
50 but under 75.....	.....	.....
Less than 50 cents.....	4	5.88
Totals.....	34	100.00

Minor labor, 5.88 per cent.

PRINTING, PUBLISHING, BOOKBINDING.

\$4 00 and over.....	84	4.73
3 50 but under \$4 00.....	63	3.58
3 00 but under 3 50.....	81	4.61
2 50 but under 3 00.....	230	13.09
2 00 but under 2 50.....	284	16.16
1 50 but under 2 00.....	231	13.15
1 25 but under 1 50.....	142	8.08
1 00 but under 1 25.....	155	8.82
75 but under 1 00.....	186	10.58
50 but under 75.....	220	12.52
Less than 50 cents.....	81	4.63
Totals.....	1,751	100.00

Minor labor, 27.72 per cent., exclusive of carriers and vendors.

REPORT OF THE

RAILWAY SHOPS.

Classification of daily wages.	Number of persons reported receiving speci- fied wages.	Per- centages.
\$4 00 and over.....	44	1.20
3 50 but under \$4 00.....	34	0.93
3 00 but under 3 50.....	99	2.71
2 50 but under 3 00.....	412	11.28
2 00 but under 2 50.....	702	19.22
1 50 but under 2 00.....	1,290	35.32
1 25 but under 1 50.....	789	21.59
1 00 but under 1 25.....	224	6.13
75 but under 1 00.....	56	1.53
50 but under 75.....	3	0.09
Less than 50 cents.....		
Totals.....	3,653	100.00

Minor labor, 1.62 per cent.

ROLLING MILLS.

\$4 00 and over.....	123	8.86
3 50 but under \$4 00.....	35	2.53
3 00 but under 3 50.....	96	6.92
2 50 but under 3 00.....	122	8.78
2 00 but under 2 50.....	225	16.21
1 50 but under 2 00.....	409	29.46
1 25 but under 1 50.....	253	18.23
1 00 but under 1 25.....	100	7.21
75 but under 1 00.....	22	1.58
50 but under 75.....	3	0.22
Less than 50 cents.....		
Totals.....	1,388	100.00

Minor labor, 1.80 per cent.

ROPE TWINE, AND CORDAGE.

\$4 00 and over.....		
3 50 but under \$4 00.....		
3 00 but under 3 50.....		
2 50 but under 3 00.....		
2 00 but under 2 50.....		
1 50 but under 2 00.....	3	13.64
1 25 but under 1 50.....	3	13.64
1 00 but under 1 25.....	2	9.09
75 but under 1 00.....	1	4.55
50 but under 75.....	3	13.63
Less than 50 cents.....	10	45.45
Totals.....	22	100.00

Minor labor, 59.08 per cent.

SADDLERY, HARNESS, WHIPS, ETC.

Classification of daily wages.	Number of persons reported receiving specified wages.	Per-centages.
\$4 00 and over.....	5	1.56
3 50 but under \$4 00.....	6	1.87
3 00 but under 3 50.....	10	3.11
2 50 but under 3 00.....	21	6.54
3 00 but under 2 50.....	47	14.64
1 50 but under 2 00.....	18	5.61
1 25 but under 1 00.....	33	10.22
1 00 but under 1 25.....	37	11.52
75 but under 1 00.....	74	23.05
50 but under 75.....	70	21.81
Less than 50 cents.....		
Totals.....	321	100.00

Minor labor, 56.38 per cent.

SASH, DOORS, BLINDS, PLANING MILLS.

\$4 00 and over.....	18	0.48
3 50 but under \$4 00.....	14	0.37
3 00 but under 3 50.....	74	1.96
2 50 but under 3 00.....	117	3.09
2 25 but under 2 50.....	14	0.37
2 00 but under 2 25.....	500	13.25
1 75 but under 2 00.....	26	0.69
1 50 but under 1 75.....	1,056	27.96
1 25 but under 1 50.....	771	20.43
1 00 but under 1 25.....	429	11.36
75 but under 1 00.....	257	6.81
50 but under 75.....	317	8.39
Less than 50 cents.....	183	4.84
Totals.....	3,776	100.00

Minor labor, 20 per cent.

SCRAP LEATHER GOODS.

\$4 00 and over.....		
3 50 but under \$4 00.....	1	0.68
3 00 but under 3 50.....		
2 50 but under 3 00.....		
2 00 but under 2 50.....		
1 50 but under 2 00.....	1	0.68
1 25 but under 1 50.....		
1 00 but under 1 25.....	3	2.02
75 but under 1 00.....	2	1.35
66½ but under 75.....	140	94.59
50 but under 66½.....		
Less than 50 cents.....	1	0.68
Totals.....	148	100.00

Minor labor, 96.62 per cent.

SEWER PIPE, ETC.—CEMENT.

Classification of daily wages.	Number of persons reported receiving speci- fied wages.	Per- centages.
\$4 00 and over.....	2	3.77
3 50 but under \$4 00.....	1	1.89
3 00 but under 3 50.....		
2 50 but under 3 00.....	2	3.77
2 00 but under 2 50.....	5	9.43
1 50 but under 2 00.....	16	30.19
1 25 but under 1 50.....	25	47.17
1 00 but under 1 25.....	1	1.89
75 but under 1 00.....		
50 but under 75.....		
Less than 50 cents.....	1	1.89
Totals.....	53	100.00

Minor labor, 1.89 per cent.

SHIPBUILDING.

\$4 00 and over.....	2	0.33
3 50 but under \$4 00.....	1	0.17
3 00 but under 3 50.....	18	2.97
2 50 but under 3 00.....	128	21.16
2 00 but under 2 50.....	118	19.50
1 75 but under 2 00.....	20	3.31
1 50 but under 2 00.....	140	23.12
1 25 but under 1 50.....	134	22.15
1 00 but under 1 25.....	43	7.11
75 but under 1 00.....	1	0.17
50 but under 75.....		
Less than 50 cents.....		
Totals.....	605	100.00

Minor labor, 10.17 per cent.

SOAP, LYE AND POTASH.

\$4 00 and over.....	2	1.33
3 50 but under \$4 00.....	4	2.66
3 00 but under 3 50.....	5	3.33
2 50 but under 3 00.....	7	4.67
2 00 but under 2 50.....	9	6.00
1 50 but under 2 00.....	25	16.66
1 25 but under 1 50.....	35	23.34
1 00 but under 1 25.....	12	8.00
75 but under 1 00.....	10	6.67
50 but under 75.....	35	23.34
Less than 50 cents.....	6	4.00
Totals.....	150	100.00

Minor labor, 34.01 per cent.

STOVES, RANGES AND FURNACES.

Classification of daily wages.	Number of persons reported receiving specified wages.	Per-centages.
\$4 00 and over.....	6	3.26
3 50 but under \$4 00.....	6	3.26
3 00 but under 3 50.....	2	1.08
2 50 but under 3 00.....	31	16.84
2 00 but under 2 50.....	57	30.97
1 50 but under 2 00.....	44	23.91
1 35 but under 1 50.....	12	6.52
1 25 but under 1 35.....	4	2.18
1 00 but under 1 25.....	8	4.34
75 but under 1 00.....	4	2.18
50 but under 75.....	10	5.44
Less than 50 cents.....		
Totals.....	184	100.00

Minor labor, 7.62 per cent.

TACKS AND SMALL NAILS.

\$4 00 and over.....		
3 50 but under \$4 00.....	1	3.13
3 00 but under 3 50.....		
2 50 but under 3 00.....	3	9.37
2 00 but under 2 50.....		
1 50 but under 2 00.....	6	18.75
1 25 but under 1 50.....	4	12.50
1 00 but under 1 25.....		
75 but under 1 00.....	3	9.37
50 but under 75.....	7	21.88
Less than 50 cents.....	8	25.00
Totals.....	32	100.00

Minor labor, 46.88 per cent.

TINWARE AND SHEET IRON WORKS.

\$4 00 and over.....	14	1.87
3 50 but under \$4 00.....	7	0.93
3 00 but under 3 50.....	10	1.33
2 50 but under 3 00.....	15	2.00
2 00 but under 2 50.....	35	4.67
1 50 but under 2 00.....	44	5.86
1 25 but under 1 50.....	45	6.00
1 00 but under 1 25.....	67	8.93
75 but under 1 00.....	119	15.87
50 but under 75.....	225	30.00
Less than 50 cents.....	169	22.54
Totals.....	750	100.00

Minor labor, 68.41 per cent.

TOBACCO.

(Not including labor in tobacco warehouses.)

Classification of daily wages.	Number of persons reported receiving specified wages.	Per-centages.
\$4 00 and over.....	15	5.90
3 50 but under \$4 00.....	1	0.39
3 00 but under 3 50.....	5	1.96
2 50 but under 3 00.....	17	6.69
2 00 but under 2 50.....	27	10.63
1 50 but under 2 00.....	41	16.15
1 25 but under 1 50.....	29	11.42
1 00 but under 1 25.....	31	12.21
75 but under 1 00.....	37	14.56
50 but under 75.....	20	7.88
Less than 50 cents.....	31	12.21
Totals.....	254	100.00

Minor labor, 34.65 per cent.

TRUNKS, VALISES, SATCHELS, ETC.

\$4 00 and over.....	20	2.10
3 50 but under \$4 00.....	30	3.15
3 00 but under 3 50.....	20	2.10
2 50 but under 3 00.....	35	3.68
2 00 but under 2 50.....	88	9.26
1 50 but under 2 00.....	297	31.28
1 25 but under 1 50.....	125	13.16
1 00 but under 1 25.....	120	12.64
75 but under 1 00.....	44	4.74
50 but under 75.....	100	10.53
Less than 50 cents.....	70	7.36
Totals.....	949	100.00

Minor labor, 22.55 per cent.

VINEGAR, PICKLES, SAUCES, MUSTARD, ETC.

\$4 00 and over.....	.....	.....
3 50 but under \$4 00.....	.....	.....
3 00 but under 3 50.....	7	8.98
2 50 but under 3 00.....	1	1.28
2 00 but under 2 50.....	27	34.61
1 50 but under 2 00.....	21	26.93
1 25 but under 1 50.....	2	2.56
1 00 but under 1 25.....	4	5.12
75 but under 1 00.....	2	2.57
50 but under 75.....	7	8.98
Less than 50 cents.....	.....	.....
Totals.....	78	100.00

Minor labor, 11.54 per cent.

WAGONS AND CARRIAGES.

Classification of daily wages.	Number of persons reported receiving specified wages.	Per-centages.
\$4 00 and over.	21	0.74
3 50 but under \$4 00.	22	0.78
3 00 but under 3 50.	41	1.45
2 50 but under 3 00.	112	3.94
2 00 but under 2 50.	416	14.71
1 50 but under 2 00.	812	28.71
1 25 but under 1 50.	708	25.03
1 00 but under 1 25.	344	12.17
75 but under 1 00.	136	4.80
50 but under 75.	206	7.32
Less than 50 cents.	10	0.35
Totals.	2,838	100.00

Minor labor, 12.47 per cent.

MFRS. NOTES.— Nearly all our work is piece work. We pay twice a month, and our pay roll for last half of April, averaged \$1.65 per day per man, but we do not average that for the year. It is about \$1.31 per day.—STOUGHTON WAGON Co. Stoughton, Wis.

WATER WORKS.

(Not including those managed by municipalities.)

4 00 and over.	2	4.35
3 50 but under \$4 00.	3	6.53
3 00 but under 3 50.		
2 50 but under 3 00.		
2 00 but under 2 50.	4	8.69
1 50 but under 2 00.	6	13.04
1 25 but under 1 50.	30	65.20
1 00 but under 1 25.		
75 but under 1 00.		
50 but under 75.	1	2.17
Less than 50 cents.		
Totals.	46	100.00

Minor labor, 2.17 per cent.

WILLOW WARE AND TOYS.

Classification of daily wages.	Number of persons reported receiving speci- fied wages.	Per- centages.
\$4 00 and over.....	1	0.25
3 50 but under \$4 00.....	2	0.50
3 00 but under 3 50.....	5	1.25
2 50 but under 3 00.....	21	5.19
2 00 but under 2 50.....	34	8.41
1 50 but under 2 00.....	72	17.82
1 25 but under 1 50.....	72	17.82
1 00 but under 1 25.....	30	7.42
75 but under 1 00.....	98	24.26
50 but under 75.....	69	17.08
Less than 50 cents.....		
Totals.....	404	100.00

Minor labor, 48.76 per cent.

WINDMILLS, PUMPS, TANKS, ETC.

\$4 00 and over.....	15	3.96
3 50 but under \$4 00.....	10	2.64
3 00 but under 3 50.....	9	2.37
2 50 but under 3 00.....	26	6.86
2 00 but under 2 50.....	65	17.15
1 50 but under 2 00.....	110	29.09
1 25 but under 1 50.....	77	20.32
1 00 but under 1 25.....	42	11.08
75 but under 1 00.....	18	4.75
50 but under 75.....	7	1.85
Less than 50 cents.....		
Totals.....	379	100.00

Minor labor, 6.59 per cent.

WOODENWARE.

Classification of daily wages.	Number of persons reported receiving speci- fied wages.	Per- centages.
\$4 00 and over.....	15	1.20
3 50 but under \$4 00.....	3	0.24
3 00 but under 3 50.....	4	0.32
2 50 but under 3 00.....	10	0.80
2 00 but under 2 50.....	71	5.66
1 50 but under 2 00.....	212	16.88
1 25 but under 1 50.....	367	29.28
1 00 but under 1 25.....	285	22.70
75 but under 1 00.....	169	13.46
50 but under 75.....	110	8.76
Less than 50 cents.....	9	0.72
Totals.....	1,255	100.00

Minor labor, 22.94 per cent.

WOOLLEN AND WORSTED MILLS.

\$4 00 and over.....	18	1.95
3 50 but under \$4 00.....	9	0.98
3 00 but under 3 50.....	19	2.06
2 50 but under 3 00.....	22	2.38
2 00 but under 2 50.....	47	5.09
1 50 but under 2 00.....	68	7.36
1 25 but under 1 50.....	119	12.89
1 00 but under 1 25.....	156	16.90
75 but under 1 00.....	137	14.85
50 but under 75.....	238	25.79
Less than 50 cents.....	90	9.75
Totals.....	923	100.00

Minor labor, 50.39 per cent.

YEAST.

\$4 00 and over.....	2	1.72
3 50 but under \$4 00.....		
3 00 but under 3 50.....	1	0.86
2 50 but under 3 00.....		
2 00 but under 2 50.....		
1 50 but under 2 00.....	2	1.72
1 25 but under 1 50.....	16	13.79
1 00 but under 1 25.....	14	12.07
75 but under 1 00.....	63	54.32
50 but under 75.....	18	15.52
Less than 50 cents.....		
Totals.....	116	100.00

Minor labor, 69.84 per cent.

MISCELLANEOUS.

Classification of daily wages.	Number of persons reported receiving speci- fied wages.	Per- centages.
\$4 00 and over.....	14	3.45
3 50 but under \$4 00.....	10	2.47
3 00 but under 3 50.....	6	1.48
2 50 but under 3 00.....	16	3.70
2 00 but under 2 50.....	28	6.89
1 50 but under 2 00 ..	123	30.29
1 25 but under 1 50.....	53	13.05
1 00 but under 1 25... ..	45	11.08
75 but under 1 00.....	48	11.83
50 but under 75.....	46	11.33
Less than 50 cents.....	18	4.44
Totals.....	406	100.00

Minor labor, 27.59 per cent.

Diagram of Daily Wages Paid in Wisconsin Factories.

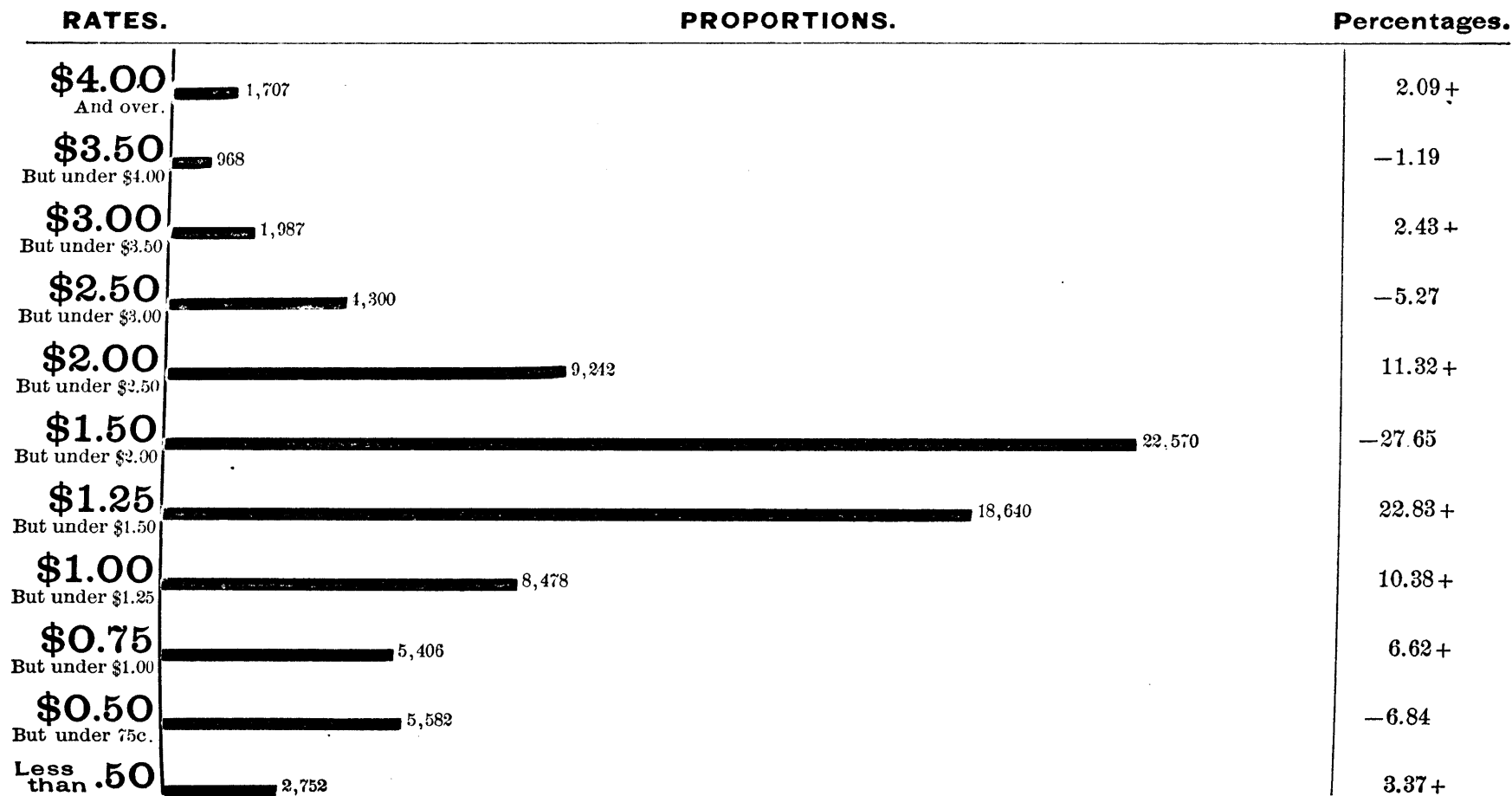


TABLE XIX.—RECAPITULATED CLASSIFICATION

INDUSTRIES.	\$4.00 and over.	\$3.50 but under \$4.00.	\$3.00 but under \$3.50.	\$2.75 but under \$3.00.	\$2.50 but under \$2.75.	\$2.25 but under \$2.50.	\$2.00 but under \$2.25.	\$1.75 but under \$2.00.
Agricultural impls. and machinery.....	41	43	77	.....	210	.....	436	.. ..
Baskets .....	.....	.....	.....	.....	.....	.....	16	.....
Beef and pork packing .....	.....	3	7	.....	18	.....	108	.....
Beer and malt ¹	91	25	45	.....	249	.....	756	.....
Boilers — steam .....	.....	1	6	.....	42	.....	26	.....
Boots and shoes.....	59	16	85	.....	121	.....	158	.....
Boxes — packing .....	.....	.....	1	.....	4	.....	31	.....
Boxes — paper and cigar.....	2	2	2	.....	7	.....	17	.....
Brick and drain tile.....	3	.....	10	.....	8	.....	30	.....
Bridge works	5	4	4	.....	6	.....	19	.....
Brooms and brushes .....	.....	.....	.....	.....	1	.....	6	.....
Chairs and chair stock.....	18	6	19	.....	35	.....	90	5
Cigars	13	13	29	.....	46	.....	83	.....
Cloaks.....	1	.....	.....	.....	1	.....	7	.....
Clothing	52	12	51	.....	25	.....	38	.....
Coffee and spice mills.....	16	7	3	.....	7	.....	6	.....
Coffins and caskets.....	.....	.....	.....	.....	.....	.....	13	.....
Confectionery and steam bakeries.....	20	5	28	.....	37	.....	46	.....
Cotton and linen mills.....	.....	.....	4	.....	7	.....	17	.....
Cooperage	3	1	31	.....	37	.....	191	5
Cut stone.....	2	3	19	.....	5	.....	19	.....
Drugs and chemicals .....	.....	.....	.....	.....	1	.....	2	.....
Electric light — public	1	1	5	.....	8	.....	9	.....
Elevators — passenger and freight.....	2	1	2	.....	8	.....	25	.....
Excelsior.....	.....	.....	.....	.....	.....	.....	3	.....
Flour and feed.....	45	17	43	.....	68	.....	143	.....
Foundries, machine shops, tools.....	168	70	234	4	615	18	1,069	11
Furniture ²	38	20	74	.....	183	.....	396	.....
Furs, gloves, mittens, etc.....	3	5	4	.....	15	.....	9	.....
Galvanized iron works .....	.....	.....	1	.....	6	.....	20	.....
Gas works.....	9	5	7	.....	50	.....	66	.....
Glass works (bottles).....	20	.....	.....	.....	4	.....	12	.....
Glue, ink, etc.....	2	.....	.....	.....	.....	.....	3	.....
Granite quarries	67	13	23	.....	40	.....	48	.....
Hats and caps.....	7	3	6	.....	6	.....	13	.....
Iron works — malleable.....	5	5	10	.....	22	.....	82	70
Pig.....	9	9	4	.....	21	.....	26	5

¹ Including bottling establishments.² Not including chairs.

OF DAILY WAGES.

\$1.62½ but under \$1.75.	\$1.50 but under \$1.62½	\$1.37½ but under \$1.50.	\$1.25 but under \$1.37½	\$1.12½ but under \$1.25.	\$1.00 but under \$1.12½	90c but under \$1.00.	80c but under 90c	75c but under 80c	66¾c but under 75c	50c but under 66¾c	Less than 50c	Total number classi- fied.
.....	816	.....	756	.....	245	.....	.....	134	.. ..	131	12	2,901
.....	18	.....	28	.....	15	.....	.....	18	.....	12	10	117
.....	305	.....	192	.....	61	.....	.....	31	.....	14	5	744
.....	819	.....	402	.....	158	.....	.....	165	.....	193	158	3,061
.....	70	.....	43	.....	8	.....	.....	12	.....	6	.....	214
.....	439	.....	245	.....	240	.....	.....	226	.....	262	117	1,968
.....	46	.....	43	.....	17	.....	.....	28	.....	28	4	202
.....	28	.....	24	.....	17	.....	.....	85	.....	136	71	391
.....	273	30	353	.....	198	.....	.....	47	.....	42	14	1,008
.....	45	.....	51	.....	3	.....	.....	6	.....	.....	.....	143
.....	19	.....	12	.....	4	.....	.....	9	.....	8	5	64
.....	225	41	586	166	497	33	12	215	.. ..	226	195	2,369
.....	77	.....	44	.....	72	.....	.....	24	.....	31	46	478
.....	3	.....	12	.....	34	.....	.....	106	.....	28	9	201
35	106	.....	146	.....	142	.....	.....	126	70	184	29	1,016
.....	5	.....	3	.....	2	.....	.....	4	.....	7	19	79
.....	14	.....	13	.....	5	.....	.....	6	.....	6	.....	57
.....	83	.....	35	.....	30	.....	.....	24	.....	112	168	588
.....	17	.....	142	.....	64	.....	.....	153	.....	139	30	573
.....	268	.....	236	.....	129	.....	.....	74	.....	87	.....	1,062
.....	39	.....	60	.....	3	.....	.....	3	.....	.....	.....	163
.....	12	.....	25	.....	4	.....	.....	5	.....	2	.....	51
.....	23	.....	14	.....	4	.....	.....	4	.....	2	.....	71
.....	12	.....	6	.....	4	.....	.....	7	.....	2	.....	69
.....	5	.....	10	.....	4	.....	.....	1	.....	.....	.....	23
.....	192	.....	216	.....	99	.....	.....	14	.....	18	2	857
.....	1,156	.....	996	.....	370	.....	.....	287	33	372	155	5,558
.....	666	.....	653	.....	531	.....	.....	306	.....	275	130	3,272
.....	43	.....	29	.....	46	.....	.....	28	.....	18	3	203
.....	10	.....	7	.....	.....	.....	.....	.....	.....	3	.....	47
.....	134	.....	9	.....	7	.....	.....	.....	.....	1	1	289
.....	5	.....	24	.....	.....	.....	.....	.....	.....	10	.....	75
.....	4	.....	14	.....	6	.....	.....	.....	.....	18	5	52
.....	62	.....	50	.....	59	.....	.....	10	.....	10	3	385
.....	9	.....	8	.....	19	.....	.....	94	.....	7	6	178
.....	122	.....	129	.....	118	.....	.....	58	.....	79	4	704
.....	410	.....	88	.....	102	.....	.....	1	.....	.....	.....	675

TABLE XIX.—RECAPITULATED CLASSIFICATION

INDUSTRIES.	\$4.00 and over.	\$3.50 but under \$4.00.	\$3.00 but under \$3.50.	\$2.75 but under \$3.00.	\$2.50 but under \$2.75.	\$2.25 but under \$2.50.	\$2.00 but under \$2.25.	\$1.75 but under \$2.00.
Knitting works.....	6	4	14	.....	18	.....	12	.....
Laundries—steam.....	.....	.....	2	.....	7	.....	18	.....
Leather.....	40	39	61	.....	84	.....	113	.....
Lithography.....	36	18	27	.....	33	.....	24	.....
Lumber, lath, shingles, posts, etc.....	448	317	419	.....	808	.....	1,994	448
Marble works, steam.....	4	3	9	.....	21	.....	36	.....
Mattresses and bedding.....	5	1	3	.....	22	.....	24	.....
Mining—iron, lead, zinc.....	.....	.....	.....	.....	6	.....	92	.....
Paints, oils and greases.....	7	5	6	.....	13	.....	9	.....
Paper and pulp.....	28	35	106	.....	49	7	93	21
Potteries.....	.....	.....	1	.....	2	.....	4	.....
Printing, publishing, bookbinding ^a	84	63	81	.....	230	.....	284	.....
Railway shops.....	44	34	99	.....	412	.....	702	.....
Rolling mills.....	123	35	96	.....	122	.....	225	.....
Rope and twine.....	.....	.....	.....	.....	.....	.....	.....	.....
Saddlery, harness, whips, etc.....	5	.....	6	.....	10	.....	21	.....
Sash, doors and blinds; planing mills..	18	14	74	.....	117	14	500	26
Scrap leather goods.....	.....	1	.....	.....	.....	.....	.....	.....
Sewer pipes, etc—cement.....	2	1	.....	.....	2	.....	5	.....
Shipbuilding.....	2	1	18	.....	128	.....	118	20
Soap, lye and potash.....	2	4	5	.....	7	.....	9	.....
Stoves and furnaces.....	6	6	2	.....	31	.....	57	.....
Tacks and small nails.....	.....	1	.....	.....	3	.....	.....	.....
Tinware and sheet iron works.....	14	7	10	.....	15	.....	35	.....
Tobacco ⁴	15	1	5	.....	17	.....	27	.....
Trunks, valises, satchels, etc.....	20	30	20	.....	35	.....	88	.....
Vinegar, pickles, sauces, mustard, etc..	7	.....	7	.....	1	.....	27	.....
Wagons and carriages.....	21	22	41	.....	112	.....	416	.....
Water works ⁵	2	3	.....	.....	.....	.....	4	.....
Willow ware and toys.....	.....	1	2	.....	5	.....	21	.....
Windmills, pumps, tanks, etc.....	15	10	9	26	.....	65	.....	.....
Wooden ware.....	15	3	4	10	.....	71	.....	.....
Woolen and worsted mills.....	18	9	19	22	.....	47	.....	.....
Yeast.....	2	.....	1	.....	.....	.....	.....	.....
All other industries.....	14	10	6	15	.....	28	.....	.....
Total	1,707	968	1,987	77	4,223	39	9,203	611

^a Exclusive of carriers and vendors.⁴ Not including labor in tobacco warehouses.⁵ Not including water works controlled by municipalities.

OF DAILY WAGES.—Continued.

\$1.62½ but under \$1.75.	\$1.50 but under \$1.62½	\$1.37½ but under \$1.50.	\$1.25 but under \$1.37½	\$1.12½ but under \$1.25.	\$1.00 but under \$1.12½	90c but under 100.	80c but under 90c.	75c but under 80c.	66⅔c but under 75c.	50c but under 66⅔c.	Less than 50c.	Total number classi- fied.
.....	30	.....	17	.....	110	.....	.....	318	.....	461	552	1,542
.....	31	.....	20	.....	104	4	.....	91	7	60	7	346
219	898	.....	635	.....	221	.....	.....	70	.....	47	17	2,444
.....	19	.....	18	.....	16	.....	.....	27	.....	34	34	286
55	8,253	141	7,681	.....	2,145	.....	.....	565	.....	386	99	23,758
.....	61	.....	25	.....	3	.....	.....	13	.....	9	1	185
.....	84	.....	48	.....	28	.....	.....	37	.....	52	3	307
.....	182	.....	67	.....	9	.....	.....	5	.....	9	1	371
.....	47	.....	42	.....	10	.....	.....	1	.....	12	2	154
.....	422	.....	323	.....	157	.....	.....	537	.....	45	5	1,828
.....	6	.....	15	.....	2	.....	.....	.....	.....	.....	4	34
.....	231	.....	142	.....	155	.....	.....	186	.....	220	81	1,757
.....	1,290	.....	789	.....	224	.....	.....	56	.....	3	.....	3,653
.....	409	.....	253	.....	100	.....	.....	22	.....	3	.....	1,388
.....	3	.....	3	.....	2	.....	.....	1	.....	3	10	22
.....	47	.....	18	.....	33	.....	.....	37	.....	74	70	321
.....	1,056	.....	771	.....	429	.....	.....	257	.....	317	183	3,776
.....	1	.....	.....	.....	3	.....	.....	2	140	.....	1	148
.....	16	.....	25	.....	1	.....	.....	.....	.....	.....	1	53
.....	140	.....	134	.....	43	.....	.....	1	.....	.....	.....	605
.....	25	.....	35	.....	12	.....	.....	10	.....	35	6	150
.....	44	12	4	.....	8	.....	.....	4	.....	10	.....	184
.....	6	.....	4	.....	.....	.....	.....	3	.....	7	8	32
.....	44	.....	45	.....	67	.....	.....	119	.....	225	169	750
.....	41	.....	29	.....	31	.....	.....	37	.....	20	31	254
.....	297	.....	125	.....	120	.....	.....	44	.....	100	70	949
.....	21	.....	2	.....	4	.....	.....	2	.....	7	.....	78
.....	812	.....	708	.....	344	.....	.....	136	.....	206	10	2,828
.....	6	.....	30	.....	.....	.....	.....	.....	.....	1	.....	46
.....	34	.....	72	.....	72	.....	.....	30	.....	98	69	404
.....	110	.....	77	.....	42	.....	.....	18	.....	7	.....	379
.....	212	.....	367	.....	285	.....	.....	169	.....	110	9	1,255
.....	68	.....	119	.....	156	.....	.....	187	.....	238	90	923
.....	2	.....	16	.....	14	.....	.....	63	.....	18	.....	116
.....	123	.....	53	.....	45	.....	.....	48	.....	46	18	406
309	21,650	224	18,416	166	8,312	37	12	5,357	250	5,332	2,752	81,630

NOTE.—To the total wages paid in 1889, given in above table, must be added the pay rolls of seventy-nine establishments, who, through change of firm or corporation, fire, death, litigation, or for other valid reasons, were unable to furnish the data for the year 1888. We thus find the total wages paid in 1889, by 1,327 establishments, employing 81,160 persons, to be \$32,351,647.23.

TABLE XX.—COMPARATIVE AMOUNTS OF WAGES

INDUSTRIES.	No. of establish- ments compar'd	Total wages paid in 1888.	Total wages paid in 1889.
Agricultural implements and machinery.	29	\$1,072,106 09	\$1,195,235 10
Baskets.....	2	23,800 00	25,750 00
Beef and pork packing	8	289,509 27	389,434 05
Beer and malt.....	73	957,367 25	1,149,269 33
Boilers — steam	8	77,454 52	94,132 72
Boots and shoes.....	21	761,165 03	867,158 28
Boxes — packing, paper and cigars	11	137,099 13	138,458 53
Brick and drain tile.	11	168,721 02	160,439 40
Brooms and brushes	6	15,087 00	17,487 00
Chairs and chair stock	13	551,252 43	710,051 88
Cigars.....	18	260,596 31	246,958 71
Clothing.....	18	454,037 95	474,069 32
Coffee and spice mills.	5	63,085 62	62,888 04
Coffins and burial caskets	2	22,889 79	20,862 31
Concrete, cement, sewer pipe, etc.....	3	21,250 00	25,893 79
Confectionery and steam bakeries.....	8	164,853 65	183,932 27
Cooperage	25	363,361 73	377,262 09
Drugs and chemicals.....	3	19,776 30	20,879 77
Electric light, public.....	6	33,858 80	33,499 72
Elevators — passenger and freight	2	25,821 35	35,893 87
Flour and feed	74	474,198 47	530,053 15
Fur goods, gloves and mittens.....	5	62,794 46	67,274 80
Furniture (not including chairs).....	42	1,109,495 42	1,280,024 17
Galvanized iron works.....	2	16,086 64	18,356 71
Gas works.....	7	167,862 17	164,167 33
Glass works — bottles.....	1	9,743 75	33,824 80
Glue, ink, etc.....	2	11,150 00	11,040 88
Granite.....	2	61,951 23	40,209 56
Hats and caps	3	17,911 05	19,085 25
Iron mining.....	2	92,383 01	145,321 96
Knitting works.....	13	263,754 83	273,287 04
Laundries, steam.	17	78,780 42	81,561 07
Lead and zinc mining	2	12,125 00	36,324 00
Leather	30	1,024,033 19	1,177,949 92
Lithography	4	129,807 66	156,511 06

PAID IN 1888 AND 1889. BY INDUSTRIES.

Increase over 1888.	Decrease from 1888.	Wages paid by new firms established in 1889.	Total increase in wages paid over 1888.	INDUSTRIES.
\$123,129 01		\$28,358 36	\$151,487 37	Agricultural implem'ts and mach'ry
1,950 00		2,292 37	4,242 37	Baskets
99,924 78		6,180 00	106,104 78	Beef and pork packing
191,922 08		6,548 45	198,470 53	Beer and malt
16,678 20			16,678 20	Boilers — steam
103,993 25		36,708 36	142,701 61	Boots and shoes
1,359 40		912 00	2,271 40	Boxes — packing, paper and cigars
	8,281 62	10,055 18	1,773 56	Brick and drain tile
2,400 00			2,400 00	Brooms and brushes
158,799 45			158,799 45	Chairs and chair stock
	13,637 66	5,553 22	8,084 88	Cigars
20,031 37		28,116 22	48,147 59	Clothing
	197 58			Coffee and spice mills
	2,027 48	2,529 09	501 61	Coffins and burial caskets
4,643 79		2,700 00	7,343 79	Concrete, cement, sewer pipe, etc
19,078 62		36,927 89	56,006 51	Confectionery and steam bakeries
13,900 36		4,939 08	18,839 44	Cooperage
1,103 47			1,103 47	Drugs and chemicals
	359 08			Electric light — public
10,072 52			10,072 52	Elevators — freight and passenger
55,854 68		7,309 00	63,163 68	Flour and feed
4,480 34		3,000 00	7,480 34	Fur goods, gloves and mittens
170,528 75		5,769 25	176,298 00	Furniture (not including chairs)
2,270 07			2,270 07	Galvanized iron works
	3,694 84			Gas works
24,081 05			24,081 05	Glass works — bottles
	109 12			Glue, ink, etc
	21,741 67	97,178 55	75,436 88	Granite
1,174 20			1,174 20	Hats and caps
52,938 95			52,938 95	Iron mining
9,532 21			9,532 21	Knitting works
2,780 65		11,961 00	14,741 65	Laundries — steam
24,199 00		27,145 95	51,344 95	Lead and zinc mining
153,916 73		25,356 00	179,272 73	Leather
26,703 40			26,703 40	Lithography

TABLE XX.—COMPARATIVE AMOUNTS OF WAGES PAID

INDUSTRIES.	No. of establish- ments compar'd	Total wages paid in 1888.	Total wages paid in 1889.
Lumber, lath, shingles, excelsior, etc.....	319	\$6,282,551 98	\$7,298,838 41
Machine shops, iron and brass foundries.....	89	2,145,062 15	2,503,887 67
Malleable iron.....	2	154,885 00	246,922 62
Marble and cut stone.....	5	146,000 39	153,140 75
Mattresses and bedding.....	6	83,899 53	104,809 05
Paints, oils and greases.....	8	86,153 42	87,078 56
Paper and pulp.....	35	703,325 05	738,697 48
Pig iron.....	4	189,930 87	278,082 10
Potteries.....	2	11,505 81	12,717 63
Powder—blasting.....	1	12,695 00	15,297 25
Printing, publishing and bookbinding.....	80	859,671 09	928,645 57
Railway shops.....	14	1,959,375 37	1,859,923 81
Rolling mills.....	2	743,808 06	767,167 09
Rope, twine and cordage.....	2	4,659 72	5,160 81
Saddlery and harness.....	11	86,647 05	96,471 77
Sash, doors, blinds; planing mills.....	72	1,163,459 66	1,348,757 91
Shipbuilding.....	5	251,982 89	252,293 93
Soap, lye and potash.....	6	42,792 49	48,337 22
Stoves, ranges and furnaces.....	4	127,659 27	72,125 58
Textiles.....	20	451,369 22	442,469 15
Tinware and sheet iron goods.....	4	155,535 30	180,199 79
Tobacco.....	3	104,663 44	115,192 28
Toys and willow ware.....	5	110,151 57	116,697 71
Trunks, valises, satchels, etc.....	10	315,961 90	329,484 17
Vinegar, mustard, yeast, etc.....	5	85,695 39	99,439 82
Wagons and carriages.....	53	1,128,934 20	1,030,013 36
Windmills, pumps, tanks, etc.....	7	150,021 14	175,471 90
Wooden ware.....	6	309,378 85	344,717 64
Miscellaneous.....	10	128,470 30	152,843 90
Totals.....	1,268	27,009,916 65	\$30,169,452 81

IN 1888 AND 1889. BY INDUSTRIES — Continued.

Increase over 1888.	Decrease from 1888.	Wages paid by new firms established in 1889.	Total in- crease in wages paid over 1888.	INDUSTRIES.
\$1,116,286 43		\$247,537 80	\$1,363,824 23	Lumber, lath, shingles, excelsior, etc
358,825 52		72,323 00	431,148 52	Machine shops, iron and br. foundries
92,537 62			92,537 62	Malleable iron
7,140 36			7,140 36	Marble and cut stone
20,909 52			20,909 52	Mattresses and bedding
925 14		816 25	1,741 39	Paints, oils and greases
36,372 43			36,372 43	Paper and pulp
88,151 23		7,300 00	95,451 23	Pig iron
1,211 82			1,211 82	Potteries
2,602 25			2,602 25	Powder — blasting
68,974 48		112 00	69,086 48	Printing, publishing and bookbinding
	\$99,451 56			Railway shops
23,359 03			23,359 03	Rolling mills
501 09			501 09	Rope, twine and cordage
9,824 72			9,824 72	Saddlery and harness
185,298 25		46,051 32	231,349 57	Sash, doors, blinds; planing mills
311 04			311 04	Shipbuilding
5,544 73			5,544 73	Soap, lye and potash
	55,533 69			Stoves, ranges and furnaces
	8,900 07	17,440 00	8,539 93	Textiles
24,664 49		640 00	25,304 49	Tinware and sheet iron goods
10,528 84			10,528 84	Tobacco
6,546 14			6,546 14	Toys and willow ware
13,522 27			13,522 27	Trunks, valises, satchels, etc
18,744 43		3,264 93	17,009 36	Vinegar, mustard, yeast, etc
	98,920 84	6,000 00		Wagons and carriages
25,450 76		1,620 00	27,070 76	Windmills, pumps, tanks, etc
35,338 79		1,694 00	37,038 73	Wooden ware
24,373 60		6,004 50	30,378 10	Miscellaneous
\$3,472,391 31	\$312,855 15	\$760,349 71	\$4,180,136 96	Totals
			214,001 63	Less the decrease
			\$3,966,135 33	Net increase

TABLE XXI.—PER CAPITA WAGES FOR 1889—BY INDUSTRIES.

The following table shows the per capita wages paid in the year 1889; that is to say, the aggregate wages paid divided by the total number of operatives in each industry:

Agricultural implements and machinery.....	\$427 58
Baskets	239 68
Beef and pork packing	531 77
Boiler works — steam.....	492 20
Beer, malt and bottling	534 78
Boots and shoes.....	458 93
Boxes — packing, paper and cigar	270 40
Bridge works	425 45
Brick and drain tile.....	200 88
Brooms and brushes.....	317 53
Chairs and chair stock	299 72
Cigars.....	361 73
Clothing	538 17
Coffee and spice mills	785 60
Coffins and burial caskets	410 38
Confectionery and steam bakeries.....	375 61
Cooperage	361 03
Drugs and chemicals.....	409 91
Electric light — public	471 82
Elevators — passenger and freight	520 20
Flour and feed	656 72
Foundries, machine shops and tools.....	477 64
Furniture (not including chairs) ...	400 69
Furs, gloves and mittens	346 18
Galvanized iron works	573 65
Gas works	568 05
Glass works — bottles.....	450 98
Glue, ink, etc	285 71
Granite	383 78
Hats and caps	242 25
Iron works — malleable.....	350 75
Pig.....	440 72
Knitting works	177 23
Laundries — steam.....	270 30
Leather	441 18
Lithography	547 24
Lumber, lath, shingles, etc.	334 84
Marble and cut stone	456 99
Mattresses and bedding	363 94
Mining — iron, lead and zinc	391 70
Paints, oils, greases, etc	570 75
Paper and pulp	404 10
Potteries.....	374 05
Printing, publishing and bookbinding	518 09
Railway shops	509 14
Rolling mills	552 71

Rope, twine and cordage	\$234 58
Saddlery, harness, whips, etc	300 54
Sash, doors, blinds, planing mills	373 15
Scrap leather goods	192 95
Sewer pipe, etc. — cement	539 50
Shipbuilding	417 02
Stoves, ranges and furnaces	391 98
Soap, lye and potash	322 25
Textiles	314 14
Tinware and sheet iron goods	240 27
Tobacco	453 51
Trunks, valises, satchels, etc	347 19
Vinegar, mustard, yeast, etc	529 40
Wagons and carriages	366 35
Willow ware and toys	288 85
Windmills, pumps, tanks, etc	467 25
Woodenware	220 57

11—L.

TABLE XXII — *Showing relative importance of sixty-two leading branches of manufacture in Wisconsin according to total amount of wages paid in the year 1889.*

Position.	Industries.	Total amount of wages paid in 1889.	Percentage of grand total (\$32,254,168.68.)
1	Lumber, lath, shingles, etc.....	\$7,962,952 27	24.69
2	Machine shops, iron and brass foundries.....	2,654,713 42	8.23
3	Railway shops.....	1,859,923 81	5.76
4	Beer and malt.....	1,636,986 73	5.06
5	Sash, doors, blinds; planing mills.....	1,409,116 93	4.37
6	Furniture (not including chairs).....	1,311,060 24	4.07
7	Agricultural implements and machinery.....	1,240,443 38	3.85
8	Leather.....	1,210,623 70	3.75
9	Wagons and carriages.....	1,036,013 36	3.21
10	Printing, publishing and bookbinding.....	940,286 68	2.91
11	Boots and shoes.....	903,866 64	2.80
12	Rolling mills.....	767,167 09	2.38
13	Paper and pulp.....	738,697 48	2.29
14	Chairs and chair stock.....	713,051 88	2.20
15	Clothing.....	654,955 54	2.03
16	Flour and feed.....	581,202 15	1.80
17	Textiles.....	469,954 15	1.46
18	Beef and pork packing.....	395,614 05	1.23
19	Cooperage.....	394,035 43	1.22
20	Wooden ware.....	352,115 03	1.09
21	Trunks, valises, satchels, etc.....	329,484 17	1.02
22	Pig iron.....	297,312 05	0.92
23	Knitting works.....	273,287 04	0.85
24	Cigars.....	255,811 93	0.79
25	Shipbuilding.....	252,293 93	0.78
26	Malleable iron.....	246,922 62	0.76
27	Confectionery and steam bakeries.....	220,860 16	0.69
28	Brick and drain tile.....	202,492 58	0.63
29	Tinware and sheet iron goods.....	180,839 79	0.56
30	Windmills, pumps, tanks, etc.....	177,091 90	0.55
31	Gas works.....	164,167 33	0.51
32	Boxes—packing, cigar and paper.....	160,347 52	0.50
33	Lithography.....	156,511 06	0.49

TABLE XXII.—*Relative Importance of Industries*—Continued.

Position.	Industries.	Total amount of wages paid in 1889.	Per centage of grand total, (\$32,254,168.68.)
34	Marble and cut stone.....	\$154,463 12	0.48
35	Iron mining.....	145,321 96	0.45
36	Granite quarries.....	137,688 11	0.43
37	Toys and willow ware.....	116,697 71	0.37
28	Tobacco.....	115,192 28	0.36
39	Mattresses and bedding.....	111,731 05	0.35
40	Boiler works.....	105,332 72	0.33
41	Vinegar, mustard, yeast, etc.....	102,704 75	0.32
42	Saddlery and harness.....	96,471 77	0.30
43	Steam laundries.....	93,522 07	0.29
44	Paints, oils, greases, etc.....	87,894 81	0.28
45	Stoves, ranges and furnaces.....	72,125 58	0.23
46	Fur goods, gloves and mittens.....	70,274 80	0.21
47	Lead and zinc mining.....	63,469 95	0.20
48	Coffee and spice mills.....	62,888 04	0.20
49	Soap, lye and potash.....	48,337 22	0.16
50	Hats and caps.....	43,120 98	0.14
51	Elevators—passenger and freight.....	35,893 87	0.11
52	Glass works—bottles.....	33,824 80	0.10
53	Electric light—public.....	33,499 72	0.10
54	Concrete, cement, sewer pipe, etc.....	28,593 79	0.09
55	Baskets.....	28,042 37	0.08
56	Coffins and burial caskets.....	23,391 40	0.07
57	Drugs and chemicals.....	20,879 77	0.06
58	Brooms and brushes.....	20,321 89	0.06
59	Galvanized iron works.....	18,356 71	0.05
60	Powder—blasting.....	15,297 25	0.04
61	Glue, ink, etc.....	14,856 88	0.04
62	Potteries.....	12,717 63	0.03
63	Rope, twine and cordage.....	5,160 81	0.01
..	All other industries.....	188,817 81	0.58

TABLE XXIII.—RECORD OF LOSSES BY FIRE IN FACTORIES *for the years 1885, 1886, 1887, 1888 and 1889, as reported by manufacturers—Classified by industries.*

INDUSTRIES.	1885.	1886.	1887.	1888.	1889.	Totals.
Agricultural implements.....		\$3,000 00	\$10 00	\$150 00	\$19,425 00	\$22,585 00
Baskets.....				500 00		500 00
Beef and pork packing.....				500 00		500 00
Beer and malt.....		3,000 00	50,000 00	793 70	507,096 90	560,890 60
Boilers—steam.....		4,500 00			12,000 00	16,500 00
Boots and shoes.					9,020 00	9,020 00
Boxes—packing		1,000 00		1,400 00		2,400 00
Chairs and chair stock.....		5,000 00	5,000 00		10 00	10,010 00
Clothing.....					40,000 00	40,000 00
Coffins and burial caskets.....				2,000 00		2,000 00
Confectionery and steam bakeries.....		4,000 00		104,463 33	127 00	108,590 33
Cooperage.....		5,000 00	350 00	26,200 00	4,575 00	36,125 00
Dairy implements.....					60,000 00	60,000 00
Electric light plants.....					50 00	50 00
Flour and feed.....		3,100 00	7,500 00		90,200 00	100,800 00

Furniture	1,088 00	69,500 00	95,000 00	700 00	2,900 00	169,188 00
Gas works.....				4,500 00		4,500 00
Gloves, mittens, etc.....				300 00		800 00
Iron works (pig) and mining		12,500 00		28,841 60		41,841 60
Laundries — steam.....					40 00	40 00
Leather	54,000 00		100 00		96 00	54,190 00
Lumber, lath, shingles, etc.....	8,000 00	487,000 00	375,402 57	162,200 00	233,533 21	1,266,135 78
Machine shops, iron and brass foundries.....	15,505 00	2,000 00	82,450 00	118,402 60	12,485 49	230,843 09
Mattresses and bedding.....			12,000 00			12,000 00
Paints, oils, etc.....					20,000 00	20,000 00
Potteries				1,200 00		1,200 00
Paper and pulp.....				215,000 00	55,000 00	270,000 00
Printing, publishing, bookbinding.....	6,900 00	1,550 00	2,040 00	1,983 60	60 00	12,533 60
Railway shops.....		30,000 00			3,963 30	33,963 30
Rope.....		600 00				600 00
Sash, doors, blinds, planing mills.....	30,030 00	12,000 00	37,350 00	117,000 00	30,972 73	227,352 73
Soap.....		15,000 00		15,100 00		30,100 00
Tinware and sheet iron works.....				800 00		800 00
Trunks, valises, etc.....			3,000 00	200 00		3,200 00

TABLE XXIII.—RECORD OF LOSSES BY FIRE IN FACTORIES *for the years 1885, 1886, 1887, 1888 and 1889, as reported by manufacturers—Classified by industries—Continued.*

INDUSTRIES.	1885.	1886.	1887.	1888.	1889.	Totals.
Wagons, carriages, sleighs, etc.....			\$17,000 00		\$12,800 00	\$29,800 00
Wall plaster.....					431 31	431 31
Windmills, pumps, tanks, etc.....			800 00	\$1,600 00		2,400 00
Wooden ware			25,000 00	10,000 00		35,000 00
Woolen, worsted and cotton mills.....		\$3,000 00		355 21	2,286 03	5,641 24
	\$115,468 00	\$661,750 00	\$713,002 57	\$814,190 04	\$1,117,065 97	\$3,421,476 58

THE PURCHASING POWER OF A DAY'S WAGES.

A Table showing the comparative purchasing power (in quantities of wheaten bread, beef, mutton, pork or butter) of the wages received for ten hours of labor in some European countries and in the State of Wisconsin, United States of America. The wages given are for skilled blacksmiths. All weights are reduced to the English American standard— one pound = 16 ounces Avoirdupois. Compiled from direct correspondence to the Bureau of Labor and Industrial Statistics of Wisconsin.

COUNTRIES.	EARNINGS PER HOUR.	Hours of labor per day.	EARNINGS FOR EVERY TEN HOURS.	PURCHASING POWER.			
				<i>The wages received for ten hours of labor of skilled blacksmiths will buy the quantities stated of either: Bread, meat, pork or butter.</i>			
				Wheaten bread.	Meat.	Pork.	Butter.
WISCONSIN (United States)— Milwaukee.....	20 cents.	10	2 dollars.	40 lbs.	14 lbs.	16 lbs.	10 lbs.
GREAT BRITAIN— London and Glasgow.....	6.35 pence.	9	5 shillings 3½ pence.	48 lbs.	9 lbs.	11 lbs.	5½ lbs.
GERMANY (Rhine Province)— Coblenz	27½ Pfennige.	11	2 Mark 75 Pfennige.	30 lbs.	5½ lbs.	5 lbs.	3½ lbs.
FRANCE— Montpellier	50 centimes.	10	5 francs.	31½ lbs.	4 lbs. 10 oz.	5½ lbs.	4 lbs.
Nîmes	50 centimes.	10	5 francs.	31½ lbs.	6 lbs. 2 oz.	6 lbs. 2 oz.	4 lbs. 10 oz.
Lille.....	50 centimes.	10	5 francs.	33½ lbs.	8½ lbs.	5½ lbs.	3 lbs. 5 oz.
BELGIUM— Ghent ..	48 centimes.	10	4 francs 80 centimes.	24¼ lbs.	7½ lbs.	8¼ lbs.	2 lbs. 1½ oz.
DENMARK— Copenhagen	30 Öre.	10	3 Kroner.	40 lbs.	8½ lbs.	8½ lbs.	3 lbs. 3 oz.
SWEDEN— Stockholm.....	31 centimes, or 22 Öre.	11½	3 francs 10 centimes, or 2 Kroner 20 Öre.	13¼ lbs.	7¾ lbs.	5½ lbs.	2½ lbs.
ITALY— Reggio (Prov. Emilia).....	25 centesimi.	11	2 lire 50 centesimi.	17 lbs. 13 oz.	4½ lbs.	3½ lbs.	2¼ lbs.
HOLLAND— 's Gravenhage (The Hague).....	20 centen.	10	2 gulden.	27½ lbs.	7½ lbs.	6 lbs. 5 oz.	2½ lbs.

TABLE OF PERCENTAGES—4,000 : 1,972.

COUNTRIES.	Bread.	Meat.	Pork.	Butter.
Wisconsin, United States of America, per cent.	100	100	100	100
London, England	120	64 $\frac{1}{2}$	68 $\frac{1}{2}$	55
Coblenz, Germany	75	39 $\frac{1}{2}$	31 $\frac{1}{2}$	35
Montpellier, France.....	78 $\frac{3}{4}$	33 $\frac{1}{2}$	34 $\frac{1}{2}$	39 $\frac{3}{4}$
Nimes, France	78 $\frac{3}{4}$	43 $\frac{1}{2}$	38 $\frac{9}{16}$	46 $\frac{1}{2}$
Lille, France.....	83 $\frac{9}{16}$	59 $\frac{1}{2}$	34 $\frac{1}{2}$	32 $\frac{1}{2}$
Ghent, Belgium.....	60 $\frac{3}{8}$	53 $\frac{1}{2}$	51 $\frac{9}{16}$	21 $\frac{1}{2}$
Copenhagen, Denmark.....	100	58	50 $\frac{3}{8}$	31 $\frac{7}{8}$
Stockholm, Sweden.....	33 $\frac{1}{2}$	55 $\frac{1}{2}$	34 $\frac{3}{8}$	25
Reggio, Italy	44 $\frac{1}{2}$	32 $\frac{1}{2}$	21 $\frac{1}{2}$	22 $\frac{1}{2}$
The Hague, Holland	68 $\frac{1}{2}$	52 $\frac{1}{2}$	39 $\frac{1}{2}$	23 $\frac{1}{2}$
Total	743 $\frac{9}{16}$	491 $\frac{1}{2}$	405 $\frac{1}{16}$	332 $\frac{1}{16}$

The foregoing table was presented and especially prepared for the Seventh Annual Convention of Commissioners and Chiefs of Bureaus of Labor and Industrial Statistics, held at Hartford, Conn., June 25, 26, 27, 1889. The data was obtained by direct correspondence with good authorities upon the subject in the countries represented. The original correspondence, containing many interesting facts and explanatory notes, are attached.

The statistics for Wisconsin are based upon the average annual earnings of 703 skilled blacksmiths reported to the Bureau for the year 1887. (See Third Biennial Report, 1887-88, p. 216). Workmen's families throughout the United States do their own baking, and thereby bring the price down to less than 3 cents per pound. Their household stoves, which are peculiarly American in design, are especially adapted for that purpose.

The purchasing power is based upon baker's prices, so as to agree with the basis of European countries.

The blacksmithing trade is chosen as a basis, because it is universal.

[From JOHN BURNETT, Esq., Labor Correspondent, Board of Trade, London, Eng.]

December 22, 1888.

DEAR SIR:—Your letter of the 6th inst. to hand. Simple as your questions are as to the cost of food they are not readily answered with definiteness and exactitude. Prices vary with locality, etc., for instance, Glasgow prices are lower than London. I will, however, in dealing with prices take an average standard as near as possible. Again I assume when you fix "ten hours labour" as your divisor you mean a day's work. Now if our typical blacksmith worked ten hours each day, or any day, it would count as 10 $\frac{1}{4}$ hours, because the last hour would count as overtime and be paid at time and a quarter. I therefore take his wages as 5s. 3 $\frac{1}{4}$ d for a ten

hours' day. The answers to your questions would thus work out as for a day's work of ten hours the wages would buy of meat 8 to 10 lbs.; bread, 46 to 50 lbs.; pork, 10 to 12 lbs.; butter, 5 to 6 lbs. I have here taken the qualities of material which I think a man of the selected class would be likely to buy. If you would rather have an absolute than a varying price you may safely take the mean of the quantities I have quoted. I will try and get a few retail price lists and send them to you shortly.

I am yours truly,

J. BURNETT.

[From DR. MUENCH, Prov. Superintendent of Public Instruction, Coblenz, Germany.]

COBLENZ, 6. Januar 1889.

SEHR GEEHRTER HERR:—Sie haben mir unter dem 6. December d. J. einige Fragen zugesandt, die zu beantworten mir zunächst durchaus unmöglich war. Indessen habe ich allmöhlich durch sachkundige Freunde in Barmen feststellen lassen, was Sie zu wissen wünschen. Ich kann aber nur deutsches Gewicht und deutsches Geld nennen; die Umrechnung müssen Sie selbst besorgen lassen. 1. What are the wages of blacksmiths in your city per hour? Antw. 25 bis 30 Pfennige. 2. How many hours do they work per week? Antw. Etwa 66 Stunden. 3. How many pounds of wheaten bread can be bought for the wages received for ten hours' work? Antw. 25 bis 30 Pfund. 4. How many pounds of meat? Antw. 5 bis 6 Pfund. 5. How many pounds of pork? Antw. 4 bis 4½ Pfund. 6. How many pounds of butter? Antw. 2½ bis 3 Pfund.

Hochachtungsvoll und ergebenst,

DR. MUENCH,

Provinzial Schul-Rath.

[From H. Löwy, Esq., Berlin, Germany.]

BERLIN (Germany), June 6, 1889.

GENTLEMEN — With pleasure I comply with your request of the 20th. The working hours in our blacksmith trade are very different, from 60 to 80 a week, average about 70. The same as to wages (according to workshop, skill of the mechanic, etc.) They vary from 35 to 50 German pence; average about 40 per hour. Bread costs now 25, meat 120, pork 170, butter 200 German pence (4 pence = 1 cent), all pr. klg. and in the quality bought by the working classes.

Your most obedient servant,

H. Löwy.

[From M. CHARLES GIDE, LL.D., Montpellier, France.]

MONTPELLIER, 30 Décembre, 1888.

Cher Monsieur:—Je suis très heureux de vous rendre le service que vous me demandez. Je vous envoie ci-joint la réponse a votre questionnaire, accompagné de quelques notes explicatives. Si l'enquête que vous

faites en ce moment dans les divers pays a pour but de déterminer le salaire réel de l'ouvrier dans les diverses contrées, je serais très heureux de publier les résultats de cette intéressante statistique dans notre *Revue d'Economie politique*.

Votre bien dévoué,

CH. GIDE.

À MONTPELLIER — 55,000 habitants.

1. Salaire des ouvriers forgerons par heure, 50 centimes—soit 5 francs (1 dollar) par jour. Dans la petite industrie, chez les serruriers par exemple, le salaire des ouvriers forgerons s'abaisse a 45 centimes par heure. À l'inverse les ouvriers forgerons très habiles peuvent gagner 50 centimes, et même 60 centimes par heure.

2. Nombre d'heures de travail par semaine. Dix heures de travail par jour, soit 60 heures par semaine. Cependant il arrive souvent que les ouvriers "font le lundi," comme on dit en français, c'est a dire, ne rentrent au travail que le mardi matin. En ce cas ils ne travaillent que 5 jours, soit 60 heures par semaine. Mais la majorité à Montpellier travaille six jours.

3. Quantité de pain de froment qui peut être achetée avec le prix de 10 heures de travail. Le prix du pain est de 35 centimes le Kilogramme. Par conséquent une journée de 10 heures payée 5 francs représente 14 Kil. 285 grammes de pain. Pour avoir cette quantité en pounds il suffit de la multiplier par 2.20584 (d'après le chiffre que vous me donnez) ce qui sera 31½ lbs. (D'après un tableau des poids et mesures que j'ai sous les yeux la livre anglaise de 16 ounces avoir-du-poids pèserait un peu plus que vous ne l'indiquez: le Kilogramme ne représenterait que 2.20436. Au reste la différence est insignifiante.

4. Quantité de viande. Le prix de la viande de bœuf ou de mouton est en moyenne de 2 francs 40 centimes le Kilogramme. Par conséquent une journée de 10 heures payée 5 francs représente 2 Kil. 830 grammes de viande—soit d'après votre compte 4 lbs. 10 oz. de viande bœuf ou mouton. Il va sans dire que ce prix n'est qu'une moyenne. Les morceaux de viande de dernière qualité (la poitrine) se vendent moitié prix—soit 1 franc 20 centimes le Kil., tandis que les morceaux de choix (le filet) se vendent le double—soit 4 et 5 francs le Kilogramme.

5. Quantité de porc. Le prix du porc est de 2 francs le Kilogramme. Le prix d'une journée de 10 heures représente donc 2½ Kil. de porc—soit 5½ lbs. de cette viande. Mais le porc n'est pas un aliment ordinaire de la classe ouvrière. On ne le consomme guère que sous la forme de lard ou de saucisson.

6. Quantité de beurre. Le prix du beurre ordinaire est de 2 francs 80 centimes le Kilogramme. Par conséquent avec le prix d'une journée, soit 5 francs, on peut acheter 1 Kilogramme 786 grammes de beurre, soit d'après votre compte, 3 lbs. 15 oz. de beurre. Mais ici encore je dois faire remarquer que dans le midi de la France, le beurre est une denrée de luxe. La cuisine est faite avec de l'huile d'olive ou avec de la graisse, et il-y-a certainement un grand nombre d'ouvriers qui n'en consomment jamais.

À NIMES. (70,000 Habitants.)

La ville de Nimes est tout près de celle de Montpellier (30 lieus), mais elle a une population plus considérable, et elle est surtout un centre industriel beaucoup plus important (tapis, tentures, meubles, etc.). Aussi le prix des aliments y est beaucoup moins élevé, comme il apparait d'après les chiffres ci-après.

1 et 2. Salaire des ouvriers forgerons. 50 centimes par heure—même prix qu'à Montpellier, et 10 heures par jour.

3. Quantité de pain—même prix qu'à Montpellier, et par conséquent même quantité: 14 Kil. 285 grammes, ou 31 lbs. 8 oz.

4. Quantité de viande.* Pour 5 francs—2 Kil. 277 grammes, soit 6 lbs., 2 oz. 5 Quantité de porc (le même).

6. Quantité de beurre. Pour 5 francs—3 Kil., 083 grammes, soit 4 lbs., 10 oz.†

[TRANSLATION.]

MONTPELLIER (France), Dec. 30, 1888.

"Dear Sir — It affords me great pleasure to render the service called for. I mail you herewith the answers to your questions, accompanied with some explanatory notes.

If the investigation you are at present making is for the purpose of determining the *real* wages of the working classes in the different countries, I shall be very happy to publish the results of these interesting statistics in our *Revue d'Economie politique*.

Devotedly yours,
CH. GIDE."

AT MONTPELLIER.

The wages of blacksmiths are 50 centimes per hour; that is, 5 francs [1 dollar] per day. In the smaller shops, for instance those in which locksmithing is done, the wages are 45 centimes per hour. In large shops very skilled journeymen blacksmiths earn as high as 55 and 60 centimes per hour.

However, in many instances, the workmen "font le lundi",‡ as we call it in French, not returning to work until Tuesday morning. In Montpellier the majority of workmen work six days.

As to the quantity of wheaten bread that can be bought with the wages received for ten hours work:

The price of bread is 35 centimes per Kilogramme. Consequently, a day's work of 10 hours at 5 francs per day will buy 14 Klg. 285 grammes of bread — or according to your avoir-du-poids 31 lbs. 8 ounces.

As to the quantity of meat:

The average price of beef or mutton is 2 francs 40 centimes per Kilogramme. Consequently a day's work of ten hours will buy 2 Klg. 830 grammes of meat, which, according to your calculation, would be 4 lbs. 10 ounces. Of course, the prices given is for average quality. The poorer quality (breast) is sold at an average price of 1 franc 20 centimes per Kilogram, while very choice cuts sell double price, viz.: 4 to 5 francs per Kilogram.

As to quantity of pork:

The price of pork is 2 francs per Kilogram, consequently, a day's work of ten hours represents 2½ Kilogrammes of pork, equal to 5½ lbs. according to your weights.

But pork is not a common article of food among the working classes; and when used it is only in the form of lard or sausage.

As to quantity of butter:

The price of ordinary butter is 2 francs 80 centimes per Kilo. Consequently a day's labor at 5 francs will buy 1 Kilogramme 786 grammes of butter, which, according to your weight is nearly 3 lbs. 15 ounces. But here, again, I should remark that in Central France butter is a luxury. Cooking is done with olive oil or with fat, and there are undoubtedly a great number of workmen who never use butter.

[From Prof. A. BECHAUX, Teacher of Political Economy at the University of Lille.]

LILLE (France), 4 Place Richebe, 15 avril, 1889.

Société Internationale des études pratiques d'Economie Sociale.

TRE'S HONORÉ MONSIEUR — J'ai terminé l'enquête que vous m'avez de-

* Le prix de la viande, bœuf, porc ou mouton n'est à Nimes que 1.80 (franc) le Kilo.

† Le prix du beurre n'est à Nimes que de 2 francs 40 centimes le Kilo.

‡ This phrase means that instead of working Mondays, the hours are cast in the five remaining days — working 5 days at 12 hours each.

mandée, et j'ai l'honneur de répondre aux questions que vous m'avez posée au sujet des ouvriers de la métallurgie, et sur le prix de la vie à Lille.

1. Heures de Travail.

Les ouvriers de la métallurgie (fondeurs en fer, en cuivre, en bronze) travaillent 10 heures par jour, de 7 heures à midi, et de 1 h. $\frac{1}{4}$ à 7 h. $\frac{1}{4}$.

Salaires—2. Tout bon ouvrier, (forgeron, mouleur, ajusteur, tourneur, et serrurier) reçoit un salaire de 45 centimes ou 50 centimes par heure. La journée moyenne est de 5 francs. Les ouvriers qui travaillent aux pièces, arrivent à gagner 6 francs, 7 francs, et même 8 francs. Les manœuvres ou hommes de peine, les demi-ouvriers, reçoivent un salaire de 25 centimes ou 30 centimes par heure. La journée moyenne est pour ceux-ci de 3 francs.

3. *Prix des subsistances*. (Je compte par livre française de 500 grammes.) La livre de pain ordinaire est de 15 centimes. La livre de bœuf ordinaire 60 centimes. La livre de porc ordinaire 90 centimes. La livre de mouton 60 centimes. La livre de beurre naturel, 1 franc 50 centimes. Avec le salaire moyen de 5 francs reçu pour 10 heures de travail, l'ouvrier achète 33 livres de pain (la livre de 500 grammes).

PROF. A. BÉCHAUX.

[From Prof. R. DE RIDDER, Teacher of Political Economy at the University of Ghent.]

GAND, LE 30 JANVIER, 1889.

MONSIEUR— Une indisposition m'a empêché de répondre plus tôt à votre lettre du 8 décembre dernier, veuillez excuser le retard que je mets à vous écrire.

1. D'après les renseignements pris auprès des principaux industriels, le salaire des ouvriers "blacksmiths" varie de 30 centimes à 65 centimes par heure, selon capacité.

2. La durée normale du travail est 10 heures; toutefois quand le travail est abondant, la journée est de 11 heures et même de 11 $\frac{1}{4}$ heures. Il y a six jours de travail par semaine.

3. Le Kilogramme de pain de froment varie dans les boulangeries, suivant qualité, de 20 à 35 centimes. Un très grand nombre d'ouvriers reçoivent leur pain des sociétés coopératives. Celles-ci fournissent le Kilo à 22 ou 23 centimes.

4. Le Kilo de viande de bœuf coûte de 1 franc à 1 fr. 80, suivant les morceaux et la qualité des bêtes abattues. Le prix de 1 fr. 80 correspond à la consommation des classes moyenne ou riches; je pense que le chiffre de 1 fr. 40 correspondrait assez bien à la somme payée par les classes travailleuses.

5. Le Kilogramme de porc coûte un peu moins cher; le prix varie de 90 centimes à 1 fr. 70.

6. Le Kilogramme de beurre varie enfin, suivant qualité, de 2 fr. 10 à 2 fr. 50. Tel est le prix actuel du beurre; mais je dois ajouter que le prix

varie considérablement d'après les saisons. En cas de cherté, le Kilo de beurre coûte jusqu'à 3 fr. 50.

Agréez, je vous prie, l'assurance de ma considération respectueuse,

R. DE RIDDER.

[TRANSLATION]

GHENT [Belgium], January 30, 1889.

Sir: A slight illness has prevented me from replying sooner to your letter of December 8, last. Please excuse the delay.

1). According to inquiries made at the principal shops, the wages of journeymen blacksmiths vary from 30 centimes to 65 centimes per hour, according to ability.

2). The normal working day lasts ten hours; however, when work is abundant, 11 hours, and even 11½ hours are made.

3). A kilogram of wheaten bread, at the bakeries, varies in price according to quality, from 20 to 35 centimes. A very great number of workmen obtain their bread through coöperative societies, who furnish it at 22 to 23 centimes per kilogram.

4). A kilogram of meat is worth from 1 franc to 1 franc 80 centimes, according to the cut, and the quality of the animals slaughtered. The 1 franc 80 centimes quality is that used by the middle and wealthy classes. I think that 1 franc 40 centimes is very near the price paid by the working classes.

5). Pork is not quite so high, the price varying from 90 centimes to 1 franc 70 centimes.

6). Butter, according to quality, varies from 2 francs 10 centimes to 2 francs 50 centimes per kilogram.

This is the present actual price of butter, but I should add that this price again varies considerably according to season. When butter is scarce, it is sold as high as 3 francs 50 centimes per kilogram.

R. DE RIDDER.

[FROM MARCUS RUEBIN, Esq., Chief of the Statistical Bureau of the City of Copenhagen, Denmark.]

KJÖBENHAVN, den January 2nd, 1889.

To the Bureau of Labor and Industrial Statistics, Wisconsin:

The letter of the Bureau of Dec. 6th, last year, to Mr. Aleksis Petersen, has by him been transmitted to me, and I will answer it in the following manner:

The average working hours for blacksmiths in Copenhagen are 12 hours; out of these, however, two hours are used for meals, and in this way the effective working hours are 10. There are 6 working days a week, Sunday work may, however, occur now and then. The average daily wages are 3 Kroner (1 Krone @ 100 Öre = 27 cents.) Consequently these will make 8.1 cents [American] per effective working hour.

These statements are from the year 1882, but may be presumed to be substantially correct as yet.

As to the consumption it must be stated that wheaten bread, as a general rule, is only used by the more opulent classes in Denmark, but even these consume more rye bread than wheaten bread; for the working class rye bread is the bread generally eaten.

One Danish pound (= 1.1023 pound avoirdupois) of rye bread costs at present 5@6 Öre. (The wholesale price of unground wheat is on an average one-third higher than that of unground rye.)

One pound (Dan.) of beef, of pork and of butter, of that kind which workmen may be supposed to consume, costs at present respectively about 40 Öre, about 40 Öre, and about 1 Krone.

However, the prices vary greatly, from that cause among others that Denmark is an exporting country, exporting exactly these commodities, and the international prices decide the domestic prices to a large extent.

If we, however, take the above data for granted, can be bought for ten hours work (= one day's effective working hours):

60 pounds English of rye bread.

8.2 pounds English of beef.

8.2 pounds English of pork.

8.3 pounds English of butter.

It must yet be added that many workmen eat more horse-flesh (at about 25 Öre per Dan. pound) than beef, and more margarine (at about 65 Öre, per Dan. pound), than butter.

Yours very respectfully,

MARCUS RUEBIN.

[From ELIS SIDENBLADH, Esq., Chief of the Bureau of Statistics of Sweden.]

STOCKHOLM, le 26 mars, 1890.

En réponse à votre lettre bien estimée du 4 du ce mois, j'ai l'honneur de vous adresser les communications suivantes:

Question 1. À Stockholm un forgeron ordinaire gagne 22 Öre, soit 31 centimes (1 couronne se divise en 100 Öre et vaut 1.39 franc) par heure.

Question 2. Le forgeron travaille tous les jours ouvrable 11½ heures, ce qui fait 69 heures par semaine.

Question 3. Le salaire pour 10 heures de travail suffit à acheter 6 kilogrammes de pain de froment.

Question 4. De même, à environ, 3½ Kilogrammes de viande de bœuf à 2.5 Kilogrammes de porc, à 1.2 kilogrammes de beurre.

ELIS SIDENBLADH.

[TRANSLATION.]

STOCKHOLM, March 26, 1890.

In reply to your esteemed letter of the 4th inst., I have the honor of enclosing the following data:

Ques. 1. An average journeyman blacksmith at Stockholm, earns 22 Öre, equal to 31 centimes per hour. 1 crown is divided into 100 Öre, equal in value to 1 franc 39 centimes.)

Ques. 2. Blacksmiths work 11½ hours per day, or 69 hours per week.

Ques. 3. The wages earned by 10 hours work will buy about 6 klg. (13¼ lbs.) of wheaten bread.

Ques. 4. Same wages will buy about 3.5 klg (abt. 8 lbs.) of ox meat, 2.5 klg. (5½ lbs.) of pork, and 1.2 klg. (2½ lbs.) of butter.

ELIS SIDENBLADH.

[From Prof. UGO RABBENO, Teacher of Political Economy at the Technical Institute of Perouse, Italy.]

REGGIO EMILIA, ITALY, Jan. 5th, 1890.

My Dear Sir — Please excuse me if I have retarded some days to answer to your favour of post December. I am very glad to be useful in something to your Bureau, and I thank you for the interesting report you have sent me.

I send you the answer to your questions; but you must consider that Reggio Emilia is a small town of 20,000 habitants about, where the industries (excepting agriculture) have but little importance.

To have more important data on the purchasing power of wages of blacksmiths in Italy, it would be necessary to have the average wages and prices

of cities like Verni and Lampierdevena, which are centers of important mechanical industries and particularly of foundries and iron works.

If you desire, I will procure these notices, particularly on Verni (near Perugia).

The average prices of Reggio Emilia (expressed in *Kilogrammi*, metrical system) are furnished officially by the "House of Commerce" (Camera di Commercio), of that city.

I shall be always very glad to answering to your questions.

Believe me very respectfully yours,

UGO RABBENO.

AVERAGE DAY WAGES OF BLACKSMITHS IN REGGIO EMILIA.

11 hours work.

Skilled labor, Lire italiane 2.50 or 3.00.

Common labor, idem idem 2.00.

AVERAGE PRICES IN 1887-'88.

Winter.

Wheaten bread —

of 1st quality, Lire italiane 0.37 for a kilogrammi.

of 2d quality, idem idem 0.32 idem

Ox meat, " " 1.25 "

Pork, " " 1.55 "

Butter, " " 2.49 "

Summer.

Wheaten bread —

of 1st quality, five italiane 0.38 for a kilogrammi.

of 2d quality, id id 0.33 id

Ox meat, id id 1.24 id

Butter, id id 2.21 id

(Defense of kill porks in summer.) [?]

A Dollar = Lire italiane 5.18.

I cannot fix the precise equalization of the English pound with our *Kilogrammo* of 1,000 *grammi*.

[From Hon. F. DOMELA NIEUWENHUIS, Member of the Second Chamber, The Hague, Holland.]

THE HAGUE, 2 JAN., 1889.

DEAR SIR—I thank you very much for the report of Wisconsin, and hope that you will send me all that may interest me in the labor question. It is a pleasure to answer your questions and help you in this way.

1. The average wages of blacksmiths are 15 à 16 cents per hour, but our cent is less than yours; 1 American cent = $2\frac{1}{2}$ cent Dutch, consequently the wages are 6 cents American per hour.

2. In manufacturies the average time is 10 hours and by particular bosses 12 hours per day, when there is work. At this time work is scarce.

3. 1 kilogram wheaten bread costs 16 cents, and thus by 10 hours the value of 10 hours is 1 gulden 60 centen.

4. 1 kilogram meat costs 90 cents à fl. 1.00.

5. 1 kilogram pork costs 80 à 90 centen.

6. 1 kilogram butter costs 1½ gulden.

You know all what you have asked, and when you will have more, you can ask me and I shall be glad to give you what I can give.

Perhaps you can send me all the laws which exist in your state for workmen.

Yours very respectfully,

F. DOMELA NIEUWENHUIS.

[From J. TH. BRUIN, Esq., Sec.-Treas. of the Co-operative Society "Eigen Hulp," The Hague, Holland.]

'S GRAVENHAGE, den 17 Januari, 1889.

Coöperatieve Winkelvereniging, Eigen Hulp, Nobelstraat hoek Prinsenstraat.

MIJNHEER — In verband met zijne aftreding als bestuurslid onzer vereeniging, heeft de heer W. J. Vervloet gemeend uw aan hem gericht schrijven d.d. 5 December 1888 niet zelf te moeten beantwoorden, maar de behandeling er van aan ons bestuur te moeten overlaten. Naar aanleiding daarvan hebben wij de eer U ter beantwoording van de gestelde vragen, het volgende mede te deelen:

1. Een grofsmid te dezer stede verdient per uur gemiddeld 8 Dollarcenten. 2. Hij werkt per week gemiddeld 60 uren. 3, 4, 5, 6. Voor het loon in tien uren arbeids verdiend kan hij koopen: 27.56 Engelsche ponden fijn tarwebrood; of 7.35 pd. rundvleesch; of 6.3 pd. spek; of 4.9 pd. margarin-boter; of 2.6 pd. natuur-boter.

Wij vertrouwen hiermede aan Uw verlangen te hebben voldaan. Met de meeste achting, namens het Bestuur,

Uw dw. dienaar,

J. TH. BRUIN, *Secretaris.*

[TRANSLATION.]

THE HAGUE, January 17, 1889

DEAR SIR—Mr. W. J. Vervloet having retired as an officer of our society, has referred your letter of December 5, 1888. Accordingly we have the pleasure to send you herewith the answers to your several questions.

1. A blacksmith in this city receives on an average 8 cents (American) per hour. 2. The average working hours are 60 per week. 3, 4, 5, 6. With the wages received for ten hours' work he can buy: Of fine wheaten bread 27 lbs. 56 oz.; of meat, 7 lbs 35 oz.; of pork, 6 lbs. 3 oz.; of margarine butter, 4 lbs. 9 oz.; of dairy butter, 2 lbs. 6 oz.

Yours respectfully.

J. TH. BRUIN, *Secretary.*

SYNOPTICAL
REPORT OF INSPECTION
OF
FACTORIES AND WORKSHOPS.

NOTE.—The absence of any remarks in connection with the description of manufacturing plants, denotes that the machinery, elevators and stairways are well guarded, the sanitary condition good, and that no children under 14 years of age are employed. Establishments employing less than five persons are necessarily omitted.

REPORT OF INSPECTION.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
ABBOTSFORD.—CLARK CO.				
<i>Inspected Aug., 1889, by Claymier.</i>				
ROTER L. R., mfr. lumber; 1-st. frame; 2 boilers; 1 engine. Est. 1886.....	15	.....	15	35
Ordered guard on slasher saw.				
ABLEMANS.—SAUK CO.				
<i>Inspected June, 1889, by Moore.</i>				
ABRAHAMS W., mfr. staves. Factory, 1-st. frame; 1 boiler; 1 engine.....	5	.....	5	30
ABRAMS.—OCONTO CO.				
<i>Inspected Aug., 1889, by Moore.</i>				
WHITNEY, TUTHILL & DUTTON, mfrs. shingles, posts and railroad ties. 1-st. frame; 1 boiler; 1 engine. Est. 1882.....	21	.....	21	40
<i>Accident.</i> —A workman lost three fingers. He told me it happened through accidental carelessness; in pulling the lever, his hand slipped and came in contact with saw. Several of the knot sawyers showed me their scarred and maimed hands. I inquired if they knew of any way to guard against these accidents. They said "no, because it is generally our own fault in not paying strict attention to the work."				
ALBAN.—PORTAGE CO.				
<i>Reported by firm.</i>				
BIGLER JAMES H., mfr. lumber and shingles. 1-st. frame, 60x84; 1 boiler; 1 engine. Est. 1876.....	24	2	26	{ w 30 s 30
ALBANY.—GREEN CO.				
<i>Inspected May, 1889, by Moore.</i>				
ALBANY WOOLEN MILL & MFG. CO., mfrs. woolen goods, and custom sawmill. Woolen mill, 2-st. and 3-st. frame; saw-mill, 1-st. frame. Est. 1860.....	10	.....	10	40
ALMA.—BUFFALO CO.				
<i>Inspected July, 1889, by Claymier.</i>				
ALMA BASKET & MFG. CO. 1-st. and attic, frame; 1 boiler; 1 engine. Est. 1889.....	11	.....	11	8
Ordered main door to swing outward, guard on stairway, and box over slasher saw.				
ALMA MILLING CO., mfrs. flour. Two buildings—one 3-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1888.....	8	.....	8	100
Ordered guard on fly-wheel.				
LAUE FRED., mfr. lumber, lath, shingles. Two buildings—two 1-st. frame; 1 boiler; 1 engine. Est. 1865.....	25	.....	25	50
SHAMANN M., mfr. shingles; 1-st. frame; 1 boiler; 1 engine. Est. 1883.....	5	.....	5	14

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
AMERY.—POLK CO.				
<i>Inspected Sept., 1889, by Claymier.</i>				
BRIGGS BROS., mfrs. lumber, lath, shingles; one 2-st., one 1-st. frame; 1 boiler; 1 engine. Est. 1889.....	40	.....	40	} w 40 s 40
Ordered guard at head of stairway, and the gearing of gang-saw boxed. <i>Accidents.</i> —A workman broke an arm by falling out of the mill; another had two fingers cut off by shingle saw.				
CHAMPON H., mfr. lumber, lath, shingles. Two 1-st. frame; 2 boilers; 1 engine. Est. 1888.....	18	.....	18	70
ST. PAUL BARREL CO., mfrs. barrel stock. Two 1-st. frame buildings; 1 engine; 1 boiler. Est. 1888.....	20	.....	20	50
Found a boy of 10 and one of 12 working. The foreman discharged them.				
ANIWA.—SHAWANO CO.				
<i>Inspected Aug., 1889, by Moore.</i>				
ANIWA MFG. CO., mfrs. veneer. Four buildings—all 1-st. frame; 2 boilers; 1 engine. Est. 1888.....	30	.....	30	70
Ordered a boy under 13 years of age discharged.				
ANTIGO.—LANGLADE CO.				
<i>Inspected Aug., 1889, by Moore.</i>				
GOODWIN K. M. & CO., mfrs. broom handles. 1-st. frame; 1 boiler; 1 engine. Est. 1885.....	15	.....	15	40
Mr. Goodwin is proud of the fact that in the ten years he has been engaged in manufacturing, not a single accident occurred.				
HERMAN, BECKLINGER & HERMAN, mfrs. furniture, beds, tables, etc. Four buildings—two 2-st. frame; one 1-st. frame; one 1-st. brick; 3 boilers; 2 engines. Est. 1887.....	20	.....	20	80
Ordered five belts on upper floor boxed or covered. Except belting, machinery is fairly safe, although rather crowded. Buildings bridged. Saw mill runs only three months in the year. <i>Accident</i> —A workman broke a leg by the breaking of a belt on planer. He received some aid from firm.				
HERMAN F., mfr sash, doors, blinds. Three buildings—one 2-st. frame; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1885.....	5	.....	5	30
Was very coldly received by proprietor. He would neither accept my card nor answer any questions. I introduced myself in a more official way, and told him if he did not intend to accommodate with answering a few questions, I would take means to have him answer under oath. He finally thought better of it and answered under protest. I thought it well to report this, because it is the first instance of the kind among the hundreds of factories visited and inspected by myself.				
HOXIE & MELLOR, planing mill. Two 1-st. frame; 1 boiler; 1 engine. Est. 1886.....	12	.....	12	60
KELLOGG T. D., mfr. lumber, lath, shingles. One 2-st., one 1-st. frame; 3 boilers; 1 engine. Est. 1886.....	33	.....	33	100
Ordered railings on stairs.				
WEED J. H., mfr lumber, lath, shingles. Two buildings—one 2-st., one 1-st. frame; 5 boilers; 1 engine. Est. 1880.....	150	.....	150	160
This is an exceptionally fine mill; and the fact that not a single accident has ever occurred speaks well for the general management. Works night and day.				

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
<i>APPLETON.—OUTAGAMIE CO.</i>				
<i>Inspected April, 1889, by Claymier.</i>				
APPLETON BOOT & SHOE MFG. CO. Two bldgs.—one 3-st.; one 1-st. frame. Wooden escape from third floor to lower roof adjoining. Est. 1881.....	33	17	50	w 12
Former orders faithfully complied with.				
APPLETON MACHINE CO. Five bldgs.—one 2-st. frame; four 1-st., frame. Est. 1883.....	32	.....	32	w 85-
Ordered guard on rip saw.				
APPLETON MANUFACTURING CO., mfrs. "American" and "Hero" grinding mills. Nine bldgs.—four 2-st. frame; four 1-st. frame; one 1-st. brick. Est. 1874.....	130	.....	130	w 40
Ordered guards on two rip saws. <i>Accident.</i> —On Jan. 14, 1889, a boiler explosion occurred in this factory by which the boiler tender lost his life. The cause of the explosion is unknown. The man had for three years been attending the boiler, which carried only 15 or 20 pounds of steam. Main shops damaged by fire May 31, 1889. Loss about \$15,000.				
APPLETON PAPER AND PULP CO., mfrs. print paper. Seven bldgs.—three 2-st.; one 1-st. brick; 3 boilers. Est. 1877.....	36	2	38	w 300
Ordered guard around elevator well.				
APPLETON VOLKSFREUND, (German) weekly; 2-st. and bsmt. brick. Est. 1870.....	12	1	13	4
APPLETON WEEKLY CRESCENT, THE. 2-st. and bsmt. brick; 1 boiler, 1 engine. Est. 1853.....	9	.....	9	4
APPLETON WECKER, German weekly; 2-st. brick. Est. 1881.	5	.....	5	w 3
APPLETON WOOLEN MILLS, mfrs. all grades plain and fancy yarns. Three bldgs.—one 2-st. brick; one 2 st. frame; one 1-st. frame; 1 boiler. Est. 1881.....	26	24	50	w 100
Found elevator cable slightly defective. Called the superintendent's attention to the fact.				
APPLETON WATER WORKS. Two buildings—two 1-st. brick; 2 boilers, 1 engine. Est. 1882. Daily capacity 6,000,000 gallons.	7	.....	7	135
ATLAS PAPER CO., mfrs. manilla paper. Seven bldgs.—one 3-st. brick; three 2-st. frame pulp mills; three 1-st. brick; 5 boilers. Est. 1878.....	113	22	135	w 2,000-
Ordered guard on shafting, and railing on stairs in one of the pulp mills, and belt guarded in another. A fire in 1888 destroyed part of the plant; the new buildings are in first-class condition, provided with Sturtevant ventilators, and the automatic sprinkling system. The pulp mills are located on opposite side of the river.				
CHAMPION PULP CO., mfrs. of wood pulp; 2 st. frame. Est. 1887.....	8	.....	8	w 200
EAGLE MANUFACTURING CO., mfrs. agricultural machinery. Two bldgs.—one 2-st. and one 1-st. frame. Est. 1883.....	5	.....	5	w 25
Ordered guard on rip saw.				
FLEMING, A. D. & CO., mfrs. linen toweling. Four bldgs.—one 3-st. frame; two 1-st. brick; one 1-st. frame; 1 boiler. Est. 1882.....	5	8	13	w 200
FOX RIVER PAPER CO., mfrs. fine tub-sized writing and book paper. Four bldgs.—one 3-st. brick; one 2-st. frame; two 1-st. brick; 2 boilers; iron escape. Est. 1883.....	40	30	70	w 400
KIMBERLY & CLARK CO., mfrs. print and book paper. Six bldgs.—one 4-st. brick; one 3-st. brick; three 2-st. brick; one 1-st. frame; 3 boilers; two iron stand-pipe escapes. Est. 1881.	87	38	125	w 600-
Ordered guard on rip saw. Firm is about to put in a new patent fan in picking room. <i>Accident.</i> —A workman broke a leg by slipping off a platform and getting caught in a pulley while adjusting a machine.				

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
MARSTON & BEVERIDGE, mfrs. hubs and spokes. Six bldgs.—three 2-st. frame; three 1-st. frame; 1 boiler. Est. 1883..... Ordered guard on one rip saw.	22	.....	22	w 75
MUENCH BREWING CO. Five bldgs.—two 3-st. brick; one 1-st. brick; two 1-st. frame; 1 engine; 1 boiler. Est. 1879.....	10	.....	10	15
MANSER & CO., mfrs. furniture, mouldings, etc. Three bldgs.—one 2-st. frame; two 1-st. frame; 1 boiler. Est. 1881..... Ordered guards on three rip saws.	6	.....	6	w 80
PATTEN PAPER CO., mfrs. print and book paper. Five bldgs.—one 2st. brick; three 1-st. frame; one 1-st. brick; 2 boilers. Est. 1883..... Ordered guard on hand elevator. <i>Accident.</i> —A boy was somewhat injured by getting under a pulley.	40	60	100	w 500
PATTEN PAPER CO., mfrs. pulp. Four bldgs.—one 2-st. brick; two 1-st. brick; one 1-st. frame. Est. 1884..... Ordered guard on one circular saw; also, belt and pulley guarded.	17	.....	17	w 400
POST PUBLISHING CO., The. 2-st. brick. Est. 1857.....	15	.....	15	w 4
SPAULDING G. W. & CO., mfrs. flour. Two bldgs.—one 3-st. brick; one 1-st. frame. Est. 1885.....	10	.....	10	w 100
STAR BREWERY. Four bldgs.—two 3-st. brick; one 2-st. frame; one 1 st. frame. Est. 1880.....	7	.....	7	w 2
TELULAH PAPER CO., mfrs. paper. Five bldgs.—one 4-st. brick; one 2-st. brick; three 1-st. brick; 3 boilers. Est. 1887... Ordered fire escape, guard on shafting, and main doors to swing outward. This is a new plant, with very nice arrangements.	73	23	96	w 1000
UNION TOY & FURNITURE CO., mfrs. toy express wagons and carriages. Three bldgs.—two 2-st. frame; one 1-st. frame. Est. 1888..... Ordered guards on two rip saws; also, main door to swing outward. The 2-st. bldgs. stand about fifty feet apart, and are connected by bridges.	32	.....	32	w 35
VALLEY IRON WORKS, mfrs. engines, mill work, etc. Six bldgs.—two 2-st. frame; two 1-st. brick; two 1-st. frame. Est. 1882..... Ordered guards on two rip saws.	40	.....	40	w 45
WILLY & CO., merchant millers. Two bldgs.—one 2-st. frame; one 1-st. frame. Est. 1881..... Ordered railing on stairway.	8	.....	8	w 100
WAMBOLD S. K. & SON, mfrs. of flour. Two buildings—one 3-st. brick; one 1-st. frame. Est. 1884..... Ordered railing on stairs.	9	.....	9	w 100
ASHLAND.—ASHLAND CO.				
<i>Inspected Sept., 1889, by Claymiev.</i>				
ASHLAND BREWERY. One 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1837.....	5	.....	5	16
ASHLAND CIGAR & TOBACCO CO., mfrs. cigars. 3-st. brick. Est. 1887.....	34	6	40	Hand
ASHLAND DAILY NEWS, The; 3-st. brick; 1 boiler; 1 engine. Est. 1885.....	18	.....	18	2
ASHLAND FURNITURE FACTORY, mfrs. store and office fixtures. Three buildings—one 2-st. frame; two 1-st frame; 1 boiler; 1 engine. Est. 1886..... Ordered guard on rip saw.	20	.....	20	25
ASHLAND IRON & STEEL CO., mfrs. charcoal pig iron. Five buildings—one 2-st., four 1-st., all brick; 4 boilers; 4 engines. Est. 1888..... Firm employs about 500 men; 100 at this plant.	100	.....	100	555

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
ASHLAND LIGHTING CO., mfrs. gas and electric light. Two 1-st. brick; 3 boilers; 2 engines. Est. 1885.. Ordered guard on fly-wheel. Gas works established in 1885, electric light plant, 1886.	8	.....	8	170
ASHLAND PRESS, THE; 2-st. brick; 1 boiler; 1 engine. Est. 1871	19	1	20	5
ASHLAND STEAM LAUNDRY; 1-st. frame; 1 boiler; 1 engine. Est. 1885.....	3	5	8	7
ASHLAND WATER WORKS. Two buildings — one 1-st. brick; one 1-st. frame; 2 boilers; 2 engines. Est. 1884..... Holly system. Daily capacity 3,000,000 gallons.	5	.....	5	200
DOHERTY B., mfr. lumber. Five buildings — one 2-st. frame; three 1-st. frame; one 1-st. stone; 3 boilers; 1 engine. Est. 1873 Ordered shaft of circular saw guarded.	65	.....	65	80
DURFEE R. A., mfr. lumber, lath, shingles. One 2-st. frame; one 1-st. frame; 4 boilers; 1 engine. Est. 1879..... Ordered guard on scrap saw.	40	.....	40	90
MILWAUKEE, LAKE SHORE & WESTERN RY. SHOPS. Seven buildings — five 1-st. brick; two 1-st. frame; 1 boiler, 1 engine. Est. 1887..... Ordered guard on fly-wheel and on rip saw. <i>Accident.</i> — Workman lost two fingers on planer.	50	.....	50	30
MOWATT & THOMPSON, mfrs. lumber, lath, shingles. Five buildings — two 2-st. frame; three 1-st. frame; boarding house, 2-st. frame; 5 boilers; 3 engines. Est. 1882..... All machinery well guarded; even the bolting saw is boxed up when not in use. Boarding house not run by firm.	75	.....	75	225
NASH, F. M. SON & CO., planing mill. Three 1-st. frame; two boilers; 1 engine. Est. 1887. Ordered guard on rip saw.	8	.....	8	65
PARISH MANUFACTURING CO., mfrs. saw mill machinery, steam engines, etc. Eight buildings — three 2-st. frame; five 1-st. frame; 2 engines; 2 boilers. Est. 1889..... Ordered guard on fly-wheel and on rip saw. This is a very fine plant; firm expect to employ about 100 men within a short time. They added \$60,000 worth of new patterns during the year.	65	.....	65	115
SCOTT, HUBBELL & TAYLOR, mfrs. sash, doors, blinds. Four buildings — one 2-st.; three 1-st. frame; 1 boiler; 1 engine. Est. 1887..... Ordered guard on rip saw; also on pulley of main shaft in engine room.	25	.....	25	45
SUPERIOR LUMBER CO., mfrs. lumber, lath, shingles, sash, doors, blinds. Seven buildings — three 2-st. frame; four 1-st. frame; 9 boilers; 3 engines. Est. 1881..... Ordered guard on rip saw in planing mill.	200	.....	200	555
SEYLER D. J. NOVELTY IRON WORKS, mfrs. boilers, engines, mill and steamboat castings. Three buildings — one 2-st. frame; two 1-st. frame; 1 boiler; 1 engine. Est. 1884..... Ordered guard on rip saw.	25	.....	25	20
SHIPPEY'S STEAM LAUNDRY; 2-st. frame; 1 boiler; 1 engine. Est. 1887..... Ordered guard on fly-wheel.	2	8	10	10
SUTHERLAND & WOOD, mfrs. lumber, lath, shingles. Four buildings — one 2-st. frame; three 1-st. frame; 4 boilers; 2 engines. Est. 1889..... Ordered guard on rip saw.	100	.....	100	170
WEED, CHANDLER & CO., mfrs. lumber and shingles. Five buildings — one 2-st. frame; four 1-st. frame; 4 boilers; 1 engine Est. 1889..... Ordered guard on edger pulley. <i>Accident.</i> — Workman fatally injured on saw carriage; died four weeks after accident.	90	.....	90	190

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male	Fem	Total	
AUBURNDALE.—WOOD CO.				
<i>Inspected Aug., 1889, by Claymier.</i>				
CONNOR R. & CO., mfrs. lumber and shingles. Four buildings — one 2-st. frame; three 1-st. frame; 4 boilers; 2 engines. Est. 1875.....	37	.....	37	125
Store connected; saw mill idle at time of visit.				
AUGUSTA.—EAU CLAIRE CO.				
<i>Inspected Aug., 1889, by Claymier.</i>				
AUGUSTA PLANING MILL, mfrs. sash, doors, blinds. Two buildings — one 2-st. frame; one 1-st. frame. Est. 1870.....	5	.....	5	w 18
Ordered guard on rip saw.				
BARABOO.—SAUK CO.				
<i>Inspected June, 1889, by Moore.</i>				
BARABOO IRON WORKS, mfrs. house work, kettles, lamp posts, etc. Two buildings — one 2-st. frame; one 1-st. frame...	10	.....	10	w 15
CHICAGO & NORTH-WESTERN RAILWAY SHOPS. Six buildings — one 2-st. frame; two 1-st. brick; three 1-st. frame; 2 boilers; 1 engine. Est. 1871.....	96	.....	96	50
DEMOCRAT THE, printing and publishing. 2-st. brick. Est. 1879.....	3	2	5	Hand
EFFINGER F., brewery. 2-st. brick; 1 boiler; 1 engine. Est. 1885.....	5	.....	5	8
ISLAND WOOLEN MILL COMPANY, mfrs woolen cloths. Four buildings — two 2-st. frame; one 1-st. brick; one 1-st stone; 1 boiler. Est. 1865.....	38	35	73	w 100
The proprietors remarked that they aimed to have everything in and about the mill, as safe as it can be made. Personally I know of no factory better provided with safety appliances. The stairway is located in a sort of hall, by itself, very wide and easy, and leads direct to the street. <i>Accident.</i> — One of the lady operatives had an arm badly lacerated while wiping off her loom while in motion.				
MILLER E. A., mfr. barrel hoops. Two buildings — one 2-st., one 1-st frame; 1 boiler; 1 engine. Est. 1888.....	30	...	30	25
Factory runs in winter only, employing about 30 men.				
REPUBLIC THE, printing and publishing. 2-st. brick. Est. 1887.....	2	3	5	Hand
VANDEVEER N. W., planing mill. 2-st. frame; 1 boiler; 1 engine. Est. 1884.....	5	.....	5	30
Ordered guard on circular rip saw and line shaft covered. <i>Accident.</i> — A six year old child crawled under saw table during absence of workman. He was severely, but not fatally, injured about the head.				
BEAVER DAM.—DODGE CO.				
<i>Inspected Nov., 1889, by Lang.</i>				
BEAVER DAM COTTON MILLS. Three buildings — one 3-st. brick; two 1-st. brick; 2 boilers; 1 engine; two wooden and one iron fire escapes. Est. 1872.....	63	117	180	s 250 w 140
I found several boys working in the factory who looked to be under 12 years of age. I called the superintendent's attention to the fact. He said he did not want to hire children under the lawful age, and if he did he was not to blame, as the statements of the boys as to their age was verified by their parents. I also directed his attention to the traps on elevator, which leaves shaft unguarded below when running to top floor. Automatic sprinklers on all floors.				
BEAVER DAM MILLING CO. Mill, 3-st. and attic, frame. Idle at time of visit on account of low water. Est. 1853.....	6	.....	6	w 60

*Reports received too late for alphabetical insertion.**Report of Inspection—Continued.*

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
BADGER MILLS.—CHIPPEWA CO.				
<i>Reported by firm.</i>				
BADGER STATE LUMBER CO., mfrs. lumber; one 2-st. frame; one 1-st. frame; 7 boilers; 3 engines. Est. 1875.....	125	.....	125	280
BAD RIVER.—ASHLAND CO.				
<i>Inspected October, 1889, by Claymier.</i>				
PENOKEE LUMBER CO., mfrs. lumber, lath, shingles. Twelve buildings—two 2-st. frame; eight 1-st. frame; three 1-st. brick; 9 boilers; 4 engines. Est. 1877..... <i>Accident.</i> —A workman had an arm and a foot cut off by a slasher saw. Store and boarding house connected.	250	.....	250	581
BARRON.—BARRON CO.				
<i>Inspected September, 1889, by Claymier.</i>				
BARRON ROLLER MILLS, mfrs. flour and feed; 3-st. frame. Est. 1884. Ordered guard at head of stairway on second and third floors.	6	.....	6	w80
BARRON WOOLEN MILLS CO., mfrs. genuine all-wool flannels, etc. Three buildings—two 1-st. frame with basement and attic; one 2-st. frame; 1 boiler. Est. 1884.....	9	7	16	
McKESSON J. W., mfrs. lumber and shingles. Three buildings—two 1-st. frame; one 2-st. frame; 2 boilers; 1 engine. Est. 1889 Ordered guard over slasher saw.	25	.....	25	65
PARR MANUFACTURING CO., mfrs. lumber and shingles. Three 1-st. frame. Store connected. Est. 1880	30	.....	30	w 100
BARRONETT.—BARRON CO.				
<i>Inspected September, 1889, by Claymier.</i>				
BARRONETT LUMBER CO., mfrs. lumber, lath, shingles. Eight buildings—three 2-st. frame; four 1-st. frame; one 1-st. brick; 5 boilers; 2 engines. Est. 1880 Ordered guard on rip saw. Store and boarding house connected.	100	.. ..	100	185
BAYFIELD.—ASHLAND CO.				
<i>Inspected October, 1889, by Claymier.</i>				
PIKE R. D., mfrs. lumber, lath, shingles. Six buildings—one 2-st. frame; four 1-st. frame; 6 boilers; 3 engines. Est. 1850 .. Ordered guard on gearing and set screw on saw mill; and guard on rip saw.	90	.....	90	275

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
BAYFIELD BROWN STONE CO., quarry and engine shed. Est. 1889.....	24	.....	24	.....
BEAR CREEK STATION.—OUTAGAMIE CO.				
<i>Reported by firm.</i>				
TROWBRIDGE H., mfr. lumber; 1-st. frame; 1 boiler; 1 engine. Est. 1880.....	15	.....	15	50
BERLIN.—GREEN LAKE CO.				
<i>Inspected August, 1889, by Moore.</i>				
BERLIN GRANITE CO., mfrs. granite blocks. Quarry. Est. 1887	12	.....	12	Hand
BERLIN & MONTELLO GRANITE CO., mfrs. paving blocks, crushed granite, and monuments. Nine buildings — one 3-st. frame; seven 1-st. frame; one 1-st. stone; 2 boilers; 4 engines. Est. 1884	210	.....	210	103
A very favorable change has been made in the appearance of these works during the past year. Where nothing existed then, there are now the buildings and a goodly number of well paid workmen. About twenty car loads of granite are shipped daily. Seven barrels of crude petroleum are used for fuel per day, it is claimed at less cost than coal. The company's works at Montello employ 100 men.				
BASSETT S. C., mfr. gloves, whips and fur goods. 2-st. brick. Est. 1860	5	7	12	Hand
LUTHER H., mfr washboards, camp stools, etc., 2-st. frame; 1 boiler; 1 engine. Est. 1885.....	7	.....	7	20
MORRIS C. S., mfr. brick and drain tile, and flour mill. Flour mill, 1-st. and 2-st. frame; yard, and frame engine house; 1 boiler; 1 engine. Brick yard idle at time of visit. Est. 1869....	14	.....	14	89
MURPHY & CHRISTIANSON, mfrs. cheese boxes and butter tubs. 1-st. and 2-st. brick; 2 boilers; 1 engine. Est. 1889 ... Ordered guard on rip saw. Pulley wheels and driving belt on planer covered or boxed.	9	.....	9	25
PUTNAM H. & SON, mfrs. shoe packs, log driving and hunting boots, 3-st. brick; 1 boiler; 1 engine. Est. 1874.....	90	10	100	30
STILLMAN, WRIGHT & CO., mfrs. flour. Four buildings — one 3-st. brick; two 1-st. frame; one 1-st. stone; 4 boilers; 1 engine. Est. 1867..... Ordered railing on stairs. Runs day and night. No accidents have occurred. Five coopers.	24	1	25	175

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
WELLS F. H. & CO., mfrs. flour, 3-st. frame; 1 boiler; 1 engine. Est. 1869	10	.....	10	80
The mill is just getting ready to start up, after having been idle two years. Runs day and night.				
BINGHAMTON.—OUTAGAMIE CO.				
Reported by firm.				
WAUSER H, mfr. lumber, 1 boiler; 1 engine. Est. 1884	10	.....	10	35
BIG WAUSAUKEE.—MARINETTE COUNTY.				
Reported by firm.				
BIRD & WELLS LUMBER CO., mfrs. lumber and shingles; 1-st. frame, 30x144; 3 boilers; 1 engine. Not one accident occurred since we have run this mill. Est. 1887	100	.....	100	235
BIRNAMWOOD.—SHAWANO COUNTY.				
Reported by firm.				
ROEPKE & MEISNER, mfrs. lumber and shingles; one 2-st. frame, 24x60; one 1-st. frame, 14x35; 1 boiler; 1 engine. Est. 1889.	16	.....	16	25
STACEY W. H. & CO., mfrs. lumber and heading; one 2-st. frame; two 1-st. frame; 1 boiler; 1 engine. Est. 1885	35	.....	35	50
VAN DOREN & ANDREWS, mfrs. lumber, shingles, staves and heading; one 2-st. frame; one 1-st. brick; 2 boilers; one engine. Est. 1884	30	.....	30	60
Accident.—“One man had a leg broken in yard.”				
BLACK CREEK FALLS.—MARATHON COUNTY.				
Reported by firm.				
RIETBROCK & HALSEY, mfrs. lumber; 2-st. frame; 4 boilers; 1 engine. Est. 1884	40	.....	40	100
BLOOMER.—CHIPPEWA CO.				
Inspected September, 1889, by Claymier.				
BROOKS G. I., planing-mill, one 2-st. frame; one 1-st. frame. Est. 1871	5	.....	5	w 35
RIGGS & ROTCH, mfrs. lumber, lath, shingles; one 2-st. frame; three 1-st. frame; 1 boilers; 1 engine. Est. 1884	35	.....	35	55
Ordered guard on rip-saw; railing at head of stairway, and tightener pulley, on second floor, boxed.				
BOYINGTON.—PORTAGE CO.				
Reported by firm.				
BOYINGTON N. & CO., mfrs. lumber; one 1-st. frame; 2 boilers; 1 engine. Est. 1859	40	.....	40	75

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
BRANDON.—FOND DU LAC CO.				
<i>Inspected August, 1889, by Moore.</i>				
GRAHAM BROS., mfrs. butter tubs; one 2-st. frame; one 1-st. stone; 1 boiler; 1 engine. Est. 1889	7	.....	7	10
BRILLION.—CALUMET CO.				
<i>Reported by firm.</i>				
BEACH GEO. M., mfrs. lumber; two 1-st. frame; 3 boilers; 2 engines. Est. 1871.....	10	.....	10	70
BUTTERNUT.—ASHLAND CO.				
<i>Inspected October, 1889, by Claymter.</i>				
BESSE H. L. mfr. lumber; 1-st. frame. Est. 1886.....	5	.....	5	w 35
LUELWITZ & BOETTCHER. mfrs. lumber, lath and shingles; two 1-st. frame; 1 boiler; 1 engine. Est. 1888.....	11	.....	11	25
Ordered pulley on edger guarded, and box over slasher saw.				
<i>(Too late for alphabetical insertion.)</i>				
LA CROSSE—LA CROSSE CO.				
<i>Reported by firm.</i>				
LISTMAN MILL CO., mfrs. flour. Mill, 4-st. brick; elevator, 4-st. frame; engine and boiler house, 1-st. brick; office, 1-st. brick; 3 boilers; 1 engine; two iron fire escapes. Est. 1879.....	38	.....	38	450
Mill burned in spring of 1889; rebuilt same year. Found everything in new mill in excellent condition as to safety appliances.				
MARINETTE—MARINETTE CO.				
<i>Reported by firm.</i>				
SAWYER, GOODMAN CO., mfrs. lumber, lath, shingles. Mill, 2-st. frame; boiler and engine house, 1-st. brick; office, 1-st. frame; 6 boilers; 1 engine. Est. 1880	130	.....	130	500
MILWAUKEE—MILWAUKEE CO.				
<i>Reported by firm.</i>				
CREAM CITY CEMENT CO., mfrs. cement. Mill, 2-st. frame, 34x40; warehouse, 1-st. frame, 36x110; boiler and engine house, 1-st. frame, 33x34; kiln, 1-st. frame, 21x34. Est. 1889.....	24	.....	24	150
These works are new, not quite completed at time of inspection, and will be a fine plant. Machinery well guarded.				
MILWAUKEE CEMENT CO. [Plant A.], mfrs. cement. Mill, 3-st. frame, 44x50; boiler and engine house, 1-st. frame, 44x60; warehouse, 2-st. frame, 120x180; kiln, 1-st. frame, 50x145; 4 boilers; 4 engines. Est. 1875 .....	.....	.....	.....	400
This plant was not running at the time of inspection. Capacity, 200 bbls. per day.				
MILWAUKEE CEMENT CO. [Plant B.], Mill, 3-st. frame, 65x72; boiler house, 1-st. frame, 40x42; engine house, 1-st. frame, 22x48; kiln, 1-st. frame, 50x200; office, 1-st. frame, 16x40; 4 boilers; 2 engines. Est. 1875.....	200	.....	200	450
Capacity, 2,000 bbls. per day.				

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
BEAVER DAM WOOLEN MANUFACTURING CO. Five buildings—one 3-st. brick; one 2-st. brick; three 1-st. brick; 2 boilers; 1 engine. Est. 1853. Ordered fire escape replaced, which had been taken down at time of building the addition.	55	54	109	s 65 w 70
BEAVER DAM WOOLEN MILLS. Three buildings—one 2½-st. frame; one 2-st. frame; one 2-st. brick; 1 boiler; automatic sprinklers on all floors; wooden fire escape. Est. 1866.	27	21	48	w 70
ROWELL J. S. MANUFACTURING CO., mfrs. agricultural implements. Eight buildings—one 2 st brick; one 3-st. brick; four 2-st. frame; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine; buildings bridged. Est. 1855.	50	.....	50	62
<i>BEEF SLOUGH.—BUFFALO CO.</i>				
<i>Inspected July, 1889, by Claymier.</i>				
MISSISSIPPI RIVER LOGGING CO., mfrs. wooden plugs and logging; 1-st. frame; 1 boiler; 1 engine. Factory burned in 1888, rebuilt 1889. Besides the factory building, there are a number of 2-st. frame boarding houses, none of which were occupied at time of visit. Est. 1884.	10	.....	10	20
<i>BELDENVILLE.—PIERCE CO.</i>				
<i>Inspected Aug., 1889, by Claymier.</i>				
BRIMMER D. W. & CO., mfrs. staves and headings. Three buildings—all 1-st. frame; 2 boilers; 2 engines. Est. 1885. Ordered guard on fly wheel in heading mill.	23	.....	23	60
BELDENVILLE LUMBER CO., mfrs. veneer lumber. Five buildings—all 1-st. frame; 1 boiler; 2 engines. Est. 1885. Ordered guard on fly wheel.	34	.....	34	43
<i>BELLEVUE.—BROWN CO.</i>				
<i>Inspected April, 1889, by Claymier.</i>				
BELLEVUE BREWERY. Five buildings—two 2 st. brick; one 2 st. frame; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1850.	7	.....	7	20
<i>BELOIT.—ROCK CO.</i>				
<i>Inspected June, 1889, by Moore.</i>				
BESLEY CHAS. H., mfr. screw plates and parallel clamps; 2-st. frame. Est. 1888.	6	.....	6	w 40
BELOIT FREE PRESS, THE, printing and publishing; 3-st. brick; 1 boiler; 1 engine. Est. 1848.	6	4	10	4
BELOIT IRON WORKS, mfrs. paper mill machinery. Four buildings—two 2-st. frame; two 1-st. frame; 2 boilers; 1 engine. Est. 1857. Ordered guard on buzz saw.	100	.....	100	40
BERLIN MACHINE WORKS, mfrs. wood polishing machinery. Three buildings—one 2-st. stone; two 1-st. stone; 1 boiler; 1 engine. Est. 1877. These works were moved here from Berlin, Wis., in 1888, occupying shops of late Eclipse Co. It makes a fine shop with plenty of room, light and air.	143	.....	143	75
BELOIT STRAW BOARD CO. Two buildings—one 1-st., one 2-st. stone; 3 boilers; 2 engines. Est. 1880. <i>Accident.</i> —A workman broke his ankle, caused by boiler explosion last fall.	23	.....	23	240
BLODGETT WM., mfr. flour; mill, 3-st. stone. Est. 1849.	12	.....	12	w 100
CITY LAUNDRY, 1-st. frame; 1 boiler; 1 engine. Est. 1888.	1	4	5	6
DAILY AND WEEKLY CITIZEN, THE, printing and publishing; 2-st. brick. Est. 1879.	9	1	10	Hand
DOWD, REX J., mfr. knives; 2-st. brick. Est. 1887.	7	.....	7	w 55

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male	Fem.	Total	
ECLIPSE WIND ENGINE CO. , mfrs. pumps, windmills, tanks, pulleys, etc. Eight buildings—one 2-st. brick; six 1-st. brick; one 1-st. frame; 2 boilers; 2 engines. Est. 1872..... Ordered guard on three rip saws, and elevator repaired.	150	.....	150	180
EUREKA LAUNDRY ; 2-st. brick; 1 boiler; 1 engine. Est. 1886 Ordered a belt in washroom, at head of stairs, covered.	3	10	13	10
FOSTER JOHN SHOE CO. , mfrs. gents' and ladies' fine shoes. Factory 2-st. brick; 1 boiler; 1 engine. Est. 1870..... For light, air, and other sanitary conditions, this is one of the nicest factory plants in the state. A stairway leads direct to street, and the first roof is easy of access from all parts, or rear windows on second floor.	122	48	170	35
GESLEY BROS. MFG. CO. , mfrs. plows, harrows, cultivators and wagons. Two buildings—one 2-st. brick; one 2-st. stone; 1 boiler; 1 engine. Est. 1880..... Ordered guard around elevator well. The elevator is situated in the rear of main shop, outside on a platform. The stairway is beside it, and t being open, is extremely dangerous.	10	.....	10	12
GASTON N. B. & SON , mfrs. scales. Factory, 3-st. stone. Est. 1844..... Ordered guard around elevator well.	15	.....	15	w 14
HOUSTON MILLING CO. , mfrs. flour. Two buildings—one 3-st. stone; one 1-st. frame. Est. 1881.....	12	.....	12	w 125
LEONARD H. J. MFG. CO. , mfrs. gloves and mittens. Factory 2-st. frame. Est. 1865.....	6	2	8	w 6
PURVES THOMAS , mfr. cigars. Factory, 2-st. frame, iron veneer. Est. 1887.....	6	9	15	Hand.
ROSENBLATT H. & SONS , mfrs. workingmen's clothing. Factory 2-st. stone. All work done on second floor, on level with sidewalk. The rooms are airy, clean and neat. Est. 1879.....	12	73	85	w 5
ROCK RIVER PAPER MILLS , mfrs. carpet lining paper. Factory, 1 and 2-st. frame and stone. Est. 1859.....	15	.....	15	w 25
STAR LAUNDRY ; 2-st. brick; 1 engine; 1 boiler. Est. 1889.....	2	4	6	10
THOMPSON J. & SONS , mfrs. The Norwegian plow. Factory, 3-st. brick; 2 boilers; 1 engine. Est. 1860..... The elevator is a large and slow running one. A very bad feature is that it is open to the street. The passage is over and under it. It is supplied with an alarm bell, which strikes every four inches. A number of children of from 6 to 10 years of age were playing about, and some time some of them will be caught. I do not see any way to prevent this, except by driving the children away, which was done twice while I was there. I will request the marshal to stop the playing.	65	.....	65	80
BENTON — LAFAYETTE CO. <i>Inspected May, 1889, by Moore.</i>				
BAMBRIDGE & HOSKINS , lead mining; engine shed; 1 hoist; 1 boiler; 1 engine. The engine is used to pump water from the mine and for hoisting. Est. 1889..... There are a number of small mines or "prospects" as they are called, in this immediate neighborhood, worked by one, two, and three men each; no machinery; about 100 miners were at work.	20	.....	20	20
BLACK CREEK — OUTAGAMIE CO. <i>Inspected Aug., 1880, by Moore.</i>				
HAZEN C. J. , mfr. cheese boxes, wagons, and custom planing. 1-st. frame; 1 boiler; 1 engine. Est. 1885..... Ordered guard on circular rip saw. <i>Accident.</i> —A workman lost two fingers by head saw. This saw is only about 10 inches in diameter, in shape of a saucer.	6	.....	6	13

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male	Fem.	Total	
NELSON L. R., mfr. flour and lumber. Two buildings — one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1875..... Both mills closed at time of inspection.	11	..	11	40
<i>BLACK RIVER FALLS—JACKSON CO.</i>				
<i>Inspected Aug., 1889, by Claymier.</i>				
PRICE MANUFACTURING CO. THE, mfrs. sash, doors, blinds, foundry and machinists. Six buildings — two 2-st. frame; three 1-st. frame; one 1-st. stone. Est. 1883..... Ordered guard on rip saw.	25	.....	25	w 80
SPAULDING D. J., mfr. wagons. 2-st. frame. Est. 1869..... Ordered guard on rip saw.	12	.....	12	w 10
YORK IRON CO., mfrs. charcoal pig-iron. Eight buildings — one 3-st. frame; two 2-st. frame; one 2-st. brick; two 1-st. frame; two 1-st. brick; 4 engines; 4 boilers. Fire escape leading from tower to ground. Boarding house connected, not run by firm. Est. 1865.....	65	.....	65	570
<i>BOSCOBEL.—GRANT CO.</i>				
<i>Inspected May, 1889, by Moore.</i>				
RUKA BROS., mfrs. sleighs, wagons, harrows, scrapers and lumber. Three buildings — one 2-st. frame; one 2-st. brick; one 1-st. frame; 2 boilers; 2 engines. Est. 1879..... Ordered guard on circular saw.	36	.....	36	65
WURSTER & KELLER, mfrs. tubs; 2-st. frame; 1 boiler; 1 engine. Est. 1887.....	5	.....	5	8
<i>BOYD.—CHIPPEWA CO.</i>				
<i>Inspected August, 1889, by Claymier.</i>				
CIRKEL J. W. & SONS, mfrs. flour-barrel stock. Four buildings; all 1-st. frame; 3 boilers; 1 engine. Est. 1881..... Ordered guard on fly-wheel.	45	.....	45	150
MURRAY M. ESTATE, mfrs. tight barrel staves, heading, etc. Three buildings — all 1-st. frame; 1 boiler; 1 engine. Est. 1885.	18	.....	18	45
<i>BRODHEAD.—GREEN CO.</i>				
<i>Inspected May, 1889, by Moore.</i>				
BARR ORSEN, mfr. carriages. 2-st. brick. Est. 1882.....	8	.....	8	Hand
BECK MARTIN, mfr. fine carriages, carryalls, hearses, etc. 2-st. brick. Est. 1882.....	12	.....	12	Hand
LAUBE & DURNER, mfrs. carriages. Two buildings — one 2-st. brick; one 2-st. frame. Est. 1874.....	10	.....	10	Hand
PIERCE GEO. M., mfr. plows and cultivators. 2-st. frame. Est. 1873..... Ordered guard on circular saw.	8	.....	8	w 10
<i>BROOKLYN—DANE CO.</i>				
<i>Inspected June, 1889, by Moore.</i>				
DUPLEX WINDMILL CO., mfrs. windmills, pumps, tanks. Three buildings — one 2-st. brick; two 1 st. stone; 1 boiler; 1 engine. Est. 1886.....	30	.....	30	40
<i>BUCKBEE.—WAUPACA CO.</i>				
<i>Inspected Aug., 1889, by Moore.</i>				
BENNETT G. P., mfr. broom handles. Three buildings — all 1-st. frame; 1 boiler; 1 engine. Est. 1884.....	8	.....	8	30
JONES G. W. & CO., mfrs. hardwood lumber. Two buildings — one 2-st.; one 1-st. frame; 1 boiler; 1 engine. Est. 1869.....	40	.....	40	s 65

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
BURLINGTON.—RACINE CO.				
<i>Inspected March, 1889, by Moore.</i>				
BURLINGTON BRICK & TILE CO., mfrs. brick and tile. 3-st frame and yard. 1 boiler; 1 engine. Est. 1885.	30	.....	30	35
Ordered elevator wells guarded. Works idle since Nov., 1888. Only two men work above ground floor. Upper floors used for drying tile.				
BURLINGTON MALT CO. 3-st. brick; 1 boiler; 1 engine. Est. 1879.....	5	.....	5	20
FINK & CO., brewers. 2-st. stone; 1 boiler; 1 engine. Est. 1881. Ordered guard under main belt.	10	.....	10	18
CADOTT.—CHIPPEWA CO.				
<i>Inspected Aug., 1889, by Claymier.</i>				
CLARK MANUFACTURING CO., mfrs. wagon hubs, spokes, etc. Seven buildings—two 2-st. frame; four 1-st. frame; one 1-st. brick; 2 boilers; 1 engine. Est. 1880.....	110	.....	110	100
This is one of the finest factories of the kind in the state.				
CIRKEL W. F., mfr. flour barrel stock. Six 1-st. frame buildings; 2 boilers; 1 engine. Est. 1879.....	25	.....	25	80
MUNROE W. S., mfr. lumber, lath, shingles. Five buildings — one 2-st. frame; four 1-st. frame; 1 boiler; 1 engine. Est. 1883. Ordered box over slasher saw.	18	.....	18	75
CADY MILLS.—ST. CROIX CO.				
<i>Reported by firm.</i>				
DAVIS D. C. & SONS, mfrs. lumber, and dealers in wood, coal, etc. Three buildings—two 2-st. frame; one 1-st. frame; 1 boiler; 2 engines. Est. 1870.....	120	.....	120	50
"Saw mill burned in June, 1889. We have five engines in all; 2 railroad, 2 stationary, 1 portable, engine."				
CAROLINE.—SHAWANO CO.				
<i>Reported by firm.</i>				
THIELE E. & BRO., mfrs. lumber and shingles. One 2-st. frame; 1 boiler, 1 engine. Est. 1885.....	10	.....	10	50
CARTWRIGHT.—CHIPPEWA CO.				
<i>Inspected Sept., 1889, by Claymier.</i>				
CARTWRIGHT & CUMMINGS, mfrs. hardwood and pine lumber. Four buildings—all 1-st. frame; 2 boilers; 2 engines. Est. 1876.....	30	.....	30	51
Ordered guard on rip saw.				
CASCO.—KEWAUNEE CO.				
<i>Reported by firm.</i>				
CASCO LUMBER CO., mfrs. lumber and cheese boxes. 2-st. frame; 3 boilers; 1 engine. Est. 1863.....	20	.....	20	60
CASSVILLE.—GRANT CO.				
<i>Inspected May, 1889, by Moore.</i>				
STEVENS D. B. & SON, mfrs. lumber. Two 1-st. frame; 2 boilers; 1 engine. Est. 1859.....	40	.....	40	80
Ordered main belt boxed.				
CAVOUR.—FOREST CO.				
<i>Reported by firm.</i>				
HALL'S LUMBER & MFG. CO., mfrs. lumber and shingles. Two 2-st. frame buildings; 3 boilers; 1 engine. Est. 1887....	78	.....	78	150
Accident.—"Shingle sawyer of thirty-five years' experience lost three fingers in shingle machine."				

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
CECIL.—SHAWANO CO.				
<i>Inspected Aug., 1889, by Moore.</i>				
EASTERS & HONEYMAN, mfrs. posts; 1-st. frame; 1 boiler; 1 engine. Est. 1887.....	6	.....	6	20
CEDARBURG.—OZAUKEE CO.				
<i>Inspected March, 1889, by Claymier.</i>				
CEDARBURG WOOLEN MILLS. Four buildings—three 2-st stone; one 1-st. stone; 2 boilers; 1 engine. Est. 1864.....	50	50	100	s 50
Ordered railing on stairway. Underground passage leading to dye house from the main factory.				w 50
HILGEN MANUFACTURING CO., mfrs. sash, doors, blinds, mouldings, etc. Five buildings—two 2-st. frame; two 1-st. stone; one 1-st. frame; several small buildings used for storage; 2 boilers; 1 engine. Est. 1872.....	65	.....	65	75
Ordered guards on three saws, and railing on stairway.				
WEBER JOHN, brewer. Two buildings—one 2-st. stone; one 2-st. brick; 1 boiler; 1 engine. Est. 1872.....	5	.....	5	18
CEDAR FALLS.—DUNN CO.				
<i>Inspected Aug., 1889, by Claymier.</i>				
KNAPP, STOUT & CO. COMPANY mfrs. lumber, laths, and shingles. Six buildings—two 2-st. frame; three 1-st. frame; one 1-st. brick. 1 boiler; 1 engine. Est. 1883.....	125	.....	125	w 1500
Store and boarding house connected. Firm do not run the boarding house. It was closed. <i>Accident.</i> —On July 3rd a workman was struck by a board springing back from edger; he died on the 4th from the effects of the injuries.				s 75
CEDAR LAKE.—WAUSHARA CO.				
<i>Reported by firm.</i>				
JAMES GEO. H.. mfr. lumber. One 1-st. frame; 1 boiler; 1 engine. Est. 1850.....				
"Timber is about exhausted and business will close in about two years."				
CENTRALIA.—WOOD CO.				
<i>Inspected June, 1889, by Claymier.</i>				
CENTRALIA HUB AND SPOKE FACTORY. Six buildings—four 1-st. frame; two 1-st. brick, and several 1-st. frame sheds; 2 boilers; 1 engine. Est. 1879.....	54	1	55	42
Destroyed by fire Jan. 18, 1890. Estimated loss \$15,000.				
CENTRALIA PULP AND WATER POWER CO., mfrs. wood pulp. Three buildings—one 2-st. frame and two 1-st. frame. Est. 1888.....	40	.....	40	w 4000
JACKSON MILLING CO. THE. Two buildings—two 3-st. frame. Est. 1860.....	9	.....	9	w 180
Ordered guard at head of stairway on third floor. Bridged at third floors.				
MARION L. BENSLEY PULP MILLS, mfrs. refined wood pulp. Two buildings—one 1-st. frame; one 2-st. frame. Est. 1886.....	18	.....	18	w 600
Ordered cap over set-screw on shaft.				
WISCONSIN WOOD PULP CO. Four buildings—one 2-st. frame; three 1-st. frame; 1 boiler. Est. 1882.....	10	.....	10	w 500
WOOD L. H. & CO., planing mill. Three buildings—one 2-st. frame; one 1-st. stone; one 1-st. frame; 1 boiler; 1 engine. Est. 1887.....	6	.....	6	35
<i>Accident.</i> —A workman lost two fingers.				

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES,			Horse power.
	Male.	Fem.	Total	
CHASEBURG.—VERNON CO.				
Reported by firm.				
NATWECK H. O., mfr. hardwood lumber. One 2-st. frame. Est. 1883.	5	.....	5	w
CHETEK.—BARRON CO.				
Inspected Sept., 1889, by Claymier.				
GLAZE WM. & CO., mfrs. lumber; foundry and machine shop. Four buildings—all 1-st. frame; 2 boilers; 2 engines. Est. 1883.	15	.....	15	35
CHILTON.—CALUMET CO.				
Inspected July, 1889, by Moore.				
DORSCHER, SCHULTZ & CO., mfrs. sash, doors, blinds. Two buildings—one 2-st. frame; one 1-st. stone; 1 boiler; 1 engine. Est. 1865.	30	.....	30	30
Ordered guard on rip-saw. Firm does general contracting and runs a lumber yard. Of the 30 employes 16 work in factory; the others are carpenters who work by the job.				
UNION ROLLER MILLS, 2-st. frame; 2 boilers; 1 engine. Est. 1874.	8	.....	8	75
Found an exposed belt which proprietor promised to have safely boxed or covered.				
CHIPPEWA CITY.—CHIPPEWA CO				
Reported by firm.				
STANLEY F. G. & C. A., mfrs. lumber. One 2-st. frame. Est. 1879.	40	.....	40	w 75
CHIPPEWA FALLS.—CHIPPEWA CO.				
Inspected June, 1889, by Claymier.				
CHIPPEWA FALLS WOOLEN AND LINEN MILL CO., mfrs. cassimeres, flannels, blankets, etc. Factory, 3-st. frame, iron veneer; one 1-st. brick; 1 boiler; 1 engine. Est. 1884	7	5	12	35
CHIPPEWA LUMBER AND BOOM CO., mfrs. lumber, lath, shingles. Twelve buildings—one 3-st. frame; three 2-st. frame; seven 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1836.	400	.....	400	w 1500 s 200
Boarding house connected, but not managed by firm. Mill runs eleven hours per day; wages paid monthly. Accident. —A boy had two fingers cut off while removing sawdust from under the saw.				
CHIPPEWA VALLEY PUBLISHING CO., printing and publishing; 2-st. brick; water motor. Est. 1880.	7	1	8	4
SPRING BREWERY. Eight buildings—two 3-st. stone; one 2-st. brick; one 2-st. stone; one 1-st. stone; one 2-st. frame; one 1-st. frame; 2 boilers; 2 engines. Est. 1867.	22	.....	22	50
STANLEY, F. G. & C. A., mfrs. sash, doors, blinds, lumber, etc. Five buildings—two 2 st. frame; two 1-st. frame; one 1-st. brick; 2 boilers; 1 engine. Est. 1882	34	.....	34	40
Ordered guard on two rip saws, and guards on two stairways, one in factory, one in warehouse.				
STAR ROLLER MILLS, mfrs. flour, feed, corn meal, etc.; 3-st. frame. Est. 1876	6	.....	6	w 80
Ordered guard on stairway on third floor.				
CLAYTON.—POLK CO.				
Inspected Sept., 1889, by Claymier.				
HUMBIRD & CO., mfrs. lumber, lath, shingles. Seven buildings—three 2-st. frame; four 1-st. frame; 4 boilers; 2 engines. Est. 1876	100	.....	100	150
Ordered guard on rip saw. Boarding house and store connected. Fire Dec. 2, 1889; estimated loss \$75,000.				

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
CLEAR LAKE.—POLK CO.				
<i>Inspected Sept., 1889, by Claymier.</i>				
MANN & FIELDS, mfrs. lumber, lath, shingles. 1-st. frame; 1 boiler; 1 engine. Est. 1880 Ordered guard on rip saw.	18	.....	18	35
CLINTONVILLE.—WAUPACA CO.				
<i>Inspected Aug., 1889, by Moore.</i>				
WALL & CLINTON, planing and saw-mill; 1-st. frame; 1 boiler; 1 engine. Est. 1886	10	.....	10	30
COCHRANE.—BUFFALO CO.				
<i>Inspected July, 1889, by Claymier.</i>				
COCHRANE BASKET CO. Two buildings—one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1889. Ordered guard at head of stairway on second floor, and the main door to swing outward.	18	.....	18	14
COLBY.—CLARK CO.				
<i>Inspected Aug., 1889, by Claymier.</i>				
ARNDT L., mfr. lumber. Two buildings—one 2-st. frame; one 1 st. frame; 1 boiler; 1 engine. Est. 1889.	19	.....	19	30
PETERSON N .P., mfr. wagons, logging sleighs, etc. Three 1-st. frame buildings; 1 boiler; 1 engine. Est. 1873.	6	.....	6	15
CONNERSVILLE.—DUNN CO.				
<i>Reported by firm.</i>				
ROBERTS F. L., mfr. lumber. One 2-st. frame; 2 boilers; 2 engines. Est. 1883. <i>Accident</i> —"A workman lost his fingers at first joint."	10	.....	10	30
BEST A. L. & W. J., mfrs. lumber. Four buildings—two 2-st., and two 1-st. frame; 1 boiler; 1 engine. Est. 1885. <i>Accident</i> —"Workman hurt by spoke splitting saw, through his own carelessness. He was trying to make a fast run, and let the spoke fly back; it struck him in the stomach, from the effects of which he died about a week later. The saw was guarded; the man would have recovered, but he neglected to take proper care of himself, and inflammation of the bowels was the result."	15	.....	15	45
COOLIDGE — PRICE CO.				
<i>Inspected Oct., 1889, by Claymier.</i>				
BAYINGTON & ATWELL, mfrs. lumber, lath, shingles. Seven buildings—two 2-st. frame; five 1-st. frame; 4 boilers; 2 engines. Est. 1886. Ordered guard on rip saw in planing mill. Store and boarding house connected.	75	.....	75	175
COX.—CHIPPEWA CO.				
<i>Reported by firm.</i>				
McELMURRY BROS., mfrs. lumber and shingles. Two 1-st. frame buildings; 1 boiler; 1 engine. Est. 1888.	8	.....	8	35
CRANDON.—FOREST CO.				
<i>Reported by firm.</i>				
BAILEY C. E., mfr. lumber. Four buildings—two 2-st. frame; two 1-st. frame; 1 boiler; 1 engine. Est. 1885.	9	.....	9	40
ROBERTS S. B. & CO., mfrs. lumber; 2-st. frame; 1 boiler; 1 engine. Est. 1888.	20	.....	20	40

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
CUMBERLAND.—BARRON CO.				
<i>Inspected Sept., 1889, by Claymier.</i>				
BEAVER DAM LUMBER CO., mfrs. lumber, lath, shingles. Four buildings—one 2-st. frame; three 1-st. frame, and several sheds; 5 boilers; 2 engines. Est. 1881.....	100	.....	100	175
Ordered guard on piston rod and crank. Store connected.				
HUNTER A. L., mfr. lumber, shingles, etc. Four buildings—three 2-st. frame; one 1-st. frame; 4 boilers; 2 engines. Est. 1883.....	75	... ..	75	110
Ordered guard on stairway in saw mill. Store and boarding house connected.				
CURTISS.—CLARK CO.				
<i>Inspected Aug., 1889, by Claymier.</i>				
BASS A. D., mfr. lumber, lath, shingles. Three 1-st. frame buildings; 1 boiler; 1 engine. Est. 1878.....	40	... ..	40	55
Ordered guard on crank and piston rod. Store connected.				
DALLAS.—BARRON CO.				
<i>Reported by firm.</i>				
ANDERSON J. A., mfr. lumber, lath, shingles and flour. Saw, shingles, planing and flour mills; 1 boiler; 1 engine. Est. 1877. Accident—"Workman had a hand bruised."	20	.....	20	s 50 w 40
DANVILLE.—DODGE CO.				
<i>Reported by firm.</i>				
WALKER & CO., mfrs. sash, doors, blinds; 1-st. frame; 1 boiler; 1 engine. Est. 1885.....	5	.....	5	25
DARLINGTON.—LA FAYETTE CO.				
<i>Inspected May, 1889, by Moore.</i>				
WOODWARD THOMAS, mfr. flour. Mill, 2-st. stone. Est. 1849.	6	.....	6	w 70
DEERBROOK.—LANGLADE CO.				
<i>Reported by firm.</i>				
HARLOW & LUCE, mfrs. lumber. Two buildings—one 2-st. frame; one 1-st. frame; 2 boilers; 1 engine. Est. 1882.....	50	.....	50	140
DELAVAN.—WALWORTH CO.				
<i>Inspected April, 1889, by Moore.</i>				
DELAVAN TACK CO. THE, mfrs. tacks. Factory, 1-st. and 2-st. frame; 1 boiler; 1 engine. Est. 1889.....	9	5	14	15
This firm, consisting of two of the former workmen for the Delavan Tack Co., started in business in February, 1889, in the old plant.				
READER J. B., mfr. wind-mills and tanks. Factory, 1-st. and 2-st. brick and frame; 1 boiler; 1 engine. Est. 1885.....	10	.....	10	15
Ordered guard on all circular saws.				
STOWELL OLIVER G., mfr. wind-mills and tanks. Factory 2-st. frame; 1 boiler; 1 engine. Est. 1887.....	8	.....	8	15
Ordered guards on two circular saws.				
DEPERE.—BROWN CO.				
<i>Inspected April, 1889, by Claymier.</i>				
COLLETTE H., [Plant A.], mfr. rough and dressed lumber, lath, shingles, etc. Three buildings—two 2-st. frame; and one 1-st. frame; 2 boilers; 1 engine. Est. 1867.....	60	.....	60	60

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
COLLETTE H., [Plant B.], planing mill and machine shop. Eight buildings — six 1-st. frame; two 1-st. brick; one boiler, 1 engine. Est. 1888	22	.....	22	35
Ordered guard on a circular saw. This plant was formerly occupied as a car works. Only the machine shop and planing mill are now occupied.				
DOUSMAN J. P., merchant milling. Four buildings — one 3-st. stone; three 1-st. frame. Est. 1853	8	.....	8	w 100
LAWTON C. A., foundry and machine shops. Three buildings — two 1-st. brick; and 1-st. frame. Est. 1868	10	.....	10	w 10
MEISWINKEL R. A., mfr. wooden ware and cooperage. Six buildings—four 2-st. frame; one 2-st. brick; one 1-st. frame; and several storage sheds; 2 boilers; two engines. Est. 1873... Destructive fire, April 21, 1889; estimated loss \$125,000.	274	1	275	94
NATIONAL FURNACE CO., mfrs. charcoal pig iron. Five buildings—three 1-st. brick; two 1-st. frame, and several storage sheds; 4 boilers; 4 engines. Est. 1869	60	.....	60	200
Accident.—Since former inspection a gas explosion took place at these works by which the roof of the engine and boiler house were blown off. In the descent of the debris the engineer was struck, breaking his arm. No one else was injured.				
NICOLLET SASH & DOOR CO., mfrs. sash, doors, blinds. Three buildings; two 2-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1874	26	.....	26	72
Ordered guards on circular saws.				
WELLS D. & CO., merchant millers. Two buildings — one 4-st. brick; one 1-st. frame. Est. 1867	9	.....	9	w 100
Ordered railing on stairway.				
<i>DEXTERVILLE.—WOOD CO</i>				
<i>Inspected Aug., 1889, by Claymier.</i>				
HILES GEO., mfr. lumber, lath, shingles. Five buildings — one 2-st. frame; three 1-st. frame; one 1-st. brick; 2 boilers; 1 engine. Est. 1853	150	.....	150	80
<i>DODGEVILLE.—IOWA CO.</i>				
<i>Inspected May, 1889, by Moore.</i>				
STRATMAN F. W. & CO., mfrs. wagons and plows. Factory, 1-st. and 2-st. frame and stone; 1 boiler; 1 engine. Est. 1860 ..	10	.....	10	10
<i>DORCHESTER.—CLARK CO.</i>				
<i>Inspected Oct., 1889, by Claymier.</i>				
KUENTZ F., mfr. lumber. One 1-st. frame; 1 boiler; 1 engine. Est. 1881	18	.....	18	30
KOERNER J., mfr. wooden hoops. One 1-st. frame; 1 boiler; 1 engine. Est. 1889	5	.....	5	12
SCHMIDT & KRAKENBERGER, mfrs. broom handles, base ball bats, etc. Two buildings — one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1888	5	.....	5	10
VAN DUSEN O. D., mfr. pine and hard wood lumber. Three buildings—one 2-st. frame; two 1-st. frame; 3 boilers; 1 engine. Est. 1875	80	.....	80	125
Store connected.				
<i>DOWNING.—DUNN CO.</i>				
<i>Inspected Sept., 1889, by Claymier.</i>				
DOWNING MANUFACTURING CO., mfrs. hardwood lumber. Five buildings — two 2-st. frame; three 1-st. frame; 3 boilers; 1 engine. Est. 1885	45	.....	45	90
Store connected.				

Report of Inspection — Continued,

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
DOWNSVILLE.—DUNN CO.				
<i>Inspected Aug., 1889, by Claymier.</i>				
KNAPP, STOUT & CO. COMPANY, mfrs. lumber, lath, shingles. Six buildings—two 2-st. frame; four 1-st. frame. Est. 1860.	125	.....	125	w 1500
This is the company's roomiest mill, and everything is in fine condition. Boarding house and store connected. <i>Accident.</i> —A workman lost a finger in shingle mill.				
DRUMMOND.—BAYFIELD CO.				
<i>Inspected Sept., 1889, by Claymier.</i>				
RUST-GWEN LUMBER CO., mfrs. lumber, lath, shingles. Seven buildings—three 2-st. frame; two 1-st. frame; two 1-st. brick; 8 boilers; 3 engines. Est. 1882.....	325	.....	325	576
Ordered guard on fly-wheel of electric engine; guards on piston rod crank and fly-wheel in planing mill. Store and boarding house connected.				
DUPONT.—WAUPACA CO.				
<i>Reported by firm.</i>				
NOHR & CO., mfrs. lumber. Mill, 2-st. frame. Est. 1881....	20	.....	20	w 40
EAGLE RIVER.—ONEIDA CO.				
<i>Inspected Aug., 1889, by Moore.</i>				
GERRY LUMBER CO., mfrs. lumber and shingles. Two buildings—one 2-st. frame; one 1-st. frame; 6 boilers; 2 engines. Est. 1885.....	75	.....	75	175
<i>Accident.</i> —A workman in lumber yard broke a leg.				
SHERIDAN T. J. & CO., mfrs. lumber and shingles. Two buildings—one 2-st. frame; one 1-st. frame; 4 boilers; 2 engines. Est. 1889.....	50	.....	50	300
Ordered guard around fly wheel of engine, and railing on stairs. The mill is new and had just been started; some of the machinery therefore is very dangerous; but Mr. Sheridan tells me they are covering up and fixing dangerous places as fast as possible, and will put the millwright to work at once covering shafting.				
EAST FORK OF BLACK RIVER.—WOOD CO.				
<i>Reported by firm.</i>				
BARBER D. E. saw and planing mill. One 2-st. frame; 2 boilers; 2 engines. Est. 1882.....	30	2	32	60
<i>Accident.</i> —"One man had his fingers sawed off."				
EAU CLAIRE.—EAU CLAIRE CO.				
<i>Inspected June, 1889, by Claymier.</i>				
DAILY AND WEEKLY LEADER THE. 2-st. brick; water motor. Est. 1881.....	21	6	27	
EAU CLAIRE CARRIAGE WORKS. Four buildings—two 2-st. frame; two 1-st. frame. Est. 1867.....	10	.....	10	Hand
EAU CLAIRE LINEN CO., mfrs. toweling, crash, check, etc. Three buildings—one 3-st. frame; one 1-st. stone; one 1-st. frame; 1 boiler. Est. 1888.....	15	40	55	w 85
Every thing about this factory is neat and clean.				
EAU CLAIRE PULP AND PAPER CO., mfrs. book and print paper. Three buildings—one 2-st. frame; one 1-st. frame; one 1-st. brick; 2 boilers. Est. 1882.....	38	16	54	w 1,000
EAU CLAIRE ROLLER MILL CO., mfrs. flour. Three buildings—one 4-st. frame; one 3-st. frame; one 1-st. stone. Iron fire escape; bridged at third floor. Est. 1882.....	15	.....	15	150
Ordered guard on stairway at first floor.				

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
EAU CLAIRE SASH AND DOOR CO., mfrs. sash, doors, blinds, mouldings, etc. Six buildings — two 2-st. frame; two 1-st. brick; two 1-st. frame; 2 boilers; 1 engine. Est. 1887..... Ordered guard on rip saw; guard on elevator; guard on stairway in warehouse. Found two boys under 13 at work. Firm promised to discharge them.	80	.....	80	110
EMPIRE LUMBER CO., mfrs. lumber, lath, shingles. Nine buildings — four 2-st. frame; four 1-st. frame; one 1-st. stone; 12 boilers; 3 engines. Est. 1857. Boarding house connected; not managed by firm.	226	.....	226	750
FISH E. M. & CO., mfrs. sash, doors, blinds. Five buildings — one 2-st. frame; three 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1867..... Ordered guard on rip saw, and box over slasher saw.	25	.....	25	35
FREE PRESS THE., 2-st. brick; water motor.	8	4	12	5
MCDONOUGH MFG. CO., mfrs. saw mill machinery and general iron work. Seven buildings — two 2-st. frame; three 1-st. brick; two 1-st. frame; 1 boiler. Est. 1889. Ordered main door to swing outward.	40	.....	40	w 150
MADISON STREET MFG. CO., mfrs. sash, doors, blinds. Two buildings — one 3-st. frame; one 1-st. brick; 1 boiler; 1 engine. Outside stairs from second floor. Est. 1885..... Ordered guard on rip saw.	25	.....	25	20
MISSISSIPPI RIVER LOGGING CO. THE, mfrs. lumber, lath, shingles. Six buildings — three 2-st. frame; two 1-st. brick; one 1-st. stone; 7 boilers; 1 engine. Est. 1865	186	.....	186	s 200 w 400
NATIONAL ELECTRIC MFG. CO., mfrs. dynamos, motors, plating machines, etc. Four buildings; one 2-st. brick; two 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1888..... Ordered main door to swing outward.	53	12	65	50
PHOENIX MANUFACTURING CO., mfrs. saw mill machinery, sash, doors and blinds, etc. Eight buildings — one 3-st. frame; four 2-st. frame; one 2-st. stone; one 1-st. stone; one 1-st. frame; 2 boilers; 1 engine. Est. 1875..... Ordered guards on four rip saws. None regularly employed on third floors. Accident. — A workman lost a finger in machine shop.	85	.....	85	40
PIONEER FURNITURE CO. Four buildings — one 3-st. frame; one 3-st. brick; one 1-st. frame; one 1-st. stone; two outside stairways; buildings bridged at second and third floors. Est. 1887..... Ordered guards on five rip saws; guard around elevator well in warehouse; guard around head of stairs on second floor of warehouse; guard around fly-wheel of engine. The factory is well supplied with means of fire escape. Accident. — A workman lost a finger by cross-cut saw.	199	1	200	125
SHAW DANIEL LUMBER CO., mfrs. lumber, lath, shingles. Twelve buildings — two 2-st. frame; five 1-st. frame; three 1-st. brick; two 1-st. stone; 8 boilers; 3 engines. Est. 1857	243	7	250	780
Ordered guard in front of fly-wheel in engine room. Boarding house connected, managed by firm. Employees pay \$12 a month for board, which is said to be very good. The firm owns the buildings of the pumping works and have a contract with the city to run same. All machinery well guarded.				
SHAW N. & CO., mfrs. saw mill machinery. Three buildings — one 1-st. stone; two 1-st. frame; 1 boiler; 1 engine. Est. 1859..... Ordered guard on rip saw.	35	1	36	50
VALLEY LUMBER CO., mfrs. lumber, lath, shingles. Eight buildings — four 2-st. frame; one 1-st. stone; three 1-st. frame; 9 boilers; 1 engine. Est. 1857..... Boarding house connected; not managed by firm.	198	2	200	600

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
WEST EAU CLAIRE MILL CO. , mfrs. lumber. Six buildings—three 2-st. frame; one 1-st. frame; one 1-st. stone; one 1-st. brick; 7 boilers; 2 engines. Est. 1887. Ordered guard on pulley in planing mill. Boarding house connected; not conducted by firm.	100	.....	100	240
WISCONSIN REFRIGERATOR CO. , mfrs. the "Peerless" Refrigerator. Six buildings— one 2-st. brick; four 1-st. frame; one 1-st. brick; 2 boilers; 3 engines. Est. 1889. Ordered guard on rip saw; guard on elevator, and two main doors to swing outward. I found here a very practical safety contrivance on the elevator, which works automatically. It raises the gate when the elevator cab comes up and lowers it when it comes down. It is a 4x4 on each side, with a groove in the center where the gate runs in, and a block at each end of the gate, which the iron catches as it goes up, and holds the gate till it goes down again. <i>Accident.</i> — Foreman lost his hand by contact with a saw.	80	.....	80	185
<i>EDGERTON.— ROCK CO.</i> <i>Inspected March, 1889, by Moore.</i>				
PAULINE POTTERY CO. Two buildings— one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1888. Ordered guard on pulley wheel of engine, and cap over end of shaft. <i>NOTE.</i> — The main industry of the city of Edgerton is the tobacco trade, there being fifteen large warehouses, which furnish employment to a great number of people for about four months in the spring.	17	1	18	50
<i>EDSON.— CHIPPEWA CO.</i> <i>Reported by firm.</i>				
CHUB H. C. , mfr. lumber. Two buildings— one 2-st. frame; one 1-st. stone; 1 boiler; 1 engine. Est. 1866.	15	.....	15	40
<i>ELAND.— SHAWANO CO.</i> <i>Reported by firm.</i>				
HAMLIN J. H. , mfr. hardwood and pine lumber. Two buildings— one 2-st. frame; one 1-st. frame; 3 boilers; 1 engine. Est. 1877.	30	.....	30	60
RIDEOUT W. R. & SON , mfrs. lumber [not described]; 2 boilers; 1 engine.	35	.....	35	80
<i>ELDRON.— MARATHON CO.</i> <i>Reported by firm.</i>				
INGERSOLL J. S. & SON , mfrs. lumber. One 2-st. frame; 4 boilers; 1 engine. Est. 1886. <i>Accident.</i> — "One workman lost all fingers of one hand; another cut his foot slightly."	70	.....	70	80
<i>ELLIS JUNCTION.— MARINETTE CO.</i> <i>Inspected Aug., 1889, by Moore.</i>				
BUTLER-MUELLER CO. , mfrs. lumber, lath, shingles, posts, etc. Four buildings— three 1-st. frame; one 2-st. frame; 3 boilers; 2 engines. Est. 1883. Ordered two shafts covered. Boarding house and store connected. <i>Accident.</i> — A workman had his hand caught in bull chain and was laid up for two weeks. Firm paid doctor's bill, and otherwise assisted him. The accident was unpreventable.	50	.....	50	190
<i>ELMHURST.— LANGLADE CO.</i> <i>Inspected Aug., 1889, by Moore.</i>				
WUNDERLICH GEO. , mfr. hardwood lumber. One 2-st. frame; one boiler; 1 engine. Est. 1882.	20	.....	20	60

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
ELMWOOD.—PIERCE CO. <i>Reported by firm.</i>				
KELLEY & HOGENSON , mfrs. lumber. One 2-st. frame. Est. 1879.....	5	.....	5	w 30
EMBARRASS.—WAUPACA CO. <i>Inspected Aug., 1889, by Moore.</i>				
DECKER & SMITH , mfrs. lumber. One 2-st. frame. Est. 1888.	23	.....	23	w 100
ESDAILE.—PIERCE CO. <i>Reported by firm.</i>				
BETCHER CHAS. LUMBER CO. , mfrs. lumber, hubs and spokes. Three buildings—one 2-st. frame; two 1-st. frame; 4 boilers; 1 engine. Est. 1872.....	40	.....	40	40
EVANSVILLE.—ROCK CO. <i>Inspected June, 1889, by Moore.</i>				
BAKER MANUFACTURING CO. THE , mfrs. wind-mills, pumps, tanks, etc. Three buildings--one 2-st. stone; two 1-st. brick; 1 boiler; 1 engine. Est. 1865..... These are real fine workshops.	45	.....	45	w 65
FAIRCHILD.—EAU CLAIRE COUNTY. <i>Inspected Aug., 1889, by Claymier.</i>				
FOSTER N. C. , mfr. lumber, lath and shingles. Nine buildings—one 2-st. frame; seven 1-st. frame; one 1-st. brick; 6 boilers; 2 engines. Est. 1876..... Ordered guard on rip saw in planing mill. This mill was burned in August, 1888, and rebuilt same year. The new mill is very roomy and machinery well guarded.	200	.....	200	215.
FLORENCE.—FLORENCE CO. <i>Inspected Aug., 1889, by Moore.</i>				
BRIER HILL MINING CO. , mining iron ore. Seven 1-st. frame buildings used for storage; 4 boilers. Est. 1881..... I was told that on an average, 2 men are killed per month, by ore falling on them in the mine. Day before yesterday (July 30th) a miner was killed the same way as many before him. The men all quit work at once, and on the night of the 31st, they, mourning their comrade's death, and drowning their own sorrow by having a huge drunk. The miners are Cornish, Swedes and Italians, and therefore do not agree. One of their common peculiarities, however, is not to do any work until the day after the funeral of an unfortunate. One of the mine superintendents said in my presence, "If they do not come back to work to-night they will be blacklisted"; meaning they would not be able to get work at any other mine. The Italians all live together, as many as can get into one house. The landlord of the Poldeman House showed me a shanty which had been a surveyor's office, about 14x24 in size. One-half of it was stored full of stuff, and in the other half 24 men lived and slept. The smelting works have been closed for more than a year.	400	.....	400	.....
FOND DU LAC.—FOND DU LAC CO. <i>Inspected May, 1889, by Claymier.</i>				
BATES C. E. , mfr. packing cases. Two 1-st. frame; 1 boiler; 1 engine. Est. 1883.....	5	.....	5	15
BROGKER BROS. , mfrs. red brick, and feed millers. Mill, 2-st. brick; 1 boiler; 1 engine. Est. 1883..... Ordered guard around flywheel.	17	.....	17	30
BURROWS G. S. & CO. , mfrs. carriages. Two buildings—one 2-st. brick; one 1-st. brick. Est. 1872.....	19	6	25	Hand

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
CITY ROLLER MILLS , mfrs. flour and feed. Four buildings—mill, 2-st., basement and cupola; one 2-st. frame; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1887. Ordered railing on stairway.	11	.....	11	60
DE GROAT, GIDDINGS & LEWIS , mfrs. saw-mill machinery, etc. Eight buildings—two 2-st. frame; four 1-st. brick; two 1-st. frame; 1 boiler; 1 engine. Est. 1869. Ordered railings on two stairways and guard on rip saw.	50	.....	50	35
DIAMOND YEAST CO. , mfrs. concentrated dry hop yeast. Five buildings—one 4-st. brick; two 2-st. frame; two 1-st. frame. Est. 1887. Ordered railings around two stairways; guards around elevator well on third and fourth floors, and main doors to swing outward.	13	12	25	Hand
EMPIRE BREWERY . Four buildings—three 2-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1872.	6	.....	6	8
EUREKA STEAM LAUNDRY . One 3-st. brick; 1 boiler; 1 engine. Est. 1889. Ordered guard around flywheel.	7	2	9	10
FOND DU LAC FURNITURE CO. Four buildings—one 3-st. brick; one 1-st. brick; two 1-st. frame; two iron fire escapes. Est. 1863.	130	.....	130	Hand
FOND DU LAC GAS LIGHT CO. , mfrs. gas and electric light. Three buildings—one 2-st. brick; two 1-st. brick and fuel sheds; 2 boilers; 1 engine. Est. 1863.	7	.....	7	80
FOND DU LAC LEATHER CO. , 2-st. brick and frame; 1 boiler. Est. 1888. Ordered guard at head of stairs.	12	.....	12	Hand
FOND DU LAC SOAP CO. One 2-st. brick. Est. 1885. Ordered guard around elevator well.	7	1	8	Hand
FOND DU LAC STEAM LAUNDRY . Two buildings—one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1881.	2	5	7	4
HABER P. B. , printing house, 2-st. brick; 1 engine. Est. 1878. .. <i>The Daily Commonwealth</i> , employing nine persons, located in same building.	13	10	23	gas 8
HELMER & COOK , mfrs. flour. Two buildings—one 4-st. brick; one 1-st. brick; 1 boiler; 1 engine. Est. 1882. Ordered guard and railing on stairway.	5	.....	5	80
HAMILTON A. K. , mfr. lumber, lath, shingles. Four buildings—one 2-st. frame; two 1-st. frame; one 1-st. brick and several storage sheds; 4 boilers; 1 engine. Est. 1868.	60	.....	60	80
HARRISON POSTAL BAG RACK CO. , mfrs. postal bag racks. Five buildings—three 2-st. brick; one 2-st. frame; one 1-st. brick; 1 boiler. Est. 1879.	8	.....	8	Hand
HUBER & FUHRMAN , drug mills. Five buildings—two 2-st. frame; one 2-st. brick; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1870. Ordered guard on piston rod and crank.	11	2	13	35
JUNG & BORCHERT , mfrs. malt. Four buildings—one 2-st. frame; one 2-st. brick; one 1-st. brick; one 1-st. frame. Est. 1884. Ordered guard on stairway.	5	.....	5	Hand
LA BELLE WAGON WORKS . Nine buildings—one 3-st. brick; one 3-st. stone; three 2-st. brick; two 2-st. frame; two 1-st. brick; 2 boilers; 1 engine; platform connecting third floors. Est. 1868. Ordered guard around elevator wells; also guard on two rip saws. Every shaper in this factory is well guarded.	127	3	130	150
MEYER CHAS. J. L. , mfr. lumber, sash, doors, blinds. Nine buildings—one 3-st. brick; two 2-st. frame; four 1-st. frame; two 1-st. brick; 8 boilers; 1 engine; two stairway escapes from third, and bridged at second, floors. Est. 1860. Ordered caps over three set-screws, on three machines and guards on three rip saws.	167	8	175	300

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
MOORE & GALLOWAY LUMBER CO., mfrs. lumber, lath, shingles. Four buildings — one 2-st. frame; three 1-st. frame; 4 boilers; 1 engine. Est. 1864..... Ordered railing on stairway in saw mill.	69	.....	69	175
MOORE & GALLOWAY LUMBER CO., mfrs. sash, doors, blinds, mouldings, etc. Seven buildings — two 2-st. frame; five 1-st. frame; 1 boiler; 1 engine. Est. 1860..... Ordered main door to swing outward; guard on rip saw, and slasher saw boxed.	62	.....	62	40
NORTHWESTERN YEAST CO., mfrs. yeast foam. Six buildings — one 3-st. frame; three 2-st. frame; two 1-st. frame; 1 boiler; 1 engine. Est. 1876..... Factory airy and clean; none regularly employed on 3rd floor.	62	38	100	30
PIERSON JOHN C., mfr. boilers, smoke stacks, etc. One 1-st. frame. Est. 1856.....	8	.....	8	Hand.
RUEPING WM. & SONS, mfrs. leather. Nine buildings — one 3-st. brick; three 2-st. frame; three 1-st. brick; two 1-st. frame; 2 boilers; 2 engines; iron fire escape, and bridged to tannery. Est. 1854.....	75	.....	75	28
SATURDAY REPORTER, THE, job printing and publishing; 3-st. brick; 1 boiler; 1 engine. Est. 1860.....	7	3	10	4
STEENBERG O. C., mfr. sash, doors, blinds. Five buildings — one 3-st. frame; one 2-st. brick; one 1-st. brick; two 1-st. frame; 2 boilers; 1 engine; iron fire escape. Est. 1855..... Ordered guard on rip saw; cover over slasher saw, and rail around hole in floor of warehouse.	38	2	40	100
STICKNEY SHOE CO. Two buildings — one 3-st. brick; one 1-st. brick; one boiler; 1 engine; two iron fire escapes. Est. 1884... A very neat and clean factory.	95	30	125	15
SWEET B. F. & H. L., mfrs. "Common Sense" sleighs, wagons, etc. Seven buildings — two 2 st. frame; one 2-st. brick; two 1-st. stone; two 1 st. brick; 1 boiler; 1 engine. Est. 1880..... Ordered guard on rip saw.	35	.....	35	40
WEBER WM. F., printing; 2-st. brick. Est. 1871.....	6	1	7	6
WHEEL & SEEDER CO. THE, mfrs. agricultural implements. Five buildings — two 2-st. frame; two 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Platform at second floor, and lower roof adjoining. Est. 1872..... Ordered guard on rip saw.	70	.....	70	30
WILD B. & CO., mfrs. crackers, confectionery, etc. Two buildings — one 3-st. brick; one 1-st. brick; 1 boiler; 1 engine. Est. 1859..... Ordered fire escape; also guards around elevator wells.	38	12	50	20
WISCONSIN FURNACE CO., mfrs. Lake Superior charcoal, pig iron, brand "Wisconsin." Four buildings — one 3-st. stone; three 1-st. stone; 2 boilers; 2 engines; buildings bridged. Est. 1887..... Ordered guard around flywheel. Found cable in elevator defective, and notified firm. Accident. — A workman broke a leg while going out with a bar of iron when the door dropped. It was one of those unpreventable accidents. The firm paid the doctor's bill and two months' full wages. The man is at work again.	50	.....	50	60
FOREST JUNCTION. — CALUMET CO. Inspected July, 1889, by Moore.				
HARRISON & WILLIAMS, mfrs. hardwood lumber. Saw mill, 2-st. frame; 1 boiler; 1 engine. Est. 1875	8	.....	8	20
FORESTVILLE. — DOOR CO. Reported by firm.				
GEIER HENRY, mfr. lumber. Portable mill; 1 boiler; 1 engine. Est. 1884.....	5	.....	5	35

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
FORT ATKINSON.—JEFFERSON CO.				
Inspected April, 1889, by Moore.				
BRANDEL H. G., mfr. cigars, 2-st. frame. Est. 1886.....	4	2	6	Hand
CORNISH, CURTIS & GREENE, mfrs. dairy implements. Five buildings—three 2-st. frame; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1865.....	75	.....	75	65
Ordered guards on all circular saws. In all other respects the shops are in fine shape. The firm is anxious to do anything for the safety of workmen. The new buildings in conformity with law, have either outward swinging or sliding doors. Destroyed by fire, May 11, 1889. Estimated loss \$60,000. Rebuilt.				
JEFFERSON CO. UNION THE, news and job printing. One 1-st. brick; 1 boiler; 1 engine. Est. 1870.....	8	8	16	6
Ordered cap on pulley wheel of press to cover projecting screw; promised to comply at once. Established at Lake Mills in 1870; removed to Fort Atkinson in 1873.				
NORTHWESTERN MANUFACTURING CO., mfrs. wagons, sleighs, and furniture. Seven buildings—one 3-st. brick; two 2-st. frame; one 2-st. brick; one 1-st. brick; two 1-st. frame, and several 1-st. frame storage sheds; 2 boilers; 3 engines. Est. 1866.....	230	20	250	125
Ordered guards on all table saws and a railing on a stairway. The woodworking shop is rather dark. None regularly employed on third floor. All suggestions were met with favor on the part of the firm. <i>Accident.</i> —A workman lost two fingers on shaper; another was slightly injured by an explosion in the forge.				
POUNDER GEO. H., mfr. harrows and brooms. One 2-st. brick; 1 boiler; 1 engine. Est. 1873.....	10	.....	10	18
Ordered guard on circular saw.				
FORT HOWARD.—BROWN CO.				
Inspected April, 1889, by Claymter.				
BURNS D. M., mfr. marine and tubular boilers, etc. Two 1-st. frame buildings; 1 boiler; 1 engine. Est. 1864.....	30	.....	30	8
DUNCAN JOHN, mfr. steam engines, etc. Four buildings—three 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1868.....	25	.....	25	15
<i>Accident.</i> —Two men each had a leg broken; one by having his foot caught in a piece of old hose; the other, by the blocking under a shaft giving way, while working in the machine shop.				
GREEN BAY, WINONA & ST. PAUL R. R. SHOPS. Six buildings—four 1-st. frame; two 1-st. brick; 1 boiler; 1 engine. Est. 1872.....	61	.....	61	25
Ordered guard on rip saw.				
HALBACH BROS., mfrs. steam engines. Two 1-st. frame buildings; 1 boiler; 1 engine. Est. 1888.....	8	.....	8	25
HUGHES J., iron and brass foundry. Three 1-st. frame buildings; 2 boilers; 2 engines. Est. 1880.....	16	.....	16	20
KEMNITZ THEO. FURNITURE CO. Six buildings—one 4-st. frame; one 2-st. frame; two 1½-st. frame; one 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1863.....	52	1	53	30
Ordered guards on three rip saws. Only four men working on upper floors.				
MILWAUKEE & NORTHERN R. R. SHOPS. Five buildings—one 2-st. frame; four 1-st. frame; 1 boiler; 1 engine. Est. 1882.....	165	.....	165	25
Ordered guard on rip saw.				
O'LEARY BROS., mfrs. boilers, and sheet iron work. One 1-st. frame; 1 boiler; 1 engine. Est. 1856.....	16	.....	16	8

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
VOIGT J. M. & SON, mfrs. sash, doors, blinds, etc. Five buildings — two 2-st. frame; one 2-st. brick; two 1-st. brick; 1 boiler; 1 engine. Est. 1866..... Ordered guards on three circular saws.	26	.....	26	35
<i>FOSCORO.—KEWAUNEE CO.</i>				
<i>Reported by firm.</i>				
FELLOWS BROS., mfrs. lumber and shingles. Two 2-st. frame buildings. Est. 1871.....	6	.....	6	w 50
<i>FOUNTAIN CITY.—BUFFALO CO.</i>				
<i>Inspected July, 1889, by Claymier.</i>				
FOUNTAIN CITY BREWING CO. Four buildings — one 3-st., two 4-st., 1-st.—all brick; 1 boiler; 1 engine. Est. 1885.....	5	.....	5	25
FOUNTAIN CITY MILLING CO. Two buildings — one 3-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1886..... This mill burned in 1885, and was being rebuilt at time of visit. Machinery and stairways will be properly guarded, when completed.	5	.....	5	65
ROETTIGER & CO., contractors and builders. Planing mill — 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1883.....	8	.....	8	12
<i>FRANKLIN.—KEWAUNEE CO.</i>				
<i>Reported by firm.</i>				
KNUDSON & HEIDMAN, mfrs. lumber. Two 1-st. frame; 1 boiler; 1 engine. Est. 1882.....	6	.....	6	30
<i>GAGEN.—FOREST CO.</i>				
<i>Reported by firm.</i>				
CRANE BROTHERS, mfrs. lumber. Saw mill, 2-st. frame, and several 1-st. frame buildings; 5 boilers; 2 engines. Est. 1886. ...	100	.....	100	300
<i>GALESVILLE.—TREMPEALEAU CO.</i>				
<i>Inspected Dec., 1889, by Lang.</i>				
GALESVILLE FLOURING MILL. Two buildings — one 4-st. stone; one 1-st. frame. Est. 1869..... Ordered stairways guarded, and railing on same at second and fourth floors; also guard on sprocket-wheel on fourth floor.	10	.....	10	w 80
<i>GLEN FLORA.—CHIPPEWA CO.</i>				
<i>Inspected Oct., 1889, by Claymier.</i>				
GLEN FLORA MANUFACTURING CO., mfrs. lumber, lath and shingles. Three buildings — one 2-st. frame; two 1-st. frame; 1 boiler; 1 engine. Est. 1880..... Store connected.	30	.....	30	50
<i>GLENWOOD.—ST. CROIX CO.</i>				
<i>Inspected Sept., 1889, by Claymier.</i>				
GLENWOOD MANUFACTURING CO., mfrs. pine and hard wood lumber, wagon and barrel stock, etc. Seventeen buildings — one 3-st.; five 2-st., eleven 1-st. — all frame; 13 boilers; 6 engines. Est. 1886..... Order-d guard on one slasher saw. All other machinery and saws well guarded. The several buildings are strung along a small river and make a very fine appearance; main factory 110x60; cooper shop 150x40.	500	.....	500	421
<i>GRAFTON.—OZAUKEE CO.</i>				
<i>Inspected March, 1889, by Claymier.</i>				
GRAFTON WORSTED MILLS. Three buildings — one 3-st. stone; one 2-st. stone; one 1-st. frame; 1 boiler; outside stairs, and lower roof adjoining third floor. Est. 1880. Found two children under 12 and two under 14 working in these mills. The firm promised to dismiss the former forthwith.	49	38	87	w 102

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
GRAND RAPIDS.—WOOD CO.				
<i>Inspected June, 1889, by Claymier.</i>				
CITY BREWERY. Three 1-st. frame buildings; 1 boiler; 1 engine. Est. 1880.....	5	.....	5	8
GRAND RAPIDS FLOURING MILL CO. Two buildings—one 3-st. and basement frame; one 2-st. frame. Est. 1883.....	6	.....	6	w 150
PIONEER WOOD PULP CO., mfrs. refined wood pulp. Five 1-st. frame buildings; 3 boilers. Est. 1886.....	16	.....	16	w 750
<i>Accident.—A workman had his arm put out of joint while shifting a belt.</i>				
GREEN BAY.—BROWN CO.				
<i>Inspected April, 1889, by Claymier.</i>				
BRITTON D. W., mfr. cooperage. Five buildings—one 2-st. brick; two 2-st. frame; one 1-st. brick; one 1-st. frame; several 1-st. frame storage sheds; 2 boilers; 2 engines. Est. 1850. Ordered guard on two rip saws.	130	.....	130	83
GREEN BAY ADVOCATE THE, printing and binding. 2-st. brick; 1 boiler; 1 engine. Est. 1846.....	9	3	12	10
GREEN BAY GAS LIGHT AND FUEL CO., gas and electric light works. Five buildings—two 2-st. brick; one 1-st. brick; two 1-st. frame, and several storage sheds; 2 boilers; 2 engines. Est. 1872.....	7	.....	7	120
<i>Ordered guards around flywheels of engines. Electric light plant recently added.</i>				
HAGEMEISTER BREWING CO. Seven buildings—two 2½-st. brick; one 2½-st. frame; one 2-st. brick; one 1-st. brick; two 1-st. frame; 2 boilers; 1 engine. Est. 1866.....	21	.....	21	20
<i>Ordered railing on one of the stairs.</i>				
KENDALL & ROBB, mfrs. sash, doors and blinds. Three buildings—one 2-st. frame; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1884.....	15	....	15	35
<i>Destroyed by fire Oct. 14, 1889.</i>				
NOFFZ J. & CO., merchant and custom millers. Two buildings—one 3-st. brick; one 1-st. brick; 1 boiler; 1 engine. Est. 1876.....	6	.....	6	100
MURPHY LUMBER CO., mfrs. lumber, lath, shingles. Two buildings—one 2-st. frame; one 1-st. frame; 9 boilers; 4 engines. Est. 1886.....	250	.....	250	1,125
RAHR HENRY & SONS, brewers. Four buildings—brewery and malt house, two 2-st. brick; one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine.....	12	.....	12	25
STATE GAZETTE THE. One 3-st. brick; 1 boiler; 1 engine. Est. 1866.....	8	2	10	3
<i>Ordered guard around hole in floor.</i>				
STRAUBEL & EBELING, mfrs. flour. Three buildings—one 5-st. brick; one 1-st. brick; one 3-st. frame; 2 boilers; 1 engine. Est. 1877.....	12	....	12	200
VAN DYKE O. BREWING CO. Four buildings—one 3-st. brick; two 2-st. brick; one 1-st. frame; 2 boilers; 1 engine. Est. 1872.....	10	.....	10	25
<i>Ordered railing on one of the stairs.</i>				
GREENLEAF.—BROWN CO.				
<i>Inspected July, 1889, by Moore.</i>				
DAY CHAS., mfr. lumber; 2-st. frame; 1 boiler; 1 engine. Est. 1860....	10	.....	10	60
GREENWOOD.—VERNON CO.				
<i>Reported by firm.</i>				
RICK WM. & CO., mfrs. hardwood lumber. Two 1-st. frame buildings; 1 boiler; 1 engine. Est. 1882.....	6	.....	6	25

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
HANEY.—CRAWFORD CO.				
<i>Reported by firm.</i>				
LATHROP P. A., mfr. hardwood lumber; 1-st. frame; 1 boiler; 1 engine. Est. 1884.....	5	.....	5	40
HANSEN.—WOOD CO.				
<i>Inspected Aug., 1889, by Claymier.</i>				
ROENINS & UEHLING, mfrs. flour and tight barrel staves. Four buildings—one 2-st. frame; three 1-st. frame; 1 boiler; 1 engine. Est. 1883.....	45	.....	45	100
WISCONSIN LUMBER & MFG. CO., mfrs. pine and hard wood lumber. Five buildings—one 2-st. frame; four 1-st. frame; 4 boilers; 2 engines. E-t. 1878.....	50	.....	50	95
Store and boarding house connected.				
HARRISVILLE.—MARQUETTE CO.				
<i>Reported by firm.</i>				
SCHMITZ BROS & CO., mfrs. lumber and wagons. Two buildings—two 2-st. frame.....	10	.....	10	Water
HARTFORD.—WASHINGTON CO.				
<i>Inspected July, 1889, by Claymier.</i>				
HARTFORD PLOW WORKS, mfrs. plows, horse powers, etc. Five buildings—one 2-st. frame; three 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1861.....	18	.....	18	25
KENDALL J. O. & CO., mfrs. flour. Two buildings—one 2-st. brick; one 2-st. frame; 1 boiler; 1 engine. Est. 1872.....	5	.....	5	s 80 w 75
NEHRBASS T., mfr. wood burial caskets. Five buildings—two 2-st. frame; two 1-st. frame; one 1-st. stone; 1 boiler; 1 engine. Est. 1879.....	14	.....	14	75
Ordered box over slasher saw.				
PORTZ J., brewer. Six buildings—one 3-st. stone; one 2-st. stone; one 4-st. frame; two 2-st. frame; one 1-st. stone; 1 boiler; 1 engine. Est. 1874.....	10	.....	10	32
UBER C. & BROS, mfrs. sheepskin leather. Two buildings—one 2-st., one 1-st. frame; 1 boiler. Est. 1852.....	10	.....	10	Hand
HARTLAND.—SHAWANO CO.				
<i>Reported by firm.</i>				
FULLERTON & SON, mfrs. lumber. One 2-st. frame; 1 boiler; 1 engine. Est. 1880.....	15	.....	15	100
HAWTHORN.—DOUGLAS CO.				
<i>Inspected Sept., 1889, by Claymier.</i>				
PHILLIPS E. L., mfr. lumber. One 1-st. frame; 2 boilers; 1 engine. Est. 1889.....	18	.....	18	60
Ordered guard on belt and pulley.				
HAYWARD.—SAWYER CO.				
<i>Inspected Sept., 1889, by Claymier.</i>				
HAYWARD MILLING CO. Four buildings—one 3-st. frame; three 1-st. frame; 1 boiler; 1 engine. Est. 1886.....	5	.....	5	15
NAMAKAGON LUMBER CO., mfrs. shingles. One 2-st. frame; 2 boilers; 1 engine. Est. 1889.....	25	.....	25	90
Ordered guard around flywheel Found one boy under 13 at work, foreman discharged him.				
NORTH WISCONSIN LUMBER CO., mfrs. lumber, lath, shingles. Five buildings—two 2-st. frame; two 1-st. frame; one 1-st. brick; 3 boilers; 1 engine. Est. 1882.....	250	.....	250	s 125 w 1500
Store connected.				

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
<i>HERBERT.—PIERCE CO.</i> <i>Reported by firm.</i>				
DODGE F. M., mfr. lumber. One 1-st. frame; 1 boiler; 1 engine. Est. 1883.....	5	.....	5	12
<i>HEWITT.—WOOD CO.</i> <i>Inspected Aug., 1889, by Claymier.</i>				
RUPLINGER BROS. & CO., mfrs. staves, heading and lumber. Three buildings — one 2-st. frame; two 1-st. frame; 2 boilers; 1 engine; store connected. Est. 1886.....	20	.....	20	45
<i>Accident.</i> —A workman lost three fingers.				
<i>HILBERT JUNCTION.—CALUMET CO.</i> <i>Inspected July, 1889, by Moore.</i>				
THEODORE ORPHAL, mfr. cheese boxes and ground feed. One 2-st. frame; 1 boiler; 1 engine. Est. 1876.....	11	.....	11	60
Ordered main shaft on first floor covered; also on second floor, and a belt which runs a small planer on second floor boxed. <i>Accident.</i> —A farmer had his hand caught in gearing in feed mill; his arm was literally ground up. The man died in consequence.				
<i>HOFA PARK.—SHAWANO CO.</i> <i>Reported by firm.</i>				
THOMPSON F., mfr. lumber, lath, shingles. Four 1-st. frame buildings; 1 boiler; 2 engines. Est. 1884.....	20	.....	20	50
<i>HORICON.—DODGE CO.</i> <i>Inspected July, 1889, by Claymier.</i>				
HORICON WINDMILL MFG. CO. Two buildings — two 2-st. frame; 1 boiler; 1 engine. Est. 1884.....	8	.....	8	10
VAN BRUNT & DAVIS CO., mfrs. "Monitor" seeders, sowers, etc. Seven buildings — one 3-st. frame; one 2-st. frame; five 1-st. frame; 1 boiler; 1 engine. Est. 1872.....	125	.....	125	105
VAN BRUNT & WILKINS MFG. CO., mfrs. of seeders, drills, wagons, etc. Nine buildings — three 2-st. frame; four 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1861.....	124	1	125	50
Ordered guard on two rip saws. <i>Accident.</i> —A workman lost his finger by being caught in gearing of one of the machines.				
<i>HOULTON.—ST. CROIX CO.</i> <i>Reported by firm.</i>				
EAST SIDE LUMBER CO., mfrs. lumber. Two 1-st. frame buildings; 6 boilers; 1 engine. Est. 1888.....	80	.....	80	225
<i>HOW.—OCONTO CO.</i> <i>Reported by firm.</i>				
HOEFFT AUGUST, mfr. lumber and shingles. Three buildings — two 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1880.....	10	2	12	45
<i>HUDSON.—ST. CROIX CO.</i> <i>Inspected Aug., 1889, by Claymier.</i>				
CHICAGO, MILWAUKEE, ST. PAUL & OMAHA R'Y REPAIR shops. Six buildings — one 2-st. brick; three 1-st. frame; two 1-st. brick; 2 boilers; 1 engine. Est. 1870.....	140	.....	140	75
Ordered guard on two rip saws; also smoke jacks in black-smith shops, because the only way for gases to escape was through a small ventilator in the roof.				
HUDSON LUMBER CO., mfrs. lumber, lath, shingles. Five buildings — one 2-st. frame; three 1-st. frame; one 1-st. brick; 5 boilers; 2 engines. Est. 1883.....	57	.....	57	290

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
HUDSON FURNITURE CO. Five buildings—one 4-st. frame; one 3-st. frame; two 1-st. frame; one 1st. brick; 2 boilers; 1 engine; buildings bridged at second and third floors. Est. 1883.. Ordered new cable in elevator.	90	...	90	75
WILLOW RIVER MILLING CO., mfrs. flour. Seven buildings—two 3-st. frame; five 1-st. frame.....	30	.....	30	w 600
<i>HUMBOLDT.—BROWN CO.</i>				
<i>Reported by firm.</i>				
REIK LOUIS, mfr. lumber. One 1-st. frame; 2 boilers; 2 engines. Est. 1882.....	7	.....	7	43
<i>HUNTING.—SHAWANO CO.</i>				
<i>Reported by firm.</i>				
TURNER WM., mfr. lumber, lath, shingles. Four buildings—two 2-st. frame; two 1-st. frame; 1 boiler; 1 engine. Est. 1888. Boarding house connected.	24	.....	24	50
<i>HURLEY.</i>				
<i>Inspected Nov., 1889, by Lang.</i>				
HURLEY MANUFACTURING CO., founders and machinists. Two 1-st. frame buildings; 1 boiler; 1 engine. Est. 1889.....	6	.....	6	35
<i>INGRAM.—CHIPPEWA CO.</i>				
<i>Inspected Oct., 1889, by Claymier.</i>				
FRENCH LUMBER CO. THE, mfrs. lumber, lath, shingles. Two 1-st. frame buildings; 1 boiler; 1 engine. Est. 1885..... Ordered guard on rip saw. Store connected.	40	.....	60	60
<i>IRONTON.—SAUK CO.</i>				
<i>Inspected June, 1889, by Moore.</i>				
IRON MOUNTAIN ORE & FURNACE CO., mfrs. iron, lumber, flour, feed, and charcoal. Five buildings—three 2-st. frame; two 1-st. frame; 1 boiler; 2 engines. Est. 1857. The iron works, in full operation, are nicely located. Only about twelve men work in the shop; the others are at the mines a mile away. The company owns 4,000 acres of land here. The capacity of the charcoal kilns is 7,000 bushels. The machinery is heavy, requiring both engines to run it.	60	.....	60	150
<i>JANESVILLE.—ROCK CO.</i>				
<i>Inspected May, 1889, by Moore.</i>				
BAILEY CHESTER, mfr. cotton batting, cord and carpet warp. Factory, 1-st. and 2-st. frame; 1 boiler; 1 engine. Est. 1877...	4	16	20	12
BOWER CITY LAUNDRY, 2-st. brick; 1 boiler; 1 engine. Est. 1889	4	4	8	6
BUCHHOLZ H. & CO., mfrs. wagons, buses, etc. Three buildings—one 2-st. brick; one 3-st. brick; one 1-st. frame; 1 boiler; 1 engine; buildings bridged. Est. 1856.....	18	.....	18	10
CAPITAL TOBACCO CO., mfrs. cigars and tobacco. Factory. 3-st. brick; 1 boiler; 1 engine. Est. 1888..... Ordered guard around flywheel of engine; also, on belt on second floor. The second floor is on a level with the street; third floor used for storage only.	7	13	20	20
CHICAGO & NORTHWESTERN RY. SHOPS. Three buildings—roundhouse, one 1-st. brick; two 1-st. frame; 1 boiler; 1 engine. Est. 1861.....	20	.....	20	60
CROSSETT B. F., mfr. flour. Mill, 2-st. brick. Est. 1879.....	6	.....	6	w 100
DOTY H. A. BOX CO., mfr. cigar boxes. Factory, 2-st. brick. Est. 1884.....	4	26	30	w 5
EMPIRE CROSS SPRING CO., mfrs. cross spring buggies, buses, etc. Shop, 1-st. frame; 1 boiler; 1 engine. Est. 1882... Ordered circular saw guarded.	17	.....	17	15

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
FORD'S MILLS (O. Ford, prop.), mfr. flour. Mill, 2-st. frame.	8	.....	8	w 80
GREEN J. B., planing mill; 2-st. frame. Est. 1887..... Accident.—A workman had a finger torn off.	8	.....	8	w 27
HANSON M. & CO., mfrs. furniture. Factory, 2-st. frame. Est. 1859. Ordered guard on circular saw.	20	.....	20	w 34
HODSON C. W., mfr. flour. Mill, 3-st. frame. Est. 1857.....	9	.....	9	w 100
JANESVILLE COTTON MILLS, mfrs. cotton cloth. Five buildings — one 3-st. brick; two 2-st-brick; one 2-st. frame; one 1-st. brick; 4 boilers; 2 engines; two iron escapes; stairs in tower of both brick mills. Est. 1874..... Considerable complaint is constantly heard in regard to the employment of children by this firm. While child labor is the main feature of the work in these mills, I did not find any who I had reason to believe to be unlawfully employed. The long hours, 11 to 11½ per day, is another unfavorable feature; but the fact must be stated, that a great deal of this is entirely voluntary, on the part of employes, they be- ing desirous of increasing their earnings, because nearly all work is done upon the piece plan. Twenty of the female help employed are under 16 years of age. Fire on 3d floor in mill No. 1, August 14, 1889, damaged machinery and stock, \$1,500. Caused by hot box in spinning mule.	100	300	400	w s 600
JANESVILLE GAZETTE THE. 3-st. brick; 1 boiler; 1 engine. Est. 1856.....	23	6	29	8
JANESVILLE MACHINE CO., mfrs. of disc and steel frame lever harrows, mowers, seeders and drills. Four buildings — one 3-st. brick; two 2-st. brick; one 1-st. frame; 2 boilers; 1 engine. Est. 1859..... The third story part of the machine shop is used as a paint shop; only two persons work on that floor.	125	.....	125	s 80
JANESVILLE OVERALL CO. Factory, 2-st. brick.....	2	18	20	.....
JANESVILLE RECORDER THE. 3-st. brick. Est. 1869.	24	.....	24	w 4
JANESVILLE STEAM LAUNDRY. 3-st. brick; iron fire es- cape. Est. 1887.....	3	6	9	w 3
KENT A. C., mfr. corn planters and cigar box lumber. Two buildings — one 2-st. frame; one 1-st. brick; and several small dry storehouses; 1 boiler; 1 engine. Est. 1875.....	20	.....	20	40
KNIPP LEWIS F., brewer. 1-st. and 2-st. brick; 1 boiler; 1 en- gine. Est. 1856.....	6	.....	6	14
LAWRENCE CARRIAGE TOP CO. Factory, 2-st. brick; 1 boiler; 1 engine. Est. 1885.....	10	4	14	4
LAWRENCE H. J., mfr. paper boxes, and bookbindery. One 3-st. brick; iron fire escape. Est. 1850.....	1	5	6	w 1
LEWIS KNITTING CO., mfrs. fine knit goods. Factory 3-st brick. Est. 1888..... Established at Portage in 1872; removed to Janesville in 1888. All work on ground floor. About 90 persons, besides the 34 working in factory, find employment at home — finishing.	1	33	34	w 3
MARZLAFF FRED & CO., mfrs. ladies' shoes. Factory, 3-st. brick; outside stairway from second floor. Est. 1889..... Ordered fire escape. Shoe factory on second and third floors. Lewis Knitting Works on first floor.	21	15	36	w 3
NEW DOTY MANUFACTURING CO., mfrs. punching and shear- ing machinery. Shop, 2-st. brick. Est. 1860.....	30	.....	30	w 75
NEW GAS LIGHT CO. THE. Two 2-st. brick buildings; two tanks; several sheds; 3 boilers; 2 engines. Est. 1856.	11	.....	11	29
NEW McLEAN MANUFACTURING CO., mfrs. woolen goods. Mill, 2-st. brick; 2 boilers; 1 engine. Est. 1880.....	20	40	50	s w 150

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
RICHARDSON & NORCROSS, mfrs. fine shoes. Factory, 3-st. brick; iron fire escape. Est. 1885..... Ordered main belt covered.	27	36	63	w 6
SHOPBELL & NORRIS, mfrs. sash, doors, blinds and refrigerators. Factory, 2-st. frame. Est. 1872..... Ordered guards on circular saws. <i>Accident.</i> —One of the firm lost part of his hand on buzz saw	20	.....	20	w 40
SPELLMAN J. L. & CO., mfrs. cigars. Factory, 3-st. brick. Est. 1882.....	10	.....	10	Hand
THOROUGHGOOD & CO., mfrs. cigar boxes and cigar box lumber. Factory, 2-st. brick. Est. 1874.....	19	23	42	w 30
WHITAKER JAMES, mfr. cigars. Second floor of 4-st. brick. Est. 1883.....	9	.....	9	Hand
WOODRUFF H. S., mfr. Woodruff buckle. Factory, 2-st. brick; 1 boiler; 2 engines. Est. 1873.....	8	.....	8	50
<i>JEFFERSON.—JEFFERSON CO.</i>				
<i>Inspected April, 1889, by Moore.</i>				
BAIREUTHER C. & CO., mfrs. leather. Tannery — 2-st. frame; 1 boiler; 1 engine. Est. 1874.....	10	.. ..	10	24
COPELAND & RYDER CO. THE, mfrs. boots and shoes. One 2-st. frame; 1 boiler; 1 engine. Est. 1868..... A forty foot addition is being built to the factory. It is a model factory in all its arrangements.	63	17	80	12
HEGER R., brewer. One 3-st. brick; 1 boiler; 1 engine. Est. 1887.....	8	.....	8	30
JEFFERSON BANNER THE, 2-st. brick.....	5	.....	5	Hand
JEFFERSON BRICK & TILE CO., mfrs. brick and drain tile. Factory, 2-st. frame; 1 boiler; 1 engine. Est. 1886..... Ordered railing all around the engine; also, cover over open gears which are exceedingly dangerous. The factory building is new, and all work is done on ground floor.	25	.....	25	25
JEFFERSON WOOLEN MILLS. Three buildings — one 3-st. frame; one 2-st. brick; one 1-st. frame; 1 boiler; 1 iron fire escape. Est. 1870.....	9	11	20	w 75
HITCHCOCK & WINTERLING, mfrs. flour. Mill, 3-st. brick. Est. 1850	5	.....	5	w
LEUTZ CHAS., mfr. cigars. One 1-st. brick. Est. 1882.....	11	.....	11	Hand
WISCONSIN MANUFACTURING CO., mfrs. chairs, bedsteads and tables. Two buildings — two 2-st. basement frame; 1 boiler; 1 engine; ladder escape. Est. 1856..... Ordered guard on all table saws.	43	.....	43	50
<i>JOHNSON'S CREEK.—JEFFERSON CO.</i>				
<i>Inspected April, 1889, by Moore.</i>				
MANSFIELD GEO. & CO., mfrs. butter. Factory, 3-st. frame; 1 boiler; 1 engine. Est. 1878	5	.. ..	5	6
<i>KAUKAUNA.—OUTAGAMIE CO.</i>				
<i>Inspected July, 1889, by Moore.</i>				
ATLAS IRON AND BRASS WORKS, mfrs. paper mill machinery. Five buildings — one 2-st. frame; four 1-st. frame. Est. 1887	45	.....	45	w 50
BADGER PAPER CO., mfrs. paper and pulp. Five buildings — two 2-st. stone; one 2-st. frame; two 1-st. stone; 3 boilers. Est. 1884..... <i>Accident.</i> —A workman was killed in this mill; his apron caught in shafting and he was beaten to death. The firm paid the funeral expenses and donated \$500 to the widow—the amount of mortgage upon the home — and employed her son, 14 years of age, at his father's wages — \$1.25 per day.	85	15	100	w 1,000

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
FOX RIVER PULP CO., mfrs. wood pulp. Mill, 1-st. frame. Est. 1882.....	14	.....	14	w 575
KAUKAUNA LUMBER AND MANUFACTURING CO., mfrs. sash, doors, blinds and glazed sash. Three buildings—two 2-st. frame; one 1-st. frame. Est. 1881.....	35	.....	35	w 40
<i>Accident.</i> —Workman had a finger caught in gearing. Firm paid doctor bill.				
KAUKAUNA PAPER CO. Four buildings—three 1-st. stone; one 1-st. frame; 2 boilers. Est. 1883.....	68	7	75	w 700
MILWAUKEE, LAKE SHORE & WESTERN RY. REPAIR shops. Twenty-one buildings—two 2-st. stone; one 2-st. brick; one 1½-st. frame; four 1-st. stone; two 1-st. brick; eleven 1-st. frame; 4 boilers. Est. 1883.....	200	.....	200	w 100
Ordered guard on rip saw.				
OUTAGAMIE PAPER AND PULP CO. Five buildings—one 3-st. stone; one 2-st. stone; two 1 st. stone; one 1-st. frame. Est. 1887.....	75	45	120	w 1,500
Ordered belt in pulp mill boxed. Elevator cable changed and gearing of elevator repaired.				
REESE PULP CO., mfrs. wood pulp. Mill, 1½ st. frame. Est. 1888.....	14	.....	14	w 300
Ordered railing on stairs.				
UNION PULP CO., mfrs. paper pulp. Mill, 1½st. frame; 1 boiler. Est. 1881.....	35	.....	35	w 1,200
Ordered cover over box at screen box.				
<i>KELLY.—MARATHON CO.</i>				
<i>Inspected Aug., 1889, by Moore.</i>				
JONES B. E., mfr. lumber. Mill, 2-st. frame; 3 boilers; 1 engine. Est. 1880.....	50	.....	50	75
<i>KENOSHA.—KENOSHA COUNTY.</i>				
<i>Inspected March, 1889, by Moore.</i>				
ALLEN N. R. & SONS, mfrs. leather. Four buildings—one 3-st. frame; two 2-st. frame; one 1-st. frame; 2 boilers; 1 engine; two fire escapes. Est. 1856.....	275	.....	275	125
Ordered rails on stairs; some belting guarded and projecting keys on pulley wheels capped. The superintendent ordered this done at once. The upper floors are used for drying only, with ample means of escape, for the few men occasionally working there. Fire Feb. 2, 1890. Estimated loss, \$100,000.				
BAIN WAGON CO., mfrs. farm wagons. Four buildings—one 4-st. frame; two 3-st. frame; one 2-st. brick; 3 boilers; 1 engine; two iron fire escapes; buildings bridged. Est. 1852.....	350	.....	350	125
This plant covers an area of fifteen acres. Annual capacity, 18,000 wagons.				
CHICAGO BRASS CO., brass rolling mills. Three buildings—all 1-st. brick; 3 boilers; 4 engines. Est. 1886.....	125	.....	125	267
GOTTFREDSON & SON, brewers. One 2-st. brick; 1 boiler; 1 engine. Est. 1875.....	6	.....	6	10
Main buildings destroyed by fire June 6. Estimated loss, \$10,000.				
GRANT C., planing mill; 2-st. frame; 1 boiler; 1 engine. Est. 1881.....	10	.....	10	50
Ordered guard on flywheel of engine; also two belts guarded.				
KENOSHA CRIB CO., mfrs. children's cribs. Factory, 2-st. brick. Est. 1885.....	12	.....	12	.....
Ordered railing on stairs.				
LANE MANUFACTURING CO., mfrs. brass goods. Factory, 2-st. frame; 1 boiler; 1 engine. Est. 1888.....	15	.....	15	25
Ordered doors to swing outward.				

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
MILWAUKEE MALT EXTRACT CO. Factory, 3-st. frame; 1 boiler; 1 engine. Est. 1886.....	4	2	6	20
NORTHWESTERN WIRE MATTRESS CO. Factory, 2-st. brick; 1 boiler; 1 engine. Est. 1877.....	99	14	115	200
PETTIT M. H. MALTING CO. Malthouse, 4-st. brick; 2 boilers; 1 engine. Est. 1857..... Ordered hand rails on stairs.	25	.....	25	110
WHITTAKER ENGINE AND SKEIN CO. Factory, 2-st. brick; 1 boiler; 1 engine. Est. 1872.....	35	.....	35	30
<i>KIEL.—MANITOWOC CO.</i> <i>Inspected July, 1889, by Moore.</i>				
KIEL WOODEN WARE CO., mfrs. cheese boxes, wooden measures, tubs, etc. Two buildings—one 2-st. frame; one 1-st. stone; 1 boiler; 1 engine. Est. 1884..... <i>Accidents.</i> —Boy running planer lost a hand in machine; another boy lost a finger; a workman lost a hand.	25	.....	25	34
<i>KILBOURN CITY.—SAUK CO.</i> <i>Inspected July, 1889, by Claymier.</i>				
MUNGER E. D., mfr. flour. Three buildings—one 3-st. frame; two 1-st. frame. Est. 1883.....	6	.....	6	w 75
<i>KNAPP.—DUNN CO.</i> <i>Inspected Aug., 1889, by Claymier.</i>				
HARDWOOD MANUFACTURING AND STORAGE CO., mfrs. staves, heading, and hardwood lumber. Eleven buildings—one 2-story frame; ten 1-st. frame; 7 boilers; 3 engines. Est. 1881..... Boarding house and store connected, but not run by firm.	45	.....	45	167
<i>LA CROSSE.—LA CROSSE CO.</i> <i>Inspected May, 1889, by Claymier.</i>				
ANDERSON MONS & SONS, mfrs. clothing. Two buildings—one 4-st. brick; one 3-st. brick; 2 boilers; 1 engine; iron fire escape, bridged at second and third floors. Est. 1879..... Ordered new cables on elevator. Elevator is used for both passenger and freight purposes.	50	200	250	15
BOYCOTT PRINTING OFFICE, job printing; one 2-st. brick; electric power. Est. 1881.....	9	.....	9	3
CARGILL W. W. & BROS., mfrs. flour. Two buildings—one 5-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1880.....	7	.....	7	75
CHICAGO, BURLINGTON & NORTHERN R'Y SHOPS. Seven buildings—one 2-st. frame; five 1-st. frame; one 1-st. brick; 1 boiler; 2 engines. Est. 1886..... Ordered guard on rip saw.	140	.....	140	24
CHICAGO, MILWAUKEE & ST. PAUL R'Y SHOPS. Six buildings—five 1-st. brick; one 1-st. frame; 3 boilers; 1 engine. Est. 1858..... Ordered guard on rip saw.	55	.....	55	30
CHRONICLE THE. 2-st. brick; 1 boiler; 1 engine. Est. 1851.....	25	.....	25	{ s 4 e 3
CLARK C. C., mfr. lumber. Four buildings—one 2-st. frame; three 1-st. frame; 3 boilers; 2 engines. Est. 1889..... Ordered guard on gearing of gang saw.	35	.....	35	
COLMAN C. L., mfr. lumber. Seven buildings—two 2-st. frame; four 1-st. frame; one 1-st. brick; 7 boilers; 2 engines. Est. 1854..... Ordered guard on one rip saw and guard on shaft. I found all the machinery in this factory well provided with safety appliances, even the band saws being boxed up. Firm pays wages weekly.	208	12	220	550

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
DAVIDSON LUMBER CO., mfrs. lumber, lath, shingles. Eight buildings—two 2-st. frame; two 1-st. brick; three 1-st. frame; one 1-st. stone; 15 boilers; 4 engines. Est. 1870.....	291	9	300	490
Ordered guard on one shaft and a collar on shaft boxed. Found one boy under 13 at work. The foreman discharged him. <i>Accident.</i> —A workman broke his arm while shifting belt.				
DAVIS, MEDARY & PLATZ CO., mfrs. leather. Three buildings—one 3-st. frame; one 1-st. frame; one 1-st. stone; 3 boilers; 1 engine. Est. 1877.....	65	.....	65	40
Ordered new cable in elevator. None employed on third floor.				
DAVIS, SORENSON & CO., mfg. contractors and builders. Three 1-st. brick buildings—1 boiler; 1 engine. Est. 1887.....	15	.....	15	20
Ordered main door to swing outward and guard on rip saw.				
DENGLER JOHN, mfr. cigars. Factory 2-st. frame. Est. 1884.	30	.....	30	Hand
DOUD SONS & CO., mfrs. cooperage. Four buildings—two 2-st. frame; two 1-st. frame; 1 boiler; 1 engine. Est. 1876.	40	.....	40	8
FRANKLIN IRON WORKS, mfrs. brass and iron castings. Two buildings—one 1-st. stone; one 1-st. frame; 1 boiler; 1 engine. Est. 1870.....	8	.....	8	10
FREEMAN A. A. & CO., mfrs. flour. Five buildings—one 5-st. stone; one 5-st. frame; one 2-st. brick; two 1-st. stone; iron fire escape; 4 boilers; 1 engine. Est. 1876.....	47	.....	47	500
FUNK STEAM BOILER AND IRON WORKS CO., mfrs. steam boilers, tanks, smoke stacks. Five buildings—one 2-st. stone; one 1-st. stone; three 1-st. frame; 1 boiler; 1 engine. Est. 1865.	10	.....	10	14
Ordered guard around fly wheel.				
GODDARD H., mfr. lumber, lath, shingles. Seven buildings—one 2-st. frame; six 1-st. frame; 3 boilers; 1 engine. Est. 1884.	71	4	75	100
Ordered slasher saw boxed and guard on rip saw. Boarding house connected. <i>Accident.</i> —A workman was killed last spring, a board from the edger flying back, striking him in the abdomen.				
GRISWOLD & LORING, steam laundry. One 2-st. brick; 1 boiler; 1 engine. Est. 1888.....	2	9	11	6
GUND JNO. BREWING CO. Eleven buildings—two 3-st. stone; one 2-st. stone; two 1-st. stone; one 1-st. brick; five 1-st. frame; 2 boilers; 2 engines. Est. 1874.....	57	4	61	22
Three main buildings connected. None regularly employed on upper floors.				
HEILMAN'S G. CITY BREWERY, brewers and bottlers. Nine buildings—two 3-st. stone; one 2-st. stone; five 1-st. frame; one 1-st. brick; 2 boilers; 1 engine. Est. 1858.....	27	1	28	18
Ordered guard at head of stairway on third floor in malt house. Brewery and ice house bridged.				
HOLWAY N. B., mfr. lumber, sash, doors, blinds, etc. Six buildings—four 2-st. frame; one 1-st. brick; one 1-st. stone; and several 1-st. frame lumber sheds; 9 boilers; 4 engines. Est. 1877.....	147	13	160	375
<i>Accident.</i> —A fatal accident occurred at this mill, by which two men lost their lives and a third had both legs broken, while engaged sliding lumber into the river.				
JAMES JOHN & CO., iron and brass foundries and machinists. Four buildings—one 2-st. brick; two 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1874.....	31	.....	31	25
LA CROSSE BOX WORKS, mfrs. wooden boxes. Four buildings—two 2-st. frame; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1889.....	5	.....	5	25
Ordered main door to swing outward; also guard around flywheel, and guards on two rip saws.				
LA CROSSE COFFEE AND SPICE MILLS. Two buildings—one 3-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1883..	6	2	8	15

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
LA CROSSE CRACKER CO. Factory, 2-st. brick; 1 boiler; 1 engine. Est. 1884. Ordered guard around flywheel, also guards around elevator on first and second floors.	5	3	8	20
LA CROSSE EDISON LIGHT & POWER CO. One 1-st. brick; 3 boilers; 3 engines. Est. 1887.	10	1	11	385
LA CROSSE ELECTRIC LIGHT AND POWER CO. One 1-st. stone; 1 boiler; 1 engine. Est. 1881.	7	.....	7	125
LA CROSSE FOUNDRY AND MACHINE SHOPS, mfrs. stoves and brass castings. Four buildings — one 2-st. frame; one 2-st. brick; one 1-st. stone; one 1-st brick; 1 boiler; 1 engine. Est. 1878. Ordered guard on rip saw.	12	.....	12	16
LA CROSSE GAS LIGHT CO. Five buildings — one 2-st. brick; two 1-st. brick; one 1-st frame; one 1-st. stone; 2 boilers; 1 engine. Est. 1863.	7	.....	7	6
LA CROSSE KNITTING WORKS, mfrs. hosiery and mittens. Factory, 3-st. brick; 1 boiler; 1 engine. Est. 1886. None employed on third floor.	10	60	70	30
LA CROSSE LINSEED OIL CO., mfrs. raw, pure and boiled linseed oil. Four buildings — two 3 st. brick; one 1-st. brick; one 1-st frame; 1 boiler; 1 engine. Est. 1884. Found guards of elevator taken off. Ordered them replaced.	14	.....	14	90
LA CROSSE LUMBER CO., mfrs gang-sawed lumber, lath, shingles, etc. Seven buildings — two 2-st. frame; three 1-st. frame; two 1-st. brick; 10 boilers; 2 engines. Est. 1871. Ordered box over slasher saw; guard on a cross-cut saw and guard on pulley in shingle mill. Found a boy under 13 at work and ordered him discharged. The boy referred to was afterward granted a permit to work, by the county judge, under provisions of chapter 519, laws of 1865. <i>Accident.</i> — A boy lost two fingers by getting caught in gearing.	136	14	150	700
LA CROSSE PLOW WORKS, mfrs. plows and cultivators. Four buildings — one 2-st. stone; one 1-st. stone; one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1865. Ordered guard on rip saw.	45	.....	45	40
LA CROSSE SOAP CO. Two buildings — one 2-st. brick; one 1-st. stone; 1 boiler; 1 engine. Est. 1859. Ordered guard around elevator on top floor replaced.	10	.....	10	20
LA CROSSE STEAM LAUNDRY. Two buildings — one 3-st. brick; one 1-st. brick; 1 boiler; 1 engine. Est. 1884. Ordered fire escape.	5	30	35	15
LA CROSSE WALLIS CARRIAGE WORKS. Factory, 3-st. brick; 1 engine. Est. 1885. Only three men working on third floor. Firm obtains power from Smith Manufacturing Co. Shops provided with fan.	50	.....	50	35
MCDONALD BROS., mfrs. lumber, lath, shingles. Nine buildings — three 2-st. frame; four 1-st. frame; two 1-st. brick, and several 1-st. frame lumber sheds; 7 boilers; 4 engines. Est. 1884. Ordered guard on rip saw in planing mill. <i>Accident.</i> — Three accidents have occurred at this mill since former inspection. One man broke a leg falling through a platform; another was bruised by a pile of lumber falling on him, and a third lost two fingers while at work on the edger.	231	19	250	316
MICHEL C. & I. BREWING CO., brewers and bottlers. Seven buildings — one 3-st. stone; one 3-st. frame; one 3-st. brick; one 2-st. stone; one 2-st. brick; one 1-st. brick; one 1-st. frame, and several sheds; 2 boilers; 2 engines. Est. 1856. Ordered guard at head of stairway in grain elevator. None employed on third floor.	46	3	49	35

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
MILLER AUGUST, mfrs. brooms and brushes. Factory—2-st. brick. Est. 1881....	12	...	12	Hand
NOVELTY WOOD WORKS, mfrs. sash, doors, blinds, etc. Five buildings—two 2-st. frame; two 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1883....	18	...	18	50
Ordered guard on stairway in warehouse; guards on two rip saws, and box over slasher saw.				
PAMPERIN & WIGGENHORN CIGAR CO. Factory—3-st. brick. Est. 1886....	27	28	65	Hand
I did not deem it necessary to order a fire escape on this building, because the means of escape are very good, there being a lower roof adjoining on both sides of the building, and easy of access. Separate water closets.				
PAUL JOHN, mfr. lumber, lath, shingles. Four buildings— one 2-st. frame; one 1-st. frame; one 1-st. stone; one 1-st. brick; 10 boilers; 4 engines. Est. 1861....	246	9	255	570
This factory has a double band saw which cuts two boards at once.				
PIERCE G. H., mfrs. sash, doors, blinds, etc. Three buildings— all 2-st. frame; 1 boiler; 1 engine. Est. 1863....	30	.....	30	50
Ordered guard on rip saw and hand rails on stairway in factory. Accident—A workman lost a finger.				
PLANKROAD BREWERY. Five buildings— one 4-st. stone; one 2-st. stone; one 2-st. brick; two 1-st. frame; 2 boilers; 1 engine. Est. 1874....	7	.....	7	15
REPUBLICAN AND LEADER THE. 2-st. brick; 1 boiler; 1 engine. Est. 1854....	25	.....	25	4
SALZER J. A. SEED CO., seed growers. Two buildings— one 5-st. frame; one 3-st. frame. Est. 1879....	15	20	35	Hand
Part of the season this firm employs from 75 to 80 persons.				
SAWYER & AUSTIN LUMBER CO., mfrs. lumber, lath, shingles. Nine buildings— three 2-st. frame; four 1-st. frame; one 1-st. stone; one 1-st. brick; 7 boilers; 3 engines. Est. 1883....	233	16	249	581
Ordered guard on belt in shingle mill. The order was complied with before I left the factory. Mill very roomy.				
SEGELKE, KOHLHAUS & CO., mfrs. sash, doors, blinds, etc. Three buildings— one 5-st. stone; one 3-st. brick; one 2-st. brick; 4 boilers; 1 engine. Est. 1902....	85	.....	85	100
Ordered guard around one of the elevators in factory; guards on three slasher saws and on eight rip saws. Also guards around hand elevators in other buildings. None employed on third floors of office and storage buildings. Factory is situated about two blocks distant from other buildings.				
SMITH MANUFACTURING CO., mfrs. wagons, engines, threshers, etc. Six buildings— three 1-st. stone; two 2-st. frame; one 1-st. brick; 2 boilers; 1 engine. Est. 1881....	20	.....	20	25
Ordered guard on rip saw. Accident.—Slight accident on saw, by which a workman lost part of a finger.				
TROW A. S. & CO., mfrs. lumber, lath, shingles. Six buildings— two 2-st. frame; three 1-st. frame; one 1-st. brick; 5 boilers; 2 engines. Est. 1882....	74	10	84	250
Accidents.—The foreman lost a finger in the shingle mill, and a girl also had a finger cut off in the shingle mill.				
VOIGT & RITTER, mfrs. wagons, carriages, etc. Three buildings— one 2-st. stone; one 2-st. brick; one 1-st. stone; 1 boiler; 1 engine. Est. 1870....	25	.....	25	25
Ordered guard around elevator on second and third floors; also, guard on rip saw. Fire Feb. 2, 1890. Estimated loss, \$10,000.				
WEST WISCONSIN IRON WORKS (B. OTT & SONS), mfrs. cane mills, evaporators, etc. Four buildings— two 2-st. frame; two 1-st. frame; 1 boiler; 1 engine. Est. 1879....	12	.....	12	15
Ordered guard on rip saw.				

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
WISCONSIN LUMBER MANUFACTURING CO., mfrs. sash, doors, blinds, mouldings, etc. Four buildings—two 2-st. frame; one 2-st. stone; one 1-st. frame; 1 boiler; 1 engine; wooden escape on factory building. Est. 1886.....	75	.....	75	45
Ordered guards on four rip saws.				
YEO & CLARK, mfrs. flour. Two buildings—one 2-st. brick; one 1-st. stone; 1 boiler; 1 engine. Est. 1880.....	5	.....	5	60
Fire July 22, 1889. Loss about \$15,000.				
<i>LAKE MILLS.—JEFFERSON CO.</i>				
<i>Inspected April, 1889, by Moore.</i>				
FARGO T. B. & CO., mfrs. creamery and dairy supplies. Four buildings—one 3-st. frame; one 2-st. frame; two 1-st. brick; 2 boilers; 2 engines. Est. 1870.....	40	.....	40	55
Ordered guard on buzz saw; railing on stairway and main doors of new factory to swing outward. Third floor of tub shop used for storage only.				
<i>LANCASTER.—GRANT CO.</i>				
<i>Inspected May, 1889, by Moore.</i>				
BROOKER BROS., planing and feed millers, coopers and carpenters. Three buildings—two 1-st. frame; one 1-st. brick; 1 boiler; 1 engine.....	5	.....	5	10
Operated only two days per week.				
GRANT COUNTY HERALD THE; 1-st. stone. Est. 1842.....	7	.....	7	hand
TWITCHELL & OSBORN, mfrs. excelsior. Factory, 4-st. frame; 1 boiler; 1 engine. Est. 1889.....	8	.....	8	35
Ordered guard around elevator well, and two large belts covered. The business is carried on in the old woolen mill. All work is done on ground floor and basement.				
<i>LEADMINE.—LAFAYETTE CO.</i>				
<i>Inspected May, 1889, by Moore.</i>				
LEADMINE MINING CO. Engine shed; 1 boiler; 1 engine. Est. 1887.....	30	.....	30	6
<i>LEOPOLIS.—SHAWANO CO.</i>				
<i>Reported by firm.</i>				
EDWARDS N. M., mfr. lumber. Saw mill, 2-st. frame. Est. 1870	20	20	.....	w 45
<i>LITTLE BLACK.—TAYLOR CO.</i>				
<i>Inspected Oct., 1889, by Claymier.</i>				
DAVIS & STARR LUMBER CO., mfrs. lumber, lath, shingles, etc. Six buildings—one 2-st. frame; four 1-st. frame; one 1-st. brick; 5 boilers; 3 engines. Est. 1887.....	225	.....	225	435
Ordered guards on pulleys of edger Accidents.—One man lost a finger by being caught in gearing; another, fell and dislocated his shoulder, and a third was slightly injured by falling off a platform.				
<i>LITTLE SUAMICO.—OCONTO CO.</i>				
<i>Inspected July, 1889, by Moore.</i>				
GROSSE CHARLES, mfr. lumber. Mill, 2-st. frame; 1 boiler; 1 engine. Est. 1859.....	12	.....	12	40
<i>McDILL.—PORTAGE CO.</i>				
<i>Reported by firm.</i>				
McDILL G. E. & CO., mfrs. flour and lumber. Two buildings—one 3-st. frame; one 2-st. frame. Est. 1860.....	75	.....	75	w 120
Accident.—“One finger lost.”				

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
STEVENS POINT LUMBER CO., mfr. lumber. Mill, 1-st. frame. Est. 1886.	50	.....	50	w
Accident.—“Shingle sawyer lost two fingers.”				
McMILLAN.—MARATHON CO. Reported by firm.				
McMILLAN B. F. & BRO., mfrs. lumber. Mill, 2-st. frame; 3 boilers; 1 engine. Est. 1868.	150	.....	150	100
MADISON.—DANE CO. Inspected June, 1889, by Moore.				
ALFORD BROS'. STEAM LAUNDRY. One 1-st. brick; 1 boiler; 1 engine. Est. 1884.	3	17	20	15
BALL M. H., mfr. “Prouty,” “Madison King” and “Gordon” printing presses, and well-drilling tools. Four buildings—two 2-st. frame; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1870.	35	.....	35	25
Ordered guard on flywheel of engine.				
BAUS, ARMBRECHT & WAGNER, mfrs. cigars. Building, 3-st. stone; work on third floor. Est. 1888.	6	.....	6	Hand
BOSS HARROW CO., mfrs. the “Boss” harrow and pulverizers. Factory, 1-st. frame; 1 boiler; 1 engine. Est. 1885.	10	.....	10	20
The shops, although described as one building, are quite large, being three buildings opening into one another.				
CANTWELL M. J., book, job and legal blank printing. Building, 3-st. stone; 1 engine; gas power. Est. 1867.	10	.....	10	4
CAPITAL CITY PUBLISHING CO. Building, 3-st. brick; 1 engine; gas power. Est. 1887.	10	.....	10	6
CHICAGO, MILWAUKEE & ST. PAUL R'Y REPAIR SHOPS. Three buildings—all 1-st. brick; 2 boilers; 1 engine. Est. 1854.	30	.....	30	10
CURTIS DEXTER, mfr. collar pads. Factory, 2-st. frame; 1 boiler; 1 engine. Est. 1885.	5	3	8	12
DEMOCRAT PRINTING CO., state printers, binders and stereotypers. Building, 3-st. brick; 2 boilers; 1 engine; iron fire escape. Est. 1847.	60	.....	60	14
DOW & SONS (Capital City Mills.) Two buildings—one 4-st. frame; one 1-st. brick; 2 boilers; 1 engine. Est. 1888.	11	.....	11	90
Ordered guard around flywheel of engine.				
FAUERBACH MRS. PETER, brewer. Two buildings—one 3-st. stone; one 1-st. brick. Est. 1859.	6	.....	6	Hand
F. F. F. STEAM LAUNDRY. Building, 3-st. stone; 1 boiler; 1 engine; iron fire escape. Est. 1880.	5	20	25	10
FREDRICKSON N. & SONS, mfrs. sash, doors, blinds. Three buildings—one 2-st. frame; two 1-st. frame; 1 boiler; 1 engine. Est. 1863.	25	.....	25	40
Ordered main doors to swing outward.				
FULLER & JOHNSON MFG. CO., mfrs. agricultural implements. Seven buildings—one 3-st. brick; one 3-st. frame; one 2-st. brick; three 1-st. brick; one 1-st. frame; 2 boilers; 1 engine. Est. 1846.	200	.....	200	250
Ordered alarm bell removed from third floor and placed on ground, or on elevator, so it would ring automatically.				
HAUSMANN JOSEPH, brewer. Three buildings—one 3-st. brick; two 2-st. brick; 2 boilers; 1 engine. Est. 1838.	16	.....	16	10
HAUSMANN JOS., maltster. Two buildings—one 4-st. brick; one 2-st. brick; 1 boiler; 1 engine. Est. 1888.	5	.....	5	15
KURZ MICHAEL, mfr. cigars. Building, 3-st. brick; roofs easy of access, making good means of escape. Est. 1884.	6	.....	6	Hand
MADISON BOOKBINDERY. Located on third floor of State Journal building.	10	19	29	Hand

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
MADISON GAS LIGHT & COKE CO. Three buildings— all 1-st. brick; 1 boiler; 1 engine. Est. 1857.....	7	.....	7	10
PARK W. J. & CO., bookbinders. Building, 3-st. stone; iron fire escape. Est. 1864.....	3	6	9	Hand
PETERSON & OLSEN, mfrs. sash, doors, blinds. Factory, 2-st. frame; 1 boiler; 1 engine. Est. 1889..... Ordered guard on circular rip saw.	25	.....	25	15
ROBBINS & BALTZELL, mfrs. flour. Mill, 4-st. frame; 1 boiler; 1 engine. Est. 1859.....	5	.....	5	s w 150
SILBERNAGEL & DEAN, mfrs. sash, doors, blinds. Three buildings—one 2-st. brick; one 2-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1873..... Ordered guards on two circular saws.	8	.....	8	25
STARCK J. H., mfr. sash, doors, blinds. Factory, 2-st. stone; 1 boiler; 1 engine. Est. 1881..... Ordered guard on circular saw.	28	.....	28	15
STATE JOURNAL THE (David Atwood), printing, publishing and stereotyping. Building, 3-st. stone; 1 boiler; 1 engine; iron fire escape. [H. A. Taylor, successor]. Est. 1837.....	54	1	55	20
WARNES & SWENSON, mfrs. sash, doors, blinds. Factory, 2-st. frame; 1 engine; gas power. Est. 1882.....	25	.....	25	10
WISCONSIN WAGON CO., mfrs. farm and spring wagons. Two buildings—one 2-st. stone; one 2-st. frame; 1 boiler; 1 engine. Est. 1883.....	9	.....	9	4
<i>MALCOLM.—LANGLADE CO.</i>				
<i>Reported by firm.</i>				
WEED J. H., mfr. lumber and shingles. Two buildings— saw mill; one 2-st. frame; one 1-st. frame; 2 boilers; 1 engine. Est. 1887.....	48	.....	48	180
<i>MANITOWOC.—MANITOWOC CO.</i>				
<i>Inspected March, 1889, by Claymier.</i>				
BIGEL & GUSE, re-sawing and planing mills. Mill, 2-st. frame; 1 boiler; 1 engine. Est. 1864..... Ordered guard on shaft and flywheel; also on two circular saws. Burned May 24, 1889. (Rebuilt.)	5	.....	5	35
BURGER H. B. & G. B., ship-builders and contractors. Three buildings—one 2-st. frame; two 1-st. frame; 2 boilers; 2 engines. Est. 1872..... Ordered guard on circular saw.	172	.....	172	75
DOBBERT C. & SON, mfrs. leather. Two 1-st. frame buildings; 1 boiler; 1 engine. Est. 1865.....	5	.....	5	15
DROST H. & SON., mfrs. cigar and paper boxes. Two buildings—one 2-st. brick; one 1-st. brick; 1 boiler; 1 engine. Est. 1881.....	3	9	12	6
KUNZ & BLESER, brewers and maltsters. Three buildings— all 2-st. brick; 1 boiler; 1 engine. Est. 1878.....	14	.....	14	10
MANITOWOC GLUE CO. Seven buildings— four 2-st. frame; two 1-st. frame; one 2-st. brick; 1 boiler; 1 engine. Est. 1868... Ordered guard on flywheel and piston.	18	.....	18	40
MANITOWOC MANUFACTURING CO., mfrs. farm implements and specialties. Four buildings— one 3-st. frame; two 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1866..... Ordered guard on three circular saws; also around elevator well.	78	.....	78	80
MANITOWOC PILOT THE, printing and publishing. Building 2-st. frame; 1 boiler; 1 engine. Est. 1878.....	5	.....	5	3
NORBUT, KROTSCH & SEIDEL, brewers. Four buildings— one 2-st. frame; two 1-st. frame; one 2-st. brick; 1 boiler; 1 engine. Est. 1869.....	5	.....	5	8

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
ORIENTAL MILLS, mfrs. flour and land plaster. Three buildings — one 4-st. brick; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1868	7	.....	7	120
PROCHASKA & CHLOUPEK, mfrs. engines and saw mill machinery. Three buildings — one 2-st. frame; one 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1867	12	.....	12	15
Ordered guard on circular saw.				
RICHARDS H. C., mfr. feed cutters, horse powers, etc. Five buildings — three 1-st. brick; two 2-st. brick; 1 boiler; 1 engine. Est. 1868	25	.....	25	20
Ordered guards on two circular saws.				
ROHR'S WM. SONS, brewers and malsters. Eight buildings — one 4-st. frame; one 3-st. brick; two 1-st. brick; four 1-st. frame; 2 boilers; 2 engines. Est. 1878	31	.....	31	55
SANDERMANN & MOELLER FURNITURE CO., mfrs. patent tables. Factory, 2-st. frame. Est. 1887	5	.....	5	Hand.
Ordered guard on circular saw.				
SCHNORR BROS., mfrs. leather. Three buildings; one 2-st. brick; one 2-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1877	5	.....	5	17
SHERMAN L. & SONS, mfrs. leather. Three buildings — one 2-st. brick; one 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1854	5	.....	5	10
SMALLEY MANUFACTURING CO., mfrs. agricultural implements. Six buildings — one 2-st. brick; two 2-st. frame, two 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Platforms from second floor to warehouse. Est. 1850	79	1	80	50
Ordered guards on two circular saws. <i>Accident.</i> —A workman had two of his fingers partly cut off.				
TRUMAN & COOPER, mfrs. flour and feed. Four buildings — one 3-st. brick; one 2-st. frame; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1872	6	.....	6	55
VITS HENRY, mfr. leather. Three buildings — tanneries, two 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1879	5	.....	5	12
WILLOTT J. & SONS, mfrs. axes, feed cutters, etc. Four buildings — one 2-st. frame; three 1-st. brick; 1 boiler; 1 engine. Est. 1871	8	.....	8	15
WISCONSIN CENTRAL MILLS, mfrs. flour. Three buildings — one 3-st. brick; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1872	12	.....	12	200
ZANDER EDWARD, mfr. sash, doors, blinds. Two buildings — one 2-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1867	6	.....	6	18
Ordered guard on circular saw.				
ZANDER & WILKINS, planing and re-sawing mills. Five buildings — one 2-st. frame; three 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1887	6	.....	6	15
Ordered guard on circular saw.				
<i>MANIWA. — WAUPACA CO.</i>				
<i>Inspected Aug. 1889, by Moore.</i>				
MECHLEJOHN & HATTON, mfrs. lumber and staves. Mill, 2-st. frame; 2 boilers; 1 engine. Est. 1871	70	.....	70	w 80 s 50
<i>MANNVILLE — MARATHON CO.</i>				
<i>Inspected Aug., 1889, by Claymier.</i>				
SHERRY HENRY, mfr. lumber, lath, shingles. Seven buildings — one 2-st. frame; six 1-st. frame; 6 boilers; 3 engines. Est. 1885	125	.....	125	131
Ordered guard on two cross-cut saws.				

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
<i>MAPLE VALLEY.—OCONTO CO.</i>				
<i>Inspected Aug., 1889, by Moore.</i>				
KASTMANN & HIGGINS, mfrs. posts, poles, ties, Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1888.....	12	.....	12	30
<i>MAPLEWOOD.—DOOR CO.</i>				
<i>Reported by firm.</i>				
HALL SAMUEL L., mfr. lumber and cedar shingles. Three 1-st. frame buildings; 1 engine; 1 boiler. Est. 1885.....	10	.....	10	25
GEIER HENRY, mfr. lumber. Sawmill, 2-st. frame; 1 boiler; 1 engine. Est. 1884....	5	.....	5	30
<i>MAPLEWORKS.—CLARK CO.</i>				
<i>Reported by firm.</i>				
MASON J. B., mfr. lumber, shingles and flour. One 1-st. frame, 30x80; 1 boiler; 1 engine. Est 1886.....	16	.....	16	40
<i>MARATHON CITY.—MARATHON CO.</i>				
<i>Reported by firm.</i>				
HERMAN EDWARD C., mfr. flour and lumber. Plant not described; 1 boiler; 1 engine. Est. 1871..... "Grist mill run by water power."	16	.....	16	45
LEMMER JOHN A., mfr. lumber and shingles. Plant not described; 1 boiler; 1 engine. Est. 1883.....	16	.....	16	50
<i>MARBLE—WAUPACA CO.</i>				
<i>Reported by firm.</i>				
NELSON BROS., mfrs. lumber. Two 1-st. frame buildings; 1 boiler; 1 engine. Est. 1884.....	12	.....	12	30
<i>MARINETTE—MARINETTE CO.</i>				
<i>Inspected July, 1889, by Moore.</i>				
EAGLE PRINTING CO., printing, publishing and book binding. One 2-st. brick; 1 boiler; 1 engine. Est. 1871.....	10	4	14	6
HAMILTON & MERRYMAN CO., mfrs. lumber, lath, shingles. Three buildings—one 3-st. frame; one 2-st. frame; one 1-st. frame; 6 boilers; 1 engine. Est. 1871..... Ordered friction gear covered.	165	.....	165	271
HOPPER H. D., mfr. shingles. Mill, 2-st. frame; 2 boilers; 1 engine. Est. 1871..... Ordered railing on stairs.	15	.....	15	40
LINDEN & MILLER, mfrs. sash, door, blinds. Two buildings—two 2-st. frame; 1 boiler; 1 engine. Est. 1884..... Ordered guard on rip saw.	20	.....	20	30
LUDINGTON N. CO., mfrs. lumber, lath, shingles. Three buildings—one 3-st. frame; one 2-st. frame; one 1-st. brick; 7 boilers; 1 engine. Est. 1855..... Ordered fire escape on boarding house. Accident.—A workman had leg broken by a slab being caught by carriage. Company paid the doctor's bill.	125	.....	125	250
MARINETTE & MENOMINEE PAPER CO., mfrs. print and wrapping paper. Three buildings—two 1-st. brick; one 1-st. frame; 2 boilers; 1 engine. Est. 1880..... No accidents have occurred at this mill for four years.	45	10	55	s 35 w 200
MARINETTE FLOUR MILL CO. Mill, 3-st. frame. Est. 1879..	6	.....	6	w 100
MARINETTE IRON WORKS, mfrs. saw mill machinery. Three buildings—two 1-st. frame; one 1-st. brick; 2 boilers; 3 engines. Est. 1867.....	275	.....	275	100

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
MARINETTE SAW MILL CO. , mfrs. lumber, lath, shingles. Two buildings — two 2-st. frame; 13 boilers; 4 engines. Est. 1889 Ordered railings on stairs. Both mills are models of their kind, and as safe as it seems possible to make such places. It should be said to the credit of all the mill owners of Marinette, that every piece of machinery is well guarded where practicable.	160	.....	160	400
MENOMINEE RIVER LUMBER CO. , mfrs. lumber, lath, shingles. Four buildings — one 3-st. frame; one 2-st. frame; two 1st. brick; 9 boilers; 1 engine. Est. 1858..... Ordered two fire escapes on boarding house.	250	.....	250	176
MENOMONEE RIVER SASH & DOOR CO. Three buildings — one 2-st. frame; one 1-st. brick; one 1-st. frame; 2 boilers; 1 engine. Est. 1888..... Ordered guards on two circular rip saws, a new cable in elevator, and a boy under 13 discharged. The firm was at first not inclined to put new cable in elevator, until I insisted and placarded the elevator as unsafe and forbade its further use until repaired. The cable is broken and crushed by being wound in machinery, and one strand for a number of feet is entirely out of it. The boy referred to was working in the mill, upon misrepresentation of his father, who said he was over 13. Either the firm or foreman seems to have but little control over the men or boys, for, notwithstanding a sign forbidding the use of the elevator for passengers, I caught four boys on it at the time.	80	.....	80	35
MERRYMAN R W. , mfr. lumber, lath, shingles. Three buildings — one 2-st. frame; one 1-st. frame; one 1-st. brick; 6 boilers; 1 engine. Est. 1878..... Ordered guard on friction gear, and railing on stairs.	116	.....	116	200
NIDEAU J. A. , mfr. shingles. Mill, 2-st. frame; 1 boiler; 2 engines. Est. 1877.....	12	2	14	30
NORTH STAR THE , printing and publishing. One 2-st. brick. Est. 1880.....	6	3	9	6
STEPHENSON ISAAC , mfr. lumber and lath. Two buildings — one 2-st. frame; one 1-st. frame; 4 boilers; 1 engine. Est. 1888 Ordered new railing on stairs.	65	.....	65	150
WITBECK CO. H. THE , mfrs. lumber and lath. Four buildings — one 3-st. frame; one 2-st. frame; one 1-st. frame; one 1-st. brick; 7 boilers; 1 engine. Est. 1868..... Ordered fire escape on boarding house. <i>Accidents.</i> — A workman killed running picket saw; another broke his leg by slipping of the hook in rolling logs.	250	.....	250	290
MARION.—WAUPACA CO. <i>Inspected Aug., 1889, by Moore.</i>				
PAGE & KEITH , mfrs. lumber and bed slats. Two buildings — one 2-st. frame; one 1-st. frame; 2 boilers; 1 engine. Est. 1879..	25	.....	25	100
MARSHFIELD.—WOOD CO. <i>Inspected Aug., 1889, by Claymier.</i>				
HOWARD R. H. , machine shop and foundry. Three buildings — one 2-st. frame; two 1-st. frame; 1 boiler; 2 engines. Est. 1882. Ordered guard on rip-saw. <i>Accident.</i> — Workman lost a thumb.	9	.....	9	31
MARSHFIELD STAVE CO. , mfrs. flour, barrel staves and heading. Four 1-st. frame buildings; 2 boilers; 1 engine. Est. 1881.....	50	.....	50	60
MATTHES CHEMICAL CO. , mfrs. extra refined wood alcohol. Four buildings — one 2-st. frame; three 1-st. frame; 1 boiler; 1 engine. Est. 1886.....	7	.....	7	12

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
UPHAM MANUFACTURING CO., mfrs. lumber, lath and shingles, furniture, flour and feed, etc. Fourteen buildings—two 3-st. frame; three 2-st. frame; three 1-st. frame; one 2-st. brick; four 1-st. frame; one 1-st. brick; 10 boilers; 3 engines. Est. 1877	400	.....	400	525
Store connected. Accident.—Boy had fingers crushed between the rollers of sand-papering machine.				
MARTELL.—PIERCE CO. Reported by firm.				
BONSNESS E. O., mfr. lumber. Plant not described; 1 boiler; 1 engine. Est. 1866	5	.....	5	35
MASON.—BAYFIELD CO. Inspected Sept., 1889, by Claymier.				
WHITE RIVER LUMBER CO., mfrs. lumber, lath, shingles. Ten buildings—four 2-st. frame; four 1-st. frame; two 1-st. brick; 12 boilers; 5 engines. Est. 1883	215	.....	215	w 600 s 100
Ordered gearing guarded on gang saw. Boarding house and store connected.				
MAUSTON.—JUNEAU CO. Inspected July, 1889, by Claymier.				
BOORMAN MILLING CO. Five buildings—two 3-st. frame; three 1-st. frame. Est. 1870	10	.....	10	w 140
Ordered guard at head of stairway on second floor in mills.				
MAUSTON IRON WORKS, machine shop, foundry and feed mill. Three buildings—one 2-st. frame; two 1-st. frame; 1 boiler; 1 engine. Est. 1868	5	.....	5	20
RANDELL F. & CO., mfrs. wagons, buggies, sleighs, etc. Two buildings—one 2-st. frame; one 1-st. frame. Est. 1880	5	.....	5	Hand
SUN PUBLISHING CO. One 2-st. brick; 1 boiler; 1 engine. Est. 1885	6	.....	6	6
MAYVILLE.—DODGE CO. Inspected Aug., 1889, by Moore.				
NORTHWESTERN IRON CO., mfrs. pig iron. Plant consists of several 1-st. buildings and furnace; 12 boilers; 1 engine. Est. 1850.	70	.....	70	175
The blast furnace was established here, on a small scale, as early as 1850.				
PAUSTIAN F., mfr. flour, feed and oat meal. Mills, two 2-st. frame; 1 boiler; 1 engine. Est. 1857	5	.....	5	w 105
Ordered railing on stairs; also belt boxed or covered.				
ROTHKE & RUEDEBUSCH, mfrs. furniture. Four buildings—three 2-st. frame; one 2-st. brick; 1 boiler; 1 engine. Est. 1860	6	.....	6	15
Ordered guard on circular rip saw.				
MAZOMANIE.—DANE CO. Inspected June, 1889, by Moore.				
LANG A., brewer, maltster. Three buildings—one 2-st. stone; one 1-st. frame; one 1-st. stone; 1 boiler; 1 engine. Est. 1878 ..	6	.....	6	12
MAZOMANIE KNITTING CO. Factory, 2-st. frame; 1 boiler; 1 engine. Est. 1882	15	65	80	10
Besides the 80 hands employed in factory about 150 take the work home for finishing.				
MAZOMANIE MILLING CO. Mill, 3-st. stone. Est. 1857	8	.....	8	w 75

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
MEADOW VALLEY.—JUNEAU CO.				
<i>Reported by firm.</i>				
McWITHEY A. H., mfr. lumber. Two 1-st. frame buildings; 1 boiler; 1 engine. Est. 1887	15	.....	15	25
MEDFORD.—TAYLOR CO.				
<i>Inspected Oct., 1889, by Claymier.</i>				
MEDFORD EXCELSIOR CO. Four buildings—one 1-st. brick; two 1-st. frame; one 1-st. stone; 1 boiler; 1 engine. Est. 1888.	15	.....	15	50
SHAW T. F. M. & F. D., mfrs. hemlock sole leather. Six buildings—one 2-st. frame; four 1-st. frame; one 1-st. stone; 6 boilers; 3 engines. Est. 1889.....	50	.....	50	130
Ordered guard on flywheel in beam house. Beam house and tan yard 45x41 feet. The plant was not quite completed at time of visit; it will be one of the finest plants in the state.				
SHERRY & COOK, mfrs. lumber, lath, shingles. Two buildings—one 2-st. frame; one 1-st. frame; 2 boilers; 1 engine. Est. 1886.....	22	.....	22	60
MENASHA.—WINNEBAGO CO.				
<i>Inspected April, 1889, by Claymier.</i>				
BEMIS & HEULE, mfrs. chairs. Factory, 3-st. frame; 1 boiler; 1 engine. Est. 1888	24	6	30	35
Ordered guard on rip saw and railing on stairs. <i>Accident.</i> — One workman had a hand badly injured by rip saw.				
FOX RIVER IRON WORKS, mfrs. feed cutters, feed mills, etc. Two buildings—one 1-st. brick; one 1-st. frame. Est. 1876....	10	.....	10	w 16
GILBERT PAPER CO., mfrs. tub-sized, flat, envelope papers, etc. Four buildings—one 2-st. brick; one 1-st. frame; two 1-st. brick; 3 boilers; 2 engines. Est. 1887.....	50	10	60	{ s 350 w 350
Ordered railing around elevator hole, and main doors to swing outward.				
HOWARD C. W., mfr. print and book paper. Four buildings—one 2-st. brick; two 1-st. brick; one 1-st. frame; 2 boilers; 1 engine. Est. 1888.....	28	12	40	{ s 80 w 200
Ordered railing on two stairs, and main door to swing outward.				
ISLAND CITY BREWERY. One 4-st. brick; 1 boiler; 1 engine. Est. 1888	6	.....	6	35
Ordered guard on elevator shaft on top floor.				
McKINNON D. F. H., mfr. excelsior. Three buildings—two 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1880	11	.....	11	{ s 50 w 65
Ordered guard on one of the machines, also guard on rip saw.				
MENASHA IRON WORKS, mfrs. wood-working and grist mill machinery. Four buildings—one 2-st. frame; three 1-st. frame; 1 boiler; 1 engine. Est. 1875	6	.....	6	12
MENASHA WOODEN WARE CO. Eight buildings—one 3-st. brick; three 2-st. brick; two 2-st. frame; two 2-st. brick; two 1-st. brick; 3 boilers; 1 engine. Est. 1856	100	.....	100	{ s 80 w 80
Found one boy under 12 at work, and sent him home. The superintendent says the firm employs no boys, but as some of the work is given out by contract, the men sometimes hire children.				
MENASHA WOOD SPLIT PULLEY CO. Two buildings—one 3-st. frame; one 1-st. frame; 1 boiler; 1 engine; platform escape from second and third floors. Est. 1888	42	.....	42	w 50
Ordered guards on two rip saws. <i>Accidents.</i> — One workman had three fingers cut off by a planer, another workman and a boy each had a finger cut off on saws.				
MENASHA WOOLEN MILLS, mfrs. Menasha flannels. Four buildings—one 3-st. brick; two 2-st. frame; one 1-st. brick; 1 boiler. Est. 1887.....	25	40	65	w 35

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
SCHNEIDER JOHN, mfr. sash, doors, blinds, etc. Two buildings — one 2-st. frame; one 1-st. brick. Est. 1872. Ordered guards on rip saws, and railing on stairway.	10	.....	10	w 25
SMITH CHAS. A., mfr. cooperage. Two buildings — two 3-st. frame; two iron escapes, and platform at second floor. Est. 1883.	160	.....	160	w 75
STRANGE JOHN, mfr. wrapping paper. Five buildings — two 2-st. frame; one 1-st. brick; two 1-st. frame; 2 boilers; 1 engine. Est. 1881. Ordered railing on stairs, and guard around rag elevator hole.	36	4	40	s 50 w 100
WEBSTER MANUFACTURING CO., mfrs. hubs, spokes, wagon stock, chairs, etc. Seven buildings — two 3-st. brick; two 3-st. frame; 3-st. and 2-st. frame; two 1-st. frame; one 1-st. brick; 3 boilers; 1 engine; buildings bridged at second and third floors. Est. 1880. Ordered guards on two rip saws, and escape ladder on paint shop to third floor. Found a boy under 12 at work here. The superintendent promised to discharge him that evening. <i>Accident.</i> — Two workmen had each a thumb cut off by circular saw.	220	30	250	200
WHITING GEO. A., mfr. print and book paper. Four buildings — three 2-st. and one 1-st. brick; 1 boiler; 1 engine. Est. 1882. Ordered main doors to swing outward. Burned in 1888, rebuilt in 1889. The mill was not quite in running order at time of inspection. When completed all machinery will be well guarded. Third floor occupied for storage only.	48	22	70	s 50 w 225
WINZ W., brewer. Six buildings — two 2-st. brick; three 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1881.	5	.....	5	8
<i>MENOMONIE.—DUNN CO.</i>				
<i>Inspected Aug., 1889, by Claymier.</i>				
GOODMAN, WILCOX & CO., mfrs. sash, doors, blinds. Two buildings — one 2-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1884. Ordered guard on rip saw.	8	.....	8	25
HUDSON ROAD BREWERY. Two buildings — one 2-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1887. Ordered guard at head of stairs on second floor.	6	.....	6	20
KNAPP, STOUT & CO. COMPANY, mfrs. lumber lath, shingles, and flour. Twenty-nine buildings — one 3-st. frame; six 2-st. frame; five 1-st. brick; sixteen 1-st. frame; one 1-st. stone; 13 boilers; 6 engines. Est. 1846. Ordered fire escape on 3-story dormitory. All machinery well guarded. Firm have their own water works and electric light plant, and do their own packing in winter. It is a remarkable fact that during the last twelve months not a single accident occurred in this, the largest lumber manufacturing plant in the state.	632	.....	632	s 1475 w 1500
MENOMONIE PRESSED BRICK CO. Three buildings — one 2-st. frame; one 1-st. brick; one 1 st. frame; and drying sheds; 1 boiler; 1 engine. Est. 1872. A few of the employees board with firm.	75	.....	75	80
ST. PAUL & MINNEAPOLIS PRESSED BRICK CO. Three 1-st. frame buildings; and several drying sheds; 1 boiler; 1 engine. Est. 1885.	48	.....	48	60
STANDARD MENOMONIE BRICK CO. Two 1-st. frame buildings; and several drying sheds; 1 boiler; 1 engine. Est. 1880. Ordered guard on pulley in engine room; also on gearing of brick machine.	40	.....	40	40
WISCONSIN RED PRESSED BRICK CO. Three buildings — one 1-st. brick; two 1-st. frame; 1 boiler; 1 engine. Est. 1885. <i>Accident.</i> — Three workmen were killed by the caving in of a clay bank, in June, 1888.	104	.....	104	80

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
MERRILL.—LINCOLN CO.				
Inspected June, 1889, by Claymier.				
CENTRAL MANUFACTURING CO. THE, mfrs. sash, doors, blinds. Five buildings—two 2-st. frame; three 1-st. frame; 2 boilers; 1 engine. Est. 1889.....	50	.....	50	100
Factory was not yet in operation at time of visit, and machinery not all put up. Mr. Fehland promised that a fire escape would be erected and all machinery safely guarded. Sliding doors.				
CHAMPAGNE LUMBER CO., mfrs. lumber, lath, shingles. Six buildings—four 2-st. frame; one 1-st. frame; one 1-st. brick; 5 boilers; 1 engine. Est. 1882.....	125	.....	125	250
Ordered gearing on rollers boxed up. Boarding house connected. <i>Accident.</i> —Workman killed by a slab coming over the rollers.				
FLANNER, SEELYE & ROSS, planing mill. Five buildings—all 1-st. frame; 1 boiler; 1 engine. Est. 1886.....	50	.....	50	50
Ordered guard on rip saw.				
GILKEY & ANSON CO., mfrs. lumber, lath, shingles. Four buildings—one 2-st. frame; two 1-st. frame; one 1-st. brick; 4 boilers; 1 engine. Est. 1883.....	110	.....	110	90
Ordered box over slasher saw.				
LINCOLN COUNTY FLOURING MILLS. Two buildings—one 2-st. frame; one 1-st. frame. Est. 1878.....	5	.....	5	w 99
MERRILL IRON WORKS, mfrs. engines, mill work, etc. Shop, one 1-st. frame; 2 boilers; 1 engine. Est. 1881.....	12	.....	12	12
MERRILL LUMBER CO., mfrs. gang-sawed lumber, lath, shingles. Nine buildings—two 2-st. frame; five 1-st. frame; two 1-st. brick; 9 boilers; 4 engines. Est. 1886.....	150	.....	150	335
Ordered guard around gearing on gang saw. This is a fine and roomy saw mill with ample room between machinery. Boarding house connected.				
MERRILL STEAM LAUNDRY. Two buildings—one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1888.....	2	5	7	4
RUDER GEO. BREWING CO. Three buildings—one 2½-st. frame; two 2-st. frame; 1 boiler; 1 engine. Est. 1882.....	6	.....	6	12
SCOTT T. B. LUMBER CO., mfrs. lumber, lath, and shingles. Eight buildings—one 2-st. frame; six 1-st. frame; one 1-st. brick; 2 boilers. Est. 1883.....	180	.....	180	w 750
STANGE A. H., mfr. lumber, sash, doors, blinds. Nine buildings—four 2-st. frame; two 1-st. frame; three 1-st. brick; 6 boilers; 2 engines. Ladders from attic; buildings bridged at second floor. Est. 1886.....	175	.....	175	225
Ordered guard on pulley in saw mill. Found three boys under 13 at work; notified proprietor of the fact, who promised to discharge them. <i>Accident.</i> —Workman lost part of foot in moulding machine.				
WISCONSIN VALLEY LUMBER CO., mfrs. lumber, lath, shingles. Seven buildings—one 2-st. frame; five 1-st. frame; one 1-st. brick; 9 boilers; 3 engines. Est. 1888.....	125	.....	125	585
Ordered box over slasher saw. <i>Accidents.</i> —One workman had his leg injured by a board flying back from the edger; the other had his hand cut off by a grooving machine, his glove getting caught drawing his hand under the rollers. The firm paid the doctor's bill in both cases.				
WOLF RIVER LUMBER CO., mfrs. lumber, lath, shingles. Eight buildings—one 2-st. frame; seven 1-st. frame; 5 boilers; 2 engines. Est. 1888.....	75	.....	75	155
Ordered guard on rip saw. Found two boys under 13 at work; notified Mr. Heath, who promised to discharge them forthwith as the firm means to live up to the law. <i>Accident.</i> —A workman lost a thumb by getting caught in a trimmer.				

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
WRIGHT D. W. LUMBER CO., mfrs. lumber, sash, doors, blinds. Thirteen buildings — one 3-st. frame; three 2-st. frame; six 1-st. frame; two 2-st. brick; one 1-st. brick; 7 boilers; 2 engines. Buildings bridged at second floor. Est. 1881 <i>Accident.</i> — A workman lost a leg by his clothing being caught in live gearing, notwithstanding it was well guarded. The firm paid the doctor's bill and raised over \$300 for the injured man's benefit.	200	4	204	350
MERRILLAN.—JACKSON CO. <i>Inspected Aug., 1889, by Claymier.</i>				
SWIFT E., mfr. lumber. Two 1-st. frame buildings. Est. 1873.	16	.....	16	w 40
TROW A. S., mfr. lumber, lath, shingles. Three 1-st frame buildings. Est. 1864. <i>Accident.</i> — A workman lost part of his hand by being caught in gearing while examining a hot box.	30	.....	30	w 125
MILLADORE.—WOOD CO. <i>Inspected Aug., 1889, by Claymier.</i>				
HEINRICHS & KUHN, mfrs. lumber and shingles. Four buildings—two 2-st. frame; two 1-st. frame; 1 boiler; 1 engine. Est. 1880. Ordered guard on rip saw.	32	.....	32	60
SUTTON C. W. & SON, mfrs. staves and heading. Four 1-st. frame buildings; 1 boiler; 1 engine. Est. 1886. Ordered guard on fly wheel.	14	.....	14	30
MILLSTON.—JACKSON CO. <i>Inspected Aug., 1889, by Claymier.</i>				
MILLS H. B., mfr. lumber and shingles. Two 1-st. frame buildings. Est. 1872.	10	.....	10	w 60
MILWAUKEE.—MILWAUKEE CO. <i>Inspected by Claymier and Lang.</i>				
ABEL, BACH & FITZGERALD, mfrs. trunks and traveling bags. 10th and Fowler Sts Three buildings — two 4-st. brick, each 50x150; one 1-st. brick, 25x45; 2 boilers; 1 engine; 2 iron escapes and wooden stairway leading from doors at fourth floor. Est. 1881 Ordered platforms on fire escapes at third and fourth floors. The two main buildings are connected in front from second, third and fourth floors, and have 150 feet front; they are also connected in rear from second and third floors. The connection is fifty feet wide.	243	7	250	50
ABRESCH CHAS., mfr. carriages and wagons, 407 to 415 Poplar St. Five buildings—two 3 st. brick, 45x100, and 30x130; one 4-st. brick, 50x75; one 2-st. frame, 22x60; one 1-st. brick, 20x20; 1 boiler; 1 engine. Est. 1871. Ordered guards on rip saw and on flywheel, and a fire escape on paint shop.	75	.....	75	25
ACHTENHAGEN F., mfr. upholstered goods, 260, 262 Reed St. Two buildings—one 3-st. brick, 40x70; one 2-st. frame, 20x58; outer stairway to second floor and lower roof adjoining. No machinery. Est. 1874.	30	.....	30	Hand
ACKERMAN R., mfr. boots and shoes, 816 11th St. Two buildings—one 2-st. frame, 20x46; one 1-st. frame, 22x44; 1 boiler; 1 engine. Est. 1887.	12	12	24	10
ADAMS F. F & CO., mfrs. tobacco, 90 to 98 West Water St. Factories, two 4-st. brick, 80x115 and 50x200; 2 boilers; 1 engine; three iron escapes. Est. 1847. These two buildings are connected at third and fourth and bridged at second floor.	116	4	120	250

Report of Inspection—Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
ADAMS S., mfr. iron and brass goods, 245 Lake St. Shop, 2 st. brick, 25x50; 1 boiler; 1 engine. Est. 1890.....	10	.....	10	12
ADAMS & HAMANN, mfrs. brass and iron goods, Lake and Ferry Sts. Shop—2-st. brick, 50x50; 1 boiler; 1 engine. Est. 1888.....	8	.....	8	8
ADLER DAVID & SONS CLOTHING CO., 324, 326 East Water St. Two buildings—one 4-st. brick, 40x120; one 3-st. brick, 20x72; 1 boiler; 1 engine; iron escapes. Est. 1849..... <i>Accident.</i> —An old man who had been in the firm's employ for over thirty years, was caught between the elevator doors on the first floor and fell to the basement. He died a week afterward. The elevator was in good condition.	38	2	40	10
ALLEN H. M., mfr. cigars, 310 Broadway. Factory—3-st. brick, 30x100. Est. 1879.....	4	4	8	Hand
ALLIS EDW. P. & CO., "RELIANCE WORKS," cor. Florida and Clinton Sts. Mfrs. engines, flour mill machinery, saw mill machinery, mining machinery, and dealers in mill and engine supplies. Seventeen buildings—three 3-st. brick, 110x120, 56x226, 40x120; two 3-st. frame, 60x300, 72x112; three 2-st. brick, 85x207, 40x60, 35x28; three 2-st. frame, 60x449, 60x262, 72x226; three 1-st. brick, 55x80, 128x375, 23x92; three 1-st. frame, 30x82, 20x70, 50x193; 7 boilers; 3 engines. Est. 1859. Ordered guards on six rip saws, and a new cable in the elevator in machine shop. Extensive improvements have been made to the three plants operated by this firm during 1888 and 1889. A member of the firm said that he is always glad to have the inspectors look over the works; and if they find it necessary to order anything in compliance with the law, they will find the firm ready to do so as soon as possible. <i>Accidents.</i> —Four accidents to workmen, three of which resulted fatally, have occurred at this plant since the former inspection, in August, 1887. The first accident was caused by the breaking of a rope while hoisting a heater, the heater falling upon two men, killing both. The second, by a traveling crane while moving a dry-sand mold, when a slight swing of the latter caused the beams to come together so that the crane fell, killing the man running it. The third accident was caused by a plank falling on the general foreman. The fourth accident happened by the breaking of a gear on a traveling crane; a fragment struck a workman, breaking his leg. All these men were members of the Edw. P. Allis Mutual Aid Society, which pays one dollar per day during sickness besides the doctor's bill, and \$100 in case of death. The society has settled all claims, and the firm have agreed to pay a certain amount to the families of the deceased for a number of years.	1087	5	1102	575
ALLIS EDW. P. & CO., "BAY STATE WORKS," Lake and Barclay sts. Six buildings—one 3-st. brick, 50x200; four 1-st. frame, 36x250, 24x64, 24x61, 11x15; one 1 st. brick, 35x60; 2 boilers; 1 engine; outside stairway leading from third floor. Est. 1875..... Ordered guards on flywheel and belts in engine room.	157	.....	157	100
ALLIS EDW. P. & CO. "SOUTH FOUNDRY," mfrs. steam heaters, boilers, housework, etc., Stewart St. Three buildings—two 2-st. frame, 98x170, 72x120; one 1-st. frame, 15x18; 1 boiler; 1 engine. Est. 1888. Ordered guard on rip saw, guard on flywheel in engine room, and guard on elevator on cupola platform. <i>Accident.</i> —One accident occurred at these shops within the last year, caused by the explosion of a cast iron boiler, which was being tested without using a steam gauge. The man who was killed had the job of finishing heaters and boilers by contract, hiring his own help.	125	.....	125	60
ALTPETER PHILIP, malster. 3d and Sherman Sts. Two buildings—one 2-st. brick, 30x50, 25x90; one 3-st. frame; 1 boiler; 1 engine. Est. 1873.....	6	.....	6	20

Report of Inspection—Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
AMAZEEN & MALEY, mfrs. shoes, 318 Wells St. Factory, 3-st. brick, 35x65; 1 boiler; 1 engine; iron escape. Est. 1876... Ordered guard on pulley of main shaft in engine room.	25	25	50	20
AMERICAN CANDY CO., 285 East Water St. Factory, 3-st. brick, 20x100; 1 boiler; 1 engine. Est. 1888.....	8	9	17	6
AMERICAN VINEGAR WORKS, mfrs. vinegar, pickles, mustard, cider, sauces, etc., 620 to 626 Walnut St. Three buildings—two 2-st. brick, 28x47x31x37, 18x112; one 1-st. brick, 20x24; 1 boiler; 1 engine. Est. 1884.....	20	.....	20	35
ANDRAE JULIUS, mfr. electrical supplies, 225 West Water St. Two buildings—two 2-st. brick, 20x70, 20x75; 1 boiler; 1 engine. Est. 1860.....	15	.....	15	20
ANDRES FRED & CO., contractors cut and sawed stone, Canal St. Two 1-st. frame buildings, 48x99, 16x20; 2 boilers; 1 engine. Est. 1880.....	30	.....	30	100
ANDREWS C. E. & CO., mfrs. "Pearl" baking powder, etc., 287 to 291 East Water St. Two buildings—one 3-st. brick, 50x100; one 2-st. brick, 56x64; 1 boiler; 1 engine. Est. 1867. ... Lower roof adjoining.	25	5	30	45
ANSTEDT C. & SON, mfrs. leather, 550 to 564 Commerce St. Four buildings—one 4-st. brick, 50x100; one 1-st. brick, 36x40; two 1-st. frame, 40x50, 27x48; 2 boilers; 1 engine; iron escape. Est. 1886.....	30	.....	30	50
ASCHERMANN EDW. & CO., mfrs. cigars, 259 South Water St. Factory, 4-st. brick, 66x100; iron escape. Est. 1859. ...	35	25	60	Hand
ASMUTH MALT & GRAIN CO., 194 to 204 Florida St. Six buildings—two 6-st. frame, 48x140, 48x48; one 6-st. brick, 140x156; one 3-st. frame, 30x67; one 1-st. brick, 25x30; one 1-st. frame, 19x48; 2 boilers; 1 engine; iron escape, and bridge leading from malthouse to elevator. Est. 1876.....	60	.....	60	100
ATKINS, WEST & CO., mfrs. boots and shoes, 57, 59 4th St. Factory, 5-st. brick, 60x150. Est. 1848..... Ordered two fire escapes.	45	45	90	20
AUSTIN, SOULE & BRAZIER, mfrs. tacks and nails, Layton Park. Three buildings—one 2-st. frame, 38x136; one 1-st. brick, 21x41; one 1-st. frame, 12x22; 1 boiler; 1 engine. Est. 1886. ... Ordered elevator guarded; also flywheel of engine. The factory is new and the only one of the kind in the west.	15	1	16	15
BADGER ILLUMINATING CO., mfrs. electric light, 3d and Poplar Sts. Building, 2-st. brick, 40x156; 3 boilers; 3 engines. Est. 1886.....	35	.....	35	700
BADGER KNITTING CO., mfrs. ladies' and gentlemen's fine underwear, 194, 196 East Water St. Two buildings—one 4-st. brick, 38x113; one 1-st. frame, 20x24; 2 boilers; 1 engine; one iron and one wooden stairway, escapes from fourth and third floors. Est. 1883..... <i>Accident.</i> —A boy fell down the elevator shaft while operating the elevator, and died within two weeks.	50	200	250	35
BAILEY ENOCH, shipsmith, 321 Lake St. Three buildings—one 1-st. brick, 25x38; two 1-st. frame, 12x20, 12x19; 1 boiler; 1 engine. Est. 1866.....	6	.....	6	20
BAIRD R. S. & CO., job printers, 116 Michigan St. Building, 2-st. brick, 20x40. Est. 1879.....	6	.....	6	1
BARKOW H., mfr. wagons, sleighs, etc., 195 Milwaukee St. Two buildings—one 3-st. frame, 30x60; one 2-st. frame, 30x65; 1 boiler; 1 engine. Est. 1878.....	10	.....	10	20
BARNARD G. L., mfr. brass and iron patterns, Lake and Ferry Sts. Shop, 2-st. brick. Est. 1888.....	6	.....	6	Hand
BARTELS & CROAKE MANUFACTURING CO. THE, mfrs. shipping cans, oil tanks, etc., 197 Jackson St. Factory, 2-st. frame, 33x140. Est. 1883.....	25	.....	25	Hand

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
BAUM, FISCHER & CO., mfrs. pants, shirts, and overalls, 341 Broadway. Factory, 3-st. brick, 30x100. Est. 1881..... Ordered fire escape. Firm employs forty persons outside of factory.	8	12	20	Hand
BAYLEY WM. & SONS, mfrs. steam engines, iron work for buildings, etc., 69 to 87 Chicago St. Six buildings—one 3-st. brick, 40x70; one 2-st. brick, 40x48; one 1-st. brick, 75x100; two 1-st. frame, 16x24, 15x30; one 2-st. frame, 20x37; 1 boiler; 1 engine. Est. 1856..... Ordered guard on rip saw; guard on elevator at first floor, and ventilator in blacksmith shop. The firm set a man at work to comply with the orders, before inspector had left the works. None regularly employed on third floor.	125	.....	125	30
BAY VIEW TANNING CO., mfrs. sole leather, east end Kinnickinnic bridge. Nine buildings—one 3-st. brick, 55x106; one 2-st. brick, 56x103; two 2-st. frame, 69x207, 80x180; two 1-st. brick, 55x108, 50x87; three 1-st. frame, 92x104x62x230, 41x152x42x117, 39x39; 3 boilers; 3 engines. Est. 1889..... Ordered guards and railings on stairways. Formerly Wisconsin Leather Co.	55	... ..	55	140
BEALS, TORREY & CO., mfr. boots and shoes, 117, 119 Clybourn St. Factory, 3-st. brick, 30x100. Est. 1883..... Ordered fire escape.	30	30	60	10
BECHTNER PAUL CO., mfrs. vinegar, 330, 332 East Water St. Factory, 4-st brick, 40x120; 1 boiler; 1 engine. Est. 1875..... None regularly employed on third floor.	25	.....	25	35
BECK C. A., mfr. packing boxes, East St. Eight buildings—three 2-st. frame, 70x100, 50x70, 40x65; three 1-st. brick, 18x60, 60x30, 20x30; two 1-st. frame, 100x120, 20x30; 2 boilers; 1 engine. Est. 1853.....	125	.....	125	175
BECK & PAULI LITHOGRAPHING CO., Second and Wells Sts. Building, 3-st. brick, 44x50; 1 boiler; 1 engine. Est. 1886..... Ordered guard on elevator on first and second floors. Removed to corner South Water and Ferry Sts.	56	.....	56	12
BECKER WM. LEATHER CO., foot of Sherman St. Three buildings—two 4-st. brick, 128x140, 24x250; one 4-st. frame, 100x175; 4 boilers; 1 engine; lower roofs adjoining. Est. 1868.	125	.....	125	80
BENEDICT & CO., mfrs. clothing, 402, 404 Grand Ave. Factory, 5-st. brick, 62x150; 1 engine; gas power. Est. 1878..... Ordered fire escape. Accident.—One of the employes tried to run the freight elevator against orders, and was caught and severely injured. Firm paid his full wages while he was laid up.	60	90	150	7
BENJAMIN H. M., three coal docks; 3 boilers; 6 engines. Est. 1873, 1879, 1884..... The three plants are located as follows: Juneau ave. and River St., South Water and Park Sts., and Muskego Avenue. Ordered guard on flywheel.	120	.....	120	163
BENTON, WALDO & CO., type foundry and printers warehouse, 89 Huron St. Factory, 4-st. brick, 32x112; 1 boiler; 1 engine; iron escape. Est. 1856.....	55	30	85	15
BERGENTHAL WM. COMPANY, rectifiers, 476, 478 4th St. Two buildings—two 2-st. brick, 25x66, 25x106; 1 boiler. Est. 1874.....	14	.....	14	Hand
BERGER BEDDING CO. THE, mfrs. mattresses, pillows and spring beds, 529, 531 Market St. Factory, 3-st. brick, 40x100; 1 engine. Est. 1888..... None regularly employed on third floor.	20	4	24	20
BERGHOFER CHAS., mfr. tanks, cisterns and tanners' supplies, 967, 969 North Water St. Two 1-st. frame, 50x100, 10x30; 1 boiler; 1 engine. Est. 1889.....	20	.....	20	18
BERTHELET C. A., mfr. sewer pipe, Fowler St., bet. 15th and 17th Sts. Shop, 1-st. brick, 69x109. Est. 1883.....	14	.....	14	Hand

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
BERTHELET SIDE-WALK CO. , mfrs. and layers of Portland cement side-walks, Fowler St., bet. 15th and 17th Sts. Shop, 1-st. brick, 91x112. Est. 1885.....	20	.....	20	Hand
BEYER J. V. , upholstery, 240 Broadway. Two buildings—two 2-st. frame, 20x55, 25x61; 1 engine; gas power. Est. 1875.....	13	1	14	7
BIERBACH C. F. & G. E. , mfrs. carriages, buggies, wagons, etc., 110 to 114 Clybourn St. Two buildings—one 2-st. frame, 23x65; one 1-st. frame, 18x75. Est. 1851.....	9	.....	9	Hand
BIERSACH & NIEDERMEYER , mfrs. galvanized iron cornices, windows, etc., 216 to 220 5th St. Shop, 1-st. brick, 40x87. Est. 1873.....	25	.....	25	Hand
BLATZ VALENTIN , brewer and maltster, Broadway and Juneau ave. Thirteen buildings—one 6-st. frame; two 4-st. brick; five 2-st. brick; one 2-st. frame; three 1-st. brick; one 1-st. frame; 10 boilers; 4 engines. Est. 1851..... Ordered guard on elevator on top floor of icehouse, and railing at head of stairway in the cooper shop; also railing around pit in dry kiln room. The bottling department is located at 651 to 657 Broadway, where twenty-five girls are employed.	165	25	190	665
BLISS J. V. MANUFACTURING CO. (Mayhew Manufacturing Co., successors), mfrs. chairs, 414 to 418 9th St. Factory, 3-st. frame, 50x60; 1 boiler; 1 engine. Est. 1885..... Ordered guard on flywheel, and on rip saw.	25	.....	25	25
BOBRINSKI M. , mfr. wagons, buggies, and cutters, 322 Prairie St. Two buildings—one 2-st. frame, 20x40; one 1-st. frame, 10x30. Est. 1886.....	5	.....	5	Hand
BODDEN & HEATH , mfrs. coffee, spices, baking powder, etc., 309 East Water St. Two buildings—one 3-st. brick, 22x50; one 2-st. brick, 22x80; 1 boiler; 1 engine. Est. 1879.....	9	.....	9	12
BOOTH J. H. , mfr. sheepskin leather, russet, calf, etc., 432 Commerce St. Two buildings—one 3-st. brick, 28x90; one 3-st. frame, 24x30; 1 boiler; 1 engine. Est. 1856.....	8	.....	8	20
BOOTH M. P. , mfr. fly nets and strap work, 284, 286 Broadway. Factory, 2-st. frame, 40x40. Est. 1883.....	20	.....	20	Hand
BRADLEY & METCALF , mfrs. boots and shoes, 335 to 393 East Water St. Two buildings—one 5-st. brick, 100x110; one 4-st. brick, 40x110; 6 engines; gas power; two ladder fire escapes, and lower roofs adjoining fourth, fifth and sixth floors. Est. 1843..... Ordered guards on flywheels of three engines. There is a fire wall every twenty feet in the two buildings, and double iron doors on every floor; in case of fire these doors can be closed, shutting off one part from the other. There are also two trap doors, easy of access, leading from fifth floor to adjoining building. Manufacturing on three upper floors in main building, and on third and fourth floors in annex.	337	113	450	75
BRAND STOVE CO. , mfrs. stoves and ranges, 295 to 303 6th St. Seven buildings—one 3-st. brick, 100x120; three 1-st. brick, 9x16, 17x40, 100x180; one 2-st. brick, 21x34; two 2-st. frame, 19x31, 49x101; 1 boiler; 1 engine. Est. 1868..... Ordered guard on rip saw. This is the largest stove works in Wisconsin. Only two or three men employed on third floor.	120	.....	120	75
BREITHAUP & SONTAG , printers, 437 East Water St. Building, 3-st. brick, 60x66; outside stairway. Est. 1888.....	6	.....	6	Hand
BROCK'S W. D. ELEVATOR WORKS , mfr. steam, hand and hydraulic elevators, 219 to 223 Clybourn St. Two buildings—one 2-st. frame, 44x50; one 1-st. frame, 31x50; 1 boiler; 1 engine. Est. 1880..... Ordered guards on elevator on first and second floors, guard on rip saw, and on stairway on first floor. <i>Accident.</i> —Workman had his nose broken by a piece of wood flying back from rip saw.	5	.....	5	25

Report of Inspection—Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
BRODESSER, TERNES & MUELLER MFG. CO., mfrs. steam, hydraulic, gas, hand, passenger and freight elevators, 512, 514 Commerce St. Two buildings—one 2-st. frame, 40x80; one 1-st. frame, 20x30; 1 boiler; 1 engine. Est. 1888.	35	.....	35	35
BROWN T. H. & CO., mfrs. carriages, buggies, etc., 149 to 153 Wisconsin St. Factory, 4-st. brick, 70x100; 1 boiler; 1 engine; iron fire escape. Est. 1860.	40	.....	40	25
BRUMDER GEO., printer and publisher, 286, 288 West Water St. Building, 4-st. brick, 40x135; 2 boilers; 1 engine; iron escape. Est. 1864. Ordered platforms to fire escape at third and fourth floors.	95	35	130	80
BRUSS & WOLLAEGER MFG. CO., mfrs. sash, doors, blinds, mouldings, etc., 636 to 654 North Water St. Five buildings—two 3-st. frame, 65x132, 50x60; one 1-st. brick, 28x54; two 2-st. frame, 39x50, 18x24; 2 boilers; 1 engine; wooden escape, and lower roof adjoining. Est. 1891. Ordered guard on rip saw, and railing on stairway leading to basement.	100	.....	100	150
BUB & KIPP, mfrs. upholstered goods, 317 and 319 Milwaukee St. Two buildings—one 6-st. brick, 42x120; one 4-st. brick, 60x100. Est. 1876. Iron escape leading from sixth to third floor, and platforms at third and fourth floors, connecting buildings.	222	3	225	Hand
BUELL F. R. & CO., coal merchants, Canal St. Three 1-st. frame; 1 boiler; 1 engine. Est. 1883.	9	.....	9	90
BULFIN ED., printer, Grand Opera House block, in basement; 1 boiler; 1 engine. Est. 1889.	6	.....	6	15
BURDICK, ARMITAGE & ALLEN, printers, 416 Broadway. Building, 4-st. brick, 22x120; 1 engine, gas power. Est. 1867.	26	.....	26	10
BURNHAM GEORGE & SONS, mfrs. brick, 671 Park St. 3 boilers; 3 engines. Est. 1856. Brickyard covers about twenty acres; employ 200 men in summer.	200	.....	200	125
BURNHAM J. L. & SONS, mfrs. brick, foot of Park St. 1 boiler; 1 engine. Est. 1856. Brick yard covers about ten acres; employ 90 men in summer.	90	.....	90	40
BURROUGHS GEO., mfr. trunks, 424, 426 East Water St. Factory, 3-st. brick, 30x120. Est. 1867.	8	.. ..	8	Hand
BUSCHER E. C. & CO., steam laundry, 225, 227 Cedar St. Building, 4-st. brick, 20x100; 1 boiler; 1 engine. Est. 1878. Ordered guard on elevator on first floor; also on pulley of engine.	3	12	15	8
CAMPBELL'S STEAM LAUNDRY, 514 Grand ave. 3-st. brick, 21x100; 1 boiler; 1 engine. Est. 1879. Ordered fire escape and guard on flywheel. <i>Accidents.</i> —A girl had her hand caught in mangle while trying to clean the machine, while in motion. A workman broke his arm in trying to put a belt on while machinery was running.	8	37	45	30
CARPELES, HARTMANN & CO., mfrs. trunks and traveling bags, 217 to 225 Sixth St. Two buildings—one 4-st. frame, 73x99; one 1-st. frame, 45x89; 1 boiler; 1 engine; stairway from fourth floor. Est. 1874. Ordered cross-cut saw boxed. No children employed.	100	.....	100	15
CARPENTER & UNDERWOOD CO., steam bakery and confectionery, 518, 520 Grand ave. Two buildings—one 3-st. brick, 50x150; one 2-st. brick, 50x50; 1 boiler; 1 engine. Est. 1872. None employed on third floor.	55	28	83	40
CENTENNIAL BELL & IRON FOUNDRY (Gardner Campbell & Sons), mfrs. bells, brass and iron castings, 238 to 256 Oregon St. Three buildings—one 3-st. brick, 40x100; one 1-st. brick, 75x100; one 1-st. frame, 35x31; 1 boiler; 1 engine. Est. 1876.	22	.....	22	25

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
CHAINTRON FRENCH DYEING CO., 557 East Water St. 2-st. frame, 20x40; 1 boiler; 1 engine. Est. 1852.....	1	4	5	6
CHASE E. & SONS, mfrs. brick, Lincoln Ave. Two yards—350x350 and 350x500; 2 boilers; 2 engines. Est. 1874.....	115	.....	115	65
CHICAGO & MILWAUKEE CONSOLIDATED CLOAK CO., mfrs. cloaks, 376 Broadway. Building, 4-st brick, 30x120; iron escape. Est. 1880..... Firm employs about 100 persons outside of factory.	10	60	70	Hand
CHICAGO MILWAUKEE & ST. PAUL RAILWAY SHOPS, Menomonee Valley. Twenty-four buildings—one 3-st. brick, 112x420; two 2-st. brick, 83x402, 60x83; one 2-st. frame, 40x60; eleven 1-st. brick, 80x420, 62x72, 70x300, two 93x403, 80x353, 80x397, 50x310, 50x100, 46x88, 20x28; eight 1-st. frame, 21x330, 61x120, 30x100, 73x85, 60x97, 60x100, 67x406, 30x684; roundhouse, 323 ft. long, and several sheds; 14 boilers; 9 engines. Est. 1880..... Ordered guard on rip saw in tin and repair shop; guards on two rip saws and two cross-cut saws boxed in wood working shop. Also railing around engine belt in car machine shop, six ventilators of two feet diameter in locomotive blacksmith shop. With these few exceptions we found these immense works in good condition. The ventilators were ordered because we found the workmen complaining of smoke and gases. In the car department the blacksmith fires are all provided with smoke jacks, and no complaints were made. The remarkable fact remains to be recorded that not a single accident occurred at these works since the last formal inspection in January, 1888.	1500	.....	1500	737
CHICAGO, MILWAUKEE & ST. PAUL NORTH MILWAU- kee repair shop, foot of Garfield Ave. Six buildings— round house, 16 stalls; two 2-st. brick, 40x196, 18x30; two 1-st. brick, 33x159, 37x42; one 1-st. frame, 40x150; 2 boilers; 1 engine. Est. 1887.....	48	.....	48	60
CHICAGO & NORTHWESTERN RAILWAY SHOPS, 3d ward. Four buildings—machine shop and roundhouse, 68x290 in front, 584 in rear; one 1-st. brick, 34x96; two 1-st. frame, 24x96, 17x45; 1 boiler; 1 engine. Est. 1855..... Found these shops in very good and clean condition. All machinery well guarded, and the blacksmith fires provided with smoke jacks.	87	.....	87	12
CHRISTENSON J., coal merchant, 729 Clinton St. 1 boiler; 1 engine. Est. 1875..... <i>Accident.</i> —A teamster broke a leg while backing a wagon under a shed.	8	.....	8	12
CITY WATER WORKS, North Point. Six buildings—one 1-st. brick, 60x80; two 42x50; two 50x80; one 40x42; 7 boilers; 4 engines. Est. 1873..... Daily capacity (24 hours), 32,000,000 gallons. Height of tower, 167 feet.	25	.....	25	1200
COHEN BROS. & CO., mfrs. shirts, pants, overalls, etc., 338, 340 Broadway. Building, 4-st. brick, 30x120; iron escape. Est. 1870..... Firm employs 100 persons outside of factory.	10	.....	10	Hand
COLDEWE G. & CO., mfrs. brick moulds, 829, 831 6th St. Two buildings—one 2-st. frame, 40x40; one 1½-st. frame, 16x20; 1 boiler; 1 engine. Est. 1882..... Ordered guard around inside stairway.	6	.....	6	25
CONRAD BROS., mfrs. leather, foot of Sherman St. Three buildings—one 3-st. frame, 52x184; one 1-st. brick, 30x184; one 2-st. frame, 20x100; 2 boilers; 1 engine. Est. 1869.....	54	...	54	40
CONWAY CABINET CO. THE, mfrs. hardwood mantels and fine cabinet work, St. Paul Ave. Four buildings—two 2-st. frame, 100x120, 50x100; wings 1-st. brick, 40x60 and 40x40; two 1-st. frame, 36x80, 34x34; 2 boilers; 1 engine; buildings bridged. Est. 1855.....	150	.....	150	250

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
COOGAN M. & CO., steam heating and ventilating, 128 Sycamore St. Building, 1-st brick, 20x70; 1 boiler; 1 engine. Est. 1883 ..	12	.....	12	12
COOK & HYDE, contractors cut stone, Milwaukee and Erie Sts. Three 1-st. frame, 40x42, 40x50, 12x26; 1 boiler; 1 engine. Est. 1853.....	30	.....	30	45
CORBITT & SKIDMORE CO., printers, 450 to 454 Broadway. Building, 3-st. brick, 60x60; 1 boiler; 1 engine. Est. 1884.....	35	.....	35	7
CORNILLIE BROS., mfrs. refrigerators, bank, office, store, hotel and saloon fixtures, Washington and Barclay Sts. Six buildings — two 3-st. frame, 48x75, 28x49; one 4-st. frame, 24x66; one 2-st. frame, 20x33, one 1-st. brick, 24x26; one 1-st. frame shed; 1 boiler; 1 engine; ladder leading down to roof of 1-st. frame adjoining. Est. 1868.....	70	.....	70	20
Ordered guard on warehouse elevator, on third floor; also guard on rip saw.				
COSTELLO DANIEL, mfr. steam boilers, 1028 to 1034 Fowler St. Three 1-st. frame, 50x100; 38x50, 16x20. Est. 1872	40	.....	40	Hand
COXE BROS. & CO., coal merchants, Stockyard lane. Three boilers; 3 engines. Est. 1883.....	90	.....	90	36
Ordered guard around platform in coal shed. <i>Accident.</i> — Caused by breaking of a rope while unloading coal from a boat. A man was standing in the center of the trap, looking up, when the rope parted, the bucket striking him on the breast, from the effects of which he died three days later. The company paid funeral expenses, and I was told paid the widow \$8 per week up to a few weeks ago. They now pay her five dollars per week and free fuel.				
CRAMER, AIKENS & CRAMER, printers and publishers, Milwaukee and Michigan Sts. Building, 4-st. brick, 50x150; 2 boilers; 3 engines; iron escape. Est. 1847	120	10	130	100
Building also occupied by "Yenowine's News," with 12 employees; "Peck's Sun," 4 employees; "Chicago Inter-Ocean," 6 employees; "The Catholic Citizen," 7 employees; "The Sunday Telegraph," 3 employees.				
CREAM CITY BREWING CO., 500 to 513 Thirteenth St. Eight buildings — three 3-st. brick 56x64, 54x63, 23x54; one 3-st. frame, 23x50; one 2-st. brick, 36x56; one 2-st. stone, 20x39; two 2-st. frame, 26x49, 36x56; one 1-st. frame, 26x36; 2 boilers; 1 engine; outside stairway; brewery and washhouse bridged. Est. 1879.	24	.....	24	70
CREAM CITY FURNITURE CO., mfrs. wood mantels, 318, 320 Milwaukee St. Four buildings — one 6-st. brick, 42x120; one 3-st. frame, 40x50; two 2-st. frame, 70x80, 20x60; 2 boilers; 1 engine; lower roof adjoining. Est. 1846.....	75	.....	75	25
Firm are making extensive improvements. A member of the firm remarked: "We have no room in our factory for any man who is not worth \$2 per day."				
CREAM CITY GLASS WORKS, mfrs. bottles, Lincoln Ave. Seven buildings — one 2-st. frame, 21x90; five 1-st. frame, 88x88, 30x130, 20x40, 30x139, 63x114; one 1-st. brick, 50x159. Est. 1888..	80	.....	80	25
The company have leased part of the Wisconsin Glass Co's. works, which have been idle for nearly three years, and are changing the same to a bottle factory.				
CREAM CITY KNITTING CO., mfrs. gloves, mittens, seamless hosiery, etc., 62 to 66 Third St. Two buildings — one 2-st. brick, 54x112; one 1 st. brick, 54x55; 2 boilers; 1 engine; iron escape. Est. 1885.....	24	225	249	75
Ordered main door to swing outward. Firm do not employ children.				
CREAM CITY LAUNDRY, 138 Mason St. Building, 2-st. brick, 20x110; 1 boiler; 1 engine. Est. 1885.....	2	8	10	8
CREAM CITY WOVEN WIRE WORKS, mfrs. woven wire mattresses, spring beds, etc., 623, 625 Cedar St. Two 1-st frame, 30x42, 22x140; 1 boiler; 1 engine. Est. 1886.....	28	.....	28	18
Ordered guards on two rip saws, and cross-cut saw boxed.				

Report of Inspection—Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
CRYSTAL SOAP CO., 226 East Water St. Building, 4-st. brick, 25x110; one boiler; 1 engine; iron escape. Est. 1872	5	7	12	25
CUDAHY BROS., pork and beef packers, Muskego ave. Twelve buildings—three 3-st. brick, 167x481, 180x437, 22x53; one 3-st. frame, 42x66; one 2-st. brick, 14x25; one 2-st. frame, 55x209; three 1-st. brick, 42x42, 69x88, 180x140; three 1-st. frame, 60x156, 40x138, 42x100; 9 boilers; 6 engines; 2 iron escapes; one bridge. Est. 1856.	700	.....	700	228
DAHINDEN & GALLASCH, mfrs. vinegar, 298 to 302 Milwaukee St. Building, 3-st. brick, 60x120; 2 boilers; 1 engine. Est. 1875.	10	.....	10	30
DAISY ROLLER MILLS, mfrs. flour, feed, etc., foot of Washington St. Six buildings—one 6-st. brick 50x80; one 5-st. frame 30x56; three 2-st. frame, 80x95, 39x54, 18x36; one 1-st. brick, 48x50; 5 boilers; 1 engine; iron escape. Est. 1886.	100	.....	100	700
DAVELAAR M., mfr. cream colored brick, Ellen and Kinnickinnic ave.; 2 boilers; 2 engines. Est. 1876.	40	.....	40	45
DEGUENTHER J. W., steam laundry, 509, 511 East Water St. Building, 3-st, brick, 40x80; 1 boiler; 1 engine. Est. 1881.	5	20	25	10
DELANEY H. J. & CO., mfrs. valve and lubricating oils, greases, etc., 45, 47 3d St. Two buildings—one 2-st. brick, 40x120; one 1-st. frame, 12x60; 1 boiler; 1 engine. Est. 1884.	12	1	13	2
DE LANGE HENRY, mfr. boxes and planing mill, 720 to 724 Clinton St. Two buildings—one 2-st. frame, 42x44; one 1-st. frame, 20x36; 1 boiler; 1 engine. Est. 1884. Ordered guard around flywheel of engine.	5	.....	5	30
DIAMOND INK & CHEMICAL WORKS, mfrs. inks, mucilage, shoe dressing and liquid glue, Irving Place. Two buildings—one 2-st. frame, 33x75; one 1-st. frame, 17x33; 1 boiler. Est. 1880. Employs about fifteen hands during busy season.	5	1	6	Hand
DUERR & ROHN, mfrs. locks, alarm bells, etc., 84 Mason St. Building, 2-st. frame, 22x60. Est. 1860.	6	1	7	Hand
DULUTH ROLLER MILLS. (Faist, Kraus & Co.) mfrs flour and feed, 70 to 80 South Water St. Five buildings—two 5-st. frame, 30x35; two 1-st. frame, 90x102, 48x50; one 1-st. brick, 42x45; 4 boilers; 1 engine; iron escape; bridged at top floors from mill to elevator. Est. 1876. Ordered guard at head of stairway on fifth floor; also to extend fire escape to the roof.	40	.....	40	350
DYER GEORGE, mfr., importer and dealer in saddlery hardware, 321, 323 East Water St. Building, 4-st. brick, 30x136. Est. 1847.	16	.....	16	Hand
EAGLE FLOURING MILL (John B. A. Kern & Son), merchant millers, Commerce St. Two buildings—one 6-st. brick, 135x200; one 1-st. brick, 25x45; 4 boilers; 1 engine. Three iron escapes. Est. 1846.	93	.....	93	800
EAGLE FURNITURE CO., 622, 624 Poplar St. Two buildings—one 2-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1887. Ordered guard on rip saw.	14	.....	14	30
EAGLE LYE WORKS, mfrs. lye and potash, 28 to 32 Erie St. Building, 3-st. brick, 50x94; 1 boiler; 1 engine; iron escape. Est. 1874.	20	10	30	10
EGELHOFF J. & J., mfrs. buggies, wagons, sleighs, Clinton and Oregon Sts. Building, 2-st. frame, 57x102; 1 boiler; 1 engine. Est. 1867.	6	.....	6	12
EHLHARDT JACOB, cooper, 1716 Cold Spring Ave. Building, 1-st. frame, 20x36. Est. 1868.	5	.....	5	Hand
ELASTIC NUT CO., mfrs. elastic nuts and bolts, 120 Clybourn St. Three buildings—one 2-st. brick, 30x50; one 1-st frame, 34x50; one 1-st. brick veneer, 20x50; 1 boiler; 1 engine. Est. 1886.	6	.....	6	20

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
ELKERT CHARLES, sheepskin tannery, 1118 to 1124 Eighth St. Three buildings — one 3-st. frame, 28x48; one 2-st. brick, 16x24; one 1-st. frame, 22x48; 1 boiler; 1 engine. Est. 1866....	8	.....	8	20
ELMORE R. P. & CO., coal merchants, 581 River St. and foot of Sixteenth St.; 3 boilers; 2 engines. Est. 1851 and 1886..	24	.....	24	180
EMPIRE KNITTING WORKS, mfrs. knit and fulled goods, 199, 201 Broadway. Three buildings — one 3-st. brick, 60x80; two 1-st. frame, 10x15, 18x25; 1 boiler; 1 engine. Est. 1864.....	10	40	50	20
None employed on third floor.				
ENGER & KRESS, mfrs. purses, ladies' satchels and pocket books, 420, 422 East Water St. Building, 3-st. brick, 30x120; iron escape. Est. 1886.....	35	15	50	Hand
Quite a number of boys are employed, some of them very small and apparently under 13 years of age; they all insisted however that they were 14 and over.				
ESCH JOHN & SON, mfrs. wagons and transfer trucks, 58, 60 Second St. Two buildings — one 3-st. frame, 18x80; one 2-st. frame, 18x35. Est. 1846.....	8	.....	8	Hand
EVERLY J. M., job printer, 298 Broadway. Building, 3-st. brick, 20x80; 1 engine, gas power. Est. 1883.....	10	.....	10	4
EXCELSIOR LAUNDRY, 501 Cedar St. Building, 2-st. frame, 20x30; 1 boiler; 1 engine. Est. 1887.....	1	9	10	6
EXCELSIOR SHOE AND SLIPPER CO., 785, 787 Luscombe St. Building, 1-st. frame, 20x108. Est. 1888.....	20	8	28	Hand
Ordered main doors to swing outward.				
ALK, JUNG & BORCHERT BREWING CO., brewers and maltsters, near city limits. Fourteen buildings — two 5-st. brick, 44x150, 84x190; two 5-st. frame, 50x100, 22x60; one 2-st. brick, 33x56; five 1-st. brick, 40x60, 20x48, 48x70, 22x350, 20x50; four 1-st. frame, 20x80, 48x110, 60x72, 30x80; 6 boilers; 2 engines; 3 iron escapes. Est. 1850.....	188	.....	188	125
Ordered stairway on top floor of elevator guarded, and railing on same; railing on stairway at first floor of elevator; fly-wheel of engine guarded; pair of large gears guarded on top floor of malthouse; pair of gears guarded in malthouse leading to cupola; a pair of gears guarded that drive mash tub in brewhouse; railing on stairway in brewhouse; guarding stairway leading from cooper shop to storage room adjoining; three iron escapes are up, and three more to put up. The company manufacture their own wagons and sleighs. This plant was entirely destroyed by fire on July 4, 1889.				
FALK, JUNG & BORCHERT BREWING CO., bottlers, 121 Ogden St. Five buildings — one 3-st. brick, 26x92; one 2-st. brick, 30x33; one 2-st. frame, 60x84; two 1-st. frame, 70x136, 26x30; 1 boiler. Est. 1889.....	12	.....	12	Hand
FARRINGTON PARLOR FURNITURE CO., 605 to 617 Cedar St. Two buildings — one 3-st. frame, 50x100; one 2-st. frame, 25x100; 1 boiler; 1 engine; lower roof adjoining. Est. 1888.....	55	.....	55	35
Ordered guard on rip saw.				
FERGE & KEIPPER CO., mfrs. exterior and interior wood work, Park St. and 5th ave. Three buildings — one 3-st. brick, 50x100; one 1-st. frame, 46x103; one 1-st. brick, 28x31; 2 boilers; 1 engine; iron escape, and lower roof adjoining. Est. 1888....	100	.....	100	50
Ordered guard on flywheel of engine.				
FERNEKES J. & BRO., mfg. confectioners, 222, 224 East Water St. Building — 4-st. brick, 50x140; 1 boiler; 1 engine; one iron escape. Est. 1867.....	50	25	75	35
FETTE & MEYER, Coal and wood merchants, 513 River St. 1 boiler; 1 engine. Est. 1886.....	18	.....	18	10
FILEB & STOWELL CO. THE, [Plant A], mfrs. steam engines, boilers, flour and saw mill machinery, etc., Clinton and Florida Sts. Four buildings — one 3-st. brick, 64x184; one 2-st. brick, 27x51; one 1-st. brick, 56x106; one 1-st. frame; 1 boiler; 1 engine; stairway from third to lower roof adjoining. Est. 1867	149	.....	149	75
Ordered guards on two rip saws.				

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
FILER & STOWELL CO. THE , [Plant B], iron foundry, Clinton St. and Greenfield ave. Five buildings—one 1-st. brick, 80x120; four one-st. frame, 30x68, 30x30, 20x30; 16x21; and storage sheds; 1 boiler; 1 engine. Est. 1888.....	65	.....	65	20
FIRLE & GILLMEISTER , steam laundry, 319 4th St. Building—2-st. brick, 25x56; 1 boiler; 1 engine. Est. 1889.....	1	4	5	6
FISCHBECK D. & SON , mfrs. saddlery, 82, 84 West Water St. Building, 4-st. brick, 40x136; 1 engine; gas power. Est. 1864. Ordered fire escape, and hand rails on stairways. The firm do not employ any children under 14, and require a parent to be present to state the age before hiring.	125	.....	125	4
FIXTER JOSEPH , mfr. cooperage and cooper stock, 212 Cherry St. Six buildings—one 2-st. frame, 24x152; five 1-st. frame, 24x91, 24x100, 18x20, 29x84, 17x24. Est. 1872.....	85	.....	85	Hand
FLECK R. , mfr. furniture, 849, 851 Kinnickinnic Ave. Three buildings—one 3-st. brick, 25x100; one 3-st. frame, 24x48; one 2-st. frame, 24x30. Est. 1878.....	5	.....	5	Hand
FLINT J. G. , Star Coffee and Spice Mills, 110, 112 West Water St. Building, 4-st. brick, 44x110; 1 boiler; 1 engine. Est. 1858..... Very few employes on third and fourth floors.	40	.....	40	50
FLINT J. G. JR. , mfr. cut tobaccos, 114, 116 West Water St. Two buildings—one 4-st. brick, 40x90; one 1-st. brick, 14x22; 1 boiler; 1 engine. Est. 1870..... Ordered guard on flywheel. Few employes on third and fourth floors.	38	10	48	40
FORRESTAL CREMATORY AND GARBAGE CO. , mfrs. of fertilizer, Canal St. Four buildings—three 2-st. frame, 63x110, 67x118, 20x20; one 1-st. brick, 37x44; 4 boilers; 2 engines. Est. 1889..... Ordered railing on stairway in crematory. There are but five institutions of the kind in the United States. The machinery is very expensive; run days and night.	20	.....	20	115
FRANK L. & SON PACKING CO. , packers and jobbers of provisions, 644 to 650 Market St. Two buildings—one 3-st. brick, 80x127; one 2-st. brick, 40x80; 2 boilers; 1 engine. Est. 1860...	55	.....	55	50
FREIDENKER PUBLISHING CO. , 470 East Water St. Building, 4-st. brick, 20x76. Est. 1871.....	10	....	10	Hand
FRIEND BROS. CLOTHING COMPANY , 362, 364 Broadway. Building, 5-st. brick, 40x120; 1 boiler; 1 engine; iron escape. Est. 1847..... <i>Accident.</i> —On Sept. 14, 1889, Mr. Isaac Friend, a member of the firm, was instantly killed. He was looking down from the fourth floor for the elevator to come up, while it was coming down from the fifth floor. It struck him with fatal results.	43	2	45	6
FROEDTERT BROS. GRAIN AND MALTING CO. , 7th and Vliet Sts. Two buildings—one 6-st. brick, 38x93; one 2-st. brick, 37x64; 1 boiler; 1 engine. Est. 1885.....	5	....	5	20
GALLUN A. F. & SON (Empire Tannery), 975 to 1031 North Water St. Fifteen buildings—three 3-st. brick, 40x47, 52x140, 50x90; one 3-st. frame, 32x140; three 2-st. frame, 32x60, 20x72, 48x50; five 1-st. brick, 70x100, 20x90, 13x45, 40x60, 22x60; three 1-st. frame, 25x55, 22x40, 52x180, 18x158; 5 boilers; 2 engines; iron escape; lower roof adjoining. Est. 1876..... Ordered railings on five stairways.	261	20	281	325
GALLUN HENRY , mfr. harness and wax leather, russet linings, and mitten stock, foot of Vliet St. Three buildings—one 2-st. frame, 36x90, with wings 18x88, and 18x54; one 2-st. brick, 33x64; one 2-st. frame, 24x24; 3 boilers; 1 engine. Est. 1873.....	16	.....	16	45

Report of Inspection—Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
GEBHARDT H., mfr. sash, doors, blinds, 521, 523 Park St. Three buildings— one 2-st. frame, 50x72; two 1-st. frame, 50x50, 22x30; 1 boiler; 1 engine. Est. 1887.....	15	.....	15	45
GEM HAMMOCK AND FLY NET CO., 116 to 120 Fowler St. Building, 2-st. brick, 50x150. Est. 1883..... Occupies part of first and second floors. Firm give out out work to about 100 families besides those employed in factory.	5	41	46	Hand
GEM MILLING CO., mfrs. flour and mill feed, North Water and Knapp Sts. Four buildings— one 4-st. frame, 40x50; one 3-st. frame, 40x80; one 1-st. brick, 34x45; one 2-st. frame, 13x25; 3 boilers; 1 engine. Est. 1881..... Ordered railing on stairway leading to cupalo.	11	.....	11	300
GEORGE & HEGER, mfr. parlor goods and lounges, 314, 316, 318 Lake St. Three buildings— two 2-st. frame, 20x55, 20x40; one 1-st. frame, 26x36. Est. 1889.....	18	.....	18	Hand
GERLACH WM. & CO., maltsters, 8th and Prairie Sts. Six buildings— two 4-st. brick, 60x150, and 50x100; one 4-st. brick, with 3-st. frame cupalo, 38x40; one 2-st. brick, 34x36; one 4-st. frame, 30x80; two 1-st. brick, 34x38, 25x60; 4 boilers; 1 engine; 2 iron escapes and bridge from elevator to dry-kiln. Est. 1848.	20	.....	20	60
GERMAN AMERICAN PUBLISHING CO., newspaper and job printing, 498 East Water St. Building, 2-st. frame, 20x45. Est. 1879.....	11	.....	11	Hand
GERMAN CATHOLIC SOCIETY, publishers, 413 East Water St. Building, 2-st. brick, 35x53; outside stairway. Est. 1871.....	6	.....	6	Hand
GETTELMAN A. BREWING CO., city limits, west. Ten buildings— one 3-st. brick, 37x40; one 3-st. stone, 63x86; one 2-st. brick, 28x37; one 2-st. stone, 40x54; three 1-st. brick, 15x22, 49x112, 19x37; three 1-st. frame, 46x70, 29x63, 23x50; 2 boilers; 2 engines. Est. 1854.....	23	.....	23	105
GEUDER & PAESCHKE MFG. CO., mfrs. and jobbers tinware and house furnishing goods, 162 and 164 West Water St. Building, 4-st. brick, 38x40; iron escape. Est. 1882.....	100	.....	100	25
GEUDER & PAESCHKE MFG. CO., mfrs. and jobbers tinware and house furnishing goods, 144 and 146 West Water St. Building, 4-st. brick, 50x100; iron escape. Est. 1882.....	25	.....	25	Hand
GEUDER & PAESCHKE MFG. CO., mfrs. sheet metal goods, St. Paul ave. and 15th St. Four buildings— two 4-st. brick, 50x160; 55x195; two 1-st. brick, 40x57, 30x40; 2 boilers; 1 engine; 3 iron escapes. Est. 1882..... Ordered flywheel guarded, platforms will be put on fire escapes.	155	20	175	60
GIRMSCHIED JOHN T., mfr. cigars, 100 Ferry St. Building, 3-st. brick, 30x42. Est. 1862.....	6	2	8	Hand
GOELZ JOHN P. & CO., mfrs. cigars, 295 to 299 West Water St. Building, 3-st. brick, 74x84; iron escape. Est. 1869.....	49	6	55	Hand
GOERRES PHILLIP BARREL WORKS, 1813 to 1819 Vliet St. Building, 2-st. frame, 26x100. Est. 1887..... Ordered main door to swing outward. Formerly known as the Coöperative Barrel Works.	25	.....	25	Hand
GRAF JOHN, mfr. weiss beer and soda water, 901 Greenfield ave. Five buildings— one 1-st. brick, 25x79; one 2-st. brick, 31x64; three 1-st. frame; 27x30, 36x62, 27x29; 1 boiler; 1 engine. Est. 1873..... Ordered flywheel of engine guarded.	25	.....	25	15
GRAF WM. & CO., mfrs. cigars, Reed and South Water Sts. Building, 4-st. brick, 120x140; 1 boiler; one engine; iron escape. Est. 1859..... Factory very neat and clean. Firm do not employ any children under 14. Mr. Graf suggested that the law ought to forbid the employment of children under 14. "Their proper place is in school."	204	121	325	8

Report of Inspection—Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
GRANT, BREESE & CO., mfrs. and wholesale dealers in marble, granite, etc., 51 to 59 4th St. Three buildings—one 5-st. brick, 60x150; two 2-st. brick, each 25x50; 3 boilers; 1 engine. Est. 1871.....	99	1	100	150
Ordered guard on flywheel. <i>Accidents.</i> —Early this spring the head millwright was caught by an overhead shaft and was instantly killed. No one regularly employed on third floor.				
GRAY BROS. & CO., general contractors for artesian, salt, gas and oil wells, 245, 247 Clinton St. Building, 2-st. frame, 40x80; 1 boiler; 1 engine. Est. 1881.....	90	.....	90	12
GREAT WESTERN KNITTING CO., mfrs. worsted hoods, leggings, mittens, etc., 421 Broadway. Building, 4-st. brick, 20x72. Est. 1880.....	3	5	8	Hand
Employing from 400 to 500 persons outside of factory.				
GREDE GEORGE, mfr. carriages, buggies, wagons, sleighs, etc., 248, 250 Reed St. Two buildings—one 2-st. frame, 20x125; one 1-st. frame, 22x90; 1 boiler; 1 engine. Est. 1884.....	14	.....	14	8
Ordered guard on rip saw.				
GREENSLADE BROS., mfrs. iron work for buildings, Jackson and Juneau Sts. Four buildings—two 2-st. frame, 40x40, 24x60; two 1-st. frame, 60x85, 12x60; 1 boiler; 1 engine. Est. 1880.....	50	.....	50	20
GRISBAUM & KEHREIN, weiss beer brewers, 607 to 613 Cherry St. Two buildings—one 2-st. brick, 50x74; one 1-st. frame; 1 boiler. Est. 1883.....	6	.....	6	Hand
GROSS BROTHERS, mfrs. soap, 953 to 963 North Water St. Two 2-st. frame, 60x70, 18x36; 2 boilers; 1 engine. Est. 1867...	14	2	16	15
GROSS J. & SONS, coal and wood, south end of Sixth St. bridge. 1 engine. Est. 1886.....	10	.....	10	40
GRUHL SASH AND DOOR CO., mfrs. sash, doors, blinds, mouldings, stairs, etc., Stewart St. Five buildings—three 2-st. frame, 80x80, 24x80, 20x30; one 1½-st. frame, 25x70; one 1-st. brick, 25x50; 1 boiler; 1 engine. Est. 1885.....	34	1	35	35
Ordered guards on four rip saws; also on flywheel of engine.				
GUETZLAFF CHAS., mfr. beer and whisky barrels, 1342 Wright St. Building, 1-st. frame, 20x30. Est. 1872.....	5	.....	5	Hand
GUGLER LITHOGRAPHING CO., 292 East Water St. Building, 4-st. brick, 25x140; 1 boiler; 1 engine; 2 iron escapes. Est. 1878.....	81	6	87	45
GUMZ RUDOLPH & CO., slaughterers, Muskego Ave. Two buildings—two 2-st. frame, 86x186, 23x40; 2 boilers; 1 engine. Est. 1870.....	46	.....	46	25
<i>Accident.</i> —A stranger was looking through the building; he opened a door leading into the smoke house on second floor. The smoke prevented him seeing that there was no floor. He fell to the bottom and was killed. To guard against similar accidents, the firm had a floor laid. The company were not to blame, as the man had no business in the building.				
HADFIELD CO. THE, coal, stone, lime, and building materials, Canal St. Two plants; 2 boilers; 2 engines; Est. 1875, and 1862.....	31	.....	31	95
Ordered guard on flywheel at Muskego Ave. plant.				
HAKE & BRUNOW, art printers, 450 East Water St. Building, 4-st. brick, 20x60; electric power; lower roof adjoining. Est. 1887.....	6	.....	6	1
HANNAN A. & SON, mfrs. carriages, wagons, etc., 124, 126 Fowler St. Six buildings—two 2-st. frame, 30x60, 16x32; three 1-st. frame, 15x60, 20x60, 16x30; one 1-st. brick, 20x30. Est. 1867.....	10	.....	10	Hand
Ordered guard an elevator.				

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
HANSON HOP & MALT CO. , foot of Jefferson St. Seven buildings—one 6-st. brick, 60x120; one 6-st. frame, 35x80; one 5-st. frame, 35x60; one 5-st. brick, 60x120; one 3-st. brick, 85x60; two 1-st. frame, 24x100, 20x86; 2 boilers; 3 engines; two iron escapes and bridge. Est. 1881.....	50	.....	50	220
HANSEN'S EMPIRE FUR FACTORY , mfrs. seal and plush sacques, and fur goods of every description, 373 to 377 East Water St. Building, 5-st. brick, 53x100; 1 engine; iron escape; gas power. Est. 1862.....	80	220	300	4
HARRIS W. L. & CO. , mfrs. clothing, 381 East Water St. Building, 4-st. brick, 20x100. Est. 1887..... Ordered fire escape. Firm employs 30 hands outside of factory.	15	14	29	Hand
HARTMAN PRINTING CO. , 126 Reed St. Building, 2-st. brick, 24x80; 1 boiler; 1 engine. Est. 1879.....	10	.....	10	6
HATCH J. B. , mfr. woven wire mattresses, spring beds, etc., 317 Mineral St. Building, 2-st. frame, 25x91. Est. 1884..... Ordered guard on rip saw.	15	.....	15	15
HAYS GEORGE , mfrs. fire ladders, packing boxes, etc., 228, 230 Fifth St. Two buildings—one 2-st. frame, 40x70; one 1-st. brick, 18x20; 1 boiler; 1 engine. Est. 1865..... Ordered guard on rip saw.	8	.....	8	30
HECHT & ZUMMACH , mfrs. mixed paints, putty, white lead, etc., 283, 285 West Water St. Building, 4-st. brick, 40x90; 1 boiler; 1 engine; iron escape. Est. 1875..... Ordered guards on elevators. There was a destructive fire in this building on August 9, 1889, and but for the fire escape in the rear, two men would have had to jump from third story window. The fire department made very effective use of the escape in climbing to the roof.	10	.....	10	18
HELLER, AARONS & CO. , mfrs. clothing, 319, 321 East Water St. Building, 4-st. brick, 30x125; iron escape. Est. 1871..... Firm employs about 175 persons outside of factory.	18	.....	18	Hand
HELMING B. H. & CO. , mfrs. collars, harness, saddles, fly nets, etc., 173 2nd St. Two buildings—one 3-st. brick, 25x40; one 2-st. brick, 25x60; iron escape. Est. 1859.....	49	1	50	Hand
HENNECKE C. & CO. , mfrs. Florentine and alabaster statuary, 315 National Ave. Three buildings—one 2-st. frame, 32x34; one 1-st. brick, 20x88; one 2-st. brick, 22x27. Est. 1875.....	12	.....	12	Hand
HENNECKE C. & CO. , mfrs. wire goods, vases, flower pots, etc., 79 to 83, Buffalo St. Two buildings—one 3-st. brick, 50x120; one 1-st. brick, 50x60; wooden ladder in rear. Est. 1865 Ordered fire escape.	50	.....	50	Hand
HENNING AUGUST , cooper, 2712 Vliet St. Building, 1-st. frame, 20x36; two wings, 20x36 and 10x12. Est. 1887.....	5	.....	5	Hand
HENSCHER C. B. , mfr. cigar boxes, cigar molds, etc., 317 to 321 Mineral St. Three buildings—one 2-st. frame, 74x91; one 1-st. brick, 16x38; one 1-st. frame, 20x36; two 1-st. frame storage sheds; 2 boilers; 1 engine. Est. 1885.....	24	31	55	50
HEROLD DER , German. daily and weekly (The Herold Co., publishers), 431 to 435 Broadway. Building, 4-st. brick, 50x60; 2 boilers; 1 engine; lower roof adjoining, and inside escape. Est. 1861..... Press room in basement. Elevator used for forms only. The enclosed stairway designed specially as a means of escape, leads from composing room on fourth floor direct to the street with outward swinging doors.	99	1	100	30
HILL A. W. , electro-plating, 267, 269 Clinton St. Building, 2-st. frame, 25x40; 1 boiler; 1 engine. Est. 1889.....	6	.....	6	8
HIRSCH, C. J. , mfr. agricultural implements and iron founders, 267 to 271 Reed St. Four buildings—One 3-st. brick, 25x75; one 1-st. brick, 21x60; two 1-st. frame, 21x100, 25x75; 1 boiler; 1 engine. Est. 1890.....	17	.....	17	10

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
HOFFMANN & BILLINGS MFG. CO., mfrs. steam engines, brewers' supplies, etc., 606 to 624 Cedar St. Six buildings — two 2-st. brick, 30x120, 72x100; two 1-st. brick, 27x73; two 1-st. frame, 24x89; 2 boilers; 1 engine. Est. 1868. Ordered crank and flywheel guarded.	75	.....	75	75
HOFFMANN & BILLINGS MFG. CO., mfrs. steam, gas, plumbers' and brewers' supplies, 141 to 147 West Water St. Two buildings — one 2-st. brick, 75x150; one 1 st. brick, 24x30; 1 boiler; 1 engine. Est. 1855. Ordered guard on elevator. General offices and salesrooms at this place.	45	.....	45	20
HOFFMANN & BILLINGS MFG. CO., mfrs. steam, gas, plumbers' and brewers' supplies, 178 to 200 Becher St. Five buildings — one 3-st. brick, 60x140; one 2-st. frame; one 1-st. brick; two 1-st. frame; 1 boiler; 1 engine. Est. 1885. Ordered guard on one rip saw. This factory has no fire escapes, but the company have recently built a large brass foundry which will be connected by covered bridges with main building at second and third floors.	250	.....	250	80
HOFFMAN JOHN & CO., mfrs. sausage, 501 to 507 River St. Building, 3-st. frame, 80x110; 1 boiler; 1 engine. Est. 1876. Ordered guard around flywheel.	35	.....	35	30
HOFFMANN & BAUR, tin, copper and sheet iron works, 144, 146 Clinton St. Two buildings — one 2-st. brick, 20x40; one 1-st. brick, 32x60. Est. 1878.	20	.....	20	Hand
HOFFMANN & NIEMANN, mfrs. axle grease and lubricating oils, Muskego Av. Two 1-st. frame, 26x93, 11x15; 1 boiler; 1 engine. Est. 1880.	6	.....	6	25
HOUTKAMP A. & SON, printers, 88 Mason St. Building, 3-st. brick, 40x60; 1 boiler; 1 engine. Est. 1887.	14	.....	14	10
HUSTINGS E. L., mfr. weiss beer and soda water, Fifth and Vliet Sts. Two buildings — one 2-st. brick, 35x50; one 2-st. frame. Est. 1877.	9	.....	9	Hand
ILLINOIS LEATHER CO. THE, mfrs. plastering hair, Vogel's Island. Three buildings — one 2-st. frame, 70x90; one 1-st. brick, 40x128; one 1-st. frame, 28x128; 1 boiler; 1 engine. Est. 1886. Ordered railing on stairway in warehouse.	10	.....	10	25
ILLING THOS. & SON, mfrs. twine, sisal cords, rope, etc., 534 4th Av. Three 1-st. frame, one 18x20; two, 12x140; 1 boiler; 1 engine. Est. 1882.	5	1	6	6
ILLINOIS STEEL COMPANY, mfrs. pig metal, merchant and bar iron, iron and steel nails, fish-plates, steel and iron rails, 17th ward. Twenty-six buildings — one 2-st. frame; fourteen 1-st. brick; eleven 1-st. frame; 50 boilers; 17 engines. Est. 1868. Ordered guard on flywheel in merchant mill. Successors to North Chicago Rolling Mill Co.	1300	.....	1300	3490
INSTRUCTIVE TOY CO., 991, 993 North Pierce St. Two buildings — two 2-st. frame, 35x50; 16x20; 1 boiler; 1 engine. Est. 1887.	3	8	11	10
ISLAND SASH AND DOOR CO., 538 to 552 Cape St. Factory, 3-st. brick, 97x120; 2 boilers; 1 engine; lower roof adjoining. Est. 1885.	110	.....	110	80
IVERSEN J. C. COMPANY, mfrs. mouldings, looking glasses, etc., 425, 427 East Water St. Building, 4-st. brick, 30x185; platform to adjoining roof on third floor; electric motor. Est. 1867.	39	1	40	2
JACOBS B. A., cooper, foot of 15th St. Six buildings — one 2-st. frame, 28x50; five 1-st. frame, 28x80, 60x60, 60x80, 24x50, 16x20. Est. 1889.	37	.....	37	Hand

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
JALASS H. V., mfr. packing boxes, and planing mill, 1018 to 1024 Fowler St. Three buildings— one 2-st. brick, 28x22; two 2-st. frame, 40x40, 26x48; 1 boiler; 1 engine. Est. 1866.....	5	.....	5	40
JEWETT & SHERMAN CO., mfrs. baking powders, coffee and spice mills, 287 to 291 Broadway. Building, 4-st. brick, 60x130; 1 boiler; 1 engine; 2 iron escapes. Est. 1868.....	33	10	43	40
JOHNSON B. J. & CO., mfrs. soap, 4th and Fowler Sts. Factory, 5-st. brick, 50x150; 1 boiler; 1 engine; iron escape. Est. 1864.....	27	8	35	50
JOHNSON ELECTRIC SERVICE CO. THE, mfrs. machinery, tools, brass castings, heat regulating apparatus, etc., 113, 115 Clybourn St. Building, 3-st. brick, 40x100; iron escape. Est. 1885.....	50	.....	50	15
Ordered guard on rip saw. The finishing shop is provided with a fan which takes up all dust. The firm furnishes street car fare to all employees who live more than three-quarters of a mile from the factory, and pay wages in full for all legal holidays.				
JOHNSTON BROS. CO., mfrs. biscuits, crackers and confectionery, 270 to 274 Broadway. Two buildings— one 4-st. brick, 60x104; one 1-st. brick, 16x60; 2 boilers; 1 engine; iron escape. Est. 1847.....	69	31	100	40
JONES J. B. & SONS, mfrs. corks, vents, bungs and plugs, 618, 620 Poplar St. Three 1-st. frame, 16x80, 16x21, 20x50; 1 boiler; 1 engine. Est. 1885.....	5	.....	5	8
JOURNAL THE (daily), printers and publishers, 92 Mason St. Building, 3-st. brick, 20x55; 1 boiler; 1 engine; lower roof adjoining. Est. 1883.....	35	1	36	10
JOYS, NORRIS & CO., mfrs. sails, tents, awnings, covers, etc., 15 to 19 Erie St. Factory, 4-st. brick, 40x90; 1 engine; gas power; iron escape. Est. 1843.....	12	8	20	2
JUNGBLUT JOHN, mfr. tools and hammers, 126 2d St. Shop, 1-st. brick, 25x90; 1 boiler; 1 engine. Est. 1869.....	6	.....	6	15
Ordered guard on flywheel.				
KAATZ M., mfr. caps and cloth hats, 424, 426 East Water St. Building, 3-st. brick, 30x120; stairway leading to roof, and stairway leading to street. Est. 1884.....	6	1	7	Hand
KALAMAZOO KNITTING CO., mfrs. seamless hosiery and knit goods, 4th and Fowler Sts. Two buildings— one 5-st. brick, 60x150; one 1-st. brick, 25x30; 2 boilers; 2 iron escapes. Est. 1882.....	50	325	375	45
One girl under 13 was discharged. The firm do not want to employ any under 14 years of age. From 50 to 60 persons are employed who take the work home. The general condition of the works are first-class. This firm carries accident insurance for the benefit of all their employees.				
KEMPSMITH MACHINE TOOL CO., mfrs. iron and brass working machinery, 881 Robinson Ave. Three 1-st. frame, 40x80, 20x28, 20x30; 1 boiler; 1 engine. Est. 1888.....	16	.....	16	10
KEOGH EDWARD, book and job printing, 386, 388 Broadway. Building, 4-st. brick, 30x110; 1 engine; gas power. Est. 1867....	24	1	25	4
KERN JOHN B. A. & SON, mfrs. flour barrels, 416, 418 4th St. Building, 4-st. brick, 50x150; 1 boiler; 1 engine; iron escape. Est. 1846.....	50	.....	50	32
Firm manufacture flour barrels for their own use only.				
KIECKHEFER BROS. & CO., mfrs. plain, retinned, galvanized and japanned, pierced and stamped tinware, and sheet iron goods, Fowler St., between 9th and 10th. Eight buildings— two 5-st. brick, 52x240, 60x170; one 3-st. brick, 30x50; one 2-st. brick, 40x100x60x85; two 1½-st. brick, 50x90, 30x40; two 1-st. brick, 30x80, 12x12; 2 boilers; 1 engine; 3 iron fire escapes. Est. 1880.....	280	50	330	180
Ordered platforms on fire escapes.				

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
KIECKHEFER ELEVATOR MANUFACTURING CO., mfrs. passenger and freight elevators, 113 to 119 Clybourn St. Factory, 3-st. brick, 48x78; 1 boiler; 1 engine. Est. 1874. Ordered guard on rip saw. None employed on third floor.	40	.....	40	50
KIEFER J. F., machine and repair shop, 627 Cedar St. Shop, 1-st. frame, 20x76; 1 boiler; 1 engine. Est. 1881.	5	.....	5	10
KINDLING LOUIS & CO., mfrs. cigars, 290 East Water St. Building, 3-st. brick, 25x155; lower roof adjoining. Est. 1872.. Only two men employed on third floor.	30	20	50	Hand
KING, FOWLE & CO., printers, binders and engravers, 372 to 376 Milwaukee St. Building, 4-st. brick, 60x140; 1 engine; gas power. Est. 1837.	65	3	68	10
KIPP BROTHERS, mfrs. mattresses, spring-beds, bedding, supplies, etc., 208 to 220 South Water St. Three buildings—one 3-st. brick, 83x87; one 2-st. brick, 39x60; one 1-st. brick, 23x39; 2 boilers; 1 engine; iron escape. Est. 1879. Ordered fire escape extended to roof.	36	9	45	85
KNAUBER J. LITHOGRAPHING CO., 318 to 322 Cedar St. Building, 3-st. brick, 50x50; 1 engine; gas power. Est. 1867.... Third floor not occupied.	34	6	40	7
KNOELK CHAS., mfr. sash, doors, blinds, 627 to 631 Greenfield Ave. Factory, 2-st. frame, 36x58; 1 boiler; 1 engine. Est. 1888. Ordered guard on flywheel of engine.	6	.....	6	35
KRAUS-MERKEL MALTING CO., Virginia St. Three buildings—one 5-st. frame, 64x140; one 3-st. brick, 40x140; one 1-st. brick, 16x34; 1 boiler; 1 engine; 4 iron balcony escapes. Est. 1881.	15	.....	15	6
KRAUS-MERKEL MALTING CO., South Water, foot of Park St. Eight buildings—one 6-st. brick, 70x130; one 6-st. frame, 45x116; one 5-st. brick, 62x142; one 5-st. frame, 44x68; two 3-st. frame, 44x97, 40x80; two 1-st. frame, 35x36, 61x153; 4 boilers; 3 engines; iron escape and two bridges. Est. 1881. Ordered hand rail on platform in-elevator B on top floor; guard at head of stairway on second floor in elevator C; hand rail extended on stairs from third to fifth floor in elevator D; and fire escape on malthouse extended to roof	75	.....	75	180
KRETSCHMAR R. & SON, pork and beef packers, 280, 282 Lake St. Three buildings—two 3-st. brick, 50x100, 50x50; one 1-st. frame, 12x14; 1 boiler; 1 engine; iron escape. Est. 1852. Ordered guard on elevator on first and second floors.	15	.....	15	20
LAMFROM & BAUM, mfrs. clothing, 317 East Water St. Building, 4-st. brick, 20x145. Est. 1887. Firm employ about 50 hands outside of factory.	10	.....	10	Hand
LAMP P. & CO., mfrs. brass goods for breweries, plumbers and steamfitters, 511 Cedar St. Shop, 2-st. brick, 25x70; 1 boiler; 1 engine. Est. 1869. Ordered guard on flywheel.	24	.....	24	15
LANGENBERGER JOHN, mfg. contractor and builder, 319 Wells St. Three buildings—One 2-st. frame, 30x60; two 1-st. brick, each 60x62; 1 boiler; 1 engine. Est. 1864. Ordered guard on rip saw, and cross-cut saw boxed. <i>Accident.</i> —One workman had three fingers cut off by paneling machine.	80	.....	80	75
LAVERRENZ OTTO & BRO., bookbinders and mfrs. paper boxes, 368, 370 Broadway. Building, 4-st. brick, 30x110; iron escape. Est. 1850.	8	27	35	Hand
LAYTON & CO., pork and beef packers, Muskego ave. Eleven buildings—one 3-st. brick, 70x100; three 2-st. brick, 95x156, 56x172, 99x133; one 1-st. brick, 24x57; one 2-st. frame, 24x87; five 1-st. frame, 31x190, 86x210, 27x32, 16x22, 86x210; 2 boilers; 1 engine. Est. 1842.	100	.....	100	70

Report of Inspection—Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
LEHIGH & FRANKLIN COAL CO., 812 Kinnickinic ave., and Clinton St. bridge; coal docks, 225x480, 100x350; 2 boilers; 2 engines. Est. 1883.....	35	.....	35	86
LEIDERSDORF B. & CO., mfrs. tobacco, 248 to 252 East Water St. Building, 4-st. brick, 50x165; 2 boilers; 1 engine; 2 iron escapes. Est. 1858.....	40	50	90	75
LEMKE A. F., mfr. brooms, brushes, etc., 419 State St. Three 2-st. frame, 23x41, 24x40, 14x25. Est. 1865.....	10	.....	10	Hand
LIEBSCHER LOUIS (Phoenix Malt House), 189 to 193 Sherman St. Two buildings—one 3-st. brick, 50x90; one 3-st. frame, 30x90x30x42; 1 boiler; 1 engine; lower roofs adjoining. Est. 1877.....	9	.....	9	30
LINDEMANN J. P. & SONS, mfrs. stoves, tinware and sheet iron goods, 827 to 901 Fowler St. Building, 4-st. frame, 50x150; 1 boiler; 1 engine; iron escape. Est. 1878.....	72	3	75	35
LOEFFELHOLZ A. & CO., mfrs. railroad car trimmings, lanterns, etc., 170 to 174 Clinton St. Three buildings—one 3-st. brick, 35x52; one 2-st. brick, 25x100; one 1-st. brick, 25x40; 1 boiler; 1 engine; lower roof adjoining. Est. 1867.....	37	3	40	25
LOEW H. J. & CO., marble works, 4th and State St. Shops, two 1-st. frame, 16x39, 16x37. Est. 1885.....	7	.....	7	Hand
LOEWENBACH B. & SON, printers, 314, 316 East Water St. Building, 4-st. brick, 40x108; 1 boiler; 1 engine; 2 iron escapes. Est. 1874.....	20	2	22	25
LOGEMANN & GIESLER, mfrs. steam boilers and machinists, 288 Oregon St. Three buildings—one 2-st. frame, 30x80; two 1-st. frame, 24x28, 16x20; 1 boiler; 1 engine. Est. 1884.....	28	.....	28	15
LOHR CHAS. & CO., granite and marble works, Mitchell St. and Eighth Ave. Shop, 1-st. frame, 82x114; 1 boiler; 1 engine. Est. 1876.....	40	.....	40	10
LORENZ R. & SON, mfrs. Italian macaroni and vermicelli, 890, 892 Twelfth St. Two buildings—one 2-st. frame, 20x110; one 1-st. frame, 30x60; 1 boiler; 1 engine. Est. 1887..... Ordered guard around stairway in engine room.	6	.....	6	8
LUMBERMEN'S PLANING MILL, planing mill and box factory, Clermont and St. Paul Ave. Four buildings—three 2-st. frame, 50x60, 30x40, 30x50; one 1-st. brick, 20x60; 2 boilers; 1 engine. Est. 1886..... Ordered guard on rip saw.	22	.....	22	100
LUTTER & GIES, mfrs. machinery and tools, 170 Broadway. Shop, 1-st. brick, 20x40; 1 boiler; 1 engine. Est. 1887.....	5	.....	5	4
McCANANY M., job printing, 303 Grand Ave. Building, 1-st. brick, 25x70; 1 boiler; 1 engine. Est. 1882.....	8	.....	8	6
McCULLOUGH R. A. & CO., steam laundry, 411 to 415 Vliet St. Building, 3-st. brick, 50x75; 1 boiler; 1 engine. Est. 1889. Third floor unoccupied.	5	18	23	20
McCULLOUGH SOAP CO., 52 to 60 3d St. Factory, 4-st. brick, 100x120. Est. 1872.....	24	6	30	Hand
MACK H. S. & CO., mfrs. clothing, 341, 343 East Water St. Building, 4-st. brick, 40x110; iron escape. Est. 1849..... Cutters only are employed in the building. Tailoring done by shop-tailors at home.	250	150	400	Hand
MAGIE BROS., mfrs. oils and journal lubricants, 56 to 60 5th St. Building, 2-st. brick, 50x118; 1 boiler. Est. 1887.....	12	1	13	Hand
MAHLER, ALBENBERG & CO., mfrs. pants, overalls, and men's furnishing goods, 353 East Water St. Building, 5-st. brick, 25x100. Est. 1886..... Ordered fire escape. Firm employ about 200 persons outside of factory.	10	2	12	Hand

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
MANEGOLD CHAS. JR. & CO., grain elevators, foot of Florida St. Four buildings — one 4-st. frame, 43x123; two 3-st. frame, 45x188, 50x80; one 1-st. brick, 32x37; 2 boilers; 1 engine; elevators bridged. Est. 1868.....	6	.....	6	150
MANEGOLD & SON C. "RELIANCE MILLS," 70 to 76 West Water St. Three buildings — one 5 st. brick, 40x120; one 4-st. brick, 40x90; one 1-st. brick, 24x30; 3 boilers; 1 engine; iron escape. Est. 1868.....	30	.....	30	300
MANVILLE COVERING CO., mfrs. sheep wool cement covering, 73, 75 2d St. Two buildings — one 2-st. brick, 50x50; one 1-st. frame, 25x72; 1 boiler; 1 engine. Est. 1884..... Ordered guard on elevator on first floor. Firm have about 175 men working in different parts of the country.	25	.....	25	15
MARINE BOILER WORKS, mfrs. steam boilers, lard and oil tanks, etc., Oregon St. Two buildings — one 2-st. frame, 18x50; one 1-st. brick, 132x140; 1 boiler; 1 engine. Est. 1862..... Ordered guards on crank, piston rod and flywheel.	125	.....	125	50
MATTHEWS BROS. FURNITURE CO., 61 to 69 4th St. Four buildings — one 5-st. brick, 35x130; one 4-st. brick, 40x100; one 1-st. brick, 35x51; one 1-st. frame; 2 boilers; 1 engine; 2 iron escapes. Est. 1857..... Ordered guards on two rip saws, and railing around platforms of fire escapes. Firm do not employ labor under 16 years of age.	115	.....	115	80
MAYER F. BOOT & SHOE CO., 166 to 172 Walnut St. Two buildings — one 2-st. brick, 35x90x40x75; one 1-st. brick, 22x27; 1 boiler; 1 engine. Est. 1880.....	104	57	161	25
MEINCKE JOHN, mfr. carriages, buggies and sleighs, 294 to 298 Broadway. Building, 3-st. brick, 40x120. Est. 1860.....	8	.....	8	Hand
MEINECKE ADOLPH & SON, mfrs. willow ware, toys, etc., Main and Front Sts. Six buildings — one 4-st. brick, 41x100; two 3-st. brick, 40x132, 25x34; one 1-st. brick, 34x37; two 2-st. frame, 39x40, 18x57x20x33; 1 boiler; 1 engine; 2 iron balcony escapes. Est. 1855..... Ordered guard on stairway leading to basement.	170	30	200	125
MIDLAND MAIZEA MILLING CO., mfrs. maizea flour and other corn goods, 420 Commerce St. Mill, 3-st. brick, 40x70; 2 boilers; 1 engine. Est. 1889.....	12	.....	12	75
MILBRATH D. A., mfr. carriages, buggies, etc., 313, 315 Prairie St. Two buildings — one 3-st. frame, 30x60; one 2-st. frame, 50x50. Est. 1885.....	13	.....	13	Hand
MILLER FRED BREWING CO. brewers and maltsters, city limits, west. Twenty buildings — one 4-st. brick, 48x67; one 3-st. brick, 39x62; one 3-st. frame, 51x77; four 2-st. frame, 50x75, two 40x54, 37x46; one 1-st. brick, 25x44; five 1-st. frame, 69x88, 26x100, 36x45, 24x75, 18x26; five 1-st. frame ice houses; two 1-st. frame storage sheds; 4 boilers; 5 engines; iron stand pipe escape. Est. 1855.....	100	.....	100	329
MILLER H. C. & CO., blank book makers, rulers and printers, 86, 88 Mason St. Building, 3-st. brick, 40x60; iron escape in rear. Est. 1888.....	12	7	19	Hand
MILLER MORITZ, mfr. buggies, carriages and sleighs, 124 2d St. Shop, 1-st. brick, 25x100. Est. 1865.....	6	.....	6	Hand
MILLMANN & GRIDER, mfrs. cream colored brick, Howell Ave. near city limits. Est. 1885..... <i>Accident.</i> —In July, 1889, Mr. Grider lost an eye while blasting, by the explosion of a lot of caps. The other eye is also severely injured.	35	.....	35	Hand
MILWAUKEE ABATTOIR CO., Muskego Ave. Four buildings — three 2-st. frame, 70x162, 18x130, 20x25, 25x60, 16x27; 1 boiler; 1 engine. Est. 1882..... Ordered pulley on engine and a belt guarded.	15	.....	15	10

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
MILWAUKEE BAG CO., 234, 236 East Water St., mfrs. cotton paper and jute flour sacks. Building, 4-st. brick, 50x135; 1 boiler; 1 engine. Est. 1868. Ordered a fire escape with double platform.	15	30	45	20
MILWAUKEE BOX CO., mfrs. packing and shipping cases, 237 to 241 Oregon St. Two buildings—one 2-st. frame, 80x116; one 1-st. brick, 25x40; 1 boiler; 1 engine. Est. 1878.	60	.....	60	40
MILWAUKEE BRASS & COPPER WORKS, 241 to 255 Greenfield Ave. Two buildings—one 2-st. brick, 37x131; one 2-st. frame, 24x92; wings 29x43, 17x58, 16x50; 1 boiler; 2 engines. Est. 1887.	25	.....	25	37
MILWAUKEE BRICK MFG. CO., mfrs. common and pressed brick, Howell and Potter Aves.; 1 boiler; 1 engine. Est. 1887.	100	.....	100	45
MILWAUKEE BRIDGE & IRON WORKS, mfrs. engines and contractors for bridges, roofs and structural work, 17th and Fowler Sts. Three buildings—two 2-st frame, 150x150, 18x40; wing, 16x40; one 1-st frame, 18x60; wing, 18x21; 2 boilers; 1 engine. Est. 1870.	125	.....	125	40
MILWAUKEE BUGGY CO., 182 to 186 3d St. Shop, 3-st. brick, 50x100. Est. 1888.	10	.....	10	Hand
MILWAUKEE CAR WHEEL & FOUNDRY CO., mfrs. car and engine wheels, gray iron and chill castings. city limits, west. Six 1-st. frame, 22x32, 20x40, two 80x145, 60x72, 25x28; 1 boiler; 1 engine. Est. 1890. Ordered flywheel guarded, and main doors to swing outward. The elevators will be properly guarded when completed, firm are also building a machine and pattern shop adjoining gray iron foundry. When completed will employ 150 men.	50	.....	50	120
MILWAUKEE CASKET CO., 15th and Fowler Sts. Two buildings—one 4-st. frame, 48x98, 48x75; and 1-st. brick, 30x34; 1 boiler; 1 engine; wooden ladder extending to third floor over engine room. Est. 1875. Ordered fire escape on Fifteenth street side of building and the one now on extended to roof.	41	7	51	50
MILWAUKEE CHAIR CO., 242, 244 Broadway. Five buildings—two 4-st. brick, 30x120, 50x120; one 2-st. brick, 27x71; two 1-st. brick, each 8x14; 2 boilers; 1 engine; 2 iron escapes, and bridge at fourth floor, connecting main buildings. Est. 1877.	152	8	160	100
MILWAUKEE COAL CO., First Ave. near Sixth St. bridge; 1 boiler; 1 engine. Est. 1887. Ordered pulley guarded.	15	.....	15	16
MILWAUKEE CRACKER AND CANDY CO., 497 to 501 Broadway. Building, 2-st. brick, 60x120; 1 boiler; 1 engine. Est. 1880.	45	.....	45	20
MILWAUKEE ELECTRO-PLATE & NOVELTY WORKS, 246 Oregon St. Building, 3-st. brick. Est. 1889. Ordered main door to swing outward.	10	.....	10	Hand
MILWAUKEE FURNITURE CO., mfrs. chamber suits, sideboards, book cases, chiffoniers, etc., Fifteenth and Fowler Sts. Five buildings—three 3-st. brick, 45x80, 30x80, 36x60; one 1-st. brick, 36x48, one 1-st. frame, 30x60; 1 boiler; 1 engine; buildings bridged, and lower roof adjoining. Est. 1880.	100	.....	100	75
MILWAUKEE GALVANIZED IRON WORKS, 51, 53 Third St. Shop, 2-st. brick. Est. 1869.	15	.....	15	Hand
MILWAUKEE GAS LIGHT CO., Jefferson and Menomone Sts. Ten buildings—one 2-st. brick, 45x91; six 1-st. brick, 45x57, 57x129, 61x63, 55x227, 56x250, 22x22; three 1-st. frame, 15x16, 62x416; 30x30; 9 boilers; 17 engines. Est. 1862.	124	1	125	192

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
MILWAUKEE GAS STOVE CO., 49 Second St. Building, 2-st. brick; 1 boiler; 1 engine. Est. 1884.	12	.....	12	4
MILWAUKEE HARVESTER CO., Park St. between 12th and 15th Aves. Eighteen buildings— two 3-st brick, 50x197x50x100, 30x75; five 2-st. frame, 48x60, 36x101, 50x150, 50x300, 25x50; four 1-st. brick, 50x100, 30x60, 80x115x16x40, 40x100; seven 1-st. frame, 20x50, 16x200, 24x150, 18x90, 16x100, 20x140, 40x140; 4 boilers; 2 engines; iron escape and bridges. Est. 1881.	300	.....	300	200
MILWAUKEE HAY TOOL CO., Park St. and 18th Ave. Two buildings— one 2-st. brick, 43x62x22x67; one 1-st brick, 33x36; 1 boiler; 1 engine. Est. 1888.	20	.....	20	20
MILWAUKEE LINSEED OIL WORKS, mfrs. pure "Old Process" linseed oil. Barclay and Florida Sts. Four buildings— one 4-st. frame elevator; one 2-st. brick, 40x50; two 1- st. brick, 35x40, 39x40; 2 boilers; 1 engine. Est. 1875. Ordered guard on crank of flywheel. <i>Accident.</i> — A workman broke a leg while trying to put on a belt, being struck by crank. Firm paid the man's wages while he was laid up.	23	.....	23	100
MILWAUKEE LITHOGRAPHING AND ENGRAVING CO., 311 to 315 Broadway. Two buildings— one 2-st. brick, 60x150; one 1-st. brick, 10x24; 1 boiler; 1 engine. Est. 1852.	89	1	90	25.
MILWAUKEE MIRROR AND ART GLASS WORKS, mfrs. mirrors, plates, bevelers of plate glass, cut, embossed and ornamental glass, 230 East Water St. Two buildings— one 3-st. brick, 25x150; one 2-st. brick, 25x30; 1 boiler; 1 engine; lower roof adjoining. Est. 1887. Ordered two pulleys guarded on first floor.	35	.....	35	30
MILWAUKEE PACKING CO., beef and pork packers, 114 to 120 Sycamore St. Building, 2-st. brick, 45x120; 1 boiler. Est. 1872.	15	.....	15	Hand
MILWAUKEE PALMING CO., mfrs. gloves, etc., 290, 292 Broadway. Building, 2-st. brick, 40x50. Est. 1889.	3	6	9	Hand
MILWAUKEE PARLOR FRAME CO., 249 to 255 Clinton St. Four buildings— one 2-st frame, 44x88; one 1-st. brick, 16x46; two 1-st. frame, 60x120, 20x40; 1 boiler; 1 engine. Est. 1879. Ordered guards on rip saw and flywheel.	17	.....	17	20
MILWAUKEE REFORMER, printing and publishing, 482 Market St. Building, 3-st. brick, 24x90. Est. 1880.	6	.....	6	Hand
MILWAUKEE RIVER FLUSHING WORKS, lake shore, opposite Dane place. Three 1-st. brick, 31x43, 43x45, 41x98; 4 boilers; 1 engine. Est. 1888. Daily pumping capacity, (24 hours) 450,000,000 gallons, or 32,000 cubic feet per minute.	12	.....	12	400.
MILWAUKEE SHIP YARD CO., Canal St., near First Ave. Five buildings— three 2-st. frame, 28x42, 16x38, 22x32; one 1-st. brick, 26x83; one 1½-st. frame, 24x139; 2 boilers; 3 engines. Est. 1874. Ordered cross-cut saw boxed.	125	.....	125	210.
MILWAUKEE STEAM BOILER WORKS, (J. W. Eviston), mfrs. steam boilers, smoke stacks, etc., 233, 235 Oregon St. Shop, 1-st. frame, 50x80. Est. 1866.	13	.....	13	Hand
MILWAUKEE TYPE FOUNDRY, (F. Keehn). Building, 3-st. brick, 18x90. Est. 1870.	5	.....	5	Hand
MILWAUKEE VOLKSZEITUNG, 614 State St. Building, 2-st. frame, 20x30; 1 boiler; 1 engine. Est. 1888.	25	.....	25	4
MINERVA FURNACE CO., mfrs. foundry and bessemer pig-iron, Kinnickinnic Ave. Four buildings— one 2-st. brick, 47x98; one 1-st. brick, 51x124; one 1-st. frame, 18x25x12x15; one 1½-st. frame, 30x48; 6 boilers; 2 engines. Est. 1873.	70	.....	70	1000
MODEL LAUNDRY, 865 Warren Ave. Two buildings— one 2-st. frame, 25x75; one 1-st. frame, 17x24; 1 boiler; 1 engine. Est. 1886.	3	17	20	25.

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
MOLITOR H., mfr. paper boxes, 314, 316 East Water St. Building, 4-st. brick, 40x108; 1 boiler; 1 engine; 2 iron escapes. Est. 1876.....	3	22	25	4
MOORE MFG. & FOUNDRY CO., mfrs. hardware, hoisting engines, and drums, door hangers, rail registers and ventilators, etc., St. Paul Ave., bet. 18th, 19th Sts. Seven buildings — one 3-st. frame, 50x70; three 2-st. frame, 30x66, wings, 14x22, 14x28; 16x40, 32x116; three 1-st. frame, 70x125, 35x110; 1 boiler; 1 engine; buildings bridged. Est. 1888.....	129	1	130	50
Ordered guard on elevator.				
MUELLER L. J., mfr. carriages, wagons, etc., 414 4th St. Two buildings — 2st. frame. Est. 1862.....	5	.....	5	Hand
MUELLER L. J. FURNACE CO., mfrs. "Etna" and "Venus" furnaces, 197 Reed St. Two buildings — one 3-st. brick, 25x50; one 2-st. frame, 25x80; 1 boiler; 1 engine. Est. 1859.....	18	.....	18	6
No one employed on third floor.				
MUELLER & SON, mfrs. cigar and packing boxes, and cigar box lumber, 718, 720 Poplar St. Four buildings — one 3-st. frame, 50x80; two 2-st. frame, 18x24, 24x40; one 1-st. frame, 16x24; 1 boiler; 1 engine; outside stairway from third floor. Est. 1872.	52	28	80	35
NATIONAL DISTILLING CO., foot of 27th St. Four buildings — one 3-st. stone, 88x233; one 2-st. frame, 49x65; one 1-st. brick, 40x42; one 1-st. frame, 90x150; 5 boilers; 1 engine; wooden escape. Est. 1883.....	17	.....	17	100
Ordered railing on two stairways.				
NATIONAL KNITTING CO., mfrs. knit goods, 889 to 905 Clinton St. Three buildings — one 3-st. brick, 60x200; one 3-st. brick, 60x100; one 1-st. brick, 24x39; 2 boilers; 1 engine; main stairway leads direct from top floor. Est. 1885.....	75	200	275	100
Firm do not employ any children under 14.				
NELSON JAMES, mfr. woven wire mattresses and spring beds, 493, 495 Clinton St. Two buildings — one 2-st. frame, 35x41; one 1-st. frame, 16x16; 1 boiler; 1 engine. Est. 1879.....	6	.....	6	20
Ordered guard on flywheel.				
NEUBERT F. T. & CO., mfrs. boots and shoes, 625, 627 Prairie St. Factory, 1-st. frame, 30x110; 1 boiler; 1 engine. Est. 1877.	30	25	55	20
Ordered guard on flywheel.				
NEUBOUER R. & CO., mfrs. clothing, 336, 338 Broadway. Building, 4-st. brick, 30x120; iron escape. Est. 1854.....	12	...	12	Hand
Firm employs 175 persons outside of factory.				
NIEDECKEN H. & CO., mfrs. blank books, 333, 340, East Water St. Building, 4-st. brick, 40x140; iron escape; elevator provided with patent stop. Est. 1847.....	24	6	30	Hand
NORDBERG MFG. CO., machinists, 160, 180, Clinton St. Four buildings — one 3-st. brick, 50x91; one 3-st. frame, 40x40; one 2-st. frame, 30x40; one 1-st. brick, 20x40; 1 boiler; 1 engine; lower roof adjoining. Est. 1884.....	50	.....	50	20
Ordered guard on rip saw. Accident. — A member of the firm lost an eye by a flying piece of iron.				
NORTHWESTERN FUEL CO., coal dock, 2 plants foot of Scott St., and foot of 18th St. 2 boilers; 2 engines. Est. 1880, 1883..	85	.....	85	95
Ordered guard on flywheel at Scott street plant.				
NORTHWESTERN FURNITURE CO., mfrs. office desks, saloon and store fixtures, 737 to 743 North Water St. Three buildings — one 4-st. frame, 52x70; one 1-st. brick, 10x20; one 1-st. frame, 12x30; 2 boilers; 1 engine; wooden escape. Est. 1881.....	36	.....	36	60
Ordered guard on rip saw, and railing on stairway on first and second floors.				
NORTHWESTERN MALLEABLE IRON WORKS, Park St. bet. 13th and 14th Aves. Eight buildings — one 2-st. frame, 54x54; one 1-st. brick, 67x277; six 1-st. frame, 18x40, 26x67, 70x92, 55x70, 36x40, 12x68; 2 boilers; 1 engine. Est. 1882.....	200	.....	200	40

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
NORTHWESTERN SEWER PIPE CO., mfrs. hydraulic, cement, carbonized drain and well pipe, Canal St. Factory, 1-st. frame, 60x110. Est. 1888.....	15	.....	15	Hand
NORTHWESTERN SHODDY CO., mfrs. wool and cotton shoddy, spring beds, etc., 29 to 37 1st Ave. Four buildings — one 2-st. frame, 29x70; one 1-st. brick, 17x34; two 1-st. frame, 24x26, 12x24; 1 boiler; 1 engine. Est. 1883.....	10	.....	10	70
Ordered guard on rip saw.				
NORTHWESTERN SLEIGH CO. mfrs. carriages and cutters, 1031 St. Paul Ave. Eight buildings — three 4-st. frame, two 40x186, 38x80; two 3-st. frame, 36x100, 37x85; two 2-st. frame, 79x100, 30x40; one 1-st. brick, 18x60; 3 boilers; 2 engines; 5 wooden stairway escapes. Est. 1881.....	222	3	225	103
Ordered a new cable in one of the elevators; railing at head of stairway on third floor in 3-st. frame building; also, on second and third floors of warehouse on Canal street. Accident — Boy lost two fingers in the gearing of tire bending machine. Firm paid doctor's bill and wages.				
NORTHWESTERN STRAW WORKS, mfrs. misses', ladies', and children's hats, 623 Reed St. Five buildings — one 4-st. brick, 50x100x40x140; one 3-st. brick, 37x63, wing 26x50; one 3-st. frame, 70x160; two 1-st. brick, 33x40, 16x91x21x24; 4 boilers; 1 engine; iron escape and two bridges at third floor. Est. 1875.	66	187	253	125
Ordered guard on flywheel of engine, and main drive belt boxed. Firm employ about 500 hands in busy season.				
NUT & WASHER MANUFACTURING CO., foot of National Ave. Two buildings — one 2-st. frame, 30x60; one 1-st. frame, 30x30; 1 boiler; 1 engine. Est. 1886.....	15	.....	15	25
NORTHWESTERN WORSTED MILLS CO., mfrs. worsted yarn, Oakland Ave. and Park St. Two 1-st. brick, 150x200, 41x48; 2 boilers; 1 engine. Est. 1887.....				125
Mills idle at time of inspection.				
OBERBERGER JOSEPH, shipsmith, and mfr. automatic coal tubs, 125 Barclay St. Shop, 1-st. brick, 40x60; 1 boiler; 1 engine. Est. 1873.....	6	.....	6	20
Ordered set-screws on shears guarded.				
OBERMANN J. BREWING CO. Fifth and Cherry Sts. Six buildings — one 4-st. brick, 41x84; two 3-st. brick, 43x122, 38x107; two 2-st. brick, 29x62, 23x89; one 1-st. brick, 28x38; 3 boilers; 2 engines; lower roof adjoining. Est. 1854.....	36	.....	36	65
OGDEN G. W. & CO., mfrs. carriages, 172 and 174 Third St. Factory, 4-st. brick, 60x125; 2 iron fire escapes, staple pattern. Est. 1848.....	20	.....	20	Hand
Ordered platform on one of the fire escapes at third floor.				
OLDENBERG CHAS. FURNITURE CO., 873 to 887 North Water St. Seven buildings — one 6-st. brick, 50x120; one 2-st. frame, 32x60; one 1-st. brick, 39x61; four 1-st. frame, 22x50, 24x39, 13x26, 26x44; 2 boilers; 1 engine; iron escape and two stairways. Est. 1880.....	148	.....	148	120
OTTO DESK & FURNITURE CO., 329 to 331, 5th St. Factory 2-st. frame, 36x60; 1 boiler; 1 engine. Est. 1887.....	10	.....	10	10
Ordered main door to swing outward.				
PABST BREWING CO., Chestnut and 9th Sts. Seventeen buildings — one 8-st. brick, 120x176; one 6-st. brick, 130x200; three 5-st. brick, 140x163, 61x100, 50x52; two 5-st. frame, 97x100, 50x149; five 2-st. brick, 149x163, 140x160, 148x149, 71x136, 45x54; five 1-st. brick, 37x67, 28x91, 14x54, 14x42, 16x16; 13 boilers; 13 engines; 17 iron fire escapes; 8 bridges. Est. 1842.....	410	.....	410	1765
Ordered pulleys and shafts boxed in elevator A; also in elevator C; guard on shaft, and key boxed on pulley in brew house; belt boxed, and railing extended on stairway in old malthouse; railing around pulleys; also railing around hole in the floor in refrigerator; guard on flywheel, and belt on pulley in cooper shop; and guard on rip saw in carpenter shop. Accident. — One accident has occurred since the inspection of 1888. One of the employees in tearing down a				

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
brick building, fell from the top of a wall, a comparative short distance and broke a bone in his ankle joint. The company paid his wages in full, besides the doctor's bill.				
PABST BREWING CO. , bottling department, Virginia St. Eight buildings—two 3-st. brick, 80x180, 50x110, 98x130; one 2-st. brick, 39x40; three 2-st. frame, 50x96, 60x110; one 1-st. brick, 16x28; one 1-st. frame; 4 boilers; 2 engines; 2 iron escapes, and bridge. Est. 1881.....	175	140	315	165
Ordered guard around flywheel in engine room.				
PAINE BROS. merchant millers, Canal St. Building, 2-st. frame, 120x160; 1 boiler; 1 engine. Est. 1888.....	5	.....	5	10
Ordered railing around hole in second floor.				
PALACE STEAM LAUNDRY (Lingelbach & Thomann) 306, 308 Reed St. Building, 2-st. brick, 30x50; 1 boiler; 1 engine. Est. 1887.....	9	5	14	18
PANTKE E. R. & CO. , mfrs. hats, caps, and ladies' and gents' furs, 394 East Water St. Building, 3-st. brick, 20x120; lower roof adjoining. Est. 1857.....	15	25	40	Hand
PATTON J. E. & CO. , mfrs. whitelead, zinc colors, and putty, 266 to 277 East Water St. Three buildings— one 4-st. brick, 51x100; one 2-st. brick warehouse; one 1-st. brick, 20x50; 2 boilers; 1 engine. Est. 1855.....	50	.....	50	100
Ordered guard on flywheel. None regularly employed on upper floors.				
PAULY JOHN H. , coal and wood merchant, Oneida and River Sts. 1 boiler; 1 engine. Est. 1877.....	50	.....	50	12
PEDERSON C. , mfr. sash, doors, blinds, 7th and National aves. Four buildings— one 2-st. brick, 50x70; two 1-st. brick, 18x32, 10x32; one 1-st. frame, 25x100; 1 boiler; 1 engine; wooden ladder and outside stairway. Est. 1885.....	40	.....	40	35
Ordered railing on stairway leading to basement. <i>Accident</i> — Boy of 16 lost two fingers.				
PEEZ & HOFFMANN , mfrs. carriages and sleighs, 51, 53 3d St. Building, 2-st. brick. Est. 1881.....	6	.....	6	Hand
PENNER H. & CO. , mfr. mattresses and spring beds, 232 East Water St. Building, 4-st. brick, 25x125; 1 boiler; 1 engine; iron escape. Est. 1885.....	18	7	25	8
Ordered platforms to fire escape at third and fourth floors.				
PENNSYLVANIA COAL CO. , foot of 15th St. 2 boilers; 1 engine. Est. 1883.....	18	.....	18	75
Ordered guard around flywheel of engine.				
PETERMANN H. , mfr. brooms and brushes, 524 Chestnut St. Building, 2-st. frame, 18x40. Est. 1861.....	5	.....	5	Hand
PFISTER & VOGEL LEATHER CO. , foot of 1st Ave., 8th ward. Seven buildings— One 5-st. brick, 46x228; wing, 55x78; one 3-st. brick, 18x62; two 2-st. brick, each 40x140; one 1-st. brick; two 1-st. frame; 6 boilers; 2 engines; 8 iron escapes, and lower roof adjoining. Est. 1848.....	435	.....	435	312
Ordered flywheel guarded in engine room, and doors cut in cable boxes, in beam-house and harness leather department. Found everything in good condition, and extra precaution is taken for the safety of employees. The elevators are all provided with guards, and the cables kept well oiled. A notice is posted on each floor on the side of the elevator, warning employees not to ride on elevator without the elevator boy, on penalty of immediate dismissal. <i>Accidents.</i> — Two accidents have occurred at this tannery within the last few months. Three employees went down into a 16-ft. deep cistern to paint inside. The paint pot was accidentally tipped over, and the gases from the paint suffocated one of the men, the others in going to the assistance of their comrade were also overcome and were by heroic efforts taken out alive. The second accident befell a teamster who had been in the employ of the company for over twenty-five years. He was driving under a bridge, and failing to stoop low enough, he was struck on				

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
the head. The company paid his wages in full from the date of the accident, also the doctor's bill, and Mr. Vogel informed us that he would see to it that the unfortunate family was well provided for. Both men were members of a benevolent society, which pays a certain sum per week during sickness, and \$200 in case of death. The firm paid all funeral expenses of the former and contributed liberally to the support of his family.				
PFISTER & VOGEL LEATHER CO., mfrs. leather, foot of Sherman. Tannery, 3-st. frame, 129x185; wing, 47x78; 2 boilers; 1 engine; lower roofs adjoining. Est. 1880.....	70	.....	70	75
PFISTER & VOGEL LEATHER CO., horse hide tannery, Vogel's Island. Tannery, 3-st. frame, 41x42; wing, 2-st. frame, 36x80; 1 boiler; 2 engines; outside stairway and adjoining roofs. Est. 1889	30	.....	30	10
PFISTER & VOGEL LEATHER CO., sheepskin tannery, Vogel's Island. Twelve buildings — one 4-st. brick, 34x100; one 4-st. frame, 20x41; one 3-st. brick, 21x42; one 3-st. frame, 21x60; three 2-st. frame, 34x41, 30x32, 55x55; one 1-st. brick, 36x40; four 1-st. frame, 36x60, 14x28, 15x44, 20x22; 2 boilers; 1 engine. Est. 1878.....	54	1	55	80
Ordered platform guarded at top of outside stairway.				
PHENIX KNITTING WORKS, 86, 88 Detroit St. Building, 4-st. brick, 37x140; iron escape. Est. 1885.....	2	33	35	Hand
PHENIX MILLS (E. Sanderson Co.), Commerce St. Three buildings — one 6-st. frame, 70x80; one 5-st. brick, 11½x114; one 1-st. frame, 20x40; 4 boilers; 2 engines; iron escape. Est. 1848.	60	... ..	60	730
Ordered railings on fourteen stairways.				
PHENIX SUSPENDER CO., mfrs. web and suspenders, 7 to 19 Clybourn St. Building, 4-st. brick, 25x120; iron escape. Est. 1884.....	8	27	35	Hand
PHONOGRAPH PRINTING CO., 414 Broadway. Building, 4-st. brick, 24x96; electric motor. Est. 1889.....	5	.....	5	3
PIERRON LOUIS M., mfr. stoneware, 33 Johnson st. Five buildings — Three 2-st. brick, 50x60, 40x40, 20x40; one 1-st. brick, 20x30; one 1-st. frame, 40x40; 1 boiler; 1 engine. Est. 1855.....	25	.....	25	25
PIETSCH HERMAN, mfr. brewers', distillers' and soda water apparatus, 619, 621 Cedar st. Building, 2-st. frame, 25x100; 1 boiler; 1 engine. Est. 1860.....	8	.....	8	10
PIETSCH OTTO, chemical dyeing and cleaning works, 246 West Water st. Two buildings — one 3-st. brick, 20x40; one 2-st. brick, 10x30; 1 boiler; 1 engine. Est. 1855.....	4	4	8	10
POLLAK & STRASS, mfrs. children's and boys' clothing, 348, 350 Broadway. Building, 4-st. brick, 30x120. Est. 1887.....	12	.....	12	Hand
Firm employ 125 persons outside of factory.				
POPPERT GEORGE, mfr. sash, doors, blinds, 421 to 425 Poplar St. Four buildings — two 2-st. frame, 42x90, 18x20; one 1-st. brick, 21x26; one 1-st. frame, 20x42; 1 boiler; 1 engine. Est. 1867.....	60	.....	60	100
PORTH ANTON, cooper, 1630 Vliet St. Shop, 1-st. frame, 20x30. Est. 1862.....	6	.....	6	Hand
PREFONTAINE & HOFFMANN (American Steam Laundry), 232 Wells St. Building, 2-st. brick; 1 boiler; 1 engine. Est. 1885.....	2	8	10	6
PRINZ & RAU MFG. CO. THE, mfrs. grain-cleaning machinery, 659 to 663 East Water St. Three buildings — two 2-st. frame, 40x80, wing 20x40; 16x38; one 1-st. frame, 30x40; 1 boiler; 2 engines. Est. 1888.....	19	.....	19	26
QUIN EDWARD, mfr. blank books, 427 East Water St. Building, 4-st. brick, 20x100. Est. 1875.....	11	9	20	Hand
Nearly all work done on second floor. Fourth floor used for storage only.				

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
RADKE A. F. & CO. , mfrs. ladies', misses', and children's shoes, 225 Cedar St. Factory, 4-st. brick, 20x90; 1 boiler; 1 engine; iron escape. Est. 1885..... Ordered guard on flywheel.	10	5	15	8
RAESSER & KILIAN MFG. CO. , mfrs. hammocks and flynets, 218, 220 Grand Ave. Factory, 2-st. brick, 32x40. Est. 1885..... Employ about 12 persons outside of factory.	3	4	7	Hand
RAETZ GUS , mfr. carriages, buggies, wagons, etc., 481 First Ave. Shop, 2-st. frame, 22x60. Est. 1888.....	6	.....	6	Hand
RAUSCHENBERGER JOHN , mfr. rope, twine, cordage and hair press mats, 871 Teutonia St. Five buildings — two 2-st. frame, one 20x30, wing 20x30; two 1½-st. frame, 18x280, 26x56; one 1-st. frame, 7x40. Est. 1864..... Ordered railings on stairways in hair shop and warehouse.	17	.....	17	Hand
RAZALL H. G. MANUFACTURING CO. , mfrs. blank books and stationery, 129 Wisconsin St. Building, 4-st. brick, 23x120. Est. 1873..... Ordered fire escape.	20	8	28	Hand
REED BROTHERS , mfrs. shirts, and steam laundry, 133 Mason St. Building, 2-st. brick, 46x120; 1 boiler; 1 engine. Est. 1888.....	2	16	18	10
RELIANCE WIRE WORKS , 144, 146 4th St. Building, 5-st. brick, 50x150; 1 engine; gas power. Est. 1886..... Ordered fire escape. Works on third, fourth and fifth floors.	42	3	45	10
RICE J. H. & FRIEDMANN CO. , mfrs. pants, shirts, overalls, etc., 329, 331 East Water St. Building, 4-st. brick, 40x100; 1 engine, gas power; iron escape. Est. 1856.....	50	50	100	4
RICH A. W. & CO. SLIPPER CO. , 411 to 417 Broadway. Two 4-st. brick, 25x115, 60x115; 2 iron escapes with balconies, one moveable. Est. 1867..... Factory is located over store No. 411 Broadway, on second, third and fourth floors, and the top floor of building adjoining. Stairway in rear of factory building leading to alley with outward swinging doors. Factory is kept neat and clean. Electric power.	150	50	200	12
RICHARDSON GEORGE , book and job printing, 463, 465 Front St. Building, 2-st. brick; 1 boiler; 1 engine. Est. 1886.....	6	2	8	12
RICHTER BROTHERS , art book binders, 279 West Water St. Building, 4-st. brick, 25x150. Est. 1878.....	5	2	7	Hand
RICHTER F. & SONS (successors to George A. Abert), mfrs. steam engines and castings, 382 to 400 6th St. Two buildings — one 2-st. frame, 50x130; one 1-st. frame, 50x100; 1 boiler; 1 engine. Est. 1856.....	50	.....	50	30
RICKETSON'S MINERAL PAINT WORKS , Wilcox St. Six buildings — one 2-st. frame, 24x36; five 1-st. frame, 17x41, 16x24, 25x34, 16x31, 25x46; 1 boiler; 1 engine. Est. 1885..... Ordered railing on stairway.	5	.....	5	30
RIEDEBURG H. & CO. , mfrs. vinegar and yeast, 120 to 124 Menomone St. Four buildings — one 3-st. brick, 60x120; two 1-st. brick, 18x24, 30x40; one 1-st. frame, 30x120; 2 boilers; 1 engine. Est. 1878..... None regularly employed on third floor.	24	2	26	75
RIES BROTHERS , mfrs. casks and tanks, 500 to 507 7th St. Three buildings — one 2-st. brick, 30x109; one 1-st. brick, 27x30; one 1-st. frame, 28x85; 1 boiler; 1 engine. Est. 1881..... Order guard on rip saw, also on flywheel of engine.	17	.....	17	30
RITZLER L. , cooper, 1216 Cold Spring Ave. Two 1-st. frame, 24x40, 20x20. Est. 1874.....	10	.....	10	Hand

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
RIVERSIDE PRINTING COMPANY , 124 Grand Ave. Two buildings — one 4 st brick, 20x60; one 3-st. brick, 20x80; 1 boiler; 1 engine; iron escape. Es. 1867.....	45	.....	45	25
Ordered guards on crank, piston rod and flywheel, also to have fire escape extended to roof.				
ROEBEL & REINHARDT , mfrs. picture and mirror frames, room mouldings, etc., 328, 330 Grand Ave. Two buildings — one 2-st. brick, 24x48; one 1-st. frame. Est. 1886.	6	.....	6	Hand
ROLFS H. CIGAR MFG. CO. , 171 Lake St. Building, 2-st. brick, 30x75. Est. 1882.....	17	3	20	Hand
ROMADKA BROS. , mfrs. trunks and traveling bags, 225, 227 3d St. Four buildings — one 5-st. brick, 50x70; two 4-st. brick; 48x150, 48x80; one 1-st. brick; 2 boilers; 1 engine; 2 iron escapes and bridge. Est. 1848.....	347	3	350	80
Ordered guards on two rip saws, and two cross-cut saws boxed.				
ROTH MANUFACTURING CO. , mfrs. vinegar, pickles, mustard, jellies, etc., 701 to 709 Cedar St. Four buildings — one 2-st. brick, 40x60; one 2-st. frame, 60x70; two 1-st. frame, 70x100, 75x75; 2 boilers; 1 engine. Est. 1854.....	15	10	25	70
During the pickling season about 25 extra hands are employed.				
ROYAL STEAM LAUNDRY (W. E. Field), 398 Clinton St. Building, 2-st. brick, 25x50; 1 boiler; 1 engine. Est. 1886.....	1	5	6	6
RUNDLE, SPENCE & CO. [Plant A.], mfrs. brass and iron goods for plumbers, steam and gas fitters, 63 to 67 2d st. Two buildings — one 5-st. brick, 50x150; one 1-st. frame, 24x80; 1 boiler; 1 engine; 2 iron escapes. Est. 1880.....	125	.....	125	75
RUNDLE, SPENCE & CO. [Plant B.], iron foundries, Virginia and South Water Sts. Five buildings — one 3 st. frame, 32x76; one 2-st frame storage shed; three 1-st frame, 100x150, 24x48, 24x24; 1 boiler; 1 engine. Est. 1888.....	60	.....	60	40
Ordered guard on flywheel; also on rip saw. None regularly employed on third floor.				
SALISBURY LAUNDRY (John Bailey), 217 Grand Ave. Building, 3-st. brick; 1 boiler; 1 engine. Est. 1883.....	3	7	10	15
SANDERS & VERPLANCK , (Eagle Coffee and Spice Mills), 336 to 340 4th St. Building, 3-st. frame, 60x60; 1 boiler; 1 engine. Est. 1878.....	6	2	8	20
SANGER, ROCKWELL & CO. , mfrs. sash, doors, blinds, mouldings, stairs, timber, shingles, lath, pickets, posts, etc., Park St. and Sixth Ave. Ten buildings — two 3-st. brick, 110x217, 65x120; one 2-st. brick, 20x80; two 1-st. brick, each 43x65; five 1-st. frame; 6 boilers; 2 engines. Est. 1871.....	450	.....	450	360
Found some small boys employed in this factory, but none under 13 years of age. The superintendent being spoken to upon the fact, called the foreman and told him henceforth not to hire any boys under 15 years of age.				
SCHINTZ HENRY BOTTLING CO. , mfrs. weiss beer, soda, mineral waters, ginger ale, etc., 759 North Water. Four buildings — three 2-st. frame, 19x66, 28x29, 30x38; one 1-st. frame, 15x59; 1 boiler. Est. 1888.....	10	.....	10	Hand
SCHLITZ JOSEPH BREWING CO. [Plant A.], brewers and maltsters, 3d and Walnut Sts. Twenty-one buildings — one 8-st. frame, 50x150; one 6-st. brick, 54x150; four 5-st. brick, 70x320, 84x110, 80x100, 80x80; three 3-st. brick, 40x100, 18x50, 60x150; two 2-st. brick, 40x50, 35x110; three 1-st. brick, 40x50, 45x60, 60x60; seven 1-st. frame, 40x150, 150x150, 80x100; two 80x140; 11 boilers; 7 engines; 8 iron escapes; 1 bridge. Est 1848.	400	.....	400	650
Found everything about this extensive plant in first-class condition. The superintendent conducted us, and said that the company desires to obey the factory laws of the state, and that if we noticed anything that needed changing, it would be done forthwith. Extensive building improvements were in progress at the time of inspection.				

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
SCHLITZ JOSEPH BREWING CO. [Plant B.,] bottling dept. on South Bay St. Four buildings—two 1-st. brick, each 72x340; two 1-st. frame, 40x144, 54x104; 76x216; 2 boilers; 1 engine. Est. 1886.....	158	78	236	40
SCHMIDT W. H. SASH AND DOOR CO., 7th Ave. and Pierce St. Nine buildings—one 4-st. brick, 29x60; two 3-st. brick, 80x142, 50x60; one 2-st. brick, 40x110; three 1-st. brick, 28x50, 20x80, 40x46; two 1-st. frame, 50x72, 84x46; 3 boilers; 3 engines; 9 wooden ladders and two outside stairways. Est. 1880.....	250	.....	250	308
SCHMITZ PHILIP, cooper, 459 17th St. Shop, 1-st. frame; 20x55x20x25. Est. 1865.....	11	.....	11	Hand
SCHMITT F. & SONS, mfrs. galvanized iron cornices, etc., 301, 303, 4th St. Two buildings—one 3-st. brick, 50x50; one 1-st. brick, 50x76. Est. 1845.....	15	.....	15	Hand
SCHNEIDER & HOEKENDORF, mfrs. fancy shelves and parlor brackets, 1807 Walnut St. Two 2-st. frame, 30x34, 22x30; 1 boiler; 1 engine. Est. 1888..... Ordered guard around pulley of engine.	7	.....	7	15
SCHNECKER V. BOOT & SHOE CO., 538, 540 7th St. Two buildings—one 3-st. brick, 36x100; one 1-st. brick, 20x36; 1 boiler; 1 engine. Est. 1890..... Ordered a fire escape, main door to swing outward and railing on main stairway. Factory was not quite completed at time of inspection. The sanitary conditions promise to be better than those of any shoe factory in the state.	60	30	90	52
SCHOLTZ WM. (Atlantic Steam Laundry), 483 3d St. Building, 2-st. brick; 1 boiler; 1 engine. Est. 1885..... Ordered drive pulley of engine guarded.	3	10	13	10
SCHROEDER JOHN LUMBER CO., planing mill, foot of Walnut St. Two buildings—one 2-st. frame, 61x116; one 1-st. brick, 30x30; 2 boilers; 1 engine. Est. 1887.....	14	.....	14	95
SCHUEPPERT FRANK J., cooper, 573, 575 Second Ave. Three buildings—one 2-st. frame, 22x40; two 1-st. frame, 20x38, 20x38. Est. 1878.....	24	.....	24	Hand
SCHULZ A. GEO. & CO., mfrs. paper boxes, 122 to 126 West Water St. Building, 3-st. brick, 30x100; 1 boiler; 1 engine; iron escape. Est. 1878..... Ordered guard on engine shaft.	15	30	45	8
SCHWAAB STAMP & SEAL CO. THE, 410, 412 Broadway. Building, 4-st. brick, 30x60. Est. 1881.....	12	.....	12	Hand
SCHWAB & SERCOMB, mfrs. "Gilt Edge" hot-air furnaces, and all kinds of castings, 271 to 281 Clinton St. Three buildings—one 3-st. frame, 56x148; two 2-st. frame, 106x106, 36x76; 1 boiler; 1 engine; lower roof adjoining. Est. 1877..... Ordered guards on elevator and on three stairways. Only three or four men employed on third floor.	100	.....	100	35
SCHWARTZBURG H. A., mfr. cigar boxes, 6th St. and North Ave. Building, 2-st. frame, 30x96; 1 boiler; 1 engine. Est. 1889.....	12	16	28	30
"SEEBOTE DER" (German Daily), 96 Mason St. Building, 4-st. brick, 25x60; 1 boiler; 1 engine; wooden escape in rear. Est. 1842.....	56	.....	56	12
SEMMANN H. G., mfr. harness, gig and express saddles, 1211 Lee St. Building, 2-st. frame, 22x45, 18x22; 1 engine; gas power. Est. 1889..... Ordered main door of factory to swing outward.	25	.....	25	4
SENTINEL THE (Daily), publishers and bookbinders, 89 to 93 Mason St. Building, 3-st. brick, 61x64; 1 boiler; 1 engine; iron balcony escape. Est. 1837.....	108	19	122	15
SHAKMAN L. A. & CO., mfrs. clothing, 343, 345 Broadway. Building, 4-st. brick, 40x120; 1 boiler; 1 engine; iron escape. Est. 1853..... Firm employs 450 persons outside of factory.	45	.....	45	12

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
SHAVER JOSEPH GRANITE AND MARBLE CO. THE, mfrs. cemetery work, Walnut and 19th Sts. Two 2-st. frame, 29x48, 29x32; 1 boiler; 1 engine. Est. 1875.	13	.....	13	15
SHERIFF'S ESTATE OF JAMES, mfrs. propeller wheels, steam engines, etc., 124 to 130 Barclay Sts. Three buildings — one 2-st. brick, 60x195; one 2-st. frame, 12x34; one 1-st. brick, 44x80; 1 boiler; 1 engine. Est. 1854.....	45	.....	45	25
SINGER MANUFACTURING CO., salesrooms, adjusting and repairing shops of the Singer Sewing Machine Company, 236 West Water St. Building, 3-st. brick; 1 boiler; 1 engine. Est. 1883..... Only two men employed on third floor.	85	15	100	8
SKOBIS BROTHERS, architectural iron works, 508 Commerce St. Two buildings — one 2-st. frame, 34x40; one 1-st. frame, 16x40; 1 boiler; 1 engine. Est. 1889.....	14	.....	14	8
SLOCUM L. W. & SON, mfrs. and refinishers of straw, felt and beaver hats, 460 Broadway. Two 2-st. brick, 24x66, 18x21; 1 boiler; 1 engine. Est. 1863.....	5	25	30	6
SMITH C. J. & SONS, mfrs. children's carriage hardware. 281, 283 Park St. Four buildings — two 2-st. frame, 24x44, 40x70; one 1-st. brick, 20x20; one 1-st. frame, 10x10; 1 boiler; 1 engine. Est. 1878.....	15	1	16	20
SMITH THOMAS C. & CO., mfrs. harness. 361 East Water St. Building, 3-st. brick, 22x100. Est. 1885.....	6	.....	6	Hand
SOUTH SIDE CIGAR BOX CO., mfrs. cigar, candy, yeast, and other small boxes, 185, 187 Barclay St. Building, 1-st. frame, 24x175; 1 boiler; 1 engine. Est. 1873..... Ordered guard on flywheel; also on rip saw.	9	6	15	35
SPECHT & BROENEN, mfrs. carriages, wagons and sleighs. 461, 463 Grove St. Shop, 2-st. frame, 48x50. Est. 1885.....	8	.....	8	Hand
SPRINKMANN FRED, mfr. "Ainsworth" boiler and pipe covering, 131, 133 Sycamore St. Building, 3-st. brick, 25x40; 1 boiler; 1 engine. Est. 1884.....	5	.....	5	15
STANDARD BRICK CO., Clement Ave. 1 boiler; 1 engine. Est. 1883.....	60	.....	60	45
STANDARD PRINTING CO., 114 Michigan St. Building, 2-st. brick, 40x60; 1 boiler; 1 engine. Est. 1860.....	16	2	18	6
STARKE C. H. & CO., repair shop, canal St. and 4th Ave. Shop, 1-st. frame, 25x162; 1 boiler; 1 engine. Est. 1888..... Ordered flywheel of engine guarded.	5	.....	5	75
STAR KNITTING WORKS, mfrs. seamless hosiery, gloves, mittens, caps, etc., 325 to 329 4th St. Four buildings — two 2-st. brick, 25x75, 30x43; one 2-st. frame, 25x40; one 1-st. brick, 11x31; 1 boiler; 1 engine. Est. 1886.....	20	130	150	25
STAR STEAM LAUNDRY (Lindon Bros.), 417 Grand Ave. Building, 2-st. frame, 22x45; 1 boiler; 1 engine. Est. 1883.....	2	13	15	4
STECKEL ADRIAN, mfr. harness leather, Vogel's Island. Four buildings — one 3-st. brick, 40x100; three 1-st. frame, 41x43, 12x60, 17x19; 1 boiler; 1 engine; outside stairway. Est. 1866.....	17	.....	17	18
STEINL J., mfr. brooms, 861 to 865 Fifth St. Four 1-st. frame, 20x44, 12x14, 24x30, 10x40. Est. 1875.....	13	.....	13	Hand
STELLOH & DRUSE, mfrs. sash, doors, blinds, Orchard, St. and Bismarck Ave. Three buildings — two 2-st. frame, 70x90, 20x50; one 1-st. frame, 22x34; 1 boiler; 1 engine. Est. 1884..... Ordered railing around flywheel of engine, and guards on three rip saws. Accident — Mr. Stelloh, member of firm, lost three fingers by rip saw.	17	.....	17	35

Report of Inspection—Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
STERN BERNHARD MILLING CO., Commerce and Cherry Sts. Four buildings—one 5-st. brick, 50x60; two 5-st. frame, 39x60, 30x60; one 1-st. brick, 16x20; 2 boilers; 1 engine; iron escape, bridged from mill to elevator. Est. 1883. Ordered fire escape extended to roof and guards on stairways.	29	.....	29	250
STILLMAN, MOORE & CO., mfrs. cooperage, foot of Reed St. Seven buildings—Four 2-st. frame, 32x110, 32x90, 36x40, 28x100, 24x80; three 1-st. frame, 30x40, 24x60, 18x50; 2 boilers; 2 engines. Est. 1884.	80	.....	80	68
STOLPER CHAS., cooper, 651 to 665 Third St., and 706 Fifteenth St. Five buildings—two 2-st. frame, 22x125, 21x49; three 1-st. frame, 16x30, 30x32, 16x18. Est. 1855.	65	.....	65	Hand
STRAW & ELLSWORTH MFG. CO., mfrs. gloves, mittens and fur overcoats, 354, 356 Broadway. Building, 5-st. brick, 40x120; 1 engine, gas power; iron escape. Est. 1877. Ordered guard on elevator on first floor.	35	40	75	8
STRUCK BROS, coal merchants, 547 River St.; 1 boiler; 1 engine. Est. 1883.	8	.....	8	8
STUART RUBBER CO., mfrs. druggists' rubber goods, 88 Mason St. Building, 3-st. brick; iron escape. Est. 1874.	5	1	6	Hand
SUHM R. LEATHER CO., 766 to 774 Kinnickinnic Ave. Five buildings—one 3-st. frame, 60x120; one 1-st. brick, 40x40; three 1-st. frame, 20x50, 20x40, 20x45; 2 boilers; 1 engine. Est. 1883.	50	...	50	40
SWAIN & TATE, book and job printing, 387 Broadway. Building, 3-st. brick, 20x80; 1 boiler; 1 engine; gasoline power. Est. 1878. Ordered flywheel of engine guarded.	26	4	30	15
SWAN C. H. & CO., coal merchants, Kneeland slip; 1 boiler; 1 engine. Est. 1855.	15	.....	15	20
TANNER A. F. FURNITURE CO., 4th Ave. and Park St. Three buildings—one 3-st. brick, 27x83x50x73; one 1-st. brick, 32x36; one 1-st. frame, 32x36; 1 boiler; 1 engine; iron balcony escape, lower roofs in rear. Est. 1886. Ordered drive pulley of engine guarded.	70	.....	70	75
TAYLOR H. N., coal merchant, Canal St. 3 boilers; 3 engines. Est. 1884.	32	.....	32	56
THOMAS & WENTWORTH MFG. CO., mfrs. brass and iron goods for brewers, builders, plumbers, steam fitters, etc., 170, 172 West Water St. Building, 4-st. brick; 2 boilers; 2 engines. iron escape. Est. 1872. Ordered guard on rip saw; also on dynamo pulley.	85	1	86	180 *
TOEPFER FRANK, machinist, 460 National Ave. Shop, 2-st. brick, 24x50; 1 boiler; 1 engine. Est. 1876. Ordered railing on stairway.	5	.....	5	5
TOEPFER W. & SONS, mfrs. Toepfer's patent dumping kiln. floors, stationery kiln floors, perforated sheet metals, etc., 84 to 88 Menomone St. Five buildings—Three 2-st. brick, 35x100, 35x50, 50x50; two 1-st. brick, 18x22, 38x105; 1 boiler; 1 engine. Est. 1855.	75	.....	75	12
TRENKAMP F., mfr. "Climax" soap, 209 Michigan St. Four buildings—one 2-st. brick, 31x35; one 1-st. brick, 25x31; two 1-st. frame, 12x25, 16x60; 1 boiler; 1 engine. Est. 1848. Ordered guards around elevator well.	8	.....	8	10
TROSTEL ALBERT, (Phoenix Tannery), mfr. black and russet harness, saddle and collar leather, foot of Sherman St. Tannery 3-st. frame, 65x320; 3 boilers; 1 engine; lower roofs adjoining. Est. 1885. Ordered railing on stairway leading to beam room.	115	.....	115	125

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
TROSTEL ALBERT (Star Tannery), mfr. leather, 893 to 903 North Water St. Five buildings — one 4-st. brick, 52x152; one 2-st. frame, 75x154; one 1-st. brick, 40x50; one 1-st. frame, 46x54; bark shed and leach house, 120x138; 3 boilers, 1 engine; iron escape and lower roof adjoining. Est. 1865..... Ordered flywheel and driving belt in engine room guarded.	230	.....	230	120
TROY LAUNDRY CO., 146 Michigan St. Building 3-st. brick; 40x60; 1 boiler; engine. Est. 1874..... Ordered guard on elevator on second floor. Only three or four persons on third floor.	4	26	30	40
UHRIG B. & SON, coal merchants, Point St. 1 boiler; 1 engine. Est. 1880.....	15	.....	15	35
UIHLEIN BROS., maltsters, Polk and Jefferson Sts. Four buildings — one 5-st. brick, 40x96; one 5-st. frame, 33x58; one 3 st. brick, 90x100; one 2-st. frame, 70x72; 1 boiler; 1 engine. Est. 1880.	17	.....	17	50
USINGER FRED., mfr. sausage, 304 Third St. Three buildings — two 2-st. brick, 20x40, 17x40; one 1-st. frame, 12x16; 1 boiler; 1 engine. Est. 1882.....	15	.....	15	10
VAN DYKE KNITTING CO., 253 to 259 South Water St. Building, 4-st. brick, 66x100; 1 boiler; 1 engine; iron escape. Est. 1884.....	10	115	125	25
VEITCH WM., mfr. packing boxes, Canal St. Five buildings — two 2-st. frame, 70x90, 20x50; one 1-st. brick, 31x40; two 1-st. frame, 12x16, 18x38; 2 boilers; 1 engine. Est. 1865..... Ordered guard on rip saw, and on two shafts in planing mill.	45	... ..	45	120
VOGT P. & CO., mfrs. sash, doors, blinds, 576 to 590 Island Ave. Four buildings — three 2-st. frame, 65x100, 20x50, 24x24; one 1-st. brick, 24x36; 1 boiler; 1 engine. Est. 1886..... Ordered guard on flywheel.	40	.....	40	85
VOSS HERMAN, mfr. blank books and general bookbindery, 372 to 376 Milwaukee St. Building, 4-st. brick, 60x140; 1 engine; iron escape. Est. 1874..... Ordered new cable in elevator.	25	25	50	6
WADHAMS OIL & GREASE CO., 116 to 120 Fowler St. Building, 2-st. brick, 50x200; 1 boiler; 1 engine. Est. 1878..... Ordered guard on flywheel.	18	2	20	25
WAGNER J. G. (Architectural Iron Works), mfr. wrought and cast iron work for buildings, 514 to 520 Market St. Four buildings — two 2-st. brick, 30x67, 45x56; two 1-st. brick, 15x28, 18x20; 1 boiler; 1 engine. Est. 1869.	34	.....	34	8
WALDEN & PALMER, mfrs. children's shoes, 107 Wells St. Factory, 3-st. brick, 20x45; 1 boiler; 1 engine. Est. 1890... .. Ordered fire escape.	3	4	7	3
WALSH F. A. & CO., mfrs. Walsh's patent tinware, St. Paul Ave. Factory, 4-st. brick, 60x200; 2 boilers; 1 engine. Est. 1878..... Ordered two fire escapes and condemned the one now up. The escape is of the staple pattern, and the iron not strong enough. This is a new building and the firm were just moving in. Accident — Fireman severely burned by explosion of lamp.	135	27	162	80
WEBER, A. F., mfr. candy, 416 East Water St. Building, 4-st. brick, 30x70; outside stairway. Est. 1887	3	2	5	Hand
WECHSELBERG, J. P., mfr. carriages and wagons, 218, 220 Wells St. Building, 3-st. brick, 50x50. Est. 1861.....	10	.....	10	Hand
WEIGEL A., mfr. mattresses and spring beds, 352, 354 Broadway. Building, 4-st. brick, 30x120. Est. 1865.....	12	3	15	Hand
WEIS & SCHMIDT, mfrs. stone ware, 750, 752 Second St. Two buildings — one 2-st. frame, 22x60x10x16; one 1-st. frame, 10x30. Est. 1875	5	.....	5	Hand

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
WEISEL & VILTER MANUFACTURING CO., mfrs. steam engines, machinery for brewers, etc., 70 to 82 Chicago St. Seven buildings — one 3-st. brick, 30x132; one 2-st. brick, 60x154; five 1-st. brick, 60x80, 28x38, 35x83, 10x20, 12x30; 1 boiler; 1 engine. Est. 1855	160	.....	160	35
Ordered guard on rip saw. Running night and day. None regularly employed on third floor.				
WENZEL J. H. & CO., book and job printers, 912 Walnut St. Two buildings — one 2-st. frame, 20x48; one 1-st. frame, 14x25; 1 boiler; 1 engine. Est. 1878	5	.....	5	8
WERRBACH, L., weiss beer brewer, and mfr. of soda, seltzer and mineral waters; 89 Biddle St. Three buildings — two 2-st. brick, 25x60, 19x23; one 1-st. frame, 16x20. Est. 1875	8	.....	8	Hand
WESTERN LEATHER CO., mfrs. leather, scrap leather, inner soles, heeling, brush backs, etc., 878 to 890 Marshall St. Two buildings — one 3-st. brick, 100x120; one 1-st. brick, 32x32; 2 boilers; 3 engines; lower roof adjoining. Est. 1886	25	175	200	40
Upper floors used for drying and storage; nearly all work done on first floor. Automatic gates have been ordered for elevator.				
WESTFAHL F. & CO. (Milwaukee File Works), 61, 63 10th St. Two buildings — one 2-st. frame, 30x80, one 1-st. frame, 18x30; 1 boiler; 1 engine. Est. 1864	30	.....	30	35
WEST H. H. & CO., mfrs. blank books, 379, 381 Broadway. Building, 5-st. stone, 106x120. Est. 1869	9	5	14	2
WEST SIDE HIGH SERVICE PUMPING STATION, 10th St. and North Ave. Three buildings and tower — three 1-st. brick, 60x78, 48x50, 43x96; tower 164 ft. high; diameter 25 ft; 2 boilers; 2 engines. Est. 1886	11	.....	11	.....
Daily capacity (24 hours) 9,000,000 gallons.				
WHITNALL & RADEMAKER, coal merchants, Muskego Ave. Est. 1886	5	.....	5	Hand
WIENER E., mfr. upholstered goods, 303 7th St. Factory, 2-st. frame, 25x80. Est. 1883	11	.....	11	Hand
WIENS A. B. & CO. mfrs. brushes, 225 Cedar St. Factory, 4-st. brick, 20x90; iron escape. Est. 1886	6	1	7	1
WIESNER JOHN, cooper, 1227 Vliet St. Shop, 1-st. frame, 20x30. Est. 1861	7	.....	7	Hand
WILKIN MANUFACTURING CO., mfrs. saw-mill machinery, Becker and Ziemer Sts. Nine buildings — one 4-st. brick, 63x163; one 2-st. brick, 25x31; two 1-st. brick, 50x210, 46x55; five 1-st. frame, 18x20, 60x74, 45x85, 35x80, 80x120; 2 boilers; 1 engine; lower roofs adjoining. Est. 1886	143	1	144	200
Ordered railing on stairway.				
WILLER WILLIAM, mfr. interior wood work for fine buildings, 4th and Cedar Sts. Four buildings — one 4-st. brick, 60x100; two 2-st. brick, 50x52, 50x85; one 1-st. brick, 14x32; 2 boilers; 1 engine; iron escape, and lower roof adjoining. Est. 1886	125	.....	125	125
Ordered guards on two rip saws, and cross-cut saw boxed.				
WISCONSIN BOILER WORKS (successors to F. M. Wilkinson), 221 to 231 Oregon St. Four buildings — one 1-st. brick, 20x24; three 1-st. frame, 13x24, 56x100, 33x50; 1 boiler; 1 engine. Est. 1855	35	.....	35	20
Ordered guard on flywheel of punching machine.				
WISCONSIN HAY TOOL CO., 517, 519 Park St. Factory, 2-st. frame, 40x88. Est. 1888	7	.....	7	4
WISCONSIN MALLEABLE IRON CO., South Bay St. Six buildings — one 1-st. brick, 70x270x60x187; five 1-st. frame, 60x129x116x122, 118x160, 60x160, 15x174, 60x194; 2 boilers; 1 engine. Est. 1879	500	.....	500	25
Ordered flywheel and main drive belt guarded.				

Report of Inspection — Milwaukee, Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
WISCONSIN MITES CO. (J. A. & P. E. Dutcher), mfrs. of wrought iron and steel castings, 670 Kinnickinnic Ave. Three buildings — one 4-st. brick, 50x80; two 1-st. brick, 50x90x65x218, 30x30; 1 boiler; 1 engine. Est. 1888	19	.....	19	50
WISCONSIN PLANING MILL CO., east of Kinnickinnic Ave. bridge. Five buildings — one 2-st. frame, 24x36; two 1-st. brick, 41x63, 16x20; two 1-st. frame, 168x448x80x168, 30x120; 3 boilers; 1 engine. Est. 1883	70	.....	70	360
WISCONSIN VENETIAN BLIND CO., 281, 283 Lake St. Two 2-st. brick, 40x45, 25x60; 1 boiler; 1 engine. Est. 1886	6	.....	6	20
WOLF & DAVIDSON, shipbuilders, foot of Washington St. Twelve buildings — seven 2-st. frame, 24x107, 20x30, 30x39, 30x36, 30x60, 20x50; five 1-st. frame, 29x42, 28x62, 30x60, 20x118; 4 boilers; 6 engines. Est. 1866	150	.....	150	195
Ordered guards on flywheel in gig saw room.				
YEWDALDE J. H. & SONS CO., printers, engravers, electrotypers and binders, 123 to 127 West Water St. Building, 2-st. brick, 50x150; 1 boiler; 1 engine. Est. 1865	42	14	56	45
Ordered guard on flywheel. <i>Accident</i> — A boy was killed in June, 1889, by being caught in the flywheel and hurled against the wall. Boy had no business in the engine room; presumably he was putting his coffee canteen on the engine at the time of the accident. The firm paid all bills.				
ZAHN H. H. & CO., book and job printing, 421 East Water St. Building, 3-st. brick, 16x60; 1 boiler; 1 engine. Est. 1887	10	.....	10	8
ZIEGLER GEO. CO., mfg. confectioners, 233 to 239 East Water St. Building, 5-st. brick, 50x120; 2 boilers; 1 engine; moveable iron fire escape. Est. 1862	85	65	150	45
ZINN MALTING CO., 376 to 380 5th St. Three buildings — one 7-st. brick, 38x50; one 5-st. brick, 50x92; one 4-st. brick, 50x100; 2 boilers; 2 engines; lower roof adjoining. Est. 1874	18	.....	18	60
Ordered fire escape on dry kiln.				
ZINN MANUFACTURING CO. THE, mfrs. "Rosa" sad-iron, 426 9th St. Building, 2-st. brick, 22x40. Est. 1888	6	.....	6	Hand
ZOEHLRAUT HERMAN LEATHER CO., 809 to 825 North Water St. Four buildings — one 5-st. brick, 81x96x41x44; one 3-st. frame, 99x191; one 1-st. brick, 45x100x47x92; one 1-st. frame, 34x138; 4 boilers; 1 engine; two main stairways and adjoining roofs. Est. 1857	205	.....	205	200
Nearly all the men employed in finishing department work on second and third floors, which are connected with tannery. Fourth and fifth floors are used for drying.				
ZWIETUSCH OTTO, mfr. soda water apparatus, 705 to 719 Chestnut St. Four buildings — one 3-st. brick, 31x47; one 2-st. brick, 31x76; two 1-st. brick, 21x82, 9x22; 1 boiler; 1 engine. Est. 1858	28	.....	28	10
KATZENSTEIN E. & CO., mfrs. clothing, 243, 245 East Water St. Building, 4-st. brick, 30x120; 1 boiler; iron escape. Est. 1870. Firm employ about 300 persons outside the factory. [Reported too late for alphabetical insertion.]	15	.....	15	Hand
<i>MINERAL POINT.—IOWA CO.</i>				
<i>Inspected May, 1889, by Moore.</i>				
GILMAN CHAS., brewer. One 2-st. stone; 1 boiler; 1 engine. Est. 1843	10	.....	10	12
This brewery was started in 1843. It was blown to pieces by the memorable cyclone of 1878, and rebuilt the same year.				
MINERAL POINT ZINC CO., mfrs. oxide of zinc. Three buildings — one 3-st. stone; two 1-st. frame; 3 boilers; 1 engine. Est. 1882	60	...	60	100
Ordered railing on stairs, and guard on flywheel of engine.				

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
MONROE.—GREEN CO.				
<i>Inspected May, 1889, by Moore.</i>				
CHURCHILL, DODGE & WEIRICH, mfrs. sash, doors, blinds, refrigerators, cheese boxes, etc. Two buildings—one 3-st. frame; one 2-st. frame; 1 boiler; 1 engine. Est. 1858.....	15	.....	15	40
Ordered guards on two circular saws. None employed on third floor.				
CRAVEN, WOOD & CHURCHILL, mfrs. brick. Engine sheds and yards; 1 boiler; 1 engine. Est. 1887.....	24	.....	24	20
FITZGIBBON BROS., mfrs. carriages and wagons. Shop, 2-st. brick. Est. 1880.....	12	.....	12	Hand
FREIZE, F., mfr. brick. Est. 1884.....	6	.....	6	Hand
HIGBY W. E., mfr. brick. Est. 1888.....	6	.....	6	Hand
MONROE BREWING CO., one 2-st. brick. Est. 1845..	9	.....	9	Hand
MONROE MANUFACTURING CO., mfrs. wagons, corn cultivators, wood saws, etc. Factory, 2-st. brick; 1 boiler; 1 engine. Est. 1872.....	15	.....	15	20
Ordered guard on circular saw.				
MONROE SENTINEL THE, printing and publishing. One 2-st. brick; 1 boiler; 1 engine. Est. 1858.....	5	.....	5	2
MONTELLO.—MARQUETTE CO.				
<i>Inspected Aug., 1889, by Moore.</i>				
BERLIN & MONTELLO GRANITE WORKS. Quarry, chipping sheds. Hotel, 2-st. frame; woolen mill, 3-st. brick; feed mill, 1-st. brick; several dwellings and 4 acres of land. Est. 18— The firm are making great improvements, estimated to cost about \$20,000. One of the workman told me work is plenty and wages good; he had not had an idle day in two years.	100	.....	100	w 500
MOSINEE.—MARATHON CO.				
<i>Inspected June, 1889, by Claymier.</i>				
DESSENT J. & CO., mfrs. lumber, lath, shingles. Eight buildings—two 2-st. frame; four 1-st. frame; two 1-st. brick; 2 boilers. Est. 1842.....	125	.....	125	w 565
Ordered guard on rip saw. Boarding house connected. Accident.—A man had a foot cut off by by slasher saw.				
KRONENWETTER S., mfr. lumber. Three buildings—one 2-st. frame; two 1-st. frame. Est. 1870.....	28	.....	28	w 60
NECEDAH.—JUNEAU CO.				
<i>Inspected July, 1889, by Claymier.</i>				
LYMAN LUMBER CO., mfrs. lumber, lath, shingles. Seven buildings—one 2-st. frame; six 1-st. frame; 8 boilers; 3 engines. Est. 1880.....	146	4	150	300
Accident.—A workman lost three fingers.				
NECEDAH LUMBER CO., mfrs. lumber, lath, shingles. Eight buildings—two 2-st. frame; four 1-st. frame; two 1-st. brick; 8 boilers; 3 engines. Est. 1849.....	151	14	165	375
Accident.—Girl had two fingers cut off in shingle mill.				
NEENAH.—WINNEBAGO CO.				
<i>Inspected April, 1889, by Claymier.</i>				
AYLWARD WM. & SON, mfrs. stoves and plows. Four buildings—one 1-st. brick; three 1-st. frame; 1 boiler; 1 engine. Est. 1873.....	12	.....	12	35
BERGSTROM BROS. & CO., mfrs. stoves, ranges, hollowware, etc. Six buildings—two 3-st. brick; one 2-st. brick; two 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1878.....	75	.....	75	60
Ordered guards around elevator well. None regularly employed on third floor.				

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
KIMBERLY & CLARK CO., mfrs. paper. Three plants; nine buildings — one 3-st. stone; one 3-st. brick; two 2-st. brick; five 1-st. brick; 8 boilers; 3 engines. Est. "Globe" mill, 1872; "Badger" mill, 1884; new mill, 1886.	137	86	223	{ s 440 w 1,050
Ordered fire escape on 3-st. brick building, also railing around a hole in second floor, in the Globe mill. Firm put in a 100 H. P. engine last year. The machinery is well guarded and the two mills are combined. Only three men are employed on third floor in stone building. Ordered two main doors to swing outward; guard in basement on one of the elevators; a hole cut in the floor from attic down to third floor with ladder leading down, and fire escape on the 3-st. brick building, from third floor. The attic is used for storing, with but one outlet. In case of fire, there would be but a bare chance of escape for the men employed up there. There is only one stairway handy to those employed on third floor to go down second floor.				
KRUEGER & LACHMANN, merchant millers. Five buildings — one 3-st. stone; one 3-st. frame; two 2-st. frame; one 1-st. frame. Est. 1889.	8	1	9	w 200
Ordered railing on stairway, and projecting key on gearing capped.				
NEENAH BOOT & SHOE MFG. CO., mfrs. women's, misses' and children's shoes. Factory, 3-st. brick; iron fire escapes. Est. 1882.	36	26	62	w 15
NEENAH PAPER CO., mfrs. print and book paper. Three buildings — one 2-st. brick; one 1-st. brick; one 1-st. frame; 2 boilers. Est. 1873.	45	20	65	w 600
Ordered guard on elevator.				
NEENAH PLANING MILLS THE. Three buildings — two 3-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1888.	20	.....	20	52
Ordered main door to swing outward; also railing on stairways, and guards on two rip saws. None regularly employed on third floor. <i>Accident.</i> — A workman lost one finger on rip saw.				
WINNEBAGO PAPER MILLS, mfrs. print and book paper. Six buildings — two 2-st. brick; one 1-st. brick; three 1-st. frame; 3 boilers; 2 engines. Est. 1873.	50	50	100	{ s 375 w 375
<i>Accident.</i> — A workman injured his hip by the slipping of a ladder while he attempted to climb on top of boiler. The firm paid his full wages and the doctors' bill.				
WULFF, WALKER & CO. (City Mills), mfrs. flour. Two buildings — one 2-st. frame; one 1-st. frame.	6	.....	6	w 80
NEILLSVILLE. — CLARK CO.				
<i>Inspected Aug., 1889, by Claymier.</i>				
ALLEN & PENNOCK, mfrs. spokes and staves. Three buildings — one 2-st. frame; two 1-st. frame; 1 boiler; 1 engine. Est. 1883.	14	.....	14	40
FREE & PHILLIPS, planing and shingle mill. Two buildings — one 2 st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1881.	5	.....	5	45
Ordered guard on rip saw.				
HEIN & MEYER, mfrs. staves and heading. Three 1-st. frame; 1 boiler; 2 engines. Est. 1882.	35	.....	35	108
NEILLSVILLE BREWERY. Three buildings — one 2-st. brick; one 1-st. brick; one 1-st. stone; 1 boiler; 1 engine. Est. 1886.	5	.....	5	10
NEILLSVILLE COIL HOOP CO., mfrs. coil barrel hoops, planing mill, etc. Factory, 2-st. frame; 1 boiler; 1 engine. Est. 1889.	10	.....	10	50
Ordered guards on two rip saws and on slasher saw.				
NEILLSVILLE MILLING CO. Three buildings — two 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1880.	6	.....	6	60

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
NEW.—LANGLADE CO.				
<i>Reported by firm.</i>				
DOBBS T. M., mfrs. lumber and shingles. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1880	5	.....	5	35
NEW DENMARK.—BROWN CO.				
<i>Reported by firm.</i>				
BUCKMANN & WITTIG, mfrs. flour and lumber. Grist mill 3-st. frame; saw mill, 1-st. frame; 1 boiler; 1 engine. Est. 1885	8	.....	8	50
NEW DIGGINGS.—LAFAYETTE CO.				
<i>Inspected May, 1889, by Moore.</i>				
SALEWATER MINING CO., lead mining. Engine shed; 1 boiler; 1 engine. Est. 1888	29	.....	29	40
NEW HOLSTEIN.—CALUMET CO.				
<i>Inspected July, 1889, by Moore.</i>				
OPTENBERG H. & CO., mfrs. boilers, engines and sheet iron work. Shop, 1-st. frame; 1 boiler; 1 engine. Est. 1885.....	7	.....	7	12
NEW LISBON.—JUNEAU CO.				
<i>Inspected July, 1889, by Claymier.</i>				
NEW LISBON BREWERY. Four buildings—one 2-st. brick; one 2-st. frame; 1-st. stone; 1-st. frame; 1 boiler; 1 engine. Est. 1859.....	5	.....	5	10
SMART J. & E., mfrs. flour and feed, lumber, lath, shingles. Flour mill 3-st. frame; saw mill, 1-st. frame. Est. 1889.....	6	.....	6	w 175
Ordered guard at head of stairway on second floor.				
NEW LONDON.—WAUPACA CO.				
<i>Inspected Aug., 1889, by Moore.</i>				
FOOT & GILMAN, mfrs. flour; mill, 2-st. frame; 1 boiler; 1 engine. Est. 1865.....	5	.....	5	40
JOHNSON MANUFACTURING CO., mfrs. lumber and excelsior. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1881.....	30	.....	30	50
KNAPSTEIN T. & CO, brewer. Building—2-st. frame; 1 boiler; 1 engine. Est. 1869.....	6	.....	6	10
LYON, DOUGHERTY & KNAPSTEIN, mfrs. lumber. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1884.....	10	.....	10	45
"Lumber interests are gradually dying out in this part of the state."				
NEW LONDON FURNITURE CO., mfrs. bed room furniture. Four buildings—two 2-st. frame; one 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1887.....	45	.....	45	35
Ordered guard on flywheel, also on rip saw. Accident.—A workman lost tips of four fingers.				
NEW RICHMOND.—ST. CROIX CO.				
<i>Inspected Sept., 1889, by Claymier.</i>				
JOHNSON WM. & BRO., mfrs. flour and feed. Four buildings—one 4-st. frame; one 2-st. frame; two 1-st. frame. Est. 1882....	15	.....	15	w 90
MOSHER O. M. & CO. mfrs. feed. Three buildings—one 2-st. frame; one 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1879.....	6	.....	6	40
WILLOW RIVER LUMBER CO., mfrs. lumber, lath, shingles. Five buildings—two 2-st. frame; three 1-st. frame; 4 boilers; 2 engines. Est. 1881.....	50	.....	50	100

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
NEWTON. — VERNON CO.				
<i>Reported by firm.</i>				
AIKEN LORING A., mfrs. flour and lumber. Flouring mill 3½-st. frame; saw mill, 1-st. frame. Est. 1868.....	6	.....	6	w 75
NORRIE — MARATHON CO.				
<i>Inspected Aug., 1889, by Moore.</i>				
NYE CHAS., mfr. lumber and shingles. Sawmill, 2-st. frame; 2 boilers; 1 engine. Est. 1881.....	30	.....	30	80
<i>Accidents. — Workman hit by broken belt; another struck on head by piece of timber. Slight injuries.</i>				
NORTH FREEDOM. — SAUK CO.				
<i>Inspected June, 1889, by Moore.</i>				
BLATCHLY J. M., mfr. staves and hardwood lumber. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1877.....	14	.....	14	30
<i>Ordered shaft boxed, and belts and holes in floor through which belts run covered. Saw mill runs in winter only.</i>				
NORTH FREEDOM VENITIAN AND METALIC PAINT CO. Factory, 2-st. frame; 1 boiler; 1 engine. Est. 1889.....	7	.....	7	45
SCHLOEMER G., mfr. staves and barrel stock. Mill, 1-st. frame. Est. 1889.....	6	.....	6	.....
NORTHPORT. — WAUPACA CO.				
<i>Inspected Aug., 1889, by Moore.</i>				
BROWN J. L., mfr. lumber, lath and bed slats. Three build- ings — one 2-st. frame; one 2-st. stone; one 1-st. frame; 3 boilers; 2 engines. Est. 1872.....	30	.....	30	80
<i>One of the employes who has worked for this firm for fifteen years, says he has never known of an accident at this mill.</i>				
NORTH STAR. — CRAWFORD CO.				
<i>Reported by firm.</i>				
COOK A. T., mfr. lumber Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1885.....	5	.....	5	25
OAKDALE. — MONROE CO.				
<i>Reported by firm.</i>				
UNDERWOOD JAMES E., mfr. lumber and flour. Mill, 2-st. frame; 1 boiler; 1 engine. Est. 1885.....	15	.....	15	25
OCONTO. — OCONTO CO.				
<i>Inspected July, 1889, by Moore.</i>				
ADAMS & HASTINGS, mfrs. boxes. Two buildings — one 1-st. frame; one 1-st. brick; 5 boilers; 1 engine. Est. 1886.....	235	.....	235	175
ALLMORE & DELANEY, mfrs. cedar posts and cedar shingles. Mill, 2-st. frame; 1 boiler; 1 engine. Est. 1886.....	25	.....	25	25
<i>Ordered guard around belt on ground floor.</i>				
HOLT LUMBER CO., mfrs. lumber and lath. Five buildings — one 3-st. frame; three 1-st. frame; one 2-st. frame; 9 boilers; 2 engines; fire escape on boarding house. Est. 1859.....	120	.....	120	568
<i>I could not suggest anything that could have made this mill more safe than it is. The mill boss says he is constantly watching for dangerous places, and both men and mill prove his statements. He says it is for his interest to do so, be- cause every accident draws two or three dollars from his pocket, by the system of mutual insurance existing among the employes. He never allows a nervous man to work at saws, and cited the instance of a German who wanted to fill a vacancy because the position paid 25 cents more per day. After watching the man for an hour, he was obliged to re-</i>				

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
move him for fear of an accident. <i>Accidents.</i> —A young man lost two fingers by being caught in chain; another received a bad flesh wound between thumb and index finger. In the latter instance the workmen raised \$100 for his benefit.				
OCONTO COMPANY THE, mfrs. lumber and lath. Five buildings—one 3-st. frame; one 2-st. frame; three 1-st. frame; 7 boilers; 1 engine; fire escape on boarding house. Est. 1865.... Boarding house and company's store connected.	45	.....	45	350
OCONTO PUBLISHING CO. Building, 2-st. brick; 1 boiler; 1 engine. Est. 1871.....	9	.....	9	10
SPIES JACOB, mfr. lumber and shingles. Four buildings—two 2-st. frame; two 1-st. frame; 4 boilers; 2 engines. Est. 1849..... Boarding house connected.	35	.....	35	75
<i>OCONTO FALLS.—OCONTO CO.</i>				
<i>Inspected Aug., 1889, by Moore.</i>				
FALLS MANUFACTURING CO. THE, mfrs. wood pulp. Three buildings—two 1-st. frame; one 1-st. stone. Est. 1884. Ordered railing around large gearing.	35	.....	35	w 1200
<i>OGDENSBURG.—WAUPACA CO.</i>				
<i>Inspected Aug., 1889, by Moore.</i>				
DURFEE J. H., mfr. flour and lumber. Flour mill, 2-st. frame; saw mill, 1-st. frame; 1 boiler; 1 engine. Est. 1882....	8	.....	8	{ s 20 w 70
<i>OGEMA.—RICE CO.</i>				
<i>Inspected Oct., 1889, by Claymier.</i>				
HOLMS B. M., mfr. lumber, lath, shingles. Four buildings—two 2-st. frame; two 1-st. frame; 4 boilers; 2 engines. Est. 1874. Ordered railing at head of stairs in saw mill and guard on rip saw in planing mill. Boarding house and store connected.	60	.....	60	125
<i>OIL CITY.—MONROE CO.</i>				
<i>Reported by firm.</i>				
FULMER D. M. & CO., mfrs. flour. Mill, 3-st. frame. Est. 1879.	5	.....	5	w 40
<i>OLIVET.—PIERCE CO.</i>				
<i>Reported by firm.</i>				
HAWN C. A. & SONS, mfrs. lumber. Mill, 2-st. frame; 1 boiler; 1 engine. Est. 1882.....	8	.....	8	50
RIDOUT CHAS., mfr. staves. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1882.....	14	.....	14	40
<i>OMRO.—WINNEBAGO CO.</i>				
<i>Inspected Aug., 1889, by Moore.</i>				
WEBSTER H. H. & CO., mfrs. lumber. Mill, 2-st. frame; 2 boilers; 1 engine. Est. 1859.....	30	.....	30	80
<i>ONALASKA.—LA CROSSE COUNTY.</i>				
<i>Inspected May, 1889, by Claymier.</i>				
ISLAND MILL LUMBER CO., mfrs. lumber, lath, shingles, etc. Six buildings—two 2-st. frame; two 1-st. frame; two 1-st. brick; 7 boilers; 2 engines. Est. 1882. Ordered guards on three saws. <i>Accident.</i> —A workman lost two fingers while at work on slasher saw.	104	11	115	185

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
NICHOLS C. H. LUMBER CO. , mfrs. lumber, lath, shingles. Ten buildings—one 2-st. frame; five 1-st. frame; two 1-st. stone; one 1-st. brick; 5 boilers; 3 engines. Est. 1881..... Ordered guard on rip saw. Mill runs day and night up to July 10. Not a single accident has occurred in this mill for five years.	100	10	110	135
ONTARIO.—VERNON CO. <i>Reported by firm.</i>				
SANDON & WHITE , mfrs. lumber and flour. Three buildings—two 2-st. frame; one 1-st. frame. Est. 1865.....	7	.....	7	w 80
OSHKOSH.—WINNEBAGO CO. <i>Inspected April, 1889, by Claymier.</i>				
BANDEROB & CHASE , mfrs. oak, ash and maple furniture. Five buildings—two 4-st. frame; one 3-st. frame; two 1-st. frame; 2 boilers; 1 engine. Est. 1885..... Ordered guard on one rip saw. This factory is well supplied with means of fire escape. The paint and finishing shop has a fire escape and is bridged at third and fourth floors. The three-story frame factory has a stairway escape in the rear, and is connected by bridges at third and fourth floors, with the four-story factory building. Notwithstanding the size of this factory, I did not find a boy under 14 employed here. The firm say it does not pay. <i>Accident</i> —Two workmen received slight injuries to their hands, one whose hand was drawn over a saw; the other lost the fingers of one hand on a planer.	129	1	130	45
BATTIS BROS. , mfr. steam boilers, tanks, etc. Two buildings—one 1-st. stone; one 1-st. brick; 1 boiler; 1 engine. Est. 1853.	10	.....	10	12
BRAND ROBERT , mfr. bank, office, library and lodge furniture. Three buildings—two 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1876..... Ordered guard on rip saw.	12	.....	12	20
BROOKLYN BREWERY . Five buildings—one 3-st. brick; two 2-st. brick; one 3-st. frame; one 2-st. frame; 1 boiler; 1 engine. Est. 1867.....	10	.....	10	14
BUCKSTAFF, EDWARDS & CO. , mfrs. coffins and caskets, cane and wood seat chairs. Seven buildings—four 3-st. frame; two 1-st. frame, one 1-st. stone; 6 boilers, 1 engine; main buildings bridged. Est. 1869..... Ordered piston rod and crank guarded. Fire October 23, 1889, damaged about \$11,000. <i>Accident</i> —A boy had his fingers crushed in gearing of planer.	160	45	205	153
BURNS ALEX. , mfr. steam boilers. Shop, 1-st. frame; 1 boiler; 1 engine. Est. 1872.....	8	.....	8	4
CAMPBELL BROS. & CAMERON , mfrs. lumber, lath, shingles; packing boxes, etc. Seven buildings—two 2-st. frame; four 1-st. frame; one 1-st. stone; 4 boilers; 2 engines. Est. 1871..... Ordered guard on rip saw and railing on stairway in factory, and cover over slasher saw in saw mill. <i>Accident</i> —A boy lost an eye by a sliver flying from a rip saw.	91	.....	91	185
CHALLONER'S SONS GEO. , mfrs. shingle and mill machinery. Six buildings—three 1-st. brick; one 1-st. frame; two 1 st. stone; 1 boiler; 1 engine. Est. 1887..... Ordered guard on flywheel.	35	.....	35	20
CLARK J. L. , mfr. carriages, "Climax" spring wagons, delivery wagons, etc. Three buildings—one 2-st. frame; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1881..... Ordered guard on slasher saw, and railing on stairway. This is one of the model factories of the state, for cleanliness, sanitary conditions and all other arrangements. No children under 15 are employed.	153	7	160	140

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
CONLEE LUMBER CO., mfrs. lumber, lath, shingles, etc. Three buildings—one 2-st. frame; two 1-st. frame; 4 boilers; 2 engines. Est. 1884..... Ordered guard on slasher saw. Saw mill burned July 5th, 1889. Damage \$25,000.	58	2	60	130
CRESCENT STEAM LAUNDRY. Building 2-st. brick; 1 boiler; 1 engine. Est. 1889..... Ordered guard on shaft.	1	6	7	15
DIAMOND MATCH CO. THE. Five buildings—four 2-st. brick; one 1-st. brick; 2 boilers; 2 engines. Est. 1881..... Ordered new cable in one of the elevators; guard around elevator in warehouse, and guard on rip saw. The sanitary conditions are as good as they can be made in a match factory. There are now two fans, one leading from a big pipe through the factory, the other attached to a pipe leading from the dipping table. There is also a long fan under the ceiling for drying the matches. Accident.—A workman lost his thumb while working on saw.	25	50	75	90
EAGLE IRON WORKS THE (C. C. Paige), mfr. water wheels, steam engines, pumps, etc. Four buildings—one 2-st. frame; three 1-st. frame; 1 boiler; 1 engine. Est. 1855.....	12	.....	12	25
GAMBRINUS BREWERY THE. Five buildings—one 3-st. brick; two 2-st. frame; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1875.....	7	.....	7	15
GILLINGHAM & SON, mfrs. carriages, wagons, trucks, etc. Two buildings—one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1861.....	10	.....	10	8
GOULD J. P., mfr. sash, doors, blinds, lumber, lath, shingles. Ten buildings—four 2-st. frame; five 1-st. frame; one 1-st. brick; 7 boilers; 2 engines; main factory buildings bridged. Est. 1869. Accident.—A boy lost four fingers while working on planer.	85	.....	85	160
GRIFFITH G. C., mfr. trunks, valises, etc. Four buildings—two 2-st. frame; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1884..... Ordered guard on slasher saw.	17	1	18	60
HICKS LOCK CO. THE. Three buildings—one 3-st. brick; two 1-st. brick; 2 boilers; 2 engines; four iron escapes. Est. 1887..	20	15	35	170
McMILLEN R. & CO., mfrs. lumber, shingles, sash, doors, blinds, etc. Eleven buildings—five 2-st. frame; one 1-st. brick; five 1-st. frame; 8 boilers; 4 engines. Est. 1863..... Ordered guards on one rip saw, and two set screws. Accidents—One workman had two fingers cut off by saw, and a boy lost three fingers on a small planer.	291	9	300	211
MAPLE CITY CHAIR CO. Seven buildings—one 3-st. brick; one 3-st. stone; two 2-st. frame; three 1-st. frame. Warehouses are bridged; lower roofs adjoining; 1 boiler; 1 engine. Est. 1886. Ordered fire escape; also guard on rip saw.	65	35	100	35
MORGAN BROS. & CO., mfrs. lumber, lath, shingles. Two buildings—one 2-st. frame; one 1-st. frame; 3 boilers; 1 engine. Est. 1869.....	43	7	50	90
MORGAN CO. THE, mfrs. doors, blinds, glazed windows, etc. Six buildings—five 2-st. frame; one 1-st. brick; 4 boilers; 1 engine; factories bridged at second floors. Est. 1869..... Ordered guards on three slasher saws, and on two rip saws; also guards on flywheel, piston rod and crank. (Formerly Eagle Lumber Company.)	159	6	165	150
NORTHWESTERN SEWER PIPE CO., mfrs. concrete cement pipe. Four buildings—one 2-st., three 1-st. frame; 1 boiler; 1 engine. Est. 1884.....	10	1	11	25

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
OSHKOSH CASKET CO. THE, mfrs. cloth-covered caskets. Factory, 2-st. brick; 1 boiler; 1 engine. Est. 1889	7	3	10	20
Ordered guard on rip saw and pipe in engine room covered.				
OSHKOSH ELECTRIC LIGHT AND POWER CO. THE. Two 1-st. frame; 2 boilers; 2 engines. Est. 1885	6	.....	6	180
Ordered caps on four hubs of flywheels.				
OSHKOSH FUEL MANUFACTURING CO., mfrs. kindling fuel. Factory, 2-st. frame; 2 boilers; 1 engine. Est. 1889	5	10	15	25
OSHKOSH FURNITURE CO. Seven buildings—one 4-st. frame; one 3 st. frame; five 1-st. frame; 1 boiler; 1 engine. Est. 1884 ..	40	.....	40	50
Ordered a fire escape; also guard on rip saw and rail around elevator well on second and fourth floors. <i>Accident.</i> —A workman lost a finger while working on a planer. The machine was provided with a safety guard, but the man had taken it off.				
OSHKOSH GAS LIGHT CO., mfrs. gas and electric light. Two buildings—one 2-st. brick; one 1-st. brick; and fuel shed; 1 boiler; 2 engines. Est. 1869	7	.....	7	100
Ordered guard on flywheel.				
OSHKOSH LOGGING TOOL CO., mfrs. lumber and river driving tools. Two buildings—one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1887	15	....	15	30
Ordered guard on rip saw, railing on stairway, and main door to swing outward.				
OSHKOSH NORTHWESTERN THE, printing and publishing. Two buildings—one 2-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1849	43	2	45	8
Ordered guard on pulley of main shaft.				
OSHKOSH PUMP CO. THE, mfrs. iron pumps. Two buildings—one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1886 ..	30	.....	30	15
Ordered main door to swing outward.				
OSHKOSH STEAM LAUNDRY. Building, 1-st. frame; 1 boiler; 1 engine. Est. 1888	1	6	7	8
Ordered guards on pulley and flywheel.				
OSHKOSH TIMES THE, printers and publishers. Building, 2-st. brick; 1 boiler; 1 engine. Est. 1884	41	1	42	12
OSHKOSH WATER WORKS CO. Three 1-st. brick buildings; 4 boilers; 2 engines. Est. 1884	6	....	6	600
Daily capacity 8,000,000 gallons.				
PAINE LUMBER CO., mfrs. lumber, sash, doors, blinds. Fourteen buildings—one 3-st. frame; one 2-st. brick; one 1-st. frame; three 2-st. frame; one 1-st. brick; eight 2-st. and 1-st. warehouses; 10 boilers; 7 engines. Est. 1855	625	25	650	1140
Ordered new cable in one of the elevators; two set-screws capped; railing on stairway, and guard on elevator. Found one boy under 12 and one under 14; the latter had been working for over a year. The firm discharged both. <i>Accident.</i> —A workman broke a leg by failure of a dog catching a log as carriage was coming back. Firm paid full wages and doctor's bill. Mr. Paine, Jr., accompanied me through the shops, and took note of all suggestions and orders as we went along. The firm are anxious to do anything which may insure safety to employees.				
RADFORD BROS. & CO., mfrs. lumber, lath, shingles, sash, doors, blinds, etc. Eight buildings—three 2-st. frame; four 1-st. frame; one 1-st. brick; 10 boilers; 2 engines. Est. 1871	197	3	200	225
Ordered guard on rip saw and guards on two elevators in warehouse.				
RELIANCE MILLS (F. Laabs), mfr. flour. Two buildings—one 2-st. frame; one 1-st. stone; 2 boilers; 1 engine. Est. 1879	7	....	7	60
Ordered railing on stairway on second floor.				

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
SANFORD A. LOGGING TOOL CO., mfrs. lumbermen's tools. Two buildings—one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1853. Ordered guard on rip saw.	12	.....	12	15
SCHMIDT BROS., mfrs. flour. Two buildings—one 3-st. stone; one 1-st. stone; 2 boilers; 1 engine. Est. 1883. Ordered railing on stairway on second and third floors.	8	.....	8	150
SCHMIT BROS. CO., mfrs. trunks and traveling bags. Four buildings—one 3-st. frame; one 2-st. frame; one 1-st. frame; one 1-st. brick; 2 boilers; 1 engine; platform escapes running entire length of building connected with stairway. Est. 1870. The saws in this factory are provided with the Cincinnati guards. The foreman speaks very highly of the appliance.	80	.....	80	40
STANHILBER AMOS & CO., mfrs. lumber, lath, shingles, etc. Three buildings—one 2-st. frame; two 1-st. frame; 4 boilers; 1 engine. Est. 1882.	53	7	60	150
STAR FOUNDRY AND MACHINE WORKS (J. A. Barnes), mfr. steam engines, pumps, etc. Three buildings—one 2-st. frame; two 1-st. frame; 1 boiler; 1 engine. Est. 1886.	15	.....	15	15
STREICH A. & BRO., mfrs. wagons, buggies, dump carts, etc. Five buildings—three 2-st. frame; two 1-st. frame. Est. 1885. None employed on third floor.	18	.....	18	Hand
STREICH GABRIEL, mfr. lumber wagons, dump carts, etc. Six buildings—three 2-st. frame; three 1-st. frame; 1 boiler; 1 engine. Est. 1867. Ordered railing on stairway. No children under 16 employed.	25	.....	25	25
THOMPSON CARRIAGE CO. Shop, 2-st. frame; 1 boiler; 1 engine. Est. 1887. Ordered guard on flywheel; also guards on rip and slasher saws. This is a very neat and clean factory.	46	4	50	35
UNION BREWERY (J. Glatz & Son). Building 2-st. frame; 1 boiler; 1 engine. Est. 1869.	7	.....	7	10
UNION IRON WORKS, mfr. steam engines, sawmill work, etc. Two 1-st. frame; 1 boiler; 1 engine. Est. 1886. Ordered main door to swing outward.	15	.....	15	15
WAKEFIELD MILLS (Foote Bros. & CO.), mfrs. flour. Two buildings—one 3-st. brick; one 1-st. brick; 3 boilers; 1 engine. Est. 1874.	7	.....	7	150
WARWICK W. P. & CO., mfrs. flour and feed. Four buildings—one 3-st. frame; one 2-st. frame; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1888. Ordered railings on stairways.	5	.....	5	35
WILLIAMSON & LIBBY LUMBER CO., [Plant A], mfrs. lumber, lath, shingles. Six buildings—five 2-st. frame; one 1-st. brick; 4 boilers; 1 engine. Est. 1866. Ordered new cable in steam elevator; guards on two elevators in two warehouses, and cover cover slasher saw. <i>Accident.</i> —A boy had a leg cut off by a slasher saw. He was piling lumber and fell on top of the saw, and but for timely help his body would have been cut in two.	134	1	135	175
WILLIAMSON & LIBBY LUMBER CO., [Plant B], mfrs. lumber, lath, shingles. Four buildings—one 2-st. frame; two 1-st. frame; one 1-st. brick; 4 boilers; 1 engine. Est. 1881.	45	.....	45	100
WILSON ANDREW, mfr. "Climax" spring wagons. Factory, 2-st. brick. Est. 1885. Ordered guard around elevator, and main door to swing outward.	12	.....	12	Hand
WISCONSIN TELEGRAPH THE, printing and publishing. Building 2-st. brick; 1 boiler; 1 engine. Est. 1854.	10	4	14	4

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
OSTRANDER.— WAUPACA CO. <i>Inspected Aug., 1889, by Moore.</i>				
OSTRANDER MANUFACTURING CO., mfrs. furniture. Five buildings—two 2-st. frame; three 1-st. frame; 2 boilers. Est. 1884 Ordered railing on stairs.	30	5	35	w 90
OTTER CREEK.— EAU CLAIRE CO. <i>Reported by firm.</i>				
EAU CLAIRE WOOLEN MILL CO., mfrs. cassimeres, flannels and yarns. Three buildings—one 2½-st. frame; one 2-st. frame one 1-st. frame; 1 boiler. Est. 1871.....	6	6	12	w 15
PALMYRA.— JEFFERSON CO. <i>Inspected April., 1889, by Moore.</i>				
PALMYRA MANUFACTURING CO., mfrs. smokeless and noiseless engines. Two buildings—one 2-st. brick; one 1-st. frame; 2 boilers; 2 engines. Est. 1888.....	7	.....	7	30
PESHTIGO.— MARINETTE CO. <i>Inspected July, 1889, by Moore.</i>				
PESHTIGO COMPANY THE, mfrs lumber, lath, shingles. Eight buildings—one 3-st. frame; two 2-st. frame; five 1-st. frame. Est. 1847.....	95	.....	95	w 700
This mill is comparatively new, the gearing entirely covered, and everything else appears safe. About 100 workmen are employed handling lumber at Peshtigo harbor, seven miles southeast from here. The boarding house is large; the 3-st. part is but little used, and is provided with two iron fire escapes. Company store connected.				
PHILLIPS.— PIERCE CO. <i>Inspected Oct., 1889, by Claymier.</i>				
DAVIS JOHN R. LUMBER CO., mfrs. lumber, lath, shingles. Nine buildings—two 2-st. frame; five 1-st. frame; two 1-st. brick; 10 boilers; 3 engines. Est. 1883.....	200	.....	200	280
Ordered guard on rip saw, and box over cross-cut saw. A boy under 13 was discharged. Store and boarding house connected.				
PINE RIVER.— LINCOLN CO. <i>Reported by firm.</i>				
FINN DAVID, mfr. lumber. Mill 2-st. frame; 1 boiler; 1 engine. Est. 1885.	24	.....	24	45
SEORPE & SONS M., mfrs. lumber, lath and shingles. Mill, 2-st. frame; 1 boiler; 1 engine. Est. 1887.....	25	.....	25	125
Accident.—A workman lost two fingers on slab saw.				
PINEVILLE.— POLK CO. <i>Inspected Sept., 1889, by Claymier.</i>				
PINEVILLE LUMBER CO., mfrs. lumber, lath and shingles. Five buildings—three 2-st. frame; two 1-st. frame; 5 boilers; 3 engines. Est. 1880.....	75	.....	75	145
Ordered guard on rip saw. Boarding house and store connected.				
PITTSVILLE.— WOOD CO. <i>Inspected Aug., 1889, by Claymier.</i>				
DOUD SONS & CO., mfrs. flour barrel stock. Two 1-st. frame; 2 boilers; 1 engine. Est. 1883.....	35	.....	35	50
HARMAN E. T. & CO., mfrs. flour barrel stock. Four buildings, all 1-st. frame; 2 boilers; 1 engine. Est. 1881.....	35	....	35	50
Found two boys under 13 at work. Mr. Harman promised to require them to obtain permit from the county judge.				

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
JOHNSON H., mfr. lumber. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1889	8	.....	8	25
SEVERNS J. Q., mfr. lumber. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1884	7	.....	7	25
WISCONSIN LUMBER MFG. CO. THE, mfrs. pine and hard wood lumber. Three buildings, all 1-st. frame; 1 boiler; 1 engine. Est. 1886	30	.....	30	60
WOOD COUNTY MANUFACTURING CO., mfrs. wagon and barrel stock. Five buildings—one 2-st. frame; four 1-st. frame; several storage sheds; 2 boilers; 1 engine. Est. 1879..	28	.....	28	80
PIUS.—SHEBOYGAN CO.				
Reported by firm.				
HERATY & GRAHAM, mfrs. hardwood lumber. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1884.....	8	.....	8	25
PLATTEVILLE.—GRANT CO.				
Inspected May, 1889, by Moore.				
GRANT COUNTY WITNESS, THE. Two buildings—one 2-st. brick; one 2-st. frame; 1 boiler; 1 engine. Est. 1858.....	5	.....	5	4
KEMLER JOHN ESTATE OF, brewers. Building, 2-st. stone. Est. 1863.....	5	.....	5	.....
LAFLIN & RAND POWDER CO. Fourteen small buildings. 1 boiler; 1 engine. Est. 1846.....	26	.....	26	50
Buildings all small owing to the nature of the business. Every thing is very carefully guarded. The buildings are some distance apart, connected by a railroad.				
SICKLES S. & SON, mfrs. cigars. Building, 3-st. brick. Est. 1874.....	26	.....	26	Hand
PLEASANT PRAIRIE.—KENOSHA CO.				
Inspected March, 1889, by Moore.				
PACKMAN & FOX, milling and baling hay. Two buildings—one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1884.	10	.....	10	25
PLYMOUTH.—SHEBOYGAN CO.				
Inspected March, 1889, by Claymier.				
HUB CITY IRON WORKS, mfrs. "Hub City" feed cutters, horse powers, etc. Three buildings—one 2-st. frame; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1867.....	6	.....	6	12
PREUSSLER BROS. MANUFACTURING CO., mfrs. furniture. Three buildings—two 3-st. frame; one 1-st. brick; 2 boilers; 1 engine; platform leading from third floor. Est. 1897.....	75	.....	75	150
Ordered doors to swing outward, railings on stairs, guards around elevator wells, and guards on three circular saws.				
ROWE AND STEERS, mfrs. sash, doors, blinds. Three buildings—one 2-st. frame; one 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1884.....	8	.....	8	25
Ordered guard on circular saw.				
SCHRAM, A. W., mfr. carpeted and upholstered rockers. Three buildings—two 2-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1888.....	26	4	30	25
SCHWARTZ WM., mfr. flour. Five buildings—one 3-st. frame; two 2-st. frame; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. —.....	8	.....	8	w 180 s 60
Ordered railings on stairs.				
POPLAR.—DOUGLAS CO.				
Reported by firm.				
CHASE J. E., mfr. lumber. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1885.....	25	.....	25	40

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
PORTAGE.—COLUMBIA CO.				
<i>Inspected July, 1889, by Claymier.</i>				
BREESE, LOOMIS & CO., mfg. clothiers and merchant tailors. Building, 3-st. brick. Est. 1868. Ordered fire escape.	18	7	25	Hand
CARNAGIE A., mfr. sash, doors, blinds. Three buildings— one 2-st. frame, one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1850. Ordered box over slasher saw.	15	.....	15	25
CHICAGO, MILWAUKEE & ST. PAUL RAILWAY REPAIR shops. Four buildings—one 2-st. stone; two 1-st. brick; one 1-st. frame; 2 boilers; 1 engine. Est. 1864.	33	.....	33	10
EULBERG BROS, brewers. Five buildings—one 3-st. brick; three 2-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1884.	8	.....	8	18
FALCONER BROS. & BOYNTON MFG. CO., mfrs. shirts, over- alls, etc. Building, 2-st. brick; gas power. Est. 1879.	1	7	8	Gas
GOODMAN PH. & CO., mfg. clothiers. Building, 2-st. brick. Est. 1869.	40	10	50	Hand
PORTAGE HOSIERY CO., mfrs. yarns, hosiery and mittens. Seven buildings—one 2-st. brick; two 2-st. frame; three 1-st. brick; one 1-st. frame; 1 boiler; 1 engine; main buildings bridged. Est. 1877.	20	80	100	20
PORTAGE STEAM LAUNDRY. Two buildings—one 2-st. brick; one 1-st. brick; 1 boiler; 1 engine. Est. 1887.	2	5	7	8
SANBORN & CRAWFORD, mfrs. cream brick; 1 boiler; 1 en- gine. Est. 1874.	20	.....	20	40
WISCONSIN STATE REGISTER THE, printers and publishers, mfrs. blank books, etc. Building, 2-st. brick; 1 engine; gas power. Est. 1861. Ordered guard on flywheel.	13	6	19	Gas 7
YORK I. W. & CO., mfrs. flour and feed. Two buildings— one 3-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1888. Ordered guard at head of stairway.	7	.....	7	85
PORT EDWARDS.—WOOD CO.				
<i>Inspected Aug., 1889, by Claymier.</i>				
EDWARDS J. & CO., mfrs. lumber, lath, shingles. Nine build- ings—four 2-st. frame; five 1-st. frame. Est. 1854. Store and boarding house connected.	150	.....	150	w 450
PORTERS MILLS.—EAU CLAIRE CO.				
<i>Inspected June, 1889, by Claymier.</i>				
NORTHWESTERN LUMBER CO., mfrs. lumber, lath, shin- gles. Twelve buildings—six 2-st. frame; two 1-st. stone; four 1-st. frame; 15 boilers; 8 engines. Est. 1859. Ordered two slasher saws boxed, and guard on one swing saw. Boarding house and store connected, run by the com- pany. Wages paid monthly. Accident—A workman had two fingers cut off while removing saw dust from under the saw. Found six boys under 13 at work; ordered them dis- charged.	455	2	457	529
PORT WASHINGTON.—OZAUKEE CO.				
<i>Inspected May, 1889, by Claymier.</i>				
BARTH BROS. MANUFACTURING CO., mfrs. cheese boxes, dry measures, etc. Four buildings— one 2-st. frame; two 1-st. frame; one 1-st. stone; 1 boiler; 1 engine. Est. 1884. Ordered guard on rip saw, and guards on two stairs.	25	.....	25	50

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
BIEDEMANN G. & CO., brewers. Two buildings — one 2-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1881.....	8	.....	8	8
CROWNS GEO. H., mfr. sash, doors, blinds, mouldings, etc. Four buildings — three 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1884	18	.....	18	35
Ordered guard on rip saw, and cover over slasher saw.				
GILSON THEO. & SON, foundry and machine shop. Two buildings — one 2-st. brick; one 1-st. stone; 2 boilers; 2 engines. Est. 1851.....	5	.....	5	10
MUELLER C. A., mfr. leather. Two buildings — one 3 st. brick; one 1-st. brick; 1 boiler; 1 engine. Est. 1886.....	23	.....	23	35
OZAUKEE CO. MALTING CO. Two buildings — one 4-st. brick; one 1-st. frame; 1 boiler; 1 engine; iron escape. Est. 1868.....	15	.....	15	20
STELLING & HACKENDAHL, merchant millers. Three buildings — one 3-st. brick; one 2-st. frame; one 1-st. stone; 1 boiler; 1 engine. Est. 1883.....	7	.....	7	100
WESTERN MALLEABLE & GREY IRON CO., mfrs. chair irons, etc. Four buildings — one 2-st. stone; two 1-st. stone; one 1-st. frame; 2 boilers; 1 engine. Est. 1881.....	90	.....	90	40
Ordered guard on rip saw and cover over slasher saw.				
WISCONSIN CHAIR CO., mfrs. of platform and carpet rockers, etc. Six buildings — one 3-st. frame; two 2-st. brick; two 2-st. frame; one 1-st. frame; 2 boilers; 1 engine. Est. 1888....	32	8	40	80
Ordered guard at head of stairs, and the main door to swing outward. None employed on third floor				
POUND.—MARINETTE CO.				
<i>Inspected Aug, 1889, by Moore.</i>				
WHITNEY F. L., mfr. cedar posts and railroad ties. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1888.....	25	.....	25	40
Accident.—The saddest accident recorded upon route of inspection, occurred in this mill — five men being killed and four injured by a boiler explosion. Nobody seems to know the cause of the calamity. Some say cold water was poured into a hot boiler, others, that the boiler was “no good.” I am told that nothing was done for the benefit of the sufferers. The mill, like many others in the neighborhood, is a temporary one.				
PRAIRIE DU CHIEN.—CRAWFORD CO.				
<i>Inspected May, 1889, by Moore.</i>				
CHICAGO, MILWAUKEE & ST. PAULRY. SHOPS. Three buildings — roundhouse, 12-stall, stone; one 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1857.....	13	.....	13	40
SCHUMANN & MENGES, brewers. Building 2-st. stone; 2 boilers; 1 engine. Est. 1872.....	6	.....	6	25
STAUER & DAUBENBERGER, mfrs. gang-sawed lumber. Two buildings — one 2-st. frame; one 1-st. frame; 7 boilers; 1 engine. Est. 1873.....	118	2	120	300
PRAIRIE FARM.—BARRON CO.				
<i>Reported by firm.</i>				
KNAPP, STOUT & CO. COMPANY THE, mfrs. lumber. Mill, 2-st. frame. Est. 18—.....	8	.....	8	w 20
Lumber business at this point will be closed this season.				
PRATT JUNCTION.—LANGLADE COUNTY.				
<i>Inspected Aug., 1889, by Moore.</i>				
PRATT PULP WOOD MANUFACTURING CO. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1887.....	5	.....	5	15

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
PRENTICE.—PIERCE CO.				
<i>Inspected Oct., 1889, by Claymier.</i>				
JUMP RIVER LUMBER CO., mfrs. lumber, lath, shingles. Seven buildings — three 2-st. frame; four 1-st. frame; 7 boilers; 2 engines. Est. 1882	110	.....	110	250
Ordered guard on crank and piston rod and box over cross-cut saw in planing mill. Boarding house and store connected; not run by firm.				
PRESCOTT.—PIERCE CO.				
<i>Inspected July, 1889, by Claymier.</i>				
DUDLEY JOHN, mfr. lumber, lath, shingles and flour. Four buildings — one 3-st. frame; one 2-st. frame; two 1-st. frame; 4 boilers; 3 engines. Est. 1856.....	35	.....	35	185
PULCIFER.—SHAWANO CO.				
<i>Reported by firm.</i>				
BERGNER LOUIS, mfr. lumber and flour. Saw mill, 2-st. frame; flour mill, 3-st. frame. Est. 1879.....	20	.....	20	w 80
<i>Accident.—One man lost three fingers by knot-sawing.</i>				
RACINE—RACINE CO.				
<i>Inspected March, 1889, by Moore.</i>				
ALSHULER CHAS., mfr. overalls. Building, 2-st. brick; 1 boiler; 1 engine. Est. 1884	5	45	50	6
ANSTED & HIGGINS, mfrs. carriage springs. Several 1-st. frame buildings connected; 1 boiler; 1 engine. Est. 1885	40	.....	40	20
BELLE CITY MANUFACTURING CO., mfr. agricultural implements. Two buildings — one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1882.....	100	.....	100	50
BLAKE L. S. & A. J., mfrs. fanning mills. Factory, 3-st. brick; 1 boiler; 1 engine. Est. 1844	15	.....	15	20
Ordered guard around elevator well.				
CASE J. I. PLOW WORKS, mfrs. agricultural implements. Three buildings — two 3-st. brick; one 1-st. brick; 3 boilers; 1 engine; three iron escapes and bridges. Est. 1879.....	200	2	202	160
Ordered belt and key on end of shaft of trip hammer guarded. <i>Accidents</i> —One man was caught in belt of trip hammer; another was burned in lighting the fire while fire-place was full of gas.				
CASE J. I. THRESHING MACHINE COMPANY, mfrs. threshing machines and engines. Six buildings — three 4-st. brick; three 1-st. brick; 5 boilers; 4 engines. Est. 1842.....	600	.....	600	320
Everything is safe, neat and clean. Operated eight months per year; monthly capacity 300 threshing machines. <i>Accident</i> —A boy of 16 reached his arm around a drill operated by another workman; his sleeve caught breaking his arm.				
CHICAGO, MILWAUKEE AND ST. PAUL RAILWAY REPAIR SHOPS. Roundhouse, 1-st. brick; shop, 2-st. brick; 1 boiler; 1 engine. Est. 18—	17	.....	17	60
<i>Accident</i> —Outsider came in and began running planer after being refused by workman. He fed the machine too fast, the belt ran off; the man climbed up to shaft to put it on, got wound up and killed.				
CHICAGO RUBBER CLOTHING CO. Two buildings — one 3-st. brick; one 2-st. brick; 2 boilers; 1 engine; stairs at each end of building and roof from third floor easy of access. Est. 1887....	25	68	93	120

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
DICKEY A. P. MANUFACTURING CO., mfrs. fanning mills, land rollers and boxes. Two buildings — one 3-st. brick; one 2-st. stone; 1 boiler; 1 engine; second story on level with street. Est. 1842.	34	.....	34	40
<i>Accident</i> — One man was slightly injured and laid up for a few days. He was struck by a flywheel, by climbing on the guard.				
DRIVER THOS. SON'S MANUFACTURING CO., mfrs. sash, doors, blinds, office furniture and mill work. Two 3-st. brick buildings; 2 boilers; 1 engine; heavy wooden escape running from third to second story in rear. Est. 1859	45	...	45	80
EISENDRATH B. D. & CO., mfrs. leather. Two buildings — one 3-st. frame; one 2-st. frame; 2 boilers; 1 engine. Est. 1886. Ordered a belt boxed up. No fire escapes are needed, as the third floor in rear is not more than eight feet from the ground.	34	6	40	50
ELLINGER A. & CO., mfrs. cloaks. Building, 2-st. brick; 1 boiler; 1 engine. Est. 1887.	18	307	325	12
Ordered cap over end of shaft on engine. Firm employ no children under 14. About 100 girls are employed at their homes, and not included in number given.				
EMERSON & CO., mfrs. linseed oil. Mill, 3-st. brick; 1 boiler; 1 engine. Est. 1872.	12	.....	12	40
FISH BROS. WAGON CO. Three buildings — two 3-st. brick; one 2-st. frame and several small storehouses; 3 boilers; 1 engine; three iron escapes; three wooden escapes; buildings bridged. Est. 1863.	223	2	225	200
Ordered guards around all elevators; caps over set screws to pulley wheels on planer, and two belts on floor above planer guarded.				
FOSTER ALFRED A, mfr. packing boxes. Factory, 2-st. brick; 1 boiler; 1 engine. Est. 1888	6	.....	6	25
Ordered guard on fly and pulley wheels of engine, and doors to swing outward. <i>Accident</i> . — Boiler exploded wrecking the building and severely injuring the proprietor and two others slightly, on May 8, 1889.				
FOSTER & WILLIAMS, mfrs. agricultural implements. Two buildings — one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1884.	14	.....	14	10
FREEMAN S. & SONS MFG. CO., mfrs. engines, and general machine shop. Five buildings — one 5-st. frame; one 4-st. frame; one 3-st. frame; one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1869.	110	.....	110	120
The roofs from one part to another, are so easy of access, as to make additional means of escape unnecessary.				
HENRICHSON F. J. & CO., mfrs. broadcast seeders and feed cutters. Factory, 2-st. frame; 1 boiler; 1 engine. Est. 1884.	20	.....	20	15
HERRICK C. B. & CO., machinists. Shop, 2-st. brick; 1 boiler; 1 engine. Est. 1872.	6	.....	6	20
HERZOG & ROBERTS, mfrs. flour. Mill, 4-st. brick; 1 boiler; 1 engine; iron escape. Est. 1874.	8	.....	8	80
HORLICK'S FOOD CO., mfrs. invalid food. Three buildings — one 1-st., one 2-st., one 3-st., all brick; 1 boiler; 3 engines. Est. 1874.	20	.....	20	85
JAGER MANUFACTURING CO. Foundry, 1-st frame; 1 boiler; 1 engine. Est. 1886.	100	.....	100	60
JOHNSON & FIELD, mfrs. fanning mills and agricultural implements. Factory 2-st. brick; 1 boiler; 1 engine. Est. 1876.	20	...	20	35
KLINKERT ERNST, brewer. Building, 2-st. brick; 1 boiler; 1 engine. Est. 1876.	12	.....	12	45
Ordered guard around flywheel.				

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
MADSON ADAM, mfr. leather. Tannery, 2-st. frame; 1 boiler; 1 engine. Est. 1869..... Ordered guard around balance wheel.	6	.....	6	15
MILLER J. & SON, mfrs. boots and shoes. Factory, 3-st. brick; 1 boiler; 1 engine; wooden escape and balcony. Est. 1875.....	135	45	180	20
MITCHELL, LEWIS & CO., mfrs. farm wagons and buggies. Ten buildings—one 5-st. brick; one 4-st. brick; three 3-st. brick; four 2-st. brick; one 1-st. brick; 3 boilers; 2 engines; nine balcony standpipe escapes. Est. 1855..... Accident.—A workman lost three fingers of one hand. The firm paid full wages and doctor's bill during his illness.	347	3	350	400
PALICA F. J. CO., mfrs. trunks. Two buildings—one 3-st. brick; one 2-st. frame; 1 boiler; 1 engine; buildings bridged. Est. 1884.....	50	.....	50	10
PEASE E. H. MANUFACTURING CO., mfrs. grain cleaning machinery. Factory, 3-st. brick; 1 boiler; 1 engine. Est. 1886.. Third floor used for storage only.	30	.....	30	45
PHILBROOK L. W. & CO., mfrs. leather, boot and shoe packs—two 3-st. frame; 1 boiler; 2 engines. Est. 1872 ... No fire escape needed, as second floor of both factories open on level with sidewalk.	51	1	52	30
PLATZ'S F. SONS, mfrs. leather. Tannery, 2-st. frame; 1 boiler; 1 engine. Est. 1860.....	25	.....	25	40
RACINE BASKET MANUFACTURING CO. Two buildings—one 3-st. brick; one 2-st. brick; 1 boiler. 1 engine; lower roof adjoining. Est. 1869..... Ordered guard around elevator well.	100	.....	100	80
RACINE DAILY JOURNAL. Building, 2-st. brick; 1 engine, gas power. Est. 1856.....	16	9	25	7
RACINE DAILY TIMES. Building, 2-st. brick; 1 engine; gas power. Est. 1884	17	3	20	4
RACINE HARDWARE MFG. CO., mfrs. school, opera and office furniture, boats and hardware, steam boilers, engines and refrigerators. Seven buildings—two 4-st. brick; one 3-st. brick; one 2-st. brick; one 2-st. frame; two 1-st. brick; 4 boilers; 4 engines; two iron and three wooden fire escapes. Est. 1874..... Ordered doors in new machine shop to swing outward, and guard around belt to be kept in place. Although elevator guards are provided, I found only one out of three in position. Accident.—One man lost a finger by a saw.	300	.....	300	300
RACINE MALLEABLE AND WROUGHT IRON CO. Four buildings—one 2-st. brick; one 2-st. frame; one 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1870.....	126	.....	126	65
RACINE TRUNK CO. Two buildings—one 4-st. brick; one 2-st. brick. Est. 1884..... Factory is built against the bluff, and may be called a 2-st. building, with double basement. Escape is so easy from rear of building that fire escapes would be superfluous. Accident.—One man lost a finger. No machinery used.	42	.....	42	Hand
RACINE WAGON AND CARRIAGE CO. Six buildings—two 4-st. brick; one 3-st. brick; one 2-st. frame; two 1-st. brick; 2 boilers; 1 engine; 2 iron escapes and main buildings bridged. Est. 1869..... Ordered rope belting boxed in, and rail in front of fly-wheel. Daily capacity 100 spring wagons or carriages.	263	12	275	80
RACINE WOOLEN MILLS (Blake & Co.). Three buildings—one 4-st. brick; two 2-st. brick; 1 boiler; 1 engine; 2 iron escapes, Est. 1865.....	30	62	92	100
SECOR M. M. & CO., mfrs. trunks and traveling bags. Four buildings—two 4-st. brick; two 3-st. brick; 2 boilers; 1 engine; iron balcony escapes on all buildings. Est. 1861	142	.....	142	150

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
STECHER, WEBER & HUETTEN MFG. CO., mfrs. sash, doors, blinds, etc. Two buildings — one 3-st. brick; one 2-st. frame; 2 boilers; 1 engine; lower roof adjoining. Est. 1875... Ordered railing on stairway. Third floor used for storage only.	30	.....	30	150
VAUGHN J. L., steam laundry. Building, 3-st. brick; 1 boiler; 1 engine. Est. 1885	6	2	8	6
WINSHIP MANUFACTURING CO., mfrs. windmills, pumps, corn planters, sand papering machines, etc. Two buildings — one 2-st. brick; one 2-st. frame; 1 boiler; 1 engine. Est. 1864... Ordered several belts on ground floor covered.	18	.....	18	25
<i>REEDSBURG.—SAUK CO.</i>				
<i>Inspected June, 1889, by Moore.</i>				
CLAVAGE & MORGAN, mfg. contractors. Shop, 1-st. frame; 1 boiler; 1 engine. Est. 1888	13	.....	13	10
GIFFORD, DINGLE & PAUL, brewers. Building, 2-st. frame. Est. 1868	5	.....	5	.....
HEATON J. G., mfr. flour. Mill, 3-st. frame. Est. 1861..... Ordered railing on stairs.	5	.....	5	w 75
REEDSBURG BUILDING & LUMBER CO., mfg. contractors. Two buildings — one 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1880	25	.....	25	30
REEDSBURG WOOLEN MILL CO. Three buildings — one 3-st. brick; two 1-st. brick; 1 boiler; iron escape and tower at end of building. Est. 1882.....	19	26	45	w 100
<i>REMINGTON.—WOOD CO.</i>				
<i>Reported by firm.</i>				
REMINGTON & CLARK, mfrs. lumber, shingles, etc. Mill, 2-st. frame; 1 boiler; 1 engine. Est. 1889.....	10	.....	10	25
<i>RHINELANDER.—ONEIDA CO.</i>				
<i>Inspected Aug., 1889, by Moore.</i>				
BROWN BROS., mfrs. lumber, lath, shingles. Three buildings — one 2-st. frame; two 1-st. frame; 8 boilers; 2 engines. Est. 1882..... The machinery in this mill, like in all others in Rhinelander, is well guarded. <i>Accident.</i> —A workman broke an arm, his sleeve being caught by set-screw while oiling. The firm took the blame, assisted the man and have since covered all such places.	100	.....	100	250
BROWN, ROBBINS & CO., mfrs. lumber, lath, shingles. Three buildings — one 2-st. frame; one 1-st. brick; one 1-st. frame; 6 boilers; 2 engines. Est. 1886..... <i>Accident.</i> —A workman had his ankle thrown out of joint, caused by edgeman raising press roller, letting piece of lumber fly. The press roller acts as a guard behind the saw. The man was insured. The firm say that their orders to workmen are, that if by anything the saw clogs, to shut down the mill and take no chances, and if a weak place is discovered to stop and fix it. Here I found the only guards I have yet seen, on trimmers, to stop sticks or blocks and prevent them from being thrown. It is a practical contrivance and is applied to all mills here.	75	.....	75	85
CONRO A. & SON, mfrs. lumber, lath, shingles. Two buildings — one 2-st. frame; one 1-st. frame; 5 boilers; 2 engines. Est. 1882.....	75	.....	75	120
JOHNSON H. C., mfr. wagons and sleighs. Two buildings — one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1887.	8	.....	8	15
OLSEN & FRY, mfrs. lumber, lath, shingles. Mill, 2-st. frame; 3 boilers; 1 engine. Est. 1888.....	50	.....	50	80

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
SOO LUMBER CO. THE (Olsen & Fry), planing mills. Two 1-st. frame; 1 boiler; 1 engine. Est. 1880.....	33	.....	33	40
UNDERWOOD LUMBER CO., planing mills. Two buildings — one 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1889...	10	.....	10	70
<i>RIB FALLS. — MARATHON CO.</i>				
<i>Reported by firm.</i>				
BAESEMANN JOHN & SONS, mfrs. lumber, lath, shingles and flour. Saw mill, 2-st. frame; flour mill, 4½-st. frame. Est. 1867.	17	3	20	w 180
<i>RIB LAKE. — TAYLOR CO.</i>				
<i>Inspected Oct., 1889, by Claymier.</i>				
KENNEDY J. J., mfr. lumber, lath, shingles. Seven buildings — three 2-st. frame; three 1-st. frame; one 1-st. brick; 7 boilers; 3 engines. Est. 1881.....	125	.....	125	21½
Ordered shafting and set-screws guarded on two machines in planing mill, and set-screws on rip saw in saw mill boxed. Store connected. Firm do not run boarding house.				
<i>RICE LAKE. — BARRON CO.</i>				
<i>Inspected Sept., 1889, by Claymier.</i>				
KNAPP, STOUT & CO. COMPANY, mfrs. lumber, flour, etc. Twelve buildings — two 3-st. frame; five 2-st. frame; five 1-st. frame. Est. 1869.....	100	.....	100	w 1000
Ordered guard on rip saw. Store and boarding house connected.				
MECKLEJOHN & HATTEN, mfrs. barrel stock. Three buildings — two 1-st. frame; one 1-st. stone; 1 boiler; 1 engine. Est. 1886.	25	.....	25	70
REUTER HUB AND SPOKE CO. Five buildings — four 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1886.....	30	.....	30	75
RICE LAKE LUMBER CO, mfrs. lumber, lath, shingles. Six buildings — two 2-st. frame; two 1-st. stone; two 1-st. frame; and several storage sheds; 8 boilers; 3 engines. Est. 1887.....	192	1	193	545
<i>RICHARDSON. — POLK CO.</i>				
<i>Inspected Sept., 1889, by Claymier.</i>				
HALL & BURKHARDT, mfrs. lumber, lath, shingles. Four buildings — one 2-st. frame; three 1-st. frame; 5 boilers; 2 engines. Est. 1884.....	100	.....	100	140
Ordered guards on slasher and on rip saw.				
<i>RICHLAND CENTER. — RICHLAND CO.</i>				
<i>Inspected May, 1889, by Moore.</i>				
JAMES N. L., mfr. hardwood lumber. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1881.....	12	.....	12	30
KROUSKOP A. H., mfr. lumber. Mill, 1-st. frame; 2 boilers; 2 engines. Est. 1883.....	25	.....	25	80
PARREY ALFORD, mfr. flour. Two buildings — one 4-st. frame; one 2-st. frame; outside ladder escape. Est. 1887.....	8	.....	8	w 40
<i>RIPON. — FOND DU LAC CO.</i>				
<i>Inspected Aug. 1889, by Moore.</i>				
CROWTHER W. S. & CO., mfrs. flour and feed. Two mills, each 3-st. frame; 1 boiler; 1 engine. Est. —.....	6	.....	6	s 65 w 95
Ordered guards around elevator, and railing on stairs. .				
HAAS JOHN, brewery. Five buildings — one 3-st. brick; one 2-st. brick; one 1-st. frame; one 1-st. stone; one 1-st. brick; 1 boiler; 1 engine. Est. 1884.....	5	.....	5	15
RIPON KNITTING WORKS. Factories, two 2-st. brick; 1 boiler; 1 engine. Est. 1884.....	6	75	81	10

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
RIPON PACKING CO., packers of pickles and tomatoes. Building, 1-st. frame. Est. 1873.....	6	.....	6	Hand
RIPON WIRE DOORS AND WINDOW SCREEN CO. Five buildings—two 2-st. frame; three 1-st. frame; 1 boiler; 1 engine. Est. 1885.....	25	.....	25	50
TRAINOR W. M., mfr. carriages and wagons. Two buildings—one 2-st. brick; one 2-st. frame. Est. 1853.....	8	.....	8	Hand
<i>RIVER FALLS.—PIERCE CO.</i>				
<i>Inspected Aug. 1889, by Claymier.</i>				
CRYSTAL SPRING CREAMERY (G. L. Hubbell & Co.) Factory, 1-st. frame; 1 boiler; 1 engine. Est. 1887.....	5	.....	5	6
Ordered guard on flywheel.				
JUNCTION FLOUR MILLS. Eight buildings—one 3-st. frame; three 2-st. frame; one 1-st. stone; three 1-st. frame; 3 boilers; 1 engine; two wooden escapes. Est. 1860.....	32	.....	32	s 150 w 125
Ordered guards at head of stairways on second and third floors.				
LUND A. W., mfr. carriages, buggies, etc. Four buildings—two 2-st. frame; two 1-st. frame; 1 boiler; 1 engine. Est. 1881.	12	.....	12	12
Ordered box over slasher saw.				
MELEY S. J., mfr. potato starch. Factory, 1-st. frame. Est. 1889.....	10	.....	10	w 45
PUTNAM J. D. & CO., mfrs. flour and feed. Three buildings—one 3-st. frame; two 2-st. frame. Est. 1853.....	6	.....	6	w 65
Ordered railing on stairs at second and third floors extended.				
WAGNER A., mfr. flour barrels. Three buildings—one 2-st. frame; two 1-st. frame. Est. 1881.....	17	.....	17	Hand
<i>ROCK ELM.—PIERCE CO.</i>				
<i>Reported by firm.</i>				
HAWN C. A. & SONS, mfrs. lumber and cheese boxes. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1867.....	8	.....	8	40
<i>ROME.—JEFFERSON CO.</i>				
<i>Inspected April, 1889, by Moore.</i>				
McFARLAND A. L. & CO., mfrs. ladders, wheel barrows, whiffletrees, neckyokes, clothes horses and lumber. Two buildings—one 2-st. frame; one 1-st. frame. Est. 1854.....	8	.....	8	w 40
Ordered saws guarded, and main belt boxed on both floors.				
<i>ROWLEY'S BAY.—DOOR CO.</i>				
<i>Reported by firm.</i>				
ROGERS S. A., mfrs. lumber and shingles. Mill, 1½-st. frame; 1 boiler; 1 engine. Est. 1883.....	16	.....	16	30
<i>SCHLEISINGERVILLE.—WASHINGTON CO.</i>				
<i>Inspected July, 1889, by Claymier.</i>				
ROSENHEIMER L., mfrs. flour, brick and tile. Four buildings—one 2-st. frame; three 1-st. frame; 2 boilers; 2 engines. Est. 1869 and 1887.....	17	.....	17	50
Ordered pulley guard in flour mill.				
STORCK CHARLES, brewer. Seven buildings—two 2-st. brick; one 1-st. brick; three 1-st. frame; one 1-st. stone; 2 boilers; 1 engine. Est. 1870.....	9	.....	9	10
<i>SCHOFIELD.—MARATHON CO.</i>				
<i>Inspected Aug., 1889, by Moore.</i>				
BROOKS & ROSS, mfrs. lumber and shingles. Three 1-st. frame; 4 boilers; 2 engines. Est. 1854.....	70	.....	70	140
Mill runs day and night by electric light				

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
BROOKS & ROSS LUMBER CO., mfrs. lumber, lath, shingles, etc. Nine buildings — two 2-st. frame; five 1-st. frame; one 1-st. stone; one 1-st. brick; 5 boilers; 2 engines; ladder from attic of boarding house. Est. 1883. Ordered guards on two rip saws. Boarding house and store connected, run by firm. Wages paid monthly.	205	.....	205	{ s 250 w 50
<i>SEYMOUR.—OUTAGAMIE CO.</i> <i>Inspected Aug., 1889, by Moore.</i>				
NORTHWESTERN MANUFACTURING CO., mfrs. hardwood lumber and chair stock. Two buildings — one 2-st. frame; one 1-st. frame; 2 boilers; 1 engine. Est. 1865.	17	.....	17	40
<i>SHAWANO.—SHAWANO CO.</i> <i>Inspected Aug, 1889, by Moore.</i>				
BAUERFIE BROS., saw and planing mill. Two 1-st. frame; 1 boiler; 1 engine. Est. 1887.	12	.....	12	30
KAST J. D., mfr. flour and lumber. Two buildings — one 2-st. frame; one 1-st. frame. Est. 1865.	5	.....	5	w 105
<i>SHEBOYGAN.—SHEBOYGAN CO.</i> <i>Inspected March, 1889, by Claymier.</i>				
AMERICAN MANUFACTURING CO., mfrs. toy express wagons, sleds, etc. Three buildings — one 3-st. frame; one 2-st. frame; one 1 st. brick; 1 boiler; 1 engine; iron escape. Est. 1887. Ordered guard on circular saw, and main door to swing outward.	80	.....	80	65
BALZER JOHN, mfr. wagons, buggies, cutters, etc. Three buildings — one 3-st. brick; one 2-st. brick; one 1-st. brick; 1 boiler; 1 engine; platform at second floor; ladder from third. Est. 1854. Ordered guard on circular saw, and guard on belt.	15	.....	15	30
CROCKER CHAIR CO. [Plant A.] Six buildings — one 4-st. frame; three 3-st. frame; one 2-st. frame; one 1-st. brick; 3 boilers; 2 engines; 3 standpipe escapes, and outside stairway from third floor. Est. 1877. Ordered guards on two rip saws and railing around elevator well. Mr. Crocker said the firm is willing to do anything to secure the safety of the employees.	242	31	273	260
CROCKER CHAIR CO. [Plant B.] Eight buildings — two 4 st. brick; one 4-st. frame; one 2-st. brick; one 2-st. frame; two 1-st. brick; one 1-st. frame; 6 boilers; 2 engines; two escapes, outside stairways, and buildings bridged. Est. 1884. Ordered guard on two rip saws.	289	88	377	177
DILLINGHAM & CO., mfrs. refrigerators and wooden ware. Three buildings — two 3-st. frame; one 1-st. brick; several small warehouses; 2 boilers; 1 engine; buildings bridged. Est. 1884. Ordered guards on three circular saws. Automatic sprinklers. The firm is anxious to do anything to guard against accidents. Main buildings about 100 feet apart.	125	.....	125	80
ELWELL WM. & SONS, mfrs. flour and land plaster. Three buildings — one 3-st. brick; two 1-st. brick; 2 boilers; 1 engine. Est. 1885. Ordered railing around crank.	18	.....	18	125
FREIBERG C. B. & BROS., mfrs. shingles. Two buildings — one 3-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1889. Ordered main shaft in engine room guarded.	12	.....	12	80

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
FROST'S VENEER SEATING CO. [Plant A], mfrs. railroad and depot seatings. Four buildings—one 3-st. frame; one 3-st. brick; two 1-st. frame; 1 boiler; 1 engine; two iron escapes. Est. 1883. Ordered guard around main belt and flywheel; a railing around platforms of fire escapes, and guard around elevator on second floor.	90	10	100	125
FROST'S VENEER SEATING CO. [Plant B.], mfrs. railroad car seating, etc. Two buildings—one 2-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1888. Ordered guards on two circular saws. <i>Accidents.</i> —A workman had a finger cut off at first joint while working on the shaper; another was struck by a piece of broken emery-wheel. The firm paid the doctor's bills.	19	2	21	45
GARTON TOY CO., mfrs. express wagons, toys, etc. Four buildings—one 3-st. frame; two 1-st. frame; one 1-st. brick; 1 boiler; 1 engine; ladder to lower roof adjoining. Est. 1879. Ordered guard on rip saw, railing on stairway, and guard around flywheel.	79	1	80	150
GUTSCH BREWING CO. Seven buildings—four 2-st. frame; one 2-st. brick; one 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1845. Ordered railing on stairway.	21	.....	21	30
HALSTED MANUFACTURING CO., mfrs. kitchen safes and wardrobes. Three buildings—one 3-st. frame; two 1-st. frame; 1 boiler; 1 engine; standpipe fire escape. Est. 1885. Ordered guard on rip saw.	70	.....	70	75
HEYER CHRISTIAN, mfr. leather. Three buildings—two 1-st. brick; one 1-st. frame; 2 boilers; 1 engine. Est. 1859.	38	.....	38	45
JENKINS MACHINE CO., mfrs. wood working machinery. Shops, four 1-st. brick; 1 boiler; 1 engine. Est. 1876.	24	1	25	25
KOHLER, HAYSEN & STEHN MANUFACTURING CO., mfrs. enameled hollow ware and agricultural implements. Eight buildings—two 2-st. frame; three 1-st. frame; one 2-st. brick; two 1-st. brick; 1 boiler; 1 engine. Est. 1879.	65	.....	65	65
MATTOON MANUFACTURING CO., mfrs. furniture. Eight buildings—one 1-st. brick; two 4-st. frame; one 3-st. frame; one 3-st. brick; three 1-st. brick; 6 boilers; 4 engines; three iron standpipe escapes; buildings bridged at all floors. Est. 1881. Ordered guards on two rip saws.	500	.....	500	500
MEYER & SCHRAGE, mfrs. "Globe" feed and ensilage cutters. Six buildings—one 2-st. brick; one 2-st. frame; one 1-st. brick; three 1-st. frame; 1 boiler; 1 engine. Est. 1849.	25	.....	25	25
"NATIONAL DEMOKRAT" Building, 2-st. brick; 1 engine; gas power. Est. 1858.	8	.....	8	4
PHENIX CHAIR CO. Seven buildings—one 4-st. brick; four 3-st. brick; two 2-st. frame; and storage sheds; 3 boilers; 3 engines; outside iron stairways and iron escapes. Est. 1875. Ordered guards on two rip saws and two platforms to be connected.	345	130	475	365
RIEBOLDT, WOLTER & CO., ship builders. Two buildings—one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1885.	160	.....	160	40
ROENITZ C. T. LEATHER CO. Six buildings—one 4-st. brick; one 3-st. frame; one 2-st. frame; two 2-st. brick; one 1-st. brick; 2 boilers; 1 engine; two outside stairways and lower roof adjoining. Est. 1853.	56	1	57	60
SCHREIER K. brewer and maltster. Ten buildings—one 4-st. brick; one 3-st. brick; one 1-st. brick; three 2-st. brick; three 2-st. frame; one 1-st. frame; 2 boilers; 2 engines; two iron escapes and ladders from roof. Est. 1854.	45	.....	45	57
SHEBOYGAN BOOT AND SHOE CO. Factory, 3-st. brick; 1 boiler; 1 engine; standpipe fire escape. Est. 1886.	50	25	75	25

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
SHEBOYGAN CHAIR CO. Seven buildings — three 3-st. brick; three 1-st. brick; one 1-st. frame; 2 boilers; 1 engine; iron escape; buildings bridged at second and third floors. Est. 1869. Ordered guards on two rip saws, and around elevator wells, also an additional fire escape.	385	15	400	300
SHEBOYGAN MINERAL WATER CO. Four buildings — one 3-st. frame; two 1-st. frame; one 1-st. brick; 1 boiler; 1 engine; outside stairway leading from second floor. Est. 1886... Ordered guard on circular saw.	7	13	20	12
SPRATT GEO. & CO., mfrs. hand rakes, hardwood flooring, chairs, etc. Four buildings — three 2-st. frame; one 1st. brick; 1 boiler; 1 engine. Est. 1884. Ordered guard on rip saw. <i>Accident.</i> —A workman had his five fingers nearly severed; he undertook to clear away the saw dust from under the saw while the machine was in motion.	20	2	22	55
VOLLKATH JACOB MANUFACTURING CO. THE, mfrs. grey enameled iron ware, etc. Eight buildings — one 2-st. brick; three 1-st. brick; four 1-st. frame; 1 boiler; 1 engine. Est. 1875.	100	.....	100	43
WINTER MICHAEL, planing mill. Two buildings — one 2-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1888. Ordered guard on rip saw and on flywheel. <i>Accident.</i> —A workman had a leg broken necessitating amputation. He tried to change a belt with his foot, the belt caught him and threw him on the machine.	10	.....	10	65
ZSCHETZSCHE THEO. & SON, mfrs. leather. Five buildings — three 2-st. brick; two 1-st. brick; 2 boilers; 2 engines. Est. 1874. The buildings, except boiler rooms, are all connected.	170	.....	170	200
SHEBOYGAN FALLS.—SHEBOYGAN CO. <i>Inspected March, 1889, by Claymier.</i>				
BRICKNER WOOLEN MILLS CO. Three buildings — one 3-st. brick; two 2-st. brick; 1 boiler; escape in rear; platform escape from second and third floors. Est. 1879. <i>Accident.</i> —A girl cleaning a machine had a finger caught in the gearing. Firm paid full wages and the doctor's bill.	30	50	80	w 70
PHENIX IRON WORKS, mfrs. plows, etc. Three buildings — one 1-st. brick; two 2-st. frame; 1 boiler; 1 engine. Est. 1850..	18	.....	18	18
RICHARDSON BROS., mfrs. chairs. Five buildings — four 2-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1856.	40	.....	40	w 100 s 50
SHEBOYGAN FALLS TANNERY (C. S. Weisse). Three buildings — one 3-st. brick; one 2-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1880. None regularly employed on third floor.	24	.....	24	40
STAR IRON WORKS, foundry and general machine shop. Building, 1-st. frame; 1 boiler; 1 engine. Est. 1880.	5	.....	5	12
SHELL LAKE.—WASHBURN CO. <i>Inspected Sept, 1889, by Claymier.</i>				
SHELL LAKE LUMBER CO., mfrs. lumber, lath and shingles. Eleven buildings — five 2-st. frame; two 1-st. brick; four 1-st. frame; 15 boilers; 5 engines. Est. 1881. Store and boarding house connected.	275	.....	275	605
SHERRY.—WOOD CO. <i>Inspected Aug., 1889, by Claymier.</i>				
SHERRY LUMBER CO., mfrs. pine and hard wood lumber. Eight buildings — three 2-st. frame; one 1-st. brick; four 1-st. frame; 5 boilers; 2 engines. Est. 1880. Ordered guard on automatic saw, also on piston rod. Store and boarding house connected.	125	.....	125	180

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
SHULLSBURG.—LAFAYETTE CO.				
<i>Inspected May, 1889, by Moore.</i>				
WISCONSIN LEAD & ZINC CO., mining. Four buildings— one 2-st. stone; three 1-st. frame; 3 boilers; 1 engine. Est. 1889.....	60	.....	60	75
The capacity of the mill is 150 tons per day. The machinery is in fine shape. I suggested a guard on main belt which was ordered done at once. The boilers are insured both against explosion and loss of life, for the benefit of the workmen. The company employs about 60 men in the mill, and from 450 to 500 in the mines. The miners work on the claim system. One man or more leases a prospect or claim, and works it by the ton, so that the miners are scattered all over the surrounding country. The mines are nearly all of the "placer" sort, the ore being found from the roots of the grass down as far as they want to go. No visitors are allowed in the mill, except by written permission of the general manager, which permit entitles bearer to escort and every attention. The mines and works are about two miles from town.				
SOLDIER'S GROVE.—CRAWFORD CO.				
<i>Reported by firm.</i>				
SOLDIER'S GROVE MILLING CO., mfrs. flour and feed. Two buildings—one 3-st. frame; one 1-st. frame; fire escape on mill. Est. 1888.....	5	.....	5	w 30
SOLDIER'S GROVE SAW MILL (A. V. Peterson), mfr. hard- wood lumber. Two buildings—one 2-st. frame; one 1-st. frame. Est. 1866.....	12	.....	12	w 40
<i>Accident.</i> —A workman lost two fingers by dropping oil can on planer bit, and trying to catch it.				
SOMERSET.—ST. CROIX CO.				
<i>Reported by firm.</i>				
AMES & MASON, mfrs. lumber. Two 2-st. frame Est. 1883...	20	.....	20	w 60
SPARTA.—MONROE CO.				
<i>Inspected July, 1889, by Claymier.</i>				
NEWTON PAPER MILLS, mfrs. No. 2 manilla, rag, and straw wrapping paper. Five buildings—one 2-st. frame; three 1-st. frame; one 1-st. brick; 2 boilers; 1 engine. Est. 1866.....	24	6	30	s 75 w 50
Ordered guard on elevator in warehouse.				
SPARTA IRON WORKS, mfrs. iron and brass castings, en- gines, etc. Three buildings—two 1-st. stone; one 1-st. brick; 1 boiler; 1 engine. Est. 1869.....	6	.....	6	14
SPENCER.—EAU CLAIRE CO.				
<i>Inspected Aug. 1889, by Claymier</i>				
GARDINER JOHN, mfr. lumber, lath, shingles. Three build- ings—one 2-st. frame; two 1-st. frame; 2 boilers; 1 engine. Est. 1886.....	30	.....	30	45
Ordered guard on slasher saw. Store connected.				
SPOKEVILLE.—CLARK CO.				
<i>Reported by firm.</i>				
MARSH J. C., mfr. lumber, shingles and excelsior. Four buildings—one 2-st. frame; three 1-st. frame; 2 boilers; 1 en- gine. Est. 1883.....	30	.....	30	85

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
<i>SPRAGUE.—BARRON CO.</i>				
<i>Inspected Sept., 1889, by Claymier.</i>				
NORTHERN LUMBER CO., mfrs. lumber, shingles, etc. Five buildings—one 2-st. frame; four 1-st. frame; 6 boilers; 2 engines. Est. 1882.....	50	.....	50	80
Store and boarding house connected.				
<i>SPRING LAKE.—PIERCE CO.</i>				
<i>Reported by firm.</i>				
DAWSON BROS. & CO., mfrs. lumber and broom handles. Two 2-st. frame; 1 boiler; 1 engine. Est. 1889.....	10	.....	10	30
<i>STANLEY.—CHIPPEWA CO.</i>				
<i>Inspected Aug., 1889, by Claymier.</i>				
HELGESON H. & SON, mfrs. lumber. Two buildings—one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1885.....	30	.....	30	75
Ordered guard at head of stairs.				
<i>STAR.—VERNON CO.</i>				
<i>Reported by firm.</i>				
SEELEY D. & SON, mfrs. lumber and shingles. Two 2-st. frame. Est. 1863.....	18	2	20	w 60
<i>STEARNS—SHAWANO CO.</i>				
<i>Reported by firm.</i>				
SPRAGUE & STEWART, mfrs. lumber. Two 2-st. frame; 1 boiler. Est. 1885.....	60	.....	60	w 200
<i>Accident.—Head sawyer lost part of forefinger.</i>				
<i>STERLING.—CLARK CO.</i>				
<i>Inspected Aug., 1889, by Claymier.</i>				
STERLING LUMBER CO., mfrs. lumber, lath, shingles. Eight buildings—two 2-st. frame; six 1-st. frame, and several sheds; 4 boilers; 2 engines. Est. 1882.....	92	.....	92	210
Ordered guard on two pulleys of edger. Boarding house and store connected.				
<i>STETSONVILLE.—TAYLOR CO.</i>				
<i>Inspected Oct., 1889, by Claymier.</i>				
BUTTRICK E. K., mfr. lumber, lath, shingles. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 18—.....	11	.....	11	35
Ordered guard on rip saw; also guard on shafting of planer. Removing to Rhinelander.				
<i>STETTIN.—MARATHON CO.</i>				
<i>Reported by firm.</i>				
LOY JOHN & CO., mfrs. lumber. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1883.....	12	.....	12	30
<i>STEUBEN.—CRAWFORD CO.</i>				
<i>Reported by firm.</i>				
HURLBUT J. J. mfr. lumber. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1888.....	10	.....	10	25
<i>STEVENS POINT.—PORTAGE CO.</i>				
<i>Inspected Aug., 1889, by Moore.</i>				
BOSWORTH & REILLEY, mfrs. lumber, lath and shingles. Two buildings—one 2-st. frame; one 1-st. frame; 5 boilers; 5 engines. Est. 1877.....	100	.....	100	150

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
COOK R. H., machinist. Shop, 1-st. frame; 1 boiler; 1 engine. Est. 1877.....	7	.....	7	25
JACKSON MILLING CO., mfrs. flour. Two buildings—one 2-st. stone; one 2-st. frame. Est. 1877.....	10	.....	10	50
Ordered railing on stairs.				
LUTZ A. & BRO., brewers. Building, 2-st. stone; 1 boiler; 1 engine. Est. 1866.....	6	.....	6	10
MENASHA WOODEN WARE CO., mfrs. staves, heading and lumber. Two buildings—one 2-st. frame; one 1-st. frame; 19 dry kilns; 45 acres storage yard; 4 boilers; 1 engine. Est. 1883.	156	.....	156	150
Ordered driving belt on second floor boxed. 83 of the 156 employees, work in the mill and 73 in the yard in the employ of jobbers. The latter are all boys ranging from 11 to 16 years of age. The work is light. Firm employ no boys under 14 in the yard while school is in session. It is vacation time now, and as soon as school opens they will all be discharged; hence I did not deem it necessary to issue an order.				
<i>Accident.</i> —A workman lost a thumb, shopmates contributed \$50.				
NORTHSIDE LUMBER CO. Five buildings—one 2-st. frame; three 1-st. frame; one 1-st. brick; 5 boilers; 2 engines. Est. 1886.....	40	.....	40	85
<i>Accident.</i> —A young man cut his hand while shifting belt; he was laid up three weeks; he refused assistance saying it was his own fault.				
RICE BROTHERS, mfrs. machinery and general repairs. Shop, 2-st. frame; 1 boiler; 1 engine. Est. 1873.....	10	.....	10	40
STEVENS POINT LUMBER CO. Two buildings—one 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1881.....	12	.....	12	35
STEVENS POINT MANUFACTURING CO., mfrs. sash, doors, blinds, etc. Three buildings—one 2-st. frame; two 1-st. frame; 2 boilers; 1 engine. Est. 1887.....	10	.....	10	50
WEEKS JOHN LUMBER CO. Four buildings—three 1-st. frame; one 1-st. brick; 2 boilers; 1 engine. Est. 1860.....	50	.....	50	s 40 w 120
Only one slight accident ever occurred in this mill.				
WISCONSIN CENTRAL RAILWAY SHOPS. Seven buildings—roundhouse 17 stalls; four 1-st. brick; two 1-st. frame; 2 boilers; 1 engine. Est. 1870.....	124	1	125	86
These shops are nicely located, the ceilings are high and there is plenty of light. Smoke jacks over all fires in blacksmith shops.				
<i>STILES.—OCONTO CO.</i>				
<i>Inspected Aug., 1889, by Moore.</i>				
ELDRED, ANSON & SON, mfr. lumber and shingles. Three 1-st. frame; 6 boilers; 1 engine. Est. 1849.....	150	.....	150	s 75 w 225
Ordered two boys under 13 discharged and a shaft covered.				
<i>STOUGHTON—DANE CO.</i>				
<i>Inspected March, 1889, by Moore.</i>				
MANDT T. G. MANUFACTURING CO., mfrs. wagons, carriages and bob shleighs Six buildings—one 2½-st. brick; one 1-st. brick; one 1-st. frame; three 2-st. frame; 2 boilers; 1 engine; buildings bridged. Est. 1865.....	170	.....	170	80
STOUGHTON MILL CO., mfrs. flour. Mill, 3-st. frame and frame elevator. Est. 1865.....	15	.....	15	w 125
NOTE—I found in all only seven boys under 12 in the nine tobacco warehouses here. The employers all promised to discharge them in the evening. The laws in regard to child labor seem to be altogether unknown. No violation of the law was intended. The peculiarity of the tobacco business requires that the work be done in very short season, generally in two or three months of the year, at which time				

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
everybody able to work is, so to speak, drafted into service. All warehouses are built upon substantially the same plan. The work is done in the basement, store and the warerooms above. Doors from basement lead direct to street. Separate water closets are provided where female help is employed. The only bad feature connected with the work is the dust from the leaves, but it is obviated as much as possible.				
<i>STURGEON BAY.—DOOR CO.</i>				
<i>Reported by firm.</i>				
LEATHAM & SMITH, mfrs. lumber and shingles. Two buildings—one 2-st. frame; one 1-st. frame; 9 boilers; 1 engine. Est. 1877.....	170	.....	170	300
<i>SUGAR BUSH.—OUTAGAMIE CO.</i>				
<i>Reported by firm.</i>				
BUCKDASHEL BROS., mfrs. lumber. Portable mill; 1 boiler; 1 engine. Est. 1886.....	8	.....	8	20
<i>THORP.—CLARK CO.</i>				
<i>Inspected Aug., 1889, by Claymier.</i>				
ADAMS BROS., mfrs. lumber, feed, etc. Mill, 2-st. frame; 1 boiler; 1 engine. Est. 1887.....	7	.....	7	25
BOARDMAN E. A., mfr. lumber. Two buildings—one 2-st. frame; one 1-st. frame; 2 boilers; 1 engine. Est. 1887.....	10	.....	10	25
Ordered guard on main pulley, and box over slasher saw.				
CIRKEL J. W. & SONS, mfrs. barrel stock. Six 1-st. frame and several sheds; 2 boilers; 2 engines. Est. 1884.....	40	.....	40	137
NYE, LUSK & HUDSON, mfrs. pine and hardwood lumber. Six buildings—two 2-st. frame; four 1-st. frame; 2 boilers; 1 engine. Est. 1892.....	60	.....	60	70
Store connected.				
<i>THREE LAKES.—FOREST CO.</i>				
<i>Reported by firm.</i>				
ANDERSON N. H., mfr. lumber. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1886.....	45	.....	45	65
Accident.—Workman broke a leg.				
<i>TIFFANY.—DUNN CO.</i>				
<i>Reported by firm.</i>				
PECK WILLIAM, mfr. lumber. Two buildings—one 1-st. stone; one 1-st. frame; 1 boiler; 1 engine. Est. 1884.....	8	.....	8	40
<i>TIGERTON.—SHAWANO CO.</i>				
<i>Inspected Aug., 1889, by Moore.</i>				
SEAVER GEORGE, mfr. chair seats, chair stock, panels, broom handles and bed slats. Two buildings—one 3-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1881.....	35	.....	35	35
Ordered belt guarded, guard on rip saw, and doors of stairs to swing outward. Third floor unoccupied.				
<i>TOMAH.—MONROE CO.</i>				
<i>Inspected July, 1889, by Claymier.</i>				
GOODYEAR D. A. & C., planing mill. Three 1-st. frame buildings; 1 boiler; 1 engine. Est. 1883.....	90	.....	90	65
Fire Feb., 1890; estimated loss, \$5,000.				
<i>TOMAHAWK.—LINCOLN CO.</i>				
<i>Inspected Aug., 1889, by Moore.</i>				
GRAY G. N. & CO., mfrs. lumber. Mill, 1-st. frame; 2 boilers; 1 engine. Est. 1888.....	25	.....	25	60

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
TOMAHAWK LUMBER CO. , mfrs. lumber, lath, shingles. Three buildings — one 2-st. frame; one 1-st. frame; one 1-st. brick; 8 boilers; 2 engines. Est. 1889.....	85	.....	85	180
<i>TRIPPVILLE.—VERNON CO.</i>				
<i>Reported by firm.</i>				
TRIPP D. N. , mfr. lumber, flour and broom handles. Five 1-st. frame; 2 boilers; 2 engines. Est. 1861.....	18	6	24	75
<i>Accidents.</i> —Head sawyer injured foot; boss planer cut a finger; another workman had foot badly bruised by saw carriage.				
<i>TURTLE LAKE.—BARRON CO.</i>				
<i>Inspected Sept., 1889, by Claymier.</i>				
RICHARDSON JOEL , mfr. lumber, lath, shingles. Two 1-st. frame; 2 boilers; 1 engine. Est. 1878.....	40	.....	40	80
<i>Store connected.</i>				
<i>TWO RIVERS.—MANITOWOC CO.</i>				
<i>Inspected Mar., 1889, by Claymier.</i>				
EGGERS F. , mfr. veneer seating, etc. Four buildings — two 2-st. frame; one 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1884.....	12	.....	12	37
HAMILTON MANUFACTURING CO. THE [Plant A], mfrs. wood type, and printers' furniture. Five buildings — two 2-st. frame; one 2-st. brick; one 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1882.....	29	2	31	20
HAMILTON MANUFACTURING CO. THE [Plant B]. Two buildings — one 3-st. frame; one 1-st. brick; 1 boiler; 1 engine; stairway from second, ladder from third floor. Est. 1887.....	24	.....	24	50
<i>Ordered guard on two circular saws, and platform with railing on fire escape at third floor.</i>				
MUELLER R. E. , brewer. Four buildings — two 2-st. brick; two 1-st. brick; 1 boiler; 1 engine. Est. 1848.....	5	.....	5	4
TWO RIVERS FLOURING MILLS. Two buildings — one 3-st. brick; one 1-st. brick; 1 boiler; 1 engine. Est. 1878.....	5	.....	5	85
TWO RIVERS MANUFACTURING CO. [Plant A], mfrs. doweled woodenware, chairs, etc. Fifteen buildings — two 3-st. frame; one 2-st. brick; five 2-st. frame; six 1-st. brick; one 1-st. frame; 4 boilers; 3 engines; iron escapes, buildings bridged, and outside stairway. Est. 1855.....	190	10	200	130
<i>Ordered guards on five circular saws, and guard on pulley.</i>				
TWO RIVERS MFG. CO. [Plant B], pail factory. Seven buildings — one 3-st. frame; one 2-st. frame; five 1-st. brick; 3 boilers; 1 engine; outside stairway from second, ladder from third floor. Est. 1856.....	170	.....	170	125
<i>Ordered guards on three circular saws. Two children under 12 discharged.</i>				
<i>UNION GROVE.—RACINE CO.</i>				
<i>Inspected March, 1889, by Moore.</i>				
BLAKEY J. S. , feed and flax mills. Feed mill, 3-st. frame; flax mill, 1-st. frame; 1 boiler; 1 engine. Est. 1875.....	8	.....	8	85
<i>Ordered gearing in flax mill covered and railings around openings and stairways in feed mill.</i>				
<i>UNITY.—MARATHON CO.</i>				
<i>Inspected Aug., 1889, by Claymier.</i>				
SPAULDING D. J. , mfr. lumber, lath, shingles. Eight buildings — three 2-st. frame; four 1-st. frame; one 1-st. brick; 4 boilers; 2 engines. Est. 1874.....	75	.....	75	245
<i>Ordered boxes over two slasher saws. Boarding house and store connected.</i>				

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
UTLEY.—GREEN LAKE CO. <i>Inspected Aug., 1889, by Moore.</i>				
GREEN LAKE GRANITE CO., general quarrying, mfr. paving blocks. Quarry and engine house; 1 boiler; 1 engine. Est. 1882.	62	.....	62	40
These works are comparatively new. The granite is of a superior quality, and the hardest in the world. Large quantities are daily shipped.				
VANCEBURGH.—DUNN CO. <i>Reported by firm.</i>				
GEORGE T. & P. J., mfrs. lumber. Mill, 2-st. frame.	12	.....	12	w 50
VALTON.—SAUK CO. <i>Reported by firm.</i>				
BUNKER R. M. & CO., planing, saw and feed mill. Two 1-st. frame; 1 boiler; 1 engine. Est. 1882.	6	.....	6	25
VESPER.—WOOD CO. <i>Inspected Aug., 1889, by Claymier.</i>				
SHERRY H. & CO., mfrs. lumber, lath, shingles. Seven buildings—three 2-st. frame; four 1-st. frame; 4 boilers; 2 engines. Est. 1874.	117	.....	117	270
Ordered guard on rip saw. Boarding house and store connected.				
VIOLA.—VERNON CO. <i>Reported by firm.</i>				
CUSHMAN A. C. SONS, mfrs. lumber and flour. Flour mill, 4-st. frame; saw mill, 2-st. frame.	20	.....	20	w 40
WARREN MILLS.—MONROE CO. <i>Inspected Aug., 1889, by Claymier.</i>				
WARREN GEO. & CO., mfrs. lumber, lath, shingles. Six buildings—one 2-st. frame; five 1-st. frame; 3 boilers; 2 engines. Est. 1868.	65	.....	65	115
Store and boarding house connected.				
WASHBURN.—BAYFIELD CO. <i>Inspected Oct., 1889, by Claymier.</i>				
BIGELOW A. A. & CO., mfrs. lumber, lath, shingles. Six buildings; two 2-st. frame; four 1-st. frame; 17 boilers; 6 engines. Est. 1886.	155	.....	155	768
Ordered guard on slasher saw.				
COOK S. G. & CO., mfrs. lumber, lath, shingles. Six buildings—two 2-st. and three 1-st. frame; one 1-st. brick; 8 boilers; 3 engines. Est. 1889.	80	.....	80	280
Boarding house connected; not run by firm.				
THOMPSON C. C. LUMBER CO., mfrs. lumber, lath, shingles. Six buildings—two 2-st. frame; four 1-st. frame; 8 boilers; 4 engines. Est. 1884.	100	.....	100	275
Ordered gearing of gang saw boxed, and a boy under thirteen discharged. Boarding house connected, but not run by firm.				
WATERLOO.—JEFFERSON CO. <i>Inspected April, 1889, by Moore.</i>				
SEEBER & ROACH, mfrs. cigars. Building, 2-st. brick. Est. 81—	5	.....	5	Hand

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
WATERMAN.—CLARK CO.				
<i>Reported by firm.</i>				
VAN HOOSIER MANUFACTURING CO. THE, mfrs. lumber. Three 2-st. frame buildings; 2 boilers; 1 engine. Est. 1889.... Boarding house and store connected.	47	3	50	60
WATERTOWN.—JEFFERSON CO.				
<i>Inspected April, 1889, by Moore.</i>				
CHAPMAN, MRS. JANE, mfr. woolen cloths and blankets. Two buildings— one 2-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1882.....	7	12	19	20
FUERMAN BREWING CO. Four buildings— one 3-st. brick; one 2-st. brick; one 1-st. brick; one 1-st. frame; 2 boilers; 1 engine. Est. 1849.....	25	.....	25	60
GLOBE MILLING CO. Two mills— Globe mill 3-st. brick; Empire mill 3-st. brick; frame elevator, and 1-st. frame cooper shop; 3 boilers; 3 engines. Est. 1849 and 1871..... The coopers work upon the cooperative plan— they owning the shop and the firm furnishing all the stock. Of the forty-seven employes, seventeen are coopers.	47	.....	47	450
HARTIG & MANZ, brewers. Four buildings— One 4-st. brick; one 3-st brick; two 2-st. brick; 3 boilers; 2 engines. Est. 1884... No work done on upper floors, except turning malt.	20	.....	20	37
HINRICHS PH. CO. THE, mfrs. furniture. Five buildings— two 2-st. frame; two 1-st. frame; one 1-st. brick; 1 boiler; 1 engine; buildings bridged. Est. 1887..... Ordered guards on all table saws; also on shaper.	42	.....	42	35
KOENIG BROS., mfrs. flour; mill, 3-st. brick; 1 boiler; 1 engine. Est. 1881.....	5	.....	5	{ w63 s 45
KUNERT E. MANUFACTURING CO, foundry and boiler works. Four buildings— two 2-st. brick; two 1-st. frame; 1 boiler; 1 engine. Est. 1882.....	25	.....	25	18
LEWIS & CO., mfrs. beehives, etc. Three buildings— one 2-st. frame; one 2-st. brick; one 1-st. frame. Est. 1869 .. Ordered guards on two table saws.	40	.....	40	w 50
MILLER A. F., mfr. cigars. Building, 2-st. frame. Est. 18—...	5	.....	5	Hand
SCHLEUTER BROS., mfrs. cigars. Building, 2-st. frame. Est. 1879.....	8	.....	8	Hand
WATERTOWN GAZETTE, THE, printing and publishing. Building, 3-st. brick. Est. 1880.....	5	.....	5	Hand
WATERTOWN MACHINE CO., mfrs. wood polishing machines. Four buildings— one 1-st. grout; one 1-st. brick; two 1-st. frame; 1 boiler; 1 engine. Est. 1865.....	46	.....	46	{ s 20 w 30
WATERTOWN REPUBLICAN, THE, printing and publishing. Building, 2-st. brick. Est. 1860.....	5	.....	5	Hand
WATERTOWN SHOE CO. Factory, 2-st. brick; 1 boiler; 1 engine. Est. 1888..... Ordered main doors to swing outward. There are three doors, one at each end of building and at foot of stairway leading from second story.	25	15	40	20
WIGGENHORN BROS., mfrs. cigars. Building, 2-st. brick. Est. 1858..... Mr. Wiggenhorn said, "We don't employ children, it is detrimental to their health and not profitable to us. They should be at school even if compulsion were necessary."	50	.....	50	Hand
WOODARD & STONE, mfrs. crackers and confectionery. Building, 3-st. brick; 1 boiler; 1 engine; lower roof adjoining second floor, easy of egress. Est. 1867..... Ordered guards on elevator wells. NOTE.— There are four brick yards here, employing about 75 hands. Idle now.	44	11	55	32

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
WAUKAU.—WINNEBAGO CO.				
<i>Inspected Aug., 1889, by Moore.</i>				
PARIS & PALFREY, mfrs. woolen cloths and yarn. Mill, 2-st. frame; 1 boiler. Est. 1860.....	6	4	10	w 30
WAUKESHA.—WAUKESHA CO.				
<i>Inspected Sept., 1889, by Claymter.</i>				
ARCADIAN MINERAL SPRING CO. Two buildings—one 3-st. stone; one 1-st. stone; 1 boiler; 1 engine. Est. 1885.....	31	4	35	20
None employed on third floor.				
BETHESDA BREWERY (Wm. A. Weber). Seven buildings—two 3-st. stone; three 2-st. frame; one 1-st. frame; one 1-st. stone; 1 boiler; 1 engine. Est. 1864.....	8	.....	8	20
BETHESDA MINERAL SPRING CO. Two buildings—one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1868.....	20	.....	20	6
Ordered guard on elevator.				
BLAIR, F. C., mfr. horse power threshing machines, etc. Two buildings—one 2-st. stone; one 3-st. stone; 2 boilers; 2 engines. Est. 1836.....	15	.....	15	26
Ordered guard on rip saw.				
DODD SAMUEL, mfr. sash, doors, blinds. Two 2-st. frame; 1 boiler; 1 engine. Est. 1886.....	5	.....	5	15
Ordered guard on rip saw.				
HUNKINS R. H., mfr. barrels and boxes. Two buildings—one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1875.....	8	.....	8	20
Ordered guards on two rip saws.				
SARATOGA ROLLER MILLS. Two buildings—one 3-st. frame; one 2-st. frame; 1 boiler; 1 engine. Est. 1840.....	5	.....	5	} s 50 w 150
SILURIAN MINERAL SPRING CO. Seven buildings—two 2-st. frame; five 1-st. frame; 2 boilers; 1 engine. Est. 1879.....	25	.....	25	
WAUKESHA ELECTRIC LIGHT & GAS CO. Three 1-st. brick; 2 boilers; 1 engine. Est. 1886.....	8	.....	8	100
WAUKESHA FREEMAN, THE. Building, 2-st. brick; 1 boiler; 1 engine. Est. 1859.....	6	.....	6	6
WAUKESHA JOURNAL, THE. Building, 2-st. brick. Est. 1878.	6	2	8	w 5
WHITE ROCK MINERAL SPRING CO. Three buildings—two 1-st. frame; one 1-st. stone; 1 boiler; 1 engine. Est. 1882.	18	.....	18	6
WISCONSIN CENTRAL RAILWAY SHOPS. Six buildings—two 2-st. brick; four 1-st. brick; 3 boilers; 2 engines. Est. 1886.	210	.....	210	270
Ordered guard on rip saw.				
WAUPACA.—WAUPACA CO.				
<i>Inspected Aug. 1889, by Moore.</i>				
BALDWIN & BAILEY, mfrs. flour. Two buildings—one 3-st. frame; one 1-st. frame. Est. 18—.....	7	.....	7	w 120
EVANS J. W., mfr. woolen cloth. Mill, 2-st. frame. Est. 1867.	10	5	15	w 50
ROBERTS & OBORN, mfrs. flour. Mill, 3-st frame. Est. 1884..	6	.....	6	w 100
WAUPUN.—DODGE CO.				
<i>Inspected Aug., 1889, by Moore.</i>				
ALTHOUSE, WHEELER & CO., mfrs. vaneless and solid wheel windmills, feed mills, pumps, tanks, etc. Eight buildings—three 2-st. frame; four 1-st. frame; one 1-st. brick; 1 boiler; 2 engines. Est. 1858.....	50	.....	50	55
HENRY J. L., mfr. leather canes. Factory, 2-st. frame; 1 boiler; 1 engine. Est. 1884.....	7	.....	7	6
Very little machinery used. The canes made here have become quite popular since their introduction in 1884. They are made of small bits of leather, very solidly pressed on a thin steel rod running through the center, and then turned to proper taper and polished.				

Report of Inspection—Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
MARKLE, HARRIS & BUTTS, mfrs. flour. Two buildings— one 3-st. frame; one 1-st. stone; 2 boilers; 1 engine. Est. 1849.	10	.....	10	80
MORRIS J. S., mfr. wagons. Shop, 2-st. frame. Est. 1874.....	14	.....	14	Hand
WELLS M. D. & CO., mfrs. boots and shoes. Main factory and annex two 2-st. stone; two 1-st. frame; one 1-st. stone; 4 boilers; 2 engines. Est. 1878.....	450	65	515	90
M. D. Wells & Co., of Chicago, Ill., since 1878 have contracted with the State for the labor of all able-bodied convicts, in the manufacture of boots and shoes. The present rate is 50 cents per day. Of the 515 employees, 135 are citizens, 380 are convicts. Of the citizen employees 70 work in the prison as overseers, instructors, etc. The firm has a special work-room in town where 65 free females do the stitching. The prison shops are neat, clean and safe. There are at present 497 convicts, males 483, females 14. The prison grounds proper cover an area of 24 acres, but there is also a farm of 112 acres attached to the institution. The prison was established in 1851. The several buildings, besides the shops, consist of the prison proper, the centre of which is 3-st. stone, 85x90, used as offices, etc., living apartments for warden's family, culinary department, and chapel. The wings on either side are 1-st. stone, 50x200, making entire length of building 490 feet. There are 504 cells, in three tiers in the center of each wing, with balcony and stairs to each tier. Also a 1-st. stone blacksmith shop, ditto soap factory, carpenter shop and laundry. The female prison is a two-story stone building, the ground floor of which is occupied by the deputy warden and family. There are thirty-six cells. The building will henceforth be heated by steam.				
ZIMMERMANN F. F., mfrs. wagons. Shop, 2-st. frame. Est. 1865.....	12	.....	12	Hand
WAUSAU.—MARATHON CO. <i>Inspected June, 1889, by Claymier.</i>				
BARKER & STEWART, mfrs. lumber, lath, shingles. Six buildings— one 2-st. frame; three 1-st. frame; two 1-st. brick; 7 boilers; 3 engines. Est. 1887.....	125	.....	125	320
CLAYTON GEO., mfr. lumber, lath, shingles. Four buildings— three 2-st. frame; one 1-st. frame. Est. 1859.....	125	.....	125	400
Ordered guard on rip saw. Boarding house connected, run by firm.				
CURTIS BROS. & CO., mfrs. sash, doors, blinds. Eight buildings— two 3-st. frame; two 2-st. frame; three 1-st. frame; one 1-st. brick; 5 boilers; 2 engines; bridged at second and third floors. Est. 1881.....	175	.....	175	203
Ordered new cable in steam elevator.				
FARRALL E. K., mfr. wagons, sleighs, etc. Two buildings— one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1881.....	6	.....	6	12
Ordered guard on rip saw.				
FRENZEL J. A., mfr. straw cutters, plows, etc. Two buildings— one 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1874	7	.....	7	35
GOODWILLIE & GOODWILLIE, mfrs. boxes. Three buildings— two 1-st. frame; one 1-st. brick; 2 boilers; 1 engine. Est. 1889.....	50	.....	50	80
Ordered two slasher saws boxed. <i>Accident.</i> —A boy had two fingers cut off by coming into contact with saw while playing.				
JAWORT F., mfr. wagons, etc. Three buildings— one 2-st. frame; one 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1873.....	6	.....	6	20
Ordered guard on rip saw.				

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
KICKBUSH F. W., mfr. flour and feed. Four buildings — one 3-st. brick; two 1-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1883. Ordered guards at head of stairway on second and third floors, also in warehouse.	7	.....	7	75
LEAHY & BEEBE, mfrs. lumber, lath, shingles. Eight buildings — two 2-st. frame; three 1-st. frame; three 1-st. brick; 6 boilers; 3 engines. Est. 1883. Ordered guard on rip saw. Boarding house connected, run by firm.	100	.....	100	351
MAWSON R. P. & CO., mfrs. lumber, lath, shingles. Seven buildings — three 2-st. frame; four; 1-st. frame; 5 boilers; 1 engine. Est. 1885. Boardinghouse connected, run by firm.	75	.....	75	100
MATHIE FRANK, brewer. Three buildings — one 2-st. frame; one 2-st. brick; one 1-st. frame; 1 boiler; 1 engine. Est. 1869. .	8	.....	8	20
MORTENSON & CO., mfrs. lumber and shingles. Four buildings — three 1-st. frame; one 1-st. stone; 2 boilers; 1 engine. Est. 1869.	20	.....	20	50
MURRAY D. J. MANUFACTURING CO., mfrs. saw mill machinery. Three buildings — one 3-st. frame; two 1-st frame; 1 boiler; 1 engine. Est. 1874. Ordered guard at head of stairs on third floor. None regularly employed on third floor.	60	.....	60	40
PARCHER J. & A. STEWART & CO., mfrs. lumber, lath, shingles. Six buildings — two 2-st. frame; four 1-st. frame; 4 boilers; 1 engine. Est. 1877. Ordered guard over slasher saw. Boarding house connected, run by firm. This mill runs winter and summer.	150	.....	150	80
PORTER J. A. TANNING CO., mfr. sole leather. Four buildings — one 2-st. frame; three 1-st. frame; 2 boilers; 1 engine. Est. 1886.	10	.....	10	55
RUDER GEO. BREWING CO. Three 2-st. brick; 1 boiler; 1 engine. Est. 1860.	9	.....	9	20
STEWART ALEXANDER LUMBER CO., mfr. lumber, lath, shingles, etc. Six buildings — two 2-st. frame; one 2-st. brick; three 1-st. frame; 2 boilers. Est. 1883. Ordered guard on rip saw, and box over slasher saw. Boarding house connected, managed by the firm. Mill runs night and day. Found two boys under 13 at work for a man who runs a lath mill under contract; ordered them discharged. <i>Accident.</i> — A workman had his hand bruised in the gearing outside of the mill.	100	.....	100	w 300
UNION PLANING MILL (S. M. Quaw & Co.) Three 1-st. frame; 2 boilers; 1 engine. Est. 1882. Ordered guard on rip saw. <i>Accident.</i> — A workman had three fingers cut off by a splitter saw.	12	.....	12	70
WAUSAU ROLLER MILLS, mfrs. flour, feed, etc. Three buildings — one 3-st. brick; one 2-st. frame; one 1-st. frame. Est. 1883. Ordered railing around stairway on second floor. None regularly employed on third floor.	15	.....	15	w 100
WERHEIM GEO., mfr. sash, doors, blinds. Four buildings — two 2-st. frame; one 1-st. frame; one 1-st. brick; 1 boiler; 1 engine. Est. 1873. Ordered guard on rip saw.	35	.....	35	55
WAUWATOSA.—MILWAUKEE CO.				
<i>Inspected Nov., 1889, by Claymier.</i>				
BOND H. R. & SON., mfrs. cream colored common and pressed brick. 1 boiler; 1 engine. Est. 1877. Ordered guard on flywheel.	40	.....	40	50

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power,
	Male.	Fem.	Total	
KRAATZ CHAS., mfr. cream colored common and pressed brick, 1 boiler; 1 engine. Est. 1881..... Ordered guard on flywheel.	40	.....	40	50
NORTHWESTERN CHEMICAL CO. Seven buildings — one 3-st. frame; one 2-st. frame; five 1-st. frame and several sheds; 2 boilers; 1 engine. Est. 1883..... None employed on third floor.	18	.....	18	25
SCHMIDT A. L., mfr. curled hair and hair rope. Two buildings — one 4-st. frame; one 3-st. frame; 2 boilers; 1 engine. Est. 1875.....	8	1	9	15
WISCONSIN BRIDGE AND IRON CO., civil engineers, bridge builders and contractors. Four 1-st. frame; 1 boiler; 1 engine. Est. 1888..... This company is insured against accidents to the employees.	50	.....	50	25
<i>WAUZEKA.—CRAWFORD CO.</i>				
<i>Inspected March, 1889, by Moore.</i>				
RILEY & GREGERSON, mfrs. barrel staves. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1872.....	6	.....	6	25
<i>WEBER.—MARATHON CO.</i>				
<i>Reported by firm.</i>				
WEBER CO., mfrs. lumber and shingles. Mill, 2-st. frame; 1 boiler; 1 engine. Est. 1881.....	7	.....	7	40
<i>WEIN.—MARATHON CO.</i>				
<i>Reported by firm.</i>				
HAMANN FRED & CO., mfrs. lumber. Mill, 1-st. frame; 1 boiler; 1 engine. Est. 1882.....	10	2	12	36
SWAN PERRY, mfr. lumber and shingles. Mill, 2-st. frame; 1 boiler; 1 engine. Est. 1883.....	14	2	16	40
<i>WEST BEND.—WASHINGTON CO.</i>				
<i>Inspected May, 1889, by Claymier.</i>				
MAYER S. F. & CO., maltsters. Two 2-st. brick; 1 boiler; 1 engine. Est. 1882.....	7	.....	7	25
SILBERZAHN C., mfr. feed cutters, plows, etc. Five buildings — one 2-st. frame; four 1-st. frame; 1 boiler; 1 engine. Est. 1879..... Ordered guard on stairway; guard on rip saw and main door to swing outward.	20	.....	20	50
WEST BEND BREWING CO. Five buildings — one 2-st. brick; two 1-st. brick; two 1-st. frame; 1 boiler; 1 engine. Est. 1882.....	8	.....	8	40
WASHINGTON CO. PUBLISHING ASSOCIATION. Building, 2-st. brick; 1 boiler; 1 engine. Est. 1853.....	6	.....	6	3
<i>WESTBORO.—TAYLOR CO.</i>				
<i>Inspected October, 1889, by Claymier.</i>				
DUNCAN JOHN, mfr. lumber and shingles. Four buildings — two 2-st. frame; two 1-st. frame; 4 boilers; 1 engine. Est. 1884. Ordered box over slasher saw. Store and boarding house connected.	60	.....	60	120
<i>WEST SUPERIOR.—DOUGLAS CO.</i>				
<i>Inspected Sept., 1889, by Claymier.</i>				
BROADWAY STEAM LAUNDRY. Two 1-st. frame; 1 boiler; 1 engine. Est. 1887.....	2	6	8	10

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
DEVLIN J., planing mill. Two buildings — one 2-st. frame; one 1-st. frame; 1 boiler; 1 engine. Est. 1886..... Ordered guard on rip saw.	20	.....	20	35
EASTERN RAILWAY CO. OF MINNESOTA REPAIR SHOPS. Seven buildings — one 2-st. brick; three 1-st. frame; three 1-st. brick; 2 boilers; 1 engine. Est. 1888..... Ordered guard on flywheel.	25	.....	25	25
LEHIGH COAL AND IRON CO. 3 boilers; 10 engines. Est. 1886. The coke plant, the only one in the state, was added in 1888. Boarding house connected, not run by firm. Two escapes on boarding house. <i>Accident.</i> — A workman broke both legs by falling from a rafter.	125	.....	125	300
MURRY C. S. & CO., mfrs. lumber, lath, shingles. Six buildings — one 2-st. frame; three 1-st. frame; one 1-st. brick; one 1-st. stone; 9 boilers; 2 engines. Est. 1888..... Ordered guard on rip saw. <i>Accident.</i> — A workman was killed by board flying back from edger; another had a leg broken by saw carriage.	100	.....	100	120
NORTHWESTERN ADAMANT MANUFACTURING CO., mfrs. adamant wall plaster. Building, 2-st. frame; 1 boiler; 1 engine. Est. 1889.....	20	.....	20	25
PEYTON, KIMBALL & BARBER, mfrs. lumber, lath, shingles. Eight buildings — one 3-st. frame; two 2-st. frame; two 1-st. frame; one 1-st. brick; one 1-st. stone; 7 boilers; 2 engines. Est. 1884..... Ordered a shaft in saw mill guarded, also guard on rip saw. Boarding house and store connected. Boarding house not not run by firm. <i>Accident.</i> — A workman was killed falling on rotary saw.	115	.....	115	330
SATURDAY EVENING CALL. Building, 2-st. frame. Est. 1887.....	5	.....	5	Hand
STROTHMAN BROS., machine shop, foundry and forge works. Three buildings — one 1-st. brick; two 1-st. frame; 1 boiler; 1 engine. Est. 1888..... Ordered main door to swing outward.	25	.....	25	25
SUPERIOR AND DULUTH ELECTRIC LIGHT CO. Building. 1-st. brick; 4 boilers; 2 engines. Est. 1888..... Water works company located under same roof, and operated by same employees. Daily capacity of water works, 2,000,000 gallons. Capacity of electric light plant, 2,200 small and 10 arc lights.	6	.....	6	210
SUPERIOR PUBLISHING CO. Building, 2-st. frame; 1 boiler; 1 engine. Est. 1888.....	4	1	5	2
WEST SUPERIOR BREWING CO. Two buildings — one 3-st. frame; one 2-st. frame; 1 boiler. 1 engine; Est. 1889..... Ordered guard on flywheel.	5	.....	5	30
WEST SUPERIOR BRICK CO. Three 1-st. frame; 1 boiler; 1 engine. Est. 1888.....	25	.....	25	45
WEST SUPERIOR IRON AND STEEL CO, mfrs. iron pipe, steel, etc. Ten buildings — one 2-st. frame; four 1-st. brick; five 1-st. frame; 1 boiler; 3 engines. Est. 1889.....	70	.....	70	52
WEYAUWEGA. — WAUPACA CO.				
<i>Inspected Aug., 1889, by Moore.</i>				
BADGER BASKET CO., 1-st. frame. Est. 1884.	8	2	10	Hand.
WEED-GUMAER MANUFACTURING CO., mfrs. lumber and flour. Saw mill, 1-st. frame; flour mill, 3-st. frame. Est. 1863. No accident has ever occurred at this mill.	20	.....	20	w 215.

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYEES.			Horse power.
	Male.	Fem.	Total	
WHITCOMB.—SHAWANO CO.				
<i>Inspected Aug., 1889, by Moore.</i>				
WHITCOMB LUMBER CO., mfrs. hardwood lumber, bed slats and broom handles. Two buildings—one 2-st. frame; one 1-st. frame; 2 boilers; 1 engine. Est. 1886.....	30	.....	30	75
Store connected.				
WHITEWATER.—WALWORTH CO.				
<i>Inspected April, 1889, by Moore.</i>				
ESTERLY HARVESTING MACHINE CO. Seven buildings—two 3-st. brick; one 2-st. brick; two 2-st. frame; two 1-st. brick; and several storage sheds; 3 boilers; 2 engines; 3 iron escapes; buildings bridged. Est. 1844.....	443	17	460	140
Everything ordered or suggested at former inspections has been strictly carried out. The elevator wells are closely guarded, and every guard in place. The foremen of the different departments have orders to discharge any workman who leaves them open. The saws used here are all form saws, the table shoving the material against the saw so that no guards can be placed on them to any advantage.				
WHITEWATER PAPER CO., mfrs. building paper. Mill, 2-st. brick, and several frame sheds; 3 boilers; 2 engines. Est. 1889.....	35	.....	35	170
WHITEWATER REGISTER THE. Building, 2-st. brick; 1 boiler; 1 engine. Est. 1857.....	9	.....	9	6
WINCHESTER AND PARTRIDGE MANUFACTURING CO., mfrs. wagons and agricultural implements, windmills, etc. Five buildings—one 2-st. brick; three 2-st. frame; one 1-st. brick; 2 boilers; 1 engine. Est. 1847.....	140	.....	140	140
Ordered guard on circular saw.				
WHITTLESEY.—TAYLOR CO.				
<i>Inspected October, 1889, by Claymier.</i>				
HALE S. A., mfr. lumber, lath, shingles. Four buildings—one 2-st. frame; three 1-st. frame; 4 boilers; 1 engine. Est. 1882..	40	.....	40	90
Store connected.				
WILSON.—ST. CROIX CO.				
<i>Inspected Aug., 1889, by Claymier.</i>				
WEST WISCONSIN MANUFACTURING CO., mfrs. lumber, staves and heading. Seven buildings—two 2-st. frame; four 1-st. frame; one 1-st. stone; 4 boilers; 2 engines. Est. 1872....	25	.....	125	90
Ordered box over slab saw. Boarding house and store connected.				
WINNECONNE.—WINNEBAGO CO.				
<i>Inspected Aug., 1889, by Moore.</i>				
MILLER W., mfr. lumber. Mill, 2-st. frame; 2 boilers; 1 engine. Est. 1883.....	25	.....	25	50
WINNECONNE LUMBER CO., mfrs. lumber, lath, shingles. Mill, 1-st. frame; 3 boilers; 1 engine. Est. 1869.....	45	.....	45	100
This mill was first run as a ship timber mill, some years ago. A lath and shingle mill has since been added. No one was ever hurt here by machinery.				
WITHEE.—CLARK CO.				
<i>Inspected Aug., 1889, by Claymier.</i>				
SPAULDING D. J., mfr. lumber, lath, shingles. Six buildings—four 2-st. frame; two 1-st. frame; 4 boilers; 1 engine. Est. 1885.....	60	.....	60	100
Order ed guard on rip saw. Boarding house and store connected.				

Report of Inspection — Continued.

ESTABLISHMENTS INSPECTED.	NUMBER OF EMPLOYES.			Horse power.
	Male.	Fem.	Total	
WOOD LAKE.—BURNETT CO. <i>Reported by firm.</i>				
JACOBSON C. J., mfr. lumber. Two buildings—one 2-st. frame; one 1-st. frame. Est. 1873.....	5	.....	5	w 35
WOODVILLE.—ST. CROIX CO. <i>Inspected Aug., 1889, by Claymier.</i>				
WOODVILLE LUMBER CO., mfrs. lumber, lath, shingles. Six buildings—two 2-st. frame; four 1-st. frame; 3 boilers; 1 engine. Est. 1879	75	.....	75	80
Boarding house and store connected.				

TABLE A.—*Showing the Amounts Spent for New Factory Building
Classified according*

INDUSTRIES.	New factory building improvements in the city of Milwaukee.	New machinery added in the city of Milwaukee.	New factory building improvements at all other places in the state.
Agricultural implements.	\$17,600 00	\$13,000 00	\$40,050 00
Threshing machines.			120,000 00
Baskets.			570 00
Beef and pork packing	27,000 00	3,800 00	
Beer.	573,016 63	256,067 37	113,345 00
Boilers (steam).	2,000 00	14,400 00	6,900 00
Boots and shoes.	21,200 00	29,200 00	
Boxes, cheese.			
Cigar.	3,000 00	3,000 00	3,500 00
Packing.	2,300 00	4,400 00	14,500 00
Paper.	10,000 00	6,700 00	
Brick.		5,050 00	10,450 00
Bridge building.			8,000 00
Butter.			4,309 72
Canes (leather).			
Chairs.	500 00	10,500 00	26,065 00
Cigars.		500 00	
Clothing.	600 00	1,400 00	16,200 00
Coal docks.	21,550 00	20,175 00	55,000 00
Coffee and spice mil's.		800 00	
Coffins.			5,000 00
Confectionery and steam bakeries.		5,480 00	
Cooperage.	12,400 00	4,000 00	13,000 00
Corks, vents, etc.	150 00	350 00	
Dairy implements.			27,200 00
Depot veneer seating.			1,500 00
Drug mills.			135 00
Dyeing.	500 00	3,500 00	
Electric lighting.	2,000 00	50,000 00	11,400 00
Elevators (passenger and freight).	3,000 00	14,000 00	
Excelstor.			6,500 00
Fertilizer.	13,000 00	85,000 00	
Flour.	16,800 00	74,000 00	71,850 00
Fuel (kindling).			3,000 00

*Improvements and New Machinery during the years 1888 and 1889.
to industries.*

New machinery added at all other places in the state.	Total new factory building improvements.	Total new machinery added.	INDUSTRIES.
\$21,775 00	\$177,650 00	\$42,775 00	..... Agricultural implements
8,000 00			..... Threshing machines
3,950 00	570 00	3,950 00	..... Baskets
.....	27,000 00	3,800 00	..... Beef and pork packing
37,200 00	686,361 63	293,267 37	..... Beer
5,025 00	8,900 00	19,425 00	..... Boilers (steam)
24,825 00	21,200 00	54,025 00	..... Boots and shoes
1,250 00	33,300 00	30,650 00	..... Boxes, cheese
3,200 00			..... Cigar
11,600 00			..... Packing
500 00			..... Paper
8,415 00	10,450 00	13,465 00	..... Brick
28,000 00	8,000 00	28,000 00	..... Bridge building
2,703 74	4,309 72	2,703 74	..... Butter
1,500 00	.....	1,500 00	..... Canes (leather)
41,550 70	26,565 00	52,050 70	..... Chairs
.....	.....	500 00	..... Cigars
6,150 00	16,800 00	7,550 00	..... Clothing
5,000 00	76,550 00	24,675 00	..... Coal docks
.....	.....	800 00	..... Coffee and spice mills
5,000 00	5,000 00	5,000 00	..... Coffins
1,000 00	.....	6,480 00	..... Confectionery and steam bakeries
24,100 00	25,400 00	28,100 00	..... Cooperage
.....	150 00	350 00	..... Corks, vents, etc.
20,000 00	27,200 00	20,000 00	..... Dairy implements
1,050 00	1,500 00	1,050 00	..... Depot veneer seating
.....	135 00	.....	..... Drug mills
.....	500 00	3,500 00	..... Dyeing
114,900 00	13,400 00	164,900 00	..... Electric lighting
.....	3,000 00	14,000 00	..... Elevators (passenger and freight)
9,200 00	6,500 00	9,200 00	..... Excelsior
.....	13,000 00	85,000 00	..... Fertilizer
182,007 00	88,650 00	256,007 00	..... Flour
3,000 00	3,000 00	3,000 00	..... Fuel (kindling)

TABLE A.—*New Factory Building Improvements and New Machinery.*
Continued.

INDUSTRIES.	New factory building improvements in the city of Milwaukee.	New machinery added in the city of Milwaukee.	New factory building improvements at all other places in the state.
Furniture.....	\$38,600 00	\$41,690 00	\$32,550 00
Furs.....		500 00	
Gas.....		70,000 00	8,000 00
Glue.....			
Granite.....			30,000 00
Hardware.....			6,500 00
Hats (straw).....	57,000 00	20,000 00	
Incubators ..	1,200 00	500 00	
Invalid food.....			3,500 00
Iron and steel works..			80,000 00
Malleable.	15,500 00	10,000 00	1,500 00
Pig			19,500 00
Knitting works.....	14,000 00	41,000 00	
Laundries (steam).....		12,900 000	4,700 00
Leather	148,000 00	67,773 65	40,500 00
Linen mills.....			5,500 00
Lithographing		2,250 00	
Locks			
Lumber	800 00	500 00	369,646 00
Macaroni and vermicelli.....	1,200 00	1,000 00	
Machine shops, iron and brass foundries..	204,160 00	196,480 00	126,713 45
Marble and cut stone.....	2,668 00	2,500 00	
Mattresses.....	15,600 00	6,750 00	8,000 00
Mineral water, etc.....			2,500 00
Oils, greases, etc..		500 00	
Oxide of zinc.....			2,000 00
Paints.		800 00	800 00
Paper and pulp.....		575 00	243,200 00
Potteries.....		400 00	4,938 15
Printing and publishing.....		51,285 00	29,200 00
Railway shops.....	10,391 17	10,361 78	52,450 00
Rope.....	400 00	4,000 00	
Saddlery	1,500 00	5,000 00	
Sash, doors, blinds, and planing mills.....	61,330 90	67,542 00	69,795 00

TABLE A.—*New Factory Building Improvements and New Machinery.*—
Continued.

New machin- ery added at all other places in the state.	Total new factory build- ing im- provements.	Total new machinery added.	INDUSTRIES.
\$29,600 00	\$71,150 00	\$71,290 00	Furniture
		500 00	Furs
25,000 00	8,000 00	95,000 00	Gas
1,500 00		1,500 00	Glue
15,000 00	30,000 00	15,000 00	Granite
15,000 00	6,500 00	15,000 00	Hardware
	57,000 00	20,000 00	Hats (straw)
	1,200 00	500 00	Incubators
2,000 00	3,500 00	2,000 00	Invalid food
35,000 00	116,500 00	61,600 00	Iron and steel works
1,000 00			Malleable
15,600 00			Pig
15,500 00	14,000 00	56,500 00	Knitting works
11,200 00	4,700 00	23,200 00	Laundries (steam)
31,340 00	188,500 00	99,113 65	Leather
12,690 00	5,500 00	12,600 00	Linen mills
		2,250 00	Lithographing
17,000 00		17,000 00	Locks
682,963 00	370,646 00	674,463 00	Lumber
	1,200 00	1,000 00	Macaroni and vermicelli
349,344 40	325,873 45	545,824 40	Machine shops, iron and brass foundries
	2,668 00	2,500 00	Marble and cut stone
8,000 00	23,600 00	14,750 00	Mattresses
1,300 00	2,500 00	1,300 00	Mineral water, etc
		500 00	Oils, greases, etc
5,000 00	2,000 00	5,000 00	Oxide of zinc
6,000 00	800 00	6,800 00	Paints
355,650 00	243,200 00	356,225 00	Paper and pulp
5,741 87	4,937 15	6,141 87	Potteries
18,280 00	29,200 00	69,565 00	Printing and publishing
19,275 00	62,841 17	29,636 78	Railway shops
	400 00	4,000 00	Rope
	1,500 00	5,000 00	Saddlery
116,375 00	131,125 90	183,917 00	Sash, doors, blinds, and planing mills

TABLE A.—*New Factory Building Improvements and New Machinery.*—
Continued.

INDUSTRIES.	New factory building improvements in the city of Milwaukee.	New machinery added in the city of Milwaukee.	New factory building improvements at all other places in the state.
Sausage		\$1,100 00	.....
Scales.....			\$3,000 00
Shipbuilding.....	\$3,000 00	5,700 00	2,000 00
Soap	1,500 00	3,000 00	500 00
Starch (potato).....			4,500 00
Statuary (parlor).....	500 00		.....
Stoves		900 00	3,200 00
Tacks and small nails.....	7,500 00	11,000 00	200 00
Tents, awnings, sails, etc		600 00	.....
Tinware	191,500 00	44,500 00	.....
Toys.....			4,620 00
Trunks, valises, etc	70,000 00	5,400 00	14,200 00
Vinegar	3,000 00	4,350 00	.....
Wagons, carriages, sleighs, etc	10,000 00	6,196 00	20,750 00
Water works.	29,500 00	37,500 00	11,921 40
Well boring		12,000 00	.....
Willow ware	1,150 00	2,500 00	.....
Windmills, tanks, etc			13,350 00
Wire works.....		1,700 00	.....
Wooden ware			5,500 00
Woolen mills.....			15,500 00
Yeast.....			5,600 00
Total	\$1,616,616 70	\$1,356,075 80	\$1,804,808 72

TABLE A.—*New Factory Building Improvements and New Machinery.*—
Continued.

New machin- ery added at all other places in the state.	Total new factory build- ing im- provements.	Total new machinery added.	INDUSTRIES.
		\$1,100 00	Sausage
\$300 00	\$3,000 00	300 00	Scales
1,800 00	5,000 00	7,500 00	Shipbuilding
425 00	2,000 00	3,425 00	Soap
3,500 00	4,500 00	3,500 00	Starch (potato)
	500 00		Statuary (parlor)
1,800 00	3,200 00	2,700 00	Stoves
600 00	5,700 00	11,600 00	Tacks and small nails
		600 00	Tents, awnings, sails, etc
	191,500 00	44,500 00	Tinware
6,838 75	4,620 00	6,838 75	Toys
8,950 00	84,200 00	14,350 00	Trunks, valises, etc.
	3,000 00	4,350 00	Vinegar
38,075 00	30,750 00	44,271 00	Wagons, carriages, sleighs, etc
137,850 00	41,421 40	175,350 00	Water works
		12,000 00	Well boring
	1,150 00	2,500 00	Willow ware
11,400 00	13,350 00	11,400 00	Windmills, tanks, etc.
		1,700 00	Wire works
17,400 00	5,500 00	17,400 00	Wooden ware
15,700 00	15,500 00	15,700 00	Woolen mills
300 00	5,600 00	300 00	Yeast
\$2,611,109 46	\$3,421,425 42	\$3,967,185 26	Total

TABLE B.—Showing the Amounts Spent for New Factory Building Improvements and New Machinery during the years 1888 and 1889. Arranged according to Localities.

LOCALITIES.	New Factory Building Improvements.	New Machinery Added.
Abrams.....	\$500 00	\$2,000 00
Addison.....		62 00
Alban.....	200 00	150 00
Alma.....	8,000 00	16,000 00
Amery.....	10,500 00	6,500 00
Aniwa.....	4,000 00	7,000 00
Antigo.....	3,200 00	15,500 00
Appleton.....	86,645 00	93,413 75
Ashland.....	79,450 00	215,780 00
Baldwin.....	125 00	
Baraboo.....	500 00	8,150 00
Barron.....	500 00	5,000 00
Barronet.....		1,300 00
Bayfield.....		2,000 00
Bear Creek Station.....	500 00	300 00
Beaver Dam.....	1,500 00	6,000 00
Beldenville.....	300 00	250 00
Belle Center.....	72 00	62 00
Bellevue.....		1,200 00
Beloit.....	26,000 00	53,560 00
Berlin.....	10,000 00	16,300 00
Big Wausaukee.....	3,000 00	5,000 00
Birnamwood.....	4,500 00	1,000 00
Black Creek.....	40 00	1,000 00
Black Creek Falls.....	1,000 00	3,000 00
Black Earth.....	100 00	400 00
Black River Falls.....	500 00	1,000 00
Boaz.....	2,000 00	1,200 00
Boscobel.....	2,100 00	2,300 00
Boyd.....		2,800 00
Boyington.....	500 00	
Brandon.....	1,200 00	1,500 00
Brodhead.....	3,000 00	1,600 00
Brooklyn.....	2,000 00	500 00
Buckbee.....	2,000 00	12,000 00
Burlington.....	100 00	3,400 00
Burr.....	300 00	
Butternut.....	1,000 00	3,000 00
Cadott.....		5,000 00
Cady Mills.....	10,000 00	9,000 00
Calamine.....		7,000 00
Casco.....	1,000 00	700 00
Cassville.....	500 00	1,500 00
Cavour.....		2,000 00
Cedarburg.....		600 00
Cedar Falls.....	4,000 00	800 00
Centralia.....	550 00	11,250 00
Chaseburg.....	700 00	
Chilton.....	3,200 00	2,000 00
Chippewa City.....	500 00	
Chippewa Falls.....	500 00	
Cochrane.....	570 00	1,950 00
Colby.....	300 00	2,500 00
Connorsville.....	900 00	800 00
Cox.....	500 00	
Crandon.....	1,800 00	1,750 00
Cross Plains.....	500 00	1,000 00
Cumberland.....		2,000 00
Dakota.....	150 00	
Deerbrook.....		500 00
Delavan.....	850 00	1,200 00
Depere.....	3,000 00	3,186 00
Dexter ville.....	7,000 00	
Manchester.....	400 00	1,780 00

TABLE B.—*New Factory Building Improvements and New Machinery—*
Continued.

LOCALITIES.	New Factory Building Improvements.	New Machinery Added.
Drummond.....	\$10,000 00	\$6,000 00
Dupont.....	600 00	500 00
Eagle River.....	7,000 00	30,000 00
Eau Claire.....	69,000 00	109,975 00
Edgerton.....	4,938 15	5,741 87
Edson.....		300 00
Eland.....	500 00	2,000 00
Elderon.....	6,000 00	5,000 00
Ellis Junction.....	2,500 00	4,500 00
Elmhurst.....	1,500 00	4,500 00
Embarrass.....	5,000 00	7,000 00
Fairchild.....	7,000 00	28,000 00
Fond du Lac.....	9,165 00	31,265 00
Fort Atkinson.....	23,000 00	15,500 00
Fort Howard.....	15,700 00	19,045 00
Foscuro.....	200 00	
Fountain City.....	3,000 00	10,075 00
Gagen.....	500 00	1,200 00
Galesville.....	3,150 00	8,200 00
Glenmore.....	300 00	100 00
Glenwood.....	48,000 00	50,000 00
Grafton.....	1,300 00	
Grand Rapids.....	500 00	1,000 00
Gravesville.....	300 00	100 00
Green Bay.....	16,500 00	32,266 00
Hammond.....	306 72	103 74
Haney.....	500 00	
Hansen.....	800 00	2,000 00
Harrisville.....	500 00	100 00
Hartford.....	11,000 00	7,000 00
Hartland.....	150 00	
Hawthorne.....	1,500 00	3,000 00
Hayward.....	8,500 00	8,300 00
Hofa Park.....	500 00	300 00
Horicon.....		1,600 00
Houlton.....	5,000 00	7,000 00
How.....	1,000 00	
Hudson.....	2,500 00	7,500 00
Hunting.....		2,000 00
Hurley.....	10,300 00	23,900 00
Ironton.....	500 00	
Janesville.....	11,800 00	171,150 00
Juneau.....	5,000 00	9,000 00
Kaukauna.....	22,200 00	22,300 00
Kenosha.....	49,513 45	55,749 40
Kewaunee.....		375 00
Kilbourn City.....	350 00	1,350 00
La Crosse.....	41,095 00	56,655 00
Lake Mills.....	3,000 00	2,700 00
Lakeside.....	50 00	37 00
Leopolis.....	200 00	
McDill.....	1,000 00	500 00
Madison.....	56,721 40	69,050 00
Malcolm.....	29,000 00	3,000 00
Manitowoc.....	12,850 00	17,750 00
Maniwa.....	1,000 00	500 00
Maplewood.....	150 00	300 00
Marble.....	150 00	175 00
Marrietta.....		1,000 00
Marinette.....	41,650 00	120,150 00
Marshfield.....	5,000 00	1,000 00
Mason.....		600 00
Mauston.....		1,500 00
Mayville.....	6,600 00	15,000 00
Mazomanie.....	2,100 00	10,400 00
Meadow Valley.....	1,000 00	500 00
Medford.....	17,300 00	20,200 00
Menasha.....	156,200 00	202,200 00
Menomonie.....	6,900 00	3,000 00

TABLE B.—*New Factory Building Improvements and New Machinery—*
Continued.

LOCALITIES.	New Factory Building Improvements.	New Machinery Added.
Merrill	\$7,500 00	\$37,800 00
Merrillan	728 00	1,200 00
Milwaukee	1,616,616 70	1,356,075 80
Mineral Point	2,000 00	5,000 00
Mondovi	50 00	1,000 00
Monroe	20,000 00	450 00
Montello	450 00	
Necedah	19,200 00	29,200 00
Neenah	1,500 00	9,700 00
Neillsville		30 00
New Denmark		700 00
New Holstein	6,000 00	2,900 00
New London		9,600 00
New Richmond	700 00	
Newton	2,000 00	5,000 00
Norrie	1,000 00	8,000 00
North Freedom	200 00	
Norwalk	1,500 00	20,500 00
Oconto	6,000 00	14,300 00
Oconto Falls	500 00	500 00
Oil City	750 00	3,750 00
Onalaska	500 00	400 00
Ontario	700 00	800 00
Oregon	30,600 00	90,050 00
Oshkosh	4,000 00	300 00
Otter Creek	1,600 00	
Palmyra	10,000 00	5,000 00
Phillips	1,000 00	200 00
Pine River	5,000 00	3,000 00
Pittsville		2,970 70
Plymouth	3,500 00	11,000 00
Portage		2,500 00
Porter's Mills	2,200 00	9,200 00
Port Washington	350 00	2,500 00
Pound		4,000 00
Prairie du Chien	750 00	2,000 00
Prentice	1,000 00	700 00
Pulcifer	188,100 00	67,050 00
Racine	1,400 00	7,300 00
Reedsburg	4,000 00	400 00
Remington	7,000 00	31,000 00
Rhineland	150 00	1,200 00
Rib Falls	3,000 00	1,000 00
Rib Lake	5,300 00	5,600 00
Rice Lake	1,000 00	3,000 00
Richland Center	4,500 00	4,080 00
River Falls	50 00	700 00
Rock Elm	350 00	500 00
Rome	100 00	50 00
Rowley's Bay	300 00	100 00
Sabin	2,000 00	800 00
Schleisingsville	2,200 00	
Schofield	200 00	
Shamrock	300 00	1,000 00
Shawano	67,490 00	69,415 00
Sheboygan	9,900 00	1,390 00
Sheboygan Falls	1,754 00	897 00
Shell Lake	2,000 00	10,000 00
Sherry	1,000 00	100 00
Snow	7,400 00	4,500 00
Soldier's Grove		300 00
Somerset	1,000 00	10,550 00
Sparta	500 00	1,300 00
Spokeville	400 00	500 00
Spring Lake	3,000 00	1,500 00
Stearns		2,000 00
Sterling	700 00	1,000 00
Steuben		

TABLE B.—*New Factory Building Improvements and New Machinery.*—
Continued.

LOCALITIES.	New Factory Building Improvements.	New Machinery Added.
Stevens Point.....	\$2,500 00	\$4,800 00
Stiles.....	1,500 00	4,000 00
Stoddard.....	150 00	
Stoughton.....		800 00
Three Lakes.....	3,000 00	
Tigerton.....	3,000 00	1,000 00
Tomah.....	100 00	400 00
Tomahawk.....	11,500 00	44,500 00
Trade Lake.....	300 00	
Trippville.....	500 00	1,500 00
Tustin.....	100 00	75 00
Two Rivers.....	5,500 00	15,400 00
Unity.....		1,400 00
Valton.....	75 00	50 00
Vanceburgh.....		600 00
Vesper.....	1,200 00	1,500 00
Washburn.....	27,500 00	34,500 00
Waterman.....	1,000 00	750 00
Watertown.....	7,500 00	9,500 00
Waukesha.....	5,300 00	4,650 00
Waupaca.....	7,000 00	2,800 00
Waupun.....		6,500 00
Wausau.....	8,550 00	18,750 00
Wauwatosa.....	12,400 00	37,650 00
Weber.....	70 00	
Wein.....	500 00	200 00
West Bend.....	4,100 00	6,450 00
West Superior.....	199,700 00	107,500 00
Whitewater.....	14,000 00	25,400 00
Whittlesey.....		225 00
Winneconne.....		1,000 00
Wood Lake.....	200 00	100 00
Total.....	\$3,421,425 42	\$3,967,185 26

TABLE C.—INSPECTION STATISTICS—*Showing the Relative Importance of Twenty-three leading Branches of Manufacture in Wisconsin, Based Upon the Number of Persons Employed.*

(Grand Total of Employees in all Industries, 90,656.)

Position.	Industries.	Total number of persons employed.	Percentage of grand total. (90,656).	Proportion employed in city of Milwaukee.	Proportion all other parts of the state.
1	Lumber, lath, shingles, etc.....	22,923	25.29	.....	25.29
2	Iron works, foundries and machine shops.....	7,127	7.86	4.77	3.09
3	Furniture and chairs.....	5,356	5.91	1.26	4.65
4	Sash, doors, blinds; planing mills ...	3,720	4.10	.67	3.43
5	Wagons, carriages, sleighs, etc.....	3,660	4.04	.57	3.47
6	Clothing	3,300	3.64	2.61	1.03
7	Agricultural implements and machinery	¹ 3,124	3.45	.38	3.07
8	Railway shops.....	² 3,123	3.45	1.80	1.65
9	Leather	3,017	3.33	1.97	1.36
10	Printing, publishing, book-binding, lithographing and engraving.....	³ 2,879	3.17	1.67	1.50
11	Beer and malt.....	2,820	3.11	1.85	1.26
12	Boots and shoes.....	⁴ 2,796	3.08	1.35	1.73
13	Knitting works.....	2,047	2.25	1.67	.58
14	Paper and pulp.....	1,813	2.00	.....	2.00
15	Cooperage	⁵ 1,812	2.00	.54	1.46
16	Flour, feed, etc.....	1,715	1.89	.44	1.45
17	Rolling mills.....	1,425	1.58	1.43	.15
18	Brick.....	⁶ 1,166	1.29	.71	.58
19	Trunks, valises, etc.....	1,088	1.20	.85	.35
20	Abattoirs, beef and pork packing....	966	1.06	1.06	.....
21	Woolen and worsted mills.....	904	.99	.....	.99
22	Cigars.....	⁷ 841	.93	.72	.21
23	Tinware.....	841	.93	.93	.....
	Total.....	78,462	86.55	27.25	59.30
	All other industries.....	12,194	13.45	5.56	7.89
		90,656	100.00	32.81	67.19

¹ Includes 127 persons employed in the manufacture of dairy implements.

² Actual shop employees only.

³ Does not include editors and reporters; nor any of the numerous local weeklies which employ only two or three persons, which would increase the number of employees by one hundred; but would not change the relative position of this particular branch of industry.

⁴ Includes 880 convicts employed at the trade in the Wisconsin State Prison. Deducting this number, the legitimate position would remain unchanged.

⁵ Does not include any cooper shops where less than five persons are employed, of which there are about forty-five in the city of Milwaukee, employing in all about 150 coopers, making beer kegs, and other tight barrels.

⁶ There are a number of brickyards throughout the state, where no machinery is used and but few persons employed during two or three months of the year. Such are not included in the table.

⁷ Does not include any factories where less than five persons are employed, of which there are a great number, especially in Milwaukee (nearly 200), employing about 400 men, proprietors included.

TABLE D.—SUMMARY OF ACCIDENTS — *Which have occurred in the factories of Wisconsin, during the years 1888 and 1889, as reported by the factory Inspectors.*

(For details see Report of Inspection.)

Record No.	Localities.	Nature of Accidents.	Number of Accidents.
941	Abrams	Loss of three fingers	1
1201	Amery	Arm broken	1
1201	Amery	Loss of two fingers	1
1017	Antigo	Leg broken	1
206	Appleton	Leg broken	1
215	Appleton	Injury of head	1
230	Appleton	Killed by boiler explosion	1
1248	Ashland	Loss of two fingers	1
1249	Ashland	Killed by saw carriage	1
1277	Bad River	Loss of arm and foot	1
772	Baraboo	Head injured (child)	1
773	Baraboo	Arm lacerated (lady)	1
1454	Belle Center	Injury of head	1
600	Beloit	Ankle broken by boiler explosion	1
1360	Birnamwood	Leg broken	1
956	Black Creek	Loss of two fingers	1
1348	Cavour	Loss of three fingers	1
963	Cedar Falls	Killed by flying board from edger	1
721	Centralia	Loss of two fingers	1
677	Chippewa Falls	Loss of two fingers	1
1420	Connorsville	Loss of four fingers	1
1436	Connorsville	Killed by flying spoke	1
1322	Dallas	Bruised hand	1
165	Depere	Arm broken	1
978	Downsville	Loss of one finger	1
1033	Eagle River	Leg broken	1
634	Eau Claire	Loss of one finger	1
635	Eau Claire	Loss of one finger	1
654	Eau Claire	Loss of one hand	1
1340	Eldron	Loss of five fingers	1
988	Ellis Junction	Hand bruised	1
380	Fond du Lac	Leg broken	1
240	Fort Atkinson	Loss of two fingers	1
240	Fort Atkinson	Slightly injured by explosion of forge	1
189	Fort Howard	Leg broken	2
727	Grand Rapids	Arm dislocated	1
1085	Hewitt	Loss of three fingers	1
835	Hilbert Junction	Killed (arm caught in gearing)	1
812	Horicon	Loss of one finger	1
1434	Hurley	Leg broken	1
554	Janesville	Loss of one hand	1
558	Janesville	Loss of one finger	1
856	Kaukauna	Crushed finger	1
861	Kaukauna	Killed (apron caught in shafting)	1
826	Kiel	Loss of one hand	2
561	La Crosse	Loss of one finger	1
588	La Crosse	Loss of thumb and one finger	1
591	La Crosse	Killed by flying board from edger	1
592	La Crosse	Loss of two fingers	1
593	La Crosse	Leg broken	1
593	La Crosse	Internal injury	1
594	La Crosse	Loss of two fingers	1
596	La Crosse	Loss of one finger	2
596	La Crosse	Loss of one finger	1
598	La Crosse	Killed, sliding lumber into river	2
599	La Crosse	Both legs broken	1
599	La Crosse	Arm broken	1
1293	Little Black	Loss of one finger	1
1293	Little Black	Dislocation of shoulder	1
1293	Little Black	Slight injury	1
1366	McDill	Loss of one finger	1
1410	McDill	Loss of two fingers	1
187	Manitowoc	Loss of three fingers	1
905	Marinette	Broken wrist	1
906	Marinette	Broken leg	1
911	Marinette	Killed by falling pile of lumber	1
911	Marinette	Leg broken	1

TABLE D. — SUMMARY OF ACCIDENTS — Continued.

Record No.	Localities.	Nature of Accidents.	Number of Accidents.
1086	Marshfield.....	Crushed fingers.....	1
1089	Marshfield.....	Loss of thumb.....	1
263	Menasha.....	Loss of thumb.....	2
271	Menasha.....	Severe injury of hand.....	1
272	Menasha.....	Loss of three fingers.....	1
983	Menasha.....	Loss of one finger.....	2
791	Menomonie.....	Killed by caving in of clay bank.....	3
791	Merrill.....	Loss of part of foot.....	1
786	Merrill.....	Killed by flying slab.....	1
793	Merrill.....	Loss of thumb.....	1
794	Merrill.....	Loss of leg.....	1
800	Merrill.....	Injury of leg.....	1
1025	Merrill.....	Loss of one hand.....	1
1382	Merrill.....	Loss of part of hand.....	1
1382	Milwaukee.....	Killed; suffocated in cistern.....	1
1382	Milwaukee.....	Killed; struck head driving under bridge.....	1
1382	Milwaukee.....	Killed by breaking of rope.....	2
1382	Milwaukee.....	Killed by falling crane.....	1
1399	Milwaukee.....	Leg broken.....	1
1401	Milwaukee.....	Foot crushed, lost toe.....	1
1402	Milwaukee.....	Killed by explosion of steam heater.....	1
1484	Milwaukee.....	Broken ankle joint.....	1
1558	Milwaukee.....	Leg broken.....	1
1564	Milwaukee.....	Killed; falling into smoke house.....	1
1587	Milwaukee.....	Killed (boy); caught in fly-wheel.....	1
1591	Milwaukee.....	Killed; caught in shafting.....	1
1617	Milwaukee.....	Killed by breaking of rope.....	1
1622	Milwaukee.....	Severely burned.....	1
1635	Milwaukee.....	Nose broken.....	1
1648	Milwaukee.....	Leg broken.....	1
1658	Milwaukee.....	Loss of three fingers.....	1
1658	Milwaukee.....	Hand crushed (girl).....	1
1703	Milwaukee.....	Arm broken.....	1
1727	Milwaukee.....	Killed; caught under elevator.....	1
1811	Milwaukee.....	Loss of two fingers (boy).....	1
1892	Milwaukee.....	Killed (boy); falling down elevator shaft.....	1
1920	Milwaukee.....	Loss of two fingers (boy).....	1
1929	Milwaukee.....	Killed; falling down elevator shaft.....	1
1964	Milwaukee.....	Loss of three fingers.....	1
1965	Milwaukee.....	Severely injured by elevator (boy).....	1
1969	Milwaukee.....	Lost an eye.....	1
783	Mosinee.....	Lost an eye.....	1
862	Necedah.....	Loss of foot.....	1
863	Necedah.....	Loss of three fingers.....	1
284	Neenah.....	Loss of two fingers (girl).....	1
285	Neenah.....	Loss of one finger.....	1
958	Neenah.....	Injury to hip.....	1
1009	New London.....	Loss of tips of four fingers.....	1
885	Norrie.....	Slight injuries.....	2
517	Oconto.....	Loss of two fingers.....	1
368	Oconto.....	Hand badly injured.....	1
303	Onalaska.....	Loss of two fingers.....	1
304	Oshkosh.....	Fingers crushed.....	1
313	Oshkosh.....	Loss of two fingers.....	1
316	Oshkosh.....	Loss of three fingers.....	1
342	Oshkosh.....	Leg broken.....	1
345	Oshkosh.....	Loss of one leg.....	1
363	Oshkosh.....	Loss of thumb.....	1
367	Oshkosh.....	Loss of one finger.....	1
1343	Oshkosh.....	Slight injury to hand.....	1
876	Oshkosh.....	Loss of five fingers.....	1
940	Oshkosh.....	Loss of an eye.....	1
1817	Oshkosh.....	Loss of four fingers.....	1
22	Pine River.....	Loss of two fingers.....	1
27	Porter's Mills.....	Loss of two fingers.....	1
33	Pound.....	Killed by boiler explosion.....	5
33	Pound.....	Injured severely.....	4
33	Pulcifer.....	Loss of three fingers.....	1
33	Racine.....	Loss of four fingers.....	1
33	Racine.....	Loss of one finger.....	1
33	Racine.....	Internal injury.....	1

TABLE D. — SUMMARY OF ACCIDENTS — Continued.

Record No.	Localities.	Nature of Accidents.	Number. of Accidents.
64	Racine.....	Burns.....	1
	Racine.....	Severe injury, boiler explosion.....	1
	Racine.....	Slight injuries, boiler explosion.....	2
74	Racine.....	Loss of one finger.....	1
81	Racine.....	Killed, caught in belt.....	1
1036	Rhineland.....	Arm broken.....	1
1038	Rhineland.....	Dislocation of ankle.....	1
	Sheboygan.....	Loss of one finger.....	1
49	Sheboygan.....	Internal injury.....	1
84	Sheboygan.....	Loss of four fingers.....	1
96	Sheboygan.....	Loss of five fingers.....	1
97	Sheboygan.....	Loss of one leg.....	1
36	Sheboygan Falls..	Loss of one finger (girl).....	1
1303	Snow.....	Loss of five fingers.....	1
1705	Soldiers' Grove..	Loss of two fingers.....	1
1300	Stearns.....	Loss of one finger.....	1
1070	Stevens Point....	Loss of thumb.....	1
1072	Stevens Point ..	Injury to hand.....	1
1419	Trippville.....	Injury to foot.....	2
	Trippville.....	Injury to hand.....	1
737	Wausau.....	Loss of three fingers.....	1
740	Wausau.....	Loss of two fingers.....	1
756	Wausau.....	Bruised hand.....	1
1227	West Superior....	Killed, falling on rotary saw.....	1
	West Superior....	Killed, board flying from edger.....	1
1230	West Superior....	Leg broken.....	1
1235	West Superior....	Both legs broken.....	1

RECAPITULATION.

Total number of accidents.....	184	<i>The Fingers —</i>	
Milwaukee.....	29	Loss of one finger.....	20
Other localities.....	155	Loss of two fingers.....	20
		Loss of three fingers.....	11
Fatal.....	35	Loss of four fingers.....	5
Milwaukee.....	13	Loss of five fingers.....	4
Other localities.....	22	Loss of thumb.....	6
		Crushed fingers.....	3
CLASSIFICATION.		<i>The Legs —</i>	
<i>The Head —</i>		Loss of one leg.....	3
Injury of the head.....	3	Broken leg.....	16
Loss of an eye.....	3	Both legs broken.....	2
Broken nose.....	1	Injury to leg.....	1
<i>The Shoulders —</i>		<i>The Feet —</i>	
Dislocation of shoulder.....	1	Loss of one foot.....	1
<i>The Arms —</i>		Loss part of foot.....	1
Arm broken.....	5	Bruised foot.....	3
Dislocation of arm.....	1	Broken ankle.....	2
Laceration of arm.....	1	Dislocation of ankle.....	1
Broken wrist.....	1	Loss of foot and arm.....	1
<i>The Hands —</i>		<i>Internal Injuries —</i>	
Loss of one hand.....	5	Severe.....	6
Loss of part of hand.....	1	Slight.....	9
Bruised hand.....	9	Hip.....	1
		<i>External Injuries —</i>	
		Severe burns.....	2

SUMMARY OF ORDERS ISSUED

BY THE FACTORY INSPECTORS DURING THE YEARS 1888 AND 1889.

(For details see Report of Inspection.)

CLASSIFICATION OF ORDERS.	In the city of Milwaukee.	In other localities.	Total.
<i>Fire escapes —</i>			
New.....	23	18	41
Extended to roof.....	6		6
Platforms on.....	12	4	16
Inside ladder.....		1	1
<i>Elevators —</i>			
New cables in.....	3	10	13
Guards around wells.....	17	56	73
General repairs.....		3	3
Alarm bell changed.....		1	1
Expose cable.....	1		1
<i>Stairways —</i>			
Railings or guards on.....	55	104	159
<i>Safety guards —</i>			
On circular saws.....	64	286	350
On fly wheels.....	50	54	104
On slasher saws.....		45	45
On shafting.....	6	20	26
On pulleys.....	15	20	35
On gearing.....	7	13	20
On projecting keys.....	1	4	5
On set screws.....	1	14	15
On sprocket wheels.....		1	1
On piston rods.....	2	10	12
On cranks.....	4	7	11
Around holes in floors.....	3	6	9
Over exposed exhaust pipe.....		1	1
Around platforms.....	3	1	4
On belting.....	7	42	49
<i>Main doors —</i>			
To swing outward.....	8	34	42
<i>Children under 13 years of age —</i>			
Discharged.....	11	38	49
<i>Miscellaneous —</i>			
Ventilators, etc.....	7	2	9

SYNOPTICAL REPORT OF INSPECTION

OF

HOTELS, PUBLIC HALLS, AND OTHER BUILDINGS.

HOTELS.

- ALMA — The Commercial Hotel. Ordered main doors to swing outward.
- ANTIGO — Vivian House. Ordered escapes; doors to swing outward.
- APPLETON — Sherman House. Ordered fire escape; time piece for watchman; directions posted for means of escape.
- APPLETON — Waverly House. Ordered time piece for watchman; printed directions posted for means of escape; door left open to fire escape.
- ASHLAND — Colby House. Ordered printed directions posted for means of escape; time piece for watchman.
- BARABOO — Urban House. Ordered doors changed.
- BELOIT — Goodwin House. Ordered recording watch and key.
- CEDARBURG — Washington House. Ordered main doors to swing outward.
- CHELSEA — Gearhart House. Ordered main doors to swing outward.
- CHIPPEWA FALLS — Boucher House. Ordered fire escape; main door to swing outward.
- CHIPPEWA FALLS — Stanley House. Ordered time piece for watchman; directions posted for means of escape.
- DELAVER — Park Hotel. Ordered fire escape.
- EAU CLAIRE — Eau Claire House. Ordered printed directions to escape posted in each room; time piece.
- EAU CLAIRE — Frawley House. Ordered printed directions to escape in each room; time piece for watchman; stairway extended from 2d to 3d floor; fire escape.
- EAU CLAIRE — Galloway House. Ordered time piece; printed directions to fire escape posted in each room; balconies on fire escapes.
- EAGLE RIVER — Veronica House. Ordered doors to swing outward.
- FOND DU LAC — Palmer House. Ordered time piece for watchman.
- GREEN BAY — American House. Ordered three fire escapes.
- GREEN BAY — The Beaumont. Ordered fire escape; directions to escape posted; time piece for watchman.
- HURLEY — Burton House. Ordered fire escape; directions to escape posted.
- JANESVILLE — Windsor Hotel. Ordered fire escape.
- KENOSHA — Garfield House. Ordered doors to swing outward.
- KENOSHA — Grant House. Ordered balconies connected by ladders.
- LA CROSSE — Burlington House. Ordered main doors to swing outward.
- LA CROSSE — International Hotel. Ordered printed directions to escapes.
- LA CROSSE — Merchants Hotel. Ordered fire escape.
- LA CROSSE — Nora House. Ordered fire escape.
- LA CROSSE — Park Hotel. Ordered fire escape.
- LA CROSSE — Revere House. Ordered fire escape.
- MARINETTE — Exchange Hotel. Ordered fire escape.
- MENASHA — National Hotel. Ordered platforms connected.
- MENOMONIE — Hotel Royal. Ordered main doors to swing outward; balconies connected.
- MILWAUKEE — Plankinton House. Ordered time piece for watchman and guard on fly wheel in engine room.

MILWAUKEE—Ricketson House. Ordered printed directions to fire escapes posted.
 MILWAUKEE—Tremont House. Ordered fire escape extended to roof.
 NEW RICHMOND—Nicollet House. Ordered balconies connected; part of main door to swing out.
 NEILLSVILLE—The O'Neil House. Ordered balconies connected.
 OSHKOSH—Tremont House. Ordered printed directions to escapes posted in each room.
 PORTAGE—Corning House. Ordered fire escape; printed directions posted to escape.
 RACINE—Commercial House. Ordered fire escape.
 RIVER FALLS—Gladstone House. Ordered fire escape; main doors to swing outward.
 SHAWANO—Murdock House. Ordered doors changed.
 SHEBOYGAN—Grand Hotel. Ordered fire escape; main doors to swing outward.
 SILVER LAKE—Silver Lake House. Ordered fire escape; outward swinging doors.
 STEVENS POINT—Curran House. Ordered fire escape.
 SUPERIOR—Nicollet House. Ordered fire escape.
 WAUKESHA—Coleman House. Ordered fire escape extended; balconies connected.
 WAUKESHA—Fountain Spring House. Ordered time piece; printed directions posted to escapes.
 WAUKESHA—Hadfield, J. J. Ordered fire escape.
 WAUKESHA—National Hotel. Ordered railing on fire escape.
 WAUKESHA—Spring City Hotel. Ordered time piece; printed directions to escapes.
 WAUSAU—Germania House. Ordered main doors to swing outward.
 WAUSAU—Hotel Bellis. Ordered printed directions to escapes; time piece for watchman.
 WEST SUPERIOR—Bay View House. Ordered main doors to swing outward.
 WEST SUPERIOR—Central House. Ordered main doors to swing outward.
 WEST SUPERIOR—Hotel Tower. Ordered fire escape; platforms on escape; printed directions to escape.
 WEST SUPERIOR—Kommers Hotel. Ordered main doors to swing outward.
 WEST SUPERIOR—The West Superior. Ordered main doors to swing outward; time piece for watchman.
 WEST SUPERIOR—Tremont House. Ordered time piece; printed directions to escapes.
 WHITEWATER—Bower House. Ordered fire escape.
 WHITEWATER—Commercial House. Ordered fire escape.

ASSEMBLY HALLS.

ALMA—Boehne, C. A. Ordered fire escape.
 ASHLAND—Shores Building Association. Ordered fire escape.
 BELOIT—Masonic Hall. Ordered fire escape.
 CHIPPEWA FALLS—McRae, H. C. Ordered fire escape.
 EAU CLAIRE—Odd Fellows Hall. Ordered fire escape.
 FORT ATKINSON—Ole Wigdale, Agt. Ordered fire escape; platform extended to reach both halls.
 HUDSON—Chaplin, H. D. Ordered fire escape.
 JANESVILLE—A. O. U. W. Hall. Ordered fire escape.
 JANESVILLE—Armory of Janesville Light Infantry. Ordered fire escape.
 JANESVILLE—Brunette Hall. Ordered fire escape.
 JANESVILLE—Good Templars Hall. Ordered fire escape.
 JANESVILLE—K. P. Hall. Ordered fire escape.
 JANESVILLE—Masonic Hall. Ordered fire escape.
 JANESVILLE—Odd Fellows Hall. Ordered fire escape.
 JANESVILLE—Williams Block. Ordered fire escape.
 LA CROSSE—Batavian Bank. Ordered fire escape.
 LA CROSSE—Berger, H. Ordered fire escape.
 LA CROSSE—Funk, M. Ordered two fire escapes.
 LA CROSSE—Gile, Abner. Ordered fire escape.

LA CROSSE — Gund Brewing Co., The John. Ordered two fire escapes.
 LA CROSSE — La Crosse Business College. Ordered fire escape.
 LA CROSSE — McMillan, Alex. Ordered three fire escapes.
 LA CROSSE — Odd Fellows Association Hall. Ordered fire escape.
 LA CROSSE — Rodolf, Theo. Ordered fire escape.
 LA CROSSE — Sill & Co., W. R. Ordered fire escape.
 LA CROSSE — Solberg, Mrs. Alice. Ordered fire escape.
 MADISON — G. A. R. Hall. Ordered fire escape.
 MADISON — I. O. O. F. Lodge Hall. Ordered fire escape.
 MADISON — K. of P. Hall. Ordered fire escape.
 MENOMONIE — Johnson, A. H. (Hall). Ordered fire escape.
 MENOMONIE — Lucas, C. (Hall). Ordered fire escape.
 MILWAUKEE — Fraternity Hall, 216 Grand Ave. Ordered two fire escapes.
 MILWAUKEE — Assembly Hall, 152 W. Water street. Ordered fire escape.
 MILWAUKEE — Assembly Hall, cor. Third and Walnut streets. Ordered fire escape.
 PORTAGE — F. W. Schulz. Ordered fire escape.
 PRESCOTT — Dill, D. J. Ordered fire escape.
 PRESCOTT — Dudley, John. Ordered fire escape.
 WAUKESHA — Gove, R. L. Ordered fire escape.
 WAUKESHA — Putney, F. H. Ordered fire escape.
 WEST SUPERIOR — First National Bank. Ordered fire escape.

CHURCHES.

ALBANY — Baptist Church. Ordered door changed.
 ASHLAND — Episcopal Church. Ordered main doors to swing outward.
 ASHLAND — Norwegian Danish Methodist Episcopal Church. Ordered main doors to swing outward.
 AUGUSTA — German Evangelical Lutheran Grace Church. Ordered doors to swing outward.
 BRISTOL — Methodist Episcopal Church. Ordered outward swinging doors.
 CAMBRIDGE — Presbyterian Church. Ordered doors changed.
 CASSVILLE — Catholic Church. Ordered doors changed to swing out.
 CHIPPEWA FALLS — German Lutheran Zion Church. Ordered main doors to swing outward.
 CHIPPEWA FALLS — Holy Ghost Church. Ordered door on school room to swing out.
 CHIPPEWA FALLS — Norwegian Lutheran Church. Ordered main doors to swing out.
 COLBY — St. Kilian Church. Ordered main doors to swing out.
 EAU CLAIRE — First Baptist Church. Ordered main doors to swing out.
 EAU CLAIRE — First Congregational Church. Ordered main doors to swing out.
 EAU CLAIRE — Sweedish Emanuels Church. Ordered door to swing out.
 FAIRCHILD — Catholic Church. Ordered main doors to swing out.
 FALL CREEK — St. Jakobus Church. Ordered main doors to swing out.
 GLENWOOD — Union Church. Ordered main doors to swing out.
 HAYWARD — Congregational Church. Ordered main doors to swing out.
 HAYWARD — Scandinavian Church. Ordered main doors to swing out.
 HUMBIRD — Methodist Episcopal Church. Ordered door to swing out.
 HUMBIRD — Seven Day Adventists Church. Ordered door to swing out.
 HURLEY — Presbyterian Church. Ordered main doors to swing out.
 LODI — Catholic Church. Ordered main doors to swing out.
 LA CROSSE — First Scandinavian Church. Ordered main doors to swing out.
 LA CROSSE — German Lutheran Emanuel Church. Ordered school room doors to swing out.
 LITTLE BLACK — German Evangelical Church. Ordered main doors to swing out.
 MEDFORD — Evangelical Lutheran Emanuel Church. Ordered main doors to swing out.

MEDFORD — St. Mary's Church. Ordered main doors to swing out.
MERRILL — German Lutheran Church. Ordered doors changed.
MILWAUKEE — St. Mary's Church. Ordered main door to swing outward.
NEILLSVILLE — Evangelical Lutheran St. Johannes Kirche. Ordered doors to swing out.
NEW RICHMOND — Church of the Immaculate. Ordered main doors to swing out.
NEW RICHMOND — Lutheran Church. Ordered main doors to swing out.
PHILLIPS — Lutheran Church. Ordered main doors to swing out.
PHILLIPS — Union Church. Ordered door to swing out.
THORP — Methodist Church. Ordered main doors to swing out.
WASHBURN — Congregational Church. Ordered main doors to swing out.
WATERTOWN — Faith Home. Ordered fire escape to connect balconies; main door to swing out.
WAUSAU — Reform Church. Ordered main doors to swing out.
WAUWATOSA — Baptist Church. Ordered main doors to swing out.
WEST SUPERIOR — Baptist Church. Ordered main doors to swing out.

PUBLIC SCHOOLS AND COLLEGES.

ALBANY — Public School. Ordered doors changed.
AUGUSTA — Public School. Ordered main doors to swing out.
BOYD — Public School District No. 2. Ordered main doors to swing out.
EAU CLAIRE — The Hardy School. Ordered main doors to swing out.
GLENWOOD — Public School. Ordered main doors to swing out.
MASON — Public School. Ordered main doors to swing out.
MEDFORD — St. Mary's School. Ordered main door to swing out.
MENOMONIE — Public School. Ordered main doors to swing out.
MONTFORT — Primary School. Ordered doors to swing outward.
NEILLSVILLE — St. Mary's School. Ordered main door to swing out.
OGEMA — District School. Ordered main door to swing out.
SAUKVILLE — Public School. Ordered main doors to swing out.
SHEBOYGAN — Business College. Ordered main doors changed.
SPARTA — State Public School. Ordered seven fire escapes.
TWO RIVERS — Second Ward School. Recommended doors changed.
WHITEWATER — Wisconsin State Normal School. Suggested that doors be changed.
WITTENBERG — Indian Mission School. Ordered doors to swing outward.

AMUSEMENT HALLS.

PRESCOTT — Opera Hall. Ordered fire escape.
WEST SUPERIOR — Academy of Music. Ordered main doors changed.

HOSPITALS AND ASYLUMS.

CHIPPewa FALLS — St. Joseph's Hospital. Ordered balconies connected.
GREEN BAY — Brown County Insane Asylum. Ordered two fire escapes.
GREEN BAY — Northern Orphans Home. Ordered fire escape.
MONROE — Green County Poorhouse and Insane Asylum. Ordered doors changed on two buildings.
OSHKOSH — Alexian Bros. Asylum. Ordered two stairway fire escapes.
OSHKOSH — Winnebago County Poorhouse and Insane Asylum. Ordered fire escape.
VERONA — Dane County Poorhouse and Insane Asylum. Ordered outside stairway.
WAUWATOSA — Milwaukee Hospital for the Insane. Ordered platforms on fire escapes of the servants department.
WINNEBAGO — Northern Hospital for the Insane. Ordered four stairway fire escapes.

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- Colorado* — Secretary of State, ex officio; JOHN W. LARKIN, Deputy Commissioner, Denver, Colorado.
- Connecticut* — SAMUEL M. HOTCHKISS, Commissioner, Hartford, Connecticut.
- Illinois* — JOHN S. LORD, Secretary, Springfield, Illinois.
- Indiana* — WILLIAM A. PEELLE, JR., Chief, Indianapolis, Indiana.
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Wisconsin Industrial Statistics.

FOURTH BIENNIAL REPORT

OF THE

COMMISSIONER OF INSURANCE

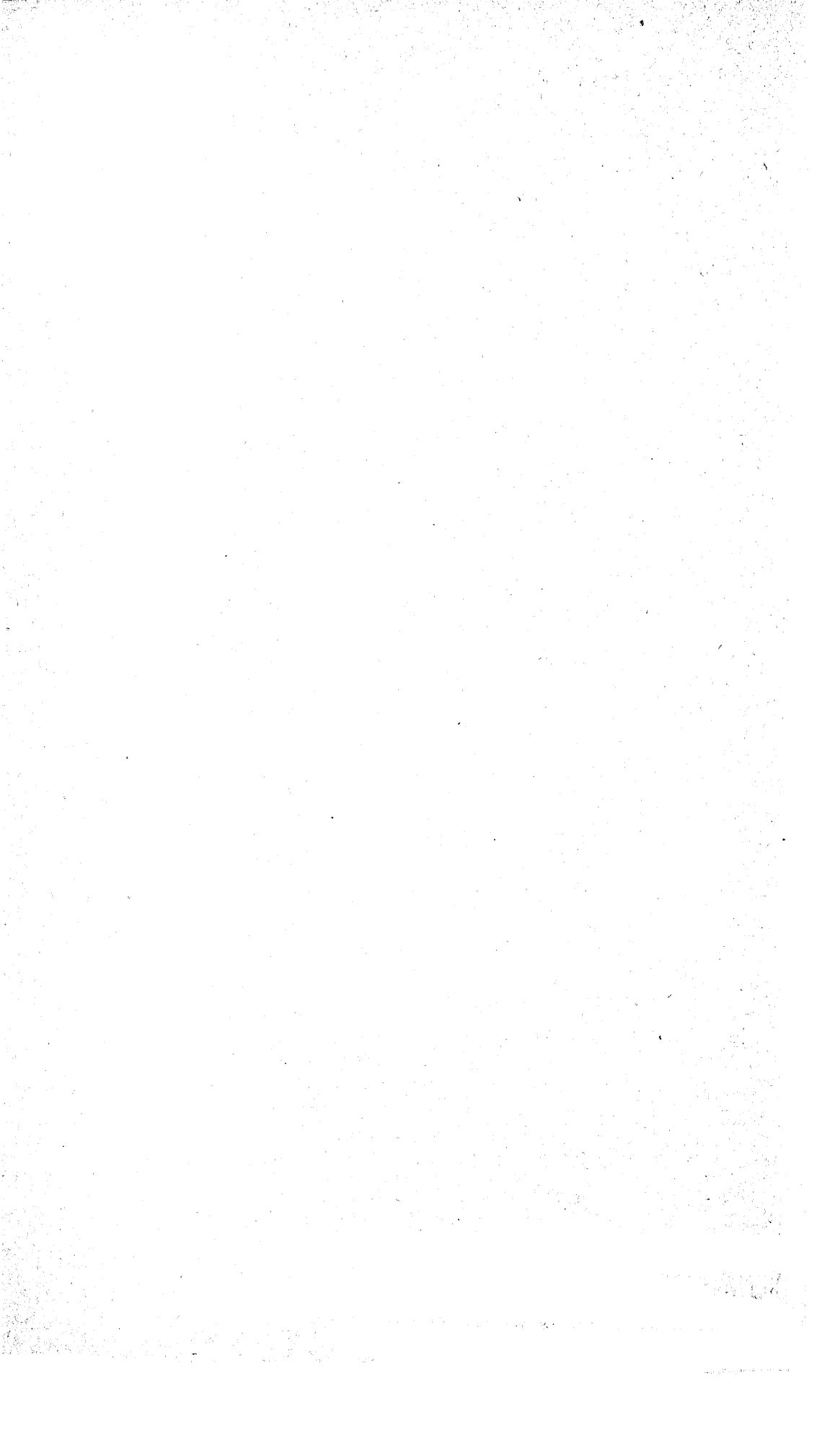
OF THE

STATE OF WISCONSIN.

JULY, 1890.



MADISON, WISCONSIN:
DEMOCRAT PRINTING COMPANY, STATE PRINTERS.
1890.



FOURTH BIENNIAL REPORT

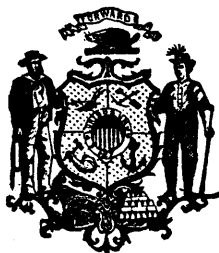
OF THE

COMMISSIONER OF INSURANCE

OF THE

STATE OF WISCONSIN.

JULY, 1890.



MADISON, WISCONSIN:
DEMOCRAT PRINTING COMPANY, STATE PRINTERS.
1890.

COMPANIES ADMITTED SINCE REPORT WAS IN PRESS.

NAME OF COMPANIES.	Cities.	Where located.
Mechanics Ins. Co	Philadelphia	Pennsylvania.
Reading Ins. Co	Reading	Pennsylvania.
Denver Ins. Co	Denver	Colorado.
Reliance Marine Ins. Co	Liverpool	England.
Capital Accident and Disability Ins. Co.....	Springfield	Illinois.
Hekia Ins. Co	St. Paul	Minnesota.
Illinois Mutual Ins. Co.....	Alton	Illinois.
St. Paul German Accident Ins. Co	St. Paul	Minnesota.

FOURTH BIENNIAL REPORT
OF THE
COMMISSIONER OF INSURANCE.

MADISON, June 30, 1890.

To Hon. W. D. HOARD,

Governor of Wisconsin.

SIR:

I have the honor to submit herewith the Seventeenth —
Fourth Biennial — report of this Department.

Respectfully submitted,

PHILIP CHEEK, JR.,

Commissioner of Insurance.

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PART I.

**Fire, Fire-Marine, Marine and
Casualty Insurance.**

Business of Wisconsin.

BUSINESS OF WISCONSIN.

COMPARATIVE STATEMENT.

COMPANIES.	Number of companies.	Risks written.	Premiums received.	Losses paid.	Percentage of losses to premiums received.
1869.					
Wis. joint stock companies....	2	\$5,775,559	\$51,065	\$30,786	.....
Wisconsin mutual companies....	6	31,804,660	316,561	177,434	.....
Companies of other states.....	74	.....	1,119,719	613,452	.....
Companies of foreign countries....	5	.....	53,455	12,008	.....
Totals.....	87	\$37,580,219	\$1,540,800	\$882,660	57.29
1870.					
Wis. joint stock companies....	2	\$13,450,910	\$97,961	\$36,192	.....
Wisconsin mutual companies....	8	28,809,559	339,474	234,096	.....
Companies of other states.....	74	100,257,448	1,136,170	868,654	.....
Companies of foreign countries....	4	4,654,978	48,727	36,270	.....
Totals.....	88	\$147,172,955	\$1,622,332	\$1,175,212	72.44
1871.					
Wis. joint stock companies.....	3	\$14,912,048	\$135,753	\$37,236	.....
Wisconsin mutual companies....	8	21,023,328	272,099	281,023	.....
Companies of other states.....	60	75,054,421	896,219	385,387	.....
Companies of foreign countries....	6	11,064,674	129,126	9,434	.....
Totals.....	77	\$122,084,461	\$1,436,197	\$713,080	49.65
1872.					
Wis. joint stock companies....	3	\$17,530,664	\$210,433	\$63,516	.....
Wisconsin mutual companies....	7	25,204,801	366,394	262,983	.....
Companies of other states.....	68	84,478,871	1,129,565	496,392	.....
Companies of foreign countries....	10	15,137,040	204,235	99,746	.....
Totals.....	88	\$142,351,376	\$1,910,677	\$922,637	48.29

Business of Wisconsin.

COMPARATIVE STATEMENT — Continued.

COMPANIES.	Number of companies.	Risks written.	Premiums received.	Losses paid.	Percentage of losses to premiums received.
1873.					
Wis. joint stock companies....	3	\$18,274,028	\$236,050	\$119,177	.....
Wisconsin mutual companies..	7	26,481,816	409,366	208,702	.....
Companies of other states....	88	98,564,529	1,332,712	573,510	.....
Companies of foreign countries	11	14,085,716	199,803	91,892	.....
Totals.....	109	\$157,406,089	\$2,174,931	\$993,281	45.67
1874.					
Wis. joint stock companies...	3	\$17,918,006	\$260,186	\$105,590	.....
Wisconsin mutual companies..	7	28,282,467	450,557	278,587	.....
Companies of other states.....	89	95,739,674	1,373,326	582,845	.....
Companies of foreign countries	15	12,855,483	187,080	43,001	.....
Totals.....	114	\$154,795,630	\$2,271,059	\$1,010,023	44.00
1875.					
Wis. joint stock companies....	3	\$17,012,081	\$226,422	\$155,667	.....
Wisconsin mutual companies..	6	19,591,053	286,951	281,655	.....
Companies of other states....	110	95,892,289	1,395,232	1,282,451	.....
Companies of foreign countries	14	14,444,956	201,429	157,338	.....
Totals.....	133	\$147,440,316	\$2,110,034	\$1,877,111	89.00
1876.					
Wis. joint stock companies....	3	\$13,200,204	\$165,234	\$19,796	.....
Wisconsin mutual companies..	5	14,314,348	215,783	129,434	.....
Companies of other states....	116	91,760,086	1,223,481	415,761	.....
Companies of foreign countries	15	14,339,656	193,930	39,683	.....
Totals.....	139	\$133,614,294	\$1,798,428	634,674	34.00
1877.					
Wis. joint stock companies....	4	\$12,777,853	\$165,157	\$102,475	.....
Wisconsin mutual companies..	5	11,616,047	167,741	97,487	.....
Companies of other states....	99	107,528,010	1,127,220	655,191	.....
Companies of foreign countries	16	15,021,704	184,992	108,760	.....
Totals.....	123	\$146,943,804	\$1,645,110	\$973,913	59.00

Business of Wisconsin.

COMPARATIVE STATEMENT—Continued.

COMPANIES.	Number of companies.	Risks written.	Premiums received.	Losses paid.	Percentage of losses to premiums received.
1878.					
Wis. joint stock companies....	4	\$13,515,807	\$167,220	\$97,332	.....
Wisconsin mutual companies..	4	10,435,206	147,626	80,117	.....
Companies of other states....	96	101,228,024	1,010,155	669,216	.....
Companies of foreign countries	17	15,102,352	193,954	122,813	.....
Totals.....	120	\$140,411,389	\$1,508,955	\$965,478	61.00
1879.					
Wis. joint stock companies....	4	\$20,985,411	\$183,448	\$120,513	.....
Wisconsin mutual companies..	4	10,368,812	137,830	107,180	.....
Companies of other states. .	104	101,555,179	1,044,953	698,293	.....
Companies of foreign countries	22	18,822,632	223,241	111,177	.....
Totals ..	134	\$151,731,034	\$1,589,472	\$1,037,193	64.00
1880.					
Wis. joint stock companies....	3	\$11,761,481	\$146,538	\$76,363	.....
Wisconsin mutual companies..	3	10,622,216	142,778	84,687	.....
Companies of other states....	99	109,527,234	1,192,413	754,762	.....
Companies of foreign countries	25	27,190,926	276,797	200,902	.....
Marine companies	3	2,550,003	8,003	25,827	.....
Totals.....	133	\$61,660,860	\$1,766,528	\$1,143,541	61.50
1881.					
Wis. joint stock companies....	3	\$15,109,348	\$1,171,018	\$53,397	.....
Wisconsin mutual companies..	3	10,298,373	139,923	66,786	.....
Companies of other states....	92	111,335,291	1,326,459	682,820	.....
Companies of foreign countries	24	24,612,766	344,144	147,496	.....
Marine companies.....	4	898,073	9,166	5,868	.....
Accident companies.....	3	921,672	6,607	1,949	.....
Totals.....	129	\$164,175,523	\$2,997,317	\$957,816	47.95

COMMISSIONER OF INSURANCE.

5

Business of Wisconsin.

COMPARATIVE STATEMENT — Continued.

COMPANIES.	Number of companies.	Risks written.	Premiums received.	Losses paid.	Percentage of losses to premiums received.
1882.					
Wis. joint stock companies....	3	\$17,509,256	\$185,322	\$82,474	.....
Wisconsin mutual companies..	3	11,582,634	151,346	50,080	.....
Companies of other states....	92	112,507,440	1,460,006	945,232	.....
Companies of foreign countries	26	29,613,864	407,879	254,015	.....
Marine companies.....	2	374,295	7,369	4,876	.....
Accid't and guaranty compan's	3	2,418,046	26,541	3,695	.....
Grand totals.....	129	\$174,005,535	\$2,238,463	\$1,340,372	59.00
1883.					
Wis. joint stock companies....	3	\$17,855,715	\$215,489	\$122,833	.....
Wisconsin mutual companies..	3	13,015,135	166,314	65,868	.....
Companies of other states....	85	125,068,516	1,655,477	1,145,353	.....
Companies of foreign countries	26	32,174,016	451,021	384,139	.....
Marine companies.....	2	316,332	2,111	11,446	.....
Accid't and guaranty compan's	3	3,203,028	32,274	18,541	.....
Grand totals..	122	\$191,637,742	\$2,525,690	\$1,748,180	69.00
1884.					
Wis. joint stock companies....	4	\$29,714,891	\$366,194	\$196,057	.....
Wisconsin mutual companies..	2	2,089,917	25,005	11,536	.....
Companies of other states....	86	124,144,160	1,740,427	1,366,952	.....
Companies of foreign countries	25	37,156,169	488,823	413,066	.....
Marine companies.....	2	1,112,607	2,560	1,974	.....
Accident companies.....	3	6,100,188	60,728	16,628	.....
Grand totals.....	122	\$200,317,932	\$2,683,737	\$2,006,213	74.75
1885.					
Wis. joint stock companies....	4	\$31,970,430	\$403,341	\$221,465	.....
Wisconsin mutual companies..	5	2,923,955	51,440	26,789	.....
Companies of other states....	94	127,416,163	1,878,032	1,525,108	.....
Companies of foreign countries	24	33,794,411	506,002	449,269	.....
Marine companies.....	1	150,368	358		.....
Accident companies.....	5	6,703,485	63,837	27,721	.....
Grand totals.....	133	\$202,955,612	\$2,903,010	\$2,256,352	74.57

Business of Wisconsin.

COMPARATIVE STATEMENT — Continued.

COMPANIES.	Number of companies.	Risks written.	Premiums received.	Losses paid.	Percentage of losses to premiums received.
1886.					
Wis. joint stock companies....	4	\$31,667,780	\$407,702	\$202,960	50.57
Wis. mutual companies.....	8	3,729,447	80,089	68,384	78.22
Companies of other states....	105	133,184,763	1,925,753	1,152,891	47.09
Companies of foreign countries	22	30,945,927	469,148	298,917	46.49
Totals	139	\$199,527,917	\$2,882,692	\$1,723,152	55.59
1887.					
Wis. joint stock companies ..	4	\$29,035,268	\$373,974	\$182,082	50.71
Wis. mutual companies.....	9	4,985,772	124,292	89,615	79.09
Companies of other states	119	127,708,201	1,910,898	1,144,879	62.30
Companies of foreign countries	23	33,016,074	505,835	275,937	66.23
Totals	155	\$194,765,315	\$2,914,999	\$1,692,504	62.40
1888.					
Wis. joint stock companies....	4	\$27,578,211	\$347,738	\$158,822	.....
Wis. mutual companies.....	9	6,623,816	345,592	92,758	.....
Companies of other states.. ..	120	137,745,127	2,051,380	1,206,269	.....
Companies of foreign countries	22	34,348,515	532,323	353,660	.....
Marine companies	3	715,415	11,224	1,646	.....
Totals	158	\$207,011,084	\$3,288,257	\$1,813,155	55.14
1889.					
Wis. joint stock companies....	4	\$28,101,487	\$351,186	\$124,688	.....
Wis. mutual companies	8	4,120,599	130,110	97,933	.....
Stock companies of other states	100	133,255,288	1,947,099	1,081,851	.....
Foreign companies.....	22	40,804,035	592,979	318,716	.....
Mutual co's of other states....	16	5,888,985	\$174,223	\$146,872	.....
Marine companies... ..	2	551,716	4,877	2,631	.....
Totals	152	\$212,722,110	\$3,200,474	\$1,772,691	55.39

LIST OF FIRE AND FIRE MARINE INSURANCE COMPANIES TRANSACTING BUSINESS IN WISCONSIN IN 1888-9.

TABLE No. 1 — OFFICERS.

NAME OF COMPANY.	LOCATION.	OFFICERS.		Name of attorney to accept service of process in Wisconsin.	Commenced business.
		President.	Secretary.		
Wisconsin Joint Stock Companies.					
Concordia Fire, Milwaukee....	Milwaukee, Wis..	J. H. Inbush..	Gustav Wollæger....		March, 1870.
Hekla, Madison.....	Madison, Wis..	Halle Steensland.....	R. B. McCurdy.....		June, 1871.
Milwaukee Mechanics.....	Milwaukee, Wis..	Christian Preusser....	Adolph J. Cramer.....		April, 1852.
Northwestern National, Milwaukee.	Milwaukee, Wis..	Alfred James.....	John P. McGregor....		July, 1869.
Mutual Companies of Wisconsin.					
Herman Farmers' Mutual.....	Herman, Wis.....	John Zirbel.....	Charles Ringle.....		March, 1887.
Germantown Farmers' Mutual.....	Rockfield, Wis.....	Andrew Martin.....	Martin Schottler.....		1854.
Lumbermans' and Mfrs. Eau Claire	Eau Claire, Wis..	Geo. B. Shaw.....	J. A. Smith.....		Oct., 1885.
Mant'rs' Mutual, Milwaukee.....	Milwaukee, Wis..	Joseph P. Rundle.....	C. O. Hawley.....		March, 1887.
Miller's Mutual, Milwaukee.....	Milwaukee, Wis..	John Schuette.....	E. W. Arndt.....		Sept., 1882.
Milwaukee Mutual, Milwaukee.....	Milwaukee, Wis..	Francis Boyd.....	Stephen H. Seamans..		May, 1886.
Mutual Fire, Eau Claire.....	Eau Claire, Wis..	Geo. B. Shaw.....	J. A. Smith.....		Oct., 1885.
Wisconsin Mutual, Milwaukee.....	Milwaukee, Wis..	J. Alfred Kimberly..	S. H. Seamans.....		May, 1886.
Companies of Other States.					
Ætna, Conn.....	Hartford, Conn..	Jothan Goodnow.....	A. C. Bayne.....		Aug., 1819.
Agricultural, New York.....	Watertown, N. Y.	J. R. Stebbins.....	H. M. Stevens.....		Feb., 1863.
Allemania, Penn'a.....	Pittsburg, Penn'a	Jos. Abel.....	G. W. Hammer.....		July, 1868.
Amazon, Ohio.....	Cincinnati, Ohio..	Gazzam Gano.....	J. H. Beattie.....		Oct., 1871.
American, Mass.....	Boston, Mass.....	Francis Peabody.....	J. W. Field.....		June, 1818.
American, New Jersey.....	Newark, N. J.....	F. H. Harris.....	Jas. H. Worden.....		April, 1846.
American, Penn'a.....	Philadelphia, Pa..	Thos. H. Montgomery	Richard Morris.....		March, 1810.
American, New York.....	New York, N. Y..	David Adee.....	William H. Crolius..		May, 1857.

Officers.

COMMISSIONER OF INSURANCE.

TABLE No. 1 — OFFICERS — Continued.

NAME OF COMPANY.	LOCATION.	OFFICERS.		Name of attorney to accept service of process in Wisconsin.	Commenced business.
		President.	Secretary.		
<i>Companies of Other States — Continued.</i>					
American Central, Mo.	St. Louis, Mo.	George T. Cram.	Chas. Christensen.		Feb., 1883
Alliance, New York.	New York, N. Y.	James Yereance.	Armstrong Maltbie.		April, 1867
Anglo-Nevada, Cal.	San Francisco, Cal.	Louis Sloss.	Z. P. Clark.		Dec., 1886
Boylston, Mass.	Boston, Mass.	Jos. W. Balch.	Washington Glover.		Jan., 1873
Buffalo German, N. Y.	Buffalo, N. Y.	Philip Becker.	O. J. Eggert.		Feb., 1867
Broadway Ins. Co., N. Y.	New York, N. Y.	E. B. Magnus.	Isaac Collard.		Dec., 1849
California, Cal.	San Francisco, Cal.	L. L. Broomwell.	W. H. C. Fowler.		Feb., 1861
Citizens', New York.	New York, N. Y.	E. A. Walton.	Frank M. Parker.		April, 1837
Citizens', Ohio.	Cincinnati, Ohio.	F. H. Reno.	Chas. F. Runck.		March, 1868
Citizens', Penna.	Pittsburgh, Pa.	W. G. Johnson.	J. R. Snively.		March, 1860
Commerce, New York.	Albany, N. Y.	G. A. Van Allen.	R. V. Dewitt.		June, 1859
Commercial, Cal.	San Francisco, Cal.	John H. Wise.	Chas. A. Laton.		March, 1872
Commonwealth, New York.	New York, N. Y.	M. M. Belding.	Chas. S. Bartow.		Sept., 1886
Connecticut, Conn.	Hartford, Conn.	J. D. Browne.	Chas. R. Burt.		July, 1860
Continental, New York.	New York, N. Y.	F. C. Moore.	Cyrus Peck.		Jan., 1853
Delaware Mut. Safety, Penna.	Philadelphia, Pa.	Thos. C. Hand.	Henry Lylburn.		August, 1835
Detroit F. and M., Michigan.	Detroit, Mich.	Wm. A. Butler.	Jas J. Clark.		March, 1866
Dwelling House, Boston, Mass.	Boston, Mass.	Chas. K. Nichols.	H. F. Perkins.		Jan., 1873
Eagle Fire, New York.	New York, N. Y.	A. J. Clinton.	Thomas J. Gaines.		Aug., 1806
Empire State, New York.	Rochester, N. Y.	Henry Michaels.	James Johnston.		Mar., 1888
Equitable F. and M., R. I.	Providence, R. I.	Fred W. Arnold.	Jas. E. Tillinghast.		Sept., 1860
Farmers' Fire, Penna.	York, Penna.	G. Edw. Hersh.	D. Strickler.		May, 1853
Fire Association, Penna.	Philadelphia, Pa.	J. Lightfoot.	W. S. Winship.		Sept., 1817
Fire Ins. Co., County Phila., Penna.	Philadelphia, Pa.	James N. Stone.	Chas. R. Peck.		Apr., 1833
Firemen's, Ohio.	Dayton, Ohio.	S. Craighead.	Charles Richardson.		May, 1866
Firemen's, New Jersey.	Newark, N. J.	John H. Kase.	Chas. Colyer.		Dec., 1855
Fireman's Fund, Cal.	San Francisco, Cal.	David J. Staples.	William J. Dutton.		June, 1863

Officers.

Franklin, Penna.....	Philadelphia, Pa.	James W. McAllister.	Ezra Cresson.....	June, 1829
Franklin, Ohio.....	Columbus, Ohio.....	P. W. Huntington.....	H. O'Kane.....	May, 1864
Farragut Ins. Co., New York.....	New York, N. Y.....	John E. Leffingwell.....	Samuel Darbee.....	Jan., 1872
German, Freeport, Ill.....	Freeport, Ill.....	M. Hetinger.....	W. F. Trembor.....	Oct., 1866
German, Peoria, Ill.....	Peoria, Ill.....	B. Cremer.....	Theo. J. Müller.....	May, 1876
German, Penna.....	Pittsburgh, Pa.....	C. Barchfeld.....	T. L. Gross.....	July, 1862
German American, N. Y.....	New York, N. Y.....	Emil Oelbermann.....	James A. Silvey.....	March, 1872
Germania, New York.....	New York, N. Y.....	Rudolph Garrigue.....	Chas. Ruykhaver.....	March, 1869
Girard F. and M., Penna.....	Philadelphia, Pa.....	A. S. Gillett.....	E. F. Merrill.....	May, 1853
Glen's Falls, New York.....	Glens Falls, N. Y.....	R. M. Little.....	J. L. Cunningham.....	May, 1850
Grand Rapids, Michigan.....	Gr. Rapids, Mich.....	Julius Housemann.....	S. F. Aspinwall.....	Nov., 1882
Granite State, N. H.....	Portsmouth, N. H.....	Frank Jones.....	Alfred F. Howard.....	Nov., 1885
Greenwich, New York.....	New York, N. Y.....	S. C. Harriot.....	Mason A. Stone.....	Jan., 1855
Hanover, New York.....	New York, N. Y.....	Benjamin S. Walcott.....	I. Remsen Lane.....	Apr., 1862
Hartford, Conn.....	Hartford, Conn.....	George L. Chase.....	P. C. Royce.....	Aug., 1810
Home, New York.....	New York, N. Y.....	Daniel A. Heald.....	T. B. Green, W. L. Big- low.....	Apr., 1853
Ins. Co. of North America, Penna.....	Philadelphia, Pa.....	Charles Platt.....	G. E. Fryer.....	Nov., 1792
Ins. Co. of State of Pa.....	Philadelphia, Pa.....	George G. Crowell.....	A. B. Earle.....	Nov., 1794
Jersey City, New Jersey.....	Jersey City, N. J.....	Nathan Foote.....	Charles F. Patterson.....	Dec., 1866
Liberty, New York.....	New York, N. Y.....	George A. Morrison.....	Philip Tourette.....	Apr., 1887
Manufacturers' and Builders', N. Y.....	New York, N. Y.....	Edward V. Loen.....	Jay Nestell.....	Nov., 1870
Merchants', New Jersey.....	Newark, N. J.....	Henry Powles.....	J. R. Mullikin.....	Apr., 1858
Merchants', R. I.....	Providence, R. I.....	W. T. Barton.....	Wm. P. Goodman.....	July, 1851
Mercantile, Ohio.....	Cleveland, Ohio.....	Wm. J. Gordon.....	Geo. A. Tisdale.....	Dec., 1871
Mercantile F. and M., Mass.....	Boston, Mass.....	Geo. R. Rogers.....	James Simpson.....	May, 1823
Michigan F. and M., Mich.....	Detroit, Mich.....	D. Whitney, Jr.....	Eugene Harbeck.....	March, 1881
Mutual Fire, New York.....	New York, N. Y.....	P. B. Armstrong.....	Jos. C. Hatie.....	Feb. 1869
National, Conn.....	Hartford, Conn.....	James Nichols.....	E. G. Richards.....	Dec., 1871
Newark, New Jersey.....	Newark, N. J.....	John J. Henry.....	Oscar O. Brewer.....	May, 1810
New Hampshire, N. H.....	Manchester, N. H.....	James A. Weston.....	John C. French.....	Apr., 1870
New York, N. Y.....	New York, N. Y.....	Daniel Underhill.....	A. Colson.....	Dec., 1822
New York Bowery, N. Y.....	New York, N. Y.....	John A. Delanoy.....	Chas. A. Blauvelt.....	Sept., 1833
Niagara, N. Y.....	New York, N. Y.....	Peter Notman.....	West Pollock.....	Aug. 1850
North American, Mass.....	Boston, Mass.....	Silas Peirce.....	Chas. E. Macullar.....	Jan., 1873
Orient, Conn.....	Hartford, Conn.....	Chas. B. Whiting.....	James N. Taintor.....	Jan., 1872
Oakland Home, Cal.....	Oakland, Cal.....	Wm. P. Jones.....	Wm. F. Blood.....	Feb. 1880
Pacific, New York.....	New York, N. Y.....	Frank T. Stinson.....	George Jeremiah.....	April, 1851
Packers & Provision Dealers, Ill.....	Chicago, Ill.....	Wm. E. Rollo.....	Jas. B. Tower.....	Jan., 1836
Pennsylvania, Penna.....	Philadelphia, Pa.....	John Devereux.....	John L. Thomson.....	April, 1825
Peoples, N. H.....	Manchester, N. H.....	J. C. Moore.....	S. B. Stearns.....	Nov., 1835

TABLE NO. 1.—OFFICERS—Continued.

NAME OF COMPANY.	LOCATION.	OFFICERS.		Name of attorney to accept service of process in Wisconsin.	Commenced business.
		President.	Secretary.		
<i>Companies of Other States— Continued.</i>					
Phenix, Brooklyn, N. Y.....	Brooklyn, N. Y....	Geo. P. Sheldon.....	Philander Shaw..		Sept., 1853
Phenix, Conn.....	Hartford, Conn....	H. Kellogg.....	Geo. H. Burdick...		June, 1854
Providence Washington, R. I.....	Providence, R. I....	J. H. De Wolf.....	E. S. Watson.....		1799
Rochester German, New York.....	Rochester, N. Y....	Frederick Cook.....	H. F. Atwood.....		Feb., 1872
Rockford Ins. Co., Ill.....	Rockford, Ill.....	John Lake.....	Chas. E. Sheldon.....		Jan., 1867
St. Paul German, Minn.....	St. Paul, Minn....	Albert Scheffer.....	Quincy Haas ..		April, 1889
Standard Fire, Mo.....	Kansas City, Mo....	Wm. S. Woods.....	Milo E. Lawrence ..		Jan., 1889
Security, Conn.....	New Haven, Conn...	Chas. S. Leete.....	H. Mason.....		April, 1841
Springfield F. & M., Mass.....	Springfield, Mass..	J. W. Dunham.....	S. J. Hall.....		1851
Spring Garden, Penna.....	Philadelphia, Pa....	Nelson Evans.....	G. B. Armitage.....		Aug., 1835
St. Paul F. and M., Minn.....	St. Paul, Minn....	Charles H. Bigelow ..	Charles B. Gilbert...		May, 1865
Standard Fire, New York.....	New York, N. Y....	Wm. M. St. John....	Robert H. Myers.....		March, 1859
State Investment & Insurance Co.....	San Francisco, Cal..	Geo. L. Brander.....	Chas. H. Cushing...		July, 1872
Sun, Cal.....	San Francisco, Cal..	C. L. Taylor.....	E. E. Potter.....		Feb., 1882
Sun Mutual, La.....	New Orleans, La....	Jas. I. Day.....	H. Carpenter.....		Jan., 1856
Syndicate, Minn.....	Minneapolis, Minn..	John De Laittre.....	Jacob Stone.....		Sept., 1886
Teutonia, Penna.....	Philadelphia, Pa....	Eugene Fraussen.....	Thomas Chamberlin..		Sept., 1871
Traders, Ill.....	Chicago, Ill.....	E. Buckingham.....	R. J. Smith.....		May, 1872
Union, Penna.....	Philadelphia, Pa....	Chas. L. Hollinshead.	J. M. Cowell.....		July, 1803
Union, Cal.....	San Francisco, Cal..	Nathaniel T. James..	James T. Bailey.....		June, 1865
United Firemen's, Penna.....	Philadelphia, Pa....	Jos. L. Caven.....	Robert B. Beath.....		April, 1861
United States, N. Y.....	New York, N. Y....	W. Wilson Underhill..	Walter H. Griffin.....		April, 1824
Westchester, N. Y.....	New York, N. Y....	Geo. R. Crawford ..	John Q. Underhill...		Jan., 1870
Western Home, Iowa.....	Sioux City, Iowa....	Wm. L. Roy.....	Geo. W. Kingsworth ..		April, 1883
Williamsburg City, N. Y.....	Brooklyn, N. Y....	Marshall Driggs.....	F. H. Way.....		March, 1863

TABLE No. 1.— OFFICERS — Continued.

NAME OF COMPANY.	LOCATION.	OFFICERS.		Commenced business in U. S.
		Manager.	Assistant Manager.	
<i>Foreign Companies.</i>				
British America, Toronto, Can.	Toronto, Can.	John C. Morrison, Toronto, Can.	W. H. Banks (assistant secretary)	1833
City of London, London, Eng.	London, Eng.	John C. Paige, Boston, Mass. . . . .	.....	1881
Commercial Union, London, Eng.	London, Eng.	Chas. Sewall, New York.	W. T. Kaufman, A. H. Wray.	Oct., 1861
Guardian, London, Eng.	London, Eng.	Henry E. Bowers, New York.	N. W. Messerole	Sept., 1872
Hamburg Bremen, Hamburg, Ger.	Hamburg, Ger.	F. O. Affeld, New York . . . . .	.....	Jan., 1855
Imperial, London, Eng.	London, Eng.	John C. Paige, Boston, Mass. . . . .	.....	1830
Liverpool, London & Globe, Liver- pool, Eng.	Liverpool, Eng.	{ Geo. Crooke and W. Warren, Chi- cago, Ill. . . . .	.....	1848
Lancashire, Manchester Eng.	Manchester, Eng.	E. Litchfield, New York. . . . .	.....	June, 1852
Lion, London, England.	London, Eng.	M. Bennett, Jr., Hartford.	James H. Brewster.	1880
London Assurance, London, Eng.	London, Eng.	Charles L. Case, M'g'r of N. W. States, Chicago. . . . .	.....	1872
London & Lancashire, Liverpool, Eng Mannheim, Mannheim, Germany	Liverpool, Eng. Mannheim, Ger.	Jeffery Beavan, New York. Hugo Menzel, New York. . . . .	.....	1879 Oct., 1879
Northern Assurance, London, Eng.	London, Eng.	Geo. W. Babb, Jr., New York . . . . .	.....	1836
North British & Mercantile, London, Eng.	London, Eng.	Sam P. Blagden, New York. . . . .	.....	Dec., 1866
Norwich Union, Nerwich, Eng.	Norwich, Eng.	J. Montgomery Hare, New York. . . . .	.....	1879
Phoenix Assurance, London, Eng	London, Eng	A. D. Irving, New York.	E. B. Clark	1879
Queen, Liverpool, Eng.	Liverpool, Eng.	James A. McDonald, New York. . . . .	.....	1866
Royal, Liverpool, Eng.	Liverpool, Eng.	Charles H. Case, M'g'r of the N. W. States, Chicago . . . . .	.....	1851
Scottish Union & National, Edinburg, Scotland.	Edinburg, Scotl'd	M. Bennett, Jr., Hartford	James H. Brewster.	1880
Sun Fire Office, London, Eng.	London, Eng.	J. J. Guile, New York. . . . .	.....	Aug., 1882
Trans-Atlantic, Hamburg, Germany	Hamburg, Ger.	E. Harbors, New York. . . . .	.....	Sept., 1877
Western Assurance, Toronto, Canada	Toronto, Can.	J. J. Kenney, Toronto, Canada. . . . .	.....	Aug., 1851

Officers.

COMMISSIONER OF INSURANCE.

TABLE NO. 1.— OFFICERS — Continued.

NAME OF COMPANY.	LOCATION.	OFFICERS.		Commenced business.
		President.	Secretary.	
<i>Marine Companies.</i>				
Boston Marine, Mass.		Ransom B. Fuller.....	Thomas H. Lord.....	
Marine, London, Eng.	London, Eng.	Percy Chubb, (Attorney), New York		Feb., 1836
British & Foreign Marine, England..	Liverpool, Eng.	L. Albj Wright, Att'y and M'g'r.	Samuel P. Weir.....	1863
Standard Marine, England.	Liverpool, Eng.	J. D. Barrett (Attorney) New York.		
Union Marine, England.	Liverpool, Eng.	James A. Whitlock (Atty.)	William Gow.....	Oct., 1880
<i>Miscellaneous Guarantee and Accident Companies, Stock.</i>				
American Surety, New York.....	New York, N. Y.	William L. Trenholm.....	Frederick F. Nugent.....	April, 1884
Employers' Liability, London, Eng. .	London, Eng.	Endicott & Macomber, Mgrs., Boston		April, 1881
Fidelity and Casualty, New York . .	New York, N. Y.	Wm. M. Richards.....	Robert J. Hillas.....	May, 1876
Guarantee Co. of N. A., Montreal, Can.	Montreal, Can.	Sir Alex. Galt.....	Robert Kerr (Accott).....	April, 1872
American Steam Boiler.....	New York, N. Y.	Wm. K. Lathrop.....	V. R. Schenck.....	Nov., 1883
Hartford Steam Boiler.....	Hartford, Conn.	J. M. Allen.....	J. B. Pierce.....	Oct., 1866
Lloyds Plate Glass.....	New York, N. Y.	J. G. Beemer.....	W. T. Woods.....	Sept., 1882
Metropolitan Plate Glass.....	New York, N. Y.	Henry Hartean.....	Eugene H. Winslow.....	April, 1874
<i>Mutual Companies of Other States.</i>				
Buckeye Mutual, Ohio.....	Shelby, Ohio.....	Hon. S. S. Bloom.....	S. T. Stambaugh.....	Jan., 1874
Central Man'f'e Mutual, Ohio.....	Van Wert, Ohio.....	J. S. Brumback.....	F. W. Purmort.....	Oct., 1876
Commonwealth Mutual, Ill.	Decatur, Ill.	James W. Haworth.....	John A. Barnes.....	June, 1883
Commercial Mutual, N. Y.	New York, N. Y.	W. I. Comes.....	Henry D. King.....	May, 1882
Lumberman's Mutual, Ill.	Chicago, Ill.	M. T. Greene.....	T. E. Gilpin.....	Sept., 1889
Man'f's and Merchants, Ill.	Rockford, Ill.	Henry W. Price.....	Geo. S. Roper.....	Feb., 1881
Miller's and Man'f's, Minn.	Minneapolis, Minn	E. R. Barber.....	C. B. Shove.....	May, 1881
Millers' National, Ill.	Chicago, Ill.	C. H. Seybt.....	W. L. Barnum.....	Sept., 1869
Minneapolis Mutual, Minn.	Minneapolis, Minn	B. F. Nelson.....	C. H. Spencer.....	Dec., 1885
Minnesota Fire Ass., Minn.	Minneapolis, Minn	E. R. Barber.....	C. B. Shove.....	Aug., 1887

Officers.

Mississippi Valley Man'f's Mut., Ill.	Rock Island, Ill.	J. D. Keator	Wm. B. Ferguson	June, 1880
Mutual Fire, Ill.	Chicago, Ill.	Silas W. Gardiner	Wm. E. Smith	Nov., 1869
Mutual Union, Ill.	Moline, Ill.	C. H. Deere	H. C. Cleveland	Sept., 1886
Ohio Farmers', Ohio	Le Roy, Ohio	James C. Johnson	A. H. Hawley	July, 1848
Protection Mutual, Chicago, Ill.	Chicago, Ill.	Geo. W. Powell	Charles Worthington	Aug., 1887
Western Manfrs. Mutual, Ill.	Chicago, Ill.	P. A. Montgomery	Geo. D. Farr	April, 1869
Union Mutual, Cincinnati, O.	Cincinnati, Ohio	Wm. J. Breed	Ed. H. Williams	June, 1887
Assessments Accident Companies.				
American Mut. Acc. Assn., of Oshkosh, Wis.	Oshkosh, Wis.	James D. Campbell	W. P. Hobart	March, 1880
Manfrs. of Geneva, N. Y.	Geneva, N. Y.	Thomas Smith	W. D. Chase	Jan., 1887
Masons' Fraternal, of Mass.	Westfield, Mass.	William Provin	J. A. Lakin	Oct., 1887
Metropolitan Acc. Ass., of Chicago, Ill.	Chicago, Ill.	H. G. Savage	S. Smith	Jan., 1885
Minnesota Acc., St. Paul.	St. Paul, Minn.	Chas. Shandrew	Geo. E. Schnabel	Jan., 1890
Provident Fund Society, N. Y.	New York, N. Y.	A. N. Lockwood	W. W. Dodge	Sept., 1886
Preferred Mut. Acc. Ass., N. Y.	New York, N. Y.	Henry L. Coe	K. C. Atwood	Oct., 1885
Railway Officials and Conductors Acc. Ass., Ind.	Indianapolis, Ind.	L. D. Hibbard	M. K. Bellis	June, 1889
Union Mutual Acc., of Chicago, Ill.	Chicago, Ill.	John W. Hamilton	T. N. McCauley	May, 1885
U. S. Mutual Acc. Ass., of N. Y.	New York, N. Y.	Chas. B. Peet	James R. Pitcher	Nov., 1877
New England Mutual Acc., Boston.	Boston, Mass.	August P. Martin	Benj. F. Dyer	March, 1884
Mutual Acc. Ass. of N. W., Chicago, Ill.	Chicago, Ill.	H. W. K. Cutter	T. S. Quincy	April, 1884

Assets.

TABLE NO. II — ASSETS.

NAME OF COMPANY.	Real estate	Loans on bonds and mortgages.	Stocks, bonds and securities.	Loans on collateral and other loans.	Cash in office and in bank.	Interest due and accrued.	Premiums unpaid.	Miscellan- eous.	Deduction for doubtful assets.	Total assets as claimed in reports.
Wisconsin Joint Stock Companies.										
Concordia, Milwaukee		\$324,405	\$145,625		\$31,943	\$6,187	\$36,005			\$544,165
Hekla Fire, Madison	\$16,750	373,275			54,637	9,486	18,964	\$2,104		475,216
Milwaukee Mechanics	34,300	794,210	586,205	\$60,350	84,180	23,536	38,821			1,621,602
Northwestern National		370,000	908,170		169,554	5,223	44,075	7,775		1,504,797
Totals ..	\$51,050	\$1,861,890	\$1,640,000	\$60,350	\$340,314	\$44,432	\$137,865	\$9,879		\$4,145,780
Wisconsin Mutual Companies.										
	Prem. notes.									
Germantown Farmers \$11,520	\$6,900	\$80,556		\$255	\$14,945		\$5,691	\$588		120,455
Herman Farmers		35,025		4,957	1,897	\$1,383	3,666			46,928
Lumberman's & M's 90,587					5,115		2,224	607		98,593
Manf's Mutual	17,618				13,370		7,832	279		39,100
Millers' Mutual	294,952		\$5,250	429	13,536	175	14,255	7,094		335,691
Milwaukee Mutual	123,333				8,727		6,702	2,049		141,111
Mutual Fire	180,599		300							
Wisconsin Mutual	124,646		600		10,543		6,100	1,322		199,166
			300		9,092		5,377	2,049		141,465
Totals	\$843,255	\$6,900	\$115,581	\$6,450	\$77,225	\$1,558	\$51,847	\$14,048		\$1,122,509
Companies of Other States.										
Etna, Conn	\$345,000	\$43,200	\$8,549,750	\$6,570	\$713,607	\$559	\$412,447	\$375		\$10,071,509
Agricultural, New York	171,118	1,245,603	341,014	62,524	197,847	45,829	88,695	16,170		2,168,803
Allemania, Penn	39,578	150,026	20,695	75,350	37,010	3,555	14,762	7,009		347,990
Amazon, Ohio	90,150	19,529	243,551	139,400	26,459	991	32,934			555,476
American, Mass			496,524	45,306	12,379	3,003	13,553	25,120		595,887
American, New Jersey	349,814	1,248,773	338,875		67,655	22,245	29,043	63,786	\$61,610	2,048,584

Assets.

American, Penn.....	230,100	993,703	1,090,149	150,000	129,826	19,299	21,707	8,382	2,642,669
American, New York.....		24,220	935,397	159,750	81,605	1,576	96,881	1,410	1,800,842
American Central, Mo.....	500,000		555,000	125,000	70,336		94,017		1,344,353
Alliance, New York.....			339,400		24,467	2,687	14,545		381,101
Anglo-Nevada, Cal.....		973,750	1,170,051		180,939	32,376	204,324	8,111	2,569,552
Boylston, Mass.....	5,000	174,360	506,784	103,000	66,532	5,341	32,729	12,381	906,129
Buffalo German, N. Y.....	291,240	446,025	394,707	117,000	59,366	3,942	55,281	7,203	1,374,765
Broadway Ins. Co., N. Y.....		1,800	421,550		17,958	9,013	8,491		458,813
California, Cal.....	106,000	16,506	574,489		336,992	725	127,478	35,682	1,247,874
Citizens', New York.....	131,000	74,000	458,400	368,850	30,077	5,439	98,225	502	1,166,496
Citizens', Ohio.....			242,087		3,200	2,895	22,885	173	271,241
Citizens', Penn.....	108,000	274,775	244,970	44,993	22,488	6,562	26,748	36	728,574
Commerce, New York.....	70,000	24,200	236,745	3,000	14,028	704	4,825	298	353,801
Commercial, Cal.....	8,596	139,135	120,025		11,790	678	80,156	50,631	406,003
Commonwealth, N. Y.....		56,000	548,118		16,176	2,841	29,923	241	653,301
Connecticut, Conn.....	87,550	724,000	1,338,641	4,300	93,384		99,817		2,347,692
Continental, New York.....	684,250	165,810	3,711,066	40,000	276,999	33,290	190,614	115,742	5,217,773
Delaware Mut. Safety, Penn.....	140,000	108,000	1,005,732	70,000	48,894	1,621	10,197	64,250	1,452,693
Detroit F. & Marine, Mich.....	67,219	800,278	15,000	15,000	31,299	15,525	22,372	4,615	971,310
Dwelling House, Mass.....		197,450	200,869	15,000	45,532	4,344	61,465	63,096	587,758
Eagle Fire, New York.....	449,000	19,500	623,421	400	6,979	7,643	19,414	5,266	1,131,626
Empire State, New York.....		197,507			134,780	1,149	10,345	2,172	345,954
Equitable F. and M., R. I.....	129,900	88,700	308,417	1,550	13,059	943	22,889	1,485	566,944
Farmer's Fire, Penn.....	36,500	208,573	256,615	1,300	34,549	3,957	22,915	65	564,475
Fire Association, Penn.....	112,700	1,409,112	2,634,583	113,025	112,613	45,997	159,722	116	4,587,869
Fire Ins. Co. County Phila., Penn.....	53,000	372,050	437,000	28,700	20,997	7,006	34,490	2,351	855,594
Firemen's, Ohio.....	84,147	264,520	86,462	1,000	10,221	6,012	26,872	4,493	483,731
Firemen's, New Jersey.....	121,381	889,225	673,909		3,891	21,354	8,715	1,681	1,720,158
Firemen's Fund, Cal.....	300,000	270,850	1,141,475	285,250	135,971	6,864	220,617	70,689	2,431,717
Franklin, Penn.....	316,150	574,681	1,088,353	1,040,200	84,730	11,432	58,809		3,174,357
Franklin, Ohio.....		99,857	219,710	300	8,883	3,888	40,741	1,656	375,016
Farragut Ins. Co., N. Y.....	6,000	22,000	321,977	7,000	26,589	393	22,175	4,069	410,203
German, Freeport, Ill.....	15,000	1,363,632	272,559	55,899	232,196	62,515	133,854	316,963	2,452,621
German, Peoria, Ill.....	4,900	269,016		22,225	88,869	10,662	37,547		433,221
German, Penn.....	45,470	205,935	149,876	8,000	30,264	3,718	24,401	62	467,730
German American, New York.....			5,143,175		173,200		227,971		5,544,346
Germania, New York.....	580,000	120,500	1,998,631		90,141	2,646	167,931	5,285	2,965,136
Girard F. and M., Penn.....	296,000	678,033	861,421	15,500	34,253	4,522	75,346	7,821	1,482,898
Glens Falls, New York.....	30,239	643,150	904,960	3,000	154,055	4,988	52,660	250	1,791,770

TABLE NO. II — ASSETS — Continued.

NAME OF COMPANY.	Real estate.	Loans on bonds and mortgages.	Stocks, bonds and securities.	Loans on collateral and other loans.	Cash in office and in bank.	Interest due and accrued.	Premiums unpaid.	Miscellaneous.	Deductions for doubtful assets.	Total assets as claimed in reports.
Companies of Other States.— Con.										
Grand Rapids, Mich.....	\$3,100	\$176,250	\$23,950	\$73,000	\$20,291	\$4,944	\$8,582			\$310,118
Granite State, N. H.....		124,350	212,748	18,480	42,492	6,603	51,998			456,673
Greenwich, New York.....	170,000	18,100	977,395	83,357	70,118	1,354	119,501	\$4,206	\$2,750	1,442,373
Hanover, New York.....		88,000	2,218,890	1,750	111,474	10,096	118,132	11,480		2,559,823
Hartford, Conn.....	603,675	1,125,143	3,320,534	30,000	565,156	21,708	448,028	18,108		6,142,454
Home Ins. Co., New York....	1,345,325	754,000	5,631,874	373,300	196,357	37,036	574,223	19,040		8,931,159
Ins. Co. of North America...	329,610	2,368,598	4,577,008	135,250	568,090	25,752	550,583	176,358		8,731,250
Ins. Co. of State of Penn....	301,543	110,950	230,833	1,000	29,308	2,578	14,544	18,694		718,452
Jersey City, New Jersey....	53,650	186,863	126,384	29,850	24,293	6,360	4,802			432,203
Liberty, New York.....			1,157,442		66,647	416	153,175			1,377,682
Manufacturers and Builders, N. Y.....		50,000	272,991	105,900	26,287	4,496	41,442			501,118
Merchants, N. J.....	95,785	457,717	852,375	7,500	32,498	15,345	93,135	302		1,554,658
Merchants, R. I.....		105,900	292,253	17,997	32,101	2,164	29,523			479,939
Mercantile, Ohio.....		59,790	262,515	12,800	26,982	4,434	8,514	3,408		378,453
Mercantile F. and M., Mass....		34,500	593,744		13,131	4,682	11,988	14,770		672,816
Michigan F. and M., Mich....	10,306	595,818	30,525	63,000	28,413	17,846	42,587	3,318		735,115
Mutual Fire, N. Y.....			1,087,685		120,147	71	89,081			1,298,985
National, Conn.....	50,815	584,438	1,469,247		183,512	13,187	137,285			2,443,937
Newark, N. J.....	50,000	391,935	233,595	3,000	25,868	7,532	17,661	443		730,039
New Hampshire, N. H.....		477,096	910,355	32,400	70,672	14,999	83,292			1,588,816
New York, N. Y.....	105,900	31,650	189,678		8,521	1,389	18,679	838		356,659
New York Bowers, N. Y.....	1,000	21,200	604,595		19,982	1,164	54,968	29		707,726
Niagara, New York.....	521,812	46,050	1,438,659	19,600	188,845	10,616	253,911	11,157		2,490,654
North American, Mass.....	44,100	70,850	198,904	2,300	14,124	2,874	21,052	224		354,429
Orient, Conn.....	16,408	235,832	1,298,110	20,045	80,356	29,561	155,695	718		1,836,722
Oakland Home, Cal.....	92,000	115,276	41,000	4,800	72,147	2,787	111,363	21,363		461,688
Pacific, New York.....	70,000	136,800	463,167	200	8,573	4,871	31,135	104		714,852

Assets.

Assets.

2—INS.

Packers & Provision Dealers, Ill.		222,457	62,332		6,432	4,952	5,888			302,063
Pennsylvania, Pa.	152,500	467,570	2,004,092	470,925	77,212	9,468	148,167			3,329,935
Peoples, N. H.		198,944	242,024	22,820	69,212	11,620	78,971			623,593
Phenix, Brooklyn, N. Y.	1,715,456	172,950	1,995,313	2,700	464,548	10,013	415,559	4,714		4,781,255
Phoenix, Conn.	233,524	751,500	3,749,311	33,322	196,952	37,907	301,314	1,171		5,305,004
Providence, Washington, R. I.			935,445		42,178		111,718	54,873		1,144,316
Rochester German, N. Y.	191,559	261,945	160,052		77,875		54,004			751,384
Rockford Ins. Co., Ill.	26,500	294,235	63,725	121,700	51,934	13,057	40,076	144,547		755,825
Saint Paul German, Minn.		33,700	205,158	45,360	67,985	3,203	25,799	1,550		382,756
Saint Paul F. & M., Minn.	107,220	576,770	484,873	289,600	131,152	26,021	73,389	23,872		1,713,904
Standard Fire, Mo.		123,300	94,275		14,986	3,478	20,818	66		256,925
Security, Conn.	34,405	135,525	345,254	9,300	57,852	2,323	70,413	5,379		660,453
Springfield F. & M., Mass.	110,853	301,500	2,615,860	26,500	128,329	32,291	194,736	912		3,410,982
Spring Garden, Penn.	208,500	437,530	464,945	98,500	28,205	9,278	26,307	321		1,273,588
Standard Fire, New York.		4,000	339,130		31,004	297	7,918			382,350
State Investment & Fire, N. Y.	145,000	190,890	72,300		49,875	1,143	87,891	185		547,286
Sun, Cal.	90,000	191,597	87,360	45,000	16,859	7,715	50,597	25,889		515,020
Sun Mutual, La.	73,500		603,136	93,049	83,784	61,596	163,398	6,409	6,398	1,078,476
Syndicate, Minn.		156,500	85,400	45,900	36,894	6,245	22,945	152		354,037
Teutonia, Pa.	81,392	43,850	118,437	6,385	9,623	750	3,503	1,239		265,232
Traders, Ill.	1,500	228,781	1,008,561		26,380	7,487	42,716	18,830		1,334,267
Union, Pa.	160,000	10,400	291,337	10,026	32,878	921	22,952	2,042		530,558
Union, Cal.	125,000	186,250	703,108	31,000	52,543	154	137,387	36,743		1,272,186
United Firemen's, Pa.	108,850	603,671	245,825	56,000	22,575	13,420	18,344	3,664		1,072,351
United States, N. Y.		540,200	72,247		7,920	3,586	25,212	2,237		651,403
Westchester, N. Y.	177,000	392,720	742,700		106,894	3,901	98,490			1,521,706
Western Home, Ia.		173,676		13,351	54,785	19,403	35,040	97,418	81,188	313,488
Williamsburg City, N. Y.	634,843	326,550	320,855	350	31,977	8,380	61,004	9,349		1,393,311
Totals..	14,245,590	\$31,002,601	\$87,540,644	\$5,596,491	\$8,678,795	\$984,303	\$8851,049	\$1,658,267	\$153,479	\$158,288,802
Foreign Companies.										
British America, Toronto, Ca.			\$702,741		\$67,131	\$4,665	\$21,590			\$366,128
City of London, Eng.			618,060		19,642	4,500	71,545	\$953		714,702
Commercial Union, London, Eng.	\$815,250		1,390,900		248,763	8,284	392,219	35,569		2,890,988
Guardian, London, Eng.		\$70,000	1,325,500		61,107	12,682	51,164	566		1,521,020
Hamburg Bremen, Ger.		9,000	1,007,930		53,764		76,398	5,486		1,152,580
Imperial, Eng.	451,634		941,500		53,679	8,488	155,076	6,658		1,617,087

Assets.

TABLE NO. II—ASSETS—Continued.

NAME OF COMPANY.	Real estate.	Loans on bonds and mortgages.	Stocks, bonds and securities.	Loans on collateral and other loans.	Cash in office and in bank.	Interest due and accrued.	Premiums unpaid.	Miscellaneous.	Deductions for doubtful assets.	Total assets as claimed in report.
Foreign Companies—Con.										
Liverpool, London & Globe, Eng.	1,449,500	\$1,954,850	\$2,345,650		\$831,942	\$26,424	\$647,653	\$31,125		\$7,337,156
Lancashire, Manchester, Eng.	240,161		1,442,116		44,069		154,374			1,880,681
Lion, London, Eng.		174,800	452,700	\$11,000	77,665	7,325	54,997	4,754		783,244
London Ass., London, Eng.			1,478,815		62,156		120,082			1,661,054
London and Lancashire, Eng.			1,782,691		170,926		150,462			2,104,079
Mannheim, Mannheim, Ger.			328,000		6,163		23,288	159		357,611
Northern Assurance, Eng.	114,505		1,187,111		75,031	10,946	125,478	846		1,513,920
North British and Mercantile, Eng.			3,069,372		76,657	52,986	249,888	1,622		3,450,526
Norwich Union, Norwich, Eng.			1,212,115		208,064	10,591	74,860			1,505,631
Phoenix, London, Eng.			1,518,465		199,529		218,137			1,966,131
Queen, Liverpool, Eng.	30,000		1,790,862		335,010	6,783	29,652			2,192,308
Royal, Liverpool, Eng.	1,818,200		2,797,515	50,000	222,872	5,605	495,397	17,142		5,406,735
Scottish Union, and National, Scotland.		801,750	734,828		62,285	18,031	49,076	8,286		1,673,758
Sun Fire Office, Eng.	149,756	678,000	636,060		245,715	25,290	221,509			1,956,331
Trans. Atlantic, Ger.			415,525	50,000	25,913		25,968			517,406
Western Ass., Canada.			831,497		62,460		118,487	39,169		1,051,615
Totals.....	\$5,069,006	\$5,287,900	\$28,009,953	\$111,000	\$3,211,153	\$202,603	\$3,627,293	\$152,335		\$45,671,350
Marine Companies.										
British & Foreign Marine.		\$50,000	\$776,899	\$254,650	\$29,375		\$146,490	\$38,506		\$1,295,921
Marine Ins. Co., London, Eng.			508,000		27,841		80,327	8,232		624,401
Standard Marine, Eng.			210,000		1,386	\$1,000				212,386
Union Marine, Eng.			373,763		19,260	4,213	55,703	24		451,965
Totals....		\$50,000	\$1,868,662	\$254,650	\$77,862	\$5,213	\$282,520	\$46,762		\$2,585,673

Assets.

<i>Miscellaneous Guarantee and Acc. Co's. (stock).</i>										
American Surety, N. Y.	\$2,315	\$92,571	\$1,336,290	\$25,000	\$18,772	\$6,883	\$37,657			\$1,459,489
Employer's Liability, Eng.			553,615		135,514	5,832	147,322			842,282
Fidelity and Casualty, N. Y.	11,000		506,137	215,000	68,324	4,031	181,925	\$30,895		1,017,315
Guarantee Co. of N.A. Canada	4,308	33,322	503,546		109,109	9,412	19,308	5,421		684,429
American Steam Boiler		53,000	1,072,756		66,595	3,466	231,436			1,427,256
Hartford Steam Boiler	2,414	429,370	732,424		52,164	24,643	102,887			1,343,905
Lloyd's Plate Glass	100,000		210,505		14,973	1,362	56,364	14,436		397,642
Metropolitan Plate Glass			265,800		25,813		21,445			313,058
Totals	\$120,037	\$548,263	\$5,181,073	\$240,000	\$491,264	\$55,629	\$798,344	\$50,752		\$7,485,376
<i>Mutual Companies of Other States.</i>										
	Prem. notes.									
Buckeye Mutual	\$363,236	\$5,000			\$22,934		\$17,463			\$412,603
Central Manufs. Mut	174,045		\$16,600	\$4,000	16,444	\$391	886	\$3,970		212,366
Commonwealth Mut	156,564				11,451		690	30,887		199,092
Commercial Mutual			546,008	\$15,000	33,717	2,470	17,529	30,782		645,508
Lumberman's Mut..	126,693				7,822		8,669			143,185
Manf's & Merchants	221,270		16,500		29,672	1,099	2,339			288,381
Millers & Manfs	300,874	6,500	23,500	15,800	8,419	1,237	6,324	26,978		405,635
Miller's National....	1,210,973			285,150	20,000	1,388	1,089	42,676		1,589,938
Minneapolis Mutual	344,552		6,107	300	48,411		23,902	3,000		426,274
Minnesota Fire Ass	66,669	800	26,280	5,206	10,878	660	8,863	59,808		240,566
Miss. Val. Manufs.	296,940			17,800	15,068	1,622	11,682	16,504		393,818
Mutual Fire, Ill.	335,223		73,100	2,100	5,732	3,718	24,390	25,042		485,309
Mutual Union,	202,543			2,340	21,377	470	6,209	7,023		253,471
Ohio Farmers		22,089	894,247	113,736	224,486	9,168	220,152			1,561,008
Protection Mutual	182,311		17,000		3,424	273	2,539	399		205,948
Western Manfs.	404,574		34,300	50,695	29,970	970	12,569			538,069
Union Mutual	161,172			13,000	8,616	120	12,994	6,184		202,069
Totals.	\$4,547,644	\$34,389	\$1,107,634	\$1,043,135	\$240,520	\$527,071	\$23,586	\$378,289	\$253,758	\$8,203,260
<i>Assessment Accident Companies</i>										
American Mut. Acc., Wis.						\$1,024			\$164	\$1,188
Man'fr's Acc. Indemnity, N. Y.		\$50,000				22,736			3,019	75,756
Mason's Fraternal, Mass.						18,205				18,205

Assets.

TABLE NO. II — ASSETS — Continued.

NAME OF COMPANY.	Real estate.	Loans on bonds and mortgages.	Stocks, bonds and securities.	Loans on collateral and other loans.	Cash in office and in bank.	Interest due and accrued.	Premiums unpaid.	Miscellaneous.	Deductions for doubtful assets.	Total assets as claimed in report.
<i>Assessment Accident Companies — Con.</i>										
Metropolitan Acc. Ass., Ill.					\$3,295			\$1,156		\$4,451
Minnesota Acc., St. Paul, Minn.					309					309
Provident Fund Society, N. Y.					8,014					8,014
Preferred Mut. Acc. Ass., N. Y.					46,313			1,138		47,451
Railway Officials and Conductors, Ind.					9,687			26,618		36,308
Union Mut. Acc., Ill.					11,937					11,937
New Eng. Mut. Acc., Mass.			\$20,804		12,867	160		4,901	\$2,047	36,86
Mut. Acc. Asso. of N. W., Ill.					5,961					5,961
United States Mut. Acc., N. Y.			11,837		121,153			10,820		143,810
Totals.....		\$50,000	\$32,641		\$256,391	\$160		\$47,816	\$2,047	\$387,076

TABLE NO. III — LIABILITIES.

NAME OF COMPANY.	Net claims for losses.	REINSURANCE FUND.		Dividends unpaid.	Borrowed money.	All other claims.	Total liabilities.	Cash capital.	Surplus over capi- tal or de- ficiency therein.
		Fire and inland.	a Marine. b Reclaima- ble on per- petual fire policies.						
<i>Wisconsin Joint Stock Companies.</i>									
Concordia Fire, Milwaukee.....	\$14,960	\$270,996				\$6,201	\$292,157	\$200,000	\$52,009
Hekla Fire, Madison.....	12,852	126,977				5,142	144,972	300,000	30,243
Milwaukee Mechanics.....	32,365	466,557		\$137			499,060	200,000	922,543
Northwestern National.....	43,210	503,955				13,429	560,596	600,000	344,202
Totals.....	\$103,387	\$1,368,485		\$187		\$24,772	\$1,496,785	\$1,300,000	\$1,348,997
<i>Mutual Companies of Wis.</i>									
Germantown Farmers' Mutual		\$22,702					\$22,702	Mutual	
Herman Farmers' Mutual.....		17,421					17,421	Mutual	
Lumbermen's and Man'fr's, Eau Claire.	\$4,240	2,623				\$820	7,683	Mutual	
Man'fr's Mutual, Milwaukee.....	6,090	13,939				67	20,098	Mutual	
Millers' Mutual, Milwaukee.....	12,620	13,396					26,017	Mutual	
Milwaukee Mutual.....	7,469	8,251				1,209	16,929	Mutual	
Mutual Fire, Eau Claire.....	6,528	7,046				560	14,134	Mutual	
Wisconsin Mutual, Milwaukee.....	7,469	9,199				77	16,746	Mutual	
Totals.....	\$44,416	\$94,577				\$2,733	\$141,730		
<i>Companies of Other States.</i>									
Ætna, Conn.....	\$200,231	\$2,066,481	b 24,217			\$79,912	\$2,370,843	\$4,000,000	\$3,700,666
Agricultural, N. Y.....	66,265	1,231,961		\$40		19,308	1,317,575	500,000	351,228
Allemania, Penna.....	9,236	85,524				1,358	96,119	200,000	51,870
A mazon, Ohio.....	25,052	160,025		1,719			186,798	300,000	68,677
American, Boston, Mass.....	27,684	172,800		78		7,588	208,151	300,000	87,736

Liabilities.

Liabilities.

TABLE NO. III — LIABILITIES — Continued.

NAME OF COMPANY.	Net claims for losses.	REINSURANCE FUND.		Dividends unpaid.	Borrowed money.	All other claims.	Total liabilities.	Cash capital.	Surplus over capi- tal or de- ficiency therein.
		Fire and inland.	a Marine. b Reclaim- able on per- petual fire policies.						
<i>Companies of Other States — Con.</i>									
American, New Jersey.....	\$39,887	\$379,127		\$5,472		\$9,243	\$433,731	\$600,000	\$1,014,853
American, Penna.....	177,327	1,088,162	b 465,232			2,331	1,733,053	500,000	409,616
American, New York.....	46,618	391,792				38,260	476,671	400,000	424,170
American Central, Mo.....	66,526	423,005				14,102	503,634	600,000	240,718
Alliance, New York.....	18,691	120,308				3,950	142,950	200,000	38,150
Anglo Nevada, Cal.....	68,090	447,616		1,067		6,043	522,818	2,000,000	46,734
Boylston, Mass.....	28,213	206,920		1,620		10,204	246,958	557,200	101,969
Buffalo German, N. Y.....	18,332	322,703				9,426	350,462	200,000	824,303
Broadway Ins., N. Y.....	6,150	36,737				2,323	45,210	200,000	213,603
California, Cal.....	93,836	434,705				6,397	534,939	600,000	112,935
Citizens', New York.....	58,867	482,809		178		21,745	563,600	300,000	302,896
Citizens', Ohio.....	30,678	50,433				6,743	87,861	200,000	16,619
Citizens', Penna.....	27,517	174,187				5,233	206,938	500,000	21,635
Commerce, N. Y.....	14,100	70,602				1,052	85,755	200,000	68,047
Commercial, Cal.....	31,154	159,413				3,095	193,663	200,000	12,340
Commonwealth, N. Y.....	17,200	110,828				4,877	132,905	500,000	20,396
Connecticut, Conn.....	80,274	745,163					825,438	1,000,000	522,254
Continental Ins. Co., N. Y.....	182,584	2,470,343		1,309		91,832	2,746,070	1,000,000	1,471,703
Delaware Mut. Safety, Pa.....	49,562	118,453	b 72,283	24,177		5,853	270,330	360,000	822,363
Detroit F. and M., Mich.....	18,780	128,532				4,469	151,783	350,000	469,526
Dwelling House, Mass.....	12,989	230,115	b 353			6,880	250,339	300,000	37,419
Eagle Fire, New York.....	9,202	121,841		1,933		3,772	136,750	300,000	694,875
Empire State, N. Y.....	24,087	87,642					111,729	200,000	34,224
Equitable F. and M., R. I.....	32,612	155,432		516		2,500	191,059	300,000	75,885
Farmers' Fire, Penna.....	25,167	288,179	b 4,749			2,753	321,449		243,026
Fire Ass., Penna.....	158,416	1,203,779	b 1,830,905				3,193,101	500,000	894,768

Liabilities.

Fire Ins. Co., Penna.....	30,544	111,305	b 149,289		6,334	297,474	400,000	158,120
Firemen's, Ohio.....	29,545	148,579			3,423	181,547	250,000	52,183
Firemen's, N. J.....	17,523	211,467			4,682	233,672	600,000	886,485
Firemen's Fund, Cal.....	103,006	844,216			46,654	993,877	1,000,000	437,840
Franklin, Penna.....	30,754	426,375	b 1,338,919	150	8,133	1,804,332	400,000	970,024
Franklin, Ohio.....	2,850	148,875				151,725	200,000	23,291
Farragut Ins. Co., New York.....	9,921	114,545			4,722	129,189	200,000	81,014
German, Freeport, Ill.....	89,423	1,682,060			25,123	1,796,607	200,000	456,013
German, Peoria, Ill.....	8,000	85,425		8,829	207	102,462	300,000	30,759
German American, N. Y.....	200,252	2,037,339			54,564	2,292,155	1,000,000	2,252,191
German, Penna.....	11,067	171,146			5,066	187,280	200,000	80,449
Germania, New York.....	151,780	1,031,339			23,952	1,207,073	1,000,000	758,063
Girard F. and M., Penna.....	27,143	303,338	b 253,395		34,260	625,339	300,000	557,559
Glens Falls, New York.....	23,784	550,986			13,948	588,720	200,000	1,003,049
Granite State, N. H.....	22,442	190,422			18,862	231,727	200,000	24,945
Grand Rapids, Mich.....	7,309	63,374			1,077	71,762	200,000	38,355
Greenwich, New York.....	192,657	643,325			29,000	864,983	200,000	374,813
Hanover, New York.....	115,603	890,026			25,258	1,030,888	1,000,000	528,934
Hartford, Conn.....	201,555	2,197,320			37,500	2,436,375	1,250,000	2,456,078
Home, New York.....	531,987	3,771,943			319,685	4,623,616	3,000,000	1,307,542
Ins. Co. of N. A., Pa.....	307,900	2,261,460	b 743,109		18,997	3,331,467	3,000,000	2,399,783
Ins. Co. of State of Pa.....	72,147	219,600	b 164,085	5,000	1,931	462,765	200,000	55,687
Jersey City, N. J.....	17,761	90,613	b 878		720	109,973	250,000	72,230
Liberty, N. Y.....	87,733	450,794			36,626	575,155	800,000	2,527
Man'frs. and Builders, N. Y.....	29,029	143,526		15	13,392	185,963	200,000	115,154
Merchants, N. J.....	88,002	559,004	423	835	28,712	677,077	400,000	477,580
Merchants, R. I.....	44,150	150,251			2,873	197,275	200,000	82,664
Mercantile, Ohio.....	39,630	73,381			2,977	114,979	200,000	63,473
Mercantile F. and M., Mass.....	18,807	102,615	208		5,310	126,941	400,000	145,875
Michigan F. and M., Mich.....	26,007	205,532				231,589	400,000	103,525
Mutual Fire, N. Y.....	153,086	437,964			7,112	598,164	266,104	434,716
National, Conn.....	75,204	786,058			30,153	890,422	1,000,000	553,514
Newark, N. J.....	37,543	144,014		6,712	4,863	193,135	250,000	286,904
New Hampshire, N. H.....	105,508	543,169			16,658	665,336	600,000	323,479
New York, N. Y.....	31,295	88,161		450	3,736	123,642	200,000	83,017
New York Bowery, N. Y.....	93,000	223,763			16,131	332,894	300,000	74,831
Niagara, N. Y.....	238,433	1,298,632			64,086	1,601,151	500,000	389,502
North American, Mass.....	22,829	126,281			4,207	153,318	200,000	1,110
Orient, Conn.....	82,620	561,244			31,058	674,923	1,000,000	161,798
Oakland Home, Cal.....	29,246	165,124		1,141	11,587	207,100	200,000	54,588

TABLE NO. III.—LIABILITIES—Continued.

Liabilities.

NAME OF COMPANY.	Net claims for losses.	REINSURANCE FUND.		Dividends unpaid.	Borrowed money.	All other claims.	Total liabilities.	Cash capital.	Surplus over cap- ital or de- ficiency therein.
		Fire and inland.	a Marine. b Reclaim- able on per- petual fire policies.						
<i>Companies of Other States—Con- tinued.</i>									
Pacific, N. Y.....	\$26,587	\$170,783	.....	.....	.....	\$12,389	\$209,761	\$200,000	\$305,090
Packers' and Provision Dealers', Ill....	5,062	28,942	.....	.....	.....	.....	34,004	250,000	18,058
Pennsylvania, Pa.....	88,058	823,417	b \$602,635	.....	.....	.....	1,514,111	400,000	1,415,824
People's, N. H.....	35,342	275,843	.....	.....	.....	16,520	327,207	250,000	46,386
Phenix, Brooklyn, N. Y.....	176,097	3,176,351	.....	.....	.....	26,884	3,379,334	1,000,000	401,921
Phoenix, Conn.....	254,523	1,749,245	.....	.....	.....	.....	2,003,768	2,000,000	1,301,235
Providence, Washington, R. I.....	88,491	606,722	.....	.....	.....	.....	695,214	400,000	49,101
Rochester German, N. Y.....	21,855	310,833	.....	.....	.....	175	332,864	200,000	218,520
Rockford Ins. Co., Ill.....	18,627	428,544	.....	.....	.....	24,835	472,006	200,000	83,818
St. Paul German, Minn.....	3,087	57,239	.....	.....	.....	3,931	64,259	300,000	18,497
St. Paul F. and M., Minn.....	67,452	635,754	.....	.....	.....	.....	708,206	500,000	510,697
Standard Fire, Mo.....	1,474	40,987	.....	.....	.....	11,428	53,870	200,000	3,054
Security, Conn.....	56,390	269,108	.....	.....	.....	11,770	337,267	250,000	73,186
Springfield F. and M., Mass.....	186,716	1,174,546	.....	.....	.....	29,210	1,390,472	1,500,000	520,509
Spring Garden, Pa.....	17,661	178,376	b 361,709	.....	.....	2,577	560,325	400,000	313,263
Standard F., N. Y.....	20,343	46,558	.....	.....	.....	3,404	70,306	200,000	112,044
State Investment & Insurance, Cal.....	7,521	131,399	.....	\$253	.....	4,394	143,569	400,000	3,717
Sun, Cal.....	30,719	141,803	.....	.....	.....	9,860	182,383	300,000	32,637
Sun Mutual, La.....	62,371	182,451	.....	16,215	.....	13,537	274,575	500,000	303,900
Syndicate, Minn.....	9,667	83,579	.....	.....	.....	.....	98,247	250,000	10,789
Teutonia, Pa.....	225	16,131	b 20,866	.....	.....	656	37,879	200,000	27,353
Traders, Ill.....	55,940	349,940	.....	.....	.....	22,335	428,215	500,000	406,052
Union, Pa.....	48,949	178,214	b 34,978	.....	.....	3,703	265,846	250,000	14,712
Union, Cal.....	69,585	400,044	.....	10	.....	31,265	500,897	750,000	21,289
United Firemen's, Pa.....	22,854	149,701	b 512,265	.....	.....	8,907	693,729	300,000	78,621

Liabilities.

United States, N. Y.....	17,733	125,435	.....	186	.....	9,910	153,264	250,000	248,439
Westchester, N. Y.....	72,650	723,245	.....	.....	.....	19,353	815,249	300,000	406,457
Western Home, Iowa.....	13,037	89,204	.....	.....	.....	975	103,307	200,000	10,181
Williamsburg City, N. Y.....	38,911	438,383	.....	30	.....	19,970	497,296	250,000	646,015
Totals	\$6,540,336	\$51,403,609	\$6,585,498	\$72,485	\$5,000	\$1,622,871	\$66,280,185	\$52,733,304	\$39,306,242
<i>Foreign Companies</i>									
British America, Canada.....	38,792	395,196	.....	.....	.....	23,142	457,132	*200,000	408,995
City of London, Eng.....	45,880	321,250	.....	.....	.....	19,572	386,703	200,000	327,998
Commercial Union, Eng.....	187,817	1,632,016	b \$449	.....	.....	60,916	1,188,199	200,000	1,009,788
Guardian, Eng.....	66,521	675,856	.....	.....	.....	14,290	756,669	200,000	764,351
Hamburg, Bremen, Ger.....	63,255	687,568	.....	.....	.....	14,650	765,473	200,000	387,106
Imperial, Eng.....	95,388	766,415	.....	.....	.....	26,385	888,189	200,000	728,848
Liverpool, London and Globe, Eng.....	391,554	3,222,615	b 337,943	.....	.....	346,734	4,298,248	200,000	3,038,908
Lancaster, Eng.....	129,809	980,263	.....	.....	.....	14,000	1,124,073	200,000	756,608
Lion, Eng.....	47,443	259,258	.....	.....	.....	8,877	315,579	200,000	467,664
London Ass., Eng.....	74,833	672,223	b 1,590	.....	.....	.....	748,647	200,000	912,406
London and Lancaster, Eng.....	161,273	1,120,851	b 1,627	.....	.....	27,982	1,311,735	200,000	792,343
Mannheim, Germany.....	34,545	17,966	.....	.....	.....	14,327	66,840	200,000	290,771
Northern Ass., Eng.....	103,053	731,031	.....	.....	.....	22,912	856,997	200,000	656,922
North British and Mercantile, Eng.....	182,813	1,450,481	.....	.....	.....	5,663	1,638,958	200,000	1,711,568
Norwich Union, Eng.....	90,014	747,944	.....	.....	.....	18,824	856,783	200,000	648,847
Phoenix, Eng.....	191,728	1,065,023	.....	.....	.....	149,261	1,406,013	200,000	560,118
Queen, Eng.....	144,021	1,178,833	.....	.....	.....	13,662	1,336,517	200,000	855,781
Royal, Eng.....	317,881	2,548,178	123,928	.....	.....	332,111	3,322,101	200,000	2,084,634
Scottish Union and National, Scotland.....	60,025	340,962	.....	.....	.....	8,547	409,535	200,000	1,264,223
Sun Fire Office, Eng.....	124,820	961,322	.....	.....	\$525	52,053	1,138,721	200,000	817,609
Trans-Atlantic, Germany.....	19,816	159,928	.....	.....	.....	.....	179,744	200,000	337,662
Western Ass., Canada.....	75,212	515,708	.....	.....	.....	15,454	606,875	200,000	444,240
Totals	\$2,646,493	\$20,450,887	\$464,937	.....	\$525	\$1,179,362	\$24,753,231	\$4,400,000	\$22,589,491
<i>Marine Companies.</i>									
British and Foreign Marine, Eng.....	\$91,334	\$97,372	.....	.....	.....	\$108,728	\$297,436	\$200,000	\$997,475
Marine, Eng.....	52,796	30,459	.....	.....	.....	50,296	133,552	200,000	490,849
Standard Marine, Eng.....	15,500	8,620	.....	.....	.....	.....	24,120	200,000	187,266
Union Marine, Eng.....	29,821	36,969	.....	.....	.....	2,693	69,484	200,000	383,484
Totals	\$189,451	\$173,420	.....	.....	.....	\$161,717	\$524,592	\$800,000	\$2,059,071

* U. S. deposit foreign Co.'s., 200,000.

Liabilities.

TABLE III.--LIABILITIES--Continued.

NAME OF COMPANY.	Net claims for losses.	REINSURANCE FUND.		Dividends unpaid.	Borrowed money.	All other claims.	Total liabilities.	Cash capital.	Surplus over capital or deficiency therein.
		Fire and inland.	a Marine. b Reclaim- able on per- petual fire policies.						
<i>Miscellaneous, Guarantee and Acc. Co's (Stock).</i>									
American Surety, N Y.	\$58,369	\$195,492					\$253,861	\$1,000,000	\$205,627
Employers' Liability, Eng.	73,550	337,586				24,883	435,901	*250,000	156,381
Fidelity and Casualty, N. Y.	53,982	580,738				\$60,093	694,795	250,000	72,519
Guarantee Co. of N. A., Canada.	32,847	117,928				7,143	157,920	*304,600	221,908
American Steam Boiler.	3,500	582,112				4,770	590,382	500,000	336,873
Hartford Steam Boiler.	19,669	756,077				2,619	778,367	500,000	65,538
Lloyd's Plate Glass	2,806	162,971				44,515	210,294	100,000	87,348
Metropolitan Plate Glass	2,500	95,312				10,722	108,533	100,000	104,524
Totals	\$173,673	\$2,490,620				\$129,862	\$2,794,153	\$2,754,600	\$1,094,337
<i>Mutual Companies of Other States</i>									
								*U. S.	Deposit.
Buckeye Mutual, Ohio.	\$5,560	\$24,463				\$6,305	\$36,329	Mutual.	
Central Man'rs Mutual, Ohio.	392	24,950					25,342	Mutual.	
Commonwealth Mutual, Ill.	11,015	26,076				1,010	38,201	Mutual.	
Commercial Mutual, N. Y.	52,897	35,657				17,770	106,326	Mutual.	
Lumberman's Mutual, Ill.		8,693				442	9,135	Mutual.	
Man'rs and Merchants', Ill.	300	33,119				317	33,736	Mutual.	
Miller's and Man'rs, Minn.	21,542	63,628				26,233	111,404	Mutual.	
Miller's National, Ill.	41,428	60,741				31,960	134,131	Mutual.	
Minneapolis Mut., Minn.	17,806	48,005					65,811	Mutual.	
Minnesota Fire Ass., Minn.	6,665	15,652				106,000	128,317	Mutual.	
Mississippi Valley Man'fr's, Ill.	15,132	70,150					85,283	Mutual.	
Mutual Fire, Ill.	29,735	52,808				18,278	100,823	Mutual.	
Mutual Union, Ill.	14,948	29,268				977	45,194	Mutual.	

Liabilities.

Ohio Farmers', Ohio.....	19,413	1,136,158				1,155,571	Mutual.
Protection Mutual, Chicago, Ill.	527	18,197				18,724	Mutual.
Union Mut., Ohio.....	9,563	30,806				40,370	Mutual.
Western Man'fr's Mutual, Ill.....	553	61,228			1,060	62,842	Mutual.
Totals	\$247,476	\$1,739,599			\$220,552	\$2,207,623	
<i>Assessment Acc. Companies.</i>							
American Mut. Acc., Wis.....					\$254	\$254	
Manufacturers', N. Y.....				\$1,693	7,164	8,857	
Masons' Fraternal, Mass.....					1,424	1,424	
Metropolitan Acc., Ill.....					637	637	
Minnesota Acc., Minn.....							
Provident Fund Society, N. Y.....					1,075	1,075	
Preferred Mutual Acc. Ass., N. Y.....					9,545	9,545	
Railway Officials' and Conductor's Acc. Ass., Ind.....					55	55	
Union Mut. Acc., Ill.....							
U. S. Mutual Acc. Ass., N. Y.....					48,735	48,735	
New England Mut. Acc., Mass.....					2,830	2,830	
Mutual Acc. Ass. of N. W., Ill.....							
Totals				\$1,693	\$71,719	\$73,412	

TABLE NO. IV.—INCOME.

NAME OF COMPANY.	Cash premiums.	Interest, dividends and rents.	Cash from other sources.	Total income.	Excess of income over expenditures.	Excess of expenditures over income.
Wisconsin Joint Stock Companies.						
Concordia Fire, Milwaukee.....	\$355,184	\$28,698	.....	\$383,883	.....	\$29,160
Hekla Fire, Madison.....	172,334	30,292	.....	202,596	\$14,418	.....
Milwaukee Mechanics.....	518,867	74,821	\$1,401	595,090	58,169	.....
Northwestern National.....	552,369	65,159	.....	617,528	39,510	.....
Totals.....	\$1,598,754	\$198,940	\$1,401	\$1,799,097	\$112,097	\$29,160
Mutual Companies of Wisconsin.						
Germantown Farmer's Mutual.....	\$20,602	\$5,177	.....	\$25,779	\$9,299	.....
Herman Farmer's Mutual.....	10,410	2,115	.....	12,525	.....	\$2,246
Lumbermen's and Man'f'rs, Eau Claire.....	24,186	.....	\$8,878	33,059	4,399	.....
Manufacturers' Mutual, Milwaukee.....	53,322	31,100	18,024	102,446	.....	5,198
Millers' Mutual, Milwaukee.....	93,106	.....	91,557	184,663	.....	2,325
Milwaukee Mutual.....	65,175	89	48,263	113,527	1,367	.....
Mutual Fire, Eau Claire.....	15,631	.....	35,283	49,914	19,122	.....
Wisconsin Mutual, Milwaukee.....	67,335	87	48,407	115,831	1,367	.....
Totals.....	\$349,762	\$39,439	\$249,536	\$637,744	\$35,454	\$9,769
Companies of Other States.						
Aetna, Conn.	\$2,873,463	\$420,876	\$6,433	\$3,300,773	\$35,230	.....
Agricultural, New York.....	813,276	96,820	3,560	913,656	112,793	.....
Allemania, Penna.....	151,776	15,601	2,256	169,633	21,076	.....
Amazon, Ohio.....	229,559	18,923	1,865	250,347	12,171	.....
American, Mass.....	257,975	23,877	.....	281,852	.....	\$45,360
American, New Jersey.....	426,547	82,730	5,029	514,308	67,153	.....
American, Penna.....	1,613,379	101,961	57,332	1,772,573	151,641	.....
American, New York.....	585,937	52,715	.....	638,653	.....	46,468
American Central, Mo.....	535,786	35,869	25,388	597,044	.....	277
Alliance, New York.....	191,038	8,642	.....	199,680	.....	17,006

Income.

Anglo-Nevada, California.....	892,439	124,634	.....	1,017,073	.....	139,712
Boylston, Mass.....	275,997	35,189	12	311,199	.....	53,062
Buffalo German, N. Y.....	398,025	43,772	18,890	460,688	49,480	.....
Broadway Ins. Co., N. Y.,.....	57,555	19,985	.....	77,540	5,463	.....
California, California.....	705,415	49,868	3,035	758,309	.....	76,840
Citizens, N. Y.....	632,602	32,792	6,210	671,605	7,439	.....
Citizens, Ohio.....	88,329	10,678	12,075	111,082	.....	21,742
Citizens, Penna.....	270,330	26,236	5,597	302,164	26,218	.....
Commerce, N. Y.....	105,172	15,086	2,145	122,405	.....	119,024
Commercial, California.....	399,161	35,988	60,000	495,150	.....	29,657
Commonwealth, N. Y.....	208,588	20,258	107	228,954	.....	69,423
Connecticut, Conn.....	1,069,531	98,272	.....	1,167,803	36,491	.....
Continental, N. Y.....	2,203,985	197,589	37,873	2,439,448	105,467	.....
Delaware Mutual Safety, Pa.....	421,469	57,646	1,725	480,840	7,226	.....
Detroit F. and M., Michigan.....	216,465	61,085	1,888	278,939	49,559	.....
Dwelling House, Mass.....	224,939	18,453	160	243,553	16,991	.....
Eagle Fire, New York.....	133,230	22,950	29,135	185,315	22,843	.....
Empire State, N. Y.....	157,034	11,484	.....	168,518	.....	6,998
Equitable F. and M., R. I.....	248,368	21,563	4,707	274,640	.....	1,715
Farmers' Fire, Penna.....	335,210	21,881	1,575	358,667	38,802	.....
Fire Association, Penna.....	1,592,651	218,312	6,548	1,817,512	57,867	.....
Fire Ins. Co. County of Phila., Pa.....	161,125	35,655	1,091	198,872	4,968	.....
Firemen's, Ohio.....	183,645	20,679	10,109	214,454	.....	6,572
Firemen's, N. J.....	282,545	86,727	7,812	377,085	.....	50,989
Firemen's Fund, Cal.....	1,237,788	89,676	20,182	1,347,647	82,457	.....
Franklin, Penn.....	472,439	131,889	12,006	616,334	.....	21,623
Franklin, Ohio.....	206,154	11,098	4,307	221,559	.....	6,446
Farragut Ins. Co., N. Y.....	157,307	14,425	480	172,213	1,078	.....
German, Freeport, Ill.....	1,284,397	141,062	4,738	1,430,200	136,046	.....
German, Peoria, Ill.....	196,583	19,826	98	216,508	3,751	.....
German, Penna.....	203,014	18,824	2,237	224,076	8,218	.....
German American, N. Y.....	2,430,361	210,114	.....	2,640,476	118,365	.....
Germania, New York.....	1,187,372	110,683	.....	1,298,056	149,366	.....
Girard F. and M., Penna.....	374,264	56,465	8,901	439,630	.....	5,515
Glens Falls, N. Y.....	513,445	84,637	267	598,350	124,753	.....
Grand Rapids, Mich.....	113,760	16,818	125	130,704	8,779	.....
Granite State, N. H.....	266,361	16,635	.....	283,006	41,246	.....
Greenwich, N. Y.....	944,414	43,563	18,514	1,006,492	11,484	.....
Hanover, N. Y.....	1,176,376	95,622	.....	1,271,998	20,027	.....
Hartford, Conn.....	2,821,338	220,789	17,405	3,069,533	144,979	.....

TABLE No. IV.—INCOME—Continued.

NAME OF COMPANY.	Cash premiums.	Interest, dividends and rents.	Cash from other sources.	Total income.	Excess of income over expenditures.	Excess of expenditures over income.
<i>Companies of Other States.—Con.</i>						
Home, N. Y.	\$4,337,402	\$295,600	\$87,488	\$4,720,581		\$86,013
Ins. Co. of North America, Penna.	3,986,574	368,343	38,437	4,393,355	\$37,724	
Ins. Co. State of Penna.	326,560	18,359	21,405	366,325	12,251	
Jersey City, N. J.	107,623	15,945	4,397	127,967	5,559	
Liberty, N. Y.	743,167	34,330		777,497		52,721
Manufacturers and Builders, N. Y.	207,761	18,275	6,679	233,316		1,378
Merchants, N. J.	809,024	62,674	2,547	874,246	45,723	
Merchants, R. I.	237,719	21,708	420	259,848	13,832	
Mercantile, Ohio	174,494	19,600		194,094		34,963
Mercantile, F. and M., Mass.	153,636	28,313		181,950		7,783
Michigan F. and M., Mich.	399,958	41,790	4,490	446,239	16,158	
Mutual Fire, N. Y.	913,100	66,799		979,899		139,313
National, Conn.	1,013,840	116,493	2,623	1,132,957	111,734	
Newark, N. J.	203,871	31,089	965	235,925	6,472	
New Hampshire, N. H.	731,395	72,566		803,961	65,544	
New York, N. Y.	143,629	10,348	3,650	157,628		9,028
New York Bowery, N. Y.	339,193	25,306		364,499		76,920
Niagara, N. Y.	1,605,873	67,061	18,392	1,691,327	58,498	
North American, Mass.	163,114	13,894	2,886	179,895		41,292
Orient, Conn.	837,370	79,579	604	917,554	33,871	
Oakland Home, Cal.	359,067	14,612	5,040	378,719	26,012	
Pacific, N. Y.	237,801	21,405	2,350	261,557		21,966
Packers and Provision Dealers, Ill.	48,622	15,789		64,411		9,572
Pennsylvania, Pa.	1,072,173	139,325	2,885	1,214,384	202,296	
People's, N. H.	460,931	27,431		488,362	45,929	
Phenix, Brooklyn, N. Y.	3,415,736	149,648		3,565,386	195,230	
Phoenix, Conn.	2,559,539	213,066	5,444	2,778,050	40,332	
Providence Washington, R. I.	953,881	41,288		995,169		27,154
Rochester German, N. Y.	389,960	20,988	16,499	427,448	33,394	
Rockford Ins. Co., Ill.	411,989	30,369	1,490	443,850	60,954	

Income.

Income.

St. Paul German, Minn.....	112,941	9,818	1,174	123,933	82,756	
Standard Fire, Mo.....	58,617	7,666	12,600	78,884	14,987	
Security, Conn.....	464,521	23,325	16	487,863	7,040	
Springfield F. and M., Mass.....	1,681,051	125,667	4,388	1,811,107	132,211	
Spring Garden, Pa.....	257,026	50,028	4,375	311,430		53,599
St. Paul F. and M., Minn.....	964,896	92,349	8,578	1,065,824	28,828	
Standard Fire, New York.....	69,347	11,355	622	81,324	1,519	
State Investment and Insurance, Cal.....	223,966	17,897	10,062	251,927		21,618
Sun, California.....	262,585	20,290	5,612	288,487		20,638
Sun Mutual, La.....	339,257		45,601	384,858	10,592	
Syndicate, Minn.....	141,899	17,747		159,647	38,494	
Teutonia, Pa.....	22,117	8,652	1,976	32,746		705
Traders, Ill.....	527,586	58,466		586,053		41,038
Union, Pa.....	381,261	18,347	81,682	481,291		14,504
Union, Cal.....	815,745	59,325	8,460	883,530		72,026
United Firemen's, Pa.....	222,317	44,702		267,019	6,505	
United States, N. Y.....	186,183	31,083	2	217,269		8,684
Westchester, N. Y.....	870,629	56,298	2,227	929,155	81,063	
Western Home, Iowa.....	136,929	17,940		154,870	5,170	
Williamsburg City, N. Y.....	534,071	30,280	26,571	590,923	19,294	
Totals	\$68,145,666	\$6,179,394	\$913,712	\$75,201,635	\$3,209,369	\$1,459,325
Foreign Companies.						
British American, Canada.....	\$607,890	\$27,436		\$635,326	\$45,277	
City of London, Eng.....	502,668	22,300		524,968		\$106,690
Commercial Union, Eng.....	2,390,554	63,779	\$12,130	2,466,464		41,998
Guardian, Eng.....	843,293	32,090	20,150	895,533	28,714	
Hamburg, Germany.....	949,419	42,258		991,678		2,869
Imperial, Eng.....	1,087,912	31,070	16,927	1,135,910	42,367	
Liverpool, London and Globe, Eng.....	4,273,371	160,525	82,770	4,516,668	413,697	
Lancashire, Eng.....	1,454,982	66,777		1,521,760	18,742	
Lion, Eng.....	416,331	25,408		441,740		21,790
London Assurance, Eng.....	868,056	54,676		922,832	30,462	
London and Lancashire, Eng.....	1,553,943	77,523		1,631,466	103,262	
Mannheim, Germany.....	192,506			192,506	31,012	
Northern Assurance, Eng.....	944,443	44,287	1,034	989,765		57,016
North British and Mercantile, Eng.....	1,893,191	147,623		2,040,819	93,727	
Norwich Union, Eng.....	1,019,597	51,068		1,070,665	70,446	
Phoenix, Eng.....	1,295,691	58,900		1,354,591		48,181

TABLE NO IV.—INCOME—Continued.

NAME OF COMPANY.	Cash premiums.	Interest, dividends and rents.	Cash from other sources.	Total income.	Excess of income over expenditures.	Excess of expenditures over income.
Foreign Companies—Con.						
Queen, Eng.....	\$1,475,924	\$78,135	\$2,039	\$1,556,099	\$217,548	.....
Royal, Eng.....	3,079,211	116,113	81,414	3,276,739	504,899	.....
Scottish Union and National, Scotland.....	502,675	61,451	.....	564,326	59,786	.....
Sun Fire Office, Eng.....	1,211,377	72,791	.....	1,284,168	71,763	.....
Trans-Atlantic, Germany.....	263,140	16,414	.....	279,554	25,996	.....
Western Assurance, Canada.....	1,240,505	33,243	.....	1,273,749	.....	\$17,825
Totals.....	\$28,066,879	\$1,283,867	\$216,464	\$29,567,226	\$1,757,698	\$296,369
Marine Companies.						
British and Foreign Marine, Eng.....	\$903,861	\$36,341	\$355,008	\$1,295,221	.....	\$25,603
Marine, Eng.....	280,131	.....	.....	280,131	\$118,160	.....
Standard Marine, Eng.....	94,571	8,695	590	103,858	42,523	.....
Union Marine, Eng.....	356,172	14,047	27,259	397,478	7,630	.....
Totals.....	\$1,634,735	\$59,083	\$382,867	\$2,076,688	\$168,313	\$25,603
Miscellaneous Guarantee and Accident Companies. (Stock.)						
American Surety, N. Y.....	\$382,524	\$64,328	.....	\$446,852	\$122,285	.....
Employers Liability, Eng.....	628,016	14,793	.....	642,809	170,759	.....
Fidelity and Casualty, N. Y.....	1,057,903	21,641	\$210	1,079,754	179,106	.....
Guarantee Co. of N. A., Canada.....	228,137	16,249	24,999	269,387	56,842	.....
American Steam Boiler.....	507,941	55,254	.....	563,195	70,520	.....
Hartford Steam Boiler.....	568,560	63,871	2,213	634,645	71,945	.....
Lloyd's Plate Glass.....	309,139	7,800	1,980	318,920	32,263	.....
Metropolitan Plate Glass.....	186,871	8,168	.....	195,039	24,705	.....
Totals.....	\$3,869,091	\$252,104	\$39,402	\$4,150,601	\$728,425	.....

Income.

Mutual Companies of Other States.

Buckeye Mutual, Ohio	\$48,926	\$13,595	\$132	\$62,522	\$12,672	.....
Central Manufacturers Mutual, Ohio.....	63,185	1,091	.....	64,276	.....	\$3.8
Commonwealth Mutual, Ill.....	.....	98	54,540	54,633	4,949	.....
Commercial Mutual, N. Y.....	211,315	26,407	.....	237,722	.....	44,114
Lumberman's Mutual, Ill.....	27,660	47	34,878	62,586	16,049	.....
Man'fr's and Merchants, Ill.....	79,069	1,937	.....	81,006	.....	764
Millers' and Man'fr's, Minn.....	59,539	.....	62,924	152,464	3,746	.....
Millers' National, Ill.....	14,425	9,913	171,333	205,673	22,712	.....
Minnesota Fire Asso'n.....	16,748	.....	30,206	46,954	.....	1,542
Minneapolis Mutual.....	145,709	1,715	69,616	217,040	24,815	.....
Mississippi Valley Manu'frs Mut., Ill.....	72,086	2,014	116,199	190,300	2,216	.....
Mutual Fire, Ill.....	245,595	4,686	7,421	257,702	.....	42,616
Mutual Union, Ill.....	31,529	667	66,248	98,443	10,132	.....
Ohio Farmers, Ohio.....	695,865	66,234	.....	762,099	84,286	.....
Protection Mutual, Ill.....	35,842	231	356	36,430	3,806	.....
Union Mutual, Ohio.....	82,858	502	16,842	100,203	5,106	.....
Western Man'fr's Mutual, Ill.....	157,518	5,857	.....	163,376	.....	10,484
Totals.....	\$1,987,869	\$134,987	\$660,695	\$2,793,430	\$190,489	\$90,899

Assessment Accident Companies.

American Mutual Acc., Wis.....	\$4,909			\$4,909	\$1,024	.....
Manufacturers, N. Y.....	151,902	\$428	\$13	152,344	16,354	.....
Masons' Fraternal, Mass.....	82,475		2,459	84,934	7,084	.....
Metropolitan Acc. Asso., Ill.....	22,886		2,687	25,574	791	.....
Minnesota Acc., St. Paul, Minn.....	1,256			1,256	309	.....
Provident Fund Society, N. Y.....	104,202		61	104,264	4,972	.....
Preferred Mutual Acc., N. Y.....	148,888	18	4,217	153,123	14,727	.....
Railway Officials and Conductors Acc. Ass., Ill.....	25,419			25,419	9,689	.....
Union Mutual Acc., Ill.....	239,540		4,252	243,792	3,524	.....
U. S. Mutual Acc. Ass. of N. Y.....	893,610	467	1,472	895,550	42,430	.....
New England Mutual Asso., Mass.....	123,677	531	.....	124,208	8,233	.....
Mutual Acc. Ass. of N. W., Ill.....	98,001		194	98,195	.....	\$4,317
Totals.....	\$1,896,765	\$1,441	\$15,355	\$1,913,568	\$109,187	\$4,317

NOTE.—Cash received from all other sources of Mutual Companies, includes assessments on premium notes.

TABLE NO. V.—EXPENDITURES.

NAME OF COMPANY.	Losses paid.	Dividends.	Commission and brokerage.	Salaries of officers and employes.	Taxes, State and national.	All other payments.	Total expenditures.
Wisconsin Joint Stock Companies.							
Concordia Fire, Wis.....	\$255,786	\$14,000	\$81,399	\$22,571	\$9,160	\$30,126	\$413,043
Hekla Fire, Wis.....	102,413	15,000	38,389	24,372	7,002	.....	187,178
Milwaukee Mechanics'.....	267,799	50,029	125,200	43,661	17,946	32,283	536,921
Northwestern National.....	298,958	66,000	104,925	54,398	13,693	40,042	578,018
Totals.....	\$934,956	\$145,029	\$349,913	\$145,002	\$47,801	\$102,451	\$1,715,160
Wisconsin Mutual Companies.							
Germantown Farmers' Mutual.....	\$8,899	.....	\$3,524	\$2,379	\$580	\$1,107	\$16,490
Herman Farmers' Mutual.....	11,098	.....	.....	2,987	.....	684	14,771
Lumbermen's and Man'f'rs, Eau Claire.....	14,788	.....	1,854	3,781	.....	*8,334	28,760
Man'f'rs Mutual, Milwaukee.....	70,080	.....	9,233	3,835	.....	*25,482	108,644
Millers' Mutual, Milwaukee.....	62,125	.....	8,893	6,430	.....	*109,539	186,988
Milwaukee Mutual.....	25,183	.....	6,058	4,315	.....	*76,603	112,160
Mutual Fire, Eau Claire.....	13,387	.....	1,134	4,939	.....	*10,331	29,792
Wisconsin Mutual, Milwaukee.....	25,182	.....	5,186	4,317	.....	*77,404	112,088
Totals.....	\$230,742	.....	\$35,882	\$32,981	\$580	\$309,484	\$609,693
Companies of Other States.							
Etna, Conn.....	\$1,634,843	\$720,000	\$458,198	\$177,057	\$51,510	\$223,934	\$3,265,543
Agricultural, New York.....	377,075	49,990	211,090	93,369	16,468	52,871	800,864
Allemania, Penna.....	80,903	12,000	31,729	9,941	4,123	9,858	148,557
Amazon, Ohio.....	127,958	17,519	49,212	19,038	5,673	18,773	238,176
American, Mass.....	215,569	9,036	52,768	24,145	6,040	19,653	327,212
American, New Jersey.....	216,226	62,622	70,901	43,882	16,077	37,495	447,155
American, Penn.....	1,007,539	50,345	299,227	205,241	36,113	22,465	1,620,932
American, New York.....	379,211	40,000	126,385	57,357	6,744	75,422	685,121
American Central, Mo.....	319,074	57,000	73,454	51,469	10,751	85,571	597,321
Alliance, New York.....	124,702	.....	51,281	21,483	4,018	15,199	216,686
Anglo-Nevada, Cal.....	690,608	90,000	162,143	85,963	10,387	117,682	1,156,785

* Includes cash premium and premium notes returned.

Expenditures.

Boylston, Mass.....	220,766	33,432	49,425	27,300	4,008	29,327	364,261
Buffalo German, N. Y.....	244,204	40,000	82,275	20,951	7,470	26,305	421,208
Broadway Ins. Co., N. Y.....	18,607	20,000	12,162	10,350	180	10,777	72,077
California, Cal.....	535,533	36,000	127,627	50,697	18,699	66,591	835,149
Citizens', New York.....	356,063	30,093	124,616	46,810	14,687	90,895	663,666
Citizens', Ohio.....	93,088	8,000	18,462	9,820	2,247	1,006	132,624
Citizens', Penn.....	179,456	.....	60,201	10,998	9,723	15,565	275,946
Commerce, New York.....	95,706	100,000	19,866	11,755	7,686	6,454	241,469
Commercial, Cal.....	352,048	12,000	85,576	34,991	8,377	31,386	524,807
Commonwealth, N. Y.....	209,305	30,000	13,397	27,657	4,628	13,386	298,377
Connecticut, Conn.....	664,420	80,000	182,261	95,431	24,875	84,324	1,131,312
Continental, New York.....	1,287,039	139,440	438,725	261,618	48,772	158,383	2,333,981
Delaware Mutual Safety, Pa.....	282,284	28,800	60,616	34,801	13,868	53,244	473,614
Dwelling House, Mass.....	100,927	18,000	59,484	19,873	6,900	21,376	226,562
Detroit F. and M., Mich.....	120,064	35,000	25,392	21,167	12,691	15,064	229,880
Eagle Fire, New York.....	48,594	29,972	27,617	31,124	7,674	17,489	162,472
Empire State, New York.....	114,684	.....	28,311	8,793	5,025	18,641	175,456
Equitable F. and M., R. I.....	159,963	23,644	45,804	38,266	8,675	.....	276,355
Farmer's Fire, Penna.....	200,510	.....	68,565	22,417	7,590	20,781	319,865
Fire Association, Penna.....	1,024,123	200,000	309,606	145,199	57,567	23,147	1,759,645
Fire Ins. Co. County of Philadelphia, Penna.....	99,828	28,000	39,173	9,747	6,500	10,653	193,904
Flremen's, Ohio.....	134,581	15,000	35,509	13,919	6,548	15,447	221,006
Firemen's, New Jersey.....	254,654	72,000	49,640	18,851	12,945	19,983	428,074
Firemeu's Fund, Cal.....	728,807	120,000	168,693	108,135	17,639	121,909	1,265,190
Franklin, Penna.....	311,352	100,142	81,633	54,163	21,924	68,741	637,957
Franklin, Ohio.....	120,314	18,000	41,731	14,161	4,053	19,745	228,005
Farragut Ins. Co., N. Y.....	76,695	20,000	28,464	23,580	3,981	18,414	171,135
German, Freeport, Ill.....	720,162	40,000	357,400	135,944	20,370	20,277	1,294,154
German, Peoria, Ill.....	121,201	18,000	43,211	25,490	4,854	.....	212,757
Perman, Penna.....	126,199	16,000	44,899	20,672	4,776	3,310	215,858
German American, N. Y.....	1,426,058	200,000	397,152	92,075	61,808	245,017	2,522,111
Germania, N. Y.....	607,862	100,000	166,850	86,495	28,613	158,867	1,148,690
Guard, F. and M., Penna.....	216,667	72,000	68,534	47,360	14,294	26,288	445,145
Glens Falls, N. Y.....	257,035	20,000	101,185	47,226	11,645	36,465	473,697
Grand Rapids, Michigan.....	71,464	12,000	24,889	5,420	2,384	5,766	121,925
Granite State, N. H.....	163,749	.....	43,622	14,410	5,459	14,519	241,760
Greenwich, New York.....	622,551	20,000	230,666	58,551	9,226	54,013	995,008
Hanover, New York.....	654,962	100,000	231,253	135,006	26,795	108,953	1,251,971
Hartford, Conn.....	1,624,370	250,000	459,774	199,143	55,835	215,430	2,804,554
Home, New York.....	2,908,329	300,510	814,207	413,161	72,736	297,648	4,806,594

Expenditures.

TABLE NO. 5.—EXPENDITURES — Continued.

NAME OF COMPANY.	Losses paid.	Dividends.	Commissions and brok- age.	Salaries of officers and employees.	Taxes, state and national.	All other payments.	Total expendi- tures.
Ins. Co. of N. A., Penna	\$2,690,218	\$450,000	\$662,172	\$210,873	\$114,215	\$228,150	\$4,355,631
Ins. Co., State of Penna	191,620	20,000	73,955	41,414	10,896	13,187	354,074
Jersey City, N. J.	53,417	17,500	26,342	11,794	3,349	10,004	122,408
Liberty, N. Y.	507,037	.....	159,951	57,145	15,420	90,663	830,218
Manufacturers' and Builders', N. Y.	116,339	12,180	53,332	21,909	6,555	24,475	234,794
Merchants', N. J.	493,353	39,165	157,919	33,985	21,087	83,013	828,523
Merchants', R. I.	144,677	16,000	43,514	35,335	6,488	.....	246,016
Mercantile, Ohio.	154,073	25,000	22,531	13,920	7,374	6,156	229,057
Mercantile F. and M, Mass.	94,526	31,858	33,670	12,424	5,197	11,956	189,633
Michigan F. and M., Mich.	262,649	32,000	71,902	11,411	11,854	40,263	430,081
Mutual Fire, N. Y.	669,864	37,142	235,575	103,997	14,216	76,046	1,119,212
National, Conn.	565,297	100,000	168,636	92,225	24,481	70,582	1,021,223
Newark, N. J.	124,475	25,229	44,182	17,389	7,596	10,481	229,353
New Hampshire, N. H.	441,850	48,000	154,199	38,808	20,430	35,128	738,417
New York, N. Y.	82,564	16,000	35,558	19,442	3,046	10,044	166,655
New York Bowers, N. Y.	267,712	27,000	74,842	35,217	8,596	28,050	441,419
Niagara, N. Y.	963,494	49,932	278,771	124,850	38,134	177,587	1,632,829
North American, Mass.	147,391	12,064	22,004	13,037	5,972	20,719	221,187
Orient, Conn.	525,083	60,000	153,978	52,624	20,549	71,446	883,683
Oakland Home, California.	198,002	17,833	61,395	29,969	3,236	42,270	352,707
Pacific, N. Y.	169,042	24,000	52,143	18,047	5,656	14,633	283,523
Packers and Provision Dealers, Ill.	39,686	15,000	14,097	.....	4,091	1,108	73,983
Pennsylvania, Penn.	583,732	50,000	255,337	41,790	28,469	52,758	1,012,088
People's, N. H.	276,440	15,000	96,926	16,465	9,356	28,245	442,433
Phenix, New York.	1,908,851	60,000	700,227	298,404	58,448	344,225	3,370,156
Phoenix, Connecticut.	1,625,182	280,000	430,641	104,067	74,183	223,642	2,737,718
Providence, Washington, R. I.	665,804	32,000	181,575	53,487	22,331	67,124	1,023,323
Rochester German, N. Y.	225,399	20,000	84,759	20,809	13,539	29,546	394,054
Rockford Ins. Co., Ill.	177,273	32,000	109,365	39,742	1,883	22,632	382,896
Standard Fire, Mo.	20,252	.....	15,440	12,771	482	14,950	63,897
Security, Conn.	300,897	17,500	108,555	49,209	4,659	.....	480,823

Expenditures.

Springfield F. & M., Mass.....	980,718	125,000	268,167	72,926	55,238	156,845	1,678,896
Spring Garden, Penn.....	198,266	64,000	55,603	17,791	14,941	14,427	365,029
St. Paul German, Minn.....	9,473	2,832	18,069	10,802			41,177
St. Paul F. and M., Minn.....	671,596	50,000	200,673	47,495	19,936	47,293	1,086,996
Standard Fire, New York.....	30,685	14,000	12,104	13,819	2,634	6,560	79,805
State Investment & Insurance, Cal.....	155,111	726	50,787	32,355	4,963	29,601	273,545
Sun, Cal.....	193,324	15,000	45,221	29,748	3,132	22,699	309,125
Sun Mutual, La.....	258,052	51,947		59,498	2,768	2,000	374,266
Syndicate, Minn.....	65,202		31,774	9,099	3,317	11,769	121,153
Teutonia, Penn.....	12,872	8,000	3,980	4,237	2,445	1,915	33,451
Traders, Ill.....	393,998	50,000	101,102	41,756	15,723	24,510	627,091
Union, Penn.....	346,409	132	64,710	23,454	8,899	52,191	495,796
Union, Cal.....	588,403	29,990	200,703	50,152	19,101	67,206	955,556
United Fireman's, Pa.....	157,263	18,000	47,030	16,227	5,932	16,069	260,514
United States, N. Y.....	104,220	29,994	46,545	18,104	7,628	19,460	225,953
Westchester, N. Y.....	471,943	30,000	185,754	37,433	21,413	101,546	848,092
Western Home, Iowa.....	75,883	12,000	27,653	16,644	1,962	15,556	149,700
Williamsburg city, N. Y.....	285,217	50,115	133,298	59,771	5,096	38,160	571,659
Totals.....	\$42,425,766	\$5,728,744	\$12,951,531	\$5,516,332	\$1,569,048	\$5,309,759	\$73,440,287
Foreign Companies.							
British American, Can.....	\$409,614		\$126,226	\$13,225	\$16,342	\$25,081	\$590,490
City of London, Eng.....	447,109		95,967	33,436	19,173	35,971	631,658
Commercial, Eng.....	1,722,866		469,711	124,158	54,218	137,508	2,508,462
Guardian, England.....	485,579		176,741	96,036	23,791	84,671	866,819
Hamburg, Bremen, Germany.....	657,086		162,523	82,122	23,114	69,700	994,547
Imperial, Eng.....	704,429		203,025	114,878	39,199	32,009	1,093,548
Liverpool, London and Globe, Eng.....	2,808,933		791,479	222,713	83,906	200,937	4,102,971
Lancashire, Eng.....	996,809		298,630	174,484	33,094		1,503,018
Lion, Eng.....	326,648		70,388	30,363	11,717	24,406	463,530
London Assurance, Eng.....	576,925		175,445	65,163	23,545	51,189	892,270
London and Lancashire, Eng.....	1,022,216		314,289	69,881	32,992	83,823	1,528,204
Mannheim, Germany.....	123,936		21,126		4,979	11,451	161,494
Northern Assurance, Eng.....	689,737		160,006	65,515	27,399	104,121	1,046,781
North British and Mercantile, Eng.....	1,280,599		314,308	232,116	49,561	70,506	1,947,092
Norwich Union, Eng.....	662,075		183,658	71,303	13,359	69,821	1,000,219
Phoenix, Eng.....	955,432		271,465	72,452	45,913	57,508	1,402,772
Queen, Eng.....	880,160		221,612	103,142	43,526	90,110	1,338,551
Royal, Eng.....	1,735,924		562,846	159,376	69,552	244,140	2,771,840

TABLE NO. V.—EXPENDITURES — Continued.

NAME OF COMPANY.	Losses paid.	Dividends.	Commissions and brokerage.	Salaries of officers and employes.	Taxes, state and national.	All other payments.	Total expenditures.
Foreign Companies.— Con.							
Scottish Union and National, Scotland.....	\$354,033	.....	\$84,881	\$30,057	\$16,398	\$19,168	\$504,540
Sun Fire Office, Eng.....	795,100	.....	210,064	64,876	26,176	116,187	1,212,405
Trans-Atlantic, Germany.....	148,346	.....	65,333	16,880	5,536	17,461	253,558
Western Assurance, Canada.....	918,130	.....	228,294	26,600	26,771	91,778	1,291,574
Totals.....	\$18,696,686	.....	\$5,208,017	\$1,868,781	\$720,261	\$1,642,547	\$28,106,238
Marine Companies.							
British and Foreign Marine.....	\$312,356	.....	\$112,523	\$49,772	\$18,628	*\$827,603	\$1,320,824
Marine, London, England.....	100,061	.....	38,946	15,994	6,968	.....	161,971
Standard Marine, England.....	41,462	.....	1,738	14,585	1,021	2,527	61,335
Union Marine, Eng.....	86,958	.....	44,041	4,300	6,001	†248,546	389,848
Totals.....	\$540,837	.....	\$197,248	\$84,651	\$32,618	\$1,078,676	\$1,933,978
Miscellaneous Guarantee and Accident Companies (Stock).							
American Surety, New York.....	\$88,908	\$60,000	\$27,292	\$63,814	\$7,413	\$57,139	\$324,567
Employers Liability, Eng.....	180,044	.....	161,870	35,680	7,346	87,107	472,050
Fidelity and Casualty, New York.....	316,204	20,000	278,485	105,465	13,402	167,089	900,648
Guarantee Co. of N. A., Montreal, Canada.....	74,958	18,276	8,544	53,215	5,616	51,934	212,545
American Steam Boiler.....	28,550	80,000	125,497	30,073	11,240	217,313	492,675
Hartford Steam Boiler.....	41,909	50,000	148,780	24,402	12,545	285,062	562,700
Lloyd's Plate Glass.....	130,027	12,000	74,367	59,555	6,713	3,993	286,657
Metropolitan Plate Glass.....	72,897	12,000	32,993	31,980	1,463	.....	170,334
Totals.....	\$933,497	\$258,276	\$877,828	\$745,184	\$65,738	\$869,637	\$3,422,166
Mutual Companies of Other States.							
Buckeye Mutual, Ohio.....	\$33,116	.....	\$8,457	\$2,933	.....	\$5,342	\$49,850
Central Manufrs. Mutual, Ohio.....	27,495	.....	1,886	5,551	.....	†29,720	64,654

Expenditures.

Commonwealth Mutual, Ill.	38,001		3,043	5,419		3,240	49,706
Commercial Mutual, N. Y.	200,552		13,067	20,920	2,786	44,509	281,836
Lumberman's Mutual, Ill.	8,233		12,134			126,168	46,537
Manufacturers' and Merchants, Ill.	33,170		9,712	6,540		132,346	81,770
Millers' and Manufacturers', Minn.	68,713		24,916			155,072	148,718
Millers' National, Ill.	135,186		2,394	26,100		19,280	182,961
Minneapolis Mutual, Minn.	84,443		20,994	21,052		165,734	192,225
Minnesota Fire Ass., Minn.	20,837		6,793	2,588		118,277	48,496
Mississippi Valley Manfrs. Mutual, Ill.	116,320		14,851	7,525		143,520	188,084
Mutual Fire, Ill.	154,231		36,842	12,568		196,677	300,319
Mutual Union, Ill.	53,163		9,998	8,660		16,488	88,311
Ohio Farmers', Ohio	473,614		116,037	27,894	23,262	37,005	677,813
Protection Mutual, Ill.	6,661	8,305		8,898	204	8,553	32,860
Western Manufrs. Mutual, Ill.	73,821	23,990		32,135	2,364	141,548	173,624
Union, Cincinnati, Ohio	43,050		13,354	8,986		29,704	95,097
Totals	\$1,570,606	\$32,295	\$204,478	\$197,769	\$28,616	\$582,298	\$2,703,361
Assessment Accident Companies.							
American Mut. Acc. Ass., Wis.	\$1,100		\$1,940	\$156		\$688	\$3,885
Manufacturers', N. Y.	33,512		76,027	14,776		11,675	135,990
Mason's Fraternal, Mass.	27,682		36,767	7,263		6,136	77,850
Metropolitan Acc. Ass., Ill.	9,907		4,187	4,059		6,628	24,783
Provident Fund Society, N. Y.	21,872		56,389			21,031	99,292
Preferred Mutual Acc. Ass., N. Y.	51,697		23,142			63,556	138,396
Railway Officials' and Conductors' Acc. Ass., Ind.	4,676		4,861	3,446		2,744	15,730
Union Mutual Acc., Ill.	61,928		104,932	36,976		35,432	239,268
U. S. Mutual Acc. Ass., N. Y.	384,868		135,981	204,695		127,576	853,120
New England Mut. Acc., Mass.	43,978		41,118	21,234		9,495	115,825
Mutual Acc. Ass. of N. W., Ill.	70,819		4,393	15,833		10,433	101,478
Minnesota Accident Association			890			116	946
Totals	\$712,039		\$490,567	\$308,428		\$295,508	\$1,806,563

* Includes \$616,519 sent to Home Office.

† Includes \$242,062 sent to Home Office.

‡ Includes cash premium and premium notes returned.

TABLE NO. VI.—ASSETS, SURPLUS, RISKS AND LOSSES.

NAME OF COMPANY.	Net assets.	Surplus.	Net risks in force Dec. 6, 1888.	Risks written during the year.	Net risks in force Dec. 31, 1889.	Losses paid during the year.	Losses incurred during the year
Wisconsin Joint Stock Companies.							
Concordia Fire, Milwaukee, Wis.	\$544,161	\$52,009	\$45,576,808	\$33,513,633	\$43,063,955	\$255,786	\$243,055
Heckla Fire, Madison, Wis.	475,216	30,243	16,642,164	18,552,341	19,737,659	103,413	109,992
Milwaukee Mechanics	1,621,602	922,543	61,257,597	43,440,082	64,303,470	267,799	273,364
Northwestern National, Milwaukee, Wis.	1,504,797	344,202	74,811,927	53,434,429	80,326,860	298,958	309,167
Totals	\$4,145,780	\$1,348,997	\$198,288,496	\$148,940,485	\$207,431,944	\$924,956	\$935,578
Mutual Companies of Wisconsin.							
Herman Farmers' Mutual, Herman, Wis.	\$46,930			\$1,399,672	\$4,844,574	\$11,098	\$11,098
Germantown Farmers, Rockfield, Wis.	120,455			1,272,514	3,190,091	8,899	8,419
Lumberman's & Manufacturers, Eau Claire, Wis.	98,594			876,424	958,538	14,788	
Mutual Fire, Eau Claire, Wis.	199,166			1,300,625	1,101,936	13,387	
Miller's Mutual, Milwaukee, Wis.	335,692			2,902,970	3,421,924	62,125	
Milwaukee Mutual, Milwaukee, Wis.	141,112			1,741,103	2,065,311	25,183	
Manufacturers' Mutual, Milwaukee, Wis.	39,100			2,013,068	1,217,519	70,080	
Wisconsin Mutual, Milwaukee, Wis.	141,465			1,782,070	2,082,351	25,182	
Totals	\$1,122,514			\$13,288,446	\$18,842,244	\$230,742	\$19,517

Assets, Surplus, Risks and Losses.

<i>Companies of Other States.</i>							
Aetna, Hartford, Conn.....	\$10,071,509	\$3,700,666	\$310,177,580	\$349,188,647	\$332,802,848	\$1,634,843	\$1,647,369
Allemania, Pittsburgh, Penn.....	347,990	51,870	10,724,525	12,882,199	13,033,261	80,903	75,467
Amazon, Cincinnati, Ohio.....	555,476	68,677	20,601,953	19,743,309	22,471,386	127,958	135,113
American, Boston, Mass.	595,887	87,736	25,680,015	23,92,616	25,159,545	215,569	210,531
American, Newark, N. J.	2,048,584	1,014,853	83,275,360	66,766,337	76,779,548	216,226	222,041
American, Philadelphia, Pa.	2,642,669	409,616	158,590,030	163,325,692	174,393,048	1,007,539	1,021,228
American, New York, N. Y.	1,360,842	424,170	100,519,813	101,411,495	92,622,538	379,211	413,286
Agricultural, Watertown, N. Y.	2,168,803	351,228	234,345,737	100,274,817	242,348,150	377,075	395,200
American Central, St. Louis, Mo.	1,344,353	240,718	62,970,262	51,802,642	61,792,930	319,074	320,100
Alliance, New York, N. Y.	381,101	38,150	53,481,460	49,986,158	55,044,067	124,702	123,153
Anglo Nevada, San Francisco, Cal.....	2,569,552	46,734	74,758,267	98,807,920	57,973,714	690,608	706,988
Boylston, Boston, Mass.....	906,129	101,969	33,650,475	33,878,050	33,200,252	220,766	214,080
Buffalo German, Buffalo, N. Y.	1,374,765	824,303	58,300,088	45,462,216	59,773,844	244,204	248,085
Broadway, New York, N. Y.	458,813	213,603	15,285,158	12,393,721	15,022,104	18,607	20,455
California, San Francisco, Cal.	1,274,874	112,935	42,851,790	63,612,056	49,152,077	535,533	541,182
Citizens, New York, N. Y.	1,166,496	302,896	106,568,208	89,958,873	113,579,839	356,063	352,187
Citizens, Cincinnati, Ohio.....	271,241	8,025,280	8,025,280	8,705,049	6,266,691	93,088	102,360
Citizens, Pittsburgh, Pa.	728,574	21,635	28,729,984	26,844,932	28,472,269	179,456	189,904
Commerce, Albany, N. Y.	353,801	68,046	14,899,931	12,501,854	13,362,981	95,706	93,985
Commonwealth, New York, N. Y.	653,301	20,396	19,610,777	27,088,010	21,780,390	209,305	216,605
Connecticut, Hartford, Conn.....	2,347,692	522,254	109,120,083	104,121,663	115,397,842	664,420	634,478
Commercial, San Francisco, Cal.....	403,003	12,340	24,764,010	32,141,925	21,346,393	352,048	357,975
Continental, New York, N. Y.	5,217,773	1,471,703	544,886,098	276,802,399	523,342,270	1,287,039	1,260,797
Delaware Mutual Safety, Philadelphia, Pa.	1,452,693	822,363	30,992,561	57,490,502	27,188,850	282,284	96,355
Detroit F. and M., Detroit, Mich.....	971,310	469,526	20,740,173	21,379,248	21,187,190	120,064	127,424
Dwelling House, Boston, Mass.....	587,758	37,419	51,549,240	24,187,925	44,438,412	100,927	104,377
Eagle Fire, New York, N. Y.	1,131,626	694,875	37,661,340	29,152,227	37,289,492	48,594	50,773
Empire State, Rochester, N. Y.	345,954	34,224	5,693,322	15,043,250	11,930,355	114,684	130,277
Equitable Fire and Marine, Providence, R. I.	566,944	75,853	24,374,097	27,421,593	26,806,735	159,963	171,876
Farmer Fire, York, Pa.	564,475	243,026	42,348,009	29,620,466	45,232,620	200,510	211,756
Fire Association of Philadelphia, Pa.....	4,587,869	894,768	266,354,184	149,950,089	276,653,386	1,024,123	1,018,712
Fireman's Fund, San Francisco, Cal.....	2,431,717	437,840	105,270,262	122,469,839	109,319,294	728,807	765,220
Fire Insurance Co. County of Philadelphia, Pa.	855,594	158,120	15,622,251	17,761,821	17,363,331	99,828	120,181
Firemen's, Dayton, Ohio.....	483,731	52,183	26,256,568	19,331,385	24,680,790	134,581	172,285

TABLE NO. VI.—ASSETS, SURPLUS, RISKS AND LOSSES—Continued.

NAME OF COMPANY.	Net assets.	Surplus.	Net risks in force Dec. 6, 1888.	Risks written during the year.	Net risks in force Dec. 31, 1889.	Losses paid during the year.	Losses incurred during the year.
<i>Companies of Other States— Con.</i>							
Firemen's, Newark, N. J.	\$1,720,158	\$886,485	\$45,993,123	\$36,620,361	\$46,858,238	\$234,654	\$236,618
Franklin Fire, Philadelphia, Pa. .	3,174,357	970,024	138,090,323	50,555,253	137,665,835	311,352	286,669
Franklin, Columbus, Ohio.	375,016	23,291	21,699,572	22,519,610	26,841,170	130,314	131,223
Farragut Fire, New York, N. Y. .	410,203	81,014	27,545,726	20,882,765	27,791,881	76,693	75,995
German, Freeport, Ill.	2,452,621	456,013	163,712,821	92,230,098	171,547,379	720,162	716,221
German, Peoria, Ill.	433,221	30,759	15,651,766	18,149,221	12,353,996	121,201	109,547
German, Pittsburgh, Pa.	467,730	80,449	26,064,125	21,226,750	28,439,254	126,199	130,603
German American, New York, N. Y.	5,544,346	2,252,191	504,528,313	348,529,410	496,340,407	1,426,058	1,454,916
Germania, New York, N. Y.	2,965,136	758,063	223,023,634	180,167,555	231,260,855	607,862	692,424
Girard Fire and Marine, Philadel- phia, Pa.	1,432,898	557,559	64,477,825	44,027,026	68,291,207	216,667	224,019
Glens Falls, Glens Falls, N. Y. .	1,791,770	1,003,049	105,382,461	63,498,198	106,136,430	257,035	254,255
Grand Rapids Fire, Grand Rapids Mich.	310,118	38,355	8,278,330	10,693,689	9,339,122	71,464	73,664
Granite State, Portsmouth, N. H. .	456,752	24,945	29,289,839	33,947,752	33,442,315	163,749	172,978
Greenwich, New York, N. Y.	1,439,796	374,813	217,094,129	264,617,240	247,171,717	622,551	759,948
Hanover Fire, New York, N. Y. .	2,559,823	528,934	202,574,705	161,636,610	189,381,183	654,962	708,025
Hartford Fire, Hartford, Conn. .	6,142,454	2,456,078	309,651,199	262,433,849	345,574,745	1,624,370	1,608,892
Home, New York, N. Y.	8,931,159	1,307,542	734,370,569	675,803,501	723,852,422	2,908,329	3,002,514
Insurance Co. of North America, Philadelphia, Pa.	8,731,250	2,399,783	391,324,671	628,873,263	425,532,775	2,690,218	2,779,207
Insurance Co. of the State of Pennsylvania, Philadelphia, Pa.	718,452	55,687	33,735,778	42,482,102	37,660,505	194,287	240,347
Jersey City, Jersey City, N. J. .	432,203	72,230	16,847,703	11,205,245	18,215,223	53,417	59,299
Liberty, New York, N. Y.	1,377,682	2,527	72,810,349	101,475,214	77,809,593	507,037	533,523
Manufacturers and Builders, New York, N. Y.	501,118	115,154	38,068,717	30,750,664	36,115,778	116,339	123,969
Merchants, Newark, N. J.	1,554,658	477,580	105,828,285	79,601,618	97,172,215	493,353	502,940

Assets, Surplus, Risks and Losses.

Merchants, Providence, R. I.	479,939	82,642	23,682,810	25,108,772	26,322,996	144,677	169,142
Mercantile, Cleveland, Ohio.	378,463	63,473	11,537,484	16,515,882	12,132,165	154,073	188,899
Mercantile F. and M., Boston, Mass.	672,816	145,875	17,996,274	15,627,179	17,071,516	94,526	90,348
Michigan F. and M., Detroit, Mich.	735,115	103,525	23,343,065	36,964,338	28,991,170	262,649	.....
Mutual, New York, N. Y.	1,298,985	434,716	56,771,021	100,631,908	70,728,356	669,864	751,557
National Fire, Hartford, Conn. .	2,443,937	553,514	115,820,281	92,430,456	119,544,476	565,297	566,701
Newark Fire, Newark, N. J.	730,039	286,904	28,456,890	27,597,773	29,803,413	124,475	154,532
New Hampshire, Manchester, N. H.	1,588,815	323,479	75,983,974	76,395,177	80,951,596	441,850	468,447
New York Fire, New York, N. Y.	356,659	33,017	18,816,528	19,520,308	20,564,730	82,564	95,000
New York Bowery, New York, N. Y.	707,726	74,831	84,740,106	46,604,780	56,642,830	267,712	288,550
Niagara, New York, N. Y.	2,490,654	389,502	312,271,838	237,047,192	298,359,177	963,494	1,006,379
North American, Boston, Mass. .	354,429	1,110	21,356,267	22,510,443	22,350,724	143,391	173,733
Orient, Hartford, Conn.	1,836,722	161,798	76,574,923	83,282,538	88,216,750	525,083	548,970
Oakland Home, Oakland, Cal. . .	461,688	54,588	14,896,501	31,703,605	19,783,850	198,002	211,359
Pacific, New York, N. Y.	714,852	305,090	41,914,782	34,696,541	40,854,808	169,042	174,540
Packers and Provision Dealers, Chicago, Ill.	302,063	18,058	4,338,550	7,234,402	5,785,736	39,686	40,345
Pennsylvania Fire, Philadelphia, Pa.	3,329,935	1,415,824	119,049,373	101,063,642	126,379,461	583,732	580,000
People's, Manchester, N. H.	623,593	46,386	34,373,722	42,188,536	38,411,478	276,440	280,433
Phoenix, Brooklyn, N. Y.	4,781,255	401,921	486,549,880	335,653,640	489,657,629	1,908,851	1,875,159
Phoenix, Hartford, Conn.	5,305,004	1,301,235	270,625,744	234,534,683	295,179,474	1,625,182	1,601,032
Providence - Washington, Provi- dence, R. I.	1,144,316	49,101	83,302,151	130,937,640	83,559,606	665,804	634,018
Rochester German, Rochester, N. Y.	751,384	218,520	51,858,487	43,991,032	53,884,406	225,399	224,678
Rockford, Rockford, Ill.	755,825	83,818	68,567,686	39,944,773	65,024,222	177,273	186,313
St. Paul German, St. Paul, Minn.	382,756	18,497	.....	10,158,790	8,507,977	9,473	12,892
Standard Fire, Kansas City, Mo..	256,925	3,054	.....	3,594,096	2,611,059	20,252	25,761
Security, New Haven, Conn.	660,453	73,186	39,656,531	56,895,858	40,763,766	300,897	322,067
Springfield, Springfield, Mass. .	3,410,982	520,509	175,278,437	143,085,358	181,306,154	980,718	1,045,647
Spring Garden, Philadelphia, Pa.	1,273,588	313,263	26,625,127	29,719,802	29,239,929	198,266	192,425
St. Paul Fire Marine, St. Paul, Minn.	1,713,904	510,697	95,435,286	89,875,921	94,433,102	671,596	644,550
Standard, New York, N. Y.	382,350	112,044	10,775,926	10,155,790	10,855,847	30,685	46,575
State Investment, San Francisco, Cal.	547,286	3,717	14,117,615	18,884,171	15,546,509	155,111	155,891

TABLE NO. VI.—ASSETS, SURPLUS, RISKS AND LOSSES—Continued.

NAME OF COMPANY.	Net assets.	Surplus.	Net risks in force Dec. 31, 1888.	Risks written during the year.	Net risks in force Dec. 31, 1889.	Losses paid during the year.	Losses incurred during the year.
Companies of Other States—							
Con.							
Sun, San Francisco, Cal.....	\$515,020	\$32,637	\$16,860,816	\$24,973,818	\$16,681,180	\$193,324	\$204,719
Sun Mutual, New Orleans, La ...	1,078,476	303,900	21,229,241	55,819,114	23,771,213	258,052	288,817
Syndicate, Minneapolis.....	354,037	10,789	5,311,704	14,034,811	10,190,248	65,202	69,983
Teutonia, Philadelphia, Pa.....	265,232	27,353	3,742,975	3,529,832	3,679,232	12,872	13,205
Traders, Chicago, Ill.....	1,334,267	406,052	46,126,530	46,236,788	46,676,672	393,998	415,735
Union, Philadelphia, Penn.....	530,558	14,712	37,379,476	71,111,448	29,672,448	346,409	435,671
Union, San Francisco, Cal.....	1,272,186	21,289	49,976,522	80,949,755	53,843,824	588,403	584,867
United Firemen, Philadelphia, Pa	1,072,351	78,621	46,515,578	28,731,846	51,723,825	157,263	157,327
United States, New York, N. Y.	651,403	248,139	24,494,871	22,309,033	25,335,036	104,220	105,287
Westchester, New York, N. Y....	1,521,706	406,457	152,746,693	100,857,176	146,792,704	471,943	474,788
Western Home, Sioux City, Iowa	313,488	10,181	10,911,925	8,606,935	10,137,492	75,885	80,546
Williamsburgh City, New York, N. Y.....	1,393,311	646,015	105,876,196	79,918,976	106,466,659	285,217	277,654
Totals	\$158,288,802	\$39,289,321	\$9,090,152,995	\$8,191,542,784	\$9,285,559,403	\$42,425,766	\$41,941,252
Foreign Companies.							
British America, Ca.....	\$866,128	\$408,995	\$60,986,571	\$50,405,614	\$61,003,524	\$409,614	\$376,796
City of London, London.....	714,702	327,998	51,487,413	50,056,668	48,233,668	447,109	436,642
Commercial Union, London.....	2,890,988	1,009,788	307,909,963	306,319,788	314,062,290	1,722,866	1,583,113
Guardian Association, London...	1,521,020	764,351	130,357,716	117,075,906	145,784,511	485,579	507,941
Hamburgh Bremen, Hamburgh, Ger.....	1,152,580	387,106	109,296,465	102,784,062	111,646,469	657,086	657,416
Imperial, London.....	1,617,037	728,848	120,758,788	122,857,757	130,706,744	704,429	698,614
Liverpool & London & Globe....	7,337,156	3,088,908	590,711,333	605,558,920	661,012,313	2,808,933	2,766,368
Lancashire, Manchester, Eng....	1,880,681	756,608	168,689,660	181,535,862	190,381,964	996,809	978,431
Lion.....	788,244	467,664	51,431,482	60,409,964	38,175,475	326,648	337,537
London.....	1,661,054	912,406	132,721,126	138,220,309	151,493,835	576,925	579,202

Assets, Surplus, Risks and Losses.

Assets, Surplus, Risks and Losses.

London & Lancashire.....	2,104,079	792,843	203,161,772	206,223,095	216,401,190	1,022,216	1,080,514
Mannheim, Mannheim, Germany.....	357,611	290,771	1,008,997	38,403,302	2,150,617	123,936	.....
Northern Assurance, London.....	1,513,920	656,922	131,318,052	112,885,165	132,459,689	689,737	696,927
North British & Mercantile.....	3,450,526	1,638,958	286,852,818	243,516,413	254,794,482	1,280,599	1,284,761
Norwich Union.....	1,505,631	648,847	128,927,986	132,979,191	142,383,452	662,075	599,924
Phoenix Assurance.....	1,966,131	560,118	223,933,565	242,925,542	290,700,842	955,432	959,156
Queens.....	2,192,308	955,791	208,706,687	165,432,009	206,909,372	880,160	890,374
Royal.....	5,406,735	2,084,634	459,484,143	493,239,065	512,223,042	1,735,924	1,763,303
Scottish Union & National.....	1,673,758	1,264,226	82,826,496	90,444,133	60,333,320	354,033	367,737
Sun Fire.....	1,956,331	817,609	191,301,946	147,303,351	191,116,814	795,100	814,411
Trans-Atlantic.....	517,406	337,662	24,367,200	29,358,917	29,733,998	148,346	146,542
Western Assurance.....	1,051,615	445,240	74,266,956	154,715,736	70,284,569	918,130	904,919
Totals.....	\$44,122,641	\$19,095,790	\$3,740,505,015	\$3,792,600,687	\$3,901,992,480	\$18,696,686	\$18,300,625
<i>Marine Companies.</i>							
British Foreign Marine.....	\$1,295,921	\$998,885	\$13,369,844	\$290,660,205	\$10,218,376	\$312,856	.....
Marine Ins. Co., London, Eng....	624,401	490,849	3,092,792	157,000,667	8,270,714	100,061	.....
Standard Marine, Liverpool, Eng...	212,383	198,266	462,047	31,209,233	1,432,554	41,462	\$128,700
Union Marine, Liverpool, Eng....	452,965	383,481	2,407,774	62,381,151	2,636,987	86,958	.....
Totals.....	\$2,585,673	\$2,071,481	\$19,332,457	\$481,251,256	\$22,558,631	\$540,837	\$128,700
<i>Accident and Guarantee Companies.</i>							
American Surety, N. Y.	\$1,459,489	\$205,627	\$54,689,363	\$64,620,770	\$60,969,672	\$88,908	.....
Employers Liability Ass. Co., London, Eng.....	842,282	156,381	46,757,581	129,529,996	117,350,015	180,044	\$217,829
Fidelity & Casualty, New York, N. Y.....	1,017,815	72,519	91,630,541	158,317,023	150,755,625	316,204	370,187
Guarantee Co. of N. A., Montreal, Can.....	684,429	221,908	32,354,466	47,651,283	37,178,074	74,958	89,648
American Steam Boiler, New York, N. Y.....	1,427,256	336,873	63,183,582	73,431,724	98,080,453	28,550	32,050
Hartford Steam Boiler, Hart- ford, Conn.....	1,343,905	65,538	91,102,143	64,959,810	121,200,690	41,969	55,654
Lloyds' Plate Glass, New York, N. Y.....	397,642	87,348	9,209,601	11,071,639	10,714,529	130,027	130,070
Metropolitan Plate Glass, New York, N. Y.....	313,058	104,524	5,583,138	6,897,704	6,442,295	72,897	72,197
Totals.....	\$7,485,376	\$1,250,720	\$394,501,365	\$457,479,939	\$602,691,333	\$933,497	\$948,235

TABLE NO. VI.—ASSETS, SURPLUS, RISKS AND LOSSES — Continued.

NAME OF COMPANY.	Net assets.	Surplus.	Net risks in force Dec. 31, 1888.	Risks written during the year.	Net risks in force Dec. 31, 1889.	Losses paid during the year.	Losses in- curred during the year.
Mutual Companies of Other States.							
Buckeye Mutual, Ohio.....	\$412,604	\$13,088	\$2,387,482	\$4,272,988	\$4,482,639	\$33,116	\$39,180
Central Manufactnrers', Ohio.....	212,367			3,599,531	2,856,374	27,495	
Commonwealth Mut., Ill.....	199,094			741,36	3,019,940	38,001	
Commercial Mut., New York.....	645,508	891	2,422,920	25,034,864	2,480,890	200,552	
Lumberman's Mut., Ill.....	143,185			3,260,585	1,973,356	8,233	
M'frs. & Merchants' Mut., Ill.....	288,381			3,428,753	3,411,850	33,170	
Millers' & M'frs' Mut., Minn.....	405,635			246,956	5,865,101	68,713	
Millers' National, Ill.....	1,589,938			3,522,869	9,124,109	135,186	
Minneapolis Mut., Minn.....	426,274			2,156,450	8,045,027	84,443	
Minn. Fire Association, Minn.....	240,566			762,417	4,017,971	20,837	
Miss. Valley M'frs Mut., Ill.....	393,818			6,180,176	8,026,164	116,320	
Mut. Fire., Ill.....	485,209				9,859,397	154,231	
Mut. Union, Ill.....	253,471			3,980,543	4,732,444	53,163	
Ohio Farmers', Ohio.....	1,561,008	405,436	230,594,795	82,570,595	248,625,025	473,614	466,319
Protective Mut., Ill.....	205,948	4,911	1,894,315	3,295,291	2,711,011	6,661	3,016
Western M'frs Mut., Ill.....	538,069			9,242,932	6,839,092	73,821	
Union Mut., Ohio.....	202,089			4,316,073	3,501,248	43,050	
	\$8,203,260	\$424,276	\$237,299,512	\$156,612,377	\$329,671,638	\$1,570,606	\$508,515
Assessment Accident Companies.							
American Mut. Accident, Wis.....	\$1,188					\$1,100	\$1,100
M'frs of Geneva, New York.....	75,726		\$21,633,475	\$39,209,750	\$40,009,775	33,512	33,512
Masons' Fraternal, Mass.....	13,205		14,444,375	28,368,750	29,775,500	27,682	27,682
Metropolitan Accident Assoc., Ill.....	4,452		6,051,100	4,248,000	6,893,100	7,093	6,682
Minnesota Acc., Minn.....	309						
Mut. Acc. Assoc. of the North- west, Ill.....	5,961					70,819	70,819

Assets, Surplus, Risks and Loss

New England Mut. Acc., Mass.....	36,686	27,697,625	22,221,625	30,808,750	43,978	8,8733
Provident Fund Society, N. Y.....	8,014	19,376,375	30,198,000	20,130,740	21,872	4,796
Preferred Mut. Acc., N. Y.....	47,451	56,420,000	62,725,000	77,385,000	51,697	
Railway Official and Conductors', Ind.....	36,308		15,221,925	4,590,225	4,676	4,676
Union Mut. Acc. Assoc., Ill.....	11,937	46,473,750	79,171,193	68,819,137	61,928	82,053
U S. Mut. Acc. Assoc., N. Y.....	143,810	231,931,250	137,314,500	254,313,375	384,868	379,552
Total.....	\$387,076	\$424,033,950	\$408,678,743	\$532,725,602	\$712,039	\$649,745

Assets and Liabilities.

TABLE NO. VII.—ASSETS AND LIABILITIES.

NAME OF COMPANY.	1888.		1889.	
	Assets.	Liabilities.	Assets.	Liabilities.
Wis. Joint Stock Companies.				
Concordia Fire, Milwaukee.....	\$581,985	\$336,889	\$544,165	\$292,157
Hekia Fire, Madison.....	461,199	115,637	475,216	144,972
Milwaukee Mechanics, Milwaukee.....	1,526,567	473,448	1,621,602	499,060
Northwestern National, Milwaukee.....	1,450,575	504,789	1,504,797	560,596
Totals.....	\$4,019,726	\$1,430,763	\$4,145,780	\$1,496,785
Mutual Companies of Wisconsin.				
Herman Farmers' Mutual, Herman....	\$48,562	\$14,836	\$46,930	\$17,421
Germantown Farmers' Mut., Rockfield	111,166	24,685	120,455	22,702
Lumberman's & Manfs. Mut., Eau Claire	88,953	9,228	98,594	7,683
Manfrs. Mut., Milwaukee.....	64,829	6,167	39,100	20,098
Millers' Mut., Milwaukee.....	329,860	8,942	335,692	26,017
Milwaukee Mut., Milwaukee.....	135,135	4,479	141,112	16,929
Mutual Fire, Eau Claire.....	89,365	8,345	199,166	14,134
Oshkosh Mutual, Oshkosh.....	162,394	37,541		
Wisconsin Mut., Milwaukee.....	134,754	4,951	141,465	16,746
Totals.....	\$1,165,018	\$119,174	\$1,122,514	\$141,730
Companies of Other States.				
Etna Fire, Hartford, Conn.....	\$9,780,751	\$2,174,236	\$10,071,509	\$2,370,843
Agricultural, Watertown, N. Y.....	2,006,418	1,204,227	2,168,803	1,317,575
Allemania, Pittsburg, Pa.....	324,561	86,480	347,990	96,119
Amazon, Cincinnati, Ohio.....	536,949	169,161	555,476	186,798
American, Boston, Mass.....	624,229	195,288	595,887	208,151
American, Newark, N. J.....	1,965,052	408,818	2,048,584	433,731
American, Philadelphia, Pa.....	2,500,916	1,631,500	2,642,669	1,733,053
American, New York, N. Y.....	1,208,514	360,176	1,300,842	476,671
American Central, St. Louis, Mo.....	1,307,640	475,688	1,344,353	503,634
Alliance, New York, N. Y.....	400,036	141,577	381,101	142,950
Anglo-Nevada, San Francisco, Cal....	2,626,589	550,775	2,568,552	522,818
Boatmen's F. and M., Pittsburg, Pa....	392,899	156,376		
Boylston, Boston, Mass.....	941,483	239,629	906,129	246,959
Buffalo German, Buffalo, N. Y.....	1,332,377	335,171	1,374,765	350,462
Broadway Ins. Co., New York.....	448,111	29,375	458,813	45,210
California, San Francisco, Cal.....	1,313,286	523,099	1,247,874	534,939
Citizens', New York, N. Y.....	1,126,197	532,558	1,166,496	563,800
Citizens', Cincinnati, Ohio.....	298,287	93,649	271,241	87,861
Citizens', Pittsburgh, Pa.....	693,107	180,006	728,574	206,938
Commerce, Albany, N. Y.....	470,275	89,512	353,801	85,756
Commercial, San Francisco, Cal.....	450,086	201,361	406,003	193,663
Commonwealth, New York.....	713,533	116,411	653,301	132,905
Connecticut, Hartford, Conn.....	2,260,917	806,198	2,347,692	825,438
Continental, New York, N. Y.....	5,028,344	2,801,653	5,217,773	2,746,070
Delaware, Mut. Safety, Philadelp'a, Pa.	1,541,551	219,631	1,452,693	270,230
Detroit F. and M., Detroit, Mich.....	922,299	140,890	971,310	151,783
Denver, Denver, Col.....	272,199	39,637		

Assets and Liabilities.

TABLE NO. VII.—ASSETS AND LIABILITIES.—Continued.

NAME OF COMPANY.	1888.		1889.	
	Assets.	Liabilities.	Assets.	Liabilities.
<i>Companies of Other States—Con.</i>				
Dwelling House, Boston, Mass.	\$591,974	\$261,734	\$587,758	\$250,339
Eagle Fire, New York.....	1,091,422	114,887	1,131,626	136,750
Empire State, Rochester, New York..	248,523	47,453	345,954	111,729
Equitable F. and M., Providence, R. I.	568,642	165,589	566,944	191,059
Exchange Fire, New York, N. Y.....	480,148	179,595		
Farmer's Fire, York, Penn.	526,965	289,099	564,475	321,449
Fire Association, Philadelphia, Pa.	4,528,528	3,189,822	4,587,869	3,193,101
Firemen's, Dayton, Ohio ..	482,266	171,654	483,731	181,547
Firemen's, Newark, New Jersey ..	1,754,354	238,921	1,720,158	233,672
Firemen's Fund, San Francisco, Cal ..	2,314,776	882,689	2,431,717	993,877
Franklin, Phila., Pa.	3,202,802	1,837,476	3,174,357	1,804,332
Franklin, Columbus, Ohio.....	381,474	127,920	375,016	151,725
Farragut Ins. Co., N. Y ..	400,534	121,483	410,203	129,181
Fire Ins. Co. County Philadelphia,				
Philadelphia, Pa.	806,506	251,122	855,594	297,474
German, Peoria, Ill.	426,309	115,962	433,221	102,402
German, Pittsburg, Pa.	450,231	170,592	467,730	187,280
German American, New York.....	5,388,532	2,144,547	5,544,346	2,292,155
Germania, New York ..	2,808,718	1,082,273	2,965,136	1,207,073
Girard F. and M., Philadelphia, Pa.	1,461,558	536,849	1,482,898	625,339
Glens Falls, Glens Falls., New York ..	1,671,158	559,991	1,791,770	588,720
Grand Rapids, of Grand Rapids, Mich.	300,227	64,244	310,118	71,762
Granite State, Portsmouth, N. H.	402,903	191,818	456,673	231,727
Greenwich, New York ..	1,405,811	790,069	1,439,796	864,983
German, Freeport, Ill.	2,316,574	1,760,753	2,452,621	1,796,607
Hanover, New York.....	2,503,381	1,040,827	2,559,823	1,030,888
Hartford, Conn.	5,750,080	2,260,097	6,142,454	2,436,375
Home New York ..	8,961,657	4,459,194	8,931,159	4,623,616
Hibernia, New Orleans, La.	587,932	182,951		
Ins. Co. of North America, Phila., Pa.	8,696,956	3,058,049	8,731,250	3,331,467
Jersey City, Jersey City, New Jersey .	410,632	88,016	432,203	109,973
Ins. Co. of State of Penn., Phila., Pa.	674,042	370,674	718,452	462,764
Liberty, New York.....	1,379,956	464,548	1,377,682	575,155
Long Island, Brooklyn, N. Y ..	467,833	146,572		
Manufacturers and Builders of N. Y.	477,700	157,911	501,118	185,963
Merchants, of Newark, N. J.	1,528,784	688,797	1,554,658	677,077
Merchants, Providence, R. I.	469,829	160,468	479,939	197,275
Mercantile, Cleveland, Ohio ..	408,135	80,885	378,453	114,979
Mercantile F. and M., Boston, Mass....	686,027	142,492	672,816	126,941
Michigan F. and M., Detroit, Mich....	715,450	181,570	735,115	231,589
Mutual Fire, N. Y.	1,493,179	554,863	1,298,985	598,164
National, Hartford, Conn.	2,326,581	819,454	2,443,937	860,422
Newark Fire, Newark, N. J.	714,817	140,700	730,039	193,135
New Hampshire, Manchester, N. H.	1,505,101	600,749	1,568,816	665,336
New York, Fire of New York.....	565,403	109,190	356,659	123,642
New York Bowery, N. Y.	770,576	351,506	707,726	332,804
Niagara, New York.....	2,360,135	1,480,595	2,490,654	1,601,151
North American, Boston, Mass.	387,420	137,023	354,429	153,318
Orient, Hartford, Conn ..	1,743,802	581,981	1,836,722	674,923

Assets and Liabilities.

TABLE NO. VII.—ASSETS AND LIABILITIES—Continued.

NAME OF COMPANY.	1888.		1889.	
	Assets.	Liabilities.	Assets.	Liabilities.
Companies of Other States—Con.				
Oakland Home, Cal.....	\$414,682	\$161,610	\$461,688	\$207,100
Pacific Fire, New York	738,969	198,899	714,852	209,761
Packers' and Provision Dealers, Chi- cago, Ill.....	310,605	30,534	302,063	34,004
Pennsylvania Fire of Phila., Pa.....	3,106,553	1,415,477	3,329,935	1,514,111
People's, of Manchester, N. H.	565,175	283,919	623,593	327,207
Phenix, Brooklyn, N. Y.....	4,524,596	3,330,669	4,781,255	3,379,334
Phoenix, Hartford, Conn.....	5,061,247	1,888,831	5,305,004	2,003,768
Providence Washington, Providence, R. I.....	1,174,148	703,410	1,144,316	695,214
Prudential Fire, New York, N. Y.....	283,872	70,687		
Rochester German, of Rochester, N. Y.	712,825	303,766	751,384	332,864
Rockford, of Rockford Ill.....	724,896	453,747	755,825	472,006
St. Paul German, St. Paul, Minn.....			382,756	64,259
Standard Fire, Kansas City, Mo.....			256,925	53,870
Security, New Haven, Conn.....	646,940	332,773	660,453	337,267
Springfield F. & M., Springfield, Mass.	3,200,141	1,332,149	3,410,982	1,390,473
Spring Garden, Phila., Penna.....	1,297,925	542,715	1,273,588	560,325
St. Paul F. and M., St. Paul, Minn.....	1,684,654	728,172	1,713,504	703,206
Standard Fire, New York City.....	380,798	50,562	382,350	70,306
State Investment, San Francisco, Cal.			547,286	143,569
Sun, San Francisco, Cal.....	550,856	186,983	515,020	182,383
Sun Mutual, New Orleans, La.....	984,062	232,933	1,078,476	274,575
Syndicate, Minneapolis, Minn.....	309,316	54,756	354,037	93,247
Teutonia, Phila., Penna.....	266,008	37,808	265,232	37,879
Traders, Chicago, Ill.....	1,345,574	423,080	1,334,257	428,215
Union, Phila., Penna.....	691,065	424,210	530,558	265,846
Union, San Francisco, Cal.....	1,319,063	442,482	1,272,186	500,897
United Firemen's, Phila., Penna.....	1,018,460	633,737	1,072,351	693,729
United States Fire, New York.....	666,178	152,275	651,403	153,264
Westchester, New York.....	1,407,452	792,592	1,521,706	815,249
Western Home, Sioux City, Iowa.....	313,382	99,622	313,488	103,307
Williamsburg City, Brooklyn, N. Y....	1,365,541	504,537	1,391,311	497,296
Total.....	\$156,047,929	\$63,267,666	\$158,288,802	\$66,280,186
Foreign Companies.				
British America, Toronto, Can.....	\$841,474	\$479,522	\$866,125	\$457,132
City of London, London, Eng.....	754,273	419,558	714,702	386,704
Commercial Union, London, Eng.....	2,807,873	1,869,352	2,890,988	1,681,199
Guardian, London, Eng.....	1,492,213	679,608	1,521,020	756,669
Hamburg Bremen, Hamburg, Ger.....	1,148,657	726,730	1,152,580	765,473
Imperial, London, Eng.....	1,613,871	853,934	1,617,037	888,189
Liverpool, London & Globe, of Liver- pool, Eng.....	6,963,811	3,963,284	7,237,156	4,298,248
Lancashire, Manchester Eng.....	1,706,412	1,025,457	1,880,681	1,124,073
Lion, London, England.....	829,349	314,088	783,244	315,579
London Assurance, London, Eng.....	1,593,044	686,434	1,661,054	748,647
London & Lancashire, Liverpool, Eng	2,019,691	1,190,963	2,104,079	1,311,735
Mannheim, Mannheim, Germany.....	285,143	50,247	357,611	

Assets and Liabilities.

TABLE NO. VII.—ASSETS AND LIABILITIES—Continued.

NAME OF COMPANY.	1888.		1889.	
	Assets.	Liabilities.	Assets.	Liabilities.
Foreign Companies — Con.				
Northern Assurance, London, Eng....	\$1,496,473	\$817,213	\$1,513,920	\$856,997
North British & Mercantile, London, Eng.....	3,472,613	1,599,724	3,450,526	1,638,958
Norwich Union, Norwich, Eng.....	1,411,444	812,734	1,505,631	856,788
Phoenix Assurance, London, Eng.	1,858,873	1,325,798	1,966,131	1,406,018
Queen, Liverpool, Eng.....	2,133,800	1,288,362	2,192,308	1,336,517
Royal, Liverpool, Eng.....	5,233,693	3,015,629	5,406,735	3,322,101
Scottish Union & National, Edinburgh..	1,525,910	383,135	1,673,758	409,535
Sun Fire Office, London, Eng.....	1,926,203	1,034,532	1,956,331	1,138,721
Trans-Atlantic, Hamburg, Germany..	518,352	152,679	517,406	179,744
Western Assurance, Toronto, Canada..	1,061,345	606,552	1,051,615	606,375
Totals	\$42,694,517	\$23,295,535	\$44,122,641	\$24,753,231
Marine Companies.				
Boston Marine, Boston, Mass.....	\$2,429,058	\$583,333		
Marine, London, Eng.....	637,379	93,525	\$624,401	\$133,552
British & Foreign Marine, Liverpool, England	861,329	307,068	1,295,921	297,436
Standard Marine, Liverpool, England			212,386	24,120
Union Marine, Liverpool, England			452,965	69,484
Totals	\$3,927,766	\$983,926	\$2,585,673	\$524,592
Miscellaneous Guarantee and Accident Companies.				
American Surety, New York.....	\$1,335,977	\$201,668	\$1,459,489	\$253,861
Equitable Accident, Cincinnati, O.....	428,612	321,761		
Employers' Liability, London, Eng....	334,219	210,026	842,282	435,901
Fidelity and Casualty, New York.....	774,550	472,460	1,017,315	694,795
Guarantee Co. of N. A., Montreal, Can.	621,474	146,058	684,429	157,920
American Steam Boiler, New York... ..	1,367,813	493,932	1,427,256	590,362
Hartford Steam Boiler and Inspect. Hartford, Conn.....	1,275,114	688,309	1,343,905	778,367
Lloyd's Plate Glass, New York.....	335,825	182,336	397,642	210,294
Metropolitan Plate Glass, New York..	287,239	96,844	313,058	108,534
Totals	\$6,760,813	\$2,813,394	\$7,485,376	\$3,230,054
Mutual Companies of Other States.				
Buckeye Mutual, Shelby, Ohio	\$205,322	\$21,495	\$412,604	\$36,329
Central Manfrs. Mutual, Van Wert, O.	168,847	28,070	212,367	25,342
Commonwealth Mutual, Decatur, Ill..	277,960	21,116	199,094	38,201
Commercial Mutual, N. Y	688,475	115,088	645,508	106,326
Illinois Mutual, Alton, Ill.	345,479	46,604		
Lumberman's Mutual, Chicago, Ill.....			143,185	9,135
Manfr's and Merchants Mut., Rockford, Ill	263,025	42,177	288,381	33,736

Assets and Liabilities.

TABLE NO. VII.—ASSETS AND LIABILITIES—Continued.

NAME OF COMPANY.	1888.		1889.	
	Assets.	Liabilities.	Assets.	Liabilities.
Mutual Companies of Other States.				
Miller's and Manfr's Mut., Minneapolis, Minn.....	\$365,871	\$98,692	\$405,695	\$111,404
Millers' National, Chicago, Ill.....	1,426,339	61,706	1,589,958	134,131
Minneapolis Mutual, Minneapolis, Minn.....	259,372	64,311	426,274	65,811
Manufacturers Mutual, Indianapolis, Ind.....	222,949	30,509	.....	128,317
Minnesota Fire Ass'n of Minneapolis..	154,483	118,615	240,566	85,233
Miss. Val. M'frs Mut. Rock Island, Ill..	421,267	75,939	393,818	100,823
Mutual Fire, Chicago, Ill.....	592,522	125,409	485,309	45,194
Mutual Union of Moline, Ill.....	194,310	36,295	253,471	.....
Ohio Farmer's, Le Roy, Ohio.....	1,476,327	1,051,217	1,561,008	1,155,571
Phoenix Mutual, Cincinnati, O.....	307,405	31,306	.....	18,724
Protection Mutual, Chicago, Ill.....	.....	.....	205,948	62,842
Western Man'frs Mut., Chicago, Ill..	456,308	73,116	538,069	40,370
Union Mut., Cincinnati, Ohio.....	185,354	23,256	202,089	.....
Reliance Mutual, Dubuque, Ia.....	165,039	14,680	.....	.....
Totals.....	\$8,076,654	\$2,079,651	\$8,208,260	\$2,207,697
Assessment Accid't Companies.				
American Mut. Acc. Ass. of Oshkosh, Wis.....	.....	.....	\$1,188	\$254
Manufacturers of Geneva, N. Y.....	\$57,904	\$2,516	75,756	8,858
Mason's Fraternal of Westfield, Mass.....	6,010	253	13,205	1,424
Metropolitan Acc. Ass., Chicago, Ill..	4,696	502	4,451	637
Minnesota Acc. of St. Paul, Minn.....	.....	.....	309	.....
Mutual Acc. Ass. of the North West Chicago.....	.....	.....	5,961	.....
New England Mut. Acc., Boston, Mass.....	27,916	2,517	36,686	2,830
Provident Fund Society, New York...	3,042	.....	8,014	1,075
Preferred Mut. Acc. Ass., New York...	32,724	6,029	47,451	9,545
Railway Officials & Conductors Acc. Ass., Ind.....	.....	.....	36,308	55
Union Mut. Acc. Ass., Chicago, Ill.	8,413	2,467	11,937	.....
U. S. Mut. Acc. Ass. of New York City, N. Y.....	101,380	58,743	143,810	48,735
Capital Accident, Springfield, Ill.....	696	267	.....	.....
South Bend Accident, South Bend, Ind.....	1,769	559	.....	.....
Totals.....	\$244,550	\$73,853	\$385,076	\$73,413

Business in Wisconsin.

Business in Wisconsin.

TABLE NO. VIII.—BUSINESS

NAME OF COMPANY.	1889.				
	Risks written.	Average rate of premiums.	Premiums received.	Per cent. of losses paid to risks written.	Losses paid.
Wisconsin Joint Stock Companies.					
Concordia Fire, Milwaukee.....	\$7,361,785	1.286	\$94,658	.466	\$34,324
Hekla Fire, Madison.....	2,513,487	1.502	37,760	.764	19,226
Milwaukee Mechanics.....	10,813,069	1.269	137,208	.307	33,146
Northwestern National.....	7,413,146	1.100	81,560	.512	37,992
Totals.....	\$28,101,487	1.250	\$351,186	.444	\$124,688
Mutual Companies of Wisconsin.					
Herman Farmers' Mutual, Wis.....	\$1,399,672	.895	\$12,525	.793	\$11,098
Germantown Farmers' Mutual.....	1,272,514	1.619	20,602	.699	8,899
Lumbermans' and Mfrs. Mut., Eau Claire.....	150,672	6.504	9,799	4.646	7,000
Manfrs' Mutual, Milwaukee.....	216,819	9.257	20,070	9.599	20,813
Miller's Mutual, Milwaukee.....	374,150	8.593	32,149	6.946	25,989
Milwaukee Mutual, Milwaukee.....	264,050	4.571	12,070	3.244	8,567
Mutual Fire, Eau Claire.....	150,622	6.541	9,853	4.647	7,000
Oshkosh Mutual of Oshkosh.....	292,100	4.465	13,042	2.933	8,567
Wisconsin Mutual, Milwaukee.....					
Totals.....	\$4,120,599	8.158	\$130,110	2.377	\$97,933
Companies of Other States.					
Aetna Fire, Conn.....	\$4,968,916	1.535	\$76,258	.632	\$31,393
Agricultural, New York.....	1,157,927	1.027	11,843	.213	2,464
Allemania, Penn'a.....	641,847	1.436	9,217	1.855	11,911
Amazon, Ohio.....	964,492	1.695	16,352	.757	7,301
American, Mass.....	311,755	1.121	3,495	1.019	3,176
American, New Jersey.....	639,475	1.069	6,836	.787	5,031
American, Penn'a.....	3,694,090	1.604	59,117	.990	36,487
American, New York.....	673,779	1.610	11,170	.130	960
American Central, Mo.....	844,181	1.513	12,767	.877	7,400
Alliance, New York.....	304,033	1.219	3,705	.033	99
Anglo-Nevada, Cal.....	1,171,944	1.646	19,292	1.189	13,936
Boatmens F. & M., Pa.....					
Boylston, Mass.....	795,576	1.660	13,209	.884	7,037
Buffalo German, N. Y.....	1,491,230	1.237	18,448	.271	4,062
Broadway Ins. Co., N. Y.....	170,814	1.020	1,743	.006	15
California, Cal.....	514,460	1.539	7,901	1.156	5,946
Citizens', New York.....	789,774	1.522	12,017	.630	4,976
Citizens', Ohio.....	145,808	1.454	2,120	.022	32
Citizens', Penna.....	646,585	1.614	10,436	.555	3,590
Commerce, New York.....	285,011	1.265	3,606	.163	464
Commercial, Cal.....	617,967	2.001	12,363	2.783	17,201
Commonwealth, New York.....	952,000	1.049	9,987	1.672	15,923
Connecticut, Conn.....	2,283,766	1.393	31,804	.810	18,507
Continental, New York.....	4,141,993	1.214	50,412	.886	36,791

Business in Wisconsin.

IN WISCONSIN.

1888.

Per cent. of losses paid to pre-miums received.	Losses incurred.	Per cent. of losses incurred to risks written.	Per cent. of losses incurred to pre-miums received.	Risks written.	Average rate of premiums.	Premiums received.	Per cent. of losses paid to pre-miums received.	Losses paid.	Per cent. of losses incurred to risks written.	Losses incurred.	Per cent. of losses incurred to pre-miums received.
36.261	\$33,392	.454	35.276	\$7,400,860	1.311	\$97,031	31.319	\$30,389	.444	\$32,845	33.850
50.916	20,527	.817	54.361	2,198,538	1.715	37,711	92.933	35,406	1.388	30,509	80.902
24.157	35,046	.324	25.542	11,187,204	1.252	140,015	40.949	57,335	.515	57,635	41.163
46.582	30,918	.417	37.908	6,791,609	1.075	72,981	48.906	35,692	.584	39,696	54.392
35.504	\$119,883	.427	31.137	\$27,578,211	1.261	\$347,738	45.673	\$158,822	.583	\$160,685	46.204
88.607	\$11,098	.793	88.607	\$1,246,372	.923	\$11,499	28.481	\$3,275	.263	\$3,275	28.481
43.195	8,419	.662	40.865	1,251,615	1.691	21,163	56.325	11,920	.991	12,400	58.593
71.436	7,000	4.646	71.436	156,475	.721	11,023	53.570	5,905	4.285	6,705	60.827
103.70	15,856	7.313	79.003	796,232	1.778	14,154	61.990	8,774	1.261	10,042	70.948
80.839	28,731	7.679	89.368	1,027,900	2.778	28,459	72.097	20,518	1.588	16,322	57.353
70.978	9,567	3.623	79.263	343,506	3.590	12,333	75.707	9,337	3.155	10,837	87.870
71.044	7,000	4.647	71.044	161,475	6.896	11,135	53.031	5,905	4.152	6,705	60.216
65.688	9,567	3.275	73.355	1,282,870	2.908	37,316	47.666	17,787	1.502	19,269	51.637
74.269	\$97,238	2.360	74.735	357,371	3.381	12,086	77.255	9,337	3.032	10,837	89.666
41.166	\$36,228	.729	47.508	\$4,767,807	1.416	\$67,520	68.769	\$46,433	.936	\$44,640	66.114
20.718	2,008	.173	16.884	884,245	.970	8,579	39.177	3,361	.380	3,361	38.177
129.22	10,287	1.603	111.60	643,482	1.526	9,822	144.60	14,203	1.859	11,964	121.80
44.710	5,211	.540	31.868	1,077,131	1.642	17,682	62.617	11,072	.992	10,683	60.417
907901	3,176	1.019	90.901	337,101	1.155	3,893	6.216	242	.072	242	6.216
73.596	3,419	.535	50.015	628,181	.929	5,835	120.15	7,011	1.142	7,172	122.19
61.720	36,487	.990	61.720	3,519,237	1.568	55,192	65.381	35,185	1.000	35,185	65.381
8.594	960	.138	8.594	561,350	1.056	5,930	108.49	6,434	1.146	6,434	108.49
57.960	7,395	.876	57.923	590,810	1.652	9,757	32.756	3,196	.368	2,173	22.271
2.672	99	.033	2.672	54,445	1.040	566	219.25	1,241	2.280	1,241	219.25
72.242	10,586	.903	54.872	988,579	1.858	18,536	35.213	6,527	1.056	10,438	56.312
53.267	7,131	.896	53.986	282,540	1.611	4,540	32.621	1,481	.808	2,281	50.242
22.021	4,062	.273	22.021	566,629	1.746	9,895	45.872	4,539	.802	4,544	45.922
.861	15	.009	.861	1,522,679	1.233	18,764	17.001	3,190	.209	3,190	17.001
75.256	5,946	1.156	75.256	534,763	1.134	6,063	122.67	7,438	1.391	7,438	122.67
41.408	4,287	.543	35.674	737,773	1.679	12,384	84.246	10,433	1.481	10,923	88.203
1.508	32	.022	1.507	379,551	1.271	4,825	41.247	1,995	.605	2,298	47.627
34.400	3,692	.571	35.378	459,700	1.637	7,526	35.491	2,671	.581	2,671	35.491
12.867	464	.161	12.867	390,750	1.219	4,762	98.089	4,671	.868	3,391	81.210
189.12	14,701	2.379	112.91	626,347	2.105	13,185	112.10	14,791	2.598	16,270	123.30
159.41	12,998	1.365	130.14	652,300	.927	6,050	38.198	2,311	.821	5,353	88.479
58.191	18,780	.822	59.049	2,197,202	1.326	29,144	63.107	18,392	.825	18,121	62.177
27.981	35,558	.856	70.534	4,365,407	1.169	50,931	87.964	44,801	.859	37,435	73.496

Business in Wisconsin.

TABLE VIII.—BUSINESS IN

NAME OF COMPANY.	1889.				
	Risks written.	Average rate of premiums.	Premiums received.	Per cent. of losses paid to risks written.	Losses paid.
<i>Companies of Other States — Continued.</i>					
Delaware Mut. Safety, Penna.....	\$268,175	.943	\$2,529	1.039	\$2,785
Detroit F. and M., Michigan.....	741,809	1.360	10,090	.344	2,549
Denver, of Denver, Col.....	401,495	.923	3,706	.867	3,482
Dwelling House, Mass.....	212,180	1.002	2,124		
Eagle Fire, New York.....	348,005	1.855	6,455	.566	1,968
Empire State, New York.....					
Equitable F. and M., R. I.....	495,097	1.405	6,958	.921	4,559
Exchange Fire, N. Y.....	620,521	1.846	11,460	.475	2,951
Farmers' Fire, Penna.....	2,928,478	1.760	51,529	.970	28,404
Fire Association, Penna.....	265,476	1.477	3,922	.681	1,808
Firemen's, Ohio.....					
Firemen's, New Jersey.....	592,500	1.076	6,377	.797	4,723
Fireman's Fund, Cal.....	1,781,898	1.321	23,554	.639	11,390
Franklin, Pa.....	603,611	1.455	8,783	.159	962
Franklin, Ohio.....	295,916	1.260	3,728	.820	2,497
Farragut, N. Y.....	40,600	1.340	544		
Fire Ins. Co. County Philadelphia, Pa.....	325,850	1.453	4,733	.733	2,390
German, Peoria, Ill.....	1,017,707	1.558	15,851	.980	9,975
German, Pa.....	491,973	1.392	6,850	1.374	6,759
German American, N. Y.....	4,597,248	1.623	74,852	1.089	50,085
Germania, N. Y.....	1,788,436	1.620	28,976	1.420	25,397
Girard F. and M., Pa.....	1,803,540	1.093	14,254	.545	7,103
Glen's Falls, N. Y.....	798,680	.892	7,131	.757	6,046
Grand Rapids, Mich.....	166,475	1.755	2,921	.005	8
Granite State, N. H.....	727,706	1.284	9,350	.373	2,711
Greenwich, N. Y.....	487,933	1.101	5,372	.171	831
German, Freeport, Ill.....	5,463,877	1.498	81,881	.615	33,625
Hanover, N. Y.....	1,579,548	1.522	24,035	.630	9,953
Hartford, Conn.....	6,171,012	1.397	86,075	.828	51,113
Home, of N. Y.....	8,732,717	1.329	116,098	.666	58,184
Hibernia, La.....					
Ins. Co. of North America, Pa.....	5,845,362	1.719	100,529	.708	41,404
Jersey City, N. J.....	162,700	1.031	1,677	.044	71
Ins. Co. of the State of Pennsylvania, Pa.....	595,141	1.314	7,821	.389	2,814
Liberty of N. Y.....	1,453,943	2.354	30,401	.540	7,854
Long Island, N. Y.....					
Manfrs. and Builders, N. Y.....	353,070	1.149	4,059	1.516	5,354
Merchants, N. J.....	1,414,892	1.379	19,517	1.018	14,305
Merchants, R. I.....	496,097	1.405	6,958	.921	4,559
Mercantile, Ohio.....	496,830	1.504	7,471	.479	2,381
Mercantile F. and M., Mass.....	289,790	1.776	5,147	1.144	3,314
Michigan F. and M., Mich.....	685,455	1.591	10,904	.618	4,239
Mutual Fire, N. Y.....	2,013,614	1.183	23,805	.010	201
National, Conn.....	2,465,150	1.460	35,983	.844	20,816

Business in Wisconsin.

WISCONSIN --- Continued.

				1888.							
Per cent. of losses paid to pre-miums received.	Losses incurred.	Per cent. of losses incurred to risks written.	Per cent. of losses incurred to pre-miums received.	Risks written.	Average rate of premiums.	Premiums received.	Per cent. of losses paid to pre-miums received.	Losses paid.	Per cent. of losses incurred to risks written.	Losses incurred.	Per cent. of losses incurred to pre-mium received.
110.12	\$2,785	1.309	110.12	\$284,860	1.100	\$3,134	.....	.....	.....	.....	.....
25.26	1,052	.242	10.42	748,948	1.208	9,045	153.44	\$13,879	1.611	\$12,065	133.38
93.95	3,048	.759	82.24	440,805	.944	4,163	67.21	2,798	.370	1,629	41.53
30.51	1,968	.566	30.51	38,000	1.111	420	.....	.....	.....	.....	.....
65.52	3,551	.719	51.03	68,425	1.388	950	.....	.....	.....	.....	.....
25.75	2,444	.394	21.32	490,311	1.438	7,051	78.47	5,533	1.066	5,230	75.59
55.12	25,247	.862	48.99	75,666	1.475	1,116	.....	.....	.....	.....	.....
46.00	2,027	.762	51.68	525,086	1.374	7,213	30.40	2,193	.544	2,859	39.63
74.06	2,406	.406	37.72	2,883,177	1.769	50,998	67.24	34,292	1.191	34,338	67.33
48.35	7,032	.395	29.85	385,830	1.212	4,675	119.70	5,596	1.662	6,413	137.17
10.95	959	.159	10.91	653,100	.966	6,312	88.72	5,600	1.164	7,600	120.40
65.10	2,427	.820	65.10	1,613,337	1.322	21,324	43.39	9,253	.632	10,191	47.79
50.49	2,491	.764	52.63	646,821	1.384	8,955	97.64	8,744	1.357	8,777	98.01
62.93	10,791	1.060	68.07	251,016	1.134	2,846	35.27	1,004	.400	1,004	35.27
98.67	6,759	1.374	98.67	286,725	1.499	4,299	143.56	6,172	1.594	4,569	106.28
66.91	44,203	.962	59.05	1,357,657	1.473	19,993	26.63	5,326	.406	5,513	27.57
87.64	25,559	1.429	88.20	591,380	1.330	7,865	49.07	3,624	.613	3,624	46.07
49.84	7,268	.557	51.00	4,823,677	1.653	79,732	65.52	52,250	1.185	57,148	71.67
84.78	2,823	.353	39.53	2,415,923	1.353	32,696	74.54	24,701	.983	23,744	75.67
27.99	8	.005	.27	1,337,657	1.083	14,491	56.62	8,205	.643	8,595	59.31
15.46	3,266	.449	34.93	767,915	.950	7,298	30.44	2,222	.289	2,222	30.44
41.06	31,594	.568	38.58	618,091	1.371	8,476	26.55	2,251	.494	3,051	35.99
41.41	8,575	.543	35.68	266,797	.588	1,568	64.98	1,019	.414	1,105	70.47
59.38	52,113	.844	60.54	5,195,576	1.191	61,865	46.85	28,984	.578	30,049	48.57
50.15	46,039	.527	39.68	1,475,547	1.679	24,768	84.24	20,866	1.481	21,846	88.20
41.19	43,898	.751	43.66	6,121,542	1.344	82,293	42.51	34,990	.572	36,005	43.75
4.23	71	.044	4.23	9,221,653	1.322	121,873	50.23	61,225	.712	65,636	53.85
29.58	2,042	.343	26.10	741,000	2.282	16,913	59.11	9,998	1.890	14,072	83.20
25.83	8,906	.613	29.29	6,581,726	1.499	98,677	56.76	56,018	.789	51,952	52.64
131.90	5,372	1.521	131.34	56,225	1.097	617	.....	.....	.....	.....	.....
73.32	15,188	1.073	77.84	597,830	1.449	8,664	44.28	2,837	.454	2,712	31.30
65.52	3,551	.719	51.03	1,181,494	1.961	23,173	6.32	1,465	1.536	1,815	7.83
31.87	3,731	.753	49.94	151,868	1.036	1,574	209.14	3,292	.728	1,106	70.26
64.47	3,314	1.144	64.47	510,740	.929	4,745	36.34	1,725	.985	503	10.59
35.62	3,471	.606	29.170	1,049,380	1.320	13,847	69.73	9,656	.986	10,345	74.70
85	201	.010	.845	490,311	1.438	7,051	78.47	5,533	1.067	5,230	74.17
57.85	18,938	.768	52.636	489,296	1.359	6,648	59.61	3,964	.717	3,506	52.78
				464,475	1.408	6,542	30.23	1,978	1.539	715	10.92
				715,488	1.574	11,266	23.646	2,664	.479	3,426	30.41
				1,687,050	1.156	19,499	92.907	18,116	1.074	18,116	92.90
				2,591,882	1.567	38,048	46.583	17,724	.720	18,661	49.00

Business in Wisconsin.

TABLE VII.—BUSINESS IN

1889.

NAME OF COMPANY.	Risks written.	Average rate of premiums.	Premiums received.	Per cent. of losses paid to risks written.	Losses paid.
<i>Companies of Other States — Con.</i>					
Newark, N. J.....	\$308,665	1.445	\$4,386	1.769	2,335
New Hampshire, N. H.....	1,470,000	.835	12,270	.673	9,887
New York Fire, N. Y.....	270,200	1.351	3,651	.872	2,355
New York Bowery, N. Y.....	1,032,086	1.211	12,501	.698	7,207
Niagara, N. Y.....	2,255,690	2.105	44,475	1.498	33,773
North American, Mass.....	125,800	1.242	1,562	.406	511
Orient, Conn.....	1,618,130	1.488	24,070	.871	14,085
Oakland Home, Cal.....	423,935	1.020	4,324	.005	21
Pacific Fire, N. Y.....	627,350	.950	5,962	.868	5,446
Packers and Provision Dealers, Ill.....	21,700	.857	186	12.576	2,729
Pennsylvania Fire, Pa.....	2,562,175	1.852	47,457	.720	18,441
People's, N. H.....	599,306	1.912	11,447	.171	1,026
Phenix, N. Y.....	6,350,665	1.654	105,055	.825	52,388
Phoenix, Conn.....	4,870,218	1.350	65,752	1.038	50,534
Providence, Washington, R. I.....	1,155,264	1.463	16,200	1.153	13,312
Prudential Fire, N. Y.....					
Rochester German, N. Y.....	1,331,711	1.357	18,054	.654	7,696
Rockford, Ill.....	2,983,141	1.381	41,194	.739	22,046
St. Paul German, Minn.....	122,660	1.974	2,419	.612	750
Standard Fire, Mo.....	110,484	2.018	2,227		
Security, Conn.....	1,260,067	1.374	17,303	.628	7,909
Springfield F. and M., Mass.....	2,113,152	1.793	37,888	1.238	26,151
Spring Garden, Pa.....	312,125	1.117	3,484	1.411	4,402
St. Paul F. and M., Minn.....	3,162,189	.953	30,325	.754	24,005
Standard Fire, N. Y.....	222,125	1.065	2,364	.688	1,527
State Investment, Cal.....					
Sun, Cal.....	225,001	1.330	2,991	.741	1,666
Sun Mutual, La.....	371,888	1.486	5,525	1.474	5,479
Syndicate, Minn.....	824,605	1.582	13,045	.225	1,858
Teutonia, Pa.....	84,858	1.195	1,013	.034	29
Traders, Ill.....	2,194,437	1.878	41,205	1.768	38,789
Union, Pa.....	800,066	.971	7,766	.419	3,349
Union, Cal.....	1,026,369	1.819	18,661	1.834	18,817
United Firemen's, Pa.....	250,500	1.352	3,386	.788	1,849
U. S. Fire, N. Y.....	219,750	1.022	2,244	1.376	3,023
Westchester, N. Y.....	2,275,090	1.297	29,409	.622	14,143
Western Home, Iowa.....	675,123	1.397	9,427	.562	3,791
Williamsburg City, N. Y.....	1,166,182	1.126	13,015	.504	5,827
Total.....	\$133,184,638	1.459	\$1,947,802	.812	\$1,081,851

Business in Wisconsin.

WISCONSIN — Continued.

1888.											
Per cent. of losses paid to pre-miums received.	Losses incurred.	Per cent. of losses incurred to risks pre-m's receiv'd.	Per cent. of losses incurred to pre-m's rec'd.	Risks written.	Average rate of premium.	Premiums received.	Per cent. of losses paid to pre-miums received.	Losses paid.	Per cent. of losses incurred to risks written.	Losses incurred.	Per cent. of losses incurred to pre-miums received.
53.238	\$2,344	.772	53.443	\$86,630	1.494	\$1,294	21.020	272	.007	\$6	.464
80.579	7,215	.491	58.802	1,301,743	1.240	16,139	59.409	9,588	.889	11,568	72.234
64.503	1,946	.721	53.300	110,650	1.122	1,241	203.94	2,531	1.636	1,819	145.85
57.660	7,214	.699	57.716	1,082,417	1.238	13,396	97.395	13,047	.764	8,275	61.772
71.147	26,553	1.178	55.938	2,363,778	1.876	44,343	55.727	24,711	1.040	24,578	55.427
32.714	213	.169	13.637	146,971	1.215	1,786	95.633	1,708	1.162	1,708	95.635
58.517	12,439	.768	51.637	1,546,217	1.491	23,057	67.997	15,678	1.080	16,693	72.399
.485	21	.005	.485								
91.345	4,618	.736	77.457	626,375	.979	6,135	115.25	7,071	.588	3,682	60.016
1467.2	2,729	12.576	1467.2	154,760	.958	1,482	236.77	3,509	2.267	3,509	236.77
38.866	19,968	.779	42.083	2,432,312	1.849	44,963	58.266	26,198	1.071	26,045	57.925
8.978	864	.144	7.553	572,832	1.435	8,213	31.962	2,625	.458	2,625	31.962
49.891	48,964	.771	46.631	5,417,235	1.704	92,304	43.331	39,996	.672	36,407	39.442
76.859	49,771	1.022	75.698	4,770,654	1.307	61,336	65.841	40,975	.981	76,818	75.229
82.173	12,971	1.124	80.068	941,455	1.568	14,762	53.590	8,649	.883	8,310	56.293
				135,000	1.014	1,369					
48.180	8,401	.631	46.601	1,217,903	1.396	16,946	52.609	8,915	.720	8,763	51.711
53.523	18,411	.619	44.796	2,778,223	1.419	39,420	43.885	18,482	.773	21,487	54.508
31.005	750	.612	31.005								
45.722	2,934	.232	16.963	592,335	1.308	7,749	110.54	8,566	1.762	10,437	134.68
69.037	23,536	1.114	62.134	2,076,709	1.730	35,923	36.887	13,251	.705	14,650	40.782
126.34	2,901	.930	83.269	480,540	1.063	5,108	147.70	7,545	1.830	8,795	172.18
79.174	24,471	.769	80.709	2,321,794	1.297	30,125	66.151	19,928	.755	17,538	58.217
64.634	1,527	.688	64.636	279,787	1.011	2,829	62.672	1,773	.026	75	2.651
55.701	1,666	.741	55.701	298,738	1.384	4,135	.508	21	.007	21	.508
99.167	5,479	1.474	99.167	358,620	2.448	8,778	33.288	2,922	1.096	3,929	44.758
14.252	1,867	.226	14.321	531,757	1.680	8,932	46.283	4,134	.777	4,134	46.283
2.863	29	.034	2.863	88,568	1.125	1,000	10.200	102	1.115	102	10.200
94.149	37,736	1.780	91.694	2,147,877	1.924	42,179	95.977	40,482	1.656	35,573	84.238
43.124	3,167	.391	40.780	1,967,796	.564	11,099	49.373	5,480	1.186	3,661	32.985
100.83	18,850	1.838	101.06	1,078,312	1.873	20,195	60.713	12,261	1.146	12,353	61.169
54.607	1,849	.738	54.607	209,100	1.418	2,965	110.25	3,269	1.563	3,269	110.25
134.71	3,023	1.376	134.71	235,832	1.039	2,450	28.245	692	.293	692	28.245
48.107	11,829	.520	40.576	2,262,180	1.307	29,559	84.177	24,872	1.084	24,528	83.000
40.214	4,431	.656	47.003	371,661	1.412	5,247	35.296	1,852	.489	1,852	35.296
44.750	5,822	.504	44.750	1,244,945	1.160	14,442	43.189	6,093	.498	6,093	42.189
55.656	\$1,066,562	.756	51.733	8129,884,298	1.421	1,845,997	59.834	1104,513	.849	1102,799	59.741

Business in Wisconsin.

TABLE NO. VIII.—BUSINESS

NAME OF COMPANY.	1889.				
	Risks written.	Average rate of premiums.	Premiums received.	Per cent of losses paid to risks written.	Losses paid.
<i>Foreign Companies.</i>					
British America, Canada.....	\$1,124,964	1.857	\$20,895	1.732	\$19,470
City of London, Eng.....	274,872	1.811	4,969	.486	1,335
Commercial Union, Eng.....	6,248,317	1.168	72,869	.602	37,605
Guardian Ass., Eng.....	941,114	1.364	12,839	1.134	10,671
Hamburg, Bremen, Germany.....	1,493,840	1.764	26,352	1.057	15,791
Imperial, Eng.....	984,544	1.949	19,189	.734	7,028
Liverpool, London & Globe, Eng.....	3,348,811	1.670	55,926	.921	30,827
Lancashire, Eng.....	1,980,274	1.779	35,231	.937	18,565
Lion, Eng.....	710,580	1.027	7,295	.704	5,006
London Ass., London, Eng.....	1,139,510	1.445	16,467	1.308	14,904
London and Lancashire, Eng.....	1,837,561	1.830	33,619	.678	12,455
Mannheim, Germany.....	1,679,761	.326	5,473	.213	3,580
Northern Ass., Eng.....	792,634	1.701	13,482	.330	2,614
North British and Mercantile, Eng.....	5,287,616	1.446	76,439	.724	38,271
Norwich Union, Eng.....	1,024,407	1.721	17,634	.789	8,067
Phoenix Ass., Eng.....	1,640,192	1.832	30,050	1.278	20,960
Queen, Eng.....	2,343,055	1.666	39,034	.633	14,826
Royal, Eng.....	1,782,971	1.312	23,392	.106	1,886
Scottish Union and National, Scotland.....	894,725	1.131	10,117	1.272	11,384
Sun Fire Office, Eng.....	2,538,635	1.168	29,605	.779	19,743
Trans-Atlantic, Germany.....	474,519	1.237	5,871	.732	3,425
Western Ass., Canada.....	2,264,133	1.592	36,021	.994	20,453
	\$40,804,035	1.453	\$592,779	.784	\$318,876
<i>Marine Companies.</i>					
Boston Marine, Mass.....					
Marine, Eng.....	\$237,904	1.699	\$4,043	.339	\$807
British & Foreign Marine, Eng.....	313,812	.266	834	.581	1,824
Standard Marine, Eng.....					
Union Marine, Eng.....					
	\$551,716	.884	\$4,877	.477	\$2,631
<i>Miscellaneous, Guarantee and Accident Companies.</i>					
American Surety, N. Y.....	\$457,600	.500	\$2,290	.089	\$406
Equitable Acc., Ohio.....					
Employers' Liability, Eng.....	1,354,731	.937	12,690	.312	4,230
Fidelity and Casualty, N. Y.....	7,115,839	.776	55,209	.428	30,474
Guarantee Co. of N. A., Canada.....	191,500	.588	1,126		
American Steam Boiler, N. Y.....	1,185,090	1.462	17,329		
Hartford Steam Boiler and Inspection, Conn.....	964,050	1.080	10,417	.001	11
Lloyds Plate Glass, N. Y.....	246,867	3.174	7,883	.991	2,446
Metropolitan Plate Glass.....	29,452	3.154	929	.353	104
	\$11,545,029	.937	\$107,873	.326	\$37,671

IN WISCONSIN—Continued.

1888.

Per cent. of losses paid to pre-miums received.	Losses incurred.	Per cent. of losses incurred to risks written.	Per cent. of losses incurred to pre-miums received.	Risks written.	Average rate of premiums.	Premiums received.	Per cent. of losses incurred to pre-miums received.	Losses paid.	Per cent. of losses incurred to risks written.	Losses incurred.	Per cent. of losses incurred to pre-miums received.
93.228	\$18,546	1.649	88.758	\$1,053,494	1.881	\$19,819	69.171	\$19,709	1.204	\$12,687	64.014
26.813	635	.304	16.770	493,814	2.199	10,815	108.79	11,766	2.319	11,453	105.89
51.607	42,088	.674	57.760	4,423,199	1.366	66,430	39.121	23,611	.501	22,179	36.702
83.114	10,937	1.162	87.186	1,035,851	1.376	14,257	111.20	15,854	1.327	13,749	96.437
59.923	13,516	.905	51.290	1,401,116	1.823	25,538	58.407	14,916	1.054	14,766	57.820
36.625	5,782	.587	30.132	922,371	1.939	17,881	32.006	5,723	.698	6,434	35.982
55.121	29,427	.879	52.624	3,065,540	1.645	50,702	87.697	44,464	1.392	42,664	84.145
52.698	19,340	.977	54.926	1,479,658	1.792	26,521	72.275	19,168	1.210	17,908	67.524
68.637	3,025	.426	41.468	700,325	1.015	7,106	53.363	3,792	.590	4,133	58.162
90.551	12,867	1.129	78.172	1,165,407	1.459	17,008	63.176	10,745	.755	7,794	45.825
37.059	9,999	.544	29.751	1,183,062	1.644	19,448	40.889	7,952	.618	7,313	37.608
65.412	3,580	.213	65.412	66,507	1.391	925					
19.398	2,795	.353	20.074	675,505	1.737	11,732	85.782	10,064	1.492	10,076	85.885
50.074	34,444	.651	45.067	4,418,532	1.495	66,054	69.180	45,696	1.073	47,406	71.769
45.760	6,715	.656	35.093	858,035	1.771	15,092	62.146	9,379	.636	5,455	36.145
69.750	15,208	.927	50.609	1,857,478	1.687	33,017	58.903	19,448	1.051	20,581	62.335
37.788	15,272	.652	39.131	2,129,444	1.774	37,773	32.047	12,105	.682	14,532	38.472
8.063	3,881	.218	16.596	1,784,118	1.311	23,384	72.960	17,061	.794	14,173	60.610
112.63	9,321	1.042	92.203	1,092,875	1.071	11,703	161.13	18,858	1.368	14,951	127.75
66.699	17,850	.704	60.304	2,000,000	1.298	25,958	56.121	14,568	.736	14,522	55.944
58.338	3,425	.722	58.338	399,489	1.245	4,972	123.97	6,164	.906	3,618	72.767
56.784	16,614	.734	46.126	2,140,695	1.503	32,184	88.821	28,586	1.215	26,008	80.810
53.793	\$295,467	.724	49.844	\$34,346,515	1.550	\$532,319	66.437	\$353,659	.968	\$332,402	62.444
19.960	\$1,630	.685	40.317	\$55,025	.249	\$137	132.84	\$182			
213.70	2,058	.626	246.76	536,340	.993	10,690	13.695	1,464	.385	\$2,064	19.308
				124,050	.320	397					
53.947	\$3,688	.668	75.620	\$715,415	1.569	\$11,224	14.665	\$1,646	.289	\$2,064	18.389
17.729	\$1,441	.315	62.926	\$398,300	.601	\$2,894	35.798	\$857	.215	\$857	85.798
33.333	5,865	.433	46.217	874,000	1.258	10,996	9.867	1,085	1.268	11,085	100.80
55.198	30,935	.435	56.033	809,250	.993	8,039	42.605	3,425	.423	3,425	42.605
				3,987,756	.901	44,964	45.994	20,681	.415	20,681	45.994
				76,700	.638	489	4.294	21	.027	21	4.294
				918,500	1.038	9,532	.367	35	.004	35	.367
106	11	.001	.106	2,202,700	1.179	25,970	4.863	1,263	.573	1,163	4.478
31.029	2,325	.942	29.494	236,685	3.184	7,537	24.174	1,822	.804	1,904	25.262
11.195	104	.353	11.195	14,344	3.165	454	14.537	66	.460	66	14.537
34.922	\$40,681	.352	37.712	\$10,518,235	1.049	\$110,375	26.505	\$29,255	.373	\$39,237	35.549

Business in Wisconsin.

TABLE NO. VIII.—BUSINESS IN

NAME OF COMPANY.	1889.				
	Risks written.	Average rate of premium.	Premiums received.	Per cent. of losses paid to risks written.	Losses paid.
Mutual Companies of Other States.					
Buckeye Mut., Ohio	\$106,238	2.399	\$2,549	1.134	\$1,205
Central Mfrs. Mut., Ohio	331,516	1.901	6,301	.790	2,618
Commonwealth Mut., Ill	75,550	7.093	5,351	12.450	9,406
Commercial Mut., N. Y.					
Illinois Mut., Ill.					
Lumberman's Mut., Ill.	247,150	2.583	6,382	.029	72
Mfrs'. & Merchants' Mut., Ill.	427,980	2.105	9,006	1.097	4,693
Millers' & Mfrs'. Mut., Minn.	201,537	11.604	23,385	10.262	20,671
Millers' National, Ill.	328,500	1.227	4,032	5.066	16,641
Minneapolis Mut., Minn.	375,296	7.267	27,274	6.948	26,074
Mfrs'. Mut., Ind.					
Minnesota Fire Ass., Minn.	149,100	2.752	4,103	3.163	4,716
Miss. Valley Mfrs'. Mut., Ill.	550,983	4.614	25,422	3.185	17,550
Mutual Fire, Chicago, Ill.	811,038	2.903	23,541	2.908	23,589
Mutual Union, Ill.	667,950	2.174	14,523	2.095	13,995
Ohio Farmers', Ohio	641,135	1.072	6,872	.058	370
Phoenix Mut., Ohio					
Protection Mut., Ill.	159,512	1.188	1,895	.0025	4
Western Mfrs. Mut., Ill.	815,500	1.665	13,578	.646	5,268
Union Mut., Ohio	449,487	1.426	6,410	.313	1,406
Reliance Mut., Iowa					
Total	\$6,338,472	2.850	\$180,624	2.339	\$148,278

Business in Wisconsin.

WISCONSIN — Continued.

				1888.							
Per cent. of losses paid to premiums received.	Losses incurred.	Per cent. of losses incurred to risks written.	Per cent. of losses incurred to premiums rec'd.	Risks written.	Average rate of premiums.	Premiums received.	Per cent. of losses paid to risks written.	Losses paid.	Per cent. of losses paid to premium received.	Losses incurred.	Per cent. of losses incurred to premium rec'd.
47.243	\$3,805	3.582	148.27	\$275,625	2.249	\$6,198	1.433	\$3,951	63.746	\$4,468	71.068
41.549	2,618	.790	41.549	293,850	1.66	4,877	1.380	4,055	83.145	2,376	48.718
175.78	9,406	12.45	175.78	116,050	5.334	6,190	3.541	4,109	66.381	2,656	42.908
.....	.....	.....	.....	275,625	3.82	10,529	2.649	7,300	69.332	9,038	85.839
1.128	72	.029	1.128	.....	.....	.....	.....	.....	.....	.....	.....
52.11	4,693	1.097	52.11	394,250	1.777	7,005	.....	.....	.....	.....	.....
88.394	18,375	9.139	78.576	156,958	11.251	17,661	.412	6,467	36.617	6,467	36.617
412.62	16,641	5.066	412.62	257,250	1.444	3,715	3.029	7,768	209.09	7,768	209.09
95.6	26,977	7.088	98.911	116,062	21.423	24,864	9.117	10,581	42.556	8,778	35.304
.....	.....	.....	.....	190,650	3.401	6,484	2.382	4,542	70.049	6,703	103.37
114.96	4,716	3.163	114.96	.....	.....	.....	.....	.....	.....	.....	.....
69.035	17,550	3.185	69.035	634,750	3.679	23,355	2.833	17,983	76.999	17,983	76.999
100.20	26,582	3.277	112.91	720,995	2.871	20,702	2.11	15,212	73.964	13,862	64.545
96.364	13,584	2.034	93.534	249,150	4.509	11,234	4.11	10,241	91.161	13,116	116.75
5.384	379	.058	5.384	629,480	1.124	7,077	.016	100	1.427	100	1.427
.....	.....	.....	.....	78,500	5.03	3,949	1.441	1,131	28.64	1,131	28.64
211	4	.0025	211	.....	.....	.....	.....	.....	.....	.....	.....
38.798	5,268	.646	38.798	865,450	1.447	12,524	.552	4,773	38.111	4,773	38.111
21.934	7,906	1.759	123.33	101,625	2.61	2,652	.....	.....	.....	.....	.....
.....	.....	.....	.....	158,800	5.366	8,521	1.069	1,698	19.927	2,023	23.741
82.092	\$158,567	2.502	87.788	\$5,515,070	3.219	\$177,537	1.812	\$99,911	56.276	\$100,742	56.74

Business in Wisconsin.

NAME OF COMPANY.	CERTIFICATES ISSUED.		CERTIFICATES IN FORCE DEC. 31, 1889.		Premi- ums received.	Losses paid.
	Number.	Amount.	Number.	Amount.		
Assessment Accident Companies						
American Mut. Acc. Ass., Wis	946		686	\$702,700	\$2,912	\$1,085
Manf'rs, Geneva, N. Y	112	\$313,000	55	182,750	275	132
Masons' Fraternal, Mass.	209	894,250	299	1,286,750	2,392	2,496
Metropolitan Acc. Ass., Ill.	92	233,000	73	181,000	1,011	163
Minnesota Acc., Minn.						
Mutual Acc. Ass. of the Northwest, Ill.						
New England Mut. Acc., Mass	217	624,000	137	413,500	293	258
Provident Fund Society, N. Y	372	678,250	235	486,000	172	369
Preferred Mut. Acc. Ass., N. Y	318	1,590,000	228	1,140,000	663	
Railway Officials & Con- ductors Acc. Ass., Ind.	95	200,250	82	170,250	1,263	275
Union Mut. Acc. Ass., Ill.	2,090	8,360,000	1,510	5,878,250	11,297	7,785
U. S. Mut. Acc. Ass., N. Y	707	3,288,750	911	4,468,000	12,564	4,082
Capital Accident, Ill						
South Bend Acc., Ind						
Totals	5,158	\$16,181,500	4,216	\$14,909,200	\$32,842	\$16,575

COMMISSIONER OF INSURANCE.

Business in Wisconsin.

NAME OF COMPANY.	CERTIFICATES ISSUED		CERTIFICATES IN FORCE DEC. 31, 1888.		Premi- ums received.	Losses paid.
	Number.	Amount.	Number.	Amount.		
Assessment Accident Companies.						
American Mut. Acc. Ass., Wis.						
Manf'r. Geneva, N. Y.	64	\$117,000	16	\$45,750	\$81	\$10
Masons' Fraternal, Mass.	431	1,731,400	266	1,095,250	756	826
Metropolitan Acc. Ass., Ill.						
Minnesota Acc., Minn.						
Mutual Acc. Ass. of the Northwest, Ill.						
New England Mut. Acc., Mass.						
Provident Fund Society, N. Y.	219	559,750	208	556,750	294	50
Preferred Mut. Acc. Ass., N. Y.						
Railway Officials & Con- ductors Acc. Ass., Ind.						
Union Mut. Acc. Ass., Ill.	1,644	5,769,500	1,259	4,874,250	4,638	6,277
U. S. Mut. Acc. Ass., N. Y.	809	3,652,000	765	3,689,000	7,956	11,000
Capital Accident, Ill.						
South Bend Acc., Ind.	207	875,000	79	175,000	575	511
Totals	3,374	\$12,204,650	2,593	\$10,436,000	\$14,300	\$18,074

Amount of State Tax Paid.

TABLE IX.—AMOUNT OF STATE TAX PAID EXCLUSIVE OF FIRE DEPARTMENT TAX ON BUSINESS OF YEARS NAMED.

NAME OF COMPANY.	1888.	1889.
<i>Wisconsin Joint Stock Companies.</i>		
Concordia Fire, Milwaukee.....	\$813 62	\$839 21
Hekla Fire, Madison.....	317 22	267 87
Milwaukee Mechanics, Milwaukee.....	1,296 68	1,225 00
Northwestern National, Wis.	1,006 04	1,337 50
Totals.....	\$3,433 56	\$3,669 38
<i>Mutual Companies of Wisconsin.</i>		
Herman Farmer's Mutual.....	\$124 09	\$183 03
Germantown Farmer's Mutual.....	353 96	349 90
Lumbermen's and Man'rs Mut., Eau Claire.....	71 29	62 76
Manufacturers' Mutual, Milwaukee.....	156 86	229 48
Millers' Mutual, Milwaukee.....	297 56	293 71
Milwaukee Mutual, Milwaukee.....	65 24	59 44
Mutual Fire, Eau Claire.....	68 25	8 16
Oshkosh Mutual of Oshkosh.....	238 03	.....
Wisconsin Mutual, Milwaukee.....	60 26	78 92
Totals.....	\$1,435 54	\$1,265 40
<i>Companies of Other States.</i>		
Ætna Fire, Hartford, Conn.....	\$1,350 41	\$1,525 19
Agricultural, New York.....	171 58	237 87
Allemania, Penna.....	294 66	184 35
Amazon, Ohio.....	353 64	327 04
American, Mass.....	77 86	69 91
American, New Jersey.....	116 71	136 74
American, Penna.....	1,103 84	1,182 36
American, New York.....	118 60	223 40
American Central, Mo.....	195 15	255 35
Alliance, New York.....	11 32	74 11
Anglo-Nevada, California.....	370 72	385 85
Boatmen's F. and M., Pa.....	90 80	.....
Boylston, Mass.....	197 90	264 18
Buffalo German, N. Y.....	375 28	360 98
Broadway Ins. Co., N. Y.....	.....	34 86
California, California.....	121 36	158 02
Citizens, N. Y.....	247 68	240 35
Citizens, Ohio.....	96 50	42 42
Citizens, Penna.....	150 52	208 72
Commerce, N. Y.....	95 24	72 13
Commercial, California.....	263 70	247 27
Commonwealth, N. Y.....	121 00	199 75
Connecticut, Conn.....	582 89	636 06
Continental, N. Y.....	1,018 62	1,006 26
Delaware Mutual Safety, Pa.....	94 02	59 60

Amount of State Tax Paid.

TABLE IX—AMOUNT OF STATE TAX PAID—Continued.

NAME OF COMPANY.	1888.	1889.
<i>Companies of Other States—Continued.</i>		
Detroit F. and M., Michigan	\$180 90	\$201 82
Denver of Denver, Col.		
Dwelling House, Mass.	83 26	74 13
Eagle Fire, New York.	8 40	42 50
Empire State, N. Y.	19 00	129 10
Equitable F. and M., R. I.	141 02	139 17
Exchange, N. Y.	22 32	
Farmers', Penna.	216 39	229 21
Fire Association, Phila., Penna.	1,019 96	1,036 58
Firemen's, Ohio.	93 50	78 44
Firemen's, N. J.	126 24	127 55
Firemen's Fund, Cal.	426 48	471 09
Franklin, Penn.	179 10	175 66
Franklin, Ohio.	56 92	74 57
Farragut, N. Y.		10 89
Fire Ins. Co. County of Phila., Pa.	128 98	94 67
German, Peoria, Ill.	399 86	317 04
German, Pittsburgh, Penna.	157 30	137 00
German American, N. Y.	1,594 64	1,497 05
Germania, New York.	653 92	579 53
Girard F. and M., Penna.	299 82	285 08
Glens Falls, N. Y.	145 86	142 64
Grand Rapids, Mich.		58 43
Granite State, N. H.	169 52	187 01
Greenwich, N. Y.	31 36	107 46
German, Freeport, Ill.	1,237 30	1,637 64
Hanover, N. Y.	495 37	480 70
Hartford, Conn.	1,645 87	1,721 51
Home, N. Y.	2,437 47	2,321 96
Hibernia, La.	350 00	
Ins. Co. of North America, Penna.	1,973 54	2,010 59
Jersey City, N. J.	12 34	33 54
Ins. Co. State of Penna.	173 28	156 43
Liberty, N. Y.	436 44	608 03
Long Island, N. Y.	31 48	
Manufacturers and Builders, N. Y.	94 92	81 20
Merchants, N. J.	276 94	390 35
Merchants, R. I.	141 02	139 00
Mercantile, Ohio.	132 98	86 33
Mercantile F. and M., Mass.	130 84	102 96
Michigan F. and M., Mich.	225 32	216 10
Mutual Fire, N. Y.	389 98	476 11
National Fire, Conn.	760 96	719 67
Newark Fire, N. J.	25 88	87 46
New Hampshire, N. H.	322 78	365 40
New York Fire, N. Y.	24 83	73 02
New York Bowery, N. Y.	267 92	250 03
Niagara, N. Y.	886 86	889 51
North American, Mass.	35 72	31 26
Orient, Conn.	461 14	481 42
Oakland Home, Cal.		86 48
Pacific, N. Y.	122 70	119 25

Amount of State Tax Paid.

TABLE IX.—AMOUNT OF STATE TAX PAID—Continued.

NAME OF COMPANY.	1888.	1889.
<i>Companies of Other States—Continued.</i>		
Packers' and Provision Dealers', Ill.....	\$29 64	\$3 74
Pennsylvania, Pa.....	899 26	949 15
People's, N. H.....	164 26	228 95
Phenix, N. Y.	1,846 08	2,101 11
Phoenix, Conn.....	1,246 73	1,315 04
Providence, Washington, R. I.....	295 24	324 00
Prudential, N. Y.....	27 38	
Rochester German, N. Y.	338 92	361 08
Rockford, Ill.....	788 41	823 88
St. Paul German, Minn.....		48 39
Standard Fire, Mo.....		44 55
Security, Conn.....	154 98	345 55
Springfield F. and M., Mass.....	718 46	757 77
Spring Garden, Pa.....	153 24	69 69
St. Paul F. and M., Minn.....	602 50	600 31
Standard, N. Y.....	56 58	47 29
State Investment, Cal.....		
Sun, Cal.....	74 96	59 84
Sun Mutual, La.....	300 00	300 00
Syndicate, Minn.....	178 64	260 91
Teutonia, Pa.....	30 00	20 27
Traders, Ill.....	843 58	817 05
Union, Pa.....	221 98	155 34
Union, Cal.....	403 91	373 22
United Firemen's, Pa.....	59 30	67 73
U. S. Fire, N. Y.....	49 00	44 59
Westchester, N. Y.....	591 18	588 18
Western Home, Iowa.....	100 94	288 65
Williamsburg, City, N. Y.....	288 84	260 32
Total.....	\$37,332 64	\$39,156 17
<i>Foreign Companies.</i>		
British America, Canada.....	\$396 39	\$417 90
City of London, Eng.....	216 30	99 53
Commercial Union, Eng.....	1,280 60	1,457 40
Guardian Ass., Eng.....	285 14	256 80
Hamburg, Bremen, Germany.....	510 76	527 05
Imperial, Eng.....	357 62	383 80
Liverpool, London and Globe, Eng.....	1,014 04	1,118 53
Lancashire, Eng.....	530 42	704 64
Lion, Eng.....	142 13	145 90
London Ass., Eng.....	340 16	329 36
London and Lancashire, Eng.....	388 96	672 39
Mannheim, Germany.....	18 50	109 47
Northern Ass., Eng.....	234 64	269 65
North British and Mercantile, Eng.....	1,321 08	1,528 78
Norwich Union, Eng.....	301 85	352 68
Phoenix Ass., Eng.....	660 34	601 01
Queen, Eng.....	755 46	780 89
Royal, Eng.....	467 68	467 84

Amount of State Tax Paid.

TABLE IX.—AMOUNT OF STATE TAX PAID—Continued.

NAME OF COMPANY.	1888.	1889.
<i>Foreign Companies—Continued.</i>		
Scottish Union and National, Scotland.....	\$234 06	\$202 25
Sun Fire Office, Eng.....	519 16	592 10
Trans-Atlantic, Germany.....	99 44	117 42
Western Ass., Canada.....	643 68	714 19
Totals.....	\$10,718 41	\$11,849 43
<i>Marine Companies.</i>		
Boston Marine, Mass.....	2 74	20 22
Marine, Eng.....	213 80	80 88
British and Foreign Marine, Eng.....	7 94	16 68
Standard Marine, Eng.....		
Union Marine, Eng.....		
Totals.....	\$224 48	\$117 78
<i>Miscellaneous Guarantee and Accident Companies.</i>		
American Surety, N. Y.....	\$47 88	\$45 80
Equitable Acc., Ohio.....	219 92	
Employers' Liability, Eng.....	160 78	253 82
Fidelity and Casualty, N. Y.....	899 28	1,104 18
Guarantee Co. of N. A., Canada.....	9 78	22 53
American Steam Boiler.....	190 64	346 60
Hartford Steam Boiler and Insp., Conn.....	519 42	208 34
Lloyd's Plate Glass, N. Y.....	150 74	157 66
Metropolitan Plate Glass, N. Y.....	9 08	18 60
Totals.....	\$2,207 52	\$2,157 53
<i>Mutual Companies of Other States.</i>		
Buckeye Mutual, Ohio.....	\$123 96	\$51 00
Central Man'rs Mutual, Ohio.....	97 54	126 20
Commonwealth Mutual, Ill.....	123 80	107 03
Commercial Mutual, N. Y.....		
Illinois Mutual, Ill.....	210 58	
Lumberman's Mutual, Ill.....		127 65
Man'rs and Merchants' Mut., Ill.....	140 10	180 14
Miller's and Manfr's Mut., Minn.....	353 22	467 71
Millers' National, Ill.....	74 30	80 66
Minneapolis Mutual, Minn.....	497 28	545 48
Manfr's Mutual of Ind.....	129 69	
Minnesota Fire Association, Minn.....		82 07
Mississippi Valley Manfr's Mutual, Ill.....	467 10	508 46
Mutual Fire, Ill.....	414 05	600 83
Mutual Union, Ill.....	224 68	290 47
Ohio Farmers', Ohio.....	141 55	187 46
Phoenix Mutual, Ohio.....	78 98	
Protection Mutual, Ill.....		87 90
Western Man'fr's Mutual, Ill.....	250 48	271 66
Union Mut., Ohio.....	53 04	128 21
Reliance Mutual, Iowa.....	170 42	
Totals.....	\$3,550 77	\$3,742 85

Amount of State Tax Paid.

TABLE IX.—AMOUNT OF STATE TAX PAID—Continued.

NAME OF COMPANY.	1888.	1889.
<i>Assessment Accident Companies.</i>		
American Mut. Acc., Ass. of Wis.....		\$58 25
Manufacturers', of Geneva, N. Y.....	\$1 62	5 50
Masons' Fraternal, Mass.	15 12	47 84
Metropolitan Acc. Ass., Ill.....		20 22
Minnesota Acc., Minn.....		
Mutual Acc. Ass. of N. W., Ill.....		5 86
New England Mut. Acc., Mass.....		3 44
Provident Fund Society, N. Y.....	5 88	13 26
Preferred Mutual Acc. Ass., N. Y.....		25 26
Railway Officials' and Conductor's, Ind.....		
Union Mut. Acc. Ass., Ill.....	92 76	225 95
U. S. Mutual Acc. Ass., N. Y.....	159 12	251 28
Capitol Accident, Ill.....	11 50	
South Bend Acc., Ind.....		
Totals.....	\$286 00	\$656 86

Fees from July 1, 1888 to June 30, 1888, \$19,276.

Fees from July 1, 1889 to June 30, 1890, \$20,746.

STATEMENTS

OF

Fire and Marine Insurance Companies

WISCONSIN JOINT STOCK COMPANIES.

CONCORDIA FIRE INSURANCE COMPANY,

MILWAUKEE, WISCONSIN.

(Incorporated March 7, 1870. Commenced business March 22, 1870.)

J. H. INBUSCH, *President.*

GEO. BRUMDER, *Vice President.*

GUSTAV WALLAGER, *Secretary.*

I.—CAPITAL.

Whole amount of joint stock or guaranteed capital authorized.....	\$500,000 00
Whole amount of capital actually paid up in cash.....	200,000 00

II.—ASSETS.

Loans on bond and mortgage upon which not more than one year's interest is due	\$324,405 00
Interest accrued on all said bond and mortgage loan.....	3,534 98
Value of lands mortgaged.....	\$520,550 00
Value of the buildings mortgaged (insured for \$188,700 as collateral).....	478,500 00
Total value of said mortgaged premises	<u>\$999,050 00</u>

STOCK AND BONDS OWNED BY THE COMPANY.

	Total par value.	Total market value.	
Bonds of town of New Holstein, Wis., due 1891, 8 pr ct.	\$30,000 00	\$30,000 00	
Bonds of town of Schleswig, Wis., due 1891, 8 pr ct. . .	10,000 00	10,000 00	
Bonds of Cook county, Ill., due 1892, 7 pr ct.....	5,000 00	5,125 00	
Chicago river improvement bonds, due 1892, 7 pr ct.....	1,000 00	1,025 00	
Chicago water loan bonds, due 1892, 7 pr ct.....	4,000 00	4,100 00	
Chicago water loan bonds, due 1895, 7 pr ct.....	4,000 00	4,300 00	
Chicago river improvement bonds, due 1895, 7 pr ct.....	6,000 00	6,450 00	
Chicago sewerage loan bonds, due 1904, 4 pr ct. . . .	25,000 00	25,625 00	
Cincinnati consolidated sinking fund bonds, due 1910, 5 pr ct.....	40,000 00	44,000 00	
Bonds of Washington county, Ill., 6 pr ct.....	15,000 00	15,000 00	
Total market value.....	<u>\$140,000 00</u>	<u>\$145,625 00</u>	<u>145,625 00</u>

Wisconsin Joint Stock Companies.

Cash in company's principal office	\$1,955 94
Cash belonging to the company deposited in Bank of America, N. Y.	\$7,446 25
Cash belonging to the company deposited in Second Ward Savings Bank, Milwaukee.	22,541 60
	<u>29,987 85</u>
Interest due and accrued on stocks not included in "market value"	2,652 77
Gross premiums in course of collection not more than three months due.	36,005 43
The gross amount of all the assets of the company	<u>\$544,166 97</u>
Aggregate amount of all the assets of the company, stated at their actual value.	<u><u>\$544,166 97</u></u>

III.—LIABILITIES.

Gross claims for adjusted and unpaid losses due and to become due.	\$7,901 20
Gross losses in process of adjustment, or in suspense, including all reported and supposed losses.	6,297 00
Losses resisted, including interest, costs and other expenses thereon	2,762 00
Total gross amount of claims for losses.	16,960 20
Deduct reinsurance thereon	2,000 00
Net amount of unpaid losses	<u>\$14,960 20</u>
Gross premiums received and receivable upon all unexpired fire risks running one year or less from date of policy, including in- terest premiums on perpetual fire risks, \$242,569.57; unearned premiums (fifty per cent.)	\$121,284 79
Gross premiums received and receivable upon all unexpired fire risks running more than one year from date of policy, \$289,906.31; unearned premiums (pro rata.)	149,711 87
Total unearned premiums.	<u>\$270,996 66</u>
All other demands against the company.	\$6,201 08
Total.	<u>6,201 08</u>
Total amount of all liabilities, except capital stock and net surplus.	<u>\$292,157 94</u>
Joint stock capital actually paid up in cash.	200,000 00
Surplus beyond capital and all other liabilities.	<u>52,009 03</u>
Aggregate amount of all liabilities, including paid-up capital stock and net surplus.	<u><u>\$544,166 97</u></u>

IV.—INCOME DURING THE YEAR.

Gross premiums received in cash, without any deduction.	\$421,561 84
Gross cash for premiums.	421,561 84
Deduct only re-insurance, rebate, abatement and return pre- miums.	66,377 10
Net cash actually received for premiums	<u>\$355,184 74</u>
Received for interest on bonds and mortgages.	20,198 81
Received for interest and dividends on stocks and bonds, collateral loans, and from all other sources	8,500 00
Aggregate amount of income actually received during the year in cash. ..	<u><u>\$383,883 55</u></u>

Wisconsin Joint Stock Companies.

V.—EXPENDITURES DURING THE YEAR.

Gross amount actually paid for losses (including \$27,690.51, losses occurring in previous years).....	\$266,862 51
Deduct all amounts actually received for salvages, \$1,214.68; and all amounts actually received, for re-insurance in other companies, \$9,861.62; total deductions .. .	11,076 30
Net amount paid during the year for losses.....	\$255,786 21
Cash dividends actually paid stockholders; (amount of stockholders' dividends declared during the year, \$14,000).....	14,000 00
Paid for commission or brokerage.....	81,899 12
Paid for salaries, fees, and all other charges of officers, clerks, agents and all other employes	22,571 66
Paid for state, national and local taxes in this and other states	9,160 48
All other payments and expenditures, office rent, traveling and adjusting expenses, postage, stationery, etc.....	30,126 14
Aggregate amount of actual expenditures during the year in cash.....	<u>\$413,043 61</u>

VI.— MISCELLANEOUS.

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.
In force on the 31st day of December of the preceding year,.....	\$45,576,808	\$586,603 66
Written or renewed during the year.	33,513,633	413,704 96
Total.	\$79,090,441	\$1,000,308 62
Deduct those expired and marked off as terminated	34,500,493	447,696 53
In force at the end of the year.....	\$44,589,948	\$552,612 09
Deduct the amount re-insured.....	1,525,993	20,136 21
Net amount in force.....	<u>\$43,063,955</u>	<u>\$532,475 88</u>

GENERAL INTERROGATORIES.

Total amount of premiums received from the organization of the company to date.....	\$2,449,851 05
Total amount of cash dividends declared since the company commenced business .. .	125,667 00
Total amount of the company stock owned by the directors at par value.....	144,300 00
Losses paid from organization to date.....	1,351,578 10
Losses incurred during the year.....	243,055 90
Amount deposited in different states and countries for the security of all the company's policy holders.....	<u>25,000 00</u>

BUSINESS IN THE STATE OF WISCONSIN DURING THE YEAR.

Fire, marine and inland risks written	\$7,361,785 00
Premiums received for insuring property situate in this state.....	94,658 84
Losses paid.....	34,324 18
Losses incurred.	33,392 52
Paid to the state of Wisconsin for taxes on premiums.....	813 62
Paid fire departments in the state of Wisconsin for taxes on premiums.....	<u>1,219 05</u>

Wisconsin Joint Stock Companies.

HEKLA FIRE INSURANCE COMPANY,

MADISON, WISCONSIN.

*(Incorporated in 1871. Commenced business in 1871).*HALLE STEENSLAND, *President.*J. A. JOHNSON, *Vice-President.*R. B. McCURDY, *Secretary.*

I.—CAPITAL.

Whole amount of joint stock or guaranteed capital authorized.....	\$500,000 00
Whole amount of capital actually paid up in cash.....	300,000 00

II. — ASSETS.

Value of real estate owned by the company.....	\$16,750 00
Loans on bond and mortgage upon which <i>not more</i> than one year's interest is due.....	354,525 00
Loans on on bond and mortgage, (first liens), upon which <i>more</i> than one year's interest is due.....	18,750 00
Interest due on all said bond and mortgage loans, \$8,286; interest accrued thereon, \$1,200; total.....	9,486 00
Value of lands mortgaged exclusive on buildings and perishable improvements.....	\$1,123,874 00
Value of buildings mortgaged (insured for \$9,800 as collateral).....	280,000 00
Total value of said mortgage premises.....	\$1,403,874 00
Cash in the company's principal office.....	\$1,130 84
Cash belonging to the company deposited in—	
First National Bank, Madison, Wis.	\$50,241 80
Capital City Bank, Madison, Wis.....	854 70
German American Bank	2,409 10
	\$54,636 44
Gross premiums in course of collection not more than three months due	\$18,964 25
Bills receivable.....	402 93
Tax certificates.....	1,701 34
Aggregate amount of all the assets of the company, stated at their actual value.....	\$475,215 95

III.—LIABILITIES.

Gross claims for adjusted and unpaid losses due and to become due.....	\$4,197 87
Gross losses in process of adjustment or in suspense, including all reported and supposed losses.....	8,155 00
Losses resisted, including interest, costs and other expenses thereon.....	500 00
Total gross amount of claims for losses.....	\$12,852 87

Wisconsin Joint Stock Companies.

Net amount of unpaid losses.....	12,852 87
Gross premiums received and receivable upon all unexpired <i>fire</i> risks running <i>one year or less</i> from date of policy, including interest premiums on <i>perpetual</i> fire risks, \$135,473 00; unearned premiums.....	\$87,736 50
Gross premiums received and receivable upon all unexpired <i>fire</i> risks, running <i>more than one year</i> from date of policy.....	59,240 63
Total unearned premiums as computed above.....	<u>\$126,977 13</u>
All other demands against the company, absolute and contingent, due and to become due, admitted and contested, viz.:	
State, city, county, or other taxes and assessments	\$2,364 57
Commissions brokerage and other charges due and to become due to agents and brokers, on premiums paid and in course of collection.....	<u>\$2,778 09</u>
Total.....	\$5,142 66
Total amount of all liabilities, except capital stock, and net surplus....	<u>\$144,972 66</u>
Joint-stock capital actually paid up in cash	300,000 00
Surplus beyond capital and all other liabilities.....	<u>30,243 29</u>
Aggregate amount of all liabilities, including paid-up capital stock, and net surplus.....	<u><u>\$475,215 95</u></u>

IV.—INCOME DURING THE YEAR.

Gross cash for premium.....	\$220,758 44
Deduct only, re-insurance, rebate, abatement and return premiums	<u>48,423 80</u>
Net cash actually received for premiums.....	\$172,334 64
Bills and notes received during year for premiums, remaining unpaid	402 92
Received for interest on bonds and mortgages.....	<u>\$28,797 51</u>
Received for interest and dividends on stocks and bonds, collateral loans, and from all other sources.....	<u>1,464 80</u>
Aggregate amount of income actually received during the year in cash.	<u><u>\$202,596 95</u></u>

V.—EXPENDITURES DURING THE YEAR.

Gross amount actually paid for losses (including \$5,752 36; losses occurring in previous years).....	\$106,712 53
Deduct all amounts actually received for salvages, and all amounts actually received, for re-insurance in other companies, \$4,298.59; total deductions.....	<u>4,298 59</u>
Net amount paid during the year for losses.....	\$102,413 94
Cash dividends actually paid stockholders (amount of stockholders' dividends declared during the year)	15,000 00
Paid for commissions on brokerage.....	38,389 52
Paid for salaries, fees, and all other charges of officers, clerks, agents, and all other employes.....	24,372 20
Paid for state, national and local taxes in this and other states.....	<u>7,002 93</u>
Aggregate amount of actual expenditures during the year, in cash....	<u><u>\$187,178 59</u></u>

REPORT OF THE

Wisconsin Joint Stock Companies.

VI.— MISCELLANEOUS.

RISKS AND PREMIUMS.

In force on the 31st day of December of the preceding year.....	\$16,642,164 00	\$230,076 29
Written or renewed during the year.....	18,552,341 00	222,818 90
Total	\$35,194,505 00	\$452,895 19
Deduct those expired and marked off as terminated....	\$15,176,626 00	\$184,103 43
In force at the end of the year.....	\$20,017,879 00	\$268,791 76
Deduct the amount re-insured	280,220 00	4,535 26
Net amount in force.....	\$19,737,659 00	\$264,256 50

GENERAL INTERROGATORIES.

Total amount of premiums received from the organization of company to date	\$1,324,521 00
Total amount of <i>cash</i> dividends declared since the company commenced business	193,571 00
Total amount of the company's stock owned by the directors at par value....	134,300 00
Losses paid from organization to date.....	803,689 00
Losses incurred during the year	109,992 00

BUSINESS IN THE STATE OF WISCONSIN DURING THE YEAR.

Fire, marine and inland risks written.....	\$2,513,487 00
Premiums received for insuring property situate in this state.	37,760 59
Losses paid.....	19,226 93
Losses incurred.....	20,527 00
Paid to the state of Wisconsin for taxes on premiums.	531 27
Paid fire department in the State of Wisconsin for taxes on premiums....	496 09

Wisconsin Joint Stock Companies.

MILWAUKEE MECHANICS' INSURANCE COMPANY
OF MILWAUKEE.

(Organized or incorporated, February 15, 185 . Commenced business, April 1, 1852.)

CHRISTIAN PREUSSER, *President.*

JOHN C. DICK, *Vice-President.*

ADOLPH J. CRAMER, *Secretary.*

I.—CAPITAL.

Whole amount of joint stock or guaranteed capital authorized.....	\$20,000 00
Whole amount of capital actually paid up in cash.....	200,000 00

II.—ASSETS.

Value of real estate owned by the company.....	\$31,300 00
Loans on bond and mortgage (duly recorded and being first liens on the fee simple), upon which <i>not more</i> than one year's interest is due.....	794,210 00
Loans on bond and mortgage (first liens), upon which <i>more</i> than one year's interest is due.....	.. .. .
Interest due on all said bond and mortgage loans,; interest accrued thereon, \$17,714.00; total.....	17,714 00
Value of lands mortgaged exclusive of buildings and perishable improvements	\$1,214,400 00
Value of buildings mortgaged (insured for \$500,000.00 as collateral).....	739,200 00
Total value of said mortgaged premises.....	\$1,953,600 00

STOCKS AND BONDS OWNED ABSOLUTELY BY THE COMPANY.

	Total par value.	Total market value.	
Milwaukee city water bonds, 4 per cent.....	\$111,000 00	\$111,000 00	
Milwaukee city bath bonds, 4 per cent.....	24,000 00	24,000 00	
Brown county, Wis., bonds, 6 per cent.....	44,000 00	44,000 00	
Door county, Wis., bonds, 8 per cent.....	4,500 00	4,680 00	
Oshkosh city, Wis., bonds, 7 per cent....	0,000 00	33,600 00	
St. Paul, Minn., water bonds, 5 per cent....	110,000 00	110,000 00	
St. Paul, Minn., board of education bonds, 4½ per ct	125,000 00	137,500 00	
Ramsey county, Minn., bridge bonds, 4½ per cent...	75,000 00	82,500 00	
Ramsey county, Minn., loan bonds, 4½ per cent.....	25,000 00	27,500 00	
Cream City R. R. Co , stocks.....	9,300 00	11,425 00	
Total market value, carried out at market value.	\$547,800 00	\$586,205 00	\$586,205 00

Wisconsin Joint Stock Companies.

STOCKS, BONDS AND OTHER SECURITIES (EXCEPT MORTGAGES) LOANED BY THE COMPANY.

	Total par value.	Total market value.	Am't loaned thereon.	
Cream City R. R. Co. stock.....	\$21,000 00	\$26,300 00	\$20,000 00	
C. Preusser Jewelry Co., stock....	10,000 00	10,000 00	6,250 00	
Riverdale Distillery Co. stock, Chicago....	5,000 00	10,000 00		
Concordia Fire Ins. Co. stock, Mil.	10,200 00	11,000 00	15,000 00	
Cream City R. R. Co. stocks.....	7,200 00	9,000 00	7,000 00	
Grafton Worsted Mills stocks.....	15,000 00	15,000 00	10,000 00	
Mortgage and notes on Mil. city property	2,100 00	4,000 00	2,100 00	
Total par and market value and am't loaned thereon.....	<u>\$70,500 00</u>	<u>\$85,300 00</u>	<u>\$60,350 00</u>	<u>\$60,350 00</u>
Cash in company's principal office.....				\$20,411 62
Cash belonging to the company, deposited in bank.....				63,769 12
Interest due and accrued on stocks not included in "market value".....				5,721 00
Interest due and accrued on collateral loans.....				101 00
Net premiums in course of collection not more than three months due, com- mission deducted.....				38,821 91
The gross amount of all the assets of the company.....				<u>\$1,621,603 65</u>
Aggregate amount of all the assets of the company, stated at their ac- tual value.....				<u>\$1,621,603 65</u>

III.— LIABILITIES.

Gross claims for adjusted and unpaid losses to become due	\$8,715 37	
Gross losses in process of adjustment or in suspense, including all reported and supposed losses.....	17,200 00	
Losses resisted, including interest, costs and other expenses thereon.....	6,450 00	
Total gross amount of claims for losses....	<u>\$32,365 37</u>	
Net amount of unpaid losses.....		\$32,365 37
Gross premiums received and receivable upon all unexpired fire risks running one year or less from date of policy, including in- terest premiums on perpetual fire risks, \$404,628 71; unearned premiums (fifty per cent.).....	\$202,314 35	
Gross premiums received and receivable upon all unexpired fire risks running more than one year from date of policy \$517,606.87; unearned premiums (pro rata).....	264,243 07	
Total unearned premiums as computed above.....		\$466,577 42
Cash dividends to stockholders remaining unpaid		137 50
Total amount of all liabilities, except capital stock and net surplus.....		<u>\$499,060 29</u>
Joint-stock capital actually paid up in cash		200,000 00
Surplus beyond capital and all other liabilities.....		<u>922,548 86</u>
Aggregate amount of all liabilities, including paid up capital stock, and net surplus.....		<u>\$1,621,608 65</u>

Wisconsin Joint Stock Companies.

IV.—INCOME DURING THE YEAR.

Gross premiums received in cash, without any deduction.....	\$531,845 52	
Gross cash actually received on bills and notes taken for premiums, without any deduction.....	38,507 66	
Gross cash for premiums.....	\$570,353 18	
Deduct only, re-insurance, rebate, abatement and return premiums.....	51,485 20	
Net cash actually received for premiums.....		\$518,867 98
Bills and notes received during the year for premiums, remaining unpaid.....	\$38,821 91	
Received for interest on bonds and mortgages.....		\$35,698 92
Received for interest and dividends on stocks, bonds, collateral loans, and from all other sources.....		39,122 55
Income received from all other sources, viz.: rents, \$999.98; agency income, \$401.26; total.....		1,401 24
Aggregate amount of income actually received during the year in cash...		<u>\$595,090 69</u>

V.—EXPENDITURES DURING THE YEAR.

Gross amount actually paid for losses, including \$26,801.00, losses occurring in previous years.....	\$276,955 95	
Deduct all amounts actually received for salvages (whether on losses of the last or of previous years), \$527.84; and all amounts actually received for re-insurance in other companies, \$8,628.29; total deductions.....	9,156 13	
Net amount paid during the year for losses....		\$267,799 82
Cash dividends actually paid stockholders; (amount of stockholders' dividends declared during the year, \$50,000.00).....		50,029 50
Paid for commissions or brokerage.....		125,200 20
Paid for salaries, fees, and all other charges of officers, clerks, agents, and all other employes.....		43,661 87
Paid for state, national and local taxes in this and other states.....		17,946 57
All other payments and expenditures, viz.: printing, advertising, stationary, traveling expense, maps, and all other office and general agency expenses.....		32,283 22
Aggregate amount of actual expenditures during the year, in cash.....		<u>\$536,921 18</u>

VI.—MISCELLANEOUS.

RISKS AND PREMIUMS.

	Fire risks	Premiums thereon.
In force on the 31st day of December of the preceding year.....	\$61,251,597	\$877,555 28
Written or renewed during the year	43,440,082	570,353 18
Total.....	\$104,697,679	\$1,447,908 46
Deduct those expired and marked off as terminated.....	40,394,209	525,672 88
In force at the end of the year.....	<u>\$64,303,470</u>	<u>\$922,235 58</u>

Wisconsin Joint Stock Companies.

GENERAL INTERROGATORIES.

Total amount of premiums received from the organization of the company to date.....	\$6,631,983 79
Total amount of cash dividends declared since the company commenced business.....	210,000 00
Total amount of company's stock owned by the directors at par value..	95,570 00
Losses paid from organization to date.....	3,191,579 27
Losses incurred during the year..	273,364 19
Loaned to stockholders, not officers	65,000 00
	=====

BUSINESS IN THE STATE OF WISCONSIN DURING THE YEAR.

	Fire risks.	Aggregate.
Fire risks written.....	\$10,813,069 00	\$10,813,069 00
Premiums received for insuring property.....	137,208 68	137,208 68
Losses paid.....	33,146 28	33,146 28
Losses incurred.....	35,046 28	35,046 28
Paid to the state of Wisconsin for taxes on premiums.....		1,296 68
Paid fire departments in the state of Wisconsin for taxes on premiums.....		3,580 42
		=====

Wisconsin Joint Stock Companies.

NORTHWESTERN NATIONAL INSURANCE COMPANY.

MILWAUKEE, WIS.

(Incorporated Feb. 20, 1869. Commenced business July 10, 1869.)

ALFRED JAMES, *President.*

JOHN L. MITCHELL, *Vice President.*

JOHN P. MCGREGOR, *Secretary.*

I.—CAPITAL.

Whole amount of joint stock or guaranteed capital authorized.....	\$1,000,000 00
Whole amount of capital actually paid up in cash.....	600,000 00

II.—ASSETS.

Loans on bonds and mortgage (duly recorded and being first liens on the fee simple), upon which not more than one year's interest is due.....	\$370,000 00
Interest accrued thereon.....	3,573 33
Value of lands mortgaged exclusive of buildings and perishable improvements.....	\$661,975
Value of the buildings mortgaged (insured for \$275,450 as collateral).....	531,400
Total value of said mortgaged premises...	<u>\$1,193,375</u>

STOCK AND BONDS OWNED BY THE COMPANY.

	Total par value.	Total market value.
United States registered bonds, 4 per cent.....	\$200,000 00	\$253,500 00
United States registered bonds, currency 6 per cent.	100,000 00	127,280 00
C., M. & St. Paul Ry., 1st mort. bonds —		
Chicago division, 7 per cent.....	150,000 00	190,500 00
C., M. & St. Paul Ry., 1st mort. bonds —		
Chicago division, 8 per cent.....	15,000 00	19,050 00
Milwaukee, Lake Shore & Western Ry., 1st mort. bonds, 6 per cent.....	50,000 00	61,500 00
Milwaukee & Northern Ry., 1st mort. bonds 6 per cent....	50,000 00	53,500 00
Milwaukee city bonds, 4 per cent.....	121,000 00	123,420 00
Milwaukee city bonds, 7 per cent.....	5,000 00	5,500 00
Milwaukee county bonds, 4 per cent.....	60,000 00	61,200 00
Milwaukee county bonds, 8 per cent.....	12,000 00	12,720 00
Total market value, carried out at market value	\$763,000 00	\$903,170 00
		\$906,170 00

Wisconsin Joint Stock Companies.

Cash in company's principal office.....	95 72
Cash belonging to company deposited in bank—	
Wisconsin F. & M. I. Co. bank, Milwaukee, Wis.....	169,458 82
Interest accrued on bonds not included in "market value".....	1,649 67
Gross premiums in course of collection not more than three months due....	44,075 88
Bills receivable, not matured, taken for fire, marine and inland risks.....	6,625 66
Memberships of Chicago and Milwaukee Board of Trade (Chicago, \$1,000; Milwaukee, \$150).....	1,150 00
	<hr/>
The gross amount of all the assets of the company..	\$1,504,799 08
Aggregate amount of all the assets of the company, stated at their actual value.	<u>\$1,504,799 08</u>

III.—LIABILITIES.

Gross claims for adjusted and unpaid losses to become due.....	\$17,104 80	
Gross losses in process of adjustment, or in suspense, including all reported and supposed losses.....	25,106 00	
Losses resisted, including interest, costs and other expenses thereon.....	1,000 00	
	<hr/>	
Total gross amount of claims for losses.....	\$43,210 80	
Net amount of unpaid losses.....		43,210 80
Gross premiums received and receivable upon all unexpired fire risks running one year or less from date of policy, including interest premium on perpetual fire risks, \$309,249.63; un- earned premiums (fifty per cent.).....	\$154,624 81	
Gross premiums received and receivable upon all unexpired fire risks, running more than one year from date of policy, \$662,513.42; unearned premiums (<i>pro rata</i>).....	345,606 44	
Gross premiums (including both cash and bills), received and receivable upon all unexpired inland navigation risks, \$7,448.68; unearned premiums (fifty per cent.).....	3,724 34	
	<hr/>	
Total unearned premiums as computed above.....		\$503,955 59
All other demands against the company, absolute and contingent, due and to become due, admitted and contested, viz.: commissions; brokerage and other charges due and to become due to agents and brokers, on pre- miums paid and in course of collection, \$11,018.97; due attorney and for reinsurance, \$2,410.96.....		13,429 93
		<hr/>
Total amount of all liabilities, except capital stock, and net surplus....	\$560,596 32	
Joint-stock capital actually paid up in cash.....	600,000 00	
Surplus beyond capital and all other liabilities.....	344,202 76	
	<hr/>	
Aggregate amount of all liabilities, including paid-up capital stock, and net surplus.....		<u>\$1,504,799 08</u>

Wisconsin Joint Stock Companies.

IV.—INCOME DURING THE YEAR.

	For fire risks.	For marine & inland risks.	
Gross receipts received in cash, without any deduction including \$51,114.55 of previous year.....	\$613,776 88	\$3,111 58	
Gross cash for premiums.....	613,776 88	3,111 58	
Deduct only, re-insurance, rebate, abatement and return premiums.....	63,323 89	1,195 28	
Net cast actually received for premiums.....	<u>\$550,452 99</u>	<u>\$1,916 40</u>	\$552,369 29
Bills and notes received during the year for premiums remaining unpaid (6,625 66).			
Received for interest on bonds and mortgages.....			23,359 06
Received for interest and dividends on stocks and bonds, collateral loans, and for all other sources.....			41,800 83
Aggregate amount of income actually received during the year in cash.			<u>\$617,528 70</u>

V.—EXPENDITURES DURING THE YEAR.

	On fire risks.	On marine & inland risks.	
Gross amount actually paid for losses (including \$33,473.54; losses occurring in previous years)...	\$301,894 61	\$3,280 62	
Deduct all amounts actually received for salvages, (whether on losses of the last or of previous years), \$2,886.27; and all amounts actually received, for re-insurance in other companies, \$3,330.14; total deductions.....	6,207 97	8 44	
Net amount paid during the year for losses....	<u>\$295,686 64</u>	<u>\$3,272 18</u>	\$298,958 82
Cash dividends actually paid stockholders (amount of stockholders' dividends declared during the year, \$66,000).....			66,000 00
Paid for commission or brokerage.....			104,925 32
Paid for salaries, fees, and all other charges of officers, clerks, agents, and all other employes.....			54,398 47
Paid for state, national and local taxes in this and other states.....			13,693 50
All other payments and expenditures, viz.: Interest on borrowed money, postage, \$2,744.05; exchange, \$1,156.30; stationery supplies, \$4,392.18; advertising, \$1,692.15; general expenses, \$30,057.61. Total.....			40,042 39
Aggregate amount of actual expenditures during the year, in cash.....			<u>\$578,018 40</u>

Wisconsin Joint Stock Companies.

VI.— MISCELLANEOUS.

RISKS AND PREMIUMS.

	Fire risks.	Premiums thereon.	Marine and inland risks.	Premiums thereon.
In force on the 31st day of December, of the preceding year.....	\$74,811,927	\$910,649 20...		
Written or renewed during the year..	52,395,793	606,738 21	\$1,038,636	\$9,737 24
Total.....	\$127,207,720	\$1,517,387 41	\$1,038,636	\$9,737 24
Deduct those expired and marked off as terminated.....	46,156,031	534,948 48	974,386	2,288 56
In force at end of the year.....	\$81,051,689	\$982,438 93	\$64,250	\$7,448 68
Deduct the amount re-insured.....	789,079	10,675 88..		
Net amount in force.....	<u>\$80,262,610</u>	<u>\$972,763 05</u>	<u>\$64,250</u>	<u>\$7,448 68</u>

GENERAL INTERROGATORIES.

Total amount of premiums received from the organization of the company to date.....	\$8,262,560 42
Total amount of cash dividends declared since the company commenced business.....	861,000 00
Total amount of company's stock owned by the directors at par value.....	303,000 00
Losses paid from organization to date.....	4,449,473 8
Losses incurred during the year.....	309,167 45
Dividends declared payable in stock from organization.....	174,000 00

BUSINESS IN THE STATE OF WISCONSIN DURING THE YEAR.

	Fire risks.	Marine and inland risks.	Aggregate.
Fire, marine and inland risks written.....	\$7,250,334 00	\$162,812 00	\$7,413,146 00
Premiums received for insuring property situate in this state.....	81,064 10	495 95	81,560 05
Losses paid.....	37,890 33	102 16	37,992 49
Losses incurred.....	30,816 76	102 16	30,918 92
Paid to the state of Wisconsin for taxes on pre- miums, \$1,006.04; paid fire departments in the state of Wisconsin for taxes on premiums.....			513 79

Wisconsin Mutual Companies.

WISCONSIN MUTUAL COMPANIES.

HERMAN FARMERS MUTUAL FIRE INS. CO.

HERMAN, DODGE COUNTY, WIS.

(Organized and commenced business March, 1857.)

JOHN ZIRBEL, *President.*

CHARLES RINGLE, *Secretary.*

ASSETS.

Face value of premium notes	<u>\$61,773 48</u>	
Mortgages on real estate.		\$35,025 00
Cash loaned on well secured notes		4,957 00
Cash on hand and in banks		1,897 66
Uncollected cash premiums (not more than three months due) ..		3,666 56
Interest accrued (\$1,123.09). Interest due (\$260.82). Total....		1,383 91
Total assets, less premium notes.		<u>\$46,930 13</u>

LIABILITIES.

Re-insurance (50 per cent. of cash premiums)	\$17,421 49
Total liabilities	<u>\$17,421 49</u>

INCOME IN 1889.

Premium notes received, face value	<u>\$16,064 82</u>	
Cash premiums received		\$10,410 21
Interest		2,115 21
Total income		<u>\$12,525 42</u>

EXPENDITURES.

Premium notes returned, face value.....	<u>\$12,718 43</u>	
Cash premiums returned.		\$174 98
Net amount paid for losses		11,098 72
Salaries of officers and employes		2,987 69
Traveling expenses, for general agent		52 95
All other expenses		456 78
Total		<u>\$14,771 27</u>

Wisconsin Mutual Companies.

MISCELLANEOUS.

Total cash received in same since organization, one assessment in year 1865 only.....	\$5,000 00
Total cash received for premiums since organization.....	117,129 76
Total losses paid since organization.....	72,371 54
Total risks in force, Dec. 31, 1889.....	4,844,574 00
Total risks written during the year.	<u>1,399,672 00</u>

BUSINESS IN WISCONSIN.

Amount of risks written.....	\$1,399,672 00
Premium notes received, face value.....	16,064 82
Total cash receipts.....	<u>12,525 42</u>
Losses paid.....	<u>\$11,098 72</u>
Losses incurred.....	<u>11,098 72</u>

Wisconsin Mutual Companies.

GERMANTOWN FARMERS' MUTUAL INSURANCE
COMPANY,

ROCKFIELD, WIS.

(Organized and commenced business in 1854.)

ANDREW MARTIN, *President.*

MARTIN SCHOTTLER, *Secretary.*

ASSETS.

Face value of premium notes.....	\$11,520 00
Amount of notes less assessment.....	\$11,520 00
Real estate owned	6,900 00
Mortgages on real estate	80,556 00
Notes, cash loans	255 00
Cash on hand and in banks... ..	14,945 69
Uncollected cash premiums	5,691 00
Notes taken for cash premium.....	88 17
Office furniture.....	500 00
Total assets.....	<u>\$120,455 86</u>

LIABILITIES.

Re-insurance (50 per cent. of cash premiums) pro rata.....	\$22,702 56
Total liabilities.....	<u>\$22,702 56</u>

INCOME.

Premium notes received, face value.....	\$1,257 22
Cash premiums received.....	\$20,602 71
Interest	5,177 08
Total income.....	<u>\$25,779 79</u>

EXPENDITURES.

Premium notes returned, face value	\$1,257 22
Cash premiums returned.....	\$378 80
Net amount paid for losses....	8,899 47
Paid for commissions and brokerage.....	3,524 78
Salaries of officers and employes.....	2,379 10
Taxes	580 45
All other expenses.....	728 22
Total	<u>\$16,490 82</u>

Wisconsin Mutual Companies.

MISCELLANEOUS.

Total premium notes received since organization, face value.....	\$737,267 85
Total cash received for premiums since organization.....	625,525 82
Total losses paid since organization.....	417,221 61
Total risks in force, December 31, 1889	3,190,091 00
Total risks written during the year	<u>1,272,514 00</u>

BUSINESS IN WISCONSIN.

Total cash receipts	<u>\$20,602 71</u>
Losses paid.....	<u>\$8,899 47</u>
Losses incurred	<u>8,419 63</u>

Wisconsin Mutual Companies.

LUMBERMEN'S AND MANUFACTURERS' MUTUAL
FIRE INSURANCE COMPANY,

EAU CLAIRE, WISCONSIN.

(Organized and commenced business, October, 1885.

GEO. B. SHAW, *President.*

J. A. SMITH, *Secretary.*

ASSETS.

Face value of premium notes.....		\$90,587 62
Amount of notes less assessment.	\$56,555 82	
Cash on hand and in banks.....		5,115 60
Uncollected cash premiums.....		2,224 19
All other assets, office furniture and fixtures.....		667 57
Total assets.....		<u>\$98,594 98</u>

LIABILITIES.

Loss adjusted but not due.. ..	\$2,115 30	
Resisted.	2,125 00	
Total unpaid losses.....		\$4,240 30
Re-insurance.....		2,623 2
Due for all other liabilities.		820 00
Total liabilities.....		<u>\$7,683 56</u>

INCOME IN 1889.

Premium notes received, face value.....	\$44,392 09	
Amount of cash collected on same.....		8,878 41
Cash received from 4th year prems.....		15,488 10
Cash premiums received.....		8,693 37
Total income.....		<u>\$33,059 88</u>

EXPENDITURES.

Premium notes returned, face value.....	\$53,479 30	
Cash premiums returned.....		\$3,540 91
Net amount paid for losses.....		14,788 13
Paid for re-insurance.....		1,915 24
Paid for commissions and brokerage... ..		1,854 71
Salaries of officers and employees.....		3,781 02
Traveling expenses.....		1,132 84
All other expenses		1,747 20
Total.....		<u>\$28,760 05</u>

Wisconsin Mutual Companies.

MISCELLANEOUS.

Total premium notes received since organization.....	\$292,676 32
Total cash received on same since organization.....	83,019 42
Total cash received for premiums.....	78,017 15
Total losses paid since organization. Mutual, \$46,755.15. Annual, \$48,257.04..	95,012 19
Total risks in force, December 31, 1889.....	958,538 00
Total risks written during the year.....	876,424 19
What per cent. of the premium notes have the assessments been during the year.....	<u>19</u>

BUSINESS IN WISCONSIN IN 1889.

Amount of risks written.....	\$150,672 00
Premium notes received, face value.....	<u>20,165 40</u>
Cash received on same.....	4,033 08
Cash received from 4th year premiums.....	<u>5,765 92</u>
Total cash receipts.....	<u>\$9,799 00</u>
Losses paid.....	<u>\$7,000 00</u>
Losses incurred.....	<u>7,000 00</u>

Wisconsin Mutual Companies.

MANUFACTURERS' MUTUAL FIRE INSURANCE
COMPANY,

MILWAUKEE, WIS.

(Organized and commenced business March 15, 1887.)

JOSEPH P. RUNDLE, *President.*

C. O. HAWLEY, *Secretary.*

ASSETS.

Face value of premium notes.....	\$23,055 55
Amount of notes less assessment.....	17,618 90
Cash on hand and in banks.....	13,370 17
Uncollected cash premiums (not more than three months due)	7,832 46
All other assets, office furniture and fixtures	279 13
Total assets.....	<u>\$39,100 66</u>

LIABILITIES.

Losses adjusted but not due.....	\$2,546 88
Reported losses.....	8
Resisted losses \$11,119.19 estimated; total unpaid losses	3,535 99
Re-insurance (50 per cent. of cash premiums)	13,939 82
Due for all other liabilities, other companies.....	67 84
Total liabilities	<u>\$20,098 53</u>

INCOME IN 1889.

Premium notes received, face value.....	\$15,344 50
Cash received from assessments.....	18,024 51
Cash premiums received.....	53,822 04
Other items \$31,100; assessment on guarantors.....	31,100 00
Total income	<u>\$102,446 55</u>

EXPENDITURES.

Premium notes returned, face value	\$18,020 39
Cash premiums returned.....	20,201 93
Net amount paid for losses	70,080 65
Paid for re-insurance.....	531 11
Paid for commissions and brokerage.....	9,233 88
Salaries of officers and employees.....	3,835 94
Traveling expenses.....	739 65
All other expenses (specify), supplies, furniture, maps, express, interest, exchange, postage, adjusting.	4,021 00
Total.....	<u>\$108,644 16</u>

Wisconsin Mutual Companies.

MISCELLANEOUS.

Total premium notes received since organization, face value.....	\$87,346 19
Total cash received on same since organization.....	18,024 51
Total cash received for premiums (yearly) 1889.....	53,322 04
Total losses paid since organization.....	136,474 35
Total risks in force, Dec. 31, 1889	1,217,519 10
Total risks written during the year	2,018,068 46
What per cent. of the premium notes have the assessments been during the year?.....	60

BUSINESS IN WISCONSIN IN 1889.

Amount of risks written	\$216,819 16
Premium notes received, face value.....	4,128 16
Cash received (premiums).....	<u>5,566 37</u>
Cash received from assessments	<u>14,504 06</u>
Total cash receipts	<u>\$20,070 43</u>
Losses paid	<u>\$20,813 31</u>
Losses incurred.....	<u>15,856 86</u>

Wisconsin Mutual Companies.

**MILLERS' MUTUAL FIRE INSURANCE COMPANY
OF WISCONSIN.**

(Organized and commenced business September 9, 1889.)

JOHN SCHUETTE, *President.*

E. W. ARNDT, *Secretary.*

ASSETS.

Face value of premium notes	\$294,952 27
Bonds and stocks, Manitowoc county bonds.....	\$5,250 00
Collateral loans.....	429 20
Cash on hand and in banks.....	13,536 19
Uncollected cash premiums (not more than three months due).....	14,255 02
Interest accrued	175 00
Claim against Standard Oil Co., estimated at 80 per cent....	\$3,685 12
Office furniture.....	909 40
Maps and supplies	2,500 00
	<u>7,094 52</u>
Total assets.....	<u><u>\$335,692 20</u></u>

LIABILITIES.

Losses adjusted but not due.....	\$3,120 96
Reported losses, estimated.....	9,500 00
Total unpaid losses.....	<u>\$12,620 96</u>
Re-insurance (50 per cent. of cash premiums)	13,896 81
Total liabilities	<u><u>\$26,517 77</u></u>

INCOME IN 1889.

Premium notes received, face value.....	\$88,334 32
Cash premiums received	93,106 16
Interest \$871.54). Other items (\$2,351.34). Commissions earned.....	3,222 88
Total income	<u><u>\$184,663 36</u></u>

EXPENDITURES.

Premium notes returned, face value	\$91,936 03
Cash premiums returned... ..	5,440 60
Net amount paid for losses	62,125 08
Paid for re-insurance... ..	1,129 29
Paid for commissions and brokerage.....	8,893 71
Salaries of officers and employes.....	6,430 46
Traveling expenses.....	517 08
All other expenses.....	10,516 19
Total	<u><u>\$186,988 43</u></u>

Wisconsin Mutual Companies.

MISCELLANEOUS.

Total premium notes received since organization (face value)	\$622,792 29
Total cash received for premiums (yearly) 1889.....	93,106 16
Total losses paid since organization	225,316 39
Total risks in force, December 31, 1889	3,421,924 85
Total risks written during the year.....	<u>2,902,970 41</u>

BUSINESS IN WISCONSIN IN 1889.

Amount of risks written	\$374,150
Premium notes received, face value.....	26,094 74
Total cash receipts	<u>\$32,149 34</u>
Losses paid	<u>\$25,989 54</u>
Losses incurred.....	<u>28,731 17</u>

Wisconsin Mutual Companies.

MILWAUKEE MUTUAL FIRE INSURANCE COMPANY,

MILWAUKEE, WIS.

(Organized and commenced business May 1, 1886.)

FRANCIS BOYD, *President.*

STEPHEN H. SEAMANS, *Secretary.*

ASSETS.

Amount of notes less assessment (collected and in process).....	\$123,333 25
Bills receivable	300 00
Cash on hand and in banks.....	8,727 30
Uncollected cash premiums (not more than three months due).....	6,702 75
Office furniture, maps and supplies.....	2,049 68
Total assets.....	<u>\$141,112 98</u>

LIABILITIES.

Loss adjusted but not due.....	\$2,469 33
Reported losses.....	5,000 00
Total unpaid losses	<u>\$7,469 33</u>
Re-insurance (50 per cent. of cash premiums).....	8,251 12
Due other companies	1,209 37
Total liabilities	<u>\$16,929 82</u>

INCOME.

Premium notes received, face value.....	\$45,282 20
Gross premium receipts	65,175 27
Interest, \$89.15; commissions, \$2,981.27.....	3,070 42
Total income.....	<u>\$113,527 89</u>

EXPENDITURES.

Premium notes returned, face value.....	\$46,023 90
Cash premium returned.....	25,183 26
Net amount paid for losses.....	25,183 02
Paid for re-insurance.....	622 83
Paid for commissions and brokerage.....	6,058 76
Salaries of officers and employes.....	4,315 01
Traveling expenses.....	2,473 38
Rent, adjusting, office supplies, postage, taxes, etc.....	2,309 58
Total.....	<u>\$112,169 74</u>

Wisconsin Mutual Companies.

MISCELLANEOUS.

Total premium notes received since organization, face value.. .. .	\$250,788 68
Total cash received for premiums, 1889.....	39,992 01
Total losses paid since organization.....	80,019 91
Total risks in force, December 31, 1889	2,065,311 84
Total risks written during the year.....	1,741,103 90
	<u><u><u>=====</u></u></u>

BUSINESS IN WISCONSIN.

Amount of risks written	\$264,050 00
Premium notes received, face value	15,128 80
Total cash receipts	12,070 06
Losses paid	<u><u>\$8,567 32</u></u>
Losses incurred.....	9,567 32
	<u><u><u>=====</u></u></u>

Wisconsin Mutual Companies.

MUTUAL FIRE INSURANCE COMPANY

EAU CLAIRE, WISCONSIN.

(Organized and commenced October, 1885.)

GEO. B. SHAW, *President.*

J. A. SMITH, *Secretary.*

ASSETS.

Face value of premium notes.	\$180,599 87
Stocks.....	\$600 00
Cash on hand and in banks.....	10,543 27
Uncollected cash premiums (not more than three months due).....	6,100 42
All other assets, office furniture and fixtures.....	1,322 56
Total assets.....	<u>\$199,166 11</u>

LIABILITIES.

Loss adjusted but not due.....	\$1,403 30
Resisted losses.....	2,125 00
Total unpaid losses.....	<u>\$6,528 30</u>
Re-insurance (50 per cent. of cash premiums).....	\$7,046 00
Due for rent and salaries	560 00
Total liabilities.....	<u>\$14,134 30</u>

INCOME IN 1889.

Premium notes received, face value....	<u>\$94,046 09</u>
Amount of cash collected on same.....	\$18,809 21
Cash received from assessments.....	15,474 11
Cash premiums received.....	15,631 26
Total income.....	<u>\$49,914 58</u>

EXPENDITURES.

Premium notes returned, face value.....	<u>\$56,812 08</u>
Cash premiums returned.....	\$4,188 18
Net amount paid for losses.....	13,387 96
Paid for re-insurance	1,636 13
Paid for commissions and brokerage.....	1,124 16
Salaries of officers and employes.....	4,939 09
Traveling expenses	1,539 83
All other expenses....	2,916 99
Total.....	<u>\$29,792 33</u>

Wisconsin Mutual Companies.

MISCELLANEOUS.

Total premium notes received since organization, (face value).....	\$320,603 70
Total cash received on same since organization.....	74,320 60
Total cash received for premiums (yearly).....	71,113 18
Total losses paid since organization; mutual, \$47,752.93; annual, \$48,852.01..	96,604 94
Total risks in force December 31, 1889.....	1,101,936 00
Total risks written during the year.....	1,300,625 70
Per cent. of premium notes assessments have been during the year.....	<u>19</u>

BUSINESS IN WISCONSIN IN 1889.

Amount of risks written.....	\$150,622 13
Premium notes received, face value.....	20,621 70
Cash received on same.....	4,124 34
Cash received from assessments..	5,729 60
Total cash receipts.....	<u>9,853 94</u>
Losses paid	7,000 00
Losses incurred.....	<u>7,000 0</u>

Wisconsin Mutual Companies.

WISCONSIN MUTUAL FIRE INSURANCE COMPANY,
MILWAUKEE WISCONSIN.

(Organized and commenced business May 1, 1886.)

J. ALFRED KIMBERLY, *President.*

STEPHEN H. SEAMANS, *Secretary.*

ASSETS.

Amount of notes less assessment (collected and in process)	\$124,646 75
Bonds and stocks, bills receivable	300 00
Cash on hand and in banks	9,092 04
Uncollected cash premiums (not more than three months due)	5,377 46
All other assets; office furniture, maps and supplies	2,049 71
Total assets	<u>\$141,465 96</u>

LIABILITIES.

Loss adjusted but not due	\$2,469 33
Reported losses	5,000 00
Total unpaid losses	<u>\$7,469 33</u>
Re-insurance (50 per cent. of cash premiums) ...	9,199 28
Due for all other liabilities; due other companies	77 80
Total liabilities	<u>\$16,746 41</u>

INCOME IN 1889.

Premium notes received, face value	\$46,299 50
Cash premiums received (gross premium receipts)	67,335 82
Interest, \$87.70; other items, commission, \$2,108.65	2,196 35
Total income	<u>\$115,831 67</u>

EXPENDITURES.

Premium notes returned, face value	\$44,421 80
Cash premiums returned	27,269 55
Net amount paid for losses ..	25,182 96
Paid for re-insurance ...	931 68
Paid for commissions and brokerage...	5,186 18
Salaries of officers and employees	4,315 00
Traveling expenses	2,478 41
All other expenses	2,308 22
Total.	<u>\$112,088 70</u>

Wisconsin Mutual Companies.

MISCELLANEOUS.

Total premium notes received since organization, face value.....	\$253,053 15
Total cash received for premiums (yearly) (1889).....	40,066 27
Total losses paid since organization....	80,019 81
Total risks in force, December 31, 1889	2,082,351 21
Total risks written during the year..	<u>1,782,070 37</u>

BUSINESS IN WISCONSIN IN 1889.

Amount of risks written	\$292,100 00
Premium notes received, face value.....	17,838 85
Total cash receipts.....	<u>\$13,042 60</u>
Losses paid.....	<u>\$8,567 32</u>
Losses incurred.....	<u>9,567 32</u>

Wisconsin Mutual Companies.

TREASURER'S REPORT OF

THE CREAM CITY MUTUAL FIRE INSURANCE
COMPANY,

OF MILWAUKEE, WISCONSIN.

To close of business December 31, 1889.

R. REINKE, *Secretary.*

WM. F. FILTER, *Treasurer.*

Premiums received	\$311 62
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DISBURSEMENTS.

Cost of incorporation, legal fees.....	\$75 00
Printing, blanks, books and Stationery.....	110 75
Paid secretary for making policies.....	42 00
Agents' fees.....	43 50
Rent of hall.....	10 00
Postage.....	37
Balance on hand	20 81
	<u>\$311 62</u>

Building and Loan Associations.

NATIONAL BUILDING, LOAN AND PROTECTIVE UNION,

OF MINNEAPOLIS, MINN.

(Organized or incorporated, January, 1886. Commenced business, July, 1886).

EMERSON COLE, *President.*O. C. KUCALE, *Secretary.*

FIRST.

Amount of capital stock of the association in good standing, 85,971 shares..	\$8,597,100 00
Amount of stock subscribed for during preceding year, 75,834 shares....	<u>7,583,400 00</u>

SECOND.

Amount of stock which has lapsed or been forfeited, 37,962 shares.....	<u>\$3,796,200 00</u>
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THIRD.

Deposited in bank to credit of association.....	<u>\$57,309 23</u>
Deposited in Security of Minnesota	\$3,000 00
Deposited in Citizens of Minneapolis.....	3,000 00
Deposited in People's of Minneapolis.....	<u>51,309 23</u>
Total	<u>.....</u>
The amount of loans secured by bonds or mortgages, constituting first lien on real estate, on which all interest is paid.....	*\$554,100 00
Loans on our own stock.....	4,400 00
The amount of loans on which interest is past due.....	*83,000 00
Amount of interest on same unpaid.....	4,723 76
The amount of interest actually due and unpaid.....	4,723 76
Monthly installments and fines in arrears.....	34,311 40
The amount derived from fines, forfeitures, lapses or otherwise.....	<u>112,761 86</u>

FOURTH.

LIABILITIES.

Monthly dues.....	\$528,762 32
Withdrawal installments.....	95,907 14
Interest and premium.....	56,508 34
Fines.....	14,459 76
Lapses.....	24,545 10
Expense fund.....	<u>19,872 67</u>
Less loss on withdrawals.....	<u>\$2,624 01</u>
Due sundry individuals or suspended cash.....	<u>\$737,431 32</u>
	<u>413 07</u>

* These two questions were not contemplated in making up our annual report and while these answers are virtually correct we desire them individually to be considered as E. & O. E. The total of the two are absolutely correct.

Building and Loan Associations.

FIFTH.

INCOME.

The amount of monthly and withdrawal installments received.....	\$439,491 35
The amount of interest money received.....	38,411 65
The amount of income derived from other sources.....	<u>91,839 71</u>

SIXTH,

EXPENDITURES FOR YEAR.

Salaries of officers and clerical force.....	\$18,011 81
Exchange and collector's commission.....	3,949 18
Paid agents and sundry expenses.....	9,428 42
Rent.....	1,884 15
Postage.....	2,392 72
Printing and staticnary.....	4,908 17
Office fixtures.....	<u>405 90</u>
	<u>\$40,980 35</u>

Building and Loan Associations.

AMERICAN BUILDING AND LOAN ASSOCIATION
OF MINNEAPOLIS, MINN.

(Organized and commenced business April 15, 1887.)

JAS. H. BISHOP, *President.*

THOS. E. BISHOP, *Secretary.*

FIRST.

Amount of capital stock of the association in good standing	200,000 shares
Amount of stock subscribed for during preceding year, 249,779 shares.....	<u>\$24,977,900</u>

SECOND.

Amount of stock which has lapsed or been forfeited	\$79,240 00
Number of payments.....	<u>42,056 15</u>

THIRD.

Cash on hand in office	\$68 64
Deposited in bank to credit of association.....	160,797 80
Net amount of loans secured by bonds or mortgages, constituting first lien on real estate, on which all interest is paid.....	653,936 00
Net amount of loans on which interest is past due.....	372,115 59
Amount of interest on same unpaid.....	7,942 77
Amount of interest actually due and unpaid	7,942 77
Any other property, rights or credits of which the association may be pos- sessed, premiums unpaid.....	10,462 85
Amount derived from fines, forfeitures, lapses or otherwise.. ..	<u>47,191 67</u>

FOURTH.

LIABILITIES.

Amount of money borrowed.....	\$10,000 00
Amount of all other existing claims against the association	<u>1,000 00</u>

Building and Loan Associations.

FIFTH.

INCOME.

Amount of monthly installments received, also paid up stock	\$256,861 68
Amount of interest money received	23,065 31
Amount of income derived from other sources	<u>83,652 22</u>

SIXTH.

EXPENDITURES.

Amount paid for officers' salaries	\$25,737 62
Amount paid agents	31,130 86
Amount paid for officers' expenses and rent	<u>3,060 49</u>

TABLE No. I.—TOWN INSURANCE COMPANIES.

NAME OF COMPANY.	Town.	County.	Post Office.	Secretary.	Commenced business.
Arlington Farmers' Mut. Fire	Arlington.....	Columbia.....	Arlington.....	S. W. Clark	Nov., 1873
Ashippun Ins. Co.	Ashippun.....	Dodge	Alderly.....	Jno. H. Hudy.....	Apr. 14, 1874
Aurora Fire Ins. Co.	Aurora.....	Waushara.....	Colebrook.....	A. S. Rogers.....	Sept. 7, 1875
Ashford Fire Ins. Co.	Ashford.....	Fond du Lac	Campbellsport	J. A. Hendricks.....	Mar. 2, 1874
Albion Mut. Town Ins. Co.	Albion.....	Dane.....	Edgerton.....	Sam'l Clarke.....	May 6, 1879
Apple River Mut. Ins. Co.	Apple River.....	Polk.....	Valger.....	Chris Peterson.....	July 12, 1885
Alden & Black Brook Mut. Fire Ins. Co.	Alden.....	Polk.....	Star Prairie	L. E. Parslon.....	Aug. 25, 1887
Bloomington Far. Fire Ins. Co.	Bloomington.....	Grant.....	Bloomington.....	Thos. Pendleton.....	Apr. 11, 1874
Berlin Farmers' Ins. Co.	Berlin.....	Marathon.....	Nangart.....	C. F. Jehn.....	Feb. 3, 1876
Berry Mut. Fire Ins. Co.	Berry.....	Dane.....	Cross Plains.....	Otto Kerl.....	Mar. 10, 1876
Baraboo Farmers' Mut. Ins. Co.	Baraboo.....	Sauk.....	Baraboo.....	Levi Cahoun.....	Feb 10, 1877
Berlin Fire Ins. Co.	Berlin.....	Green Lake	Berlin.....	R. C. Johnson.....	Apr. 9, 1877
Blue Mounds Ins. Co.	Blue Mounds.....	Dane.....	Mt. Horeb.....	G. E. Mickelson.....	Oct. 15, 1874
Bristol Mut. Fire.....	Bristol.....	Kenosha.....	Bristol.....	H. G. Taurtelott.....	Feb. 25, 1860
Bohemian Mut. Far. Ins. Co.	Kossuth.....	Manitowoc	Kellnersville.....	F. Kliment.....	Oct. 19, 1871
Belgium Mut. Fire Ins. Co.	Belgium.....	Ozaukee.....	Holy Cross	Peter Jones.....	Feb. 14, 1885
Bohemian Far. Mut. Ins. Co.	Eastman.....	Crawford.....	Eastman.....	Jos. Luhner, Jr.....	Apr. 2, 1877
Burnett Mut. Fire Ins. Co.	Burnett.....	Dodge	Beaver Dam.....	S. H. Ford.....	Mar. 27, 1876
Courtland Mut. Ins. Co.	Courtland.....	Columbia.....	Randolph.....	C. H. Gilmore.....	July —, 1874
Concord Mut. Fire Ins. Co.	Concord.....	Jefferson.....	Concord.....	Albert May.....	Apr. 29, 1875
Cottage Grove Fire Ins. Co.	Cottage Grove.....	Dane.....	Madison.....	Daniel Bechtel.....	June 8, 1875
Crystal Lake Far. Mut. Ins. Co.	Crystal Lake.....	Waushara.....	Germania.....	J. A. Wegenke.....	Mar. 6, 1876
Caledonia Far. Mut. Fire Ins. Co.	Caledonia.....	Columbia.....	Alloa.....	Jno. Standenmayer.....	Aug. 1, 1873
Cedarburg Mut. Fire Ins. Co.	Cedarburg.....	Ozaukee.....	Cedarburg.....	C. F. Kenney.....	May 1, 1873
Columbus Mut. Fire Ins. Co.	Columbus.....	Columbia.....	Fall River.....	W. H. Proctor.....	Aug. 2, 1873
Calumet County Mut. Fire Ins. Co.	New Holstein.....	Calumet.....	New Holstein.....	Wm. Greverns.....	Mar. 10, 1873
Darlington Mut. Fire Ins. Co.	Darlington.....	La Fayette.....	Darlington.....	Jas. W. Trastrail.....	July 12, 1875
Dodgeville T. F. Mut. Fire Ins. Co.	Dodgeville.....	Iowa.....	Dodgeville.....	Jos. Perkins, Jr.....	Apr. 23, 1879
Deutsche Gegeuseitige Farmers' Fire Ins. Co.	Mishicott.....	Manitowoc	Mishicott.....	Louis Heyrath, Sr..	Apr. —, 1874
Dupont Far. Mut. Fire Ins. Co.	Dupont.....	Waupacca.....	Marion.....	F. Krull.....	Sept. 3, 1883

Town Insurance Companies.

Town Insurance Companies.

Ettrick Scandinavian Fire Ins. Co.....	Ettrick	Trempealeau	Ettrick.....	E. O. Gilbertson.....	Apr. 4, 1877
Elba Mut. Fire Ins. Co.....	Elba	Dodge.....	Danville.....	E. E. Williams.....	July 1, 1872
Eagle Point Mutual Fire Ins. Co.....	Eagle Point.....	Chippewa	Eagle Point	John Bates.....	July 15, 1879
Farmers' Town Ins. Co., Empire and Friendship.....	Fond du Lac	Fond du Lac.....	Fond du Lac	S. B. Standfield	Apr. 24, 1875
Farmers' Mut. Fire Ins. Co.....	Ripon.....	Fond du Lac.....	Ripon.....	E. P. West	June 6, 1874
Farmers' Mutual Fire Ins. Co.....	Johnstown	Rock.....	Johnstown.....	V. Ward	Apr. 8, 1875
Farmers' Mutual Fire Ins. Co.....	Sparta	Monroe.....	Sparta	Myron Rowley.....	Aug. 16, 1875
Farmers' Home Mut.....	Little Chute	Outagamie	Little Chute	Wm. Geenen.....	July 8, 1881
Farmers' Mut. Fire Ins. Co.....	Geneva.....	Walworth	Lake Geneva.....	L. G. Foster.....	Year 1876
Farmers' Mut. Fire Ins. Co.....	Walworth	Walworth	Walworth	E. R. Maxon	Jan. 25, 1878
Farmington Mut. Fire Ins. Co.....	Farmington	Polk.....	East Farmington	Aug. Beyl	June 22, 1878
Farmers' Mnt. Ins. Co.....	Franklin.....	Milwaukee.....	Painesville	R. Brunn	May 17, 1880
Farmers' Fire and Lightning Ins. Co.....	Mazomanie.....	Dane	Black Earth.....	Jas. McKenzie	Mar. 20, 1882
Farmers' Mutual Ins. Co.....	Albany.....	Pepin.....	Durand	C. N. Averill.....	May 22, 1876
Franklin Farmers' Fire Ins. Co.....	Sauk.....	Richland	Spring Green.....	Rich. H. Douglass.....	Feb. —, 1887
Farmers' Mutual Fire Ins. Co.....	Newark.....	Rock	Orfordville.....	E. H. Skinner	Mar. —, 1874
Farmers' Mutual Fire Ins. Co.....	Center.....	Rock	Center.....	J. B. Whitmore.....	June 29, 1872
Farmers' Mutual Fire Ins. Co.....	Dover and Norway.....	Racine.....	Waterford.....	S. J. Haugen	Mar. 28, 1874
Farmers' Mutual Fire Ins. Co.....	Lake.....	Milwaukee	Bay View.....	Jas. P. Howard	Jan. 20, 1883
Fountain City Far. Mut. Fire Ins. Co.....	Fountain City.....	Buffalo.....	Fountain City.....	John J. Senn.....	May 16, 1874
Farmers' Ins. Co.....	Tomah.....	Monroe.....	Tomah.....	Fred Noth	Oct. —, 1874
Farmers' Mutual Ins. Co.....	Wonewoc.....	Juneau.....	Wonewoc.....	Chr. Meffert.....	Feb. 14, 1874
Farmers' Mutual Ins. Co.....	Sugar Creek.....	Walworth	Tibbetts	Thos. Davis.....	Jan. 18, 1873
Farmers' Mutual Ins. Co.....	New Berlin.....	Waukesha.....	Prospect	A. Snyder.....	June 20, 1874
Farmers' Mutual Ins. Co.....	Hustisford.....	Dodge.....	Hustisford	Rich. Roll	May 10, 1875
Farmers' Fire Ins. Co.....	Newton.....	Manitowoc	Northelm.....	Fred Schmitz	Jan. 16, 1880
Farmers' Mutual Fire Ins. Co.....	Waukesha.....	Waukesha.....	Waukesha.....	A. V. B. Dey	Apr. 2, 1874
Farmers' Mutual Fire Ins. Co.....	Wayne and Gratiot.....	LaFayette	Collins.....	S. W. Usher.....	May 22, 1875
Farmers' Mutual Fire Ins. Co.....	Bristol.....	Dane	Sun Prairie.....	J. E. Hidden.....	July 14, 1875
Farmers' Mutual Fire Ins. Co.....	Harmony.....	Rock	Milton Junction.....	John Stockman	July 8, 1872
Farmers' Mutual Fire Ins. Co.....	Mukwanago	Waukesha.....	Mukwanago	A. J. Boss.....	Feb. 14, 1874
Farmers' Home Ins Co.....	Ellington.....	Outagamie	Hortonville.....	Louis Jaquot.....	July 16, 1878
Farmers' Mutual Fire Ins. Co.....	Medina, Primrose and Deerfield	Dane	Marshall	John Johnson.....	June 19, 1875
Farmers' Mutual Fire Ins. Co.....	Union.....	Rock	Fulton.....	E. G. Pound.....	Mar. 17, 1874
Farmers' Mutual Fire Ins. Co.....	Wauwatosa.....	Milwaukee	Elm Grove.....	Edw. W. Robbins.....	Feb. 1, 1880
Farmers' Mutual Fire Ins. Co.....	Dunn.....	Dunn.....	Menomonee	W. H. Landon.....	Jan. 17, 1876
Farmers' Mutual Fire Ins. Co.....	Greenfield.....	Milwaukee	S. S. Postal Station.....	Louis Fuldner.....	June 27, 1878
Fall Creek Farmers' Mut. Fire Ins. Co.....	Fall Creek.....	Eau Claire	Fall Creek.....	W. J. Friedrich.....	Jan. 4, 1875
Farmers' Mutual Fire Ins. Co.....	Burlington.....	Racine.....	Burlington.....	T. H. Marshland.....	Dec. 1, 1875

TABLE NO. I—TOWN INSURANCE COMPANIES — Continued.

NAME OF COMPANIES.	Town.	County.	Post Office.	Secretary.	Commenced business.
German Farmers' Mut. Fire Ins. Co.	Montpelier	Kewaunee.....	Ellsville	Aug. Jahnke	Mar. 5, 1875
Gegenseitige Far Versicherung Gesel- schaft	Manitowac Rapids . . .	Manitowoc	Manitowoc	H. J. Klingholz.	Feb. —, 1874
German Mutual Fire Ins. Co.	Marion	Grant.....	Boscobel.	Paul Wellner	Aug. 28, 1876
German Mutual Fire Ins. Co.	Liberty	Grant.....	Liberty Ridge	Henry Bald	Feb. 19, 1872
Hartland Farmers' Mutual Ins. Co.	Hartland	Shawano	Bonduel	T. Simon	Mar. —, 1876
Holland Farmers' Mutual Ins. Co.	Holland	Sheboygan	Cedar Grove	H. Walwood	June 3, 1870
Henrietta Greenwood Ins. Co.	Richland	Vernon	Yuba	W. Hynck	Nov. 1, 1883
Ixonia Mut. Fire Ins. Co.	Ixonia	Jefferson.	Piperville.	F. V. Piper.	Jan. 4, 1876
Irving Mut. Fire Ins. Co.	Irving	Jackson	Irving	H. V. Robinson.	April 17, 1883
Jamestown Mut. Fire Ins. Co.	Jamestown	Grant.....	Kieler	Aug. Brand.	April 15, 1885
Lisbon Mut. Fire Ins. Co.	Lisbon.	Waukesha.	Sussex.	Geo. McKerrow.	June 10, 1874
Lima Mut. Fire Ins. Co.	Lima.	Rock	Lima Center.	Fred Gauld.	June 25, 1872
Lynn Mut. Fire Ins. Co.	Lynn.	Clark and Wood.	Lynn.	Chas. Sternitzky.	May 28, 1878
Lindina Mut. Fire Ins. Co.	Lindina.	Juneau.	Mauston.	F. Wilcox.	May —, 1877
Lodi Farmers' Mut. Fire Ins. Co.	Lodi.	Columbia.	Lodi.	Chas. Goodall.	Mar —, 1877
Laprairie town Fire Ins. Co.	La Prairie.	Rock	Janesville	Henry Tarrant.	July 23, 1873
Linden Town Farmers' Mut. Fire Ins. Co	Linden	Iowa.	Linden	Robt. Osborne.	April 6, 1872
Luck Mut. Farmers' Ins. Co.	Luck	Polk	Luck.	Nelson Lawson.	Aug. 27, 1881
Lebanon Farmers' Mut. Ins. Co.	Lebanon.	Dodge	Lebanon.	Wm. Schroefel.	Mar. 28, 1887
Little Black Farmers' Mut. Ins. Co.	Little Black	Taylor.	Little Black.	Fred Kaemmer.	July 26, 1889
Lower Sugar Bush Mut. Ins. Co.	Peshtigo.	Marinette	Peshtigo.	Ernst Lepinsky.	Feb. 11, 1889
Mutual Fire Ins. Co.	Watertown.	Jefferson.	Watertown.	G. Eichmann	Nov. 29, 1872
Mutual Fire Ins. Co.	Clarno.	Green.	Monroe.	Frank Smock.	Mar. 24, 1874
Mutual Fire Ins. Co.	Herman	Sheboygan.	Franklin.	Wm. Reinking.	June 22, 1871
Mutual Fire Ins. Co.	Calumus.	Dodge	Beaver Dam.	W. N. Jones.	Year 1872
Mutual Fire Ins. Co.	Marshfield.	Fond du Lac	Mt. Calvary.	M. J. Miesen.	Mar. 14, 1874
Meeme H. P. T. Fire Ins. Co.	Meeme	Manitowoc	Meeme	C. F. Conway.	Year 1871
Menomonee, Granville & German Ins. Co	Menomonee, Granville & German Ins. Co	Washington	Fussville.	W. Boorse.	May 20, 1875
Merrimack Mut. Farmers' Fire Ins. Co..	Merrimack.	Sauk.	Sauk City.	Sam'l Kleiner.	Dec. 15, 1873
Marquette Mut. Fire Ins. Co.	Marquette.	Green Lake.	Marquette.	C. A. Millard.	Mar. —, 1876
Mut. Ins. Co.	Hampden	Columbia.	Columbia.	S. C. Bell.	April 12, 1873
Montpelier Mut. Ins. Co.	Montpelier Mut. Ins. Co.	Kewaunee.	Ellisville.	Jno. Zatler.	Mar. 15, 1888
Mutual Fire and Lightning Ins. Co.	Brighton	Kenosha.	Brighton.	Jno. Daniels.	Nov. 9, 1874

Town Insurance Companies.

Town Insurance Companies.

Middleton Fire and Lightning Ins. Co.	Middleton	Dane	Middleton	H. Schuster	Jan. 4, 1875
Mt. Pleasant Town Ins. Co.	Monticello	Green	Monticello	E. F. Wright	June 10, 1876
Mt. Morris Norwegian Mut. Fire Ins. Co.	Mt. Morris	Waushara	Mt. Morris	Jas. Peterson	Feb. 12, 1876
Martell Fire Ins. Co.	Martell	Pierce	Martell	Chr. G. M. Hagerdahl	Sept. 14, 1878
Mutual Fire Ins. Co.	Winnebago	Columbia	Thurman	D. S. Woodworth	Aug. 16, 1889
Mutual Fire Ins. Co.	Oconomowoc	Waukesha	Monterey	W. G. Travis	Nov. 7, 1874
Nekimi Fire Ins. Co.	Nekimi	Winnebago	Oshkosh	Fred Milan	Jan. 29, 1884
New Hope Norwegian Mut. Fire.	New Hope	Waupaca	New Hope	C. Hanson	Feb. 19, 1887
New Denmark Mut. Home Fire Ins. Co.	New Denmark	Brown	Fontenoy	Franz Hesse	Feb. 19, 1876
Oakland Mutual Fire	Oakland	Jefferson	Oakland	Robt. Robertson	Oct. 1, 1873
Oak Grove Mutual Fire	Oak Grove	Dodge	Juneau	Jno. Francis	June 1, 1873
Oakfield Ins. Co.	Oakfield	Fond du Lac	Oakfield	Delos Allen	Sept. 19, 1873
Princeton and St. Marie Ins. Co.	Princeton	Green Lake	Princeton	W. R. Steward	June 12, 1879
Paris Mutual Fire Ins. Co.	Paris	Kenosha	Union Grove	Michael Hensgen	Aug. 18 1873
Perry Fire Ins. Co.	Perry	Iowa	Perry	Ole Grimstodl	Year, 1874
Primrose Ins. Co.	Primrose	Dane	Mt. Vernon	N. N. Byrge	Jan. 4, 1875
Pleasant Prairie Ins. Co.	Pleasant Prairie	Kenosha	Kenosha	Saml. B. Crapley	Feb. 21, 1885
Pella F. Mut. Ins. Co.	Pella	Shawano	Pella	Fred Rades	Jan. 1, 1877
Plymouth Farmers' Fire Ins. Co.	Plymouth	Sheboygan	Plymouth	Wm. Swart	Feb. 8, 1875
Pigeon Mut. Fire Ins. Co.	Pigeon	Trempealeau	Pigeon Falls	O. E. Larson	May 24, 1882
Randolph and Scott Ins. Co.	Randolph	Columbia	Cambria	A. Blochwitz	Sept. 5, 1874
Richmond Ins. Co.	Richmond	Shawano	Shawano	C. R. Klebesachl	May 18, 1888
Raymond Mut. Fire Ins. Co.	Raymond	Racine	Raymond	M. Armer	June 30, 1873
Rockland Mut. Fire Ins. Co.	Rockland	Manitowoc	Reedsville	Thos. Gleeson	July 16, 1885
River Falls Fire Ins. Co.	River Falls	Pierce	River Falls	Jno. W. Barrett	Jan. 2, 1877
Sullivan Mut. Fire Ins. Co.	Rome	Jefferson	Rome	C. S. Cartwright	June 12, 1875
Shelby Far. Mut. Fire Ins. Co.	All the towns in La Crosse county	Vernon	La Crosse	Peter Kienholz	Nov. 24, 1874
Stockholm Town Ins. Co.	Stockholm	Pepin	Stockholm	John Larson	Apr. 12, 1875
Stockton Fire Ins. Co.	Stockton	Portage	Stockton	J. B. Dawley	Jan. 1, 1876
Summit Mut. Fire	Summit	Waukesha	Summit Centre	Daniel Williams	Mar. 31, 1874
Somers M. F. Ins. Co.	Somers	Kenosha	Somers	Isaac T. Bishop	Sept. 12, 1873
Scandinavian Mut. Town Ins. Co.	Manitowoc Rapids	Manitowoc	Manitowoc	Terkel Osulsen	Dec. 15, 1878
Saukville Mut. Town Ins. Co.	Saukville	Ozaukee	Saukville	Jos. Albrecht	Year, 1876
Salem Mut. Town Ins. Co.	Salem	Kenosha	Salem	W. M. Curtiss	Dec. 11, 1869
Spring Prairie Far. Town Ins. Co.	Spring Prairie	Walworth	Spring Prairie	Geo. D. Puffer	Apr. 17, 1873
Sevastopol Far. Fire Ins. Co.	Sevastopol	Door	Sevastopol	Jos. Nuesse	
Trade Lake Town Ins. Co.	Trade Lake	Burnett	Trade Lake	F. G. Dahlberg	May 11, 1877
Trenton Mut. Fire Ins. Co.	Trenton	Dodge	Fox Lake	S. C. McDowell	Feb. 8, 1872
Theresa Mut. Fire Ins. Co.	Theresa	Dodge	Theresa	Peter Langenfeld	Jan. 17, 1879

Town Insurance Companies.

TABLE NO. 1.—TOWN INSURANCE COMPANIES — Continued.

NAME OF COMPANY.	Town.	County.	Post Office.	Secretary.	Commenced business.
Utica Fire Ins. Co	Utica	Winnebago	Ela	L. J. Miller	May 24, 1873
Utica Far. Mut. Ins. Co.	Utica	Crawford and Vernon ..	Towerville	P. N. Peterson	Apr. 8, 1884
Vernon Mut. Ins. Co.	Vernon	Waukesha	Big Bend	J. Vandewalker	Mar. 18, 1873
Vinland Fire Ins. Co.	Vinland	Winnebago	Allenville	Geo. S. Church	Sept. 13, 1873
West Bend Ins. Co.	Polk	Washington	Mayfield	Peter Koelsch	Jan. 7, 1880
Wrightstown Far. Mut. Ins. Co.	Wrightstown	Brown	Morrison	Aug. Griegentrog	July 6, 1875
Wilson Town Mut. Fire Ins. Co.	St. George	Sheboygan	St. George	N. Thull	May 6, 1872
Westfield Mut. Far. Fire Ins. Co.	Westfield	Sauk	Loganville	Nich. Harz	Apr. 6, 1870
Winchester Fire	Winchester	Winnebago	Winchester	F. Kleberg	June —, 1875
Waterford Far. Mut. Ins. Co.	Waterford	Racine	Waterford	E. M. Groat	July 24, 1875
Warren Mut. Fire Ins. Co.	Warren	St. Croix	Roberts	E. G. Partridge	Apr. —, 1880
Waupaca Fire	Waupaca	Waupaca	Waupaca	M. A. Stinchfield	Mar. 13, 1875
Waupun Fire Ins. Co.	Waupun	Fond du Lac	Waupun	D. Ferguson	Mar. 13, 1874
Yorkville and Mt. Pleasant Ins. Co.	Yorkville	Racine	Union Grove	A. B. Hayes	June 30, 1874

TABLE NO. II.—TOWN INSURANCE COMPANIES.

NAME OF COMPANY.	LOCATION.	Amount in force Jan. 1, 1889.	Amount insured during the year 1889.	Amount of losses paid during the year 1889.	Amount of losses paid since organization.	Receipts during 1889.	Expenses during 1889.	Losses unpaid, 1889.
Arlington Farmer's Mut. Fire.....	Arlington	\$592,060	\$165,535	\$274 00	\$5,262 50	\$894 97	\$193 22	None
Ashippum Mut. Fire Ins. Co.....	Ashippun	449,394	143,860	65 00	2,491 66	349 39	120 88	None
Aurora Fire Ins. Co.....	Aurora	933,375	247,650	1,307 71	14,795 75	2,144 35	293 38	None
Ashford Fire Ins. Co.....	Ashford	1,359,265	350,177	566 95	13,804 76	1,013 96	294 31	.....
Albion Mut. Town Ins. Co.....	Albion	415,039	201,791	65 00	1,711 52	1,006 95	396 58	.....
Apple River Mut. Ins. Co.....	Apple River.....	87,815	10,545	None.	38 19	83 06	87 78	.....
Alden and Black Brook Mut. Fire	Alden	105,480	33,761	195 00	245 00	247 73	48 00	.....
Bloomington Far. Fire Ins. Co.....	Bloomington	758,724	189,775	1,894 90	12,578 40	2,108 41	407 58	.....
Berlin Farmers' Fire Ins. Co.....	Berlin.....	630,115	143,488	411 80	3,660 71	1,869 35	232 73	.....
Berry Mut. Fire Ins. Co.....	Berry.....	484,163	87,198	1,214 44	3,786 07	2,223 30	143 57	793 00
Baraboo Far. Mut. Fire Ins. Co.....	Baraboo	515,370	114,277	900 00	2,861 80	1,042 24	195 28	80 00
Berlin Fire Ins. Co.....	Berlin	132,483	49,695	10 00	673 00	96 18	31 05	.....
Blue Mounds Ins. Co.....	Blue Mounds.....	697,825	187,300	1,339 50	5,342 38	2,296 86	337 42	.....
Bristol Mut. Fire Ins. Co.....	Bristol.....	302,189	107,205	600 00	7,745 61	676 28	37 83	.....
Bohemian Mut. Far. Ins. Co.....	Kossuth	793,278	255,380	4,097 17	12,795 54	2,795 63	345 71	.....
Belgium Mut. Far. Ins. Co.....	Belgium	176,288	19,939	53 60	724 10	253 54	74 83	.....
Bohemian Far. Mut. Ins. Co.....	Eastman.....	125,861	25,212	105 00	814 00	404 96	57 42	.....
Burnett Mut. Fire Ins. Co.....	Burnett.....	449,337	158,629	729 68	4,025 42	1,304 67	950 75	.....
Courtland Mut. Ins. Co.....	Courtland.....	221,660	98,451	360 00	1,664 77	512 53	78 50	.....
Concord Mut. Ins. Co.....	Concord.....	481,700	117,175	8 00	5,532 52	334 37	33 00	.....
Cottage Grove Ins. Co.....	Cottage Grove.....	1,112,628	301,435	1,417 15	7,762 09	2,576 62	516 04	28 00
Crystal Lake Far. Mut. Ins. Co.....	Crystal Lake.....	467,864	159,949	857 40	5,382 90	1,127 11	218 30	77 70
Caledonia Far. Mut. Ins. Co.....	Caledonia	165,085	.....	65 28	3,786 53	338 84	25 50	.....
Cedarburg Mut. Fire Ins. Co.....	Cedarburg	2,601,900	667,134	4,722 90	20,427 88	8,659 14	1,252 19	1,110 00
Columbus Mut. Fire Ins. Co.....	Columbus	515,643	103,085	None	5,436 00	173 52	108 55	.....
Calumet County Mut. Ins. Co.....	New Holstein.....	2,642,444	779,111	5,920 31	50,311 13	10,881 09	6,880 02	.....
Darlington Mut. Fire Ins. Co.....	Darlington	1,424,774	775,165	1,511 65	13,239 18	2,231 59	419 51	.....
Dodgeville F. F. Mut. Fire Ins. Co.....	Dodgeville.....	100,535	43,930	None.	798 00	228 65	18 50	.....
Deutsche Gegenseitige Far. Fire Ins. Co.....	Mishicott.....	600,296	274,573	680 50	6,824 50	3,140 04	288 10	50 00
Dupont Far. Mut. Ins. Co.....	Dupont.....	302,069	65,952	2,265 87	2,510 87	2,232 36	106 61	.....
Ettrick Scandinavian Far. Fire Ins Co.....	Ettrick.....	1,081,101	257,840	1,453 98	8,469 72	2,124 12	460 66	102 00

Town Insurance Companies.

COMMISSIONER OF INSURANCE.

TABLE NO. II.—TOWN INSURANCE COMPANIES—Continued.

NAME OF COMPANY.	LOCATION.	Amount in force Jan. 1, 1889.	Amount insured during the year 1889.	Amount of losses paid during the year 1889.	Amount of losses paid since organization.	Receipts during 1889.	Expenses during 1889.	Losses unpaid, 1889.
Elba Mut. Fire Ins. Co	Elba	\$1,537,153	\$355,560	\$1,913 14	\$15,232 64	\$2,832 38	\$429 93	\$300 00
Eagle Point Mut. Fire Ins. Co	Eagle Point	861,862	324,498	1,600 50	4,841 26	416 30	235 46	.....
Far. Town Ins. Co., Empire and Friendship.	Fond du Lac	587,869	90,145	None	7,000 00	405 17	163 45	.....
Farmer's Mut. Fire Ins. Co	Ripon	1,136,874	311,154	2,197 60	15,244 57	3,554 81	647 59	.....
Farmers' Mut. Fire Ins. Co	Johnstown	195,245	45,500	None	.....	.....	.....	.....
Farmers' Mut. Fire Ins. Co	Sparta	318,864	52,610	647 00	8,380 00	1,028 52	108 11	28 00
Farmers' Home Mut. Ins. Co	Little Chute	86,750	20,850	None	335 50	127 30	82 50	.....
Farmers' Mut. Fire Ins. Co	Geneva	1,005,565	204,872	413 00	7,072 00	1,012 87	.....	105 00
Farmers' Mut. Fire Ins. Co	Walworth	221,264	46,840	70 00	1,941 54	66 24	57 90	.....
Farmington Mut. Fire Ins. Co	Farmington	383,712	84,275	169 50	990 50	178 09	148 75	.....
Farmers' Mut. Fire Ins. Co	Franklin	1,209,068	318,109	139 00	5,178 09	481 40	273 65	.....
Farmers' Fire and Lightning Ins. Co	Mazomanie	197,241	55,861	None	842 10	96 00	85 70	None
Farmers' Mutual Ins. Co	Albany	46,902	18,365	121 90	1,865 18	223 59	71 00	.....
Franklin Farmers' Fire Ins Co	Sauk	608,352	719,301	62 00	1,768 33	417 26	322 26	.....
Farmers' Mutual Fire Ins. Co	Newark	342,485	84,150	1,708 87	7,903 22	1,868 40	108 25	163 00
Farmers' Mutual Fire Ins. Co	Center	204,759	42,190	581 50	3,815 95	451 62	69 00	.....
Farmers' Mutual Fire Ins. Co	Dover and Norw'y	467,521	125,045	150 00	2,574 54	193 13	113 85	.....
Farmers' Mutual Fire Ins. Co	Lake	285,987	56,075	620 00	891 73	41 00	1 15	.....
Fountain City Mutual Farmers' Fire Ins. Co	Fountain City	1,533,677	422,850	1,748 40	15,316 61	4,514 45	1,103 10	1,285 15
Farmers' Ins. Co	Tomah	*700	*179	878 18	10,572 68	1,431 36	183 22	775 00
Farmers' Mutual Ins. Co	Woneoc	359,167	77,860	727 50	.....	969 97	225 99	.....
Farmers' Mutual Ins. Co	Sugar Creek	1,161,448	317,368	752 00	15,089 85	1,147 39	378 00	471 85
Farmers' Mutual Ins. Co	New Berlin	410,630	109,114	1,720 00	6,330 45	1,791 57	246 43	475 00
Farmers' Mutual Ins. Co	Hustisford	1,866,177	342,470	1,585 00	24,998 97	4,490 96	1,727 95	.....
Farmers' Fire Ins. Co	Newton	951,495	137,647	1,679 33	9,574 08	2,022 03	268 30	.....
Farmers' Mutual Fire Ins. Co	Waukesha	2,423,857	595,215	4,723 30	23,740 69	5,227 87	185 73	.....
Farmers' Mutual Fire Ins. Co	Wayne & Gratiot	316,150	43,245	441 59	2,689 40	646 82	50 78	.....
Farmers' Mutual Fire Ins. Co	Bristol	278,293	358,403	None	1,752 42	73 63	2 85	.....
Farmers' Mutual Fire Ins. Co	Harmony	622,201	153,426	562 20	.....	1,073 35	333 91	2,623 95
Farmers' Mutual Fire Ins. Co	Mukwanago	785,644	244,665	497 00	5,988 15	660 28	541 93	.....
Farmers' Home	Ellington	2,931,593	697,932	4,296 60	18,031 10	9,614 43	2,966 21	629 70

Town Insurance Companies.

REPORT OF THE

Farmers' Mutual Fire Ins. Co.	Medina	985,275	196,811	1,482 30	3,870 58	1,722 33	216 87	.....
Farmers' Mutual Fire Ins. Co.	Union	54,045	109,640	None	1,208 42	339 94	165 29	.....
Farmers' Mutual Fire Ins. Co.	Wauwatosa	663,629	210,095	180 91	2,982 28	199 10	268 25	600 00
Farmers' Mutual Fire Ins. Co.	Dunn	686,830	190,945	1,897 50	17,858 40	2,077 12	314 02	758 25
Farmers' Mutual Fire Ins. Co.	Greenfield	667,140	160,760	328 25	5,517 75	310 27	71 70	.....
Fall Creek Farmers' Mutual Fire Ins. Co.	Fall Creek	311,667	59,610	10 00	3,766 15	150 99	76 01	.....
Farmers' Mutual Fire Ins. Co.	Burlington	561,075	109,875	50 00	4,952 65	109 89	163 46	200 00
German Farmers' Mutual Fire Ins. Co.	Montpelier	1,176,319	285,742	3,281 67	32,867 25	2,965 47	5,204 68	1,692 84
Gesemeitige Far Versicherungs Gessschaft.	Manitow'c Rapids	1,137,403	395,274	434 50	6,264 65	3,062 30	420 18	.....
German Mutual Fire Ins. Co.	Marion	230,838	60,494	48 00	931 05	83 91	24 14	.....
German Mutual Fire Ins. Co.	Liberty	663,907	171,107	426 86	7,435 34	620 70	103 40	.....
Hartland Farmers' Mutual Ins. Co.	Hartland	574,617	119,160	877 00	2,283 81	425 03	59 00	.....
Holland Farmers' Mutual Ins. Co.	Holland	214,595	68,125	767 00	3,129 50	701 46	100 22	.....
Henrietta Greenwood Ins. Co.	Richland	51,670	3,992	None	238 26	51 55	11 80	.....
Ixonia Mutual Fire Ins. Co.	Ixonia	421,937	136,100	1,266 95	7,090 81	1,357 17	42 65	.....
Irving Mutual Fire Ins. Co.	Irving	345,275	161,199	929 00	5,136 94	720 48	633 79	412 50
Jamestown Fire Ins. Co.	Jamestown	140,459	45,685	40 00	90 00	160 00	49 35	.....
Lisbon Fire Ins. Co.	Lisbon	436,000	120,255	2,370 40	6,080 58	2,762 69	161 10	.....
Lima Fire Ins. Co.	Lima	314,020	90,070	206 00	6,203 00	216 21	205 15	.....
Lynn Fire Ins. Co.	Lynn	752,640	251,093	1,244 50	12,547 50	2,103 82	316 50	.....
Lindina Fire Ins. Co.	Lindina	454,179	89,024	1,674 50	5,987 00	1,876 80	198 76	.....
Lodi Farmers' Mutual Fire Ins. Co.	Lodi	260,796	54,645	950 00	6,325 65	1,163 49	73 50	101 00
La Prairietown Fire Ins. Co.	La Prairie	1,292,896	197,492	5,322 44	21,909 52	6,092 62	659 02	None
Linden Town Far. Mut.	Linden	252,115	38,050	112 00	2,724 25	234 25	74 95	.....
Luck Mut. Far. Mutual	Luck	268,936	76,156	37 00	836 98	194 06	140 00	.....
Lebanon Far. Mut. Ins. Co.	Lebanon	140,275	21,599	None	133 64	32 05	None.	None
Little Black Far. Mut. Ins. Co.	Little Black	115,086	249	None	None	1,148 96	339 31	None
Lower Sugar Bush Ins. Co.	Peshtigo	.....	.....	None	None	509 26	55 72	None
Mutual Fire Ins. Co.	Watertown	675,111	140,886	470 75	4,044 30	1,327 05	255 21	.....
Mutual Fire Ins. Co.	Clarno	336,348	105,235	1,040 00	1,808 00	869 89	36 20	.....
Mutual Fire Ins. Co.	Herman	2,922,812	604,308	2,285 73	26,210 87	3,218 77	780 15	.....
Mutual Fire Ins. Co.	Calamus	234,799	60,445	38 00	3,274 33	132 35	31 55	.....
Mutual Fire Ins. Co.	Marshfield	1,967,514	640,632	3,318 37	16,945 82	4,512 71	1,412 67	.....
Meeme Mut. H. P. T. Fire Ins. Co.	Meeme	2,155,618	370,109	1,704 09	20,413 28	5,517 03	240 08	1,234 00
Menomonee Granville & German Ins. Co.	Menomonie	2,155,746	537,665	3,226 04	20,803 96	3,734 45	508 43	523 88
Merrimack Mut. Far. Fire	Merrimack	928,771	225,569	174 50	15,265 46	727 19	308 34	.....
Marquette Mut. Far. Fire	Marquette	403,571	103,781	1,000 15	5,652 91	1,226 10	225 52	.....
Mut. Ins. Co.	Hampden	191,660	87,800	None	1,562 00	14 00	12 75	.....
Montpelier Mut. Ins. Co.	.....	188,803	16,340	None	None	22 09	35 84	.....
Mutual Fire and Lightning	Brighton	251,980	62,155	33 00	760 25	.....	3 25	.....

Town Insurance Companies.

COMMISSIONER OF INSURANCE.

TABLE No. II.—TOWN INSURANCE COMPANIES—Continued.

NAME OF COMPANY.	LOCATION.	Amount in force Jan. 1, 1889.	Amount insured during the year 1889.	Amount of losses paid during the year 1889.	Amount of losses paid since organization.	Receipts during 1889.	Expenses during 1889.	Losses unpaid, 1889.
Middleton Fire and Lightning.....	Middleton.....	\$955,714	\$285,270	\$125 00	\$6,107 72	\$854 32	\$167 78	.....
Mt. Pleasant Town Ins. Co.....	Monticello.....	938,168	238,115	514 85	8,758 77	2,582 30	181 88	.....
Mt. Morris Norwegian Mut. Ins. Co.....	Mt. Morris.....	200,687	32	None	680 50	168 86	33 05	.....
Martell Fire Ins. Co.....	Martell.....	297,922	101,045	220 91	2,810 91	393 72	141 93	.....
Mutual Fire Ins. Co.....	Winnebago.....		84,650	None	None	121 50	122 00	.....
Mutual Fire Ins. Co.....	Oconomowoc.....	354,560	91,565	37 00	2,801 85	267 77	61 25	.....
Nekimi Fire Ins. Co.....	Nakimi.....	554,157	240,545	8 39	1,596 39	478 33	70 40	.....
New Hope Norwegian Mut. Fire.....	New Hope.....	162,053	42,901	60 00	255 00	201 12	86 48	.....
New Denmark Mut. Home Fire Ins. Co.	New Denmark.....	753,908	232,547	4,147 70	14,392 63	5,679 79	719 96	.....
Oakland Mutual Fire Ins. Co.....	Oakland.....	420,303	123,825	474 00	10,063 30	612 56	106 06	.....
Oak Grove Mut. Fire.....	Oak Grove.....	395,408	80,764	100 00	3,014 88	148 37	35 61	\$323 30
Oakfield Ins. Co.....	Oakfield.....	817,211	216,955	1,465 92	24,689 49	1,979 98	237 76	.....
Princeton & St. Marie Ins. Co.....	Princeton.....	248,008	90,728	16 50	982 50	90 08	56 50	.....
Paris Mut. Fire Ins. Co.....	Paris.....	264,279	72,170	None	3,296 86	44 25	53 20	.....
Perry Fire.....	Perry.....	540,052	192,107	257 50	7,237 13	720 90	337 33	.....
Primrose Ins. Co.....	Primrose.....	511,904	59,540		922 15	133 48	13 00	.....
Pleasant Prairie.....	Pleasant Pr.....	123,559	126,809		1,000 00	44 25	23 10	.....
Pella F. Mut.....	Pella.....	394,760	33,469	377 00	3,604 75	1,121 35	268 07	530 00
Plymouth Farmers' Fire.....	Plymouth.....	*803	*166	2,546 52		2,990 50	108 85	.....
Pigeon Mut. Fire.....	Pigeon.....	270,828	60,403	640 00	1,454 45	502 26	55 15	.....
Randolph and Scott Ins. Co.....	Randolph.....	410,450	117,445	200 00	4,136 89	938 15	32 00	.....
Richmond Ins. Co.....	Richmond.....	33,420	10,850	5 00	5 00	55 35	8 00	.....
Raymond Mut. Ins. Co.....	Raymond.....	468,591	142,285	724 00	14,766 32	806 49	41 00	.....
Rockland.....	Rockland.....	219,280	124,880	500 00	503 00	678 89	203 72	.....
River Falls Mut. Fire Ins. Co.....	River Falls.....	236,105	91,060	337 00	3,119 50	357 09	62 25	None
Sullivan Mut. Fire Ins. Co.....	Rome.....	592,888	129,898	95 21	2,258 17	361 67	85 00	None
Shelby Far. Mut. Ins. Co.....	Shelby.....	1,617,105	428,240	2,867 62	23,533 88	3,574 81	645 68	None
Stockholm Town Ins. Co.....	Stockholm.....	913,000	64,000	205 34	2,497 13	432 80	83 43	None
Summit Mut. Fire Ins. Co.....	Summit.....	387,797	133,320	None	1,663 84	84 25	53 34	None
Somers M. F. Ins. Co.....	Somers.....	464,215	116,570	541 75	3,854 17	665 25	134 68	23 62
Scandinavian Mut. Town Ins. Co.....	ManitowocRapid	386,202	141,673	733 85	3,072 65	1,166 28	174 91	None

Town Insurance Companies.

COMMISSIONER OF INSURANCE.

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Town Insurance Companies.

Saukville Mut. Town Ins. Co.....	Saukville.....	*811	*161	1,475 99	16,516 65	1,288 36	276 08	56 00
Salem Mut. Town Ins. Co	Salem.....	236,125	101,875	None	1,439 20	96 50	86 50	None
Spring Prairie Far. Town Ins. Co.....	Spring Prairie....	698,665	149,280	1,244 00	7,221 15	1,352 62	268 54	None
Sevastopol Fire Town Ins. Co	Sevastopol.....		446,131	None.		561 11	382 99	
Stockton Fire Town Ins. Co.	Stockton.....	685,910	125,303	2,492 65	8,475 00	3,625 72	366 40	600 00
Theresa Mut. Fire Town Ins. Co.....	Theresa.....	1,334,664	665,360	2,793 25	9,362 25	3,580 93	239 31	250 00
Trenton Mut. Fire Town Ins. Co.....	Trenton.....	412,590	149,930	187 74	6,020 94	463 12	169 35	360 00
Trade Lake Town Ins. Co.....	Trade Lake.....	297,225	80,600	763 45	1,262 19	320 78	103 70	235 00
Utica Fire Ins. Co.....	Elo.....	896,117	221,523	594 00	8,119 48	1,105 20	210 85	
Utica Far. Mut.....	Utica.....	467,158	157,159	486 60	1,629 55	664 31	115 24	
Vernon Mut.	Vernon.....	787,954	166,856	717 40	4,218 59	1,088 44	303 32	
Vinland Fire.....	Vinland.....	1,153,225	237,475	3,688 67	20,763 67	3,394 66	193 30	
West Bend Fire.....	Polk.....	2,138,865	470,575	2,439 50	13,037 52	3,027 98	334 61	237 00
Wrightstown Far. Mut.....	Wrightstown.....	1,104,245	203,003	607 96	13,093 85	1,694 54	763 78	
Wilson Town Mut. Fire.....	St. George.....	2,018,051	487,789	1,752 52	22,032 51	1,748 52	338 54	
Westfield Mut. Far. Fire.....	Westfield.....	445,880	105,370	2 00	5,657 12	235 40	185 10	411 35
Winchester Fire.....	Winchester.....	366,958	62,965	619 40	3,146 48	775 06	102 51	
Waterford Far. Mut.....	Waterford.....	404,635	85,330	342 38	1,194 12	259 14	124 93	
Warren Mut.....	Warren.....	539,414	79,368	326 85	1,396 49	357 80	764 37	
Waupaca Fire.....	Waupaca.....	268,527	61,600	420 00	10,551 78	557 00	93 96	
Waupun Fire Mut.....	Waupun.....	1,011,025	287,240	4,163 50	12,096 56	4,639 85	476 85	
Yorkville and Mt. Pleasant.....	Yorkville.....	1,042,422	309,780	680 00	5,056 05	1,654 29	785 97	

*Policies issued, amount not shown.

LIST OF LIFE INSURANCE COMPANIES TRANSACTING BUSINESS IN WISCONSIN.

TABLE NO. 1.

NAME OF COMPANIES.	LOCATION.	OFFICERS.		Commenced business.
		President.	Secretary.	
Wisconsin Life Companies.				
Northwestern Mutual Life.....	Milwaukee, Wis.....	H. L. Palmer.....	J. W. Skinner	Nov. 25, 1858
Companies of Other States.				
<i>Ætna</i> Life Ins. Co.....	Hartford, Conn.....	Morgan G. Bulkeley.....	J. L. English.....	Year 1850
Connecticut Mutual Life Ins. Co.....	Hartford, Conn.....	Jacob L. Greene.....	Edward M. Bunce.....	Dec. 15, 1846
Equitable Life Assurance Society of the U. S.....	New York city, N. Y.....	Henry B. Hyde.....	Wm. Alexander.....	July 28, 1859
Germania Life Ins. Co.....	New York city, N. Y.....	Hugo Wesendonck	C. Doremus.....	July 16, 1860
Home Life Ins. Co.....	Brooklyn, N. Y.....	Geo. C. Ripley.....	Geo. H. Ripley.....	May 1, 1860
Life Indemnity and Investment Co.....	Sioux City, Iowa.....	Matt. Parrott.....	C. E. Mabie.....	Nov. 1, 1881
Massachusetts Mutual Life Ins. Co.....	Boston, Mass.....	M. V. B. Edgerly.....	Jno. A. Hall.....	Aug. 1, 1851
Manhattan Life Ins. Co.....	New York city, N. Y.....	James M. McLean.....	Henry Y. Wemple	Aug. 1, 1850
Metropolitan Life Ins. Co.....	New York city, N. Y.....	Joseph F. Knapp.....	Jno. R. Hegeman.....	Jan. —, 1867
Mutual Life Ins. Co.....	New York city, N. Y.....	Richard A. McCurdy.....	Wm. J. Easton.....	Feb. 1, 1843
Mutual Benefit Life Ins. Co.....	Newark, N. J.....	Amzi Dodd.....	Edward L. Dobbins	Apr. —, 1845
Michigan Mutual Life Ins. Co.....	Detroit, Mich.....	J. S. Farrand.....	O. R. Looker.....	Nov. 12, 1867
New England Mutual Life Ins. Co.....	Boston, Mass.....	Benjamin F. Stevens.....	S. F. Trull.....	Dec. 1, 1843
New York Life Ins. Co.....	New York city, N. Y.....	William H. Beers.....	Henry Tuck.....	Year 1845
Penn Mutual Life Ins. Co.....	Philadelphia, Pa.....	Edward M. Needles.....	Henry C. Brown.....	May 23, 1847
Phoenix Mutual Life Ins. Co.....	Hartford, Conn.....	Jonathan B. Bunce.....	Chas. H. Lawrence.....	May —, 1851
Prudential Ins. Co. of America.....	Newark, N. J.....	John F. Dryden.....	Edward S. Johnson.....	Jan. 1, 1876
Provident Savings Life Ins. Co.....	New York city, N. Y.....	Sheppard Homans.....	William E. Stevens.....	Aug. 10, 1875
Pacific Mutual Life Ins. Co.....	San Francisco, Cal.....	Geo. A. Moore.....	J. N. Patton.....	Jan. —, 1868
Standard Life and Accident Ins. Co.....	Detroit, Mich.....	D. M. Ferry.....	Stewart Marks.....	Aug. 1, 1884

Travelers' Ins. Co.....	Hartford, Conn.....	James G. Batterson.....	Rodney Dennis.....	Apr. 1, 1864
Union Central Life Ins. Co.....	Cincinnati, Ohio.....	John Davis.....	E. P. Marshall.....	Year 1867
Union Mut. Life Ins. Co.....	Portland, Me.....	John E. De Witt.....	Arthur L. Bates.....	Oct. 1, 1849
Washington Life Ins. Co.....	New York city, N. Y.....	W. A. Brewer, Jr.....	Cyrus Munn.....	Feb. 2, 1860

ASSESSMENT LIFE ASSOCIATIONS.

Bankers' Life Association.....	St. Paul, Minn.....	Russell R. Dorr.....	Douglas Putnam.....	Aug. 6, 1880
Bankers' Life Association.....	Des Moines, Iowa.....	Edward A. Temple.....	A. C. Stilson.....	Sept. 2, 1879
Hartford Life and Annuity Ins. Co.....	Hartford, Conn.....	H. A. Whitman.....	Stephen Ball.....	Apr. —, 1867
Mutual Reserve Fund Life Association.....	New York city, N. Y.....	Edward B. Harper.....	Frederic T. Braman.....	Feb. 9, 1881

Officers.

Life Insurance Companies.

TABLE NO. II.—ASSETS.

NAME OF COMPANY.	Real estate.	Loans on bonds and mortgages.	Loans on collaterals.	Premium notes and loans on policies.	Stocks and bonds.	Cash in office and in bank.	Interest and rents.	Unpaid and deferred premiums.	All others admitted assets.	Total admitted assets.	Unadmitted assets.
Wisconsin Life Companies.											
Northwestern Mut. Life, Milwaukee..	\$1,188,630	\$30,033,434	.....	\$702,542	\$1,931,100	\$2,779,092	\$473,515	\$853,859	\$154,698	\$37,116,870	\$8,939
Companies of Other States.											
Aetna Life Ins. Co., Hartford.....	\$614,341	\$16,044,316	\$871,009	\$1,230,578	\$10,431,472	\$4,047,915	\$509,074	\$257,957	\$734,564	\$34,741,329	200
Connecticut Mut. Life, Hartford....	8,556,207	32,890,542	64,132	1,813,180	11,597,607	1,398,565	965,678	119,512	469,545	57,874,971	.....
Equitable Life Ass. Society, N. Y.....	24,653,296	23,637,874	2,705,000	.....	37,319,147	11,719,079	829,895	1,799,930	4,036,104	106,700,326	1,338,966
Germania Life, New York.....	1,532,651	7,347,814	400,000	219,633	4,163,842	299,017	127,880	347,013	388,116	14,825,966	.....
Home Life, New York.....	168,300	1,281,650	931,315	621,530	3,288,918	38,054	32,138	161,271	185,261	6,708,448	.....
Life Indemnity & Investment Co.....	.....	114,265	.....	10,059	.....	20,585	3,780	3,779	5,915	158,473	5,915
Manhattan Life, New York.....	276,416	4,120,430	3,821,562	855,179	1,815,363	200,538	115,870	301,782	221,200	11,729,400	.....
Metropolitan Life, New York.....	485,028	5,030,240	.....	130,108	2,574,766	226,976	94,861	39,429	16,060	8,597,468	.....
Mutual Life, New York.....	12,382,623	56,979,290	9,845,500	.....	47,015,519	2,988,623	999,902	2,647,901	3,540,859	136,401,328	716,446
Mutual Benefit Life, N. J.....	200,000	22,260,431	3,903,508	4,217,703	11,271,452	762,594	636,572	398,808	1,586,268	45,237,337	374
Michigan Mut. Life, Mich.....	137,792	2,017,402	185,305	5,222	1,848	31,745	72,700	137,510	24,057	2,613,313	.....
Massachusetts Mut. Life.....	390,225	3,576,257	1,020,282	547,027	3,882,302	201,917	152,078	329,551	316,176	10,415,817	.....

Assets.

New York Life, New York	13,242,872	18,106,512	3,709,000	367,394	56,412,163	5,917,837	441,344	2,911,918	4,116,578	104,505,621	90,299
New Eng. Mut. Life, Boston	1,697,420	2,900,465	1,041,368	648,354	11,811,801	686,979	219,954	164,816	1,499,465	20,660,562	.....
Phoenix Mut. Life, Conn	1,227,832	6,549,468	.....	883,158	903,431	116,158	186,447	67,924	68,306	10,002,742	.....
Prudential Ins. Co. of America, N. J.	363,022	2,873,708	293	.....	502,188	55,866	28,877	92,278	60,479	3,976,711	52,416
Pacific Mut. Life, California	118,659	1,886,378	29,611	56,025	177,075	122,757	68,990	139,774	48,411	2,147,681	36,363
Provident Savings, N. Y.	35,449	125,800	31,000	.....	334,630	70,106	8,485	94,363	15,811	715,645	10,494
Penn. Mut. Life, Phila. Penn.	813,808	4,499,207	1,936,699	555,061	6,260,161	152,876	110,488	403,205	442,571	15,174,078	.....
† Standard Life & Acc., Mich. ....	.....	277,000	.....	.....	35,000	75,484	9,640	131,548	314	528,938	314
Travelers, Hartford, Conn	1,484,842	3,344,722	628,440	.....	5,493,904	732,751	68,311	279,619	387,326	11,915,975	387,326
Union Central Life, Ohio	159,827	3,897,383	270,549	841,898	12,825	24,578	114,312	300,898	103,914	5,665,855	90,359
Union Mut. Life, Me.	1,143,220	1,331,405	295,843	460,120	2,517,685	203,410	68,685	118,784	24,462	6,158,616	1,273
Washington Life, New York	439,173	8,234,343	505,428	.....	341,741	32,445	94,900	290,366	135,004	10,073,371	.....
Totals	\$70,121,003	\$228,766,902	\$32,195,844	\$18,462,229	\$218,163,910	\$30,126,805	\$5,955,861	10,820,936	\$18,426,766	\$627,529,971	\$2,730,910

ASSESSMENT LIFE ASSOCIATIONS.

Bankers Life Ass. St. Paul, Minn .....	.....	.....	.....	.....	\$167,232	\$34,317	\$76	.....	\$39,274	\$241,900	.....
Bankers Life Ass., Des Moines .....	.....	\$383,835	.....	\$161,802	18,000	44,102	8,039	.....	.....	615,778	.....
Hartford Life & Accident, Conn.	\$209,096	269,774	\$85,439	.....	139,164	33,500	7,249	\$415	953,109	1,697,745	.....
Mut. Reserve Fund Life Ass., N. Y. ....	.....	1,797,000	.....	.....	51,000	563,401	20,279	.....	106,188	2,537,868	.....
Totals	\$209,096	\$2,450,609	\$85,439	\$161,802	\$375,396	\$675,320	\$35,641	\$415	1,098,571	\$5,093,291	.....

† Does accident business only in Wisconsin.

NOTE.—This table does not show contingent assets or liabilities of Assessment Companies.

TABLE No. III.—LIABILITIES.

NAME OF COMPANY.	Losses and policy claims.	Net premiums reserve at 4½ per cent.	Dividends to policyholders unpaid.	All other claims.	Total liabilities except capital.	Surplus as to policy holders.	Capital stock.	Net surplus.
Wisconsin Life Companies.								
Northwestern Mutual Life, Milwaukee, Wis.....	\$188,975	\$31,145,787	\$10,000	\$131,160	\$31,475,922	\$5,640,947	.....	\$5,640,947
Companies of Other States.								
Aetna Life, Conn.....	\$211,149	\$28,604,401		\$180,688	\$28,996,238	\$5,744,891	\$1,250,000	\$4,494,891
Connecticut Mut. Life.....	122,175	51,932,780	\$255,362	484,478	52,794,795	5,080,176	.....	5,080,176
Equitable Life Ass. Society, N. Y..	308,071	83,796,993	97,753	126,417	84,329,234	21,032,125	100,000	20,932,125
Germania Life, New York.....	96,721	12,736,657	56,305	48,076	12,937,759	1,888,206	200,000	1,688,206
Home Life, New York.....	18,503	4,973,586	15,928	3,958	5,011,975	1,696,473	125,000	1,571,473
Life Indemnity and Investment Co.	16,250	29,434			45,684	106,874	.....	106,874
Manhattan Life, N. Y.....	130,485	9,870,765	51,134	22,060	10,074,444	1,654,956	100,000	1,554,956
Metropolitan Life, N. Y.....	24,656	6,152,701	4,125	818,764	7,000,246	1,597,221	1,000,000	597,221
Mutual Life, New York.....	263,964	118,235,996	41,854	77,868	118,619,682	17,065,199	.....	17,065,199
Mutual Benefit Life, N. J.....	215,161	38,976,200	204,835	4,732	39,400,928	5,836,035	.....	5,836,035
Michigan Mutual Life, Mich.....	30,670	2,184,326		357	2,215,353	397,960	250,000	147,960
Massachusetts Mut. Life.....	23,828	9,502,188	30,359	2,099	9,558,475	857,342	.....	857,342
New York Life, N. Y.....	886,491	87,834,520		40,047	88,761,058	15,654,263	.....	15,654,264
New Eng. Mut. Life, Boston.....	127,245	16,851,476	106,195		17,084,916	3,575,645	.....	3,575,645
Phoenix Mut. Life, Conn.....	44,287	8,309,485		594,358	8,948,130	1,054,612	.....	1,054,612
Prudential Ins. Co. of America, N. J.....		2,518,510			2,518,510	1,405,785	418,600	987,185
Pacific Mut. Life, California.....	21,074	1,812,626			1,833,700	277,617	100,000	177,617
Provident Savings, N. Y.....	80,409	243,146			323,555	392,090	100,000	292,090
Penn Mut. Life, Phila.....	115,125	11,937,318	44,768	400,818	12,498,029	2,676,048	.....	2,676,048
*Standard Life and Acc., Mich.....	18,500	256,986		36,176	311,662	216,960	200,000	16,960
Travelers, Conn.....	199,500	7,580,895		10,000	7,790,395	3,738,254	600,000	3,188,254

Life Insurance Companies.

Union Central Life, Ohio	24,976	4,447,674	337	323,830	4,796,827	778,669	100,000	678,669
Union Mut. Life, Me	51,518	5,418,608	3,717	26,390	5,500,233	658,382	.....	658,382
Washington Life, N. Y.	16,921	9,069,280	.....	9,949	9,096,150	977,220	125,000	852,220
Totals	\$3,047,679	\$523,276,551	\$912,672	\$3,229,976	\$530,447,978	\$94,363,003	\$4,668,600	\$89,694,403

ASSESSMENT LIFE ASSOCIATION

Bankers' Life Ass., St. Paul .....	.....	.....	.....	.....	.....	\$241,900	.....	\$241,900
Bankers' Life Ass., Iowa .....	.....	.....	.....	\$372	\$372	615,406	.....	615,406
Hartford Life Annuity, Conn.	\$209,500	.....	.....	777,913	987,413	710,331	\$250,000	460,331
Mutual Reserve Fund Life Ass., N.Y. ....	.....	.....	\$286,585	10,275	296,860	2,241,007	.....	2,241,007
Totals	\$209,500	.....	\$286,585	\$788,560	\$1,284,645	\$3,808,644	\$250,000	\$3,558,644

NOTE.— Contingent mortuary liabilities of Assessment Co.'s not shown in this table.

* Does only accident business in Wisconsin.

Liabilities.

Life Insurance Companies.

TABLE No IV.—INCOME.

NAME OF COMPANY.	Premiums.	Interest, dividends, and rents.	Cash from other sources.	Total income.	Excess of income over expendi- tures.	Excess of expendi- tures over in- come.	Expendi- tures.
Wisconsin Life Companies.							
Northwestern Mut. Life, Milwaukee	\$7,347,193	\$2,032,265	.....	\$9,379,458	\$4,118,613	.....	\$5,260,845
Companies of Other States.							
Aetna Life, Conn.....	\$3,738,702	\$1,735,324	\$42,743	\$5,516,769	\$915,737	.....	\$4,601,032
Connecticut Mut. Life.....	4,418,336	2,655,536	627,349	7,701,221	784,822	.....	6,916,399
Equitable Life Ass. Society, N. Y.....	25,357,522	5,035,266	.....	30,393,288	12,546,336	.....	17,846,952
Germania Life, New York.....	2,256,811	704,849	1,340	2,963,000	856,507	.....	2,106,493
Home Life, New York.....	930,301	293,886	729	1,224,916	316,802	.....	908,114
Life Indemnity and Investment Co.....	107,404	7,577	164	115,145	35,066	.....	80,079
Manhattan Life, N. Y.....	1,762,957	487,101	.....	2,250,058	128,340	.....	2,121,718
Metropolitan Life, N. Y.....	8,342,945	377,822	4,429	8,725,196	2,274,960	.....	6,450,236
Mutual Life, N. Y.....	23,727,858	6,124,060	4,644,165	34,496,083	12,866,581	.....	21,629,502
Mutual Benefit, N. J.....	5,583,835	2,315,823	.....	7,898,658	1,656,827	.....	6,242,831
Michigan Mut. Life, Mich.....	676,319	133,744	.....	810,063	294,212	.....	505,851
Massachusetts Mut. Life.....	1,867,547	505,126	39,495	2,412,168	889,837	.....	1,622,331
New York Life, N. Y.....	24,242,517	4,587,605	.....	28,830,122	10,954,173	.....	17,875,949
New Eng. Mut. Life, Boston.....	2,628,885	982,376	60,875	3,672,136	868,310	.....	2,803,822
Phoenix Mut. Life, Conn.....	648,699	620,448	.....	1,269,147	.....	129,947	1,399,094
Prudential Ins. Co. of America, N.....	4,442,833	157,650	815	4,601,298	1,012,010	.....	3,589,288
Pacific Mut. Life, Cal.....	686,392	133,157	.....	819,549	168,026	.....	651,523
Provident Savings, N. Y.....	1,343,630	17,184	.....	1,360,814	66,257	.....	1,294,557
Penn. Mut. Life, Phila.....	3,084,562	782,177	41,703	3,908,442	1,346,473	.....	2,561,968
Standard Life and Acc., Mich.....	506,681	15,854	.....	522,535	28,648	.....	493,887
Travelers, Conn.....	3,436,536	552,272	.....	3,988,808	213,995	.....	3,774,813
Union Central Life, Ohio.....	2,068,340	270,219	.....	2,338,559	1,018,501	.....	1,320,058

Union Mut. Life, Me.....	724,116	259,805	17,194	1,001,115	157,853	.....	843,262
Washington Life, N. Y.	1,975,824	462,442	93,662	2,531,928	683,252	.....	1,848,676
	\$124,559,552	\$29,217,803	\$5,574,563	\$159,351,918	\$50,083,525	\$129,947	\$109,488,436

ASSESSMENT LIFE ASSOCIATIONS.

	Rec'd from members.						
Bankers' Life Ass., St. Paul.....	\$168,510	\$5,735	\$13,139	\$187,384	\$33,393	.....	\$153,991
Bankers Life Ass., Des Moines.....	258,140	25,092	584	283,816	135,785	.....	148,031
Hartford Life and Security, Conn.....	1,134,369	33,900	15	1,168,284	28,440	.....	1,139,844
Mutual Reserve Fund Life Ass., N. Y.....	3,032,118	72,191	4,286	3,108,595	558,835	.....	2,549,760
	\$4,593,137	\$136,918	\$18,024	\$4,748,079	\$756,453	.....	\$3,991,626

Income.

Life Insurance Companies.

TABLE NO. V.—EXPENDITURES.

NAME OF COMPANY.	Losses and claims.	Laps'd, surrendered and purchased policies.	Dividends to policy holders.	Dividends to stockholders.	Commissions.	Salaries, medical fees, and other charges of employes.	All other expenditures.	Total expenditures.
Wisconsin Life Companies.								
Northwestern Mut. Life, Milwaukee	\$2,347,066	\$266,007	\$928,048	.....	\$1,106,650	\$227,974	\$384,100	\$5,260,845
Companies of Other States.								
Aetna Life, Conn.....	\$2,686,902	\$342,118	\$612,421	\$125,000	\$494,995	\$136,237	\$203,359	\$4,601,032
Connecticut Mutual Life.....	4,179,092	494,391	1,165,430	.....	272,871	160,551	643,663	6,916,399
Equitable Life Ass. Society, N. Y..	8,087,379	2,273,084	1,482,394	7,000	2,540,232	923,973	2,532,890	17,846,952
Germania Life, New York ..	1,141,200	132,115	264,468	24,000	314,513	175,043	55,164	2,106,493
Home Life, New York	399,720	91,273	137,903	15,000	143,669	99,925	22,453	908,114
Life Indemnity and Investment Co.	43,175	.....	60	.....	7,812	19,603	9,428	80,079
Manhattan Life, N. Y.....	1,034,656	231,506	175,425	24,000	429,957	125,004	101,170	2,121,718
Metropolitan Life, N. Y.	3,045,194	34,473	27,847	52,500	1,352,421	1,051,317	386,484	6,450,236
Mutual Life, N. Y.....	9,657,695	3,254,036	2,288,877	.....	4,220,600	783,143	1,425,150	21,629,502
Mutual Benefit, N. J.....	2,994,575	691,821	1,353,420	.....	627,099	177,456	398,459	6,242,831
Michigan Mutual Life, Michigan....	201,393	17,927	59,026	17,500	116,181	50,352	43,470	505,851
Massachusetts Mutual Life	687,991	178,240	225,777	.....	225,885	194,813	109,624	1,622,331
New York Life, N. Y.....	7,412,848	2,240,945	2,467,328	.....	3,735,141	748,392	1,271,295	17,875,949
New England Mutual Life, Boston.	1,449,967	243,064	561,011	.....	208,722	117,665	223,493	2,803,822
Phoenix Mut. Life, Conn.....	900,309	127,356	119,577	12,000	46,852	80,415	111,585	1,399,094
Prudential Ins. Co. of America.....	1,327,856	3,467	.....	41,860	1,168,568	860,711	146,825	3,589,288
Pacific Mutual Life, Cal.....	315,812	67,311	32,123	10,000	121,445	67,904	36,928	651,523
Provident Savings, N. Y.....	550,203	2,073	372,469	.....	152,172	83,651	133,989	1,294,557
Penn Mut. Life and Acc., Penn.....	1,041,230	216,433	532,384	.....	346,354	241,403	184,165	2,561,969
* Standard Life and Acc., Mich.....	256,064	.....	.....	.....	140,459	45,874	51,490	493,887
Travelers, Conn.....	1,488,993	90,870	.....	96,000	693,744	320,948	1,093,257	3,774,813
Union Central Life, Ohio	322,317	295,746	32,580	10,000	318,404	234,689	106,087	1,320,058

Expenditures.

Union Mut. Life, Me	485,015	39,473	25,355	.....	52,583	155,782	85,052	843,262
Washington Life, N. Y.	833,239	268,805	177,564	8,690	181,643	173,770	204,964	1,848,676
Totals	\$50,542,825	\$11,336,527	\$12,113,757	\$443,550	\$17,912,722	\$7,028,421	\$10,080,444	\$109,488,436

ASSESSMENT LIFE ASSOCIATIONS.

Bankers' Life Ass., St. Paul	\$109,489	.....	.....	.....	\$19,155	\$18,924	\$6,422	\$153,991
Bankers' Life Ass., Des Moines.	90,492	.....	.....	.....	32,155	17,402	7,982	148,031
Hartford Life and Annuity, Conn. ..	735,950	\$57,118	\$40,457	\$20,000	150,404	81,203	54,712	1,139,844
Mut. Reserve Fund Life Ass., N. Y. ..	1,836,031	.....	.....	.....	344,510	164,699	204,520	2,549,760
Totals	\$2,771,962	\$57,118	\$40,457	\$20,000	\$546,224	\$282,228	\$273,636	\$3,991,625

* Does accident business only in Wisconsin.

Ratio of Losses Paid to Amount at Risk.

**TABLE NO. VI.—RATIO OF LOSSES AND CLAIMS PAID
TO MEAN AMOUNT AT RISK.**

NAME OF COMPANY.	Com- menced business.	Mean amount at risk.	Losses and claims paid.	Percent- age.
<i>Wis. Life Companies.</i>				
Northwestern Mutual Life, Milwaukee....	1858	\$202,405,923	\$2,247,066	1.16
<i>Companies of Other Satets.</i>				
Ætna Life, Conn.....	1850	\$110,669,717	\$2,686,901	2.427
Connecticut Mut. Life Com.....	1846	151,739,494	4,179,092	2.756
Equitable Life Ass. Society, N. Y.....	1859	641,016,666	8,087,379	1.281
Germania Life, N. Y.....	1860	54,199,371	1,141,200	2.106
Home Life, N. Y.....	1860	25,879,171	399,720	1.545
Life Indemnity and Investment Co., Iowa.	1881	4,444,486	43,175	0.973
Massachusetts Mut. Life, Mass.....	1851	56,320,503	687,991	1.222
Manhattan Life, N. Y.....	1850	51,137,065	1,034,656	2.023
Metropolitan Life, N. Y.....	1867	3,986,592	3,045,194	76.386
Mutual Life, N. Y.....	1843	565,839,387	9,657,695	1.901
Mutual Benefit, N. J.....	1845	162,617,014	2,944,175	1.842
Michigan Mutual Life, Mich.....	1867	20,178,653	201,395	.998
New Eng. Mut. Life, Mass.....	1843	78,954,903	1,449,967	1.837
New York Life, N. Y.....	1845	495,601,970	7,412,848	1.496
Penn. Mut. Life, Pa.....	1847	78,902,420	1,041,230	1.320
Phoenix Mut. Life Com.....	1851	23,955,464	900,309	3.757
Prudential Ins. Co. of America, N. J.	1876	119,686,277	1,327,856	1.109
Provident Savings, N. Y.....	1875	60,954,208	550,203	0.903
Pacific Mut. Life, Cal.....	1868	40,193,900	315,812	0.786
*Standard Life and Acc., Mich.....	1884	58,729,800	256,064	0.436
Traders' Com.....	1864	44,978,549	1,488,993	3.310
Union Central Life, Ohio.....	1867	41,643,121	322,317	.774
Union Mut. Life, Me.....	1849	27,204,605	485,015	1.783
Washington Life, N. Y.,.....	1860	46,890,324	833,239	1.795
Totals.....		3,197,241,421	\$50,542,825	1.710

ASSESSMENT LIFE ASSOCIATIONS.

Bankers' Life Association, St. Paul, Minn.	1880	\$10,714,000	\$109,489	1.022
Bankers' Life Association, Des Moines....	1879	23,986,000	90,492	0.377
Hartford Life and Annuity Ins. Co., Conn.	1867	71,592,663	735,950	1.028
Mutual Reserve Fund Life Ass., N. Y.	1881	181,358,200	1,836,031	1.012
Totals.....		\$287,650,863	\$2,771,962	.964

*Does accident business only in Wisconsin.

Business in Wisconsin.

TABLE No. VII.—WISCONSIN BUSINESS OF LIFE INSURANCE COMPANIES, 1888.

NAME OF COMPANY.	POLICIES ISSUED.		POLICIES IN FORCE DEC. 31, 1888.		Pre- miums received.	Losses paid.
	No.	Amount	No.	Amount.		
<i>Wisconsin Life Companies</i>						
Northwestern Mutual Life, Milwaukee.....	2,138	\$4,631,587	12,678	22,788,449	\$722,393	\$259,724
<i>Companies of Other States.</i>						
Aetna Life, Conn.....	450	\$1,043,573	1,857	\$2,954,944	\$97,581	\$69,916
Connecticut Mut. Life, Conn.....	39	70,257	1,278	2,367,523	45,302	39,383
Equitable Life Ass. Society, N. Y....	357	1,599,173	2,085	5,406,768	192,734	50,275
Germania Life, N. Y.....	73	108,357	290	579,653	24,446	21,850
Home Life, N. Y.....	80	94,130	462	1,061,751	31,889	21,400
Life Indemnity and Investment Co., Iowa.....	110	139,000	99	120,000	2,303	.....
Massachusetts Mut. Life, Mass.....	5	6,218	120	250,254	7,027	5,150
Manhattan Life, N. Y.....	96	213,297	322	630,262	19,117	7,100
Metropolitan Life, N. Y.....	1	1,000	7,792	842,960	32,402	12,054
Mutual Life, N. Y.....	843	2,031,050	3,890	8,787,025	280,060	158,475
Mutual Benefit Life, N. J.....	62	156,574	678	1,338,167	36,874	41,752
Michigan Mut. Life, Mich.....	16	34,615	382	608,201	19,392	11,000
New Eng. Mut. Life, Mass.....	502	2,568,500	2,511	6,758,265	223,972	49,077
New York Life, N. Y.....	61	223,000	225	556,000	22,704	2,120
Phoenix Mut. Life, Conn.....	35	36,429	433	478,971	11,323	11,457
Prudential Ins. Co. of America, N. Y.*	3,927	345,935	1,212	122,342	4,257	195
Provident Savings, N. Y.....	101	253,000	326	938,500	20,305	8,928
Pacific Mut. Life, Cal.....	14	8,000	2	3,000	80	30
Standard Life and Ass, Mich.....	†.....	4,078,400	†.....	.....	29,854	22,027
Travelers', Conn.....	20	56,490	432	566,995	71,147	50,710
Union Central Life, Ohio.....	*3,240	8,258,175	†2,268	6,606,540	3,483	.....
Union Mut. Life, Me.....	57	87,000	56	79,434	4,187	1,500
Washington Life, N. Y.....	5	15,452	86	124,413	61,605	19,864
	334	413,133	1,356	1,832,658		
Totals.....	10,417	21,840,788	\$28,216	43,076,104	\$1,242,044	\$594,263

ASSESSMENT, LIFE ASSOCIATIONS.

Bankers' Life Association, St. Paul, Minn.....	12	\$24,000	70	\$140,000	\$5,434	.....
Bankers' Life Association, Des Moines.....	122	244,000	248	496,000	4,973	\$6,000
Hartford Life and Annuity Ins. Co., Conn.....	8	19,000	175	578,000	9,198	5,000
Mutual Reserve Fund Life Ass., N. Y.....	587	1,060,000	1,169	2,857,500	21,548	7,500
Totals.....	\$729	1,356,000	\$1,662	\$4,071,500	\$41,258	\$18,500

* Industrial business. † Accident business.

Business in Wisconsin.

TABLE NO. VIII.—WISCONSIN BUSINESS OF LIFE INSURANCE COMPANIES, 1889.

NAME OF COMPANY.	POLICIES IS- SUED.		POLICIES IN FORCE DEC. 31, 1889.		Premi- ums re- ceived.	Losses paid.
	No.	Amount.	No.	Amount.		
<i>Wisconsin Life Companies.</i>						
Northwestern Mutual Life	2,244	\$4,950,728	13,733	25,528,777	\$844,837	\$360,584
<i>Companies of Other States.</i>						
Aetna Life, Conn	529	\$1,046,628	2,098	\$3,444,923	\$119,938	\$51,765
Connecticut Mut. Life, Conn	44	93,998	1,284	2,288,802	45,448	84,605
Equitable Life Ass. Society, N. Y.	338	2,381,810	2,219	6,898,350	219,661	126,140
Germania Life, N. Y.	61	155,446	304	674,320	21,932	16,211
Home Life, N. Y.	110	174,297	490	1,090,798	30,448	44,115
Life Indemnity & Investment, Iowa	77	89,718	124	144,250	8,542	1,047
Massachusetts Mut. Life, Mass.	9	30,000	117	232,754	4,803	37,000
Manhattan Life, N. H.	56	100,628	299	556,596	18,105	16,500
Metropolitan Life, N. Y.	1	526	{ *9,685 43	1,051,877 51,083	41,294	13,994
Mutual Life, N. Y.	862	2,050,304	4,382	9,720,059	308,041	216,973
Mutual Benefit Life, N. J.	91	186,222	704	1,383,742	37,927	56,672
Michigan Mut. Life, Mich	76	148,779	75	143,779	2,064	...
New England Mut. Life, Mass.	19	49,634	387	640,302	20,334	6,967
New York Life, N. Y.	594	1,780,090	2,747	6,540,420	252,897	150,617
Penn. Mut. Life, Penn.	41	109,560	243	600,500	26,586	8,105
Phoenix Mut. Life, Conn	21	21,758	407	440,743	9,586	11,822
Prudential Ins. Co. of America, N. J. *	4,152	342,167	2,780	275,120	7,580	352
Provident Saving Life	69	168,000	328	951,500	21,692	7,000
Pacific Mut. Life, Cal.	{ +59	174,750	{ 2 +33	3,000 99,250	{ 531	450
Standard Life & Acc., Mich	+1,946	5,004,950	1,659	4,423,350	29,453	10,818
Travelers', Conn	{ 12 2709	19,500 7,240,300	{ 424 +1,896	558,694 6,009,449	{ 60,953	36,234
Union Central Life, Ohio	74	113,500	111	166,434	5,545	...
Union Mut. Life, Me.	2	3,700	78	109,737	3,402	...
Washington Life, N. Y.	378	469,823	1,432	1,915,031	67,840	18,854
Totals.....	12,330	\$2,950,036	\$34,351	50,414,864	\$1,364,602	\$916,291

ASSESSMENT LIFE ASSOCIATIONS.

Bankers' Life Ass., Minn.	14	\$28,000	74	\$148,000	\$6,636	\$6,000
Bankers' Life Ass., Iowa	142	28,000	372	744,000	2,972	2,000
Hartford Life & Annuity, Conn.	52	89,500	210	612,000	8,984	.....
Mutual Reserve Fund Life Ass., N. Y.	679	1,177,005	1,596	3,455,000	25,963	6,600
Totals	887	\$1,578,500	2,252	\$4,959,000	\$44,555	\$14,600

* Industrial business. † Accident business

TABLE No. IX. — EXHIBIT OF POLICIES.

9—INS.

NAME OF COMPANY.	POLICIES IN FORCE DECEMBER 31, 1888.		POLICIES ISSUED DURING THE YEAR.		POLICIES TERMINATED AND DECREASED.		OTHERS.		POLICIES IN FORCE DECEMBER 31, 1889.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
Wisconsin Life Companies.										
Northwestern Mut. Life, Milwaukee	73,130	\$172,518,891	19,014	\$51,777,480	7,815	\$21,890,448	.....	.....	84,329	\$302,405,923
Companies of Other States.										
Aetna Life, Conn.....	67,749	\$102,904,303	9,966	\$30,399,689	6,730	\$12,634,274	.....	.....	70,985	\$110,669,718
Connecticut Mut. Life, Conn.....	63,660	151,361,913	3,458	9,256,204	3,288	8,878,623	.....	.....	63,890	151,739,494
Equitable Life Ass. Society, N. Y..	148,405	549,216,126	45,381	175,264,100	23,120	93,463,560	.....	.....	170,666	631,016,666
Germania Life, N. Y.....	28,241	48,854,680	4,825	10,051,548	2,622	5,650,180	*8,276	\$947,704	28,720	54,199,371
Home Life, N. Y.....	11,513	22,748,299	3,180	6,764,102	1,571	3,633,230	.....	.....	13,122	25,879,171
Life Indemnity and Investment, Iowa.....	2,376	5,483,766	222	349,870	636	1,888,950	.....	.....	1,962	4,444,285
Massachusetts Mut. Life, Mass.....	18,767	49,480,584	4,449	15,105,703	2,590	8,265,814	†1,222,243	.....	20,626	55,098,260
Manhattan Life, N. Y.....	15,567	43,504,413	5,662	17,388,210	3,045	9,755,558	.....	.....	18,184	51,137,065
Metropolitan, N. Y.....	3,379	4,067,777	242	277,572	302	358,757	.....	.....	3,319	3,986,592
Mutual Life, N. Y.....	158,190	482,050,579	44,534	151,962,063	20,710	68,173,235	.....	.....	182,014	565,839,387
Mutual Benefit Life, N. J.....	57,954	153,498,623	8,494	22,217,265	5,121	13,098,864	.....	.....	61,327	162,617,014
Michigan Mut. Life, Mich.....	10,442	18,930,439	2,504	4,891,279	2,048	3,643,065	.....	.....	10,898	20,178,653
New Eng. Mut. Life, Mass.....	25,305	73,591,211	3,759	11,067,055	1,968	5,703,393	.....	.....	27,096	78,954,903
New York Life, N. Y.....	129,911	419,886,505	39,499	151,119,088	19,029	75,403,623	.....	†2,838,050	150,381	492,763,920
Penn. Mut. Life, Pa.....	27,714	68,372,882	6,800	18,418,000	3,106	7,721,302	†31	167,160	31,408	78,902,420
Phoenix Mut. Life, Conn.....	17,468	24,872,295	1,224	1,449,183	1,591	2,366,014	.....	†87,798	77,101	23,867,666
*Prudential Ins. Co. of America, N. J.....	850,979	93,661,783	723,110	75,145,395	472,938	49,120,901	† 26	81,695	1,101,125	119,604,582
Provident Savings, N. Y.....	12,853	51,012,286	5,404	19,172,197	2,505	9,230,275	†229	1,131,500	15,523	59,819,708
†Pacific Mutual Life, Cal.....	16,307	36,148,038	22,271	52,500,088	21,043	48,454,226	†257	1,177,971	17,278	39,015,929
†Standard Life and Acc., Mich.....	24,399	48,172,625	32,391	68,423,960	29,357	57,866,775	.....	.....	27,433	58,729,800

Exhibit of Policies.

COMMISSIONER OF INSURANCE.

TABLE No. IX.—EXHIBIT OF POLICIES — Continued.

NAME OF COMPANY.	POLICIES IN FORCE DECEMBER, 31, 1888.		POLICIES ISSUED DURING THE YEAR.		POLICIES TERMIN- ATED AND DE- CREASED.		OTHERS.		POLICIES IN FORCE DECEMBER 31, 1889.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
<i>Companies of Other States — Continued.</i>										
+Travelers, Conn.	98,554	\$282,742,029	107,804	\$301,616,877	101,816	\$295,632,349	‡ 75	\$481,018	95,467	\$288,244,539
Union Central Life, Ohio ..	20,110	23,870,922	10,624	19,628,595	6,120	11,856,396	.....	.....	24,614	41,643,121
Union Mut. Life, Me ..	14,728	26,395,600	2,578	5,603,106	2,433	4,794,101	‡ 18	86,778	14,855	27,117,827
Washington Life, N. Y.	19,273	42,768,034	5,119	10,663,767	3,364	7,041,477	.....	.....	21,028	46,390,324
Totals	1,843,844	\$2,833,595,542	1,093,600	\$1,168,733,956	747,063	\$804,134,992	7,640	\$6,329,500	2,198,962	\$3,191,859,616

ASSESSMENT LIFE ASSOCIATIONS.

Bankers' Life Association, Minn.	4,797	\$9,594,000	966	\$1,932,000	406	\$812,000	.....	.....	5,357	\$10,714,000
Bankers' Life Association, Iowa ..	10,111	20,222,000	2,686	5,372,000	804	1,608,000	.....	.....	11,993	23,986,000
Hartford Life and Annuity Conn. ..	25,121	62,639,910	8,324	16,010,204	3,039	7,057,451	.....	.....	30,402	71,579,620
Mutual Reserve Fund Life Ass., N. Y.	47,693	168,902,850	12,013	34,845,875	6,491	22,390,525	.....	.....	53,215	181,358,200
Totals	87,722	\$261,358,760	23,989	\$58,160,079	10,740	\$31,867,976	.....	.....	100,967	\$288,637,820

* Industrial.

† Includes Accident.

‡ Reinsured.

TABLE NO. X.—TERMINATION OF POLICIES.

NAME OF COMPANY.	BY DEATH OR MATURITY.		BY EXPIRY.		BY SURRENDER.		BY LAPSE.		BY CHANGE.		NOT TAKEN.		TOTAL TERMINATION.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
Wisconsin Life Companies.														
Northwestern Mut. Life, Milwaukee...	710	\$1,840,903	377	\$3,325,848	684	\$1,528,299	4,235	\$9,459,054	...	\$283,355	1,809	\$5,452,989	7,815	\$21,890,448
Companies of Other States.														
Aetna Life, Conn. ...	934	\$1,603,663	1,322	\$1,681,966	957	\$1,501,189	1,849	\$4,283,396	43	\$106,785	1,625	\$3,457,281	6,730	\$12,634,274
Connecticut Mutual Life, Conn.	1,319	3,302,904	377	635,219	580	1,480,610	788	2,046,500	2	775,890	222	637,500	3,288	8,878,623
Equitable Life Ass. Society, N. Y.	1,675	6,765,927	492	1,740,607	2,995	13,096,874	11,637	37,491,142	...	...	6,321	34,369,010	23,120	93,463,560
Germania Life, N. Y.	428	846,069	203	299,615	377	702,757	838	1,524,206	89	538,843	687	1,748,905	2,622	5,650,395
Home Life, N. Y.	165	336,141	42	61,130	481	1,109,113	510	1,066,500	...	84,346	373	976,000	1,571	3,633,220
Life Indemnity and Investment	24	54,297	514	1,230,000	4	5,628	83	86,024	...	...	11	13,000	636	1,388,950
Massachusetts Mut. Life, Mass.	318	714,699	89	204,800	520	1,208,702	813	2,557,880	...	553,313	820	3,026,450	2,590	8,265,844
Manhattan Life, N. Y.	357	1,030,039	...	...	224	678,650	1,162	3,158,694	162	581,098	1,140	4,307,076	3,045	9,755,558
Metropolitan Life, N. Y.	*82	87,196	...	...	101	139,645	115	127,416	1	1,000	3	3,500	302	358,757
Mutual Life, N. Y. ...	3,046	9,486,582	9	28,000	2,459	9,514,813	7,972	20,995,423	88	1,505,800	7,136	28,642,637	20,710	68,173,255
Mutual Benefit Life, N. Y.	927	2,789,594	673	1,711,561	1,720	4,563,219	1,005	2,175,595	...	...	796	1,858,895	5,121	13,096,864
Michigan Mut. Life, Mich.	63	122,925	14	10,105	549	469,426	1,306	2,305,500	162	349,308	154	349,800	2,048	3,643,065
New Eng. Mut. Life, Mass.	509	1,463,675	139	370,850	468	1,077,981	454	1,559,414	3	106,473	395	1,119,000	1,968	5,703,393
New York Life, N. Y.	2,071	6,379,613	264	22,590	2,307	12,491,630	7,518	24,726,814	...	964,875	6,869	30,818,101	19,029	75,408,623
Rocky Mt. Life, Pa.	423	1,090,963	96	210,250	391	988,371	1,499	3,235,042	14	292,576	683	1,901,100	3,106	7,721,302

Termination of Policies.

Termination of Policies.

TABLE NO X.—TERMINATION OF POLICIES—Continued.

NAME OF COMPANY.	BY DEATH OR MATURITY.		BY EXPIRY.		BY SURRENDER.		BY LAPSE.		BY CHANGE.		NOT TAKEN.		TOTAL TERMINATION.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
<i>Companies of Other States—Con</i>														
Phoenix Mutual Life, Conn.	612	\$832,153	5	\$8,750	204	\$317,099	413	\$570,621	98	\$210,930	259	\$426,461	1,591	\$2,366,014
Prudential Ins. Co. of America, N. J.	*15588	1,522,081	26	16,900	12	12,500	457,220	47,403,886	18	62,406	74	103,128	472,938	49,120,901
Provident Savings, N. Y.	159	622,125	1,964	7,236,500	19	18,000	19	12,650	.....	182,000	344	1,159,000	2,505	9,230,275
Pacific Mut. Life, Cal.	+80	185,443	15,951	88,585,858	1,311	2,459,850	264	644,000	1	20,500	3,436	6,559,575	21,043	48,454,226
Travelers Life, Conn.	+544	1,092,210	108,452	289,964,612	185	273,697	1,024	2,420,300	267	796,380	344	1,086,040	110,816	295,632,349
Standard Life and Accident	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29,357	57,866,775
Union Central Life, Ohio	185	326,524	70	98,500	209	462,032	3,647	6,445,312	339	749,074	1,670	3,774,944	6,120	11,856,396
Union Mut. Life, Me.	322	478,022	293	604,750	48	157,682	879	1,624,650	4	92,325	513	1,113,350	2,059	4,070,781
Washington Life, N. Y.	375	789,477	4	.....	472	1,225,523	1,542	2,997,792	23	36,237	952	1,992,458	3,364	7,041,477
Totals	30,206	\$41,922,322	130,995	\$344,718,557	16,593	\$53,953,991	502,587	\$169,461,857	1,314	\$8,009,149	34,827	\$127,443,211	747,063	\$804,134,992

ASSESSMENT LIFE ASSOCIATIONS.

Bankers' Life Ass., St. Paul, Minn.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	406	\$812,000
Bankers' Life Ass., Des Moines, Iowa.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	804	1,608,000
Hartford Life and Annuity, Conn.	296	\$724,483	13	\$19,000	111	\$123,968	2,619	\$6,190,000	.....	.....	.....	.....	3,039	7,057,451
Mutual Res. Fund Life Ass., N. Y.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,491	22,390,525
Totals	296	\$724,483	13	\$19,000	111	\$123,968	2,619	\$6,190,000	.....	.....	.....	.....	10,740	\$31,867,976

* Industrial business.

† Includes accident business.

*Amount of License Tax Paid.*TABLE NO. XI.—AMOUNT OF LICENSE TAX PAID,
NOT INCLUDING FEES.

NAME OF COMPANY.	1888.	1889.
<i>Wisconsin Life Companies.</i>		
Northwestern Mut. Life, Milwaukee.....	\$14,518 00	\$17,196 74
<i>Companies of Other States.</i>		
<i>Aetna Life, Conn.</i>	\$300 00	\$300 00
<i>Connecticut Mut. Life, Conn.</i>	300 00	300 00
<i>Equitable Life Ass. Society, N. Y.</i>	300 00	300 00
<i>Germania Life, N. Y.</i>	300 00	300 00
<i>Home Life, N. Y.</i>	300 00	300 00
<i>Life Indemnity and Investment, Iowa</i>	300 00	300 00
<i>Massachusetts Mut. Life, Mass.</i>	300 00	300 00
<i>Manhattan Life, N. Y.</i>	300 00	300 00
<i>Metropolitan Life, N. Y.</i>	300 00	300 00
<i>Mutual Life, N. Y.</i>	300 00	300 00
<i>Mutual Benefit Life, N. J.</i>	300 00	300 00
<i>Michigan Mut. Life, Mich.</i>	300 00	300 00
<i>New Eng. Mut. Life, Mass.</i>	300 00	300 00
<i>New York Life, N. Y.</i>	300 00	300 00
<i>Penn. Mut. Life, Pa.</i>	681 12	581 72
<i>Phoenix Mut. Life, Conn.</i>	300 00	300 00
<i>Prudential Ins. Co. of America, N. J.</i>	300 00	300 00
<i>Provident Savings Life, N. Y.</i>	300 00	300 00
<i>Pacific Mut. Life, Cal.</i>	301 60	300 00
<i>Standard Life and Accel., Mich.</i>	597 08	589 07
<i>Travelers', Conn.</i>	300 00	300 00
<i>Union Central Life, Ohio.</i>	300 00	300 00
<i>Union Mut. Life, Me.</i>	300 00	300 00
<i>Washington Life, N. Y.</i>	300 00	300 00
Totals.....	\$22,397 80	\$24,917 58

ASSESSMENT LIFE ASSOCIATION.

Bankers' Life Ass., St. Paul, Minn.....	\$300 00	\$300 00
Bankers' Life Ass., Des Moines, Iowa.....	300 00	300 00
Hartford Life and Annuity, Conn.....	300 00	300 00
Mutual Reserve Fund Life Ass., N. Y.....	300 00	300 00
Totals.....	\$1,200 00	\$1,200 00

FRATERNAL AND BENEVOLENT SOCIETIES.

NAME.	Location.	President.	Secretary.	When organized.
American Legion of Honor.....	Boston, Mass.....	Enoch S. Brown.....	Adam Warnock.....	Mar. 11, 1879
Ancient Order of United Workmen.....	La Crosse, Wis.....	C. D. Tillinghast.....	H. C. Heath.....	Feb. 2, 1877
Family Protective Association.....	Milwaukee, Wis.....	John Trandt.....	Anton Bickel.....	Year 1869
Federal Life Association.....	Davenport, Iowa.....	Col. Henry Egbert.....	E. H. Whitcomb.....	Mar. 15, 1882
Good Templars' Mutual Benefit Association.....	Milwaukee, Wis.....	H. A. Porter.....	B. F. Parker.....	Nov. 14, 1879
German Order of Haragari.....	Milwaukee, Wis.....	Fred. Fritschie.....	Ernst Zielsdorf.....	About 1852
Grand Grove Order of Druids.....	Milwaukee, Wis.....	Wm. Fels (Vice).....	Carl Thal.....	Apr. 27, 1855
International Progressive Association.....	Mansfield, Ohio.....	B. F. Crawford.....	A. J. Eggert.....	Aug. 21, 1885
Knights and Ladies of Honor.....	Indianapolis, Ind.....	Jno. T. Milburn.....	C. W. Harvey.....	Apr. 5, 1878
Knights of Honor.....	Saint Louis, Mo.....	A. R. Savage.....	B. T. Nelson.....	Jan. 1, 1874
National Benevolent Association.....	Minneapolis, Minn.....	P. B. Crane.....	C. H. Mero.....	Mar. 31, 1887
Masonic Benefit Association.....	Madison, Wis.....	George Raymer.....	Robert Wootton.....	June 1, 1875
Mutual Benevolent Association, Germania.....	Milwaukee, Wis.....	August Wetzell.....	Joseph Mees.....	
Minnesota Scandinavian Relief Association.....	Red Wing, Minn.....	T. R. Simmons.....	A. G. Rosing.....	Feb. 14, 1879
Modern Woodmen of America.....	Fulton, Ill.....	J. C. Root.....	A. F. Morrison.....	May 5, 1884
National Union of Ohio.....	Toledo, Ohio.....	Frank N. Gage.....	J. W. Myers.....	May 14, 1881
Northwestern Endowment and Legacy Association.....	Red Wing, Minn.....	H. B. Wilson.....	A. J. Mecham.....	Aug. 11, 1887
Northwestern Mutual Relief Association.....	Madison, Wis.....	Jno. W. Hudson.....	F. E. Parkinson.....	Jan. 14, 1881
Northwestern Benevolent Association.....	Milwaukee, Wis.....	Wm. J. Fiebrantz.....	Aug. Hanke.....	Oct. 22, 1886
Northwestern Masonic Aid Association.....	Chicago, Ill.....	Dan'l J. Avery.....	James A. Stoddard.....	June 27, 1874
Order of Chosen Friends.....	Indianapolis, Ind.....	H. H. Morse.....	T. B. Linn.....	May 28, 1879
Order of the Catholic Knights of Wisconsin.....	Manitowoc, Wis.....	J. H. M. Wigman.....	Henry Mulholland.....	Feb. 17, 1885
Order of Herman's Sons.....	Milwaukee, Wis.....	Victor Schlitz.....	Chas. Lau.....	Jan. 15, 1869
Royal Arcanum.....	Boston, Mass.....	Leph R. Watts.....	W. O. Robson.....	Nov. 5, 1877
Royal League.....	Chicago, Ill.....	M. R. Powers.....	C. A. Warren.....	Oct. 26, 1883
Royal Adelpia.....	Detroit Mich.....	L. E. Maine.....	Edward Johnson.....	Jan. 2, 1884
Scandinavian Benevolent Society.....	Milwaukee, Wis.....	O. T. Renning.....	Karl M. Transen.....	Mar. 6, 1868
United States Benevolent Fraternity.....	Baltimore, Md.....	Andrew C. Trippe.....	Chas. E. Hachtel.....	Feb. 28, 1881
United States Masonic Benevolent Association.....	Council Bluffs, Iowa.....	Jos. R. Reed.....	Wm. J. Jameson.....	Feb. 5, 1884
Wisconsin Odd Fellows Protective Association.....	Milwaukee, Wis.....	John Bentley.....	J. M. Hirschberg.....	Mar. 9, 1869
Wisconsin Odd Fellows Mutual Life Insurance Company.....	Jefferson, Wis.....	Andrew Willard.....	J. W. Ostrander.....	Feb. 24, 1869
Endowment Rank Knights of Pythias.....	Chicago, Ill.....	J. A. Hinsey.....	W. B. Kennedy.....	Nov. 1, 1877

Fraternal and Benevolent Societies.

FRATERNAL AND BENEVOLENT SOCIETIES—Continued.

NAME OF COMPANY.	Assets.	Liabilities.	CONTINGENT.		Income.	Expenditures.	WISCONSIN BUSINESS.	
			Assets.	Liabilities.			No. members.	Insurance in force.
American Legion of Honor, Mass.....	\$532,883	\$61,262	\$244,286	.....	\$2,562,490	\$2,300,559	1,830	\$3,811,500
Ancient Order of United Workmen, Wis.....	.....	6,000	.....	.....	146,175	7,154	6,593	13,186,000
Family Protective Association, Milwaukee.....	37,899	.....	.....	.....	15,670	8,310	1,156	1,156,000
Federal Life Ass., Milwaukee.....	32,878	32,668	150	.....	33,471	29,856	404	406,000
Good Templars Mut. Benefit, Wis.....	.....	.....	.....	.....	5,866	4,889	1,082	2,760,000
German Order of Haragari, Wis.....	13,459	.....	520	\$1,500	7,567	7,668	750	37,500
Grand Grove Order of Druids, Wis.....	14,643	.....	.....	.....	19,687	18,200	.....	.....
International Progressive Ass., Ohio.....	2,220	.....	.....	.....	74,049	75,480	170	446,000
Knights and Ladies of Honor, Ind.....	87,620	23,006	.....	69,000	764,818	766,726	379	430,000
Knights of Honor, Mo.....	39,008	4	279,665	236,000	3,478,539	3,478,539	1,593	3,034,500
Masonic Benefit Ass., Wis.....	3,297	409	.....	4,502	27,399	28,098	2,485	.....
Mut. Benevolent Ass. Germania, Wis.....	2,503	.....	.....	.....	4,138	1,634	612	.....
Minnesota Scandinavian Relief Ass., Minn.....	19,949	5,000	15,700	14,500	58,402	56,676	226	251,500
Modern Woodmen of America, Ill.....	48,263	9,428	46,000	72,000	398,833	385,441	3,876	7,663,000
National Benevolent Ass., Minn.....	7,135	521	16,568	17,500	97,933	93,736	1,238	3,695,000
National Union of Ohio.....	21,549	.....	53,409	71,000	365,985	355,787	991	3,221,000
Northwestern Endowment and Legacy Ass., Minn.....	53,527	785	2,462	2,320	51,069	34,699	758	1,217,300
Northwestern Mut. Relief Ass., Wis.....	15,980	.....	.....	11,900	95,552	94,969	5,512	13,060,000
Northwestern Benevolent Ass., Wis.....	.....	.....	.....	.....	.....	.....	.....	.....
Northwestern Masonic Aid Ass., Ill.....	347,551	126,524	176,700	156,700	1,638,429	1,549,321	2,479	7,214,500
Order of Chosen Friends, Ind.....	29,762	.....	296,817	216,000	921,596	913,671	289	503,000
Order of the Catholic Knights of Wisconsin.....	20,854	.....	3,200	2,000	38,519	39,293	3,424	6,402,000
Order of Herman's Sons, Wis.....	46,006	125	4,000	4,000	49,698	50,152	3,196	3,196,000
Royal Arcanum, Mass.....	202,936	449	176,762	179,550	2,233,734	2,212,183	2,362	6,964,500
Royal League, Ill.....	14,188	.....	.....	12,000	68,527	65,795	342	1,268,000
Royal Adelpbia, Mich.....	.....	.....	.....	.....	.....	.....	.....	.....
Scandinavian Benevolent Society, Wis.....	2,941	.....	.....	300	1,623	1,432	.....	.....
U. S. Benevolent Fraternity, Mass.....	3,393	.....	4,000	.....	69,242	72,397	614	1,176,000
U. S. Masonic Benevolent Ass., Iowa.....	112,720	333	35,000	35,000	179,441	156,216	151	377,500
Wisconsin Odd Fellows Protective Ass., Wis.....	1,277	1,040	785	1,000	13,159	13,209	630	.....
Wisconsin Odd Fellows Mut. Life Ins. Co., Wis.....	28,820	14,343	38,000	45,000	100,246	100,692	7,981	7,981,000
Endowment Rank Knights of Pythias.....	95,354	.....	10,802	74,000	599,336	536,996	468	945,000

Fraternal and Benevolent Societies.

COMMISSIONER OF INSURANCE.

Northwestern Mutual Life Ins. Co.

NORTHWESTERN MUTUAL LIFE INSURANCE COMPANY,

MILWAUKEE, WIS.

(Incorporated March, 1857. Commenced business November 25, 1858.)

H. L. PALMER,
President.

J. W. SKINNER,
Secretary.

MATTHEW KEENAN,
Vice President.

C. A. LOVELAND,
Actuary.

I.—CAPITAL STOCK.

PURELY MUTUAL.

Amount of net or ledger assets December 31 of previous year..... \$31,525,125 55

II.—INCOME DURING YEAR 1889.

New premiums without deductions for commissions or other expenses.....	\$1,717,100 59	
Renewal premiums without deductions for commissions or other expenses.....	5,630,093 02	
Total.....	\$7,347,193 61	
Cash received for interest upon mortgage loans..	1,750,251 91	
Cash received for interest on bonds owned.....	49,176 01	
Cash received for interest on premium notes, loans or liens...	63,408 87	
Cash received for interest on other debts due the company including interest on deposits and deferred premiums.....	93,472 00	
Cash received as discount on claims paid in advance.....	2,127 25	
Cash received for rents for use of company's property.....	73,829 22	
Total income.....		\$9,379,458 87
Total.....		<u><u>\$40,504,584 43</u></u>

III.—DISBURSEMENTS DURING YEAR 1889.

Losses and additions	\$1,887,539 85	
Matured endowments and additions..	459,526 64	
Total	\$2,347,066 49	
Surrendered policies..	263,916 11	
Premium notes, loans or liens voided by lapse.....	3,091 12	
Cash dividends applied in payment of premiums.....	928,048 07	
Cash paid for commissions to agents.....	1,068,968 61	

Northwestern Mutual Life Ins. Co.

Cash paid for salaries and traveling expenses of managers of agencies, and general, special and local agents.....	22,680 57	
Cash paid for medical examiner's fees, including salary of medical director and assistant.....	86,656 42	
Cash paid for salaries and other compensation of officers and other office employes, inclusive of medical directors and law department.....	141,817 97	
Cash paid for United States taxes and revenue stamps; taxes, licenses, fines and fees in other states.....	99,820 97	
Cash paid for rent.....	3,022 07	
Cash paid for commuting commissions.....	11,727 04	
Cash paid for furniture and fixtures and safes for home and agency offices.....	1,343 55	
Cash paid for advertising.....	6,791 70	
Cash paid for supplies, postage, exchange, law, loan, buildings and other expenses.....	261,394 92	
Total miscellaneous expenses	\$384,160 25	
Total disbursements		\$5,260,845 61
Balance		<u>\$35,643,738 81</u>

IV.—ASSETS.

AS PER LEDGER ACCOUNT.

Cost value of real estate exclusive of all incumbrances or less than cost.....	\$1,188,630 60	
Loans on bond and mortgage (first liens) on real estate.....	30,033,434 18	
Premium notes, loans, or liens on policies in force, the reserve on each policy being in excess of all indebtedness thereon	702,541 99	
Par value of bonds owned absolutely.....	1,981,100 00	
Cash in company's office, including \$208,458.49 of 1889 received January 1st to 10th, 1890.....	286,378 88	
Cash deposited in banks.....	1,492,718 30	
Bills receivable	149 75	
Agents' ledger balances	8,790 60	
Total		\$35,643,738 81

OTHER ASSETS.

Interest due, \$35,172.12; and accrued, \$401,974.89; on bonds and mortgages..	\$437,147 01	
Interest due, \$232; and accrued, \$28,101.68; on premium notes, loans or liens	28,324 68	
Rents due and accrued.....	8,043 10	
Market value of bonds over par.....	145,757 71	
Gross premiums due and unreported on policies in force December 31, 1889.....	\$387,873 00	
Gross deferred premiums on policies in force December 31, 1889	679,449 00	
Total	\$1,067,823 00	
Deduct the loading on above gross amount	213,463 00	
Net amount of uncollected and deferred premiums.....		853,859 00
Total assets as per the books of the company.....		<u>\$37,116,870 81</u>

Northwestern Mutual Life Ins. Co.

ITEMS NOT ADMITTED.

Agents' balances.....	\$8,790 16	
Supplies, printed matter and stationery.....	149 75	
Total		\$8,939 91
Total assets less items not admitted		<u>\$37,107,980 40</u>

V.—LIABILITIES.

Net present value of all the outstanding policies in force on the 31st day of December, 1889, computed according to the Actuaries' table of mortality, with 4 per cent. interest ...	\$31,145,787 00	
Net re-insurance reserve.....		\$31,145,787 00
Claims for death losses and matured endowments in process of adjustment or adjusted and not due....	\$174,975 98	
Claims for death losses and other policy claims resisted by the company.....	14,000 00	
Total policy claims		188,975 98
Amount of unpaid dividends or surplus, estimated.....		10,000 00
Amount of any other liability of the company, viz.: premiums paid in advance, \$2,000; and accrued commissions, \$10,000; estimated, reserve for paid up insurance claimable, \$119,160.....		131,160 00
Liabilities on policy holders' account		\$31,475,922 98
Gross surplus on policy holders' account.....		5,640,947 33
Total liabilities		<u>\$37,116,870 31</u>

VI.—PREMIUM NOTE ACCOUNT.

Premium notes, loans or liens on hand December 31, of previous year.....	\$789,801 70	
Premium notes, loans or liens received during the year.....	80,617 75	
Total		\$870,419 45
Deductions during the year as follows:		
Amount of notes, loans or liens used in payment of losses and claims, losses, \$29,135.89; matured end to, \$19,173.99.....	\$48,309 88	
Amount of notes, loans or liens used in purchase of surrendered policies, \$9,656.07; and voided by lapse, \$3,091.12.....	12,747 19	
Amount of notes, loans or liens used in payment of dividends to policy holders, ..	87,692 42	
Amount of notes, loans or liens redeemed by maker in cash, \$19,097.58; cancelled by change, \$30.39.....	19,127 97	
Total reduction of premium note account.....		187,877 46
Balance, note assets at end of the year.....		<u>\$702,541 99</u>

Northwestern Mutual Life Ins. Co.

BUSINESS IN WISCONSIN DURING 1889.

No. and amount of policies on lives of citizens of Wisconsin in force December 31, of previous year*.....	12,678	\$22,788,449
No. and amount of policies on the lives of citizens of Wisconsin issued during the year	2,244	4,950,728
Total	14,922	\$27,739,177
Deduct number and amount which have ceased to be in force during the year, including removals from the state.....	1,189	2,210,400
Total number and amount of policies in force in Wisconsin, December 31, 1889*.....	13,733	25,528,777
Amount of losses and claims on policies in Wisconsin unpaid Dec. 31, of previous year, decreased in adjustment \$500...	23	\$28,996 66
Amount of losses and claims on policies in Wisconsin incurred during the year.....	201	345,886 39
Total	224	\$374,883 05
Amount of losses and claims on policies in Wisconsin paid during the year*.....	210	\$360,584 05
Amount of premiums collected or secured in Wisconsin during the year in cash and notes, or credits, without any deductions for losses, dividends, commissions or other expenses, not including premiums paid by non-residents —		
Cash		\$896,832 79
Notes or credits.....		8,504 39
Total*		\$905,337 18

ERRATA.

\$16,619 accredited to Citizens of Ohio, on page 22, should be impairment, and be deducted from total surplus of \$39,306,242, on page 25.

Assets Foreign Cos., page 18, should read, \$44,122,641.

Liabilities, page 26, Guarantee and Accident Cos., should read, \$3,230,054.

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FIRST ANNUAL REPORT

OF THE

State Dairy and Food Commissioner

OF

WISCONSIN.

1890.



MADISON, WISCONSIN,
DEMOCRAT PRINTING COMPANY, STATE PRINTERS,
1890.

H. K. LOOMIS, DAIRY EXPERT.

F. G. SHORT, STATE CHEMIST.

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LETTER OF TRANSMITTAL.

MADISON, WIS., October 1, 1890.

To the Honorable, WILLIAM D. HOARD,

Governor of Wisconsin.

I have the honor to transmit herewith the annual report of the Dairy and Food Commissioner, in accordance with section 9, chapter 452, laws of 1889.

Very respectfully submitted,

H. C. THOM,

Commissioner.

REPORT OF THE COMMISSIONER.

The legislature of 1889 passed an act creating the office of Dairy and Food Commissioner for the state of Wisconsin. This act clearly defined the powers and duties of the office, with reference to administering the laws which controlled the adulteration of all articles of food, drink or drug.

The powers and duties of the office are set forth in the following extract from chapter 452, laws of 1889:

SECTION 3. It shall be the duty of the commissioner to enforce all laws that now exist, or that may hereafter be enacted in this state, regarding the production, manufacture or sale of dairy products, or the adulteration of any article of food or drink or of any drug; and personally or by his assistants to inspect any article of milk, butter, cheese, lard, syrup, coffee or 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 or persons, firm or firms, corporation or corporations, engaged in the manufacture or sale of any adulterated or counterfeit article or articles of food or drink or drug, contrary to the laws of this state.

SECTION 4. Said commissioner or any assistant shall have power in the performance of his official duties to enter into any creamery, factory, store, salesroom or other place or building where he has reason to believe that any food or drink or drug is made, prepared, sold or offered for sale, and to open any cask, tub, package or receptacle of any kind containing, or supposed to contain, any such article, and to examine or cause to be examined and analyzed the contents thereof, and the commissioner or any of his assistants may seize or take any article of food or drink or drug for analysis, but if the person from whom such sample is taken shall request him to do so he shall at the same time, and in the presence of the person from whom such property is taken, securely seal up two samples of the article seized or taken, the one of which shall be for examination or analysis under the direction of the commissioner, and the other of which shall be delivered to the person from whom the articles were taken. And any person who shall obstruct the commissioner or any of his assistants by refusing to allow him entrance to any place which he desires to enter in the discharge

of his official duty, or who refuses to deliver to him a sample of any article of food or drink or drug made, sold, offered or exposed for sale by such person, when the same is requested and when the value thereof is tendered, shall be deemed guilty of a misdemeanor punishable by a fine of not exceeding twenty-five dollars for the first offense and not exceeding five hundred dollars or less than fifty dollars for each subsequent offense.

SECTION 5. It shall be the duty of the district attorney in any county of the state, when called upon by the commissioner or any of his assistants to render any legal assistance in his power to execute the laws, and to prosecute cases arising under the provisions of this act, and all fines and assessments collected in any prosecution begun or caused to be begun by said commissioner or his assistants shall be paid into the state treasury.

SECTION 6. With the consent of the governor, the state board of health may submit to the commissioner, or to any of his assistants, samples of water or food or drink or drugs, for examination or analysis, and receive special reports showing the results of such examinations or analysis. And the governor may also authorize the commissioner or his assistants, when not otherwise employed in the duties of their offices, to render such assistance in the farmers' institutes, dairy and farmers' conventions, and the agricultural department of the university, as shall by the authorities be deemed advisable.

SECTION 7. The salaries of the commissioner and his assistants shall be paid out of the state treasury in the same manner as the salaries of other officers are paid, and their official expenses shall be paid at the end of each calendar month upon bills duly itemized and approved by the governor, and the amount necessary to pay such salaries and expenses is hereby appropriated annually.

SECTION 8. The commissioner may, under the direction of the governor, fit up a laboratory, with sufficient apparatus for making the analysis contemplated in this act, and for such purpose the sum of fifteen hundred dollars, or so much thereof as may be necessary, is hereby appropriated, and for the purpose of providing materials, and for other necessary expenses connected with the making of such analyses, there is also hereby appropriated so much as may be necessary, not exceeding six hundred dollars annually. The appropriations provided for in this section shall be drawn from the state treasury upon the certificates of the governor.

This act went into effect April 16, 1889. The commissioner received his appointment May 29, 1889. Pursuant to the provisions of this act Prof. F. G. Short, chemist of the state Experiment station was appointed state chemist, June 1, 1889. Prof. Short seemed eminently fitted for this work from his long experience in the work of analyzing dairy products. Another reason why Wisconsin should be glad

to recognize his worth is that Prof. Short worked out a method of determining the butter fat in milk which has been adopted very largely throughout the United States and the old world.

Mr. H. K. Loomis was appointed dairy expert on the commission, July 9, 1889. Mr. Loomis has operated a large factory in Sheboygan county and has been an extensive dealer in dairy products. He has been treasurer of the State Dairyman's association for eight years, and for some time has had charge of the dairy department at the state fair.

There was no specific provision made for the location of a laboratory. For various reasons it was decided not to place it in the capitol building. There was no available room which was large enough and which furnished sufficient light for delicate and technical investigation. Again, various chemical compounds would be used and there would be more or less danger from explosion and fire. The state carries no insurance upon its property and we did not wish to enhance liability to damage from fire to the capitol by placing a chemical laboratory within its walls. A desirable place was found in the Pioneer building for a rental of \$250 per annum. The laboratory is on the fourth floor, is well lighted and furnished with gas and water and heated with steam. An appropriation of \$1,500 was made to equip a laboratory. This sum was found ample for this purpose. Prof. Short went directly to wholesalers in New York and succeeded in securing the necessary apparatus for about \$250 less than the same invoice would have cost if it had been ordered from this point. The work of organizing the department was then begun. Unless one has given the matter careful consideration, no conception of the magnitude of the work can be estimated. By direction of the governor, the laws relating to the office and duties of the commission were compiled and 15,000 copies were distributed to manufacturers and dealers in food stuffs throughout the state. This was done because many of the laws were new and the old ones had never been enforced, consequently the trade was not prepared for the adminis-

tration of them. The retail dealers throughout the state are in accord with the purposes of the department. In the main they are in utter ignorance of the character of many of the compounds which pass through their hands, and once cognizant of the fact that they are imposed upon by misrepresentation of manufacturers, they are not slow to withdraw their patronage. A prevailing opinion of the public has been that this department had to do altogether with the dairy interest. Although this is a great industry and should be wisely guarded by legislation the entire field of human food is comprehended by the scope of the duties of this office.

After the laboratory was furnished, the first work of the department was to take samples of the various food stuffs which were so mixed and compounded that they concealed their identity. The department was at first guided in its selection of samples by complaints and suggestions from various parts of the state. At the time of the creation of the office many sensational articles went the rounds of the press and several attempts were made to investigate. With but few exceptions, these attempts were futile, having originated in nearly every case, with some one who was either troubled with the dyspepsia or sold his wares by the line.

A more definite and sympathetic line of action was adopted. The first article which was given any considerable attention was vinegar. A large number of samples were taken from dealers and manufacturers in various parts of the state. The department soon discovered that nearly every vinegar that had a brown color was sold for pure cider vinegar and labeled as such. The analysis showed that but a very small percentage was cider vinegar as represented by the labels. The law was the next matter to consider. Here we found trouble. The section is quoted in full because it is the most important one which is comprehensive and general in its character.

SECTION 3. Every person who shall compound or put up for sale any food, drug or liquor, in casks, boxes, bottles or packages, with any label mark or device whatever, so as and with intent to mislead or deceive as to the true name, nature, kind and quality thereof, shall be liable to a pen-

alty of not to exceed five hundred dollars for the first offense, and for every offense after the first offense shall be punished by imprisonment in the state prison for not less than one year nor more than ten years.

It was evidently the purpose and intent of the legislature to make a violation of this section a criminal offense, because the second offense is punishable by imprisonment only. The word penalty, however, in the opinion of the attorney-general and the district attorney of Dane county, applies to forfeiture. In accordance with this opinion a civil action was begun against H. Grove & Sons, of Madison, for damages to the amount of \$500, for selling a spirit vinegar under the name of cider vinegar. H. Grove & Sons, through their attorney, H. M. Lewis, entered a demurrer on the grounds that the offense was a misdemeanor. The demurrer was sustained by Judge Siebecker. A petition was filed by the attorney general that the case be placed on the calendar for immediate argument, for the reason that no other actions under this section could be begun until this point in contest had been settled. The petition was denied by the supreme court. This was a most unfortunate condition of affairs. Data for fifty cases under this section were at hand ready for use. Not one could be instituted until this controversy had been settled by a decision of the supreme court. Meantime when vinegar was falsely labeled the dealer was immediately notified by the following letter.

DEAR SIR:—October 1, 1889, Mr. Loomis, assistant commissioner took a sample of vinegar from your stock. A report upon the same by the state chemist shows that it does not conform to the laws of Wisconsin. Your attention is called to section 3, chapter 248, laws of 1879. You are hereby warned that a repetition of its sale, under its present brand, renders you liable to prosecution. Yours respectfully,

H. C. THOM, Commissioner."

If Mr. Loomis was able to learn who manufactured the vinegar a letter of the same tenor was directed to the manufacturer, provided he was a resident of the state. If the manufacturer resided outside the state and therefore not amenable to our law, he was notified that if he continued the sale of a falsely branded vinegar, his name and address

would be published in the press of the state. When the dealers found out the situation of the matter, the office was flooded with letters, stating that they had been buying their goods in Chicago, St. Louis, Detroit and numerous other places, and wished to know how to protect themselves from buying specious goods.

Invariably the reply was made that their best protection was to buy of some reliable house, within the state, with a guarantee that the vinegar purchased should be as represented and would stand the test of the state chemist on this basis. This has been the policy of the department with nearly all classes of food stuffs, and the result is that the chemist has had more work on hand than he could dispose of. In many instances Dr. S. M. Babcock, chemist of the experiment station, has kindly given his assistance when work was crowding.

Again and again large invoices of goods have been held by merchants in Wisconsin, subject to the order of the wholesalers of other states, until word could be received that the analysis of samples corresponded with the guarantee under which the order was made. There are a number of wholesale houses in the state who make a regular practice of sending samples of new invoices to the laboratory, so that they may know just what character of goods they are distributing. The department has received much encouragement and assistance from the dealers, wholesalers and manufacturers. The people of Wisconsin are naturally law-abiding, and it has been our aim to have the laws complied with at the least possible expense to the individual and to the state.

The state of Wisconsin has become a great commonwealth with a thousand and one interests. The clamor of our people for cheaper food, for cheaper wear and for cheaper everything has had a pernicious result upon the purity of articles offered for sale by our tradesmen. The people ask for low-priced foods and in many cases the merchants are unable to supply the demand with an honest article, and fraud is resorted to. The merchants, in turn, must have the goods that are called for and

the manufacturer is drawn into the gap and makes the spurious article. Although the public, in a large measure, is responsible for the situation, the state steps in and volunteers to protect the consumer. A man may cry never so loud for cheap foods, but an instance is yet to be cited where he has called for fraudulent food, and it is no more than just that he should receive what he assumes he is paying his money for. Again, the manufacturer of food stuff is taking the place of the producer of food. It is the duty of every state to protect the largest number possible. An honest manufacturer should be protected and fostered by every community, but a man who sails under false colors and makes an article with his eyes open and then sells it for what it is not, should be tried and condemned in the estimation of the people, to the extent of withdrawing patronage. A large part of fraudulent goods are made outside the state, where Wisconsin laws have no force, which is a great compliment to the honesty of Wisconsin manufacturers. The intent and purpose of the law is that this class of spurious food shall be placed beyond the reach of the consumer. His health and longevity should be protected at any cost. Wisconsin men are becoming known for brawn and brain and the standard ought to be maintained. The consumer is an innocent buyer. He places forty cents on the counter and asks for a pound of coffee. His package should contain coffee and nothing else. If he asks for sugar he assumes that there is no glucose in it. If a farmer makes an honest pound of butter he cannot afford to throw it into the open market in competition with lard or tallow so manipulated that his city friend smacks his lips and pronounces it good butter even though his stomach revolts after he is asleep.

By careful estimate it has been demonstrated that the factory has supplanted at least twenty-five per cent. of honest production. It is a question of vital interest to honest manufacturers and honest producers that this infamous business be called to a halt. No state department can reach its utmost efficiency without the co-operation of the citizens of the state. If a perfect understanding could be es-

tablished between the honest producer, the honest dealer, the honest consumer, the honest manufacturer, and this department, it would not be long before the representatives of illgitimate business would seek other employment.

Wisconsin is a broad and fertile state, capable of producing more than enough to keep in comfort, her 2,000,000 people. The channels of production and trade should not be so perverted that manufacturers outside the state may reap a profit on spurious articles of food which can be made in shops cheaper than the honest article can be grown by citizens and tax payers.

The laws of the department are weak in many respects. No decisions by the courts have been passed upon them. No attempt has been made, prior to the creation of the office, to administer them. "What is everybody's business is nobody's business." The first action brought by the department is yet to be argued before the supreme court for an interpretation of a technical point, not in the case, but in the law. The most important work for the first two years, is to test the laws that already exist, and formulating new ones. This end can only be brought about by jury trials and extensive analyses in the laboratory. Over 800 analyses have been made since the laboratory has been in working condition, up to the first of October. Such articles of food were selected for examination as were most likely to be degraded by imitation. Many remain uninvestigated, for the reason that the work was so arduous and extensive and so many demands were made by dealers and manufacturers, that the entire ground could not be covered in so limited a time. It is to be hoped that this work will be completed before the next session of the legislature. Under a provision of statute, the state board of health acts in conjunction with the commission, and furnishes samples of water and food to the department, which, in turn, makes a report of the analysis of the same, to the secretary of the board of health. This is a wise arrangement, because the work of the state board receives immediate attention without going to the trouble and expense of securing a competent chemist. The examination of water used by cities is

very important. We have been importuned by many parties to analyze water which is used for private purposes, but in most cases, have declined to do so on the ground that it was not the function of this office to look after water that the state board of health had no reason to suspect contained ingredients that were injurious to general health.

Section 5, chapter 452, laws of 1889 reads as follows:

SECTION 5. It shall be the duty of the district attorney in any county of the state, when called upon by the commissioner or any of his assistants to render any legal assistance in his power to execute the laws, and to prosecute cases arising under the provisions of this act, and all fines and assessments collected in any prosecution begun or caused to be begun by said commissioner or his assistants, shall be paid into the state treasury.

Experience has clearly demonstrated that this is in part an inexpedient provision. Conceding that the department has received able counsel and efficient service from district attorneys, there are still good reasons why the commissioner should be empowered to select and pay his attorney. One lawyer can make a study of this particular work, and so equip himself, that, as an attorney, he is a credit on the prosecution in behalf of the state. District attorneys have never had court practice on cases of this kind. Upon ordinary criminal suits they would be masters of the situation, but when technical questions arise about butter fat in cheese, solids not fat in milk, specific gravity and acetic acid in vinegar and sulphates and chlorides in baking powders, it needs special preparation and long training to be successful in court. Again there may be some local opposition to the administration of the laws, and an attorney is necessarily more or less interested in the people of his own county, and perhaps unable to divest himself of certain prejudices. Then a district attorney is not overpaid by his county, and work that is put upon him by the state is only so much additional work, for which there is no provision for additional pay.

Much more systematic and satisfactory work could be done if a capable lawyer could be close at hand with whom the commissioner could consult at will. This method would be more economic from the fact that less time and less

travel would be entailed in fixing dates and establishing a perfect understanding with the attorney. Every plan of action could be determined upon before a complaint was made out, which is impossible from the nature of things when the attorney is one or two hundred miles distant.

Again in some actions which the department has been very desirous to bring before courts, the district attorney has shown a spirit inimical to the just administration of the law. An element in some parts of the state has been found that is not in accord with the purposes of the commission, and this feeling must be dissipated before good results can be accomplished in these localities. The only way this can be brought about is by having the people thoroughly understand that the sole object of the department is to give the buyer exactly what he pays for, thus protecting his pocket book and his health, and at the same time place the manufacturers of spurious goods in such a position that they are unable to displace honest products by misrepresentation.

No one questions but that it is good commercial policy to foster home manufacture, and in no way can a more potent agent be employed than by urging retailers to patronize honest firms, within the confines of our own state.

We find that adulteration of many of our food products results in cheapening the products of the farm, thus lessening the profits of the husbandman and robbing both consumer and producer. The great evil lies in the practice of selling a cheapened article under a false name at the same price of the pure article, thus defrauding the producer out of the price which he might have received for the genuine product, while at the same time the consumer is made to pay for what he does not ask and what he does not want. The special agent of the United States department of agriculture very pertinently remarks: "It must not be forgotten that even though food be adulterated with matter not positively injurious to health, such food or drugs can not be as nutritious and wholesome as pure articles, and especially important does this feature of adulteration become in the matter of drugs used to cure or prevent disease. To be fed on debased and poisoned food, tainted or diseased meat,

until the body sickens, is surely bad enough, without the efforts of the physician to prevent or allay disease being frustrated by his inability to secure unadulterated drugs and remedies fitted to do his work." A large correspondence from interested persons reveals the extent of adulterations, and without a single exception, unite in denouncing them as an outrage against the public health and the welfare of trade. The total value of food consumed in the United States, according to the *American Grocer*, is \$4,500,000,000 annually. Mr. Wedderburn estimates that \$675,000,000 of this \$4,500,000,000 is displaced by the manufacturer of fraudulent food stuffs. This immense sum of money is simply stolen from the people each year by men who are cheating the consumers to enhance their own fortunes. Our export trade, of which such a large part consists of agricultural products, is also suffering from the same cause. Seventy-three per cent of our annual export grows upon the soil; \$700,000,000 is received in America for goods shipped across the water. The United States has good reason to know that European governments are always ready to exclude or embarrass the American export trade and will avail themselves of every opportunity or pretext to do so.

On the other hand the countries of the old world have the most strenuous laws relating to adulteration and it is most unlikely that they will tolerate a class of food stuffs from America that are not allowed to be made at home. As a result of this America has been a dumping ground for goods of questionable character from Europe. This fact commended itself to the last congress and laws of protection against importation of fraudulent food stuffs are now to be found upon our statute books and the general sentiment upon the subject has become so strong that they will undoubtedly be enforced by the government.

All of the states that have taken legislative measures upon the subject of adulteration of food have urged upon congress the necessity of national laws to control this matter. If food standards are to be established it is obvious that the same standard should obtain in all states,

otherwise manufacturers who have extensive trade would have great trouble in meeting unlike requirements in the several states.

In the month of November, 1889, a call was made to the dairy and food commissioners throughout the United States to meet in convention at Cleveland, Ohio. A national association was formed and a constitution adopted. The commissioner from Wisconsin was selected as president, and F. A. Derthick, commissioner of Ohio, was made secretary. The most important measure which came before the association was the framing of a pure food bill, which was forwarded to congress with an aim to secure national legislation which would affect all states alike.

Membership to the association can be obtained by persons who are described by the following section of the constitution:

“Any person who is connected with the dairy and food commission of any state as chief or assistant, or any person who is a member in good standing in a state dairy association, who presents credentials which show that such person is especially delegated by the board of directors of said state dairy association, or a member of the national, or any state board of health; or a person appointed by the governor of any state to represent the production of pure food in that state, may become a member of this association.”

The governor of Illinois appointed a gentleman who represented the oleomargarine interest of that state, and he was promptly denied the privilege of becoming a member. Great good will emanate from this organization, which meets annually.

Commissioners can come together from the various states for the purpose of comparing laws and methods, perfecting the laws already existing and formulating new ones that are constantly demanded by the exigencies of trade.

A general outline of the work that has been done in this state and such suggestions as are of interest to the honest manufacturer and the consumer are respectfully submitted.

CITY MILK.

There is no article that is more generally used for food than milk. Nearly if not quite 60 per cent. of milk produced is consumed before being made into butter or cheese. It is of vital importance than an article which is used so extensively should be furnished in as wholesome and cleanly a condition as possible, and that it should be of that quality which the law contemplates when it says it shall contain at least 3 per cent. of butter fat. A dealer should be put in stocks who will distribute from door to door an inferior article which is so universally used by invalids and small children. The analysis of over 300 samples taken from every part of the state demonstrates the wisdom of fixing the standard at 3 per cent.

There have been found no herds in Wisconsin that fall below this mark, while the general average ranges from $3\frac{1}{4}$ to $4\frac{1}{2}$. A careful perusal of the tables submitted by the chemist will be of interest to the general reader especially if he is the owner of one or more cows. The figures have a commercial significance which appeals to most men with a potent voice. One who has "profit" as a motto has little business in forming partnership with a cow that is not branded with "better than 3 per cent. of butter fat." A cow that skims her milk to less than 3 per cent. is amenable to the law and holds her owner responsible for damages. The opinion is gathering strength that they are less guilty cows in this respect than men. At the solicitation of the board of health, of Milwaukee, a number of samples of milk were taken in that city from wagons and milk depots. At the time the work was being done inquiries were made as to what kind of food the cows were getting. It was discovered that the health board of Milwaukee had taken active measures to suppress the feeding of brewery slops. This is a wise measure because this character of food has a material influence upon the quality of the milk produced. Brewery grains and malt sprouts are much better if they are fed while fresh and sweet. It was also discovered that inspectors regularly visited the

places where cows were kept that furnished the city with milk. This is the only city in the state where these precautions are taken, and the result is that Milwaukee is very fortunate in having, in the main, a wholesome and cleanly supply of milk.

Some of the samples fell below the 3 per cent. standard, and the following suits were instituted in the municipal court before Judge Walber.

Carle Oelke, found guilty, \$10 and costs.

J. T. Drefhl, found guilty, \$10 and costs.

Chas. Siegel, found guilty, \$10 and costs.

C. L. Porath, found guilty, \$10 and costs.

Waukesha Milk Co., found guilty, \$10 and costs.

C. Willis, acquitted.

Ferdinand Meister, acquitted.

Thos. Kaemerling, jury trial; acquitted.

Four other parties fell slightly below the standard, but it was not deemed expedient to begin action against them. They were personally notified to furnish better milk. The prosecutions had a very desirable effect upon the entire city supply. Dr. Martin kindly gave the assistance of his inspectors and the use of his offices for analysis.

Letters have been received from many Milwaukee residents that milkmen were furnishing a better quality of milk and seemed very anxious that their customers should be satisfied. The general public was much interested and so many requests came to the office to have the list with the percentages published that the names of the dealers and a description of quality was given to the press. While this is the best possible method of controlling this matter, if all could be reported, there is an injustice to those who are doing an honest business and yet were not mentioned because no samples had been taken from them.

A partial list of baking powders was given to the public and immediately scores of protests were made to the effect that certain firms were manufacturing honest goods and they were not on the list, consequently their brand was not recognized. The same objection applies to milk dealers. If some method could be adopted so that all could be

reached the person who handled an inferior article would soon go begging for patronage. This plan has been tried with splendid results in the city of London, Canada. The work was inaugurated about four years ago. The city council passed a by-law requiring every milk dealer to take out a license, paying therefor \$1 annually, the standard of butter fat being fixed at $3\frac{1}{2}$ per cent. as the lowest limit. This license is liable to be revoked at any time if the dealer fails to comply with the regulations. Ninety dealers and 1,200 cows came within the range of this inspection. Twice each year all milk is examined. Every herd is visited. The herd, the stable, the food and the water supply, is carefully looked after. A record of observation is taken. Twice a year a report of this examination of milk and inspection of surroundings is published in the city papers. No column of news is more closely read. The matron turns to the name of her milkman and if she reads " $2\frac{1}{2}$ per cent. of butter fat," "stables and cows filthy," "water supply poor," the poor fellow never forgets his next visit. The result is that the general average of the milk furnished contains over $3\frac{3}{4}$ per cent. of fat, and cramped and unclean stables have become more roomy and healthful, and greater care is exercised regarding food and water. If a similar system could be adopted in Wisconsin, the work could be carried on by this department. A dealer who holds a license and knows that it will be revoked if he does not comply with its requirements, will be very careful to do an honest, cleanly business. Then the office would be in possession of name, number and address, and when the list was completed it would be ready for publication. It would perhaps be unadvisable to have this regulation apply to cities under 2,000 inhabitants. The experience we have had with milk from villages demonstrates that it is, as a rule, uniform in quality and clean.

A number of the larger cities have been visited and the general supply has been examined as far as practicable. As will be seen by the examination of the tables submitted by the state chemist, the milk is of fair quality in nearly every city. Adam Thuerer, of Baraboo was arrested and

found guilty of selling adulterated milk, and fined \$10 and costs.

While the cases were in progress in Milwaukee, Judge Walber took occasion to say that the law for controlling the sale of city milk was a commendable one, and hoped all offenders would be prosecuted. The fine imposed was the minimum one that could be rendered, on the ground that the law was a new one and dealers had not been given sufficient time to acquaint themselves with its details. In every case the judge warned the defendants that upon a repetition of the offense the penalty would be much more severe. It is our purpose to make a more extended examination of milk in Milwaukee as well as other cities at an early date.

FACTORY MILK.

The manufacturing of milk into butter and cheese has become one of the great industries of the state. Millions of dollars are invested in the business and thousands of farmers look to the income of the cow as their chief support. Over 1,200 factories, private and public, are in operation, and Wisconsin has secured an enviable reputation for turning out large quantities of first-class butter and cheese. The climate and pastures seem especially adapted to this branch of agriculture. That this branch of industry has been carried to such a successful issue is largely due to the work of the State Dairyman's association. This association has been fortunate in having among its members men of public spirit who have been animated to their great work by a devotion to the public good and an abiding faith that they were encouraging a business that would be profitable to the people, to the farms and to the state. The result of this singleness of purpose is clearly demonstrated by the rank Wisconsin takes among the states of the Union.

The legislature is to be commended for its co-operation and liberality in this connection.

The Farmers' Institute has been a powerful auxiliary in disseminating thought and skill in every county in the

state, and is therefore entitled to no little credit for its assistance in establishing the reputation we enjoy as a state.

The Experiment Station has done yeoman's service in bringing home to the farmers the economic questions that enter so largely into farm management. To Wisconsin belongs the honor of establishing the first dairy school, and the instruction received by young men is a constant stream of information that promotes the intelligence of our dairy-men. No one gainsays that the legitimate manufacture of butter and cheese should be protected by the administration of law. Chap. 425, laws of 1889:

SECTION 1. Any person who shall sell or offer for sale or furnish or deliver, or have in his possession, with intent to sell or offer for sale or furnish or deliver to any creamery, cheese factory, corporation, person or persons whatsoever, as pure, wholesome and unskimmed, any unmerchantable, adulterated, impure or unwholesome milk, shall upon conviction thereof, be punished by a fine of not less than ten nor more than one hundred dollars for each and every offense.

SECTION 2. In all prosecutions or other proceedings under this or any other law of this state relating to the sale or furnishing of milk, if it shall be proven that the milk sold or offered for sale, or furnished or delivered, or had in possession with intent to sell or offer for sale, or to furnish or deliver as aforesaid, as pure, wholesome and unskimmed, contains less than three per centum of pure butter fat, when subjected to chemical analysis or other satisfactory test, *or that it has been diluted* or any part of its cream abstracted, or that it or any part of it was drawn from cows known to the person complained of to have been within fifteen days before or four days after parturition, or to have any disease or ulcers or other running sores, then and in either case the said milk shall be held, deemed and adjudged to have been unmerchantable and adulterated, impure or unwholesome, as the case may be.

Numerous complaints have been made by factorymen, and so far as possible we have accommodated them by a personal inspection of the factories and examination of the milk. It is impossible to answer all demands. The State Dairyman's association has had four instructors at work the past two seasons. They have done much to lighten the work of this office and have rendered valuable service to the state in establishing better methods of manufacture, thus ensuring better returns for milk. These instructors report that the factories are in much more cleanly condi-

tion and greater skill has been acquired in handling milk under all conditions.

Several suits are now pending against parties who have been delivering skimmed or watered milk to factories.

The department takes every precaution to clearly establish a man's guilt before prosecution is begun. A sample of milk is tested by the chemist by the Short or the Babcock method, and if it is found to contain less than three per cent. of butter fat it is then given a careful chemical analysis. While this is going on the assistant commissioner visits the herd and takes a sample immediately after milking. This is tested at once. By comparing the results of the three analyses it can be determined at once whether the patron in question has been doing crooked business. Factorymen report that a visit from the officers have a marked effect upon the amount and quality of milk some of their patrons deliver.

The dairy boards are taking an active interest in this matter and are using every endeavor to have the factorymen protected. When the dairymen thoroughly understand that the profits of their business depend upon the character and quality of the milk they deliver to the factories, no other inducement but personal interest will be required to enable all factories to receive milk that comes from hands that are clean and honest. When once an even quality of milk is delivered to the butter and cheese makers Wisconsin goods will be more largely sought and command better prices than in the past.

CHEESE.

Sixty million pounds of cheese is annually made in this state. There is not an article of commerce that requires greater skill in handling in order to secure favorable markets. No industry has been so perverted. No business exists that has been so basely manipulated, and no article of food has been so degraded by counterfeiters. In no time has the honest manufacturer met with such dishonest competition. Matters have come to such a pass that the genuine article is under the ban of suspicion at home and

abroad. The result has been that the subject has been thoroughly investigated by importers and steps have been taken to reduce the exportation of filled cheese from the United States. The following letters explain very clearly the action that has been taken in England regarding this matter, and how the nefarious business is regarded by the commissioners of the several states:

THE LIVERPOOL TRADE ASSOCIATION AND EXCHANGE COMPANY, LIMITED.

Secretary's Office, 24 North John Street.

LIVERPOOL, March 26, 1890.

DEAR SIR — We desire to inform you that a committee of the undersigned has been appointed by this association to watch the interests of the cheese trade, which are being seriously menaced by the continued increase in the manufacture of the article known as "filled" cheese.

We desire to co operate with you in the direction of obtaining such legislation as will lead to the suppression of the manufacture of this article.

The legitimate interests of the "Trade" are seriously imperiled, and the reasonable expectation of the consumer disappointed, and we are clearly of opinion that the distribution of "filled" cheese is disgusting the British public with the pure article, and that our Trade and mutual interests are in danger of suffering a permanent and lasting injury.

We are in communication with our Home Sanitary authorities, and are placing the matter before our Agricultural Government department, and members of the House of Commons.

We venture to suggest that you call upon your government and state Legislatures to prohibit the manufacture of these goods.

We would ask you to inform us what steps are being taken on your side, and what course should, in your opinion, be adopted to bring about the end we have in view.

We await the favor of your reply.

Yours faithfully,

W. CARSON,	C. HOLLAND.
A. W. DUNN,	T. LONSDALE,
J. L. GRANT,	SAMUEL WHITE,
J. S. HARMOOD	BANNER, <i>Secretary</i>

To H. C. THOM, Madison Wis.

REPORT
OF THE
COMMITTEE ON CHEESE,
OF THE
NEW YORK PRODUCE EXCHANGE,
IN RELATION TO "FILLED CHEESE."

THE LIVERPOOL PROVISION TRADE ASSOCIATION AND EX-
CHANGE COMPANY, LIMITED.

LIVERPOOL, January 8th, 1890.

DEAR SIR:

The directors of this association respectfully wish to draw the attention of your government to the exportation from the United States to the United Kingdom of what is termed "filled cheese."

This article is a compound of skim milk and grease, such as old butter, oleomargarine, or lard, the favorite ingredient being at present stale butter, on account of the belief of the manufacturers that they can thus defy the analyst.

My directors believe that this product is exceedingly harmful to the dairy farmers of your country. It is not the natural product of the cow, known as cheese. It is a well known fact that, for the past five years, since this fraud has been practiced, the price of pure cheese, instead of advancing in the spring months, has steadily declined.

This product is neither wholesome nor palatable, but is injurious to the American cheese trade, as it curtails consumption of the pure article, disgusting the community with American cheese as an article of food.

We believe the true remedy lies in prohibiting the production of filled cheese, which is manufactured in the western states, chiefly in Ohio, Illinois and Wisconsin. We are informed that New York state has prohibited its production.

We ask you for your assistance in this matter, and trust you will not only put this matter in the hands of the government, but suggest they

should draw the attention of the dairy association and governors of the various states where this article is produced.

Your obedient servant,

J. L. HARMOOD BANNER,

Secretary.

THOMAS H. SHERMAN, ESQ., American Consul, Liverpool.

UNITED STATES CONSULATE.

LIVERPOOL, January 13th, 1890.

HON. WILLIAM F. WHARTON,

Assistant Secretary of State,

WASHINGTON, D. C.

SIR.—At the request of the Liverpool Provision Trade Association and Exchange Co., Ltd., I forward herein for your consideration a copy of a letter addressed to me by its secretary, inviting attention to the exportation from the United States to the United Kingdom of “filled cheese,” an article compounded of inferior materials, and believed to be harmful to consumers and to the interest of honest dairy farmers in the United States.

The Association is informed that in New York, the production of this article is prohibited, and asks that the attention of the general government and the governments of other states, may be called to the matter. I am, sir,

Your obedient servant,

THOMAS H. SHERMAN,

Consul.

(Enclosure:)

MR. BANNER to MR. SHERMAN, 8th January, 1890.

DEPARTMENT OF STATE,

WASHINGTON, February 1, 1890.

THE HONORABLE THE SECRETARY OF THE TREASURY:

Sir.—I have the honor to transmit herewith enclosed copy of a despatch from the Consul at Liverpool, transmitting copy of a letter from the Liverpool Provision Trade Association and Exchange Company, relating to the exportation from the United States to the United Kingdom, of “filled cheese.”

I have the honor to be, sir,

Your obedient servant,

JAMES G. BLAINE

(Enclosure: From the Consul at Liverpool, No. 61. January 13, 1890.)

FIRST ANNUAL REPORT OF THE

TREASURY DEPARTMENT.

Office of the Secretary.

WASHINGTON, D. C., Feb. 6th, 1890.

COLLECTOR OF CUSTOMS, New York, N. Y.:

Sir.—I transmit herewith copy of a letter dated the 1st instant from the Honorable the Secretary of State, and of its enclosed Despatch No. 61, dated the 13th ultimo, and accompanying letter, from the U. S. Consul at Liverpool, in relation to the exortation from the United States to the United Kingdom, of so-called "filled cheese," an article compounded of inferior materials, and believed to be harmful to consumers and to the interests of honest dairy farmers in the United States.

It is suggested that you place the enclosed papers before the proper officers of the produce exchange at New York for their information. Copies of the papers have been transmitted to the honorable the secretary of agriculture.

Respectfully yours,

GEO. S. BATCHELLER,

Acting Secretary,

A. K. T.

(Three enclosures.)

CUSTOM HOUSE, NEW YORK CITY,

COLLECTOR'S OFFICE, February 7, 1890.

CHAS. C. BURKE, ESQ.,

President New York Produce Exchange, New York City:

Sir—I transmit herewith a copy of a letter this day received by the collector from the secretary of the treasury, together with copies of a letter from the honorable, the secretary of state, and of its enclosures from the United States consul at Liverpool, which the collector is requested to submit for the consideration of your exchange.

Respectfully yours,

CHAS. P. MCCLELLAND,

Special Deputy Collector.

(Four enclosures.)

NEW YORK PRODUCE EXCHANGE,

NEW YORK February 10, 1890.

M. FOLSOM, ESQ.,

Chairman Committee on Cheese:

Dear Sir—At a meeting of the board of managers, held this day, the enclosed communication from Charles P. McClelland, special deputy collector, with communication from consul, at Liverpool, relative to the

exportation from the United States to the United Kingdom or "filled cheese," was received and referred to your committee.

Yours very truly,

THOMAS P. WHITE,
Secretary.

NEW YORK, February 26th, 1890.

C. G. BURKE, Esq.,

President New York Produce Exchange:

DEAR SIR—Your committee have the honor to acknowledge the receipt of the several communications concerning the adulteration of cheese emanating from the Liverpool Provision Trade Association and Exchange Company, Limited. The subject has had full and thorough investigation which its importance demands. This matter received the attention of the members of this exchange on February 23, 1887, upon which occasion the following preamble and resolutions were adopted:

WHEREAS, Large quantities of cheese are being manufactured in some portions of the western states from milk from which the cream has been entirely extracted, by the separator process, and other animal and vegetable fats substituted for the butter so extracted; and,

WHEREAS, These goods are being almost entirely exported to Great Britain without being stamped or branded so as to distinguish their true character, and which are calculated to deceive; and,

WHEREAS, These spurious goods are working an injury to legitimate trade in cheese; therefore, be it

Resolved, That the cheese trade of the New York Produce Exchange deem it their duty to expose and discountenance such frauds by every means in their power.

Resolved, That we condemn the practice of adulterating cheese with animal or vegetable fats are demoralizing, and tending to create a prejudice in the markets of the world.

Resolved, That the attention of the dairy commissioners be drawn to the above resolutions, with a request that they do all they can to enforce the laws in regard to the make and sale of imitation cheese.

Since when the vigilance exercised by the assistant dairy commissioners in this city has put a stop to the trade in filled cheese in this market. Your committee have communicated with the several dairy and food commissioners of the following states, to-wit: New York, New Jersey, Ohio, Wisconsin, Iowa, Minnesota and Connecticut. The state of Illinois, as far as we can ascertain, has no dairy commissioner. The letters received have gone into the subject thoroughly and fully, and we submit extracts from these bearing on the subject.

J. K. Brown, New York State Dairy Commissioner, under date of February 19th, says: "The statutes of this state do not in express terms prohibit the manufacture and sale of butter filled cheese. I am in favor of a national law, as well as a state law; the former would reach many cases which the latter could not, and whatever its provisions, they would be uniform, affecting all states alike. Any legislation tending to stop the tampering with dairy products is of the utmost importance, not only to the

consumer, but to the producer as well, as it would help to restore and maintain the confidence necessary to a normal consumption of the product."

Wm. K. Newton, New Jersey Dairy and Food Commissioner, under date of February 17th, says: "I enclose a marked copy of the laws of this state relating to food. You will notice that 'filled cheese' may be sold if the box is properly marked and branded 'imitation cheese,' and at the time of sale the purchaser must be informed."

Henry Talcott, Assistant Dairy and Food commissioner for Ohio, writes under date of the 15th of February: "In answer to your questions: first, our law does prohibit the manufacture of cheese out of any substance but pure milk, salt and harmless coloring matter; and I would punish a filled cheese manufacturer in Ohio very quick if such a one could be found; second, I would most heartily approve of a national law prohibiting it. Ohio is free from this stain of filled cheese."

H. C. Thom, Dairy and Food Commissioner for Wisconsin, states, under date of February 20th, that "the laws of this state do not prohibit the manufacture of filled cheese when said filling consists of butter. The laws of the state demand the branding only of full cream cheese. I am in favor of a national law that will prohibit the filling of cheese in any way. We have made it so very warm for parties in Wisconsin who have been filling cheese with low grade butter that the business has been discontinued, and I feel safe in saying that not a pound of filled cheese is being made in this state at the present date."

H. D. Sherman, Iowa state dairy commissioner, writes under date of February 17th: "I this day send you by mail a copy of our state dairy law. As you will see, it covers the adulteration of cheese the same as butter. I am most heartily and emphatically in favor of a national law that will cover all kinds of the detestable stuffed cheese. It is no better than oleomargarine, and should come under the same law of control."

Warren J. Ives, Minnesota state dairy and food commissioner, writes as follows: "February 19th. Our laws does not permit the manufacture of filled cheese, even though filled with butter. I most certainly approve of a state as well as a national law with reference to filled cheese even more stringent, if possible, than the present oleomargarine law."

J. B. Tatem, state of Connecticut dairy commissioner, writes under date of February 21st: "Our state has no law which applies to cheese. I believe that a law similar to the oleomargarine law, so called, applied to cheese would prove a benefit to both producer and consumer."

From the foregoing it will be noticed that the laws of the states of New York, New Jersey and Wisconsin do not prohibit the manufacture of cheese filled or enriched with butter; while those of Ohio, Iowa, Minnesota, and we may add Pennsylvania, prohibit filling of any kind.

Illinois, we understand, has no statutes on this important subject, and from the best information we can obtain, there are several firms manufacturing filled cheese in that state, of nearly every size and shape adapted

the home trade and also for export; the latter are being consigned and shipped by the manufacturers direct to commission agents in Great Britain for sale; and, owing to more favorable rates of freight, are shipped via Portland, Boston, Philadelphia and Baltimore, few or none passing through this port. Regarding the quantity of filled cheese made in this state, we are of the opinion that the quantity is very much smaller than in previous years.

While it is the opinion of your committee that this article may have merit as a "cheap cut" when the price of best quality is high, and it has had strong scientific endorsement in Europe. The manufacture of filled cheese is, we are informed, carried on to a considerable extent both in Norway and Scotland. We would certainly recommend the enactment of a national law regulating the manufacture and sale of this article by the imposition of a nominal tax on manufacturers sufficient to cover the expense incurred, and that the tax and supervision be imposed and collected in the same form and manner as is now in force under the act regulating the manufacture and sale of oleomargarine.

We attach herewith the correspondence referred to, and also copies of the different state laws as furnished to us, all of which is respectfully submitted.

M. FOLSOM,
W. E. SMITH,
S. W. DOTY,
THOMAS BAMBER,
ALFRED C. H. FROEMCKE,
Committee on Cheese.

NEW YORK, February 27, 1890.

At a meeting of the board of managers of the New York Produce Exchange, held this day, the foregoing report of the committee on cheese was received and approved.

THOMAS P. WHITE,
Secretary.

The letter from Wisconsin states that no filled cheese was being made at that time of the year, February 20th. Information has since come to the office that parties are contemplating resuming the practice as soon as the markets would warrant. There is a patent on the process of making cheese with so-called enriched milk; that is, milk with butter run into it, owned by parties in New York. The attorneys and western agent for the company holding the patent have assured this office that no more licenses would

be granted in Wisconsin, but a man that will evade a state law by filling with poor butter instead of with good hogs' lard will violate a patent law with the same easy conscience.

Chapter 424, laws of 1889, reads as follows:

SECTION 1. No person shall manufacture, mix or compound with or add to natural milk, cream or butter, any animal fats or animal or vegetable oils, nor shall he make or manufacture any oleaginous substance not produced from milk or cream, with intent to sell the same for butter or cheese made from unadulterated milk or cream, or have the same in his possession or offer the same for sale with such intent, nor shall any article or substance or compound so made or produced be sold intentionally or otherwise as and for butter or cheese the product of the dairy. Whoever violates any of the provisions of this section shall be guilty of a misdemeanor, and be punished by a fine of not less than fifty dollars (\$50), nor more than five hundred dollars (\$500).

A careful reading of this law shows that filling cheese with any substance not produced from milk is prohibited. The framers of this law did not presume that Wisconsin had men who would evade the letter of this law by putting stale butter into skim milk and make cheese of the mixture.

Factorymen within the confines of the state have hauled skim milk in wagons six miles into Illinois and there added foreign fats to make filled cheese, but no one had been discovered who would buy store grease, soak it into cheese and call it the natural product of the cow. They had not been discovered perhaps, because men who are willing to ruin a state industry for slight personal gain are too small to be seen without the closest scrutiny. In 1884, the United States sent 150,000,000 pounds of cheese to foreign ports. No year since has so much been sent abroad. There must be some reason for this restriction of trade. Cheese is an article more appreciated and a product of more popular consumption in European countries than in our own. It is a staple food largely taking the place of meat which the poorer classes find themselves unable to afford.

Good cheese makes a diet, wholesome, nourishing and comparatively cheap. Under these circumstances it is natural that we should develop a large trade, and if the

reputation of our product had been maintained, the next decade would show an expansion of the trade quite as remarkable as did the past. With constantly improving dairy stock and methods, with our wonderful resources in cheap and abundant pasturage, with the tendency toward concentrated effort and massing of capital, resulting in a uniform grade of product at a cheaper cost of production, we should be able to supply the old world with such a good article that to have it once would create a continuous demand. "At the present time," says an eminent writer, "when complaints in the depression in American agriculture are everywhere heard, the value of such a foreign demand for our surplus products ought to be appreciated, and all possible means should be used to cater to the demand and extend our trade." The exportation of agricultural products is most profitable when the items represent the greatest value in the least bulk. Double profits are made when grasses and grains are sold in the shape of dairy products. The transformation takes place at home, maintaining the fertility of the soil, giving additional employment to farm labor, and reducing to a minimum the cost of transportation. What have we done to show that we appreciated the demand and the condition of affairs? Are we not getting out the gun to kill the goose that laid the golden egg? Nothing in the world brought about the depression of the foreign butter market but the flooding of distant docks with oleomargarine. Germany claimed that our pork was not all right. What a wail went up from our people. Too much could not be done to set the matter right. The man who was delivering milk from thirty cows to make filled cheese raised his voice to heaven because Germany refused to buy his one pig. Why are not our dairymen sharp enough to keep American cheese above suspicion? Milk brings a few cents more per hundred for a short time but the day of judgment is close at hand. A consumer buys a pound of fraud and forever after distrusts all cheese. We thus lose home patronage, and we turn to Europe for relief. We fooled her once about taking some tea, but she is too sharp to be caught on our poor cheese. It

is much more difficult to regain a lost reputation than to lose one. The branding of cheese is provided for in the following section: Chapter 240, laws of 1887, as amended by chapter 455, laws of 1889.

SECTION 1. Every person who shall at any cheese factory in the state, manufacture any cheese shall distinctly and durably stamp or mark upon each and every box, case or package of cheese manufactured and sold, the name and location of the cheese factory at which the same was made, and all cheese made from milk, containing three per centum or more of pure butter fat, shall be branded as full cream. And if any manufacturer of cheese shall sell or dispose of any cheese without such stamp or mark, or shall falsely stamp or mark the same as full cream, when made from milk containing less than three per centum of pure butter fat, he shall forfeit and pay to any person who shall prosecute for the same the sum of twenty dollars for every box, case or package of cheese sold or disposed of without being marked as prescribed in this act or with a false mark thereon, to be recovered in a civil action in any court having jurisdiction of the person and subject matter, one-half of such penalty to be paid into the county treasury of the county in which such action is brought, to be by said treasurer paid to the state treasurer for the benefit of the school fund.

Note that the name and location of the factory is demanded; also that it is not mandatory to brand any but full cream cheese, or cheese made from milk which contains at least 3 per cent. of butter fat. A number of factory men have endeavored to take advantage of this law and take off part of the cream and manufacture into butter while the partially skimmed milk is made into cheese and branded full cream. This is a dangerous process for a manufacturer, as his judgment as well as his conscience is perverted by his greed of gain, and unless he keeps close rein upon himself he will skim the milk too deep, thus making himself amenable to the law, and by placing goods upon the market that are just within the pale of the statute or slightly below, work injury to our reputation for standard cheese.

It may be said that the trier determines the quality and price cheese will bring in the market, but it must not be forgotten that the poorer the quality the fewer the triers. Thirty-five per cent. of the milk tested in the state of Minnesota in 1887 was below grade; $2\frac{1}{2}$ per cent. of the milk

tested in the same districts in 1889 was below grade. In 1887 sales of foreign cheese in the city of Minneapolis was 727,000 pounds; state cheese, 582,000 pounds. In 1889 the sales were in the same city, foreign cheese, 394,000 pounds; state cheese, 1,456,000 pounds. The application can be made to the cheese industry of our state with significance.

A large number of factory men have urged the necessity of a state brand for cheese.

Manufacturers are united that something be devised for a brand that could not be scraped off by unscrupulous commission merchants in Chicago and other large markets. The matter has been given considerable study, and several experiments have been made. It has been found that a stamp that impresses the cheese is impracticable because it makes a rough surface which is undesirable in cheese that is to be shipped or stored for a length of time. The only plan that seems to answer is to place the stencil on the bandage when the cheese is ready for shipment. The lettering cannot be removed without tearing the bandage. If this plan is followed the package is marked as follows, according to the law now in force:

BIG HOLLOW FACTORY,
SPRING GREEN, WIS.

The cheese itself would bear the following:

WISCONSIN STANDARD
FULL CREAM CHEESE,
FACTORY NO. 392.

The name, location and number of the factory should be kept on record in this office, the stencils to be furnished by the commissioner and a penalty fixed for selling without using the brand or for using any number not properly recorded. This plan has met with success in New York where a reputation for cheese making has been secured second to no state in the Union.

Communications have been received from manufacturers as well as some honest commission men, that dealers had no scruples about scraping off a brand and substituting one

that misrepresented the contents. A careful investigation of the law disclosed that the section referring to labels applies to manufacturers and compounders and not to dealers. This places the factory men at the mercy of unscrupulous merchants who stand ready to barter their honesty for an additional penny per pound. That this defect in the the law should be remedied is obvious.

During the summer last past it came to the knowledge of this office that Church & Braunling, a Chicago firm, running a cheese factory in Manitowoc county, were making a large amount of butter and at the same time making cheese which they were branding as "full cream." A shipment of fifty boxes was found in the warehouse of the Goodrich Transit company, and samples taken. Action was brought by Church & Braunling against the commissioner and assistant for damages, on the ground that the officers had no authority, under the law, to enter the premises of a common carrier to take samples of suspicious goods, and upon the ground that the firm of Church & Braunling were manufacturing cheese in Wisconsin for their own use in Illinois, and that the cheese was consigned to themselves. The court held that the officers had exceeded their authority and rendered a verdict accordingly of six cents damages. The commissioner, having no desire to make the county and state additional expense, paid the costs. The decision of this case, however, has no bearing upon the one that is pending, of the State vs. Church & Braunling for selling "skim cheese" for "full cream." If a firm from the state of Illinois can come to Wisconsin and follow a business that residents and tax payers cannot engage in because of laws that were framed to protect an important industry, the dairymen of the state ought to know it that more stringent laws can be formulated. The practice of filling cheese with lard and poor butter and the manufacture of oleo-butter in the state of Illinois, explains in a very significant way why factories are standing idle and going to decay in that state, and why cheese-makers who have made spurious goods until the public found that

it was being imposed upon, come to Wisconsin and knock at honest doors and ply their infamous trade to the ruin of our markets at home and abroad.

OLEOMARGARINE.

Four or five million pounds of oleomargarine are used annually in Wisconsin. This means the product of 30,000 cows. It means that 6,000 farms are deprived of profit and fertility that would naturally come from 30,000 cows. It means that 30,000 heifers remain unborn or are killed at birth. It means over a million dollars handled by manufacturers, outside the state instead of farmers within our state who help bear the burden of taxation. No man can live in a business sense and place his butter in competition with tallow and cotton seed oil so manipulated that it requires an expert chemist to detect the difference between the compound and dairy butter. It is not clear that we should prohibit the manufacture of any mixture that is not injurious to health, but we should strip oleomargarine of its power, and that can only be done by obliging manufacturers to make it look like itself and not like butter. Butter has worked all these years to make for itself a market and a demand. Now that they are established it should not be robbed by an imitation. The attack has but just begun. No corner of the state is too remote for its presence. No table so humble, no dining room so grand, no lumber camp so rough, that oleomargarine, with its mellow name, will not walk upon and into, with a deceitful bow and brazen smile, with the claim that is name is butter.

Sixty thousand cows graze upon Wisconsin pastures. Eighteen million dollars are invested in them by Wisconsin herdsmen. Are we to allow a Chicago corporation to drive our flocks from the fields and force men into business they are not fitted to by birth or training? It is not justice. It is against all ideas of right. The day is near at hand when public sentiment will demand recognition. No man or company of men have the right to stand in the light of a great and common interest. Shall the people and

legislature of Wisconsin show themselves more friendly to a Chicago fraud than they are to a Wisconsin industry? The legislature of 1889 said "No." The honest consumer says "No." We need more perfect laws on this question, and I believe the sentiment of the state will be found solidly in favor of their enactment. During the winter of 1889 the names of all the wholesale and retail dealers of oleomargarine in the state were secured, and a personal inspection of the premises was made to determine if the law was being complied with. Nearly every dealer was complying with the United States revenue law, but some were found who were not with the state law. The following section explains the offense and prescribes the penalty. The amount of fine is left discretionary with the court, and it has been five dollars in each and every case.

Chapter 185, laws of 1887:

SECTION 1. Any person who shall knowingly make, traffic and sell oleo-butter, butterine or any other imitation of butter or cheese, or who shall knowingly keep upon his table in any hotel, restaurant or boarding house, any imitation butter, shall make the same fully known to the buyer, by posting up notices of the fact at, and in the place where such articles are for sale or for consumption.

SECTION 2, Any person who shall omit posting up such notice, shall be punished by imprisonment in the county jail, not more than thirty days, or by a fine not to exceed twenty-five dollars.

Warrants were issued for the arrest of F. W. Muller, of Milwaukee; W. C. Noall, of Commonwealth; R. J. Knee-bone, of Florence; Armour Packing Co., W. H. Mackmiller, of Ashland, and F. A. Day, of Hurley. F. A. Day and the Armour Packing Co., were acquitted, and the others were found guilty and fined.

In 1888 there were 55 dealers in Wisconsin in oleo-butter. In 1889 there were 88 dealers. Reports from merchants throughout the state show that sales have decreased quite rapidly during the past year. Letters are on file in the office from a number of dealers, stating they will not take out a license another year. The government may realize a small revenue from the sale of oleo-butter in the states, but it must be remembered that while the government gets two

cents for each pound of oleomargarine sold, a pound of butter is displaced which a farmer would have secured a profit upon. The dairymen of Wisconsin cannot do business upon this basis. To produce a pound of butter, costs at least thirteen cents. Oleomargarine can be placed upon our markets at a good profit, for twelve cents, after the dealer has paid his revenue of two cents per pound.

In counties like Green, Sheboygan, Manitowoc, Richland, Jefferson and Monroe, where grass and climate are especially adapted to dairying and where both skill and capital are devoted to this industry, this nefarious competition threatens disaster.

Immediately after the supreme court decision upon the original package question, a large petition was sent to Senator Spooner, urging the members and senators to support the Hiscock bill, which gave to the states the right to control the manufacture and sale of oleomargarine.

The text of the Hiscox bill is as follows:

“A BILL SUBJECTING OLEOMARGARINE TO THE PROVISIONS OF THE LAWS
OF THE SEVERAL STATES:

“*Be it enacted by the Senate and House of Representatives of the United States of America, in Congress Assembled; That no state shall be held to be limited or restrained in its power to prohibit, regulate, control, or tax the sale, keeping for sale, or the transportation, as an article of commerce or otherwise, to be delivered within its own limits, of oleomargarine, as defined by section 2, chapter 840, of the laws of the forty-ninth congress, by reason of the fact that the same has been imported into such state from beyond its limits, whether there shall or shall not have been paid thereon any tax, duty, import, or excise to the United States.*”

The leading dairy states throughout the Union were very active in supporting this measure. Upon the receipt of the petition by Senator Spooner, the following letter was sent to this office:

WASHINGTON, D. C., July 25, 1890.

HON. H. C. THOM,

Dairy and Food Commissiouer, Madison, Wis.:

DEAR SIR -- I have your favor of the 23d inst., with petitions. They will be presented in the senate to-morrow and properly referred. The house, has, as you know, passed a pretty broad bill. It will manifestly be

3—D. & F.

necessary to change it somewhat in conference, but we will endeavor to see that it is not so changed as to affect the interest which you represent.

Yours very truly,

JOHN C. SPOONER.

July 26. "The petition was presented in the senate to-day."

The disposition of the Hiscock bill is fully explained by the following correspondence which took place between Gov. Hoard and Senator Spooner:

UNITED STATES SENATE,
WASHINGTON, D. C., Sept. 22, 1890.

HON. W. D. HOARD:

My Dear Governor—I have your favor of the 20th inst., relative to the original package bill. The slip which you enclose is partly right and partly wrong. The original package bill was introduced in the senate and passed the senate in the following form: "That all fermented, distilled, or other intoxicating liquors or liquids transported into any state or territory or remaining therein for use, consumption, sale or storage therein, shall upon arrival in such state or territory be subject to the operation and effect of the laws of such state or territory enacted in the exercise of its police powers, to the same extent and in the same manner as though such liquids or liquors had been produced in such state or territory, and shall not be exempt therefrom by reason of being introduced therein in original packages or otherwise." You will observe it applied only to original packages of fermented, distilled or other intoxicating liquors or liquids. It was amended in the house of representatives, and passed that body in the following form: "That whenever any article of commerce is imported into any state from any other state, territory or foreign nation, and there held or offered for sale, the same shall then be subject to the laws of such state. Provided, that no discrimination shall be made by any state in favor of its citizens against those of other states or territories in respect to the sale of any articles of commerce, nor in favor of its own products against those of like character produced in other states or territories; nor shall the transportation of commerce through any state be obstructed except in the necessary enforcement of the health laws of such state."

I had prepared, with several others, to make a contest in the senate to concur in the house amendment, supposing it would be in proper form to be enacted into law, made so general as to include oleomargarine and other articles prohibited by the states. When we came to examine it, we found that the house had changed it so that it applied only to articles imported into any state from any other state, territory or foreign nation, not precluding the importation into territories, and omitting from the list of places of export the District of Columbia, which is neither a state, territory or foreign nation. So that under the bill, as amended, any article

might be shipped into any state or territory from the District of Columbia. It was necessary, in the opinion of nearly all of the senators, that the bill should be perfected, which, of course, could only be done by disagreeing with the house amendment and throwing it into conference. This was done. The conference committee of both houses agreed upon the bill as it had passed the senate. It was presented, according to the rule, first to the house of representatives, and, that body having agreed to it, and receded from its amendment, no further action was required or could be had by the senate upon it, and the matter was beyond reach or amendment in the senate. If the house amendment had been so drafted that the senate could concur in it, I have no doubt that we could have made successfully the oleomargarine fight in the senate. The Hiscock bill embracing oleomargarine is pending, and I do not doubt will be favorably reported and passed early in the coming session. I return herewith attached the clipping. With best wishes for you in every way,

Your friend,

JOHN C. SPOONER.

We will be obliged to wait until the next session of congress, at least, before the states can take measures to protect themselves. Oleomargarine is a fraud. It would not be tolerated a day by the public if every one who eats it could know. Ninety-nine out of every hundred pounds of oleo-butter that is consumed is so consumed under the supposition that it is honest butter. The dealer buys it of the manufacturer for what it is, and he sells it to the boarding-house keeper or the hotel keeper for what it is, but the people who eat it at the table, invariably suppose it to be honest butter. Here slips in the element of fraud that makes profitable the whole transaction.

VINEGAR.

Over one hundred samples of vinegar have been tested, and but a small percentage have been found as represented by the label. Manufacturers, as a rule, seem to have no scruples about branding as pure cider vinger the cheapest kinds of distilled vinegars. Honest vinegar makers hailed with delight a movement to give them a fair chance to place their goods upon the market and not have them come in competition with a cheap grade, so colored that they could not be told from the genuine. It is much to be regretted that difficulty with the law was encountered, but it

was inevitable, and the sooner it could be brought before the supreme court the shorter the time that honest manufacturers would have to wait for fair judgment at the hands of the law.

Retail dealers are advised to require wholesalers to furnish a written guarantee that the vinegar they furnish shall correspond in every particular with the label which accompanies every invoice.

In the event of fraudulent goods being imposed upon the retailer, and prosecution ensues, the guarantee of the wholesaler insures redress for the retail dealer.

Some manufacturers of vinegar, whose works are outside the state, label their barrels with a brand as follows: "Extra Quality," "Standard Quality," "XXX," or something of that kind. The agent who represents a firm within the state makes the claim, and often goes to the trouble to write out a guarantee, that the vinegar is pure cider vinegar. Upon analysis, these goods have been found, without a single exception, to be cheap whisky vinegars, colored so as to imitate the genuine article. The manufacturers thus escape the damaging evidence of a false brand, and trust that good fortune will deliver them from being found out, by the discovery of misrepresentations by their agent. If the dealer refuses to pay for the goods, after proper analysis, the agent has not received money under false pretenses, and action does not lie against him personally. It is suggested that a law be enacted that will hold an agent for misrepresentation.

Reports have been received and evidence offered, that there are thousands of barrels of good cider vinegar in cellars waiting for a market. The barrel vinegar makers claim that they are unable to make apple or fruit vinegar for the price at which whiskey vinegars are retailed. There are plenty of people who stand ready to buy it if they could be assured that they were paying money for the genuine article. Now that a decision has been rendered by the supreme court the trade will soon understand that the selling of vinegar, or any other food product, under a false label will not be tolerated.

DRUGS.

Section 3 of the statute defining the duties of dairy and food commissioner specifies that "it shall be the duty of the commissioner to enforce all laws that now exist, or that may hereafter be enacted in this state, regarding the production, manufacture or sale of dairy products or *the adulteration of any article of food or drink or of any drug*; and personally, or by his assistants, to inspect any article of milk, butter, cheese, lard, syrup, coffee or 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," etc.

If some consideration be given to the scope of the above requirements, it will be seen that the enumerated articles of food, drink or drugs, may include a large proportion of the articles in daily use, all of which are alike subject to adulteration, or liable from various causes to be unhealthful, impure or deficient in those characters which they are represented and assumed to possess. Careful and unprejudiced observers, such, for example, as the chemists in the United States department of agriculture, who have undertaken for official purposes to gather information respecting the extent and character of food and drug adulterations, have, indeed, shown that from the cheapest and most simple article of diet to the most expensive, the art of the manipulator has been applied.

It is also sufficiently evident that among the articles belonging to these different classes, none should possess a higher degree of purity than the numerous drugs and medicinal preparations employed in the treatment of disease, for upon these depend in so large a measure the conservation of the public health, and all the benefits and blessings which this includes. The excellent pharmacy laws of the state have exerted in this connection a most beneficial influence by elevating the standard of pharmaceutical skill and requirements, and by incidentally directing attention to the supreme importance of excluding from medicinal use

all drugs, chemicals or medicinal preparations which do not conform to the proper and recognized standards of strength and purity. For several years the Wisconsin Pharmaceutical association has likewise made the commendable effort, through the appointment of a committee on adulterations, to exercise the requisite control over the purity of drugs, but it is not to be expected that such a committee should undertake to perform gratuitously so extended and important a public service as is thereby involved, nor has it been found possible with the limited time and opportunities of such a committee, composed of practical pharmacists, to adequately accomplish the purpose in view.

The work of the Dairy and Food commission, as elsewhere explained, has thus far been necessarily limited to the duties of inspecting important dairy products and such other articles of food as seemed to require more immediate examination. It is apparent, however, that it is not only wise and expedient, but eminently desirable, that the commission should seek at the earliest opportunity to extend its usefulness to the broadest attainable limits, and thus to truly accomplish the mission for which it was designed.

In order that this purpose may be realized, and that proper attention should be given to the inspection and examination of important drugs, as well as to a large number of products classed as food and drink, the services of an additional assistant are required. The duties and functions of such an assistant would demand, moreover, that he should be not only a thorough chemist, but also an acknowledged expert in the examination and analysis of drugs and products of pharmaceutical art, as well as in branches involving microscopical research and skill.

It is believed that with suitable and necessary provisions the excellent facilities of the Department of Pharmacy, of the University of Wisconsin, might be further utilized in the directions indicated, and by the appointment of a competent assistant, who should be permanently associated with the School of Pharmacy, a co-operation of closely allied interests would be effected, which would be of widely recognized value in the extent and character of the service

rendered to the state. For the accomplishment of this extension of the service of the commission, it is estimated that an increase of \$2,000 should be made to its annual appropriation, at least \$1,000 of which should constitute the salary of the expert assistant to be employed, and the remainder to constitute a fund for meeting such contingent expenses as the increased duties of the office may involve.

The recommendations thus embodied, which have already received the approval of the President of the University, as well as the director of the School of Pharmacy and the Wisconsin Pharmaceutical association, are therefore submitted with the confidence of their receiving also your favorable consideration.

LEGISLATION.

But few laws have been passed by states defining the powers and duties of officers regarding adulteration. The state of New York took the initiative in this matter and for six years effective work has been done in that state. At the outset the duties of the commissioner related only to dairy products, but from time to time the scope of requirements has been extended and food standards are being established. When the legislature of Wisconsin passed a law creating the Dairy and Food commission there were but few laws at hand from which food standards could be obtained and no data which were specific enough to determine what articles of food required attention. The work of this department has been devoted almost exclusively to gathering samples of foods and testing them in order to gather facts so that when the next legislature convenes we would be in a position to place before the members an intelligent statement of the frauds that are perpetrated upon the public and remedies to eradicate the evils. The court of appeals of New York says: "It is notorious that the adulteration of food products has grown to proportions so enormous as to menace the health and safety of the people. Ingenuity keeps pace with greed, and the careless and heedless consumers are exposed to increasing perils. To redress such evils is a plain duty but a difficult task. Ex-

perience has taught the lesson that repressive measures which depend for their efficiency upon proof of the dealer's knowledge and of his intent to deceive and defraud are of little use and rarely accomplish their purpose. Such an emergency may justify legislation which throws upon the seller the entire responsibility of the purity and soundness of what he sells and compels him to know and to be certain."

With considerable trouble all the laws upon adulteration have been gathered from Europe and America. The department feels confident that, with the aid of the experience that other countries and states have had, coupled with the data which have been secured by work in the laboratory, laws can be framed which will cover all exigencies which exist in our state, in a satisfactory manner.

There is no more important subject before the thinking public to-day than the condition of our food supply. Dr. Beckwith, of the Ohio state board of health, says: "No subject in the last decade, relating to the human economy, has received greater consideration or elicited fuller discussion than the contamination of food through the agency of adulteration."

"The wonderful revelations of science have made possible not only the wholesale sophistication of most of our food products, but have provided a way, in numerous cases, for the actual substitution of fraudulent, if not pernicious substances for many others.

"To such an enormous extent has sophistication been carried within the past few years, that legislative action in nearly all civilized countries of the world has been taken, with a view of alleviating, if not relieving, the sufferings of protesting humanity."

The wisdom of legislation is well illustrated in the dominion of Canada. The work of examination began in 1876, when 51.66 per cent. of the articles examined were found adulterated. In 1882 this percentage had been reduced to 25.

Secretary Rusk said in his address at the Ohio state fair: "More than one-half of the income of the average wage-

earners of the human race is spent for food. The special sphere of the agricultural department is to enlarge the facilities for providing food. Let it also be the special sphere of the department to see that the food supplied be pure and wholesome. Every product must be sold for what it is. The adulteration of foods is injurious to public morals. It tends to lower the price of the legitimate product, and hence injure the farmer. I am unalterably opposed to any deception in the naming of any article which uses the prestige of the farm to cover up the fraud of the manufacturer. We must increase and extend our foreign markets by every legitimate means in our power, by surrounding the manufacture of our various food products with such stringent regulations that the word 'American' or the brand 'U. S.' on any food product will be recognized the world over as synonymous with the words 'pure' and 'wholesome.' "

In conclusion, I tender my thanks to the press, in the state and out of it, for the aid it has rendered in establishing the purpose of the commission in the understanding of the people. I am also grateful to the district attorneys for their efficient service, and to the merchants and manufacturers for their co-operation.

I am, sir, your obedient servant,

H. C. THOM,
Commissioner.

REPORT OF THE STATE CHEMIST.

MADISON, Wis., Sept. 30, 1890.

HON. H. C. THOM,

State Dairy and Food Commissioner:

SIR:—I have the honor to submit the following report for the year ending September 30, 1890:

MILK.

Milk, like all products of the animal body, is of very complex composition. To the ancient as well as the modern world it was a fluid of great virtue, and was the first form of food that received the attention of physicians and experimenters. To it was ascribed valuable medicinal qualities. Hippocrates, the celebrated physician, prescribed milk, either that of the cow, ewe, or the goat, in certain ailments, but forbade its use in cases of headache, fever and bilious attacks. Aristotle decided that "milk is elaborated not decomposed blood." Avicenna and Placitus devote many pages to the subject, and gravely discuss whether milk was hot, cold or moist; concluding that animal milk, compared with that of human, is cold; human with that of animal, hot. Only three parts were at first recognized in milk, viz.: Serum, butter and curd. Bartoletus, in 1619, was the first to mention a fourth constituent, milk sugar. In his day, sulphur, mercury, and a saline principle were considered as the three active essences of all things; hence, from the yellow color of the butter, Bartoletus referred it to a sulphur principle, the whey to quick silver, and the curd to a saline element. He also compares milk with blood. In the eighteenth century Leeuwenhoek first observed milk under the microscope. He saw that it

was a fluid containing many globules. Some, which he judged to be of a buttery nature, rose to the surface, others sank to the bottom and were evidently of a different composition. Boerhaave made a careful study of the properties of milk both in health and in disease. He saw in it the most perfect food, and to him it was a fluid containing all the elements of the body; hence, he devoted much time and attention to its study. He tested milk with a great variety of reagents, and found that it was curdled by all acids. On boiling with alkalies he noticed the yellow color caused by the decomposition of the milk sugar. The first quantitative analysis of milk was made by Geoffroy in 1737. He gave the per cent. of milk, sugar and salts in the serum as 5.2 per cent., a determination almost as exact as that of the present time. He distilled the whey, and in the residue recognized common salt by the crystals.

As early as 1756, milk sugar was an article of commerce. Creuzius, a Swiss chemist, prepared an excellent quality of this substance, but his process was a secret and died with him. Sheele discovered lactic acid, and found phosphate of lime to be always present in casein. Hoffman determined the total solids of milk to be 13.5 per cent.

Composition of Milk.—Up to the present time the milk of the mammalia alone has been fully analyzed. It has been found to consist of water, sugar and a number of albuminoid bodies, fat and a small quantity of saline matter. These bodies are partly in suspension and partly in solution; sugar of milk, casein, peptones, lactochrome and saline matter are in solution. A portion of the casein is in the form of fine granules, while the milk fat is in the form of an emulsion. When a thin layer of milk is examined under the microscope the only thing visible is the milk fat which appears in the form of innumerable globules, their number depending on the richness of the sample; good milk containing from two to three and a half millions of globules in every cubic millimeter. Besides the constituents above given, milk, according to Blyth, contains the following:

insoluble in water, but soluble in dilute alkalies. The amount of casein remains nearly constant, being about 4 per cent. Serum albumen, as found in milk, in no way differs from the albumen of the blood. Separated from milk in the ordinary way, it is in yellowish flakes, brittle, without taste or smell, insoluble in water, alcohol and ether; soluble in dilute caustic alkali, if gently warmed. The amount of albumen in milk is about 0.7 per cent. Directly after calving it may rise as high as 10, but in a few days the milk becomes normal and the albumen sinks to 0.7. Nucleine is distinguished from the other albuminoids by containing phosphorus. Fibrin is also present in milk, though in minute quantities. The experiments of Babcock would indicate that although the quantity present is not more than two or three ten thousandths, yet it may exercise a decided influence on the creaming of milk.

Milk sugar with two exceptions is found only in the milk of the herbivora. It is soluble in six parts of cold water and 2.5 parts of boiling water; it is insoluble in absolute alcohol and in perfectly dry ether. Its watery solution is neutral and has a sweet taste. It undergoes lactic fermentation readily but alcoholic with difficulty.

The ash of milk has about the following composition:

	<i>Per cent.</i>
Potash	24.67
Soda	9.70
Lime.....	22.00
Magnesia.....	3.05
Ferric oxide.....	.5
Phosphoric acid.....	28.45
Sulphuric acid.....	.30
Chlorine.....	14.28

The mineral constituents of cow's milk are therefore phosphate of potash, phosphate of lime and magnesia, common salt and a trace of phosphate of iron. The albuminoids, ash and milk sugar in aqueous solution form what is known as a milk serum. Milk serum is a viscous liquid, extremely well adapted for emulsifying fat. When the proportion of solids is high, its viscosity is sufficient to retard creaming.

and the yield of the churn. The composition of the serum is very constant for the same cow, and does not vary much in different animals. The limit of solids is from 8.5 to 11. per cent. Jersey and Guernsey milk contains the highest and Holstein milk the lowest per cent. of serum solids. The solids of the serum increase slightly with the period of lactation, the amount being about .04 per cent per month.

Lactochrome is a bright red orange, resin like mass, softening at 100 °F., freely soluble in water. There is but little doubt that lactochrome is the cause of the yellow color of milk whey and also the coloring matter of butter.

Specific Gravity.—As the result of numerous experiments, it has been found that the specific gravity of milk is from 1.029 to 1.036; 1.029 being the lowest limit for pure milk.

Testing Milk.—The rapid determination of the quality of the milk is of great importance and various methods and instruments have been invented for this purpose. The most familiar of these instruments is the lactometer. This instrument is a form of the hydrometer, an instrument designed to measure the specific gravity of liquids. The scale of the lactometer covers the specific gravities ranging from 1.000 (water) to 1.0348. The instruments are usually adjusted at 60° F., and a correction requires to be made for temperature to the extent of nearly one degree in specific gravity for every ten degrees of temperature above or below 60° F. Thus if milk had an apparent specific gravity of 1.030 at 70° F., the corrected gravity at the standard temperature would be 1.031. As fat is lighter than water the removal of cream would tend to raise the specific gravity of the milk, and the presence of a large quantity of fat tend to lower it. A low gravity, therefore, may indicate a milk rich in fat or one to which water has been added. It is evident, therefore, that the lactometer can only indicate a deviation from normal milk and a determination of the fat is necessary. For this purpose a number of instruments have been prepared. The simplest of these is known as Feser's Lactoscope. This instrument in its operation depends on the fact that under ordinary condition the richer the milk in fat the greater is the num-

ber of fat globules in a given space, and hence a greater opacity. The instrument consists of a small glass cylinder, in the lower part of which is a small rod of white glass ruled with a few black lines. Upon the outer cylinder is a scale indicating the percentage of fat. Four cubic centimeters of milk are put into the cylinder and water is added until the black lines on the white glass rod can just be distinguished. The level of the water as shown upon the scale upon the large cylinder gives the per cent. of fat. The ease and quickness with which milk can be tested with this instrument has caused it to be extensively used; but little reliance should be placed on it unless its accuracy has been compared with the regular gravimetric analysis. The instrument as found in the market is anything but accurate; instruments some times varying over a per cent. on the same milk. As regards the principle of the process, Dr. Veith says: "The opacity of milk does not solely depend upon the presence of fat globules, the serum in which the latter are floating being itself opaque and most probably varying in degree in different samples of milk. Moreover, it is not the percentage quantity of fat globules in which the fat is subdivided. It is an established fact that the fat globules in milk so far from being all of uniform size, vary considerably, and that the different sizes are present in rather variable proportions in different samples of milk."

It is evident from the above that the lactoscope, like the lactometer, only gives us an indication of the quality of the milk, and that to obtain an accurate knowledge of the value of the milk more exact instruments and methods must be employed. This must be done either by the regular gravimetric process, or if the fat alone is to be tested by one of the numerous volumetric methods which have been published in the last two years. The most promising of these methods for accuracy, quickness and ease of manipulation is that recently published by Dr. S. M. Babcock in Bulletin No. 24 of the Wisconsin Agricultural Experiment Station. The following is a description of the test as given in the bulletin.

DESCRIPTION OF APPARATUS AND CHEMICALS REQUIRED.

1. *Test Bottles.* (Fig. 1.) These are of the same form as the bottles used in Short's test, but are made a little smaller and of heavier glass. They should contain up to the neck not less than 40 c. c., and not more than 45 c. c. Each division of the graduated scale upon the neck represents .04 c. c., and in order to facilitate the reading the neck is made of such a diameter that the marks of the scale are about $1\frac{1}{2}$ millimeters apart. Five of these divisions are equivalent to one per cent. of fat when 18 gms. of milk are used in the test, it being assumed that the specific gravity of the butter fat, at the temperature at which the reading is made (about 120° F.), is 0.9.

2. *Pipette for Measuring Milk.* This may be of any form, but that shown in fig. 2, with a rather wide opening at the lower end to allow the milk to run out rapidly is to be preferred. It should contain when filled to the mark, 17.6 c. c. A pipette of this size will deliver a little less than 17.5 c. c. of milk. The quantity of milk required for the test sample of 18 gms. is 17.44 c. c., if the milk has the average specific gravity of 1.032.

3. *A Measure for the Acid.* A graduate or cylinder of glass (Fig. 3), with a lip to pour from and a single mark at 17.5 c. c., is the best form for general use. In laboratories a large burette, holding 100 c. c. or 200 c. c. with marks at each 17.5 c. c. and having a glass stop-cock, may be used to advantage, but on account of the liability of breakage is not to be recommended in factories or private dairies.

4. *A Centrifugal Machine.* Figs. 4 and 5 show the construction of the machine used by us. The gear in this apparatus is so proportioned that the wheel which carries the test bottles makes about ten revolutions to one of the crank; with this it is easy to impart from 700 to 800 revolutions per minute to the horizontal wheel. Any arrangement that will do this, either by belt or gear, will answer the purpose. Within the horizontal wheel (a, Fig. 5) are placed sectors (b) made from heavy sheet copper to which are soldered cups or tubes (c), inclined so as to make an angle of about thirty

degrees with the horizontal, for the support of the test bottles. The horizontal wheel is surrounded by a copper jacket (d, Fig. 5) with a cover. This serves the double purpose of supplying heat for the test by pouring hot water into it, or by heating water directly with a lamp placed beneath, and of arresting the hot acid which would fly off if a bottle should break.

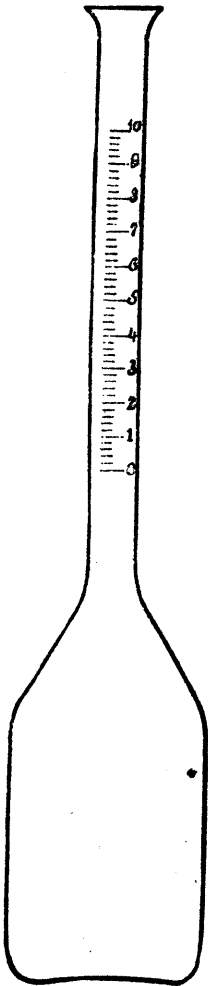


Fig. 1.



Fig. 2.

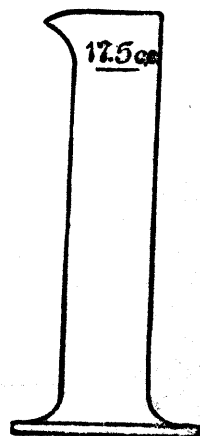


Fig. 3.

4—D. & F.

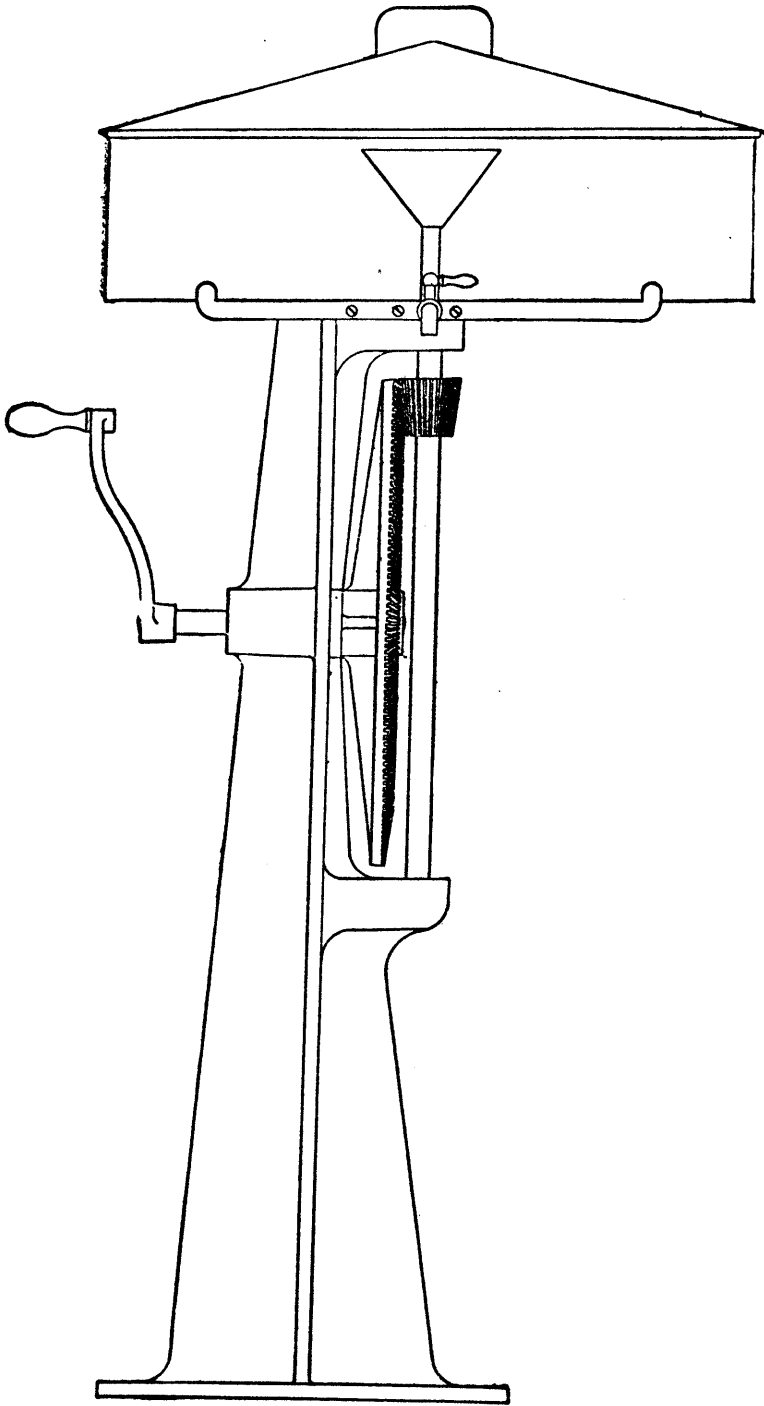


Fig. 4.

5. *A kerosene or gas lamp* for heating two or three quarts of water to boiling.

6. *Commercial Sulphuric Acid*, having a specific gravity of 1.82 or about 90 per cent. pure. If only the pure acid is available, it should be diluted with water to the strength indicated.

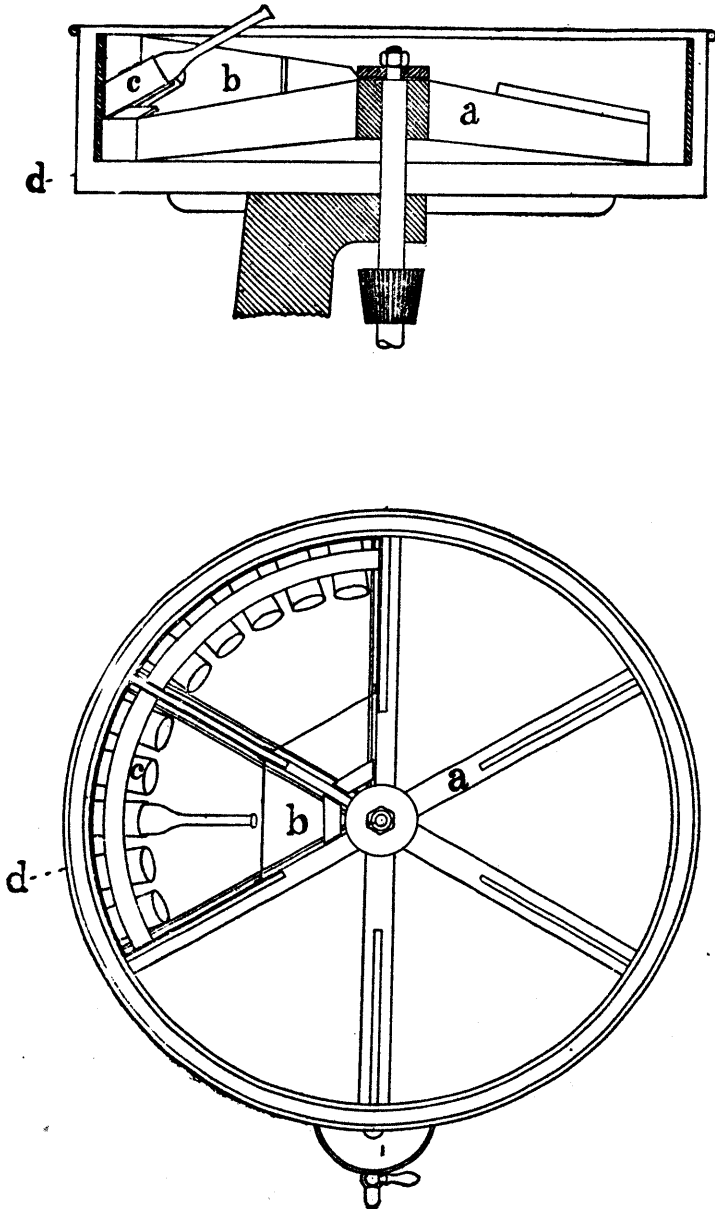


Fig. 5.

MAKING THE TEST.

Sampling the Milk. Every precaution should be taken to have the sample represent as nearly as possible the whole lot of milk from which it is taken. Milk fresh from the cow, while still warm, and before the cream has separated in a layer, may be thoroughly mixed by pouring three or four times from one vessel to another. Samples taken at once from milk mixed in this way are the most satisfactory of any. Milk that has stood until a layer of cream has formed should be poured more times, until the cream is thoroughly broken up and the whole appears homogeneous. No clots of cream should appear upon the surface when the milk is left quiet for a moment. With proper care any milk that has not coagulated or that has not been exposed to the air until the surface of the cream has become dried, may be mixed so that a representative sample may be taken. Milk should not be poured more times than is necessary, as continual mixing in this way is liable to churn the cream, forming little granules of butter that quickly rise to the surface. When this occurs it is impossible to obtain a fair sample. Milk is sometimes churned by being transported long distances in vessels that are not full. When this occurs it is useless to make an examination.

It is impracticable to sample a large amount of sour milk, but a small sample of a pint to a quart may be thoroughly mixed by adding five per cent. of strong ammonia water which will dissolve the curd and permit a uniform mixture being made. When ammonia is added the final results should be increased by five per cent. Samples from sour milk are, however, never as satisfactory as those taken when the milk is in a proper condition.

Measuring the Milk. When the milk has been sufficiently mixed, the milk pipette is filled by placing its lower end in the milk and sucking at the upper end until the milk rises above the mark on the stem; then remove the pipette from the mouth and quickly close the tube at the upper end by firmly pressing the end of the index finger upon it to prevent access of air; so long as this is done the milk cannot

flow from the pipette. Holding the pipette in a perpendicular position, with the mark on a level with the eye, carefully relieve the pressure on the finger so as to admit air slowly to the space above the milk. When the upper surface of the milk coincides with the mark upon the stem, the pressure should be renewed to stop the flow of milk. Next, place the point of the pipette in the mouth of one of the test bottles, held in a slightly inclined position so that the milk will flow down the side of the tube leaving a space for the air to escape without clogging the neck, and remove the finger allowing the milk to flow into the bottle. After waiting a short time for the pipette to drain, blow into the upper end to expel the milk held by capillary attraction in the point. If the pipette is not dry when used, it should be filled with the milk to be tested, and this thrown away before taking the test sample. If several samples of the same milk are taken for comparison, the milk should be poured once from one vessel to another after each sample is measured. Neglect of this precaution may make a perceptible difference in the results, through the separation of cream, especially when the milk examined is rich.

Persons who have had no experience in the use of a pipette will do well to practice a short time by measuring water into a test bottle before attempting to make an analysis. The manipulation is easily acquired, and with a little practice milk may be measured nearly as rapidly with a pipette as with a graduate, and with much greater accuracy.

Adding the Acid.—When the milk has been measured into the test bottles the necessary amount of sulphuric acid may be added immediately, or the bottles may be left for a day or two without materially changing the results; samples that have remained in the test bottles more than a week have given the same amount of fat as samples tested immediately after being measured. If the milk has become coagulated, the curd should be broken up by shaking the test bottle before the acid is added.

The volume of commercial sulphuric acid required for a test is approximately the same as that of the milk, 17.5 c. c. for the ordinary test. If too little acid is added, the casein

is not all held in solution throughout the test, and an imperfect separation of the fat results. If too much acid is used, the fat itself is attacked. The acid need not be measured with great accuracy, any quantity between 17 c. c. and 18 c. c. will answer the purpose.

Great care must be taken in handling the acid to avoid getting any of it upon the skin or clothing, as it is very corrosive. If by accident any is spilled upon the hands or clothes, it should be washed off immediately, using plenty of water. A prompt application of ammonia water to clothing upon which acid is spilled may prevent the destruction of the fabric, and restore the color.

When all of the samples of milk to be tested are measured ready for the test, the acid measure is filled to the 17.5 c. c. mark with sulphuric acid, and from this it is carefully poured into a test bottle, containing milk, that is held in a slightly inclined position for reasons given in directions for measuring the milk. The acid being much heavier than milk sinks directly to the bottom of the test bottle without mixing with the milk that floats upon it. The acid and milk should be thoroughly mixed together by gently shaking with a rotary motion. At first there is a precipitation of curd from the milk, but this rapidly dissolves. There is a large amount of heat evolved by the chemical action, and the solution, at first nearly colorless, soon changes to a very dark brown, owing to the charring of the milk sugar and perhaps some other constituents of the milk.

Upon standing a short time the fat begins to collect upon the surface, not in a clear layer, but having at first, the appearance of a dirty cream. The separation of fat by gravity alone is not complete even when the bottles are left standing for several hours; with the centrifuge, however, a perfect separation is accomplished in a few minutes.

Whirling the Bottles. The test bottles containing the mixture of milk and acid may be placed in the machine directly after the acid is added, or they may stand several hours without harm. An even number of bottles should be whirled at the same time, and they should be placed in the wheel in pairs opposite to each other, so that the equilibrium

of the apparatus will not be disturbed. When all of the test bottles are placed in the apparatus, the cover is placed upon the copper jacket, and the machine is turned either by hand or by power at such a rate that the wheel carrying the bottles will make from 600 to 800 revolutions per minute, and this motion must be kept up for six or seven minutes. If this wheel is less than about twenty inches in diameter the speed should be greater, or else the whirling should be continued for a longer time.

When the bottles are placed in the machine directly after the acid is added, the separation may be affected without any extra heat, as that caused by the chemical action is sufficient to keep the fat liquid. If the bottles have stood after the acid is added until the contents are cooled below 100° F., the water in the tank should be warmed to about 200° F. before putting the bottles in the machine. The bottles should not be kept heated in the machine as high as the boiling point of water while the separation is being effected. The proper degree of heat may be obtained by lighting the burner or kerosine stove under the jacket when the machine is started; so much water having been poured into the jacket as will be just heated to boiling when the whirling is finished. In this way hot water is always available for filling the tubes at the proper time. In creameries, heat can be most easily supplied by steam connection with the boiler. If the machine is stopped after about six minutes, a layer of fat will be found upon the upper surface of the liquid in the tubes. This fat will not usually be clear; this however, will make no difference in the result, as the subsequent treatment will clarify it.

As soon as the bottles have been sufficiently whirled, they should be filled to the neck with hot water. This is most conveniently done by placing a vessel containing boiling water above the machine, and by means of a syphon, made from a small rubber tube with a glass tip, run the water directly into the bottles without removing them from the wheel. The flow of water can be perfectly controlled by a pinch-cock upon the rubber tube. If only a few tests are to be made, the bottles may be easily filled with a pipette, or by

pouring from a graduate. The cover should then be replaced and the machine turned for one or two minutes, after which more hot water is added, filling the tube to about the seven per cent. mark. The fat will slowly rise into the graduated tube, losing its cloudy appearance as it passes through the hot water. When all of the bottles are filled, the cover is put upon the tank, and the machine again turned for a short time. During this time the water in the tank should be kept hot, either by placing a lamp or kerosene stove beneath it, or by pouring in a quantity of boiling hot water before starting the machine. If the fat in some of the tubes still has a cloudy appearance, the cover should be placed upon the tank and heat applied for a few minutes, when the fat should become clear and in condition to be measured. The clearing may be hastened by whirling the tubes while hot. When the bottles are allowed to cool off to a point where the fat will crystallize and then warmed again, the fat will usually be much clearer than before, but as this does not materially change the volume of fat it is considered unnecessary. Even a slight cloudy appearance does no harm.

Measuring the Fat. The fat when measured should be warm enough to flow readily, so that the line between the acid liquid and the column of fat will quickly assume a horizontal position when the bottle is removed from the machine. Any temperature between 110° F. and 150° F. will answer, but the higher temperature is to be preferred. The slight difference in the volume of fat due to this difference in temperature is not sufficient to materially affect results. A difference in temperature of 40° F. will make less than one-tenth per cent. difference in milk containing five per cent. of fat. To measure the fat, take a bottle from its socket, and holding it in a perpendicular position with the scale, on a level with the eye, observe the divisions which mark the highest and lowest limits of the fat. The difference between these gives the per cent. of fat directly. The reading can easily be taken to half divisions or to one-tenth per cent.

If the column of fat is less than about one division, as will

sometimes happens with skimmilk, buttermilk or whey it may assume a globular form instead of a uniform layer across the tube; when this occurs the fat can usually be estimated with sufficient accuracy by simple inspection, but if an accurate reading is desired it may be obtained by taking four samples of the milk in four test bottles, and after treating them in the usual way, until the bottles are ready to be filled with water, adding water to three of them only, filling them as full as possible without running them over. After whirling them for a minute to bring the fat all into the neck, the fat may be poured off from these three tubes into the fourth. If any fat remains adhering to the sides of these tubes, they should be filled a second time with water and the remaining fat poured into the fourth bottle, which is then filled with water, whirled and the reading taken; this divided by four will give the per cent. of fat.

A better way would undoubtedly be to have a special test bottle, holding three or four times as much as the ordinary bottle, that could be used for skimmilk, buttermilk and whey. Three or four times the usual test sample could then be taken and by adding the proper quantity of acid, the test could be made without transferring the fat.

Cream. The chief difficulty in testing cream lies in the sampling. Cream that is sour, or that has been exposed to air until the surface has dried, cannot be accurately sampled. The same is true of centrifugal cream that is badly frothed. Sweet cream, from Cooley cans, that is not too thick to flow readily from the pipette may be tested with satisfactory results. The process, however, must be modified slightly from that used with milk, as the amount of fat in cream is so large that it cannot be measured in the ordinary test bottle, if the usual quantity is taken for the test, besides a much greater error results from the cream which adheres to the pipette than with milk. Both of these difficulties may be overcome by taking two or three tests bottles and dividing the test sample into as nearly equal portions as can be judged by the eye. The pipette is then filled with water and this is run into the tubes in the same way as the cream. If three bottles are taken the pipette is

filled with water the second time and emptied into the bottles as before. This serves to rinse the cream from the pipette, and at the same time to dilute it to a point where it can be tested in the same way as milk. The bottles are then treated in the usual manner, and the reading of the tubes added together for the per cent. of fat in the cream.

Owing to the low specific gravity of cream, the test sample, if of the same volume, will weigh less than that of milk, and consequently the per cent. of fat as shown by the scale will be less than is found by gravimetric analysis, in proportion as the weight is less than 18 gms. Where a delicate balance is available, this error may be entirely avoided by weighing the cream used in a test, and calculating the per cent. of fat by multiplying the scale reading by $\frac{18}{a}$, a being the weight of the cream taken.

If 17.6 c. c. of cream is taken and the portion adhering to the pipette is rinsed into the test bottle, a close approximation of the true result may be obtained without weighing by correcting the scale reading as follows: For a scale reading of 20 per cent., add .25 per cent; for a scale reading of 15 per cent., add 0.1 per cent. Readings between these may be corrected in proportion. Below 10 per cent. no correction is necessary.

ACCURACY OF TEST.

During the past month a considerable number of comparative analyses have been made by the gravimetric method and by the new test. These are given in the following table, and show the substantial accuracy of the method. The figures are not selected, but represent all of the samples of milk analyzed by both methods between May 27 and July 15. The gravimetric analyses were made by drying the milk upon asbestos and extracting with ether. In analyses by the new test, no readings were made to less than one-half a division of the scale, or to 0.1 per cent. The figures in the second decimal place are derived from corrections for the quantity of milk used in the test, 15 c. c. and 20 c. c. of milk having been taken in many of the preliminary trials. These comparative analyses were mostly made with milks from single cows, as such present greater difficulties than mixed milk.

COMPARATIVE RESULTS BY THE NEW AND GRAVIMETRIC METHODS.

Per cent. of Fat.

Kind of milk.	By new test.	By gravi- metric an- alysis.
Single cow — Bunn, grade Holstein.....	3.64	3.72
Skimmilk.....	.20	.21
Single cow — Bessie's heifer, $\frac{1}{8}$ Jersey.....	6.44	6.55
Single cow — Mattie, grade Holstein.....	3.63	3.60
Single cow — Topsy, grade Holstein.....	3.35	3.33
Cream.....	22.98	22.69
Single cow — Bunn, grade Holstein.....	3.29	2.99
Single cow — Rose, grade Jersey.....	3.93	4.00
Single cow — Sylvia's heifer, high grade Jersey..	4.57	4.73
Single cow — Doubtful, high grade Jersey.....	4.98	4.91
Cream.....	21.25	21.47
Single cow.....	3.75	3.87
Mixed milk.....	4.69	4.77
Single cow — Flossie, registered Jersey.....	5.31	5.38
Single cow — Bessie, high grade Jersey.....	5.08	5.14
Single cow — Nettie, high grade Jersey.....	5.32	5.40
Single cow — Daisy, grade Jersey.....	4.69	4.56
Single cow — Rose, grade Jersey.....	5.39	5.37
Mixed.....	5.98	5.94
Single cow — Jersey.....	6.91	6.87
Whey.....	.68	.61
Cream.....	17.96	18.08
Skimmilk.....	.89	.81
Single cow — Bessie's heifer, $\frac{1}{8}$ Jersey.....	6.95	6.81
Single cow — Sylvia, grade Jersey.....	6.44	6.43
Single cow — Dolly, grade Jersey.....	5.75	5.64
Single cow — Bryant, grade Jersey.....	4.22	4.24
Single cow — Daisy, grade Jersey.....	4.69	4.70
Single cow — Bunn, grade Holstein.....	2.87	2.93
Single cow — Grade Jersey.....	4.10	4.03
Single cow — Daisy's heifer, grade Jersey... ..	4.22	4.02
Single cow — Galena, high grade Jersey.....	4.45	4.31
Single cow — Topsy, grade Holstein.....	3.40	3.23
Single cow — Mattie, grade Holstein.....	3.28	3.41
Single cow — Annie Johnson, registered Jersey..	5.04	5.10
Single cow — Annie Johnson, registered Jersey..	5.16	5.22
Buttermilk, sweet cream.....	3.00	3.09
Cream.....	16.10	16.13
Buttermilk, sour cream.....	.40	.58
Buttermilk.....	1.40	1.63

TIME REQUIRED FOR MAKING THE TEST.

On account of the large number of tests which may be carried along together and the little attention which each demands, the average time required for a test is very small. Two samples of milk may be tested in duplicate in fifteen

minutes, including all of the work from the mixing of samples to the cleaning of the bottles. After the milk has been measured, sixty tests may be made in less than two hours, including the cleaning of the bottles.

EXPENSE OF THE TEST.

The cost of the test will depend upon the price of commercial sulphuric acid. The wholesale price of this acid is about two cents per pound. At retail it can be bought at from three to five cents, according to the quantity obtained. One pound of acid is sufficient for fourteen tests. In a factory where acid is purchased by the carboy, it should not cost more than one-fifth cent per test, and in no case should it cost more than one-half cent per test.

The breakage of bottles, if properly made, is so slight that it need not be considered. We have made upwards of 2000 tests, in which only fifty bottles have been used, and only one of these bottles has been broken. The chemicals do not act upon the glass, and the bottles are only broken by accident or careless handling.

CLEANING THE TEST BOTTLES.

The bottles should be emptied while hot and afterward rinsed twice with hot water; they are then ready for another test. In emptying the bottles they should be inverted and given a circular motion, which causes the liquid to form a whirlpool and allows air to enter continuously in the center of the tube; in this way the bottles may be emptied and cleansed rapidly without leaving fat attached to their sides.

FURTHER PRECAUTIONS.

The sulphuric acid used should be kept out of reach of all persons except those making the test, and great care should always be taken in handling it as it is very corrosive.

If the fat does not separate clear from the acid liquid when water is added to bring it into the neck, it indicates that the acid used is too weak and more should be used. If the fat separates clear from the acid, but is blackened, it

shows that the acid is too strong, and it should be diluted to a specific gravity of 1.82 before using, or a little less of the acid could be used for the test.

It sometimes happens in testing buttermilk, that is quite sour, that the addition of water to bring the fat into the neck of the bottle where it can be measured, causes a precipitate of casein or other matter which mingles with the fat and prevents an accurate reading. This difficulty has also occurred a few times with milk that had stood a considerable time before testing; it may be entirely avoided by filling the bottles with a hot mixture of equal parts of sulphuric acid and water instead of water alone.

The greatest source of error is in the graduation of the tubes, and no one should purchase tubes except from reliable parties who will guarantee their accuracy.

The above is an accurate method of determining the amount of fat in milk, and promises to be of great use to the dairyman. It is used in the laboratory to select those milks which, containing a low per cent. of fat, are to be subject to further analysis.

Analysis of Milk.—The adulteration of milk is determined by a more or less complete analysis of the sample. Except in special cases the analysis is confined to a determination of the three constituents, viz.: Total solids, fat, and solids not fat. To understand the significance of a milk analysis a knowledge of the methods employed is necessary. There are many methods in use, differing slightly in material used or manner of manipulation. Each analyst selects the one most adapted to the conditions under which he works and the apparatus at his disposal. The method employed in the State laboratory is as follows: A nickle-plated perforated copper tube is filled with washed and ignited asbestos, and carefully dried at 100° C. The tube and contents are weighed and about 2 c. c. of the well-mixed milk are dropped on the asbestos, and the tube again weighed. The difference in the two weights gives the weight of the milk taken. The tube is then placed in a drying oven, heated by gas and containing a thermometer by which the oven is kept at a temperature of 100° C.

(212 ° F.) Here the tube and its contents are kept till all the water is expelled; this generally takes three hours. It is then removed, allowed to cool in a desiccator and weighed. The final weight is the weight of the tube plus the total solids of the milk. The loss in weight from the combined weight of the tube and milk is the weight of the water in the milk taken. The fat is now determined by placing the dried tube in a fat extractor and subjecting it to the action of dry ether. The ether dissolves the fat from the milk solids, but has no effect on the solids not fat. The solution of fat in ether is received in a weighed glass flask, the ether is distilled off, leaving the fat behind. The flask and fat are now placed in the drying oven, allowed to remain till the last traces of ether have been driven off, removed, cooled and weighed. The increase of weight in the flask represents the amount of fat present in the milk. From these figures a simple calculation will give us the percentage composition of the milk. The figures obtained from an analysis like the above will enable the chemist to judge of the quality of the sample in hand, so far as the removal of cream or the addition of water is concerned. Adulteration by skimming is shown by the low per cent. of fat. This may be as in cases found in Milwaukee as low as one per cent. In determining if a sample of milk has been watered, advantage is taken of the fact that the solids not fat of herd milk rarely falls below nine per cent. Taking, then, nine per cent. as the standard for solids not fat, the amount of water added may be calculated. The following analysis of a sample of milk delivered at a cheese factory shows the effect of watering. Total solids, 8.58; fat, 2.33; solids not fat, 6.25. The amount of water added is determined by the following proportion: $8 : 100 :: 6.25 : x$; $x = 69.45$. The milk, therefore, contained, if the standard was fixed at 9 per cent. solids not fat, 69.45 parts of standard milk, and 30.55 parts of added water.

It is estimated that about 90 per cent. of the adulteration of milk is in skimming and watering. The adulteration of the other 10 per cent. consists in the addition of material to

preserve the milk, to increase the specific gravity, or to improve the appearance of the milk. The following substances have been used as adulterants: cane sugar, glucose, flour, starch, dextrine, solution of starchy substances, gum arabic, gum tragacanth, yolk of egg, white of egg, caramel, brown sugar, gelatine, isinglass, licorice juice, brown extract of chicory, extract of marigold, carrots, annatto. The following cases are also on record: the addition of glycerine, emulsions of oleaginous seeds, also the addition of old milk, buttermilk and condensed milk to conceal watering. Preservatives are also added: bicarbonates of soda, boracic acid and borates, salicylic acid, common salt and glycerine have been found.

The great majority of cases consists in the removal of cream or the addition of water. The addition of water is not only a direct fraud on the consumer, but recent investigations would indicate that this addition of water may bring about the spread of contagious diseases. Chas. Girard (*Rapport sur les Travaux du Laboratoire Municipale 1885*), makes the following statement: "It is well known that water is a vehicle for contagious diseases; wells, cisterns, receptacles of every description that serve for the storage of water, may become charged with organic matters injurious to health. Thus it is that milk which by itself is very liable to fermentation, becomes dangerous when mixed with contaminated water. A great number of ferment germs may be introduced into the milk and there developed with great rapidity. Milk dealers in Paris have been known to add to their cans water taken from the gutter. Such water, infected with germs and putrid matter, constitutes a veritable poison. Diarrhoeal diseases, vomiting and colics are the invariable sequences of the ingestion of milk adulterated with such matter."

The frequent tracing of the source of typhoid and scarlet fever to a contaminated milk supply, shows that this fear is not by any means an idle one. The presence of nitrates and nitrites is direct proof of the use of contaminated water. These salts are not found in normal milk, even if the salts have been fed to the cows.

Cane sugar is added to conceal watering; its use, however, must be limited, as any large amount will give a decided sweet taste. Glucose, flour and other starch containing substances, dextrine and gums are added for the the same purpose as cane sugar, to give a body to watered milk. Gum tragacanth has been used, not for increasing the specific gravity, but to cause the milk to froth. Coloring matter as annatto and carrots are very liable to be found in watered milk. Skimmed milk having too blue a tint, the coloring matter is added to bring back the yellow tint which to the public eye is a guarantee of purity. A simple method for testing for annatto is as follows: one hundred c. c. of the suspected milk are rendered alkaline by the addition of 5 c. c. of a solution of carbonate of soda, and are poured into a jar five inches high. A strip of filter or blotting paper five inches long by one-half wide is then placed in the jar and allowed to stand in the dark for twelve hours. This strip is removed, carefully washed, when if annatto is present, it will be of a pale salmon color, and if dipped into a solution of stannous chloride will show a pink color. The addition of coloring matter to milk is usually in the form of an alkaline solution. Sometimes, however, a mixture devised especially for the purpose is used. A mixture of this kind largely used in San Francisco, had the following composition; common salt, saltpetre, traces of caustic soda, and a large quantity of sugar. The color is due to caramel. The above compound is dissolved in water and the solution used for adulterating milk.

Decomposition of Milk.—Milk when left to itself at a temperature of above 90° F. undergoes rapid decomposition. The first sign of this breaking up is the evolution of carbonic acid gas. The fermentation is arrested at this point by means of heat or antiseptics, the decomposition is arrested and the milk remains sweet. If the fermentation is allowed to continue, the next step is coagulation of the casein, owing to the formation of lactic acid. The formation of lactic acid from the milk sugar gives its name to this species of ferment. As has been shown by Pasteur, the lactic ferment is due to the presence and growth of one of the lower

organisms. This ferment on being added to a solution of sugar, changes it to lactic acid. The presence of the acid interferes with the growth of the organism, and finally terminates it. The maximum amount of lactic acid formed under ordinary conditions is 0.80 per cent.

Butyric Fermentations.—When milk has been subjected to heat with a view of preserving it, coagulation of the casein sometimes takes place after a certain time. On examination the milk is found to be alkaline, and it contains no lactic acid. If the fermentation is in an advanced condition the odor is very offensive. The odor of rancid butter is due to the formation of butyric acid.

Slimy Fermentation. In some parts of Norway the people are said to be fond of ropy milk and use it as a regular article of diet. The ropy milk is said to be prepared either by giving the cows grass or hay containing a certain plant (*Pinguicula vulgaris*), or by rubbing with this plant the interior of the vessels used for storing the milk. The milk then gets ropy, the cream is prevented from rising; the taste is insipid and after some time it becomes slightly sour. Milk in this condition is almost unchurnable, and the yield of butter is very small, consequently ropy milk is undesirable. Ropy milk is said to be produced by a variety of causes; illness of the mammary glands, inflammation of the udder, cold of the same organ contracted by lying down on the ground, atmospheric influences, fodder containing certain plants, distillery slop, unclean rooms and utensils, etc. The remedies are equally numerous. The alleged causes for ropy milk point to two assumptions: either the milk when drawn from the cow is infected with the ferment or the milk is infected after it is drawn from the cow. No experiments have been made to prove or disapprove the first assumption. That ropy milk may be caused by infection after it has been drawn from the cow has been proved by experiment. If sterilized milk be inoculated with ropy milk and kept at a suitable temperature it will be observed that no cream rises to the top and that the milk gets ropy within twenty-four hours. After forty-eight hours have elapsed the milk is of such consistency that it will not flow

out of the vessel containing it, even if the latter be turned upside down. The most suitable temperature for this development is 86–104° F. The energy of the ferment diminishes with rise of temperature, and at 140° F. it is entirely destroyed. Freezing prevents the development of the ferment but does not kill it.

Blue Milk. In rare cases milk has been known to undergo a peculiar change of color becoming in spots of a bright blue color. As in the case of ropy milk the blue color is due to the presence of a peculiar ferment. The bacillus does not develop at a temperature below 50° F. The most suitable temperature is from 60° to 65° F. It ceases to be developed at a temperature of 99° F. The above changes are the result of the action of a specific ferment, and in the cases noted the change is not of such a nature that the milk becomes dangerous to health by the formation of poisons in the milk. Other changes, however, do take place which are not so innocent. Various fermentative changes take place which result in the development of animal poisons or ptomains. To these poisons generated in milk are due the many cases of poisoning which have been reported from milk, ice cream, cheese, etc.

Vaughn was the first to investigate this question of poisonous milk, and in 1884 he isolated from poisonous cheese an animal poison or ptomaine, a substance which has since been found in milk and ice cream. Vaughn has given to this poison the name of tyrotoxicon. In cases where this poison has been found in milk or milk products, it has been found that the milk has been drawn from the cows, and immediately, without cooling, transported several miles in the hot sun, or else the surroundings have been of such a nature that the milk readily underwent putriferous changes. A peculiarity is that the milk gives no notice either by appearance or taste of containing this dangerous substance.

During the years 1883–84, there were reported to the Michigan Board of Health some 300 cases of cheese poisoning. All these were caused from eating from twelve different cheeses. On these cases Prof. Vaughn makes the

following report: "I received larger or smaller samples of each cheese for analysis. After many months of experimentation I succeeded in isolating a poison from this cheese which produced upon animals and man symptoms similar to those from eating the same cheese." The substance which produced these effects was the poison tyrotoxin. Dr. D. B. Collins, of St. Peter, gives the following report of the condition of some children living in Kasota, Minn., who were poisoned by eating cheese. The poisoning occurred June 7, 1888.

"On the evening of June 7th I was called to Kasota to see some children who, the messenger stated, had been poisoned. Upon my arrival I found three children, aged six, four and three, who were sick. They had been suddenly taken with vomiting, cramps and purging. There were in two cases well marked symptoms of collapse. The pupils of the eyes were widely dilated; the youngest was inclined to be comatose, when convulsive tendency was absent. The pulse was small and rapid, and the action of the heart labored and irregular; the following history was given: A number of families were assembled at one of the houses, and dinner was sent to the company, who all ate heartily. Cheese was on the table, and it was observed that all who partook of it in any quantity, were more or less affected, the greatest effect being produced on the young children. While at these cases I was called to another house where I found four children ill, ranging from five to eleven years of age. The symptoms were the same as detailed above. Toward morning, of the same night, I was called to another family where I found six with the same symptoms. All had eaten of the same cheese, and there seemed to be nothing else to which the illness could be attributed. In all the cases the symptoms were apparently proportioned to the amount of the cheese which had been eaten." A portion of the suspected cheese was sent to the state chemist, and the presence of tyrotoxin demonstrated.

The following rules concerning the care necessary to pre-

vent milk undergoing these putrifactive changes have been given by Dr. Vaughn:

1. The cow should be healthy, and the milk of any animal which seems indisposed should not be mixed with that from perfectly healthy cows.

2. Cows must not be fed upon swill, or the refuse of breweries, or glucose factories, or upon any fermented food.

3. Cows must not be allowed to drink stagnant water, but must have access to pure fresh water.

4. Cows must not be worried or heated before being milked.

5. The pasture must be free from noxious weeds and the barn and yard must be kept clean.

6. The udder should be washed, and then wiped dry, before each milking.

7. The milk must at once be thoroughly cooled. This is best done in the summer by placing the can in a tank of cold water, or ice water, the water being the same depth as the milk in the can. It would be well if the water in the tank could be kept flowing; indeed, this is necessary unless ice water is used. The tank should be thoroughly cleaned to prevent bad odors. The can should remain uncovered during cooling, and the milk be gently stirred. The temperature should be reduced to 60° Fah. within an hour. The can should remain in the cold water until ready for delivery.

8. In summer, when ready for delivery, the top should be placed on the can and a cloth wet with cold water should be spread over the can, or refrigerator cans may be used. At no season should the milk be frozen, but no buyer should receive milk which has a temperature higher than 65° Fah.

9. The only vessels in which milk should be kept are tin, glass or porcelain. After using the vessel it should first be rinsed with cold water, then scalded, and if possible, exposed to the air and thoroughly dried.

When these rules are put into operation, milk can be preserved free from putrefactive changes for a reasonable length of time, and it will remain fresh and palatable. When such care is not exercised, milk may become as we have seen, highly poisonous within a few hours after it is drawn from the cow.

Preservation of Milk.—Many processes have been suggested for the preservation of milk. They may be classified as follows:

1. Evaporation, in which the milk is reduced to a dry powder and mixed with sugar, the evaporation being made either in a vacuum or in a stream of warm dry air.

2. Chemical additions.
3. Application of cold.
4. Application of heat and then of cold.

The presence of water is necessary to putrefaction. If, therefore, we reduce milk to the form of a dry powder, it will keep for several weeks without any further change. If sugar is added to the mass the preservation is made permanent. The next step was the heating of the milk for a sufficient length of time to destroy all germs and sealing while hot. Various modifications of the above methods have been patented, but they have gradually become limited to a method by which the milk is condensed in vacuum pans and sealed up in air tight tin cans, with or without the addition of sugar. This forms the well known condensed milk of commerce.

Various methods for preserving milk have been proposed, based on the use of various antiseptics, but they are generally looked on with suspicion. Concerning the use of antiseptics in milk, Blyth says: "All these methods of preserving milk have, it is obvious, no effect in destroying the germs of disease possible to be communicated to man. Speaking generally, indeed, all addition to milk in the form of antiseptics, such as glycerine, salicylic acid, borax and the like, should be looked on with disfavor, for by their use cleanliness in the dairy would not be such an essential as it is now, and the addition of these antiseptics is somewhat analogous to the saturation of foul places with carbolic acid, when the more obvious and more effectual remedy would be to keep them free from filth."

The use of antiseptics is at best but a make shift as their addition has not the effect of destroying the fermentative organism but simply of diminishing or retarding their development, and their action will be seen after the milk has stood for a time. The most powerful disinfectants, containing acids and compounds of the heavy metals are absolutely excluded, either because of their decomposing action on the milk or their effect on the human body. The antiseptics, therefore, which can be used for the preservation of milk are limited to a few of the milder ones. Such as

boracic acid and borates, carbonates, salicylic acid, glycerine, etc. Glycerine as an antiseptic is not a success, unless an excess is added, while the cost and taste given to the milk would be enough to prevent its use to any extent. In fact antiseptics for the preservation of milk are limited to the following: Boracic acid and borates, salicylic acid, bicarbonate of soda. The bicarbonate of soda does not act as an antiseptic but is added to neutralize the lactic acid and thus prevent the coagulation of the milk.

As regards the action of salicylic acid, there is no doubt that even in the small quantities used in preserving milk, it exercises an injurious effect on the human body. In relatively small amounts, salicylic acid has the property of killing the micro organism, and thus retarding the process of fermentation. Small quantities prevent the coagulation of milk, and have an energetic action on the juices of the liver and the stomach. It was found by Müller that one-thousandth part of salicylic acid destroys three-fourths of the digestive power of pepsin, and four one-thousandths destroys it entirely. On all organisms that produce fermentation and putrifaction, salicylic acid has a decided action. When taken into the human system it produces various symptoms, as constipation, buzzing in the ears, cerebral congestion, sometimes nausea. A weakening of the pulse and a lowering of the mean bodily temperature have also been noticed. In consequence of the decided poisonous action of the acid when taken into the system, its use in the preservation of food has been forbidden in Germany. In France its use as a preserving agent in any form of food or drink was forbidden by ministerial decree on February 7, 1881. The decree was based on the decision of the consulting committee of hygiene that its constant use was dangerous to health.

Borax and boracic acid have been largely used for the preservation of milk. The same objection is made to borates as to the other antiseptics, viz., that a chemical sufficiently powerful to prevent fermentation should not be taken into the system. In consequence of the somewhat feeble antiseptic properties of boracic acid, larger quanti-

ties of it must be used in the milk if the milk is to be preserved for any length of time and the consequences of taking once or twice a day, a medicinal dose of so active an agent as boracic acid cannot be lightly overlooked.

Milk is one of the most complex of organic compounds, and like all products of animal life is subject to rapid decomposition. It contains matters partly in suspension and partly in solution. Milk sugar, casein, albumen, galactine and a number of salts are in solution in water. The fat is present as an emulsion and part of the casein is in the form of small granules. It is evident that before the chemist can judge of the purity of so complex a compound, he must have definite information concerning its percentage composition, and the greatest variation to which each constituent is liable. Fortunately an immense amount of chemical work has been done on this subject. The analysis of thousands of samples from animals of different breeds under varying conditions of food, age and health, have supplied us with well defined data on the composition and variations of constituents.

The average composition of cow's milk is as follows:

Fat		3.5	per cent.
Milk serum {	Nitrogenous matter	4.3	per cent.
	Milk sugar.....	4.5	per cent.
	Ash .....	.7	per cent.
	Water	87.	per cent.

The above figures are the average of many thousand analyses and represent the average composition of herd milk. The following table shows the composition of milk as found by analyses in different parts of the world and under all the varying conditions which affect the production of milk:

Chemist.	Number of cows.	Total solids.	Fat.	Solids not fat.
James Bell.....	216.....	12.88	3.88	9.00
James Bell.....	24 dairies.....	13.22	4.12	9.10
C. Estecourt.....	22 dairies.....	12.74	3.37	9.37
Carter Bell.....	183 cows.....	13.60	3.70	9.90
Cameron.....	42 cows.....	13.47	4.00	9.47
C. Cameron.....	40 cows.....	13.00	4.00	9.00
C. Cameron.....	100 cows.....	13.85	4.60	9.25
Fleischman & Vieth.....	120 cows.....	12.22	3.20	9.02
Vieth.....	60 cows.....	12.80	3.10	9.70
Vieth.....	9120 cows.....	13.03	3.52	9.51
Wanklyn.....	Average.....	12.50	3.20	9.30
A. Winter Blyth.....	Average.....	13.13	3.50	9.63
Marchand.....	Average.....	12.85	3.55	9.30
H. Chevalier.....	Average.....	12.98	3.13	9.75
Vernois Becquerel.....	Average.....	13.60	3.60	10.00
Payen.....	Average.....	13.40	3.50	9.90
O. C. Wiggin.....	58 cows.....	14.08	4.01	10.07
E. Calder.....	27 cows.....	12.77	3.32	9.45
Sharples.....	34 cows.....	14.15	4.62	9.53
Haidlen.....	Average.....	12.70	3.00	9.70
Letheby.....	Average.....	14.00	3.90	10.10
J. Koenig.....	Average.....	12.70	3.00	9.70
Boussingault.....	Average.....	12.60	4.10	9.50
Muspratt.....	Average.....	13.57	4.43	9.13
Dieulafait.....	Average.....	12.36	3.11	9.25
Bizanez.....	Average.....	14.30	4.31	9.99
Brinton.....	Average.....	14.00	4.50	9.50
Chandler.....	1,700 qts.....	12.55	3.83	8.72
Newton.....	Average.....	12.50	3.50	9.00
Bartley.....	Average.....	12.50	3.50	9.00
White.....	Average.....	12.50	3.50	9.00
Waller.....	Average.....	12.50	3.20	9.30
Babcock.....	Average.....	14.47	5.09	9.38
Church.....	Average.....	13.70	3.70	10.00
E. Smith.....	Average.....	13.60	3.61	9.99
Martin.....	Average.....	12.50	3.20	9.30
Boudet.....	Average.....	13.00	4.00	9.00
Adam.....	5 Dist. near Paris.....	13.10	4.10	9.00
Babcock.....	130 cows.....	13.11	3.45	9.66
Girard.....	Average.....	13.30	4.00	9.30
Bouchardat.....	Average.....	13.30	4.10	9.20
Davenport.....	31 cows.....	13.32	3.20	9.62
Wurtz.....	Average.....	13.50	4.00	9.50
Sharples.....	19 cows.....	14.49	4.83	9.66
Newton.....	5 dairies in N. Jersey.....	13.80	4.22	9.58
Martin & Moeller.....	296 cows in N. Jersey.....	13.73	4.21	9.52

The above analyses represent many thousand samples of milk, and the analyses were conducted by men who have made a careful study of the question of milk production. An examination of the table will show that in no case does the fat fall below three per cent., while it frequently runs above four.

The average of 360 analyses made by Dr. Bostock Hill, being the mixed milk of dairies containing over ten cows, is as follows: Total solids, 12.5; fat, 3.2; solids not fat, 9.3.

The Agricultural Experiment Station of New Jersey has made a series of monthly analyses of milk from twelve dairies. The herds contained from seven to thirty-six cows

each. In all 100 analyses were made and the average for one year was 12.99 per cent. of total solids. The analyses of 130 samples of milk taken from the milk dealers of Boston, gave the following: Total solids, 13.11; fat, 3.45; solids not fat, 9.66. The milk from 300 Short-horn cows for the space of three years gave the following average:

	1881.	1882.	1883.
Total solids.....	13.00	13.01	13.00
Fat.....	3.80	3.80	3.70
Solids not fat.....	9.20	9.21	9.30

Völcker examined five different breeds of cattle from 1881 to 1884 and obtained the following results:

	Total solids.	Fat.
Short-horns	12.6	3.7
Jerseys.	13.5	4.1
Guernseys	13.9	4.6
Ayrshires	13.5	4.2
Dutch.....	12.00	3.1

As the result of analyses like those given, different states have adopted standards for pure milk as follows:

Wisconsin, three per cent. of fat.

Massachusetts, thirteen per cent. of solids.

New Jersey, twelve per cent. of solids.

New York, twelve per cent. of solids; three per cent. fat.

Minnesota, twelve per cent. of solids; three per cent. fat.

England, total solids, 12.00 per cent.; fat, 2.5.

France, total solids, 13.00 per cent.; fat, 4.0.

Canada, total solids, 12.00 per cent.; fat, 3.5.

There is no doubt that the standard required by law in this state is much below the average composition of herd milk, and that only in rare instances does the mixed milk from two or more cows fall below the standard.

In assuming a certain standard for the quality of milk it is difficult to fix upon a standard which would be fair in all

cases. If we were dealing with individual cows it would be almost impossible to fix upon a standard which would be just to both the producer and consumer. In case of individual cows, milk has been found which was very low in fat and total solids. A sample analyzed by Bell, had the following composition: total solids, 9.10; solids not fat, 8.04; fat, 1.06.

On investigation the milk was found to have come from half starved cows, whose only feed was a little hay. Milk of the above quality is very exceptional; it is not so rare, however, to find milk from individual cows, with a fat constituent just under three per cent. Fortunately, it is very seldom that milk from single cows is offered for sale. Consequently, the milk which comes under the chemist's observation is herd milk.

A lower standard might be a benefit to the poor feeder or to the breeder of cows giving watery milk, but to the consumer it would be an injustice. So long as the great majority of milk is far above the present standard, a lowering of it would open the door for a systematic skimming and dilution of milk. To meet those cases where the cows may be giving milk below the standard, it has been the custom of the commission, when a milk is suspected, to send an officer and have him see the cows milked, and take a sample from the mixed milk of the herd. The following two examples will show the success of this method:

No. 1. Sample taken at creamery.

Solids, 8.40; fat, 2.79; solids not fat, 5.61.

No. 2. Taken from herd.

Solids, 12.64; fat, 3.89; solids not fat, 8.85.

Sample No. 1. From creamery.

Solids, 8.58; fat, 2.33; solids not fat, 6.25.

Sample No. 2. From herd.

Solids, 12.15; fat, 3.66; solids, not fat, 8.48.

It is evident that taking a second sample as in the above cases, does away with the chance of any injustice, and at the same time confirms the character of the first sample.

The following table is of great interest to dairymen and

factorymen. An examination will show at a glance the wide difference that exists in the quality of milk. Nothing can demonstrate more clearly that the factorymen should pay for the milk just what it is worth in butter fat. It is also very apparent to the producer that he cannot afford to place the milk from his cows, which contains four per cent. of butter fat, against his neighbor's cows, which give but three per cent.

ANALYSIS OF MILK.

Lab. No.	From whom taken.	Address.	Butter fat.	Lab. No.	From whom taken.	Address.	Butter fat.
79	A. J. Decker...	Fond du Lac.	3.89	268	M. Kundert...	Milwaukee...	3.0
98	J. Coiell...	Lindon	3.	269	C. Steger.....	Milwaukee...	3.6
99	H. Brewer.....	Lindon	3.8	270	C. Seigel.....	Milwaukee...	1.6
100	Grant Batton...	Lindon	3.2	271	Vin. Wiskocil..	Milwaukee...	4.0
101	N. J. Jacobs...	Lindon	3.8	272	John Adler.....	Milwaukee...	3.4
102	John Hillery...	Lindon	2.6	273	August Netz....	Milwaukee...	3.2
103	W. S. Batton...	Lindon	2.4	274	C. L. Porath....	Milwaukee...	1.6
104	John Batton...	Lindon	4.4	275	Aug. Gruetner..	Milwaukee...	3.4
105	C. Tremaine...	Lindon	4.3	276	J. A. Hess.....	Milwaukee...	3.4
106	James Fox.....	Lindon	4.2	277	John A. Smith..	Milwaukee...	3.2
173	McIntyre, El-			278	Mich. Kieraus..	Milwaukee...	3.2
	ston & Co.....	Muscoda	4.8	279	M. P. Edwards..	Milwaukee...	1.2
182	Springfield Cr.	Springfield	4.40	280	Wm. Dooley....	Milwaukee...	3.6
182a	Springfield Cr.	Springfield	4.10	281	F. Kaufman.....	Milwaukee...	4.6
182a	Springfield Cr.	Springfield	4.20	282	J. M. Marlett...	Milwaukee...	4.0
182a	Springfield Cr.	Springfield	4.61	283	H. Johnson.....	Milwaukee...	3.0
182a	Springfield Cr.	Springfield	3.40	284	C. Willis.....	Milwaukee...	1.0
182a	Springfield Cr.	Springfield	5.00	285	Ed. Luby.....	Milwaukee...	3.0
182a	Springfield Cr.	Springfield	3.94	286	A. Berry.....	Milwaukee...	3.4
182a	Springfield Cr.	Springfield	2.60	287	Mrs. Leopold...	Milwaukee...	3.0
182a	Springfield Cr.	Springfield	3.80	288	Wm. Hughs.....	Milwaukee...	3.2
182a	Springfield Cr.	Springfield	4.30	289	C. Tannhauser...	Milwaukee...	3.0
182a	Springfield Cr.	Springfield	3.42	290	A. Hoffman.....	Milwaukee...	3.2
182a	Springfield Cr.	Springfield	4.30	291	Martin Berg....	Milwaukee...	3.4
182a	Springfield Cr.	Springfield	3.60	292	Martin Berg....	Milwaukee...	3.0
182a	Springfield Cr.	Springfield	4.02	293	Alois Hoffman..	Milwaukee...	2.4
182a	Springfield Cr.	Springfield	4.00	294	Phillip Mueller.	Milwaukee...	3.2
182a	Springfield Cr.	Springfield	3.94	295	Waukesha Co....	Milwaukee...	4.6
182a	Springfield Cr.	Springfield	4.30	296	P. Hagenah.....	Milwaukee...	2.8
182a	Springfield Cr.	Springfield	3.41	297	Waukesha Co....	Milwaukee...	3.8
182a	Springfield Cr.	Springfield	4.06	298	Waukesha Co....	Milwaukee...	2.6
182a	Springfield Cr.	Springfield	4.00	299	Waukesha Co....	Milwaukee...	5.2
182a	Springfield Cr.	Springfield	4.61	300	Waukesha Co....	Milwaukee...	3.8
182a	Springfield Cr.	Springfield	4.40	403	Hugh Roden....	La Crosse	4.1
182a	Springfield Cr.	Springfield	4.20	404	P. N. Roberts...	La Crosse	3.6
182a	Springfield Cr.	Springfield	3.92	405	Fred. Luck.....	La Crosse	3.8
183	Springfield Cr.	Springfield	3.99	406	Geo. Kalb.....	La Crosse	4.0
193	J. B. Eiche.....	Meeme	4.20	407	Mary Bovin....	La Crosse	4.0
197	Thos. Schuette	Hustisford	5.00	408	J. P. Miller.....	La Crosse	3.2
227	H. A. Fowler...	Whitewater	4.20	409	Wm. Bradley....	La Crosse	4.4
237	F. Utter.....	Milwaukee	4.20	410	Jacob Eberli...	La Crosse	3.8
238	C. Oelke.....	Milwaukee	2.60	411	Fred Betz.....	La Crosse	4.0
239	A. Sclinister...	Milwaukee	3.80	442	Levi Decker...	Madison	4.42
240	P. Kaerner-			443	D. H. Collins...	Madison	4.25
	ling.....	Milwaukee	3.40	444	J. P. Woodward	Madison	4.59
241	J. Siedler.....	Milwaukee	3.40	445	Fred Marks.....	Madison	4.25
242	G. Dorband....	Milwaukee	4.60	446	H. H. Davis.....	Madison	3.74
243	J. Meier.....	Milwaukee	3.2	447	Lutag Leucer...	Madison	4.08
244	F. Meister.....	Milwaukee	2.4	448	Harwood Boyd..	Madison	4.16
245	T. Kaemerling..	Milwaukee	2.2	449	Jos. Pearson....	Madison	4.16
246	F. Boeder.....	Milwaukee	3.8	450	Robert Gray....	Madison	4.40
247	A. W. Goss.....	Milwaukee	3.4	451	J. J. Pfeister...	Madison	4.25
248	F. Peters.....	Milwaukee	3.4	452	P. O'Dea.....	Madison	4.33
249	J. F. Mueller...	Milwaukee	4.0	453	E. M. Smith....	Madison	4.93
250	M. Boeder.....	Milwaukee	3.6	454	G. C. Russell...	Madison	4.00
251	F. Judes.....	Milwaukee	3.0	455	J. H. Keizer....	Madison	4.32
252	Ed. Zeilke.....	Milwaukee	4.8	456	S. Rath.....	Madison	5.1
253	Z. Douglas.....	Milwaukee	3.0	457	W. S. Rice.....	Janesville	3.4
254	A. Stuth.....	Milwaukee	4.4	458	Mrs. A. B.		
255	J. F. Drefal....	Milwaukee	2.8		Hughes.....	Janesville	3.48
256	John Brimmer	Milwaukee	3.4	459	C. A. Downing..	Janesville	3.4
257	F. A. Abbott...	Milwaukee	2.8	460	Joseph Bennett	Janesville	3.74
258	Gebhardt &			461	C. Knudson.....	Janesville	2.72
	Kortendick...	Milwaukee	4.2	462	W. S. Rice.....	Janesville	3.06
259	W. McKowen...	Milwaukee	4.4	463	Henry Rooney...	Janesville	3.15
260	Mayer Bros....	Milwaukee	4.0	464	G. Shurtleff...	Janesville	2.94
261	J. Studeman...	Milwaukee	3.6	465	M. M. Phelps...	Janesville	3.64
262	A. Noete.....	Milwaukee	4.2	466	W. S. Rice.....	Janesville	4.08
263	Gregor Wolf...	Milwaukee	4.4	467	M. E. Williams	Deerfield...	3.76
264	Fred Vollmer...	Milwaukee	4.0	468	J. Redmond....	Deerfield...	3.40
265	J. L. Shaefer...	Milwaukee	4.0	469	M. Nickelson...	Deerfield...	3.57
266	R. W. Bischoff	Milwaukee	3.4	470	Mary Prescott..	Deerfield...	3.91
267	M. Kruger.....	Milwaukee	3.4	471	C. Fall.....	Deerfield...	3.28

ANALYSIS OF MILK.—Continued.

Lab. No.	From whom taken.	Address.	Butter fat.	Lab. No.	From whom taken.	Address.	Butter fat.
472	Ole Anderson...	Deerfield.....	3.85	595	C. Shausberg...	Waterloo....	3.50
473	E. Heugum....	Deerfield.....	3.30	596	C. Sied.....	Waterloo....	3.89
474	A. Inammen....	Deerfield.....	3.64	597	H. Gotchatt...	Waterloo....	3.52
475	H. Christensen.	Deerfield.....	4.13	598	H. Dreger....	Waterloo....	3.54
476	N. Risland....	Deerfield.....	3.85	599	J. Poutch....	Waterloo....	4.01
477	O. G. Lee.....	Deerfield.....	3.40	600	F. Creuger....	Waterloo....	3.62
478	G. J. Johnson..	Deerfield.....	2.79	601	A. Glauvitz...	Waterloo....	4.12
479	M. O. G. Hoel..	Deerfield.....	3.40	602	E. Pekhauer...	Waterloo....	4.05
480	C. O. Johnson..	Deerfield.....	3.40	603	E. Sack.....	Waterloo....	4.03
481	J. Christonson.	Deerfield.....	3.39	604	F. Rodloff....	Waterloo....	3.50
482	O. K. Brumberg	Deerfield.....	3.23	605	F. Schich....	Waterloo....	3.74
483	S. Oleman....	Deerfield.....	3.74	606	C. Korth....	Waterloo....	3.62
484	A. Nelson.....	Deerfield.....	3.60	607	C. Gruchow...	Waterloo....	3.62
485	F. Langl.....	Deerfield.....	3.40	608	J. Klecker...	Waterloo....	3.74
486	J. O. Bruetson.	Deerfield.....	3.23	609	W. Mulden- house.....	Waterloo....	3.50
533	Geo. Bower....	Baraboo.....	3.21	610	Chas. Kezo....	Waterloo....	3.56
534	D. Ruggles....	Baraboo.....	3.30	611	W. Schader...	Waterloo....	3.30
535	Smith & Sav- age.....	Baraboo.....	3.79	612	A. Segkoar...	Waterloo....	3.55
536	Adam Thuerer.	Baraboo.....	2.71	613	Geo. Goehl....	Waterloo....	3.62
537	Ben Simors....	Baraboo.....	3.95	614	A. Kilian....	Waterloo....	3.80
538	E. L. Parmer..	Baraboo.....	3.96	615	C. Cufol....	Waterloo....	3.68
539	M. Aiken.....	Janesville...	3.60	625	John Garren...	Neptune....	3.40
540	J. Banfield....	Janesville...	3.40	626	Robt. Reagles.	Neptune....	3.52
541	J. Banfield....	Janesville...	2.20	627	Wm. Hearsh...	Neptune....	3.45
542	Ed. Wheeler...	Janesville...	3.46	628	A. Reagles...	Neptune....	3.87
543	F. Kaurtz....	Waterloo....	3.46	629	F. Klokow....	Neptune....	3.05
544	A. Beanstalk...	Waterloo....	3.96	630	G. Thomas....	Neptune....	3.75
545	R. Johnson....	Waterloo....	3.21	631	S. Faber....	Neptune....	3.87
546	Chas. Baptist..	Waterloo....	3.30	632	James Davis...	Neptune....	3.64
547	M. Joice.....	Waterloo....	3.13	633	H. Butts....	Neptune....	3.98
548	H. Bolter....	Waterloo....	3.46	634	Thomas Sippy.	Neptune....	3.87
549	August Gordon	Waterloo....	3.63	635	E. Holt.....	Neptune....	3.75
550	John Paul....	Waterloo....	3.35	636	Chris. Holtz...	Neptune....	3.28
551	Robert Pearsal	Waterloo....	3.63	637	A. Lincoln....	Neptune....	3.75
552	E. Feibger....	Waterloo....	3.79	638	L. Grasman...	Neptune....	2.97
553	H. Kickbine...	Waterloo....	4.04	639	John Sippy...	Neptune....	3.28
554	A. Dalman....	Waterloo....	3.71	640	A. Hamilton...	Neptune....	3.64
555	F. Dalbenow...	Waterloo....	3.00	641	C. E. Jacquish.	Neptune....	2.46
556	John White....	Waterloo....	3.46	642	J. Canaan....	Neptune....	3.52
557	A. Heck.....	Waterloo....	3.54	643	D. Gwin....	Neptune....	3.55
558	G. Ghastin....	Waterloo....	3.72	644	J. Davis....	Neptune....	3.64
559	Frank Skotizky	Waterloo....	3.30	646	John Connell.	Waukesha...	3.05
560	Geo. Weckest..	Waterloo....	3.21	647	Fred Smears...	Waukesha...	3.17
561	Gus. Weeks....	Waterloo....	3.46	648	D. Newhall...	Waukesha...	3.10
562	V. Simon....	Waterloo....	3.21	649	Jud Hart....	Waukesha...	3.99
563	Chas. Mickel..	Waterloo....	3.12	650	W. Nickel....	Waukesha...	4.34
564	E. Bartosh....	Waterloo....	3.21	651	W. Dixon....	Waukesha...	4.38
565	H. Hyer.....	Waterloo....	3.01	652	J. Lehrerer...	Waukesha...	3.75
566	C. Milkey....	Waterloo....	3.63	653	E. Butler....	Waukesha...	3.28
571	W. Ceb-ll....	London.....	3.42	657	F. Opitz....	Saukville...	3.75
572	A. Goetschalk.	London.....	3.54	658	Rich Opitz...	Saukville...	3.75
573	W. Lebinew...	London.....	2.99	659	C. Sanders...	Saukville...	3.52
574	J. Macker....	London.....	3.30	660	F. Zimmer...	Saukville...	3.75
575	F. Roehl....	London.....	3.36	661	M. Leonertz...	Saukville...	4.22
576	C. Rohlman...	London.....	3.54	662	Aug. Krueger.	Saukville...	3.99
577	G. Puhel....	London.....	3.50	663	W. Arndt....	Saukville...	3.87
578	J. Meindorf...	London.....	3.52	664	F. Schmidt...	Saukville...	3.64
579	E. Wolf.....	London.....	3.31	665	D. Schraeder.	Saukville...	3.52
580	G. Christanson.	London.....	3.34	666	F. Schraeder.	Saukville...	3.75
581	H. Mackales...	London.....	3.50	667	G. Boettcher...	Saukville...	3.99
582	C. Cufol....	London.....	3.43	668	F. Pape....	Saukville...	3.28
583	E. Webber....	London.....	3.50	669	F. Irwin....	Saukville...	3.64
584	F. Puncel....	London.....	3.36	670	John Feltes...	Saukville...	4.22
585	F. Heine....	London.....	3.35	671	W. Dickman...	Saukville...	3.28
586	H. Tory.....	London.....	3.99	672	M. Denerath...	Saukville...	3.99
587	C. Rohl....	London.....	4.00	673	Mrs. M. Roden.	Saukville...	3.52
588	A. Webber....	London.....	3.56	674	H. Johnson...	Saukville...	3.87
589	C. Frei.....	London.....	3.51	675	C. Shober....	Saukville...	3.99
590	A. Britzke...	London.....	3.52	676	J. Sabish....	Saukville...	3.87
591	P. Faltsac...	Waterloo....	3.89	677	C. Becker....	Saukville...	3.99
592	H. Kreuger...	Waterloo....	3.77	678	Mat Hann....	Saukville...	4.10
593	A. D. Rice....	Waterloo....	3.51	679	Mrs. M. Fran.	Saukville...	3.40
594	H. Swanke....	Waterloo....	3.31	680	L. Wambold...	Saukville...	3.64

ANALYSIS OF MILK.—Continued.

Lab. No.	From whom taken.	Address.	But-ter fat.	Lab. No.	From whom taken.	Address.	But-ter fat.
681	Frank Bell....	Saukville.....	3.75	745	— Niespodiany	Branch.....	3.00
682	J. Kronenburg.	Saukville.....	3.75	746	F. Merthens...	Branch.....	4.60
683	John Dries....	Saukville.....	3.99	747	J. Merthens...	Branch.....	4.40
684	John Schuh....	Saukville.....	3.17	748	K. Halverson...	Branch.....	3.80
685	D. Wilchen....	Saukville.....	3.40	749	W. Brunnor...	Branch.....	3.60
686	John Kurtz....	Saukville.....	3.87	750	— Larson.....	Branch.....	3.40
687	Joseph Nickel.	Saukville.....	3.64	751	M. Albrechet...	Branch.....	4.00
688	John Turck....	Saukville.....	3.75	752	S. Olson.....	Branch.....	3.60
689	John Boodle....	Saukville.....	3.52	753	K. Johnson....	Branch.....	4.40
690	Sam. Johnson..	Saukville.....	3.28	754	J. Scheisel...	Branch.....	4.20
691	A. Jacobson...	Saukville.....	4.11	755	H. Plockelman.	Branch.....	3.40
692	N. Jacobson...	Saukville.....	3.64	756	J. Simmet....	Branch.....	4.60
693	J. W. Lutfriug.	Saukville.....	3.69	757	A. Kerner.....	Branch.....	4.80
694	J. Nierren....	Saukville.....	3.87	758	G. Wellner...	Branch.....	4.20
695	John Reiter....	Saukville.....	3.90	759	J. Bauman....	Branch.....	4.40
696	J. Bartschigar.	Saukville.....	3.05	760	H. Halverson...	Branch.....	3.40
697	Wm. Lubahn...	Saukville.....	4.22	761	Geo. Slatky...	Francis Creek	2.60
698	Mrs. M.			762	J. Hakley....	Francis Creek	3.60
	Schwartz.....	Saukville.....	3.52	763	J. Fakora....	Francis Creek	3.90
699	N. Brauschalt.	Saukville.....	4.11	764	J. L. Fakora...	Francis Creek	3.00
700	W. Schrader...	Saukville.....	4.11	765	M. Swetlek...	Francis Creek	3.60
701	N. Gottland...	Saukville.....	3.64	766	J. Cicek.....	Francis Creek	4.00
702	C. H. Nierren.	Saukville.....	3.65	767	J. Kelnner...	Francis Creek	3.60
703	H. Whalen....	Saukville.....	4.11	768	P. Rade.....	Francis Creek	3.00
704	H. Opitz.....	Saukville.....	4.	769	P. Warel....	Francis Creek	3.00
705	Geo. Geiss....	Saukville.....	3.9	770	W. Popelars...	Francis Creek	3.20
706	B. F. Dewey...	Spring Green.	3.58	771	J. Swetlek...	Francis Creek	3.20
707	E. B. Evans...	Spring Green.	3.52	772	N. Swetlek...	Francis Creek	3.90
708	A. Frederick-son	Spring Green.	3.63	773	J. Cisher....	Francis Creek	4.00
709	John Davis....	Spring Green.	3.64	774	J. Slalky....	Francis Creek	3.20
710	Dan Morgan...	Spring Green.	3.75	775	T. Kurkle....	Francis Creek	4.60
711	Jacob Witzel...	Spring Green.	4.00	776	W. Slatky....	Francis Creek	3.00
712	James Lins....	Spring Green.	3.75	777	W. Buric....	Francis Creek	3.60
713	Geo. Dewey...	Spring Green.	3.87	778	C. Pilger....	Francis Creek	3.60
714	John Lins....	Spring Green.	3.87	779	A. Ccek.....	Francis Creek	3.20
715	Martin Nelson.	Spring Green.	4.32	780	M. Ourava....	Francis Creek	3.40
716	Jacob Seiders.	Spring Green.	4.34	781	F. Wid.....	Francis Creek	3.60
717	Chas Sherwood	Spring Green.	3.44	782	J. Pich.....	Francis Creek	3.60
718	W. H. Harris...	Spring Green.	3.93	783	M. Pich.....	Francis Creek	3.60
719	Thos. Loverse.	Spring Green.	3.44	784	F. Stiber....	Francis Creek	3.40
720	Geo. Dillwig...	Branch.....	4.20	785	A. Hayer....	Cato.....	3.20
721	C. Clemme....	Branch.....	3.80	786	J. Brodka....	Cato.....	4.00
722	F. Schmatz...	Branch.....	3.80	787	A. Tritsch...	Cato.....	3.80
723	K. Rollson....	Branch.....	3.60	788	J. Munhall...	Cato.....	4.00
724	Geo. Misenest.	Branch.....	4.20	789	J. Piper.....	Cato.....	4.00
725	W. Brunnig...	Branch.....	4.40	790	J. Mayerl....	Cato.....	3.60
726	F. Rank.....	Branch.....	4.80	791	G. Rigging...	Cato.....	3.80
727	H. Larenzen...	Branch.....	3.85	792	F. Maney....	Cato.....	3.80
728	— Springstube.	Branch.....	3.40	793	J. Redden...	Cato.....	3.40
729	J. Squirol....	Branch.....	4.60	794	M. Redden...	Cato.....	4.20
730	D. Sheldon....	Branch.....	4.20	795	C. Stroehfeld.	Cato.....	2.80
731	Geo. Needle...	Branch.....	3.80	796	W. Menneek...	Cato.....	3.00
732	J. A. Stepek...	Branch.....	4.60	797	C. McCourt...	Cato.....	3.80
733	A. Veolker....	Branch.....	5.20	798	F. Brandice...	Cato.....	4.20
734	J. Zepperer...	Branch.....	4.00	799	O. S. Piper...	Cato.....	4.00
735	N. Zepperer...	Branch.....	4.00	800	W. Brier....	Cato.....	3.60
736	G. Zepperer...	Branch.....	4.60	801	P. Laughlan...	Cato.....	3.80
737	A. Bry.....	Branch.....	3.80	802	S. French....	Cato.....	4.00
738	M. Bauman...	Branch.....	3.85	803	M. Colbeck...	Cato.....	4.00
739	F. Jana.....	Branch.....	3.40	804	C. Krohm....	Cato.....	4.20
740				805	H. Neoman...	Cato.....	3.60

SUMMARY OF MILK.

408 samples of milk tested.

384 samples contained more than 3 per cent. of butter fat.

235 samples contained more than 3.5 per cent. of butter fat.

107 samples contained more than 4 per cent. of butter fat.

24 samples contained less than 3 per cent. of butter fat.

These samples represent very fairly the quality of milk supplied to creameries and cheese factories, as well as that sold to individuals in the larger cities of the state.

Although these 408 samples represent a very small portion of the milk supply of Wisconsin, yet, the wide distribution of the samples, and the varying conditions under which they were taken, enable us to form some idea as to the quality of Wisconsin milk, and likewise to judge if the standard required by law is a just one from the producers' standpoint. The present standard in Wisconsin requires at least three per cent. of butter fat to be present in all milk offered for sale. This standard is adopted from a careful consideration of the composition of milk produced under all conditions of age, breed, and feed. The standard represents not the average composition of milk but is intended to represent the quality of milk produced by the poorest animals under normal conditions of feed and health. The milk standard is a very important question to both the milk producer and consumer. Too high a standard would be injurious to the producer, as it would require him to keep a particular breed of cows that his product should meet the requirements of the law. Too low a standard would be unjust to the consumer, as it would be an incentive to the breeding of animals giving large quantities of low grade milk. The reason for the existence of low grade and adulterated milk lies in the fact that milk is one of the few articles of food of whose quality the consumer cannot judge by examination. The presence or absence of cream is the only test possessed by the consumer, and that is of but little value when applied to milk which has been transported any distance.

If milk has been diluted in any way and it still contains there per cent. of butter fat, the person who dilutes and delivers it to a customer or a factory has violated the law.

BAKING POWDER.

The use of baking powders as a substitute for yeast in the aeration of bread is comparatively modern. These powders are composed of bicarbonate of soda with the addition of one or more of the following chemicals: Cream of tartar, tartaric acid, alum, and acid phosphate of lime, the object being the production of carbonic acid gas. When this powder is mixed with the flour and water added to make dough, the chemicals are dissolved and the carbonic acid set free. The salt resulting from the chemical action remains in the bread and is eaten with it. This process is an imitation of the method of making bread with sour milk and saleratus, only in place of the lactic acid of the sour milk, cream of tartar, alum, or acid phosphate is used. The use of these bread preparations has given rise to a large and growing industry. The amount consumed in the United States is estimated at from fifty to seventy-five million pounds per year, having a value of from twenty to twenty-five million dollars.

There is no recognized standard composition of baking powders; provided the manufacturer does not use any substance injurious to health, his choice as to chemicals is not limited. Fortunately the list of chemicals that can be used for that purpose is small. The requirements of cheapness and palatability confine the manufacturers to the following list: Cream of tartar, tartaric acid, alum, acid phosphate of lime. One or more of the above mixed in the proper proportions with bicarbonate of soda and starch constitutes the baking powder found on the market at the present time.

All powders on the market may be classed under one of the following heads:

- 1st. Tartaric powders, in which the acid is tartaric acid or cream of tartar.
- 2nd. Phosphate powders, in which the tartaric acid is replaced by acid phosphate of lime.

3rd. Alum powders, in which the acid is sulphuric acid. All powders sold come under one of these three heads, but powders are sold containing one or all of the above constituents. The objections which may be made to the use of baking powders are due to the residue left in the bread. Baking powder manufacturers foster the idea that nothing remains in the bread but that everything is driven off during baking. On the contrary there is a residue equal in weight to the baking powder used, and its amount and character determines the healthfulness of the combination used.

In the case of a cream of tartar powder the products are carbonic acid and a double tartrate of potassium and sodium, known as Rochelle salt. This is one of the mildest salts used in medicine. The National Dispensatory says: "In doses of one-half to one ounce (240 to 480 grains) it acts as a gentle and cooling laxative and seldom disagrees with the stomach." The cream of tartar is a natural constituent of the grape and is open to less objection than any other material except it be the acid phosphates. It is well, however, to consider how much of even this mild salt we consume in a loaf of bread. The directions that accompany the powder usually direct two teaspoonsful to be used for each quart of flour. If the powder is fresh this is enough, but if an old powder is used, three and even four teaspoonsful must be used if the bread is to be light. In the case of a fresh powder, making allowances for the 20 per cent. of filling, there would remain 165 grains of crystallized Rochelle salt in the bread made from one quart of flour. This residue is of such a mild and neutral character that the most delicate stomach could probably take the amount left in the bread, without harm. But it is well to remember that a loaf of bread made according to directions contains more of Rochelle salts than is found in a Sedlitz powder. The acid phosphate of lime is largely used in baking powders, and there would seem to be no objection to its use if the salt is pure. It is made by acting upon ground bones with sulphuric acid. The result is insoluble sulphate of lime and acid phosphate of lime. If this latter is carefully purified there is no objection to its use in baking powders; but

as the sulphates of lime are difficult to remove, most phosphate powders contain this impurity. Also if commercial sulphuric acid is used to decompose the bones notable quantities of lead and arsenic may be introduced into the baking powder. If the acid phosphate is pure there is no objection to its use in baking powders. The result of the decomposition of a phosphate powder is soluble phosphate of soda and insoluble phosphate of lime. The U. S. Dispensatory states: "Phosphate of soda is mildly purgative in doses of from one to two ounces. Its physiological action is therefore comparatively slight. Phosphates of calcium are probably neutral so far as their direct action on the stomach is concerned. The makers of phosphate powders claim that the use of such powders restores the phosphoric acid present in the wheat, which is largely removed in the preparation of flour. It is doubtful if this claim can have any weight, as the supply of phosphates is more than made up in other foods.

Sesqui carbonate of ammonia has been used to some extent, and one of the most widely advertised brands of baking powders contains a small quantity of it. It is a compound which should be used with great caution. The ammonia salts are much more irritating than the corresponding potash or soda salts. The National Dispensatory says of carbonate of ammonia: "It is irritant, and if long continued, even in doses which the stomach will tolerate, it impairs nutrition. In doses of five to ten grains, it increases the fullness and force of the pulse and causes a sense of lightness in the head. It is one of our most powerful medicines, and certainly should not be used in the preparation of foods."

ALUM BAKING POWDER.

The call for a cheap baking powder has caused the powders made with alum to come into extensive use. The healthfulness of these alum powders is seriously questioned, and several careful investigations have been made, bearing on this point. It is universally conceded that alum itself, when added to bread, is injurious to health, and that the

small amount sometimes added to flour to improve the appearance of the bread made from it, should be decidedly prohibited. Since the introduction of baking powders made from alum and bicarbonate of soda, there has been much dispute as to the actual healthfulness of the residue left in the bread made with such powders. The alum used in these powders is what is known as ammonia alum, and is a double sulphate of ammonia and aluminum. This salt when mixed with bicarbonate of soda in the proper proportions, is decomposed and carbonic acid, sulphates of soda and ammonia, together with hydrate of alumina are formed. This residue is more complex than with any of the powders previously described. There is but little known of the physiological action of sulphate of ammonia; but it is probable that it possesses the same irritating qualities of the other ammonia salts. Sulphate of soda is the well-known Glaubers salts and its action as a purgative is well-known. The question is further complicated by the fact that some powders contain tartaric acid or acid phosphate of lime in addition to the alum. These powders give an entirely different residue from the straight alum powders. The addition of tartaric powders is decidedly objectionable. If the acid is added in sufficient quantity to a straight alum powder, it prevents the formation of the insoluble hydrate of alumina when the powder is moistened, and the effect would be the same as if alum or other soluble salt of aluminum were taken into the stomach.

The use of acid phosphate of lime in place of tartaric acid is a decided improvement. The residue from an alum phosphate powder is a mixture of phosphate of aluminum, sulphate of lime, sulphate of aluminum, sulphate of soda. There is no doubt that the soluble salts of aluminum are injurious when taken into the stomach.

Of the physiological action of the hydrate and phosphate of aluminum there has been much doubt, but the recent investigations of Prof. J. W. Mallet would indicate that although hydrate of alumina is an insoluble substance, yet it may have a decided action on the process of digestion. From a long series of experiments with alum powders and

their residues, Prof. Mallet draws the following conclusions: (a) The greater part of the alum baking powders in the American market is made with alum, the acid phosphate of calcium, bicarbonate of sodium and starch; (b) These powders as found in the retail trade, give off very different proportions of carbonic acid gas and therefore require to be used in different proportions with the same quantity of flour; some of the inferior powders in largely increased amount to produce the required porosity in bread.

(c) In these powders there is generally present an excess of the alkaline ingredient, but this excess varies in amount and there is sometimes found an excess of acid material.

(d) On moistening with water these powders, even when containing an excess of alkaline material, yield small quantities of aluminum and calcium in a soluble condition.

(e) As a consequence of the common employment of calcium acid phosphate with alum, in the manufacture of baking powders, these, after use in bread-making, leave most of their aluminum in the form of phosphate. When alum alone is used, the phosphate is replaced by hydroxide.

(f) The temperature to which the interior of bread is exposed in baking does not exceed 212° F.

(g) At the temperature of 212° F., neither the "water of combination" of aluminum hydroxide nor the whole of the associated water of either this or the phosphate, is removed in baking bread containing these substances.

(h) In doses not very greatly exceeding such quantities as may be derived from bread as commonly used, aluminum hydroxide and phosphate produce, or produced in experiments upon myself, an inhibitory effect upon gastric digestion.

(i) This effect is probably a consequence of the fact that a part of the aluminum unites with the acid of the gastric juice and is taken up into solution, while at the same time the remainder of the aluminum, hydroxide or phosphate throws down in insoluble form the organic substance constituting the peptic ferment.

(k) Partial precipitation in insoluble form of some of the organic matter of food may also be brought about by the presence of the aluminum compounds in question.

(l) From the general nature of the results obtained the conclusion may fairly be deduced that not only alum itself but the residue which its use in baking powder leaves in bread, cannot be viewed as harmless, but must be ranked as objectionable, and should be avoided when the object aimed at is the production of wholesome bread.

The results of Mallet's experiments would indicate that the residues in bread made from alum baking powders have a decided effect even on a strong and healthy stomach. The weight of testimony is certainly against the use of alum, but the data are not yet sufficient to absolutely prohibit its use.

The following table shows the brands which have been examined and gives a good idea of the kind and quality of powders sold in the state. It will be noticed that there is a great variation in the per cent. of carbonic acid present, and consequently in the leavening power of the different powders. Some of the brands would be dear at one-fourth of the price at which they are sold.

ANALYSIS OF BAKING POWDER.

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Lab. No.	Name of Dealer.	Address.	Name of Manufacturer.	Address.	Trade Mark.	Contains.	Per ct.	Other Ingredients.
30	Roundy, Peckham & Co.	Milwaukee...	C. E. Andrews & Co.	Milwaukee...		Carbonic acid	12.9	Cream tartar, starch.
31	Roundy, Peckham & Co.	Milwaukee...	Not known			Carbonic acid	9.5	Alum.
32			Jewett, Sherman					
33	Sanders & Verplank.	Milwaukee...	Co.	Milwaukee...		Carbonic acid	11.6	Cream tartar.
34	Bandew & Heath.	Milwaukee...	Not known			Carbonic acid	10.8	Cream tartar.
35	J. G. Flint.	Milwaukee...	Not known			Carbonic acid	11.3	Alum.
36	J. G. Flint.	Milwaukee...	Not known			Carbonic acid	11.2	Cream tartar.
37	H. Scheffels & Son.	Milwaukee...	Not known			Carbonic acid	8.	Alum.
38	Cromby, Smith & Co.	Milwaukee...	Thompson & Taylor	Chicago...		Carbonic acid	9.34	Alum, phosphate.
39			Not known		Red Cross	Carbonic acid	9.53	Cream tartar.
40			Jewett, Sherman & Co.	Milwaukee...	King.	Carbonic acid	13.	Alum.
41	Banden & Heath.	Milwaukee...	Not known		Cream Foam	Carbonic acid	11.4	Cream tartar.
42			Jewett, Sherman & Co.	Milwaukee...	White Lilly	Carbonic acid	13.35	Starch, alum, tartaric acid.
43	E. A. Smith.	Milwaukee...	Not known		Cupid	Carbonic acid	10.85	Starch, alum, phosphate.
44	Jewett, Sherman & Co.	Milwaukee...	C. E. Andrews & Co.	Milwaukee...	Ladies	Carbonic acid	9.	Starch, alum.
45	Cromby, Smith & Co.	Milwaukee...	Not known		Gold Seal	Carbonic acid	10.35	Starch, alum, phosphate.
204	J. G. Flint.	Milwaukee...	Not known		White Rose	Carbonic acid	7.55	Starch, alum, phosphate.
341	Ferris & Alvord.	Whitewater	Sent by C. R. Beach	Whitewater		Carbonic acid	9.55	Cream tartar.
342	James Hanson.	Racine	Spencer Blueing Paddle Co.	Chicago	Echo	Carbonic acid	5.55	Cream tartar.
343	I. L. Esson.	Racine	Spencer Blueing Paddle Co.	Chicago	Eassons	Carbonic acid	3.50	Starch, alum, phosphate.
344	A. O. Burch.	Racine	L. E. Taylor	Chicago	Excelsior	Carbonic acid	.9	Cream tartar, starch, alum
345	E. H. Brill.	Racine	J. Wellauer.	Milwaukee	White Flake	Carbonic acid	2.2	Alum.
346	James Hanson.	Racine	Royal Bk. P. Co.	New York	Royal	Carbonic acid	12.8	Cream tartar.
347	Wickham & Williams.	Racine	Craig B. P. Co.	Cleveland, Ohio	Empire	Carbonic acid	6.5	Starch, alum, phosphate.
	James Hanson.	Racine	Rumford Chemical Works.	Providence, R. I.	Hosfords	Carbonic acid	13.95	Phosphate.

343	James Hanson	Racine	Zipp & Chorn- dorfer	Cleveland, Ohio	Zipps Grape Crys- tal	Carbonic acid	9.8	Starch, alum, phosphate.
349	Hanley Bros.	Racine	Chapman & Smith	Chicago	Chicago Yeast	Carbonic acid	10.50	Starch, alum, phosphate.
350	Schacht Bros.	Racine	Durham Coffee & Spice Co.	La Fayette, Ind.	Winner	Carbonic acid	10.7	Starch, alum, phosphate.
351	James Hanson	Racine	Vonwie Bros.	Cleveland & Chicago	Forest City	Carbonic acid	8.65	Starch, alum.
352	Grand Union Tea Co.	Racine	Acme B. P. Co.	New York	Acme	Carbonic acid	10.45	Cream tartar, starch, alum.
353	I. L. Easson	Racine	Concordia B. P. Co.	Milwaukee	Lulu	Carbonic acid	5.50	Starch, alum.
354	I. L. Easson	Racine	Prices B. P. Co.	New York	Prices	Carbonic acid	11.25	Cream tartar, starch.
355	Wickham & Will- iams	Racine	Shaw & Thomas	New York	Silver King	Carbonic acid	7.65	Starch, alum, phosphate.
356	James Hanson	Racine	Wolfe & Schmetz.	Chicago	Grape	Carbonic acid	9.25	Starch, alum, phosphat.
357	A. O. Burch	Racine	Bengal Coffee & Spice Co.	Chicago	Snowball	Carbonic acid	11.60	Alum, phosphate, starch.
358	Wickham & Will- iams	Racine	Geo. P. Vasbrinkt Spice Co.	Chicago	Vasbrinkt.	Carbonic acid	10.35	Alum, phosphate, starch.
359	Hanley Bros.	Racine	Queen City Chem- ical Co.	Buffalo, N. Y.	Oriole	Carbonic acid	8.95	Alum, phosphate, starch.
360	Wickham & Will- iams	Racine	Jewett, Sherman & Co.	Milwaukee	Good as Gold	Carbonic acid	7.15	Alum, starch.
361	Schacht Bros.	Racine	J. C. Grant B. P. Co.	Chicago	Hotel	Carbonic acid	7.15	Alum, starch.
362	Schacht Bros.	Racine	Superior B. P. Co.	Milwaukee	Morning Lily	Carbonic acid	9.40	Alum, starch.
363	Wickham & Will- iams	Racine	Jewett, Sherman & Co.	Milwaukee	Kahala	Carbonic acid	11.1	Alum, starch.
364	G. A. Robbins	Sheboyg'n Fls	Barton B. P. Co.	Fairport, N. Y.		Carbonic acid	9.9	Alum, phosphate, starch.
365			John Davis & Co.	Detroit, Mich.	New Era	Carbonic acid	10.35	Alum, phosphate, starch.
367	Otto Lontz	Marinette	John Davis & Co.	Detroit, Mich.	New Era	Carbonic acid	10.6	Alum, phosphate, starch.
368	Otto Lontz	Marinette	J. P. Dieter	Chillicothe, O.	Crown King	Carbonic acid	10.55	Alum, phosphate, starch.
369	Otto Lontz	Marinette	White Rose B. P. Co.	Green Bay	White Rose	Carbonic acid	8.25	Alum, phosphate, starch.
370	C. Rienke	Marinette	De Land Co.	New York	Gilt Edge	Carbonic acid	7.80	Alum, cream tartar, phosphate, starch.
374	J. A. McDonald	La Crosse	Potter, Parlin & Co.	Cincinnati, O.	Kenton	Carbonic acid	8.05	Alum, phosphate, starch.
375	J. A. McDonald	La Crosse	La Crosse Spice Mills	La Crosse	Badger	Carbonic acid	3.4	Alum, starch.
376	J. A. McDonald	La Crosse	J. J. Hogan	La Crosse	Princess	Carbonic acid	3.20	Alum, phosphate, starch.
377	W. W. Taylor	La Crosse	Granger & Co.	Buffalo, N. Y.	Safe	Carbonic acid	5.95	Alum, phosphate, starch.
378	W. W. Taylor	La Crosse	Rosewater Bros.	Cleveland, O.	O. K.	Carbonic acid	6.25	Alum, phosphate, starch.
379	E. A. Wilson	La Crosse	Columbia B. P. Co.	Chicago	Columbia	Carbonic acid	3.3	Alum, phosphate, starch.
380	E. A. Wilson	La Crosse	M Kalbsflaeischs.	New York	Wheat	Carbonic acid	2.4	Phosphate.
381	J. J. Berghoust	La Crosse	Boston B. P. Co.	Fairport, N. Y.	Boston	Carbonic acid	3.45	Alum, phosphate, starch.
382	J. J. Berghoust	La Crosse	John Davis & Co.	Detroit, Mich.	Coral	Carbonic acid	4.85	Alum, phosphate, starch.
416	R. Chase	Madison	De Land & Co.	Fairport, N. Y.	Pride of Madison	Carbonic acid	10.7	Alum, phosphate, starch.

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Lab. No.	Name of Dealer.	Address.	Name of Manufacturer.	Address.	Trade Mark.	Contains.	Per. ct.	Other Ingredients.
417	W. T. McConnell & Son.....	Madison.....	Sherman Bros ...	Chicago	Fidelity.....	Carbonic acid	9.4	Alum, phosphate.
420	A. Mayers.....	Madison.....	Globe B. P. Co....	New York....	Globe.....	Carbonic acid	8.7	Alum, phosphate, starch.
421	A. Mayers.....	Madison.....	Sprague, Warner & Co.....	Chicago	Unrivald.	Carbonic acid	4.85	Alum, phosphate, starch.
425	H. G. Chase	Platteville	Excelsior Mills....	Chicago	Magic Crystal ..	Carbonic acid	10.35	Alum, phosphate, starch.
426	Frank Schanbow.	Platteville	E. Camby.....	Dayton, O ...	Silver Star.....	Carbonic acid	10.2	Alum, phosphate, starch.
427	R. J. Huntington.	Platteville	McNeil & Higgs...	.....	New Chicago. ...	Carbonic acid	7.2	Alum, starch.
428	John Woodward..	Platteville	Bruce B. P. Co....	Chicago	Bruce's.....	Carbonic acid	3.7	Alum, phosphate, starch.
429	John Woodward..	Platteville	A. B. Gates & Co.	Indianapolis..	Crystal	Carbonic acid	10.2	Alum, phosphate, starch.
430	John Woodward..	Platteville	Sprague, Warner & Co.....	Chicago	Improved	Carbonic acid	10.3	Alum, phosphate, starch.
431	John Woodward..	Platteville	United B. P. Co....	Milwaukee....	Ladies'	Carbonic acid	7.50	Alum, starch.
488	Van Akin, agent..	.....	De Land.....	Fairport, N. Y.	De Land Chem...	Carbonic acid	16.4	Cream tartar.
489	Van Akin, agent..	.....	Barton B. P. Co..	Fairport, N. Y.	Barton.....	Carbonic acid	2.75	Alum, phosphate, starch.
490	Van Akin, agent..	.....	De Land.....	Fairport, N. Y.	De Land Chem., 3 years old	Carbonic acid	12.3	Cream tartar.
527	W. Fulton..	Portage.....	Not known.....	.....	Fulton's Choice...	Carbonic acid	12.1	Alum, phosphate, starch.

SUMMARY OF BAKING POWDERS.

Number of samples analyzed, 70.

Number of samples of cream of tartar baking powders, 7.

Number of samples containing substitutes of lower cost and poorer quality, 63.

A baking powder that contains less than 10 per cent. of carbonic acid is an inferior article in bread-baking. Acid phosphate and starch are not injurious ingredients. A glance at the foregoing table reveals the large percentage of baking powders that are comparatively worthless. One hundred of the most prominent physicians in this state do not hesitate to pronounce alum pernicious in baking powder. A purchaser should have the guarantee of the dealer that no injurious ingredients are to be found, and that the powder has not been so compounded that its leavening power has been impaired or destroyed.

VINEGAR.

Vinegar is dilute acetic acid containing a varying quantity of organic matter according to its method of manufacture. It has been known from very early times and is probably coeval with wine. It is mentioned in the most ancient literature. Moses mentions it, and Hippocrates used it in medicine. Its ability to dissolve carbonates was made use of in the earliest times. Cleopatra made use of this property in dissolving pearls and by drinking the solution won her wager of being able to consume the value of one million sesterces at one meal. It is stated also that with it Hannibal dissolved the rocks impeding his march across the Alps. Although vinegar was in general use and was early manufactured, but little was known about its formation. The alchemist Gerber, who lived in the eighth century, first discovered that vinegar could be made stronger by distillation. Valentinus in the fifteenth century knew that by slow distillation of vinegar, first a weak product, then a stronger one is obtained. Stahl and others in the eleventh century produced acetic acid from acetate of copper. Stahl and Westendorf were the first to prepare

the acid in a pure state. The dry distillation of wood was known to produce an acid body but it was supposed to be a peculiar acid, and it was not till 1800 that Fourcroy and Vauquelin recognized this acid as acetic acid. It was not until the nineteenth century that the chemical constitution of acetic acid and its relation to alcohol was known. In 1822 Döbereiner discovered that acetic acid was produced from alcohol.

The manufacture of vinegar consists in the fermentation of organic fluids containing alcohol or sugar. Fermentation is a series of decompositions by which the sugar of a liquid is first broken up into alcohol and carbonic acid, with the formation of other compounds in small quantities; and, second, breaking up the alcohol into acetic acid and water. The changes which take place during fermentation are caused by agents called ferments. The organisms producing fermentation are named after certain products which they form in larger quantities. That found in vinous fermentation consists of low forms of vegetable growth called *torula* or *saccharomyces*. They are globular or cell shaped in form and multiply by budding. This fermentation is the first that occurs in the process of making vinegar. After the first or alcoholic fermentation is over, a second fermentation commences, resulting in the decomposition of alcohol into acetic acid and water. The ferment which causes this change is a micro organism known as *mycoderma acetic*. It is widely distributed through the atmosphere, and develops upon the surface of liquid as a thick white skin. Under the microscope this skin is seen to consist of numerous small cells or collection of cells having the general form of the figure eight.

In a more advanced stage of the fermentation they appear as chains and strings of beads. In many of the cells oval forms, slightly contracted, appear. This contraction becomes more marked and the cell finally splits into two new cells. These cells only live for a short time and then sink to the bottom of the liquid and become dormant. In this condition they may remain a long time without destruction. When these dormant cells or germs are placed

on the surface of a fresh liquid and kept at a proper temperature the development of the ferment again begins and continues with great rapidity.

Duclaux says: "These little beings reproduce themselves with such rapidity that by placing an imperceptible germ upon the surface of a liquid contained in a vat having a surface of one square meter (about one square yard), we may see it covered in from twenty-four to forty-eight hours with a uniform velvety veil. If we suppose that there are three thousand cells in a square millimeter, this will give us for the vat three hundred millions of cells produced in a very short time."

As the result of many experiments, the conditions most favorable for the production of the vinegar ferment and the conversion of the largest quantity of alcohol into acetic acid are well known. These are:

1. A fluid which, besides alcohol and water, contains nitrogenous bodies and alkaline salts. The quantities of these must, however, not exceed a certain limit.

2. The fluid must be in immediate contact with the air.

3. The temperature of the fluid and the air surrounding it must be within certain limits (68°-95° F.) The substances used for the manufacture of vinegar are quite numerous. All wines and fruit juices, molasses, beer, solution of glucose, and in fact any fluid containing fermentable sugars. The methods employed in the various processes of manufacturing vinegar belong to one of two classes, the old process of self fermentation, and the new or quick process.

Depending on the material used, many slight modifications are introduced into the old process, the resulting vinegar showing quite different qualities as regards odor and flavor.

Vinegar obtained from dilute alcohol will show a difference in odor depending on the material used in the preparation of the specific alcohol.

Potato alcohol always contains fusel oil and in the oxidation of the alcohol by the vinegar ferment, this oil is oxidized, giving characteristic flavor to the vinegar. Vinegar

prepared from wine, fruit, beer and glucose also possesses definite properties as regards odor, flavor, etc.

In preparing vinegar by the old process the first step is the alcoholic fermentation. In case of cider the juice is allowed to stand in casks until it has undergone alcoholic fermentation, and active fermentation has stopped. In most cases it is then racked off into other casks and left exposed to the air till sufficient acidity has developed to render it suitable for use. The above is a long, slow process, several months being required for the preparation of the finished article it being a well-known fact that the vinegar ferment required free access of air. Schützenbach in 1823, conceived the idea that if he greatly enlarged the surface which was exposed to the air, the process of acetification would be greatly hastened. His experiments were successful, and the so-called "quick process" was soon adopted. The process consists in allowing alcoholic liquid to trickle slowly through beechwood shavings packed into a cylindrical tower, so arranged as to allow a current of air to pass through it. This arrangement presents in a high degree all the conditions required for the formation of vinegar. The vinegar ferment being spread evenly on the surface of the shavings enables the process to take place simultaneously on many thousands of square feet, instead of the limited area of the tank as in the old process. The term quick process is very appropriate; it differs from the old process only in the time required for its execution, the chemical changes being the same in both cases. In carrying on the quick process, each manufacturer introduces slight modifications suggested by his experience or convenience, but the following description will give a general idea of the process.

Cider Vinegar.—The cider is put in large store vats and left quiet until the vinous fermentation has taken place. It is then what would be called hard cider and contains alcohol and some acetic acid. It is then known as "stock." When the stock is ready for the generator it is pumped into the filter. This may be of sand, sawdust or other fil-

tering material, its object being to remove any sediment or floating organic matter which would otherwise clog the converters. From the filters it runs into the generators. The liquid is run through a screen at the top of the generator to break it up into drops and distribute the liquid evenly over the surface of the shavings. The generator consists of a round tank of wood six to ten feet high, with a diameter of 35 inches at the top, and 45 inches at the bottom, thus giving it the form of a truncated cone. The generator is divided into three parts one above the other; the upper one containing a screen to distribute the alcoholic liquor; the center one containing beech shavings, and the lower one serves for the collection of the vinegar. Air is let in by holes bored through the sides of the tank below the false bottom on which rest the beech shavings. The amount of air is regulated by wooden stoppers placed in these holes. After passing through the generator, if it contains any unconverted alcohol, the vinegar is passed through a second time, and then is finished vinegar. Many substances have been prepared for filling the generators, but at present beechwood shavings are considered the best. They are now made especially for this purpose, being cut and curled by machinery. They are prepared for the generator by being washed in water and steamed to remove the woody taste and impurities which they would otherwise give the vinegar. The shavings are dried and saturated with old vinegar and are then ready for use.

Brannt states that the surface exposed in a generator three feet by six, filled with shavings, is over 22,000 square feet.

Material for Vinegar Making.—The substances from which vinegar is made at the present time are beer, wine, glucose, alcohol, molasses, and fruit juices. Wine vinegar is chiefly used in Europe. It is made from grape juice, inferior wines and from the second and third pressings of the grapes called "lees." Wine vinegars vary in color from pale yellow to red, and have a specific gravity of from 1.014 to 1.022. Most of the vinegar used in Great Britain is derived from the fermentation of a wort made

from a mixture of barley and malt. Malt vinegar is of a decided brown color, and in specific gravity varying from 1.017 to 1.019, the strongest known as proof vinegar, containing from 4.6 to 5 per cent. of acetic acid. Glucose vinegar is prepared from a mixture of glucose and water, by allowing it to undergo alcoholic fermentation, and then running it through the generator in the usual way. The vinegar sometimes contains large quantities of dextrine and sulphate of lime, left in the glucose as an impurity during the process of manufacture.

Molasses vinegar is made in the same way as glucose vinegar.

The larger part of the vinegar now on the market is made from a dilute alcohol. This vinegar as it comes from the converters is colorless as water. It is colored by the addition of burnt sugar (caramel) and sold as cider vinegar.

Characteristics of Different Vinegars.—Cider vinegar should have a yellow color and a cider-like odor. Evaporated to dryness on a water bath it leaves a dark brown residue, having a taste of burnt apples. The amount of extract is from 1.5 to 5 per cent., depending on the age of the sample and method of manufacture. Cider vinegar made by the old process contains malic acid, and on the addition of acetate of lead gives a heavy yellowish precipitate of malate of lead. The ash from cider vinegar contains considerable quantities of alkaline phosphate. The residue from wine vinegar contains the salts found in wine. It is distinguished from other vinegars by containing cream of tartar. According to the Edinburgh Pharmacopœia, it may be distinguished from malt vinegar by adding ammonia in slight excess, which causes in wine vinegar a purplish muddiness and slowly a purplish precipitate, but in malt vinegar no precipitate or only a slight one.

Spirit vinegar made from dilute alcohol should leave only a very small residue; if caramel has been added to color it the residue will be of a dark black brown and leave no ash on burning.

Beer vinegar is yellow and has an odor of sour beer. It

contains as much as 6 per cent. of solids on evaporation. Beer vinegar does not contain more than 2.5 to 3 per cent. of acetic acid and requires to be fortified by the addition of a stronger vinegar. Glucose vinegar has the taste and smell of fermented grain. It usually contains considerable impurities, such as dextrine, sulphate of lime and sometimes sodium chlorides.

Adulteration of Vinegar.—Blythe classifies the adulteration of vinegar as follows:

1, Water; 2, mineral acids, usually sulphuric, rarely hydrochloric or nitric; 3, metallic adulterations; or, more properly, impurities as they are introduced from the apparatus. There are arsenic, derived from the sulphuric acid; copper, lead, zinc and tin from the solvent action of the acetic acid on any metallic surfaces with which they may come in contact; 4, Pyroligneous acid; 5, various organic, such as coloring agents, capsicum, etc.

The chief adulteration is the addition of whiskey vinegar to cider vinegar, or the coloring of whiskey vinegar with caramel, and selling it for cider vinegar.

The analysis of a sample of vinegar consists in a determination of the specific gravity, the amount of acid present and total solids. The specific gravity is taken by a Westphal balance. To determine the acidity 20 c. c. are measured into a beaker, 100 c. c. of water and a few drops of phenol-phthalein (in alcoholic solution) are added, and the acid titrated with a normal alkali solution. The solids are found by evaporating 20 c. c. to dryness at 100° C. (212° F.) Thus far no free acid other than acetic or other impurities have been found in Wisconsin vinegar.

The following table gives the analyses of vinegar examined:

ANALYSES OF VINEGAR.

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Lab. No.	From Whom Taken.	Address.	Name of Manufacturer.	Address.	Solids.	Acetic Acid.	Specific Gravity.	Quality.
4	D. Bryant	Madison	Not known		.51	4.96	1.005	Whiskey.
5	J. H. D. Baker	Madison	Not known		.12	4.87	1.005	Whiskey.
6	J. H. D. Baker	Madison	Not known		12.98	4.75	1.05	Glucose.
7	Gardner Snell	Madison	Not known		.71	5.18	1.008	Whiskey.
8	Gardner Snell	Madison	Not known	Madison	.46	3.06	1.006	Whiskey.
9	Welsh & Carpenter	Madison	H. Grove & Son	Madison	.23	3.81	1.005	Whiskey.
10	M. L. Nelson	Madison	Michigan Vinegar Co.		2.13	3.57	1.012	Cider.
11	Correy Bros	Madison	Not known		.1	2.06	1.002	Whiskey.
12	Correy Bros	Madison	American Vinegar Co.	Milwaukee	.23	4.43	1.005	Whiskey.
13	J. C. Light	Madison	American Vinegar Co.	Milwaukee	.2	2.99	1.004	Whiskey.
14	J. C. Light	Madison	American Vinegar Co.	Milwaukee	.23	2.86	1.003	Whiskey.
15	H. Grove & Son	Madison	Dahinden & Gallasch	Milwaukee	.32	6.50	1.006	Whiskey.
16	Milwaukee Vinegar Co.	Milwaukee	Milwaukee Vinegar Co.	Milwaukee	.26	6.86	1.009	Whiskey.
17	Roth Manufacturing Co.	Milwaukee	Roth Manufacturing Co.	Milwaukee	.1	5.41	1.004	Whiskey.
18			Reideburg & Co.	Milwaukee	.101	5.20	1.01	Malt.
19			Dahinden & Gallasch	Milwaukee	3.34	2.41	1.01	Cider.
20			J. B. Liginger & Son	Milwaukee	3.81	8.02	1.017	Cider.
21			H. Riedeburg & Co.	Milwaukee	.33	6.12	1.007	Whiskey.
22			Roth Manufacturing Co.	Milwaukee	.12	4.46	1.003	Whiskey.
23			Dahinden & Gallasch	Milwaukee	.14	6.59	1.009	Whiskey.
24			American Vinegar Works	Milwaukee	.25	7.45	1.01	Whiskey.
25			Paul Bechtner	Milwaukee	.17	8.36	1.009	Whiskey.
26			Paul Bechtner	Milwaukee	.2	3.87	1.005	Whiskey.
27			American Vinegar Works	Milwaukee	2.34	6.60	1.015	Cider.
28			Paul Bechtner	Milwaukee	2.64	4.98	1.014	Cider.
46	Hilderbrand & Deihl	Sheboygan	Not known		.14	3.92	1.004	Whiskey.
47	John Allen	Sheboygan	Not known		3.07	2.74	1.01	Cider.
48	C. W. Nelson	Sheboygan	Not known		.46	2.87	1.004	Whiskey.
49	Cabille & Co.	Sheboygan	Dahinden & Gallasch	Milwaukee	.13	3.89	1.001	Whiskey.
50	C. Neumeister & Co.	Sheboygan	Manitowoc Vinegar Co.	Manitowoc	.16	4.25	1.005	Whiskey.
51	Rickmeim & Schmidt	Sheboygan	H. Schiffels & Son	Milwaukee	.12	3.23	1.	Whiskey.
52	J. M. Steinle	Sheboygan	Dahinden & Gallasch	Milwaukee	.08	4.36	1.004	Whiskey.
53	F. H. Hoffman & Son	Sheboygan			.21	2.83	1.003	Whiskey.
54	C. W. Nelson	Sheboygan	Reisburg & Co.	Milwaukee	.16	2.97	1.003	Whiskey.
55	Rickmeim & Schmidt	Sheboygan	H. Scheffels & Son	Milwaukee	.24	4.51	1.005	Whiskey.
56	Rietow Bros	Sheboygan	J. D. Imbush	Milwaukee	.08	3.58	1.003	Whiskey.
57	C. Koerner	Fond du Lac	Roth Manufacturing Co.	Milwaukee	.22	5.83	1.009	Whiskey.
58	J. C. Zenter	Oshkosh	Fugleburg & Metz	Oshkosh	.11	3.83	1.004	Whiskey.

59	Chas. Foelsch.....	Fond du Lac.....	G. M. Arnold.....	Oshkosh.....	.22	3.59	1.005	Whiskey.
60	.....	.....	Arnold Vinegar and Yeast Co.	Oshkosh.....	.33	3.82	1.005	Whiskey.
61	W. J. Mason.....	Fond du Lac.....	Paul Bechtner.....	Milwaukee.....	.19	4.17	1.005	Whiskey.
62	Thomas Gough.....	Fond du Lac.....	Paul Bechtner.....	Milwaukee.....	.19	4.20	1.005	Whiskey.
63	F. Fritz.....	Fond du Lac.....	Dahinden & Gallasch.....	Milwaukee.....	.23	4.29	1.006	Whiskey.
64	Wm. Dickman.....	Oshkosh.....	American Vinegar Works.....	Milwaukee.....	.20	4.01	1.006	Whiskey.
65	J. C. Zenter.....	Oshkosh.....	Fugleberg & Metz.....	Oshkosh.....	.20	3.96	1.005	Whiskey.
66	C. Foelsch.....	Fond du Lac.....	Arnold Vinegar Co.....	Oshkosh.....	.19	3.10	1.004	Whiskey.
67	.....	.....	Arnold Vinegar Co.....	Oshkosh.....	.14	3.99	1.005	Whiskey.
68	E. A. Keith.....	Fond du Lac.....	H. Reideburg & Co.....	Milwaukee.....	.26	7.36	1.009	Whiskey.
69	E. H. Jones.....	Fond du Lac.....	Arnold Vinegar Co.....	Oshkosh.....	.18	3.23	1.005	Whiskey.
70	H. Wallichs.....	Fond du Lac.....	Fugleberg & Metz.....	Oshkosh.....	.18	4.08	1.005	Whiskey.
71	Mrs M. Kremer.....	Oshkosh.....	Fugleberg & Metz.....	Oshkosh.....	.14	3.84	1.004	Whiskey.
72	A. R. Dandy.....	Oshkosh.....	J. E. Kennedy & Son.....	Oshkosh.....	.44	3.76	1.005	Whiskey.
73	Leonard Mayer.....	Oshkosh.....	Fugleberg & Metz.....	Oshkosh.....	3.06	3.18	1.014	Cider.
74	Leonard Mayer.....	Oshkosh.....	Fugleberg & Metz.....	Oshkosh.....	2.41	3.24	1.013	Cider.
75	E. H. Jones.....	Fond du Lac.....	G. M. Thornbul.....	Oshkosh.....	.39	3.62	1.006	Whiskey.
76	Chas. Foelsch.....	Fond du Lac.....	Arnold Vinegar Co.....	Oshkosh.....	.34	3.66	1.005	Whiskey.
77	E. H. Keith.....	Fond du Lac.....	S. R. & J. C. Matt.....	New York.....	2.62	4.74	1.017	Cider.
90	Wagner & Bollinbeck.....	Madison.....	Not known.....	.....	.14	7.12	.....	Whiskey.
91	Roundy, Peckham & Co.....	Milwaukee.....	Not known.....	.....	.14	2.84	.....	Whiskey.
92	Roundy, Peckham & Co.....	Milwaukee.....	Not known.....	.....	.16	3.41	.....	Whiskey.
93	Roundy, Peckham & Co.....	Milwaukee.....	Not known.....	.....	.11	4.15	.....	Whiskey.
94	Roundy, Peckham & Co.....	Milwaukee.....	Not known.....	.....	.09	3.07	.....	Whiskey.
95	Roundy, Peckham & Co.....	Milwaukee.....	Not known.....	.....	2.04	4.07	.....	Cider.
96	Roundy, Peckham & Co.....	Milwaukee.....	Not known.....	.....	.11	3.07	.....	Whiskey.
97	.....	.....	H. C. Thom.....	Beloit.....	1.64	3.62	.....	Cider.
107	Huson & Zerler.....	Plymouth.....	Not known.....	.....	.50	3.09	1.006	Whiskey.
108	Herman Kleuter.....	Madison.....	Paul Bechtner.....	Milwaukee.....	.27	4.23	1.006	Whiskey.
109	W. T. Vankirk.....	Janesville.....	Reed, Murdock & Fisher.....	Chicago.....	.89	2.84	1.008	Mixed malt and cider.
110	Ball & Bates.....	Janesville.....	W. H. Bunge.....	Chicago.....	.18	4.64	1.008	Whiskey.
111	A. P. Davis & Co.....	Janesville.....	Reed, Murdock & Fisher.....	Chicago.....	.74	4.02	1.005	Mixed malt and cider —whiskey.
112	Carlen & Wilcox.....	Janesville.....	Reed, Murdock & Fisher.....	Chicago.....	3.45	3.22	1.016	Cider.
113	F. W. Christman.....	Janesville.....	Franklin McVeigh.....	Chicago.....	1.87	3.71	1.019	Cider.
114	O. B. Bronson & Son.....	Janesville.....	Alden Vinegar Co.....	St. Louis, Mo.....	.97	3.22	1.019	Mixed malt, cider —whiskey.
115	F. W. Christman.....	Janesville.....	Roundy, Peckham & Co.....	Milwaukee.....	.16	3.24	1.003	Whiskey.
116	C. E. Brown.....	Janesville.....	Dahinden & Gallasch.....	Milwaukee.....	.33	4.08	1.006	Whiskey.
117	Ball & Bates.....	Janesville.....	W. H. Bunge.....	Chicago.....	.17	6.43	1.005	Whiskey.
118	J. H. Jones.....	Janesville.....	Reed, Murdock & Fisher.....	Chicago.....	.87	8.63	1.013	Glucose.
119	F. E. Westgate.....	Beloit.....	Schuyler & Cook.....	Chicago.....	2.25	3.71	1.013	Cider.
120	Pentland & Harmond.....	Beloit.....	Rosenteil & Son.....	Freeport, Ill.....	2.32	3.78	1.014	Cider.
121	Cowles & Mecham.....	Beloit.....	Reideburg & Co.....	Milwaukee.....	.15	3.89	1.006	Whiskey.
122	Stiles & Rogers.....	Beloit.....	C. E. Meyer.....	Freeport, Ill.....	.23	4.47	1.006	Whiskey.

ANALYSES OF VINEGAR—Continued.

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Lab. No.	From whom taken.	Address.	Name of manufacturer.	Address.	Solids.	Acetic Acid.	Specific gravity.	Quality.
123	C. C. Green & Co.	Beloit	Reed, Murdock & Fisher.	Chicago	.28	5.24	1.009	Whiskey.
124	H. McGavock	Beloit	Alden Vinegar Co	St. Louis	.38	3.41	1.007	Whiskey.
125	C. A. Dean	Beloit	C. E. Meyer	Freeport, Ill	2.35	2.80	1.011	Cider.
126	Sanger & Blakesly	Beloit	C. Rosentiel & Son	Freeport, Ill	.28	4.10	1.006	Whiskey.
127	Sanger & Blakesly	Beloit	C. E. Meyer	Freeport, Ill	.26	4.01	1.005	Whiskey.
128	Roundy, Peckham & Co	Milwaukee	Not known		1.75	4.44		Cider.
138	Hanson & Oleson	Eau Claire	Spink & Co.	St. Paul	.36	4.71	1.009	Whiskey.
139	W. H. Kneeland	Eau Claire	Schuyler & Cook	Chicago	2.47	4.01	1.017	Cider.
140	John Kelley	Eau Claire	F. C. Johnson	Kiswaukee, Ill	1.86	5.94	1.016	Cider.
141	H. J. Forschler	La Crosse	Prussing Vinegar Co.	Chicago	1.82	4.31		Cider.
142	H. J. Forschler	La Crosse	Prussing Vinegar Co.	Chicago	.16	4.49		Whiskey.
143	H. J. Forschler	La Crosse	Prussing Vinegar Co.	Chicago	.15	4.51	1.008	Whiskey.
144	John Bergaust	La Crosse	Amazon Vinegar Works.	Davenport, Iowa	2.86	4.30		Malt.
145	John Bergaust	La Crosse	Amazon Vinegar Works.	Davenport, Iowa	1.26	5.34	1.015	Malt.
146	H. K. Stevens	La Crosse	Not known		3.84	2.83	1.018	Malt.
147	H. Husing Estate	La Crosse	Not known		.22	4.59	1.008	Whiskey.
148	A. A. McDonald & Son	La Crosse	Amazon Vinegar Works.	Davenport, Iowa	.12	4.12	1.008	Whiskey.
149	H. Husing Estate	La Crosse	Amazon Vinegar Works.	Davenport, Iowa	.07	3.09	1.005	Whiskey.
150	La Crosse Grocery Co	La Crosse	Bunge & Co	Chicago	1.62	4.47	1.013	Cider.
151	O. Tollenson	La Crosse	Wieneke & Hoendale	Dubuque, Iowa	.23	4.10	1.008	Whiskey.
152	A. A. McDonald & Son	La Crosse	Amazon Vinegar Works.	Davenport, Iowa	.19	3.99	1.008	Whiskey.
153	O. Tollenson	La Crosse	Wineket & Hoendale	Dubuque, Iowa	.20	3.81	1.008	Whiskey.
154	W. W. Taylor	La Crosse	Merriam, Calkins & Co.	Chicago	3.04	4.79	1.020	Cider.
155	Culver & Newell	Eau Claire	Not known		.25	3.52	1.008	Whiskey.
156	M. S. Beecher	Eau Claire	American Vinegar Works	Sheboygan	.25	4.88	1.010	Whiskey.
187	Hanson & Oleson	Eau Claire	Spink & Co.	St. Paul	.20	3.36	1.007	Whiskey.
158	H. Carpenter	Eau Claire	Eau Claire Com. Co	Eau Claire	.31	3.05	1.008	Whiskey.
159	Arthur Smith	Eau Claire	F. C. Johnson	Kiswaukee, Ill	1.71	5.61	1.014	Cider.
160	H. J. Forschler	Eau Claire	Prussing Vinegar Co.	Chicago	1.89	4.36	1.015	Cider.
161	H. Carpenter	Eau Claire	Eau Claire Com. Co	Eau Claire	.40	3.15	1.008	Whiskey.
162	Culver & Newell	Eau Claire	Warsaw Pickle Co	Warsaw, Ill	2.75	3.28	1.018	Glucose.
177	H. Grove & Son	Madison	Not known		1.95	3.50	1.005	Cider.
178	H. Grove & Son	Madison	Not known		2.69	4.04	1.012	Cider.
179	H. Grove & Son	Madison	Not known		3.61	4.32	1.013	Malt.
180	H. Grove & Son	Madison	Not known		6.72	4.24	1.025	Malt.
181	H. Grove & Son	Madison	Not known		1.53	4.24	1.009	Cider.
194	O. J. Forschler	La Crosse	Not known		.23	5.1		Whiskey.
195	O. J. Forschler	La Crosse	Not known		.31	7.56		Whiskey.

196	O. J. Forschler	La Crosse	American Vinegar Works	Milwaukee	1.33	3.90		Cider.
198			American Vinegar Works	Milwaukee	2.73	7.28	1.018	Wine.
199			American Vinegar Works	Milwaukee	3.17	4.41	1.016	Cider.
200	W. T. Vankirk	Janesville	Not known		.46	4.47		Whiskey.
231			Geo. P. Pfeffer	Pewaukee	13.20		1.051	Cider.
232			Geo. P. Pfeffer	Pewaukee	9.26		1.029	Cider.
233			Geo. P. Pfeffer	Pewaukee	5.50	3.32	1.021	Cider.
234			Geo. P. Pfeffer	Pewaukee	2.39	2.73	1.070	Cider.
235			Geo. P. Pfeffer	Pewaukee	2.16	1.6	1.005	Cider.
236			Geo. P. Pfeffer	Pewaukee	2.22	3.38	1.011	Cider.
333	C. Falingier	Waterloo	Not known		.11	3.72	1.003	Whiskey.
334	C. Falingier	Waterloo	Not known		.22	4.12	1.004	Whiskey.
335	Hall & Alton	Pewaukee	Paul Bechtner	Milwaukee	.23	4.89	1.005	Whiskey.
435	Jorden & Hamner	Galesville	Not known		.4	3.24		Whiskey.
436			A. M. Richter & Son	Manitowoc	1.27	4.16		Fruit.
437			A. M. Richter & Son	Manitowoc	.18	4.26		Whiskey.
509	Thomas Ryall	Waukesha	F. C. Johnson	Kishwaukee, Ill.	2.18	5.81	1.010	Cider.
622	Grubb Bros	Janesville	Not known		2.17	4.02	1.015	Cider.
623	Grubb Bros	Janesville	Not known		.17	3.26	1.005	Whiskey.
645	J. O. Hermann	Waupun	Vail & Howe	St. Louis	2.97	5.02		Cider.
655			Barrett & Prussing	Chicago	3.26	5.27		Cider.
656	M. L. Nelson	Madison			.78	4.38		Whiskey.
722	Correy Bros	Madison	C. E. Meyer	Freeport, Ill.	.77	4.29		Whiskey.
723	M. L. Nelson	Madison	Alden Vinegar Co	St. Louis	.40	3.57		Whiskey.
806	Grove & Son	Madison			3.09	4.00		Cider.
807	Grove & Son	Madison			1.45	4.10		Mixed.
808	Grove & Son	Madison			.26	3.90		Whiskey.
809	Grove & Son	Madison			.16	3.20		Whiskey.
811	J. J. Lucks & Son	Hudson	Alden Vinegar Co	St. Louis	.44	3.70		Whiskey.
817	L. M. Nelson	Madison	Alden Vinegar Co	St. Louis	.43	3.60		Whiskey.
844	Welsh & Carpenter	Madison	Barrett Prussing Co.	Chicago	1.67	3.75		Pine Ap. Vin.

SUMMARY OF VINEGAR.

Number of samples analyzed, 148.

Number that proved to be cider vinegar, 18.

Number that were whiskey vinegars, 95.

Number that were malt vinegars, 5.

Number that were glucose vinegars, 3.

The remaining twenty-eight samples contained more or less cider vinegar, but the solids had been reduced below the standard of two per cent. by the addition of whiskey vinegars.

Glucose and malt vinegars are rarely found on the market. At the time investigation of vinegars was begun charges were freely made in the press that large quantities of vinegar made from mineral acids were being consumed by the public. Contrary to expectations the vinegars found in the Wisconsin markets were free from adulteration by mineral acids.

It has been a pernicious custom for many years by the trade to foist upon the innocent purchaser a cheap imitation for cider vinegar. Many of these imitation vinegars are made from stale beers and bottle washings, and would be immediately driven from the markets if their identity were not so skillfully concealed by the manufacturer, who, in turn, is abetted by the conscienceless store keeper.

CREAM OF TARTAR.

The high price of cream of tartar causes it to be very generally adulterated. Besides the usual adulterants of tarch and terra alba, marble, alum and barium sulphates are used. Compounds of acid phosphates of lime, alum, sulphate of lime and starch are also put on the market and sold as cream of tartar, but at a much lower price. The following table shows the composition of cream of tartar as found in the Wisconsin market.

ANALYSIS OF CREAM OF TARTAR.

Lab. No.	Name of dealer.	Address.	Name of manufacturer.	Address.	Other ingredients.
78	A. M. Daggett.	Madison	Not known.		Cream of tartar, plaster paris.
81	W. B. Esser.	Madison	Not known.		Plaster paris, sand, tartaric acid.
82	Olsen & Jacobson.	Madison	De Land & Co.	Fairport, N. Y.	Tartaric acid, plaster of paris.
83	R. Chase.	Madison	Ira Parmley.	Center.	Tartaric acid, acid phosphate of lime.
84	W. T. McConnell & Son.	Madison	Sherman Bros.	Chicago	Cream of tartar, acid phosphate of lime.
85	H. Kleuter.	Madison	Not known.		Cream of tartar, acid phosphate of lime - starch.
86	A. A. Mayers.	Madison	Not known.		Pure.
87	A. Findlay.	Madison	Chapman, Smith & Co.	Chicago	Pure
88	J. C. Light.	Madison	Not known.		Cream of tartar, plaster paris, acid phosphate of lime.
89	A. H. Hollister.	Madison	Not known.		Pure.
129	Sanger & Blakesley.	Beloit.	Not known.		Tartaric acid, plaster paris.
130	H. McGavock.	Beloit.	Not known.		Acid phosphate of lime.
131	Stiles & Rogers.	Beloit.	Jewett, Sherman & Co.	Chicago	Pure.
132	F. E. Westgate.	Beloit.	R. M. & Fisher.	Chicago	Tartaric acid, plaster paris.
133	C. C. Green.	Beloit.	Not known.		Tartaric acid, plaster paris.
134	Pentland & Harmon.	Beloit.	Not known.		Tartaric acid, plaster paris, alum.
135	Ball & Bates.	Janesville	Not known.		Plaster paris, acid phosphate of lime.
136	C. E. Brown.	Janesville	J. S. Gould.	Chicago	Cream of tartar, plaster paris, starch.
137	O. P. Bronson.	Janesville	Not known.		Alum, starch, tartaric acid.
163	E. J. Kelly.	La Crosse.	Not known.		Tartaric acid, plaster paris, starch.
164	W. H. Kneeland.	Eau Claire	Not known.		Tartaric acid, plaster paris.
165	D. J. Van Hovenburg.	Eau Claire.	E. B. Miller & Co.	Chicago	Pure.
166	E. A. Wilson.	La Crosse.	Sherman Bros.	Chicago	Tartaric acid, plaster paris, acid phosphate of lime, starch.
167	Arthur Smith.	Eau Claire.	Sprague, Warner & Co.	Chicago	Plaster paris, acid phosphate of lime, starch, alum.
168	H. C. Stevens.	La Crosse.	Sherman Bros.	Chicago	Pure.
169	H. Husing estate.	La Crosse.	J. J. Hogan & Co.	La Crosse.	Tartaric acid, plaster paris, acid phosphate of lime, starch.
170	Culver & Newell.	Eau Claire.	Eau Claire Grocery Co.	Eau Claire	Tartaric acid, plaster paris.
171	W. W. Taylor.	La Crosse.	Not known.		Pure.
187	E. B. Heinstreet.	Janesville	Not known.		Pure.
201	Ira Parmley.	Center	Not known.		Tartaric acid, plaster paris.
203	Ferris & Alvord.	Whitewater	Sent by C. R. Beach.	Whitewater	Tartaric acid, starch.
206	Hartshorn & Simmons.	Clinton			Pure.
224	Roundy, Peckham & Co.	Milwaukee.			Phosphate, sulphate, starch.
225	Roundy, Peckham & Co.	Milwaukee.			Phosphate, sulphate, starch.
226	Roundy, Peckham & Co.	Milwaukee.			Phosphate, sulphate, starch.
366	E. A. Holmes.	Milton.			Pure.
383	W. W. Taylor.	La Crosse.	Jewett, Sherman & Co.	Milwaukee.	Pure.
384	A. J. McDonald.	La Crosse.	Not known.		Phosphate, starch.
624	C. L. Vale.	Beloit.	C. Pfizer.	New York.	Pure.

SUMMARY OF CREAM OF TARTAR.

Of the thirty-nine samples, but ten were found to be pure. Since baking powders have become so extensively used comparatively little cream of tartar is employed by the housewife. It enters more largely into the composition of medicines, and therefore the more important that it should be pure so that the desired effect be brought about. Even public health is not of enough importance to restrain unprincipled manufacturers from plying their nefarious practice for gain.

By consulting the above table the reader can determine at once the firms that handle adulterated stuffs.

The table needs no explanation except that tartaric acid and starch are not injurious. Every one knows how indigestible is sand, lime and plaster paris.

SYRUPS.

Syrups, molasses, golden syrup, etc., are terms used to denote a sweet syrup produced in the manufacture of sugar and containing a mixture of sugar, partly cane and partly fruit, together with certain salts and impurities. Before the manufacture of glucose had attained its present proportions, the term molasses was understood to mean the viciid, brown, uncrystallizable syrup which is drained from the moist sugar during its formation and from sugar moulds in the refinery. At the present time the term means a mixture of molasses and glucose or glucose alone. The manner in which glucose is made and the fact that, considered as a sugar it is different from that made from the sugar cane, has caused it to be looked on with suspicion by the public. The question is often asked whether artificial glucose contains injurious compounds arising from the chemicals used in its manufacture or produced from the starch itself. The question is best answered by a description of the methods used in the manufacture of the article. Corn is found to be the best material for the manufacture of glucose, owing to its cheapness and high percentage of starch. In Europe potatoes are used for the same reason.

After the starch is extracted the process of converting it into glucose is the same, although each manufacturer introduces slight modifications according to the grade of glucose to be produced. If corn is used as the source of starch, the following method is employed: The corn is steeped in water from 50 to 60 hours, the water being drawn off and a fresh supply added every ten hours. After steeping, the corn is thoroughly washed with clean water to rid it of all fermenting substances. While it is still wet it is ground by mill stones and the pasty mass is placed on sieves and washed. The starch passes through the sieves while the coarser parts including the albuminoids remain on the sieves. The starch which passes through the sieves is run into the settlers; cylinders ten feet in diameter and eight to ten feet high, and allowed to remain for four to six hours. After the starch is completely settled the water is run off as waste. The starch is then treated with a solution of caustic soda, to remove any remaining albuminoids, after which the mixture of starch and water is run into shallow vats and allowed to settle. It is then washed repeatedly to remove the alkali, the washing requiring about 60 hours. Fresh water is then added to the starch and it is drawn off into wooden converters. The temperature of the mixture is raised to 212° Fah., and to the starch paste from one and a half to two per cent. of sulphuric acid is added and the mixture boiled for about three hours. At the end of this time the starch has been converted into glucose and dissolved in the acid water. The acid solution is now treated with marble dust or chalk which combines with the acid forming sulphate of lime. The lime salt being insoluble settles to the bottom of the tank, leaving the "sweet water" nearly neutral; to remove any traces of acid lime, cream is added till the test shows no acid reaction. The solution is allowed to stand for several hours until the sediment settles to the bottom. The clear liquid is drawn off and decolorized by being filtered through bone black. It is then concentrated to the desired degree by evaporation. If glucose in mass is required the syrup is concentrated to 40° or 42° Baume,

and after cooling run into barrels to solidify. When granular glucose is desired, it is evaporated to 32° Baume, and allowed to stand for 24 hours and cool as quickly as possible. The resulting syrup is placed in vats containing a small amount of sulphurous acid in solution to prevent fermentation. In about eight days crystallization begins and after two-thirds of the syrup has crystallized, the liquid is run off through holes in the bottom of the vat. The crystals are then dried. Besides glucose, these starch syrups contain as high as 40 per cent. of dextrine, together with ten to fifteen per cent. of maltose and fifteen per cent. of ash. The ash consists mostly of calcium sulphate which is left in syrup owing to incomplete purification. The glucose has a very extended use in the arts. Brewers and vinegar makers, as well as manufacturers of fancy sugars, sweetmeats, and preserves, use them in large quantities. Physiologically considered, glucose as found in the market is a good and wholesome food, and if it were sold as glucose no objection could be made to its use. But in being sold as a substitute for the sweeter and more valuable varieties of sugar, it is an adulterant.

ANALYSIS OF SYRUP.

Lab. No.	Name of dealer.	Address.	Name of manufacturer.	Address.	Trade mark.	Water.	Sucrose.	Glucose.	Ash	Undetermined.	Quality.
301	J. H. D. Baker	Madison	Not known.....	.....	Sugar Syrup.....	26.3	40.42	25.	5.25	3.03	Molasses.
302	J. H. D. Baker	Madison	Not known.....	.....	Honey Drip	27.	.....	27.03	.....	45.97	Glucose syrup.
303	A. E. Bunn.....	Madison	Sprage, Warner & Co..	Chicago	P. R. Syrup.....	30.	43.98	18.52	3.50	4.	Molasses.
304	W. T. McConnell.....	Madison	John S. Gould.....	Chicago	Cuba Bakers Mo..	30.3	32.29	23.26	8.25	5.9	Molasses.
305	Cromby, Smith & Co..	Milwaukee.....	Scully Syrup Co.....	Chicago	Star Crystal.....	27.5	.....	41.67	1.50	29.23	Glucose syrup.
306	J. H. D. Baker	Madison	Not known.....	.....	N. O. Molasses ..	26.25	45.29	19.23	3.50	5.73	Molasses.
307	A. E. Burnham.....	Madison	John S. Gould.....	Chicago	Bee-hive Syrup ..	34.25	20.20	26.31	4.50	15.24	Molasses.
308	J. D. Imbusch.....	Milwaukee.....	Not known.....	.....	W. Fancy Drip ..	25.	.....	43.48	1.5	30.02	Glucose syrup.
309	Jacob Wellauer & Co..	Milwaukee.....	Not known.....	.....	N. O. Molasses ..	23.25	20.37	32.25	3.25	20.88	Molasses.
310	A. E. Burnham.....	Madison	Bradshaw & Wait ..	Chicago	Golden Hive	20.25	19.37	32.25	2.75	25.88	Molasses.
311	Jacob Wellauer & Co..	Milwaukee.....	D. B. Sculley	Chicago	W. Clover Drips..	20.25	.....	45.45	.75	33.55	Glucose syrup.
312	H. S. Sheftlers & Son..	Milwaukee.....	Nash, Spalding & Co..	Boston	Revere	34.25	31.09	27.74	3.75	13.17	Molasses.
313	Roundy, Peckham & Co	Milwaukee.....	Not known.....	.....	Cuba Baking.....	31.25	30.42	22.22	7.50	9.11	Molasses.
314	J. H. D. Baker	Madison	Not known.....	.....	N. O. Molasses ..	21.25	21.07	34.48	1.25	21.95	Molasses.
315	H. Sheftlers & Son	Milwaukee.....	Davenport Glu. Co.....	Davenport, Ia.	Diamond Drip	24.50	.....	41.67	1.	32.83	Glucose syrup.
316	Cromby, Smith & Co..	Milwaukee.....	American Glu. Co.....	Buffalo, N. Y.	XX.....	20.75	.....	50.	2.	27.25	Glucose syrup.
317	Cromby, Smith & Co..	Milwaukee.....	E. C. Knight & Co.....	New York	Royal Drips	22.25	40.19	31.25	4.25	2.07	Molasses.
318	J. D. Imbusch.....	Milwaukee.....	Not known.....	.....	Golden Drips	24.50	45.80	25.64	4.25	.....	Molasses.
319	J. D. Imbusch.....	Milwaukee.....	Not known.....	.....	B. 145.....	23.	41.13	30.31	3.50	2.07	Molasses.
320	H. Sheftlers & Son	Milwaukee.....	E. C. Knight & Co.....	New York	Sugar Syrup.....	23.25	39.19	32.25	4.	1.31	Molasses.
321	Roundy, Peckham & Co	Milwaukee.....	Not known.....	.....	W. Drip	20.50	.....	55.55	1.25	22.70	Glucose syrup.
322	Jacob Wellauer & Co..	Milwaukee.....	Not known.....	.....	Fancy P. R.	30.75	47.35	19.61	3.	.....	Molasses.
323	W. T. McConnell.....	Madison	J. S. Gould	Chicago	N. O. Molasses ..	23.50	50.17	21.27	3.25	1.81	Molasses.
324	H. Sheftlers & Son	Milwaukee.....	E. C. Knight.....	New York	Blackstrap.....	31.	31.35	23.27	7.5	6.88	Molasses.
325	H. Sheftlers & Son	Milwaukee.....	Boston Sugar Co.....	Boston, Mass.....	Boston Syrup	23.50	27.00	23.81	8.	17.69	Molasses.
326	Jacob Wellauer & Co..	Milwaukee.....	Not known.....	.....	Diamond Drips ..	22.75	.....	46.51	2.	28.74	Glucose syrup.
327	Dewey & Davis.....	Milwaukee.....	Not known.....	.....	Amer. Sug. XXX ..	40.50	.....	31.25	4.25	25.	Glucose syrup.
328	Cromby, Smith & Co..	Milwaukee.....	Deckmeyer & Co.....	New York	No. 20	24.	33.24	22.22	9.	11.44	Molasses.
329	Dewey & Davis.....	Milwaukee.....	.....	Brooklyn	Br'klyn Sug. XXX	23.	43.91	22.73	7.5	2.86	Molasses.
330	Roundy, Peckham & Co	Milwaukee.....	J. O. Whiting.....	Boston, Mass.....	P. R.	26.75	26.78	35.72	3.5	7.25	Molasses.
331	Roundy, Peckham & Co	Milwaukee.....	Robert Cary & Co....	New Orleans.....	Bill Grove.....	23.25	31.25	31.25	4.5	.....	Glucose syrup.
332	W. T. McConnell.....	Madison	Reed, Murdock & Co..	Chicago	W. Clover.....	25.45	6.45	37.03	2.00	29.07	Molasses.

SUMMARY OF SYRUPS.

Of the thirty-two samples of syrup examined, ten, or nearly one-third are found to be glucose syrups. The inferior sweetening power of glucose syrups make them an imposition upon the purchaser. It costs much less to produce a glucose syrup, yet there is but little difference in the retail prices of the genuine article and the cheap imitation.

For such articles of consumption as are compounded or mixed in such a manner that it is impossible to determine their make up, it is suggested that a law be passed that obliges a manufacturer to place upon his goods a label that discloses the per centum of the ingredients that are found in these compounds.

SPICES.

The samples of ground spices examined in the laboratory confirm the results found in other states and prove that in this article of food, adulteration is the rule and purity the exception. The high price of the pure spices and the popular demand for a cheap ground article has called forth much skill on the part of the dealer to satisfy the demand; and now he is able to put on the market an article which will satisfy all demands except those for purity and flavor.

A mixture of ground cocoa nut shells, buckwheat hulls and a little cayenne pepper for flavoring, passes for pure black pepper. Corn meal, ground olive stones and cayenne pepper passes for white pepper. Corn meal and tumeric and cayenne passes for pure ginger. Wheat flour, tumeric or Martin's yellow, and cayenne sells for pure mustard. New adulterations are constantly being discovered and the analyst is constantly called on to identify new adulterants. The adulterations usually found are: 1. The bran and hulls of various seeds, as buckwheat, wheat, mustard and flaxseed. 2. Damaged farinaceous substances such as spoilt flour, corn meal, bread, middlings of various kinds. 3. Leguminous seeds as peas, beans, etc. 4. Ground shells of the cocoa nut, almond and peanut. Ground olive stones are largely used. 5. Various coloring

matter, as tumeric, Martin's yellow, charcoal, sienna and red ochre, etc. By a judicious mixing of the above materials a fair imitation of any spice can be made and placed on the market and the compound will meet with a ready sale if it is cheap enough. The use of the above articles has called into existence an industry of some magnitude, having for its object the manufacture of spice mixtures known as pepper dust. The term is usually abbreviated to "P. D.," and the manufacture of "P. D. Pepper," "P. D. Ginger" and "P. D. Cloves" is a large and increasing industry. These imitations, resembling the genuine article very closely and only lacking the necessary flavoring, are sold at from three to four cents per pound. Manufacturers openly advertise themselves as dealers in these articles. A journal devoted to spice milling contains advertisements like the following:

"—— St., New York. Manufacturers of all kinds of spice mixtures. My celebrated brand of "P. D." pepper is superior to any made. Spice mixtures a specialty. Spices ground for the trade."

As the result of the practice above quoted spices are found containing the following adulterants:

Allspice; adulterants, spent cloves, clove stems, cracker dust, ground shells or charcoal, mineral color, yellow corn.

Cayenne; adulterants, rice flour, salt and ship stuff, yellow corn, tumeric, mineral red.

Cassia; adulterants, ground shells, crackers, tumeric, minerals.

Cinnamon; adulterants, Cassia bark, peas, starch, mustard hulls, tumeric, minerals, cracker dust, burnt shells, sugar.

Cloves; adulterants, spent cloves, clove stems, minerals, allspice, roasted shells, wheat flour, peas.

Ginger; adulterants, cereals, tumeric mustard hulls, cayenne, peas, exhausted ginger.

Mace; adulterants, cereals, buckwheat, wild mace.

Nutmeg; adulterants, starch, wild nutmeg.

Pepper; adulterants, pepper dust, ground crackers, rice, mustard hull, charcoal, cocoa nut shells, cayenne, beans, bran, white and yellow corn, ground olive stones.

Mustard; adulterants, flour, tumeric, Martin's yellow, peas, corn meal, gypsum, ginger, salt.

It will be seen that the adulterations met with are very numerous and the list is constantly changing as the supply of material and sources of refuse may suggest.

PEPPER.

Pepper is the most common of all the spices and is subject to the greatest adulteration. Blyth gives a list among which are "pepperdusts" known as "P. D.", "H. P. D.", "W. P. D." "P. D." composed of linseed cake; "H. P. D." hot pepper dust, made chiefly of mustard husks; and "W. P. D." white pepper dust, composed of ground rice. The adulterants are usually coarsely ground and it is not difficult on examination to pick out yellow corn, rice, cocoa nut shells, ground olive stones, etc. The appearance of the spice in its ground form makes it possible to use many kinds of refuse for adulteration, and advantage is taken of this fact to the utmost limit. Samples received at this laboratory have been so mild in flavor that it could hardly deserve the name of pepper.

MUSTARD.

Mustard is the flour of the white or black mustard seed from which the hulls have been separated by bolting. In the process of manufacture two customs have arisen which materially change the nature of the product. These are, first, the addition of flour for the purpose of improving its keeping qualities, and second, the removal of part of the fixed oil. The addition of flour gives the mustard such a white color that the addition of a coloring matter becomes necessary to restore the yellow color. The dye stuff is usually tumeric, but sometimes Martin's yellow is added. The last named is to some degree poisonous and should be prohibited. The removal of the oil is beneficial as it adds nothing to the flavor of the mustard and its presence injures the keeping qualities of the condiment. Although the addition of flour is harmless and has the sanction of long custom, it is gradually being given up and mustard

containing nothing but the ground and bolted seed is now found in the market.

CAYENNE PEPPER.

Cayenne pepper consists of the ground pods of the several species of *Capsicum*. It is said to be adulterated with brick dust, red lead, and coloring matters. Yellow corn, tumeric, ground rice and red ochre have been found in it.

GINGER.

Ginger is the powdered root of a tropical plant, *Zingiber officinale*. Owing to carelessness in the preparation of the root, a large number of qualities and varieties are found on the market. The adulterations are the addition of flour or starch, coloring with tumeric. Mustard hulls and cayenne pepper have been found. Perhaps the most common adulteration is the addition of exhausted ginger, the refuse left from the manufacture of ginger extract. This adulteration has the appearance of the genuine article but lacks its flavor and pungency. Only a careful chemical analysis will show the adulteration.

CLOVES.

The flower buds of the clove dried and ground, constitute the spice. The flavor is due to a volatile oil which they contain. This oil being an article of commerce is extracted and the spent cloves remaining are largely used for adulteration. Clove stems and pimento are also added. Pimento has a clove-like flavor but is much inferior. Its price is less than one-fifth that of cloves. The addition of the coarser adulterants is not common.

CINNAMON AND CASSIA.

These spices are ground barks of several species of the genus *cinnamomum*. The barks vary greatly in appearance and quality. The cassia, although inferior to cinnamon in flavor, is frequently substituted for the finer flavored and higher priced cinnamon. Exhausted cinnamon is also used.

In one case the sweet taste of the exhausted cinnamon was made up by the addition of sugar.

Poivrette (ground olive stones) was also found.

ALLSPICE.

Allspice is one of the cheaper spices, but its low price does not prevent its adulteration. Exhausted cloves, clove stems, corn and ground shells have been found.

The results of the above analyses only confirm the results found in other parts of the country.

Spices found on the market are enormously adulterated. Over 200 samples have been gathered from various parts of the state. We have been able to examine but a few of each kind and therefore a detailed analysis is not included in this report. As soon as the samples on hand have been investigated a circular will be issued from the office of the commissioner which will give a comprehensive statement of adulteration in spices.

Respectfully yours,

F. G. SHORT,
State Chemist.

FINANCIAL STATEMENT.

DISBURSEMENTS FOR THE YEAR ENDING SEPTEMBER 30, 1889.

H. C. Thom, commissioner, postage.....	\$150 00
H. C. Thom, commissioner, stationery and rec. book.....	38 65
H. C. Thom, commissioner, compiling laws.....	50 00
H. C. Thom, commissioner, rubber stamps and drayage.....	5 50
F. G. Short, assistant, traveling expenses.....	77 84
W. J. Park & Sons, stationery.....	25 60
Frank S. Horner, envelopes and printing.....	38 85
W. J. Park & Sons, merchandise.....	2 85
Schwaab Stamp & Seal Co., stamps.....	5 50
H. C. Thom, freight on apparatus.....	15 21
H. C. Thom, expressage and record book.....	19 65
Eimer & Amend, apparatus and chemicals.....	822 85
Bausch & Lomb Optical Co., merchandise for laboratory.....	98 63
Ramsay, Lerdall & Guldemann, merchandise and labor.....	74 07
Emil Greiner, merchandise for laboratory.....	17 40
Madison Gas Co., setting gas meter ..	4 00
Thomas Regan, labor and material....	156 56
Eimer & Amend, merchandise.....	11 82
H. C. Thom, labels.....	2 90
A. H. Barber, cheese for experiments.....	1 02
Otto Laverenz & Bros., merchandise.....	4 60
George Burroughs, merchandise.....	15 00
Dunning & Sumner, merchandise.....	7 23
A. C. McClurg & Co., cyclopedia.....	6 75
	<u>\$1,652 46</u>

DISBURSEMENTS FOR THE YEAR ENDING SEPTEMBER 30, 1890.

H. C. Thom, traveling expenses.....	\$305 60
H. K. Loomis, traveling expenses.....	838 23
F. G. Short, traveling expenses.....	124 59
F. G. Short, merchandise for laboratory.....	90 72
J. H. D. Baker, merchandise for analysis.....	5 60
Wm. F. Vilas, rent of laboratory.....	125 00

Democrat Printing Co., stereotyping.....	\$3 00
F. B. Fargo & Co., merchandise	6 40
A. H. Hollister, merchandise.....	1 83
Frank S. Horner, envelopes and printing.....	36 85
Frank Horner, merchandise	2 95
Madison Gas Co., gas for laboratory.....	12 39
Madison post office, stamps.....	5 00
W. J. Park & Sons, merchandise.....	2 20
W. J. Park & Sons, stationery	20 70
H. C. Thom, cash paid for mailing circulars.....	11 50
H. C. Thom, merchandise for laboratory.....	4 11
H. C. Thom, postage.....	85 00
H. C. Thom, stamps and samples.....	17 03
H. C. Thom, merchandise for laboratory	8 20
H. C. Thom, the Analyst, for laboratory.....	18 87
Eimer & Amend, merchandise for laboratory.....	129 51
H. K. Loomis, samples for analysis.....	23 92
Madison post office, box rent.....	2 00
Ramsey, Lerdall & Guldeman, merchandise.....	17 86
Cham Ingersol, circulars.....	2 50
State Journal Printing Co., printing.....	24 00
	<u>\$1,324 95</u>

OLEOMARGARINE.

DEALERS IN OLEOMARGARINE IN WISCONSIN JANUARY 15,
1890.

John C. Roehm..	Ashland.
J. B. Matthews & Co.....	Ashland.
Hougenson & Lorse.....	Ashland.
T. F. Mackmiller & Co.....	Ashland.
Bordon & Kellogg.....	Ashland.
Armour Packing Co.....	Ashland.
Lake Superior Beef Co.....	Ashland.
W. H. Mackmiller & Co.....	Ashland.
Bird & Wells Lumber Co.....	Big Wausauke.
Chippewa Valley Mercantile Co.....	Chippewa Falls.
W. C. Noall.....	Commonwealth.
Butler, Mueller & Co.....	Crivitz.
T. B. Walsh.....	Eagle River.
Eau Claire Grocery Co.....	Eau Claire.
Chainey & Goodwin.....	Florence.
Albrecht & Kneeborn.....	Florence.
N. Wisconsin Lumber Co.....	Hayward.
Wisconsin Valley Lumber Co.....	Harrison.
Gogebic Meat and Provision Co.....	Hurley.
Waters & Becker.....	Hurley.
Forsland & Co.....	Hurley.
F. D. Day.....	Hurley.
Place & Smith.....	Marinette.
E. H. Schwartz & Co.....	Marinette.
Hastings & Co.....	Marinette.
Julius Thielman.....	Merrill.
M. McCarthy & Co.....	Merrill.
J. J. Anderton.....	Milwaukee, 316 Third St.
F. L. Ande.....	Milwaukee, 79 Juneau St.
John Braack.....	Milwaukee, 129 Clinton St.
C. Schroeder.....	Milwaukee, 163 Huron St.
James Kubal.....	Milwaukee, 481 Mitchell St.
F. W. Mueller.....	Milwaukee, 200 Fifth St.
Ignatz Gazerwinski.....	Milwaukee, 419 Mitchell St.
J. C. Thiele.....	Milwaukee, 385 Third St.
Steinmeyer & Hesse.....	Milwaukee, 375 Grove St.
Milwaukee Packing Co.....	Milwaukee, 114 Sycamore St.
W. Steinmeyer.....	Milwaukee, 431 Chestnut St.
Savage & Sons.....	Milwaukee, 157 Huron St.

D. C. Adams.....	Milwaukee, 306 Wells St.
W. F. Jorden.....	Milwaukee, 4th Ward Market.
L. Frank & Son.....	Milwaukee, 644 Market St.
F. J. Grant.....	Milwaukee, 857 Kinnikinnic Ave.
W. Cudahy.....	Milwaukee, 230 Reed St.
Armour & McCabe.....	Milwaukee, 303 Reed St.
R. T. Clark.....	Milwaukee, 107 Fowler St.
J. Karker.....	Milwaukee, Juneau & E. Water Sts.
Paul Noe.....	Milwaukee, 389 Mitchell St.
J. Porter.....	Milwaukee, 261 S. Water St.
James & Ripley..	Oshkosh.
Wright Bros. & Co.....	Pike.
David Tripp.....	Pike.
G. A. Rickerman.....	Racine.
Leo. A. Peil.....	Racine, 6th St.
Hanley Bros.....	Racine, 602 State.
Samuel Yates.....	Racine, 315 6th St.
Hanson & Albertson..	Racine, 1200 State St.
Brown Bros.....	Rhineland.
H. Meisner.....	Wittenburg.
Nye, Lusk & Hudson.....	Thorpe.
James Celhopen...	Tomahawk.
A. Beansioel & Son.....	Wausau.
Armour & Co.....	Wausau.
R. P. & J. N. Munson.....	Wausau.
Prairie River Lumber Co.....	Wausau, P. O., Town 34, Sec. 19, R. 2, E.

ERRATUM.

On page 81, under remarks on oleomargarine, at beginning of last paragraph on page, **sixty thousand cows should read six hundred and twenty-six thousand cows.**

APPENDIX.

Laws of Wisconsin Relating to the Office and
Duties of Dairy and Food Commissioner.

OF THE OFFICE AND DUTIES OF THE FOOD AND DAIRY COMMISSIONER.

Chapter 452, Laws of 1889.

SECTION 1. The office of dairy and food commissioner for the state of Wisconsin, is hereby created. Such commissioner shall be appointed by the governor, by and with the advice and consent of the senate, and his term of office shall be for two years from the date of his appointment, and until his successor is appointed and qualified; provided, that the term of office of the commissioner first appointed under this act shall expire on the first Monday in February, 1891, and vacancies occurring in the office for any cause shall be filled by appointment for the balance of the unexpired term. The salary of the commissioner shall be twenty-five hundred dollars per annum and his necessary and actual expenses incurred in the discharge of his official duties.

SECTION. 2. Such commissioner may with the consent and advice of the governor, appoint two assistants, each of acknowledged standing, ability and integrity, one of whom shall be an expert in the matter of dairy products and the other of whom shall be a practical analytical chemist. The salaries of such assistants shall not exceed eighteen hundred dollars each per annum and their necessary and actual expenses incurred in the discharge of their official duties.

SECTION 3. It shall be the duty of the commissioner to enforce all laws that now exist, or that may hereafter be enacted in this state, regarding the production, manufacture or sale of dairy products, or the adulteration of any article of food or drink or of any drug; and personally or by his assistants to inspect any article of milk, butter, cheese, lard, syrup, coffee or 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 or persons, firm or firms,

corporation or corporations, engaged in the manufacture or sale of any adulterated or counterfeit article or articles of food or drink or drug, contrary to the laws of this state.

SECTION 4. Said commissioner or any assistant shall have power in the performance of his official duties to enter into any creamery, factory, store, salesroom or other place or building where he has reason to believe that any food or drink or drug is made, prepared, sold or offered for sale, and to open any cask, tub, package or receptacle of any kind containing, or supposed to contain, any such article, and to examine or cause to be examined and analyzed the contents thereof, and the commissioner or any of his assistants may seize or take any article of food or drink or drug for analysis, but if the person from whom such sample is taken shall request him to do so he shall at the same time, and in the presence of the person from whom such property is taken, securely seal up two samples of the article seized or taken, the one of which shall be for examination or analysis under the direction of the commissioner, and the other of which shall be delivered to the person from whom the articles was taken. And any person who shall obstruct the commissioner or any of his assistants by refusing to allow him entrance to any place which he desires to enter in the discharge of his official duty, or who refuses to deliver to him a sample of any article of food or drink or drug made, sold, offered or exposed for sale by such person, when the same is requested and when the value thereof is tendered, shall be deemed guilty of a misdemeanor punishable by a fine of not exceeding twenty-five dollars for the first offense and not exceeding five hundred dollars or less than fifty dollars for each subsequent offense.

SECTION 5. It shall be the duty of the district attorney in any county of the state, when called upon by the commissioner or any of his assistants to render any legal assistance in his power to execute the laws, and to prosecute cases arising under the provisions of this act, and all fines and assessments collected in any prosecution begun or caused to be begun by said commissioner or his assistants shall be paid into the state treasury.

SECTION 6. With the consent of the governor, the state board of health may submit to the commissioner, or to any of his assistants, samples of water or of food or drink or drugs, for examination or analysis, and receive special re-

ports showing the results of such examinations or analysis. And the governor may also authorize the commissioner or his assistants, when not otherwise employed in the duties of their offices, to render such assistance in the farmers' institutes, dairy and farmers' conventions, and the agricultural department of the university, as shall by the authorities be deemed advisable.

SECTION 7. The salaries of the commissioner and his assistants shall be paid out of the state treasury in the same manner as the salaries of other officers are paid, and their official expenses shall be paid at the end of each calendar month upon bills duly itemized and approved by the governor, and the amount necessary to pay such salaries and expenses is hereby appropriated annually.

SECTION 8. The commissioner may, under the direction of the governor, fit up a laboratory, with sufficient apparatus for making the analysis contemplated in this act, and for such purpose the sum of fifteen hundred dollars, or so much thereof as may be necessary, is hereby appropriated, and for the purpose of providing materials, and for other necessary expenses connected with the making of such analyses, there is also hereby appropriated so much as may be necessary, not exceeding six hundred dollars annually. The appropriations provided for in this section shall be drawn from the state treasury upon the certificates of the governor.

SECTION 9. Said commissioner shall be furnished a suitable office in the capitol, at Madison, and shall make an annual report to the governor, which shall contain an itemized account of all expenses incurred and fines collected, with such statistics and other information as he may regard of value, and with the consent of the governor, not exceeding twenty thousand copies thereof, limited to three hundred pages, may be published annually as other official reports are published, and of which five thousand copies shall be bound in cloth.

SECTION 10. All acts and parts of acts conflicting with this act are hereby repealed.

SECTION 11. This act shall take effect and be in force from and after its passage and publication.

Approved April 16, 1889.

Note to section 4, supra.—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 was 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 Spear*, 143 Mass., 172.

It is observed of a similar statute 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 testify. It cannot be said that a portion reserved is sealed, within the meaning of the statute, when wax is merely placed on the top of the cork, and not extended over the mouth of the bottle and 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 had analyzed some which was proven to have been sold by the defendant, is admissible. *Commonwealth v. Holt*, 146 Mass., 38.

PURE MILK, STANDARD OF.

Chapter 425, Laws of 1889.

SECTION 1. Any person who shall sell or offer for sale or furnish or deliver, or have in his possession, with intent to sell or offer for sale or furnish or deliver to any creamery, cheese factory, corporation, person or persons whatsoever, as pure, wholesome and unskimmed, any unmerchable, adulterated, impure or unwholesome milk, shall upon conviction thereof, be punished by a fine of not less than ten nor more than one hundred dollars for each and every offense.

SECTION 2. In all prosecutions or other proceedings under this or any other law of this state relating to the sale or furnishing of milk, if it shall be proven that the milk sold or offered for sale, or furnished or delivered, or had in possession with intent to sell or offer for sale, or to furnish or deliver as aforesaid, as pure, wholesome and unskimmed, contains less than three per centum of pure butter fat, when subjected to chemical analysis or other satisfactory test, or that it has been diluted or any part of its cream abstracted, or that it or any part of it was drawn from cows known to the person complained of to have been within fifteen days before or four days after parturition, or to have any disease or ulcers or other running sores, then and in either case the said milk shall be held, deemed and adjudged to have been unmerchable and adulterated, impure or unwholesome, as the case may be.

SECTION 3. All acts and parts of acts conflicting with or contrary to the provisions of this act are hereby repealed.

SECTION 4. This act shall take effect and be in force from and after its passage and publication.

Approved April 16, 1889.

Note — Validity.— A New York law (chapter 183, of 1885; chapter 202, of 1884), provides that “no person or persons shall sell, supply or bring to be manufactured, to any

butter or cheese manufactory, any milk diluted with water, or any unclean, impure, unhealthy, adulterated or unwholesome milk." Held a valid exercise of legislative power. *People v. West*, 106 N. Y., 293.

A statute is not invalid because it fixes an arbitrary standard for pure or unadulterated milk, though it is drawn from healthy cows, and is sold in its natural state. In *People v. Cipperly*, 37 Hun. (N. Y.), 324, it was held otherwise, one judge dissenting.

On appeal this case was reversed, without opinion, on the grounds given in the dissenting opinion: 101. N. Y., 634. The supreme court of New Hampshire say on this question: 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 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*, 13 Atl. Rep., 585.

Construction — Indictment.— 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*, 16 Northeast. Rep., 280.

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*, 14 Northeast. Rep., 930.

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*, 15 Northeast. Rep., 154.

Effect of the act of 1889 upon previous laws.—It seems reasonably clear that section 1, of chapter 425, laws of 1889, *supra*, supersedes section 1, of chapter 157, laws of 1887, as to the offense of selling diluted, impure and unclean milk. Both the acts referred to cover the provisions of section 4607, Revised Statutes, and hence that section is not in force.

PROOF OF ADULTERATION, HOW MADE.

Section 2, of chapter 157, of the Laws of 1887, as amended by chapter 344, Laws of 1889.

SECTION 2. Proof of adulterations and skimming may be made with such standard tests and lactometers as are used to determine the quality of milk, or by chemical analysis.

SECTION 2. This act shall take effect and be in force from and after its passage and publication.

Approved April 10, 1889.

FRAUDULENT BUTTER AND CHEESE.

Chapter 424, Laws of 1889.

SECTION 1. No person shall manufacture, mix or compound with or add to natural milk, cream or butter, any animal fats or animal or vegetable oils, nor shall he make or manufacture any oleaginous substance not produced from milk or cream, with intent to sell the same for butter or cheese made from unadulterated milk or cream, or have the same in his possession or offer the same for sale with such intent, nor shall any article or substance or compound so made or produced be sold intentionally or otherwise as and for butter or cheese the product of the dairy. Whoever violates any of the provisions of this section shall be guilty of a misdemeanor, and be punished by a fine of not less than fifty dollars (\$50), nor more, than five hundred dollars (\$500.)

SECTION 2. All acts or parts of acts inconsistent with this act are hereby repealed.

SECTION 3. This act shall take effect and be in force from and after its passage and publication.

Approved April 16, 1889.

NOTE.—This act supersedes chapter 361, laws of 1885, so far as the last mentioned act is valid. The act of 1885 prohibited the manufacture out of any oleaginous substances, or any compound of the same, other than that produced from unadulterated milk, or cream from the same, any article designed to take the place of butter or cheese, produced from pure unadulterated milk, or cream of the same, and the offering of the same for sale or selling it as an article of food, without providing, as does the act of 1889, that the sale or offering for sale such an article must be made as and for butter or cheese, the product of the dairy. See, to the effect that such a clause is unconstitutional, *People v. Arensberg*, 103 N. Y., 388.

NOTE—Origin.—This section, except as to the penalty, is a copy of part of section 8, chapter 183, laws of New York, 1885.

Validity.—Section 7, chapter 183, laws of New York, 1885, “prohibits: 1st. The manufacture out of any animal fat, or animal or vegetable oils, not produced from unadulterated milk or cream from the same, of any product in imitation or semblance or designed to take the place of natural butter produced from milk, etc. 2d. Mixing, compounding with, or adding to milk, cream or butter, any acids or other deleterious substances, or animal fats, etc., with design or intent to produce any article in imitation or semblance of natural butter. 3d. Selling, or keeping or offering for sale any article manufactured in violation of the provisions of this section.” *Held*, that if butter made from animal fat or oil is as wholesome and nutritious and suitable for food as dairy butter, the producers of butter made from animal fat or oils have no constitutional right to resort to devices for the purpose of making their product resemble in appearance the more expensive article known as dairy butter. It is competent for the legislature to enact laws to prevent the simulated article being put upon the market in such a form and manner as to be calculated to deceive. The statute is intended to reach a designed and purposed imitation of dairy butter in manufacturing the product which is not such butter, and not a resemblance in qualities inherent in the articles and common to both kinds of butter. *People v. Arensberg*, 105 N. Y., 123.

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. 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.

The supreme court of New Jersey has held that a statute enacted for a purpose similar to that which caused the passage of this act is not invalid because it prohibits the sale of oleomargarine brought to that state from other states and not intended for further transportation. The act pro-

duces only an indirect and incidental effect upon interstate commerce. *State v. Newton*, 14 Atl. Rep., 604.

CHEESE MUST BE MARKED SO AS TO INDICATE ITS QUALITY.

Chapter 240, Laws of 1887, as amended by chapter 455, Laws of 1889.

SECTION 1. Every person who shall at any cheese factory in the state, manufacture any cheese shall distinctly and durably stamp or mark upon each and every box, case or package of cheese manufactured and sold, the name and location of the cheese factory at which the same was made, and all cheese made from milk, containing three per centum or more of pure butter fat, shall be branded as full cream. And if any manufacturer of cheese shall sell or dispose of any cheese without such stamp or mark, or shall falsely stamp or mark the same as full cream, when made from milk containing less than three per centum of pure butter fat, he shall forfeit and pay to any person who shall prosecute for the same the sum of twenty dollars for every box, case or package of cheese sold or disposed of without being marked as prescribed in this act or with a false mark thereon, to be recovered in a civil action in any court having jurisdiction of the person and subject matter, one-half of such penalty to be paid into the county treasury of the county in which such action is brought, to be by said treasurer paid to the state treasurer for the benefit of the school fund.

SECTION 2. This act shall take effect and be in force from and after its passage and publication.

Approved April 17, 1889.

NOTICE TO BE GIVEN IF IMITATION BUTTER OR CHEESE IS OFFERED FOR SALE OR USE.

Chapter 185, Laws of 1887.

SECTION 1. Any person who shall knowingly make, traffic and sell olio-butter, butterine or any other imitation of butter or cheese, or who shall knowingly keep upon his table in any hotel, restaurant or boarding house, any imitation butter shall make the same fully known to the buyer, by posting

up notices of the fact at and in the place where such articles are for sale or for consumption.

SECTION 2. Any person who shall omit posting up such notice, shall be punished by imprisonment in the county jail not more than thirty days or by a fine not to exceed twenty-five dollars.

SECTION 3. All acts or parts of acts inconsistent with the provisions of this act are hereby repealed.

SECTION 4. This act shall take effect and be in force from and after its passage and publication.

Approved March 31, 1887.

ADULTERATED HONEY MUST BE MARKED.

Part of Chapter 40, Laws of 1881.

SECTION 2. Every person, company or corporation, who shall sell or offer for sale, honey, or any imitation of honey, which is adulterated with glucose, or any other substance, shall mark the package or parcel with the words "adulterated honey," as required by section one of this act.

NOTE.—Section 1, of chapter 40, laws of 1881, related to the manufacture of imitation butter, and provided that each ferkin, tub, package or parcel thereof, should be marked on top of same in letters not less than one-half inch in length, and breadth in proportion, and in such manner that it may be plainly seen. As applied to butter the said section was repealed by chapter 361, laws of 1885. Section 3, of the act of 1881, related to imitation cheese. It was also repealed by the act of 1885.

SECTION 4. Any person found guilty of any violation of this act, shall, for each offense be punished by imprisonment in the county jail, not less than ten days nor more than six months, or by a fine of not less than ten dollars nor more than one hundred dollars, or both, in the discretion of the court.

SECTION 5. One-half of all fines imposed by the enforcement of this act shall be paid to the person who informs against and prosecutes such offender to conviction.

SECTION 6. All acts or parts of acts conflicting with the provisions of this act are hereby repealed.

SECTION 7. This act shall take effect and be in force from and after its passage and publication.

Approved March 3, 1881.

PENALTY FOR THE SALE OF UNWHOLESOME PROVISIONS.

Section 4599, Revised Statutes.

SECTION 4599. Any person who shall knowingly sell any kind of diseased, corrupt 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.

ADULTERATION OF FOOD, LIQUORS AND CANDIES.

Section 4600, Revised Statutes.

SECTION 4600. Any person who shall fraudulently adulterate, for the purpose of sale, any substance intended for food, or any wine, spirits, malt liquor, or other spirituous liquors, or any other fluid, intended for drinking, or any candy or sweetmeat, with any substance, coloring matter, or anything poisonous, deleterious or injurious to health, or who shall knowingly manufacture, sell, or offer for sale, any such adulterated food, liquor, candy or sweetmeat, shall be punished by imprisonment in the county jail, not more than six months, or by fine not exceeding one hundred dollars, and any article so adulterated shall be forfeited and destroyed.

NOTE.— See chapter 248, laws of 1879, *infra*, which appears to supersede this section in part.

ADULTERATION OF FOOD AND DRUGS.— DECEPTIVE LABELING OF.

Chapter 248, Laws of 1879.

SECTION 1. No person shall mix, color, stain, powder or permit any other person to mix, color, stain or powder any article of food with any ingredient or material so as to render the article injurious to health, with intent that the same may be sold in that condition. And any person

that shall sell any such article so mixed, colored, stained or powdered, shall be subject to a penalty in each case not exceeding a fine of fifty dollars for the first offense, and for a second offense shall be punished by imprisonment in the state prison for a period not exceeding one year, with hard labor.

SECTION 2. No person shall, except for the purpose of compounding as hereinafter described, mix, color, stain or powder, or permit any other person to mix, color, stain or powder, any drug with any ingredient or material so as to affect injuriously the quality or potency of such drug, with intent that the same may be sold in that condition. And any person who shall sell any such drug so mixed, colored, stained or powdered shall be liable to the same penalty or punishment in each case respectively, as in the preceding section, for a first and subsequent offense; provided, that no person shall be liable to be convicted under the foregoing sections of this act, in respect to the sale of any article of food or of any drug, if he shows to the satisfaction of the justice or court before whom he is charged that he did not know of the article or drug sold by him being so mixed, colored, stained or powdered, as in that section mentioned, and that he could not, with reasonable diligence, have obtained that knowledge; or that such mixing, coloring staining or powdering was required for the production, extraction, preparation, preservation, consumption or transportation as an article of commerce in a state fit for carriage; or where the drug or food is supplied in the state required by the specification of the patent in force; or that the food or drug was unavoidably mixed with some extraneous matter in process of collection or preparation.

SECTION 3. Every person who shall compound or put up for sale any food, drug or liquor, in casks, boxes, bottles or packages, with any label, mark or device whatever, so as and with intent to mislead or deceive as to the true name, nature, kind and quality thereof, shall be liable to a penalty of not to exceed five hundred dollars for the first offense, and for every offense after the first offense shall be punished by imprisonment in the state prison for not less than one year nor more than ten years.

SECTION 4. The term "food" as herein used shall include every article used for food or drink by man other than

drugs. The term "drug" shall include medicine for internal or external use.

SECTION 5. This act shall take effect and be in force from and after the first day of July, after its passage and publication.

Approved March 5, 1879.

ADULTERATION OF DRUGS AND MEDICINES.

Section 4601, Revised Statutes.

SECTION 4601. Any person who shall fraudulently adulterate, for the purpose of sale, any drug or medicine, in such a manner, as to render the same injurious to health, shall be punished by imprisonment in the county jail, not more than one year, or by fine not exceeding three hundred dollars.

NOTE.—See chapter 248, laws of 1879, *supra*.

COLORING GRAIN.

Section 4606, Revised Statutes.

SECTION 4606. Any person who shall fumigate any barley, wheat, or other grain, by the use of sulphur 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 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.

OF THE ANALYSIS OF FOOD, DRUGS AND DRINKS.

Chapter 252, Laws of 1880.

SECTION 1. The governor of the state shall appoint one of the professors of the state university of sufficient competence, knowledge, skill and experience, as state analyst, whose duty it shall be to analyze all articles of food and drink, and all drugs and liquors manufactured, sold or used

within this state, when submitted to him as hereinafter provided. The term of office of such analyst shall be three years from his appointment, unless sooner removed by the appointing power, and his compensation shall not exceed two hundred dollars in addition to his annual salary as professor, and shall be paid by the board of regents of the state university from the university fund.

SECTION 2. The state board of health and vital statistics, medical officers of health, inspectors of weights and measures, boards of supervisors of any town, boards of trustees of any village, aldermen or common council of any city in this state, or a majority of said corporate bodies, may at the cost of their respective corporations, purchase a sample of any food, drugs or liquors offered for sale in any town, village or city in this state, in violation of sections number one, two and four of chapter two hundred and forty-eight of laws of A. D. 1879, or if they have good reasons to suspect the same to have been sold, or put up for sale, contrary to the provisions of said chapter two hundred and forty-eight, may submit the same to the state analyst as hereinafter provided, and the said analyst shall, upon receiving such article duly submitted to him, forthwith analyze the same, and give a certified certificate to such person or officer submitting the same, wherein he shall fully specify the result of the analysis.

SECTION 3. Any person purchasing any article with the intention of submitting it to an analysis, shall, after the purchase shall have been made and completed, forthwith notify the seller or his agent selling the same, of his or their intention to have the same analyzed by the state analyst, and shall offer to accompany the seller or his agent with the article purchased to the town, village or city clerk of the place in which the article was bought, and shall forthwith remove the article purchased to the office of said clerk, and in the presence of the seller or his agent, if present, divide said article in two parts, each to be marked, fastened and sealed up in such a manner as its nature will permit. The said clerk shall forthwith forward one part to the state analyst by mail, express or otherwise, as he shall elect, and shall retain the other part or package subject to the order of any court in which proceedings shall thereafter be taken. The certificate of the state analyst shall be held in all the

courts of this state as prima facie evidence of the properties of the articles analyzed by him.

SECTION 4. If any person applying to purchase any article of food, drug or liquor exposed for sale or on sale by retail on any premises in any town, village or city in this state, and shall tender the price of the quantity which he shall want, for the purpose of analyzing, not being more than shall be reasonably required, and the person exposing the same for sale shall refuse to sell the same, such person so refusing to sell shall be liable to a penalty not exceeding fifty dollars.

SECTION 5. The state analyst shall report to the state board of health and vital statistics the number of all the articles analyzed, and shall specify the results thereof to said board annually, with full statement of all the articles analyzed and by whom submitted.

SECTION 6. The state board of health and vital statistics may submit to the state analyst any samples of food, drugs or drink for analysis, as hereinbefore provided.

SECTION 7. This act shall take effect and be in force from and after its passage and publication.

Approved March 15, 1880.

THE PREVENTION OF FRAUD IN DAIRY MANUFACTORIES.

Section 1494a, Revised Statutes.

Any butter or cheese manufacturer who shall knowingly use, or allow any of his employes or any other person to use for his or for their own individual benefit, any milk, or cream from the milk, brought to said butter or cheese manufacturer, without the consent of all the owners thereof, or any butter or cheese manufacturer who shall refuse or neglect to keep, or cause to be kept, a correct account (open to the inspection of any one furnishing milk to such manufacturer) of the amount of milk daily received, or of the number of pounds of butter, and the number and aggregate weight of cheese made each day, or of the number cut or otherwise disposed of, and the weight of each, shall, for each and every offense, forfeit and pay a sum not less than twenty-five dollars, nor more than one hundred dollars, to be recovered in an action in any court of competent jurisdiction, one-half for the benefit of the person or persons, firm or association, or their assigns, upon whom such fraud or neglect shall be committed, first having made complaint therefor, the remainder to the school fund.