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ANNUAL REPORT

OF THE

WISCONSIN

State Board of Agriculture

For the Year 1901.

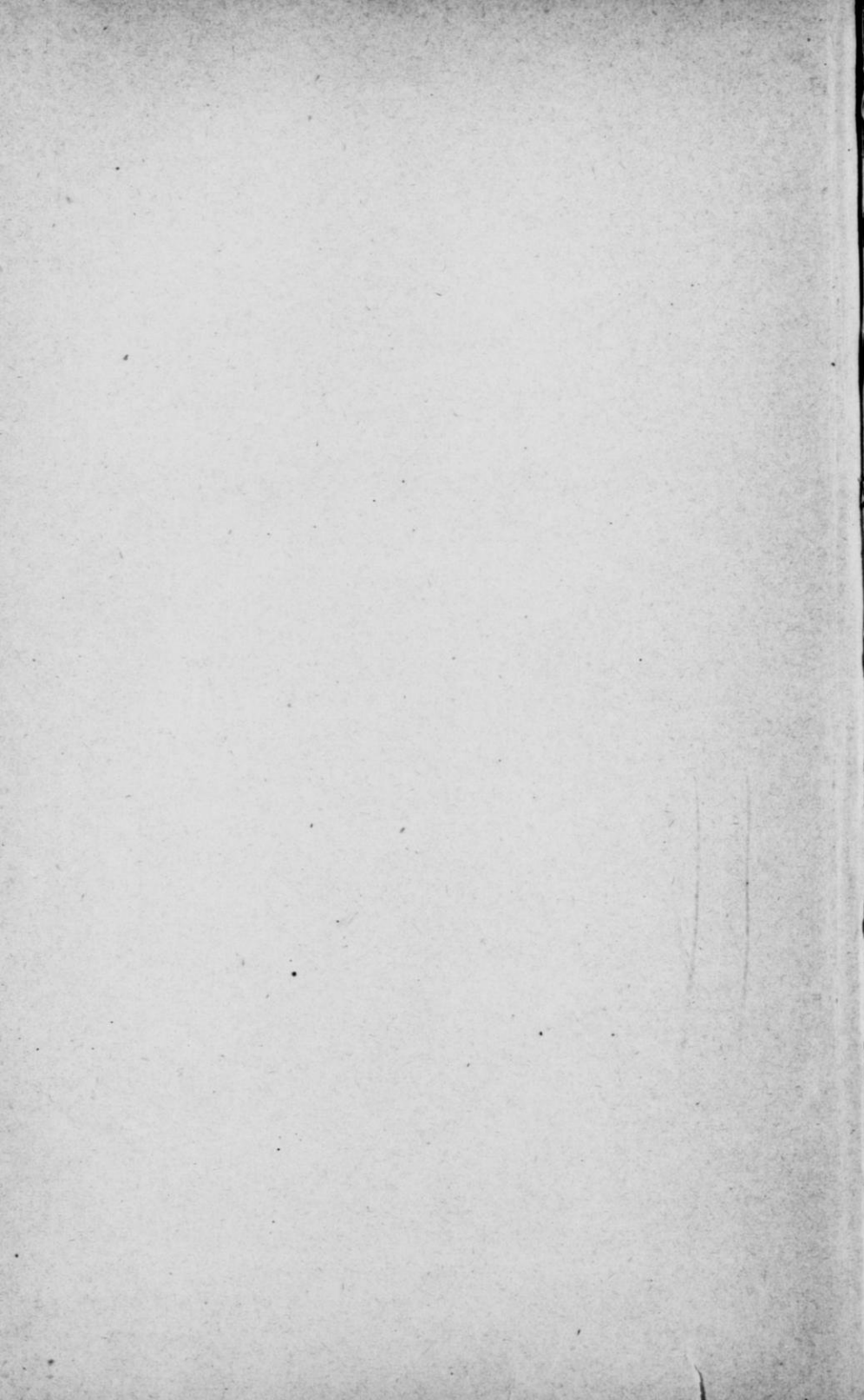
COMPILED BY

JOHN M. TRUE, *Secretary.*



MADISON
DEMOCRAT PRINTING COMPANY, STATE PRINTER

1902



62420
MAR 25 1902

LETTER OF TRANSMITTAL.

To His Excellency, ROBERT M. LA FOLLETTE,
Governor of the State of Wisconsin.

SIR: I am pleased to herewith submit to you, the annual report of the Wisconsin State Board of Agriculture, for the year 1901.

Very respectfully,

JOHN M. TRUE,
Secretary.

OFFICERS

OF THE

WISCONSIN STATE BOARD OF AGRICULTURE.

<i>President</i>	GEORGE MCKERROW.
<i>Vice President</i>	S. D. HUBBARD.
<i>Secretary</i>	JOHN M. TRUE.
<i>Treasurer (Ex-officio)</i>	J. O. DAVIDSON, State Treasurer.

BOARD OF MANAGERS.

<i>President</i> —	GEO. MCKERROW.
<i>Vice President</i> —	S. D. HUBBARD.
	GEORGE G. COX.
	C. G. WILCOX.
	DAVID WEDGWOOD.

MEMBERS OF WISCONSIN STATE BOARD OF AGRICULTURE.

At Large	GEORGE WYLIE, Leeds.
At Large	S. D. HUBBARD, Mondovi.
1st District	C. H. EVERETT, Racine.
2d District	GEORGE KLEIN, Fort Atkinson.
3d District	GEORGE G. COX, Mineral Point.
4th District	P. R. HANNIFIN, Milwaukee.
5th District	GEORGE MCKERROW, Sussex.
6th District	C. W. HARVEY, Beaver Dam.
7th District	CHARLES LINSE, La Crosse.
8th District	F. A. HUEBNER, Manitowoc.
9th District	DAVID WEDGWOOD, Little Suamico.
10th District	C. G. WILCOX, De Pere.
11th District	JOHN W. THOMAS, Anson.

OTHER MEMBERS OF BOARD OF AGRICULTURE.



Geo. WYLIE,
Member at Large.
P. R. HANNIFIN,
4th Dist.

JOHN W. THOMAS,
11th Dist.
C. H. EVERETT,
1st Dist.

F. A. HUERNER,
8th Dist.
C. W. HARVEY,
6th Dist.

CHAS. LINSE,
7th Dist.
Geo. KIERN,
2d Dist.

TABLE OF CONTENTS.

	Page.
Letter of Transmittal	iii
Officers	iv
Laws Relating to the Board	vii
Minutes of Meetings of the Board	1-15
Financial Reports:	
Of Expenditure of Improvement Appropriation, 1901.....	16
Of Secretary	17
Of Treasurer	17
Secretary's Warrant Account	18
Award of Premiums at State Fair, 1901:	
Horses	39
Cattle	48
Sheep	64
Swine	71
Poultry	80
Agriculture	107
Bees and Honey	116
Culinary	118
Dairy	124
Horticulture	130
Art	144
Woman's Work	152
Speed Department	163
Reports of Department Superintendents:	
Department A	165
Department B	166
Department C	167
Department D	168
Department E	168
Department F	169
Department G	170
Department H	176

	Page.
Reports of Superintendents—Continued:	
Department J	177
Department K	181
Department L	182
Department M	183
Speed Department	184
Of Grounds	185
Of Gates	186
Of Transportation	187
Of Forage Department	187
Of Privileges	189
Of Marshal	189
Report of Agricultural Convention:	
Chairman's Opening Remarks	191
Some of the Successes and Failures in Swine Husbandry, by H. P. West	192
Sheep Husbandry in Wisconsin, by J. H. Dixon.....	215
Modern Ideas of Tuberculosis, by Dr. H. P. Clute	225
The Present Condition of the Good Roads Movement, by R. L. Joiner	241
Address of Governor La Follette	262
Address of Superintendent Harvey	266
Wisconsin a Dairy State, by Chas. L. Hill.....	284
Fairs and What They Do for the Farmer, by W. A. Henry, Dean of the College of Agriculture, Madison.....	293
The Farmers' Feathered Friends, by Geo. Raymer.....	302
The Relation of the State Board of Agriculture to the Dairy Industry, by John W. Thomas	312
The Horse Outlook, by W. L. Carlyle.....	316
State Crop Reports	326

LAWS

RELATING TO THE

WISCONSIN STATE BOARD OF AGRICULTURE.

Wisconsin Statutes of 1898, Chapter 60.

SECTION 1456. The Department of Agriculture, as heretofore established, is continued. Its object shall be the promotion of the interests of agriculture, dairying, horticulture, manufactures and domestic arts.

Said department shall be managed by a board, to consist of one member from each congressional district and two from the state at large, to be appointed by the governor, for terms of three years from the first day of January in the year of their appointment.

Not more than two-thirds of the members of said board shall be, at the time of making any appointment thereto, members of the same political party. Vacancies shall be filled by the governor for the unexpired portion of the term.

SECTION 1457. The members of said board shall serve without compensation, but shall be reimbursed out of any funds set apart for their use by the state, or otherwise received by them, the sums actually expended in the performance of their duties.

SECTION 1458. Said board shall hold its annual meeting on the first Tuesday of March, and at such meeting shall elect one of its members as president, and one as vice president, and some person, not a member, as secretary, who shall hold his office for one year unless he is sooner removed by the board.

The state treasurer shall be ex-officio treasurer of the board.

Such officers shall perform such duties as usually pertain to such offices, and such as the board may direct.

SECTION 1458a. Said board may occupy such rooms in the capitol as may be assigned for that purpose by the governor.

They shall have sole control of the affairs of the Department of Agriculture, and all state fairs, and state fair grounds, and may make such by-laws, rules and regulations in relation to the management of

the business of such department, and said fairs, and the offering of premiums thereat, as they shall from time to time determine.

The board shall make a report of its action to the governor, on or before the first day of December in each year.

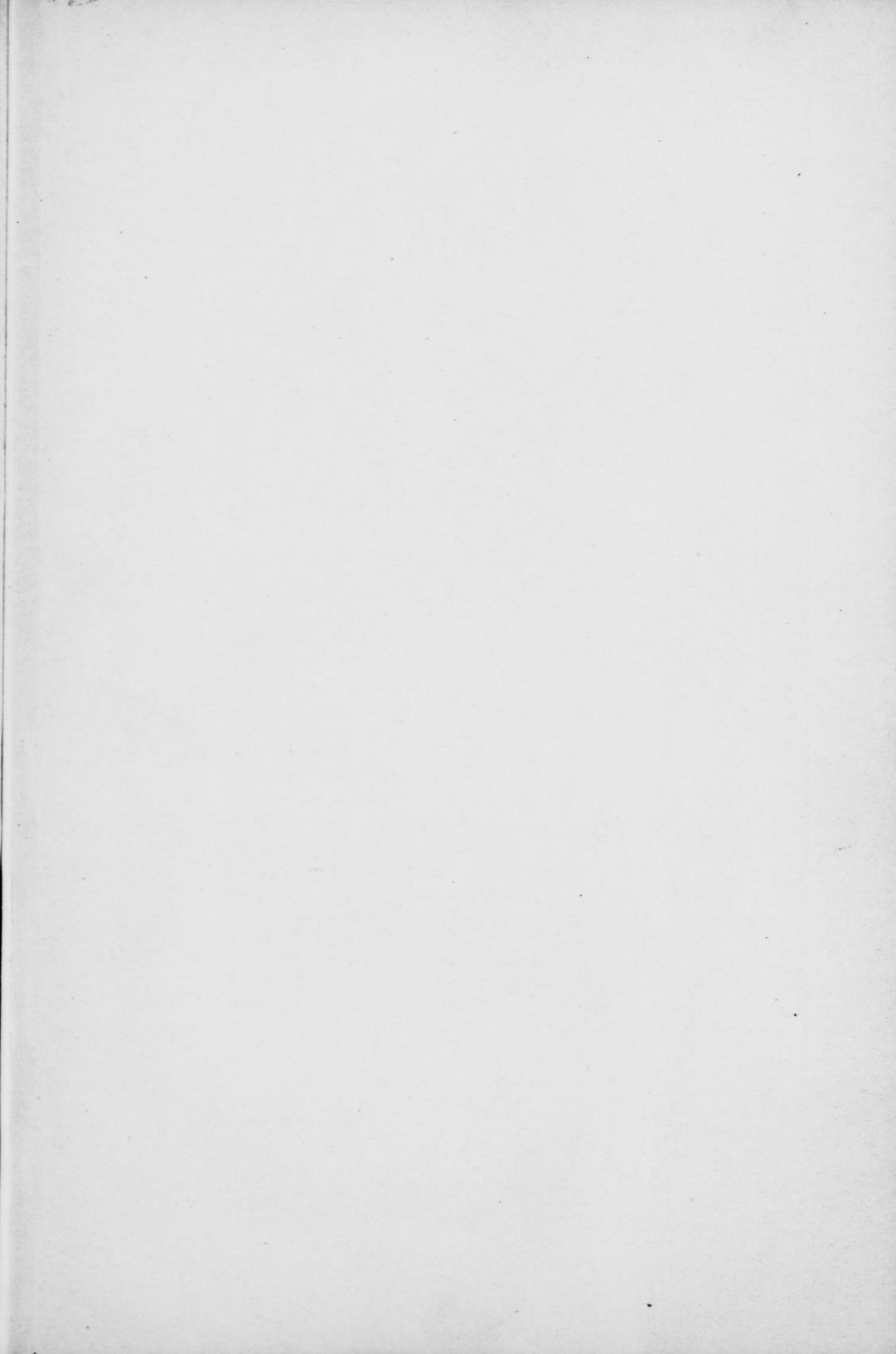
SECTION 1458b. Whatever money shall be appropriated or otherwise received by said board, for the Department of Agriculture shall be paid to the state treasurer, and be disbursed by him, on orders signed by the president and secretary of the board, for such purposes as, in the judgment of the board, will best promote the interests committed to their charge.

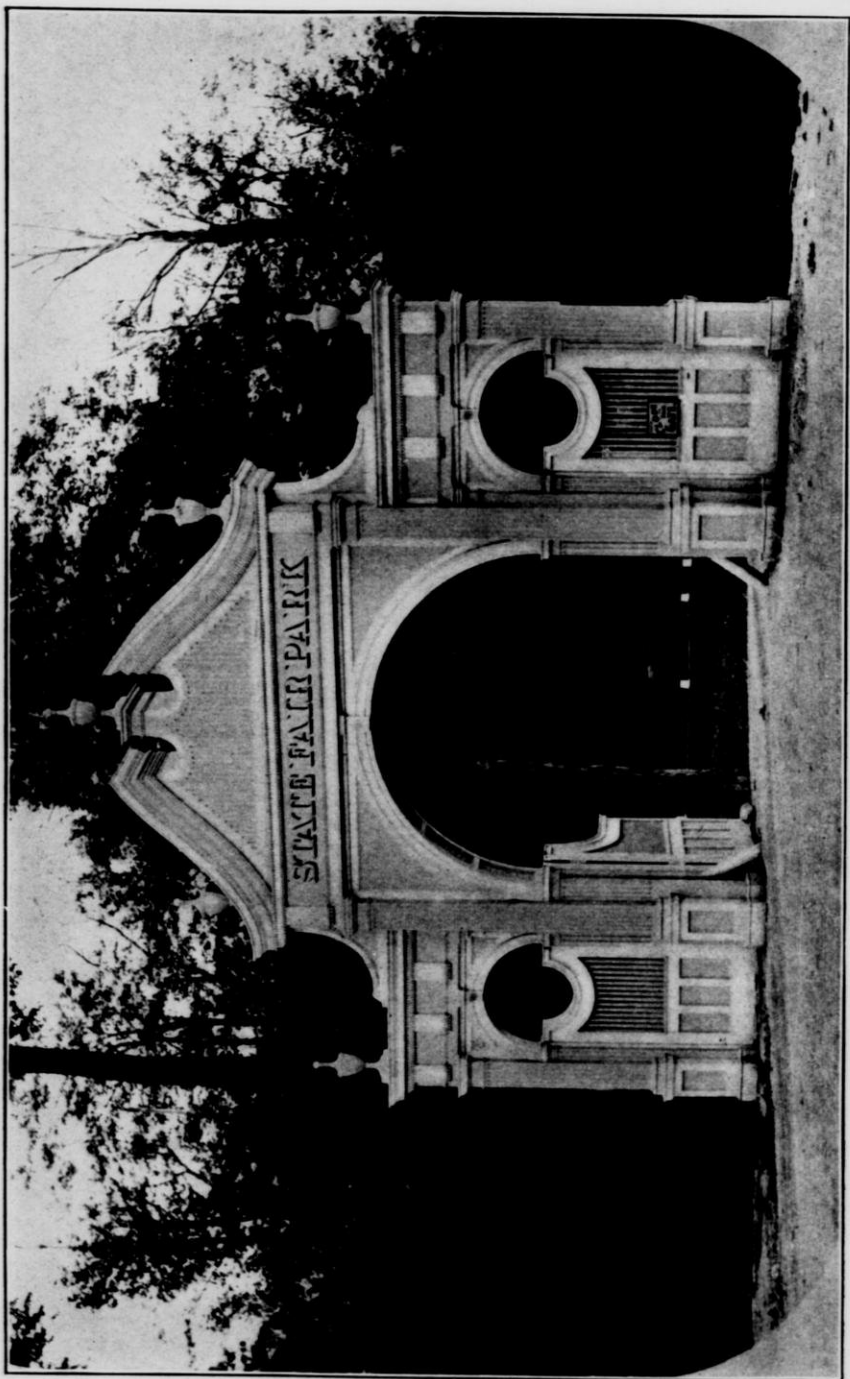
No officer, clerk or employee of said board shall have any claim upon the state for any salary or expenses, except such as may be allowed by the board, and paid from any appropriation or funds under their control; and the state shall not in any manner whatever be liable for any debt or obligation incurred, or contract made by said board.

SECTION 1458c. On the presentation to him of the sworn statement of the secretary of said board, showing the amount paid by the board for premiums at their last annual fair, the secretary of state shall issue his warrant for ten per centum of such amount, and on the presentation of such a statement, signed by the president and secretary of the board, certifying that the sale of intoxicating liquors has been prohibited and prevented, upon the fair grounds thereof, during the last preceding fair, he shall annually draw his warrant for four thousand dollars.

SECTION 1466. The principal officers of the state board of agriculture,, shall have full jurisdiction and control of the grounds, on which such board may exhibit, and all the streets, alleys and other grounds adjacent to the same, during all such exhibitions, so far as may be necessary to exclude therefrom all other exhibitions, booths, stands or other temporary places for the retail or sale of any kind of spirituous or fermented liquors, or other articles, that they might deem objectionable.

The president, or, in his absence, any vice-president acting in his stead, may appoint any necessary policeman to assist in preserving the peace, and enforce the regulations upon the ground and adjacent streets, who, for such purpose, shall have all the powers of a constable and be entitled to similar fees.





MAIN ENTRANCE TO STATE FAIR PARK.

ANNUAL REPORT

OF THE

Wisconsin State Board of Agriculture

1901

MINUTES OF MEETINGS OF THE BOARD.

ANNUAL MEETING.

Madison, March 5, 1901.

President McKerrow in the chair. Roll called, and all members found present. Minutes of last meeting of the board were read and approved.

Voted that a committee, consisting of President McKerrow and Messrs. Hubbard and Cox, wait upon the governor and ascertain his wishes relative to action of board, pending the filling of existing vacancies therein.

Such committae reported that the governor chose to not fill vacancies in board until after action of legislature in re-districting the state.

President McKerrow, from committee to represent the board in formulating legislation relative to securing a Live Stock Sanitary Board, reported progress.

Mr. Hubbard introduced the following resolutions, and moved their adoption:

"Whereas, Captain H. A. Chase, who has served as janitor for this board since its establishment, has by his courteous and kindly service, as well as by his efficient work, proved himself to be a competent and faithful assistant,

Resolved, if the superintendent of public property will kindly continue him in his position for the coming year, such action will meet the approval of the entire board."

The resolution was adopted.

On motion of Mr. Hubbard, voted to proceed to the election of secretary of the board for the coming year.

On motion of Mr. Wilcox, the president was instructed to cast the vote of the board for John M. True, for such office.

The president cast such vote, and declared Mr. True duly elected.

Messrs. Cox, Wilcox and Wedgwood were appointed a committee to audit accounts of secretary and treasurer.

On motion of Mr. Cox, took up revision of premium list, and the following named changes were made:

Department A.—"Standard Bred American Coachers" were added to "Hackneys," in Class 6.

Department B.—Voted to offer \$500.00 in premiums in Shorthorn class, in order to secure a corresponding amount from the American Shorthorn Breeders' association, and to make premiums offered in Guernsey class \$500.00 including \$125.00 offered by Western Guernsey Breeders' association.

Voted to add "Exhibitors' Herds," in Class 19, Brown Swiss.
Adjourned until Wednesday, March 6th.

Wednesday Morning, March 6.

Vice President Hubbard in chair. Quorum present. Continued revision of premium list.

Department C.—Voted to make a class for Cheviot sheep, omitting from same "Get of Sire" and "Champions."

Department D.—Left as last year.

Department E.—Left with secretary for revision.

Department F.—Changed in a few particulars, on suggestion of Superintendent Huebner.

Voted to increase the amount offered for "County Exhibits" to \$1,000.

Department G.—Left to secretary and Superintendent Thomas for revision.

Department H was slightly changed upon recommendation of Superintendent Coe.

Department K was dropped or added to Department J, and "Art" was made Department K, and "Woman's Work" Department L.

The revision of premiums in Departments K and L was left to secretary, amount of premiums in either class not to exceed that of last year.

Department M was left with secretary and Superintendent Jansen, amount to be offered in premiums limited to \$500.00.

Took recess until 2 o'clock P. M.

Wednesday P. M.

Superintendent Harland appeared before the board, and submitted his report of Speed department for fair of 1900, which was accepted by the board.

The auditing committee submitted the following report:

"The undersigned, committee of audit, have compared the financial statements of the secretary with the treasurer's report, and find them correct and agreeing therewith." Signed,

C. G. WILCOX,

GEO. G. COX,

DAVID WEDGWOOD.

Voted that a committee, consisting of Messrs. Wilcox, Cox and Wedgwood, arrange speed purses for fair of 1901, the aggregate amount to be limited to \$10,000.

Adjourned until April 9, at 2 o'clock P. M.

JOHN M. TRUE,
Secretary.

ANNUAL REPORT OF THE

Madison, April 9, 1901.

Meeting of Board of Agriculture.

No quorum present. On motion of Mr. Thomas, voted to adjourn until April 23, at 2 o'clock P. M.

JOHN M. TRUE,
Secretary.

Madison, April 23, 1901.

Meeting of Board of Agriculture.

No quorum present. On motion of Mr. Thomas, voted to adjourn until May 8, at 2 o'clock P. M.

JOHN M. TRUE,
Secretary.

Madison, May 8, 1901.

Meeting of Board of Agriculture.

President McKerrow presiding. Present—Messrs. Hubbard, Cox, McKerrow, Huebner, Linse, Wilcox, Wedgwood and Thomas.

Minutes of previous meetings read and approved.

On motion of Mr. Cox, voted to proceed to election of officers.

On motion of Mr. Wilcox, the secretary was instructed to cast the vote of the board for George McKerrow, for president of the board for the coming year. The secretary performed that duty, and declared Mr. McKerrow duly elected president.

On motion of Mr. Wilcox, the president cast the vote of the board for S. D. Hubbard, for vice president for the coming year.

Ballots being taken, Messrs. Cox, Wilcox and Wedgwood were chosen additional members of the board of managers.

On motion of Mr. Hubbard, the secretary was allowed, in addition to his salary, \$25.00 per month for regular expenses.

On motion of Mr. Hubbard, the office of superintendent of grounds was established and the salary of same, for such time

as may be determined by the board of managers, was fixed at \$100.00 per month.

Department superintendents for coming fair were elected as follows:

Grounds—George G. Cox.

Privileges—S. D. Hubbard.

Gates—David Wedgwood.

Forage and Transportation—John LeFeber.

Speed—F. W. Harland.

Marshal—George G. Cox.

Department A—W. L. Houser.

Department B—Charles Linse.

Department C—H. A. Briggs.

Department D—George Wylie.

Department E—C. G. Wilcox.

Department F—F. A. Huebner.

Department G—John W. Thomas.

Department H—R. J. Coe.

Department J—J. E. Seaver.

Department K—Mrs. C. A. Scott.

Department L—Mary E. Chadwick.

Department M—L. A. Jansen.

On motion of Mr. Cox, voted that all money received from any source, by officers of the fair, be turned over to secretary each day, who shall give his receipt for the same, and at once turn such money into treasury, taking receipt for the same.

President McKerrow was chosen purchasing agent for coming year.

On motion of Mr. Hubbard, voted to refund to Mr. Meyer of North Greenfield the cost of gate built by him last year.

Selected judges as follows:

Horses—Prof. W. L. Carlyle, Madison.

Cattle, Beef—Prof. C. F. Curtiss, Ames, Iowa.

Cattle, Dairy—Prof. W. J. Fraser, Urbana, Ill.

Sheep, Mutton—Prof. C. F. Curtiss, Ames, Iowa.

Sheep, Fine Wools—Hon. R. Ainsworth, Merton.

- Swine—J. A. Countryman, Rochelle, Ill.
 Poultry—S. Butterfield, London, Canada.
 Agriculture, Grains—H. B. Drake, Beaver Dam.
 Agriculture, Vegetables—L. L. Olds, Clinton.
 Agriculture, Bees and honey—N. E. France, Platteville.
 Agriculture, Culinary—Miss Ida Hagen, Manitowoc.
 Dairy, Butter—W. D. Collyer, Chicago, Ill.
 Dairy, Cheese—E. L. Aderhold, Neenah.
 Fruit—Clarence Wedge, Albert Lea, Minn.
 Flowers—William Toole, Baraboo.
 Fine Arts—Frank Enders, Milwaukee.
 Woman's Work—Mrs. L. Esser, Madison.
 Pigeons—Robt. Joos, Peoria, Ill.; William Plaehn, Chicago, Ill.; A. Olsen, Milwaukee.
 Adjourned until 9 o'clock A. M. May 9.

Thursday, May 9.

Met agreeably to adjournment, President McKerrow in chair.
 Quorum present. Voted that prices of privileges be advanced 25 per cent., at coming State Fair.

Voted to re-employ Mr. Robert Philip to work upon the fair ground for the coming year at \$30.00 per month for the months of November, December, January, February, March and April, and \$40.00 per month for the remaining months of the year.

Voted to set aside from amount of state appropriation of \$25,000, \$7,500, to reimburse fund donated by Milwaukee citizens in 1900, this amount having been expended last year in permanent improvements on fair grounds.

R. H. Odell was elected press agent for coming fair, at a salary not to exceed \$150 for entire service and expenses, no contracts for advertising to be made by him without approval of president and secretary of this board.

Adjourned to meet at fair grounds, Milwaukee, Friday, May 17, at 1 o'clock P. M.

JOHN M. TRUE,
 Secretary.

Fair Grounds, Milwaukee, May 1, 1901.

Meeting of Board.

President McKerrow presiding. Quorum found present,

Voted to erect a dwelling 22x36 feet, on site of old residence on fair grounds, and President McKerrow was instructed to procure plans and estimates.

Instructed Superintendent of Grounds Cox to at once procure estimates of expense of necessary repairs upon buildings and fences, aside from painting, and report the same to secretary.

Voted to paint all buildings originally painted with lead and oil with two coats of such paint,—color, slate with white trimmings; and the fence, stock barns and other buildings with one coat of mineral paint, with white trimmings.

Voted to build McAdam street, with walk on each side, from point in edge of grove north to stock barns.

Voted to build an office building at south end of above mentioned street, essentially after plan submitted by secretary.

President McKerrow was instructed to also procure definite plans and estimates for this building.

Voted to extend Dairy building thirty feet on south end, and to add ten feet to south end of refrigerator in the same, leaving a room 8x10 feet in center for examination of exhibits.

Also voted to paint the inside of building.

The general matter of advertising the fair was left to the board of managers.

The secretary was authorized to contract with Bickett family at \$400; and an aeronaut, price not to exceed \$150 for time of fair.

Voted to request Messrs. Ira B. Smith, Wilmer Sieg, A. C. Clas and D. P. Ritchey to act as committee of counsel from city of Milwaukee with board.

Adjourned.

JOHN M. TRUE,
Secretary.

Fair Grounds, June 3, 1901.

Meeting of Board of Managers.

All members present. President McKerrow presided.

Mr. Chris. Hanson of Hartland was instructed to perfect plans and specifications for both dwelling and office building to be erected on grounds, in accordance with instructions given by board, and to furnish five sets of blue prints of such plans and specifications to board for use of contractors,—fees to be three per cent. of contract price of buildings; but in case Hanson bid and secure contracts, he is to receive no pay for such plans and specifications.

Voted to receive and open bids for the construction of buildings, Monday, June 17, at 2 o'clock P. M.

President McKerrow was instructed to contract with Jas. E. Patton Co. for paints, oils, etc., on basis of figures for such goods given by them to the board.

Superintendent Cox was instructed to ascertain the estimated cost of proposed improvements of Cottrill avenue, in which board is requested to join.

The secretary was instructed to call meeting of full board at fair grounds, Monday, June 17, at 2 o'clock P. M.

Adjourned.

JOHN M. TRUE,
Secretary.

Fair Grounds, June 17, 1901.

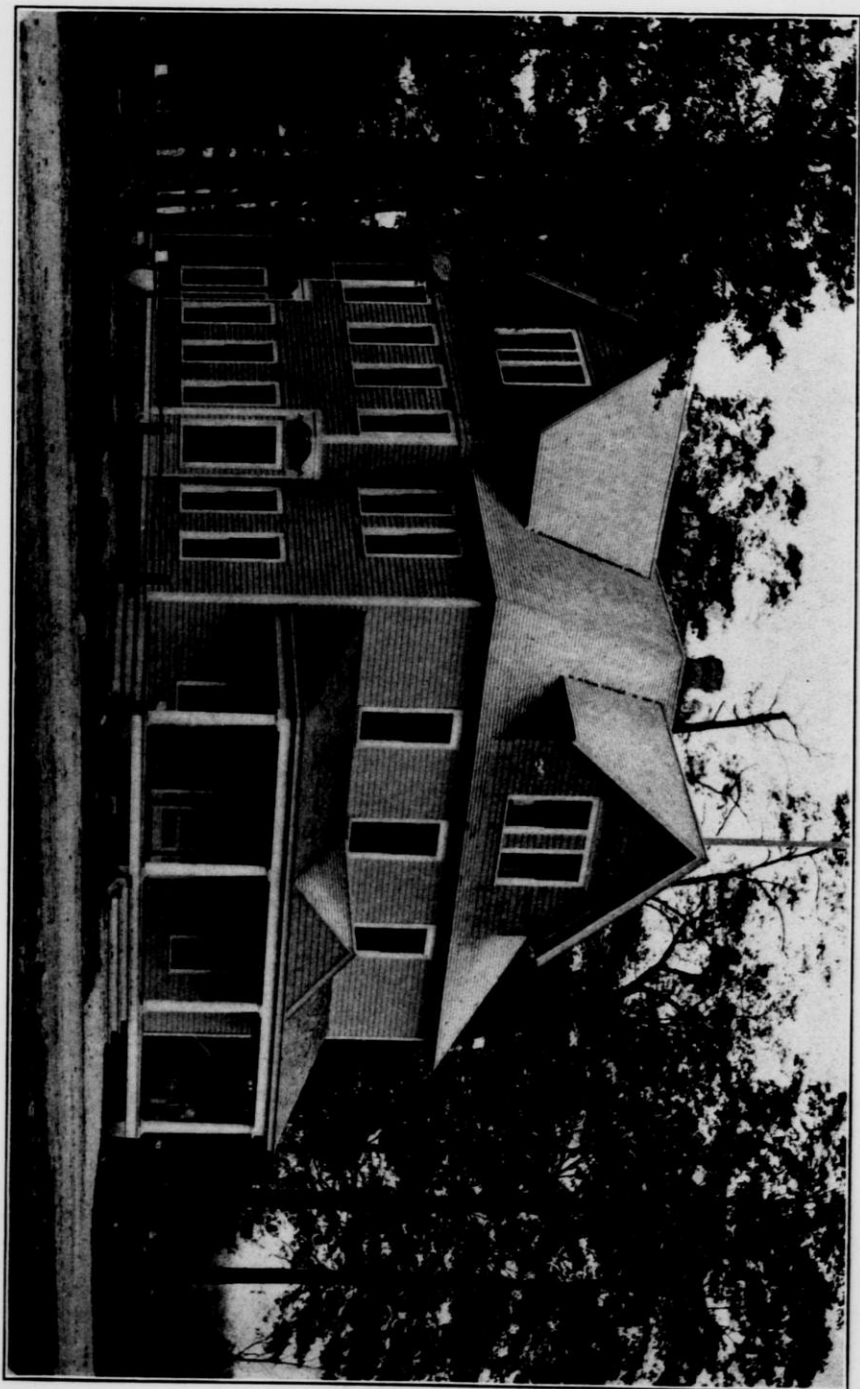
Meeting of Board of Agriculture.

President McKerrow in the chair.

Present—Messrs. Wylie, Hubbard, Everett, Klein, Cox, Han-
nifin, McKerrow, Linse, Huebner, Wedgwood, Wilcox and
Thomas. Absent—Mr. Harvey.

Superintendent Cox was instructed to remove old Baptist dining hall and replace the same with a new building.

Voted to locate new office building in edge of grove, just east of where new street intersects the same.



OFFICE BUILDING, STATE FAIR PARK.



On motion of Mr. Hannifin, secretary was instructed to advertise for bids for erection of buildings on grounds in the daily papers of Milwaukee, and all bids received were returned,—the opening of such bids being deferred until Monday, June 24, at 2 o'clock P. M., when they with others will be considered by board of managers.

Members of the Wisconsin Live Stock Sanitary board, to be selected by this board from its membership, were elected as follows:

For one year, George Wylie.

For two years, S. D. Hubbard.

For three years, George McKerrow.

Voted to leave the question of the advisability of the board's assisting in the improvement of Cottrill avenue to board of managers.

Adjourned.

JOHN M. TRUE,
Secretary.

Fair Grounds, June 25, 1901.

Meeting of Board of Managers.

Present—Messrs. McKerrow, Hubbard, Cox and Wedgwood.

Bids for furnishing the requisite amount of crushed rock for street and walk construction were received from the Wauwatosa Stone company and the Menominee Falls-Lannon Stone company, and the contract was awarded to the last named company at 90 cents per cubic yard, f. o. b. cars at side track on C., M. & St. P. Ry., at fair grounds.

Bids for office building were opened and contract awarded to lowest bidder, Chris. Hanson of Hartland, Wis., at \$2,980.

Contract for dwelling was let to Azro Williams, at \$1,600.

Messrs. Cox and Hannifin were appointed a committee to try for reduced street car rates during the coming fair, between fair grounds and city. Also for better accommodations for visitors at fair, over the C., M. & St. P. Ry. Superintendent Cox was

instructed to secure a survey and estimate of expense of grading a one-half mile track, in in-field, and if he find such track can be built for \$2,000 or less, to proceed with the work.

Superintendent Cox was instructed to add to building used for cooking school last year, and place the same in proper location for a dining hall.

Adjourned.

JOHN M. TRUE,
Secretary.

Fair Grounds, August 8, 1901.

Meeting of Board of Managers.

All present, except Mr. Hubbard.

Voted to build culvert near swine pens, of stone and iron, 16 feet wide and 6 feet span, and to extend street south from same to intersect street running south of machinery department.

Adjourned.

JOHN M. TRUE,
Secretary.

Fair Grounds, August 26, 1901.

Meeting of Board of Managers.

All members present.

Voted to accept the office building, constructed under contract by Chris. Hanson, and the secretary was ordered to pay bill for same and extras, amounting to \$2,981.48.

Secretary was instructed to order two water tanks for stock of Hall Steel Tank Co., Chicago, Ill.

Adjourned.

JOHN M. TRUE,
Secretary.

Fair Grounds, September 10, 1901.

Meeting of Board of Agriculture.

Meeting called to order by President McKerrow.

Present—Messrs. Wylie, Hubbard, Cox, McKerrow, Linse, Wedgwood, Wilcox and Thomas.

Vice President Hubbard called to the chair.

On motion of Mr. Wylie, voted that if at the close of the fair the finances of the board warrant such action, \$50 be divided between exhibitors of Lincoln and Leicester sheep showing with us.

Messrs. White and Swigart, exhibitors of Galloway cattle, came before the board, and asked for a fuller recognition of their breed.

On motion of Mr. Wilcox, Galloways were ordered to be judged as a full class, and that the question of the payment of more premium money than offered in the list be considered after the fair.

The protest of Shropshire sheep exhibited by George Allen, made by Messrs. Dixon, Weaver and Kivlin, on the ground that they had not been in the possession of exhibitor for six months previous to being placed on exhibition, as required by rules of the board, was taken up.

Mr. Allen being sworn, stated that two lambs, under protest, were eligible to be shown by him, under our rules.

On motion of Mr. Wylie, the remaining protested animals were not to be awarded premiums until proper affidavits had been filed with the secretary by Mr. Allen, showing their eligibility.

The protest of Geo. McKerrow & Sons of a part of the exhibit of Oxford sheep, made by R. J. Stone, was considered.

The protest was based on the same ground as the preceding.

On account of the absence of Mr. Stone, action upon the matter was deferred until the first meeting of the board after January 1, 1902, and the secretary was instructed to withhold the payment of premiums affected by such protest until after that

time, and that Mr. Stone be required to file affidavits that animals are eligible with the secretary of this board.

On motion of Mr. McKerrow, the selection of Mr. Wilcox of our board, as starter of races, was endorsed.

Adjourned.

JOHN M. TRUE,
Secretary.

Fair Grounds, September 12, 1901.

Meeting of Board of Agriculture.

Present—Messrs. Wylie, Hubbard, Cox, McKerrow, Wedgwood, Wilcox and Thomas. President McKerrow presiding.

A. E. Green, by his agent, E. M. Moore, protested the exhibit of certain Rambouillet sheep by Geo. Harding & Son, on the grounds of possession for the previous six months.

Mr. Frank Harding was present and addressed the board, but the protest was sustained.

Mr. Swigart, an exhibitor of Galloway cattle on their way to the Pan-American exposition, asked to be allowed to remove his exhibit before the time fixed by the rules. The request was granted.

The action of the president in ordering the closing of a side-show, where a boy had been injured during the day, was sustained.

Adjourned.

JOHN M. TRUE,
Secretary.

Fair Grounds, September 13, 1901.

Meeting of Board of Agriculture.

Called to order by president. Present—Messrs. Everett, Cox, McKerrow, Linse, Wedgwood, Wilcox and Thomas.

R. H. Odell, press agent, presented bill of expense of news-

paper advertising in Milwaukee of \$662.00, and the secretary was authorized to draw an order for payment of the same.

Voted to refund \$1.00, gateage, paid by representative of the "Seebote."

Mr. Odell's bill of \$166.00, in full for services and expenses as press agent, was allowed.

Peter Nickel presented claim of \$16.00 for services as watchman during fair of 1900. Secretary was instructed to pay the same, when satisfied that claim is valid.

Superintendent Cox presented final estimate of engineer on one-half mile track grade, and secretary was instructed to pay bill for grading, when the same is pronounced correct by Superintendent Cox.

Superintendent Cox was instructed to have necessary work done for the protection of new track.

Care of property, in buildings and upon grounds, was left with Superintendent Cox.

Adjourned until September 14, at 8 o'clock A. M.

JOHN M. TRUE,
Secretary.

Fair Grounds, September 14.

Board met agreeably to adjournment, and examined dwelling built by Azro Williams under contract, and found the same incomplete.

The matter of acceptance, when completed, was left to Superintendent Cox, the secretary to pay for building when notified of acceptance.

Adjourned.

JOHN M. TRUE,
Secretary.

Fair Grounds, October 4, 1901.

Meeting of Board of Agriculture.

Meeting called to order by president. Roll called, and following members found present: Messrs. Wylie, Hubbard, Everett, Klein, Cox, Hannifin, McKerrow, Linse, Huebner and Wedgwood.

Mr. Hubbard presented requests of M. E. and Episcopal churches for reduction of dining hall rentals at recent fair.

Superintendent Hubbard was instructed to settle with parties in accordance with terms of his contract with them.

Protest and claim of Mrs. E. C. Cotten and daughters, on account of action of judge in horse department, was read by the secretary.

On motion of Mr. Wylie the same were dismissed, and secretary was instructed to write the parties, explaining our rules governing the duties of judges.

On motion of Mr. Hannifin, the question of arranging the rental of a large tent for future use at fairs was left to president and secretary.

The following named gentlemen were elected as delegates to the meeting of the American Association of Fairs and Expositions, to be held in Chicago, December next: Geo. McKerrow, John M. True, Geo. Wylie, C. H. Everett and P. R. Hannifin.

Claim of Guger Lith. Co. for pay for excess of lithographs furnished over order of board was disallowed.

On motion of Mr. Wedgwood, president and secretary were authorized to obtain cuts of fair grounds, for illustrating next annual report.

The secretary was instructed to invite Milwaukee Road Drivers' association to visit grounds and examine present one-half mile track, and consider proposed alterations therein, and report its estimate of its adaptation to its wants when so altered to Superintendent Cox and Secretary True.

On motion of Mr. Wylie, voted to hold a "Winter Conven-

tion" in Madison in February, and the secretary was instructed to arrange for the same.

Adjourned.

JOHN M. TRUE,
Secretary.

Fair Grounds, Oct. 15, 1901.

Meeting of Board of Agriculture.

President McKerrow in chair. Present—Messrs. Wylie, Hubbard, Everett, Cox, Harvey, McKerrow, Huebner and Wedgwood.

A communication from Milwaukee Road Drivers' association was read by the secretary, and a delegation from that body was admitted to meeting.

The question of changes in present one-half mile track was discussed, and Mr. Hubbard moved that present track be so widened as to be 50 feet in home stretch, and not less than 45 feet at other points.

Ayes and noes being called, the motion unanimously prevailed.

Superintendent Cox was instructed to at once proceed with the work of completing track.

Adjourned.

JOHN M. TRUE,
Secretary.

FINANCIAL REPORTS.

REPORT OF EXPENDITURE OF IMPROVEMENT APPROPRIATION, 1901.

Lumber—Taylor & Tower	\$1,968 80
Nails and hardware—H. S. Tipple	228 99
Paints and oils—J. E. Patton Co.	1,526 89
Bricks—H. G. Ruck Bros.	46 50
Sash and doors—G. A. Butter	159 00
Crushed rock—M. F. Lannon Stone Co.	556 27
Building stone—Wauwatosa Stone Co.	77 29
Bridge iron—Wis. Bridge & Iron Co.	67 60
Mason work—Jos. Stérzinger	159 00
Office building—Chris. Hanson	2,981 48
Dwelling—Azro Williams	1,570 00
Wiring office—Mil. Elec. R. R. & Light Co.	217 50
Furniture, &c.—F. W. Schneck & Co.	484 85
Seats—Wis. Iron & Wire Works	350 00
Pipes, &c.—Hoffman & Billings	234 34
Shafting, &c.—O. L. Packard Mach. Co.	54 35
Moving buildings—R. Wiedman	231 00
Repair Grand Stand roof—W. D. Cook	250 00
Survey of new track—W. Powrie	187 00
Grading new track—John Brehm	2,140 00
Mdse.—P. R. Hannifin	35 56
Widening and fencing one-half mile track.....	1,500 00
Supervision of all work	700 00
Labor, not otherwise accounted for	2,227 48
Reinbursement of Milwaukee fund	7,500 00
Total	<u>\$25,453 90</u>

FINANCIAL REPORT OF SECRETARY.

To the Wisconsin State Board of Agriculture:—

Gentlemen: I beg leave to submit the following report of moneys received by me, as your representative, during the past year, and for which I hold the treasurer's receipts.

From S. D. Hubbard, Supt. of Privileges	\$1,946 00
From George G. Cox, Supt. of Grounds	373 20
From F. W. Harland, Supt. of Speed	1,617 50
From L. A. Jansen, Supt. of Pigeon Dept.	151 35
From class entries	1,014 00
From stall rent	1,025 00
From Am. Shorthorn Breeders' Assoc.	525 00
From all other sources	531 03
Total	\$7,183 08

JOHN M. TRUE,
Secretary.

TREASURER'S REPORT, 1901.

Jan. 1, 1901, cash on hand	\$7,410 23
Received from Secretary	7,183 08
Annual appropriation from state	4,000 00
Percentage of premiums	2,002 07
State appropriation, for improvements	25,000 00
Gate receipts at fair	11,637 00
Total	\$57,232 38
Warrants paid	\$51,096 49
Cash balance, Jan. 1st, 1902.....	6,135 89
Total	\$57,232 38

J. O. DAVIDSON,
State Treasurer.

SECRETARY'S WARRANT ACCOUNT FOR 1901.

No.	To whom and for what.	Amount.
1.	Cream City Bill-posting Co., advertising fair of 1900.....	\$23 08
2.	Frank Jirachek, harness repairs	55
3.	Rich & Clymer, duplicate premium ribbons	4 20
4.	John M. True, expenses at International Fair Cir. Con.....	5 00
5.	B. B. Hopkins, expenses	7 25
6.	Clark Eng. Co., cut of grounds	4 75
7.	F. Nichol, oats	13 92
8.	S. D. Hubbard, expenses	44 20
9.	C. G. Wilcox, expenses	33 90
10.	G. G. Cox, expenses	21 00
11.	Adam Conrad, hay rake	22 00
12.	John M. True, salary, January	100 00
13.	Robert Phillip, wages, January	30 00
14.	Robert Phillip, wages, Dec., 1900	30 00
15.	W. W. Brown, judging cattle fair of 1900	15 00
16.	R. J. Coe, expenses	5 18
17.	F. A. Huebner, expenses	9 25
18.	H. P. West, expenses at convention	6 80
19.	J. H. Dixon, expenses at convention	7 36
20.	George Wylie, expenses	4 60
21.	S. D. Hubbard, expenses	17 02
22.	Geo. G. Cox, expenses	20 00
23.	H. P. Clute, expenses at convention	17 74
24.	Geo. A. Schneider, daily Sentinel	1 50
25.	August Wotke, oats	29 90
26.	A. Le Feber, oats	13 50
27.	George Wylie, expenses	3 88
28.	R. L. Joiner, expenses at convention	5 01
29.	Walter Allen, rent in full	20 00
30.	Edna Greenfield, office work	3 00
31.	John M. True, salary, February	100 00
32.	Geo. G. Cox, expenses	9 00
33.	David Wedgewood, expenses	15 90
34.	Chas. L. Hill, expenses at convention	6 35
35.	Robert Phillip, wages, February	30 00
36.	Chas. Liebenthal, blacksmithing	8 35
37.	H. A. Briggs, expenses	18 41
38.	Chas. Linse, expenses	23 33
39.	F. W. Harland, expenses	4 74
40.	S. D. Hubbard, expenses	19 20
41.	B. B. Hopkins, expenses	17 25
42.	F. A. Huebner, expenses	13 00
43.	David Wedgewood, expenses	17 80
44.	C. G. Wilcox, expenses	37 80
45.	Geo. McKerrow, expenses	5 75
46.	Geo. G. Cox, expenses	12 50
47.	Chas. R. Fischer, rent for Phillip	18 00
48.	H. G. McGill, manager, telegrams, fair 1900	1 83
49.	John M. True, salary, March	100 00
50.	Robert Phillip, wages, March	30 00
51.	Frank Jirachek, harness supplies	1 30
52.	Peter Buck, oats	28 33
53.	John M. True, salary, April	100 00
54.	Robert Phillip, wages, April	30 00
55.	Chas. R. Fischer, rent for Phillip	21 00

No.	To whom and for what.	Amount.
56.	S. D. Hubbard, expenses	18 00
57.	F. A. Huebner, expenses	13 27
58.	John M. True, expense allowance, March and April.....	50 00
59.	David Wedgewood, expenses	16 70
60.	Chas. Linse, expenses	13 00
61.	Geo. G. Cox, expenses	10 00
62.	Robert Phillip, sundry bills	1 42
63.	John M. True, sundry bills	2 65
64.	Geo. McKerrow, expenses	5 00
65.	F. A. Huebner, expenses	3 52
66.	Geo. McKerrow, expenses	2 40
67.	John M. True, salary, May	100 00
68.	John M. True, expense allowance, May	25 00
69.	Am. S. H. B. Assoc., four vols. records.....	12 00
70.	Herold Co., advertisement	3 00
71.	Florence Q. Norton, report of convention	56 50
72.	John M. True, expenses trip to Milwaukee	9 61
73.	J. McD. Randles, speed judge, 1900	15 00
74.	E. A. Hartman, expenses	5 88
75.	Geo. Wylie, expenses	10 99
76.	Milwaukee Journal, advertising	8 25
77.	Milwaukee Sentinel, advertising	2 70
78.	John M. True, expense allowance, June	25 00
79.	Geo. G. Cox, freight and express	7 21
80.	Jas. E. Patton Co., paints, oil, etc.....	400 09
81.	Fred Joches, work	30 60
82.	Herb. Skinner, work	29 50
83.	Henry Knaab, work	33 55
84.	Thos. Kitchen, work	7 50
85.	Joe Buck, work	21 00
86.	Mike Schultie, work	14 70
87.	Bert Segrist, work	9 45
88.	Frank Maybone, work	10 20
89.	Bert Meloney, work	10 20
90.	Geo. G. Cox, salary, Supt. of grounds	100 00
91.	John M. True, expenses trip to Milwaukee	6 45
92.	E. H. Farrington, expenses trip to Milwaukee	5 85
93.	Mil. Herold, advertising	3 00
94.	F. A. Huebner, expenses	4 02
95.	John M. True, expenses trip to Milwaukee	6 08
96.	Robert Phillip, wages, May and June	70 00
97.	David Wedgewood, expenses	52 00
98.	S. D. Hubbard, expenses	80 80
99.	J. W. Thomas, expenses	26 60
100.	Robert Phillip, balance wages, June	10 00
101.	Meyer by Cox, payment for gate	35 00
102.	Geo. Wylie, expenses	5 85
103.	Geo. McKerrow, expenses	4 15
104.	John M. True, salary, June	100 00
105.	Milwaukee Journal, advertising	3 00
106.	E. A. Hartman, expenses trip to Milwaukee	5 88
107.	C. R. Fischer, rent for Phillip	24 00
108.	Geo. G. Cox, freight, telegrams, etc.	12 43
109.	Geo. G. Cox, transportation	25 00
110.	S. M. Tibbetts, work	49 53
111.	Herman Frank, work	44 54
112.	Peter Mergler, work	42 89
113.	Herman Klom, work	25 75
114.	William Strong, work	24 95

No.	To whom and for what.	Amount.
115.	John Shafer, work	13 57
116.	Frank Leonard, work	20 57
117.	Geo. Thayer, work	20 40
118.	J. Ellis, work	20 57
119.	Ben Piffer, work	20 57
120.	Arthur Ott, work	8 75
121.	J. O. Cheney, work	8 75
122.	Fred W. Joches, work	17 63
123.	Herb. Skinner, work	14 25
124.	Henry Knaab, work	21 00
125.	Mike Schultie, work	18 00
126.	Bert Segrist, work	16 20
127.	Thos. Kitchen, work	17 70
128.	William Cox, work	9 00
129.	A. T. Skinner, work	7 50
130.	Joe Buck, work	12 25
131.	Harry Miller, work	4 50
132.	Frank Jirachek, harness supplies	7 20
133.	Geo. H. Madden, Secy., assessment Western Cir., advertising....	17 76
134.	John M. True, expense allowance, July	25 00
135.	Geo. A. Schneider, daily Sentinel	3 00
136.	Jas. E. Patton Co., paints, etc.....	272 22
137.	H. G. Ruck Bros., bricks	28 50
138.	Milwaukee Sentinel, advertising	2 80
139.	John M. True, help in office	10 00
140.	Free Press, advertising	2 80
141.	Greve Lith. Co., advertising material	605 00
142.	Geo. G. Cox, freight and incidentals	9 30
143.	W. D. Cook, work on roof of grand stand	250 00
144.	J. O. Schiffman, work	19 68
145.	Jas. E. Patton Co., paints, etc.....	293 14
146.	S. M. Tibbetts, work	36 05
147.	Herman Franke, work	27 60
148.	Peter Mergler, work	33 00
149.	Herman Klom, work	21 00
150.	William Strong, work	14 85
151.	Frank Lenoard, work	21 00
152.	Geo. Thayer, work	20 10
153.	J. Ellis, work	21 00
154.	Ben Piffer, work	21 00
155.	J. O. Cheney, work	21 00
156.	Chas. Korn, work	24 50
157.	Frank Mergler, work	23 00
158.	Geo. Killips, work	10 00
159.	Fred W. Joches, work	16 95
160.	Herb Skinner, work	19 50
161.	Henry Knaab, work	21 00
162.	Mike Schultie, work	18 00
163.	Bert Segrist, work	15 00
164.	Thos. Kitchen, work	3 00
165.	William Cox, work	18 00
166.	S. T. Skinner, work	18 00
167.	Joe Buck, work	33 25
168.	J. D. Rouse, work	16 65
169.	E. S. Terry, work	22 50
170.	Geo. Miller, work	6 50
171.	Geo. G. Cox, salary Supt. of grounds	100 00
172.	H. S. Tipple, hardware, nails, etc.	32 57
173.	Taylor & Tower, lumber	240 70
174.	John M. True, expenses trip to Milwaukee	7 00

No.	To whom and for what.	Amount.
175.	Arthur Bergh, work in office	5 00
176.	Germania Pub. Co., advertising	1 70
177.	News Pub. Co., advertising	1 50
178.	Whitehead & Hoag Co., badges	10 00
179.	Evening Wisconsin, advertising	6 00
180.	John M. True, salary, July	100 00
181.	Milwaukee Journal, advertising	3 50
182.	William Powrie, survey half mile track	72 00
183.	Wis. Bridge & Iron Co., bridge iron	67 60
184.	R. Wiedman, raising and moving buildings	175 00
185.	A. Le Feber, oats	31 00
186.	Arthur Bergh, work in office	5 00
187.	C. G. Wilcox, expenses	65 67
188.	Robert Phillip, wages, July	40 00
189.	John M. True, expenses trip to Milwaukee	5 04
190.	Chas. Liebenthal, blacksmithing	15 95
191.	Arthur Bergh, help in office	5 00
192.	H. S. Tipple, supplies, order of Phillip	5 98
193.	Milwaukee Free Press, advertising	2 80
194.	Milwaukee Sentinel, advertising	2 20
195.	Geo. G. Cox, harrow	10 00
196.	Fred W. Joches, work	21 00
197.	Herb Skinner, work	20 : 5
198.	Henry Knaab, work	25 35
199.	Mike Schultie, work	14 25
200.	William Cox, work	21 00
201.	S. T. Skinner, work	21 00
202.	J. D. Rouse, work	24 50
203.	Chas. Noble, work	30 00
204.	John Neese, work	24 00
205.	Geo. Schlieter, work	22 50
206.	Ed. Bogdof, work	4 50
207.	Fred Barnekow, work	10 50
208.	Ed. Barnekow, work	13 00
209.	Joe Buck, work	44 80
210.	John Miller, work	7 00
211.	S. M. Tibbetts, work	45 15
212.	Herman Franke, work	30 00
213.	Peter Mergler, work	42 00
214.	Herman Klum, work	24 50
215.	William Strong, work	19 25
216.	Frank Leonard, work	19 95
217.	Geo. Thayer, work	20 10
218.	J. Ellis, work	24 50
219.	Ben Piffer, work	24 50
220.	J. O. Cheney, work	24 50
221.	Chas. Korn, work	24 50
222.	Fred Mergler, work	27 80
223.	Geo. Killips, work	28 00
224.	Gus Keefer, work	25 00
225.	Azro Williams, payment on dwelling	150 00
226.	John M. True, expenses trip to Milwaukee	5 17
227.	John M. True, expense allowance, August	25 00
228.	Arthur Bergh, help in office	5 00
229.	William Powrie, survey of track	21 00
230.	Geo. G. Cox, supplies	27 28
231.	Gugler Lith. Co., lithographs	375 00
232.	Jas. E. Patton Co., paints, etc.	193 70
233.	R. Wiedman, moving buildings	56 00

No.	To whom and for what.	Amount.
234a.	H. S. Tipple, nails, etc.	34 20
234b.	John M. True, paid help in office	4 50
235.	F. W. Joches, work	18 00
236.	Herb Skinner, work	7 50
237.	Henry Knaab, work	22 75
238.	William Cox, work	19 50
239.	S. T. Skinner, work	19 50
240.	Joe Buck, work	45 50
241.	J. W. Rose, work	22 75
242.	Chas. Noble, work	25 00
243.	John Neese, work	19 05
244.	Geo. Schlichter, work	17 25
245.	Ed. Barnekow, work	13 00
246.	Rex McCreary, work	19 50
247.	Ed. Vogeler, work	15 00
248.	E. W. Rodecker, work	35 75
249.	E. A. Terry, work	9 00
250.	Wm. Buckingham, work	35 10
251.	John Breen, work	23 37
252.	Peter Herbert, work	28 25
253.	Geo. G. Cox, salary as Supt. of grounds	100 00
254.	S. M. Tibbetts, work	35 70
255.	Herman Franke, work	29 00
256.	Peter Mergler, work	34 50
257.	Herman Klum, work	21 00
258.	Frank Leonard, work	27 30
259.	Geo. Thayer, work	21 53
260.	Ben Piffer, work	22 75
261.	J. O. Cheney, work	22 75
262.	Chas. Korn, work	20 12
263.	Frank Mergler, work	24 00
264.	Geo. Killips, work	24 00
265.	Guy Keefer, work	19 00
266.	Henry Schroeder, work	20 00
267.	J. Ellis, work	21 87
268.	H. G. Ruck Bros., bricks	18 00
269.	J. Gill, advertising Dane Co.	6 00
270.	John M. True, expenses trip to Milwaukee	7 00
271.	Rich & Clymer, premium ribbons	177 76
272.	W. W. Swinyer, rubber stamp	2 15
273.	Wauwatosa Stone Co., Stone	72 17
274.	Charlotte Norton, office work	2 00
277.	John M. True, salary, August	100 00
278.	E. A. Hartman, payment on advertising	100 00
279.	Sanders' Pub. Co., advertising	46 00
280.	J. Gill, advertising Dane Co.	2 00
281.	Taylor & Tower, lumber	154 00
282.	Chris. Hanson, office building	2,981 48
283.	Geo. G. Cox, mileage	25 00
284.	John Edwards, returned stall rent	15 00
285.	Geo. Thayer, work	11 28
286.	Chas. Korn, work	13 10
287.	Frank Mergler, work	15 00
288.	J. Ellis, work	13 10
289.	Henry Schroeder, work	15 00
290.	E. H. Farrington, expenses	11 20
291.	Azro Williams, payment on dwelling	150 00
292.	John M. True, expenses and premium ribbons	5 75
293.	W. D. Hoard & Co., advertising	75 00

No.	To whom and for what.	Amount.
294.	G. A. Buckstaff, excess in stall rent	6 00
295.	Robert Phillip, wages, August	40 00
296.	R. B. Ogilvie, 20 gals. zenoleum	20 00
297.	Arthur Bergh, help in office	8 00
298.	John M. True, paid for type writing	5 00
299.	Wm. Buckingham, work	34 20
300.	Peter Hubert, work	31 75
301.	John Breen, work	34 80
302.	S. M. Tibbetts, work	44 10
303.	Herman Franke, work	28 50
304.	Peter Mergler, work	37 28
305.	Frank Leonard, work	21 00
306.	S. D. Hubbard, expenses	37 46
307.	Herman Klom, work	22 95
308.	Ben Piffer, work	22 95
309.	J. O. Cheney, work	24 30
310.	Geo. Killips, work	27 00
311.	Guy Keefer, work	27 00
312.	Arthur Ott, work	9 00
313.	M. Leach, work	7 00
314.	Rex McCreary, work	4 50
315.	J. Ellis, work	9 60
316.	S. T. Skinner, work	4 50
317.	F. W. Joches, work	18 65
318.	Henry Knaab, work	21 85
319.	William Cox, work	20 70
320.	Joe Buck, work	48 30
321.	J. D. Rouse, work	23 25
322.	C. H. Noble, work	18 00
323.	John Neese, work	20 25
324.	Geo. Schlichter, work	19 65
325.	Ed. Barnekow, work	13 80
326.	E. Rodecker, work	38 20
327.	J. Sholtie, work	23 25
328.	E. A. Terry, work	16 60
329.	R. Wright, work	5 70
330.	Herb Skinner, work	21 60
331.	Anton Grimmer, work	7 50
332.	Ed. Miller, work	6 00
333.	John Miller, work	18 35
334.	Julius Wolf, work	77 40
335.	Azro Williams, payment on dwelling	100 00
336.	E. Verbrick, assistance Privilege Dept.	4 00
337.	William Plaehm, judging pigeons	15 00
338.	L. A. Jansen, sundry bills	9 93
339.	John Mittelstadt, judging butter	25 00
340.	Wm. Madden, work	7 85
341.	Monroe Band, music	165 00
342.	Robt. Joos, judging pigeons	35 00
343.	E. Verbrick, assistance Privilege Dept.	7 00
344.	Dan. Hulingburg, work	7 85
345.	E. L. Alderhold, judging cheese	20 00
346.	S. Butterfield, judging poultry	50 00
347.	Ray Allen, assistance in Dept. B.	19 25
348.	E. H. White, part payment of prem. Dept. B.	51 00
349.	H. B. Drake, judging in Dept. F.	35 00
350.	William Toole, judging in Dept. H.	15 00
351.	F. F. McConnell, judging in Dept. B.	15 00
352.	Sheboygan Band, music	188 00

No.	To whom and for what.	Amount.
353.	Willis Wills, speed winnings	25 00
354.	Mrs. L. Esser, judging Dept. L.....	15 00
355.	W. J. Lee, work in Dept. E.....	6 00
356.	Miss Ella Leonard, expense of dining hall	295 80
357.	Frank Enders, judging Dept. K.....	15 00
358.	A. L. Thomas, speed entry money returned	55 00
359.	O. H. Swigart, payment on premiums, Dept. B.....	36 00
360.	W. L. Houser, superintendent Dept. A.....	64 00
361.	H. A. Briggs, superintendent Dept. C.....	51 00
362.	H. D. Murdoch, pay of ticket sellers	242 00
363.	John M. True, pay of clerks	422 50
364.	J. L. McMurray, payment on premiums, Dept. D.....	75 00
365.	Geo. I. Elchen, payment on premiums, Dept. D.....	60 00
366.	N. B. Cutler, payment on premiums, Dept. D.....	42 00
367.	Geo. Allen, payment on premiums, Dept. C.....	70 00
368.	R. J. Stone, payment on premiums, Dept. C.....	13 00
369.	A. A. Fuller, payment on premiums, Dept. B.....	35 00
370.	L. L. Olds, judging in Dept. F.....	20 00
371.	E. G. Roberts, payment on premiums, Dept. E.....	150 00
372.	F. H. Patten, payment on premiums, Dept. C.....	5 00
373.	G. W. Trone, payment on premiums, Dept. D.....	69 00
374.	J. R. Peak & Son, payment on premiums, Dept. A.....	162 00
375.	H. N. Thompson, payment on premiums, Dept. B.....	60 00
376.	J. L. Sanderson & Son, payment on premiums, Dept. B.....	18 00
377.	James Watters, payment on premiums, Dept. B.....	12 00
378.	Thos. Teal & Son, payment on premiums, Dept. D.....	50 00
379.	W. A. McHenry, payment on premiums, Dept. B.....	72 00
380.	A. C. Binnie, payment on premiums, Dept. B.....	60 00
381.	Cambridge Band, music	85 00
382.	Chamberlin & Rosa, payment on premiums, Dept. B.....	25 00
383.	L. A. Jansen, expenses of Dept. M.....	95 00
384.	H. Hanson, payment on premiums, Depts. C & D.....	14 00
385.	S. A. Converse, payment on premiums, Dept. B.....	60 00
386.	W. W. Vaughn, payment on premiums, Dept. D.....	27 00
387.	A. Dutton & Son, payment on premiums, Dept. B.....	63 00
388.	Arthur Stericker, payment on premiums, Dept. A.....	60 00
389.	E. A. Smith & Son, payment on premiums, Dept. B.....	58 00
390.	W. B. Barney & Co., payment on premiums, Dept. B.....	80 00
391.	Geo. Wylie, expenses, Dept. D.....	68 00
392.	David Wedgwood, payment of gate keepers	360 00
393.	A. Two & Son, payment on premiums	20 00
394.	Ida Hagen, judging in Dept. F.....	15 00
395.	Wm. Nichols, payment on premiums	30 00
396.	Geo. Harding & Son, payment on premiums	100 00
397.	F. A. Huebner, expenses, Dept. F.....	74 41
398.	F. A. Huebner, 15 bushels potatoes.....	13 50
399.	J. A. Shields, payment on premiums, Dept. A.....	30 00
400.	T. H. Inman, payment on premiums, Dept. B.....	77 00
401.	G. A. Andrae, payment on premiums, Dept. F, Price Co.....	75 00
402.	H. L. Sweet, payment on premiums, Dept. D.....	25 00
403.	E. F. Henderson, sign writing	8 60
404.	R. J. Coe, expenses, Dept. H.....	57 50
405.	J. E. Seaver, freight on engine, &c.....	25 00
406.	E. W. Ripley, payment on premiums, Dept. F, Kenosha Co.....	50 00
407.	H. W. Ayres, payment on premiums	51 00
408.	Belmont Sisters, balloon acts	125 00
409.	Wm. E. Bickett, trapeze acts	400 00
410.	Herbert A. Robinson, speed money	30 00
411.	Oscar Ames, speed winnings	170 00

No.	To whom and for what.	Amount.
412.	Ben. S. Adams, work, Dept. H.	10 00
413.	A. L. Nickey, speed winnings	50 00
414.	J. D. Coleman, speed winnings	180 00
415.	J. L. Sears, speed winnings	216 00
416.	M. J. Sullivan, speed winnings	270 00
417.	A. A. Montbriand, speed winnings	30 00
418.	F. B. Cheesebro, speed winnings	120 00
419.	W. S. Dixon, payment on premiums, Dept. C.	12 00
420.	Dick McMahon, speed winnings	170 00
421.	R. G. Owen, speed winnings	90 00
422.	J. W. Swansbro, speed winnings	30 60
423.	D. J. Fenelon, speed winnings	55 00
424.	Geo. C. Loomis, speed winnings	270 00
425.	H. Williams, speed winnings	40 00
426.	R. H. Odell, advertising in Milwaukee papers	662 00
427.	R. H. Odell, services as press agent	166 00
428.	Geo. McKerrow, services as purchasing agent	25 00
429.	Geo. McKerrow, expenses	26 40
430.	Charles Linse, Supt. Dept. B.	55 50
431.	John M. True, fair expenses	15 50
432.	M. P. & S. E. Lantz, premiums, Dept. B.	15 60
433.	Geo. G. Cox, horses for marshals, and help paid.	60 00
434.	O. L. Glazier, labor and watching	24 50
435.	G. W. Hackley, speed winnings	60 00
436.	John W. Thomas, Supt. Dept. G.	58 60
437.	F. Tanner, work in Dept. G.	12 00
438.	Josh. Hall, speed winnings	100 00
439.	W. P. Gorsline, speed winnings	280 00
440.	Henry Hanson, speed winnings	230 60
441.	C. G. Wilcox, Supt. Dept. E.	45 00
442.	Gust Pratsch, police	10 00
443.	Ed. Walsh, police	10 00
444.	Jos. Minnich, police	10 00
445.	P. Roche, work in Dept. E.	4 00
446.	E. B. Osborn, watch, Dept. H.	11 00
447.	P. Roche, police	8 00
448.	C. Butler, police	8 60
449.	J. C. Grof, police	8 00
450.	Anton Gimmie, police	8 00
451.	Ed. Lininger, police	8 00
452.	M. Mucelston, police	8 00
453.	G. V. Roach, police	8 00
454.	Reed Shepard, police	8 00
455.	John Oslock, police	5 00
456.	John Leininger, police	2 00
457.	H. G. Meigs, police	2 00
458.	John Hoye, watchman	14 60
459.	William Cox, night watchman	14 00
460.	Herb Skinner, night watch	12 00
461.	J. E. Seaver, balance of expenses, Dept. J.	165 19
462.	Joseph Clauder, music	85 00
463.	A. E. Knowlton, carrying mail	24 00
464.	J. E. Keane, agent, freight and express.	24 87
465.	A. Le Feber, coal and shavings	43 96
466.	D. Wedgwood, Supt. of Gates	40 00
467.	F. W. Harland, expenses, Speed Dept.	137 50
468.	F. W. Harland, expenses	112 00
469.	John Brehm, grading half mile track	2,140 60
470.	C. E. Matteson, assistance Dept. E.	24 50

No.	To whom and for what.	Amount.
471.	Miss M. E. Chadwick, paid for help Dept. L.....	1 00
472.	Fred Stratton, work in Depts. K and L.....	11 00
473.	M. E. Chadwick, expenses, Dept. L.....	88 75
474.	Gus. Neeber, handling flags	4 00
475.	Jerome Travis, speed winnings	120 00
476.	S. D. Hubbard, paid for assistance Privilege Dept.....	14 00
477.	Math. Michels, assistance Dept. G.....	21 00
478.	H. A. Chase, postmaster	22 00
479.	Miss A. Palmer, telephone messages	5 96
480.	S. D. Hubbard, Supt. Privileges	65 00
481.	T. J. Dunbar, speed winnings	135 00
482.	Geo. Schley, speed winnings	30 00
483.	C. H. Cox, police	12 00
484.	W. H. Webb, payment on premiums, Dept. F, Douglas Co.....	40 00
485.	E. A. Hartman, bal. for bill posting	849 17
486.	Geo. F. Chase, refund from ticket sales	8 25
487.	J. H. Pilgrim, premiums, Dept. F.....	55 00
488.	John Grape, premiums, Dept. F.....	50 00
489.	H. P. West, premiums, Dept. F.....	55 00
490.	W. F. Pilgrim, premiums, Dept. F.....	26 00
491.	John Haus, premiums, Dept. F.....	29 00
492.	Samuel Smith, premiums, Dept. F.....	16 00
493.	West & Stiles, premiums, Dept. F.....	14 00
494.	M. F. Madden, premiums, Dept. F.....	10 00
495.	Mrs. B. C. Ingersoll, premiums, Dept. F.....	64 00
496.	Casper Olson, premiums, Dept. F.....	65 00
497.	Chas. Pappenheimer, premiums, Dept. F.....	6 00
498.	D. Sheldon, premiums, Dept. F.....	2 00
499.	Kelly Bros., premiums, Dept. F.....	16 00
500.	Mrs. T. P. Leonard, premiums, Depts. F and L.....	11 00
501.	Viola Abert, premiums, Depts. F and L.....	15 00
502.	Mrs. L. Yanke, premiums, Depts. F and H.....	54 00
503.	Mrs. G. Good, premiums, Depts. K and L.....	16 00
504.	Mrs. Susie Abert, premiums, Depts. F and L.....	35 00
505.	Mrs. A. L. Tenney, premiums, Dept. F.....	3 00
506.	Mrs. Wm. Sweeney, premiums, Dept. F.....	3 00
507.	Ella Leonard, premiums, Dept. F.....	25 00
508.	E. W. Fisher, premiums, Dept. F.....	1 00
509.	Mrs. Theo. L. Newton, premiums, Depts. F and L.....	10 00
510.	Mrs. C. G. Porter, premiums, Dept. F.....	1 00
511.	M. I. Strong, premiums, Dept. L.....	2 00
512.	Mrs. A. Le Feber, premiums, Dept. F.....	3 00
513.	Mrs. Geo. B. Smith, premiums, Dept. F.....	15 00
514.	E. D. Ochsner, premiums, Dept. F.....	58 00
515.	J. J. Ochsner, premiums, Dept. F.....	24 00
516.	Mrs. R. Ramsey, premiums, Dept. F.....	15 00
517.	H. Pfeifer, premiums, Dept. K.....	56 00
518.	A. E. Becker, premiums, Dept. K.....	49 00
519.	Mrs. Anna E. Pierce, premiums, Dept. K.....	18 00
520.	Mrs. J. M. Chenoweth, premiums, Depts. K and L.....	60 50
521.	C. Sprinkman, premiums, Dept. K.....	20 00
522.	Miss Jessie Schley, premiums, Dept. K.....	20 00
523.	Miss A. W. Bankes, premiums, Dept. K.....	13 00
524.	Mrs. C. B. Stewart, premiums, Dept. K.....	9 00
525.	Mrs. W. W. Lloyd, premiums, Dept. K.....	27 00
526.	Mrs. O. Pratt, premiums, Dept. K.....	10 00
527.	A. C. H. Wainwright, premiums, Depts. K and L.....	15 00
528.	W. J. Aylward, premiums, Dept. K.....	25 00
529.	L. M. Churbuck, premiums, Dept. K.....	25 00

No.	To whom and for what.	Amount.
530.	Leila A. Dow, premiums, Dept. K.....	6 00
531.	Joe L. Frank, premiums, Dept. K.....	11 00
532.	Adeline B. Bellman, premiums, Dept. K.....	10 00
533.	Mrs. L. M. Buell, premiums, Depts. F and K.....	16 00
534.	Wanda Buetow, premiums, Dept. K.....	5 00
535.	Jos. Kallaus, premiums, Dept. K.....	27 00
536.	Mrs. H. G. Winther, premiums, Dept. K.....	9 00
537.	Miss Louise Morrow, premiums, Dept. K.....	24 00
538.	Mrs. A. Kingsbury, premiums, Depts. K and L.....	17 00
539.	Mrs. A. E. Rich, premiums, Dept. K.....	12 00
540.	Mrs. J. H. Elward, premiums, Dept. L.....	4 00
541.	Mrs. A. C. Tuthill, premiums, Depts. K & L.....	33 00
542.	Mrs. Frank Moore, premiums, Depts. K & L.....	13 00
543.	Mrs. Jno. Nicholson, premiums, Dept. L.....	23 00
544.	Caroline Schmasow, premiums, Depts. K & L.....	17 60
545.	Mrs. C. A. Gorder, premiums, Dept. L.....	2 00
546.	Margaret Schuckardt, premiums, Dept. L.....	6 00
547.	Miss Lena Hilker, premiums, Dept. L.....	3 00
548.	Mrs. W. S. Cole, premiums, Dept. L.....	2 00
549.	Mrs. Hy. Fischer, premiums, Dept. L.....	13 00
550.	Mrs. I. J. Knapp, premiums, Dept. L.....	13 00
551.	Clara L. Kellogg, premiums, Dept. L.....	23 00
552.	Mary C. Nicholson, premiums, Dept. L.....	8 00
553.	Mrs. H. M. Bell, premiums, Dept. L.....	9 00
554.	Mrs. J. M. Shealey, premiums, Dept. L.....	4 60
555.	Mrs. Otto Stoffel, premiums, Dept. L.....	1 00
556.	Mrs. A. F. Warden, premiums, Dept. L.....	1 00
557.	Miss Carrie Baerwald, premiums, Dept. L.....	14 00
558.	Mary P. Clapp, premiums, Depts. H and L.....	19 00
559.	Mrs. G. E. Talbert, premiums, Dept. L.....	8 00
560.	Mrs. W. P. Wegner, premiums, Dept. L.....	7 00
561.	Mrs. W. Fairweather, premiums, Dept. L.....	2 00
562.	Mrs. Alfred Bloor, premiums, Dept. L.....	1 00
563.	Mrs. A. Gulick, premiums, Dept. L.....	4 00
564.	Clara M. Moyer, premiums, Dept. L.....	4 60
565.	Lucy Cavell, premiums, Dept. L.....	10 00
566.	Mrs. Mary E. Price, premiums, Dept. L.....	5 00
567.	Mrs. A. W. Johnson, premiums, Dept. L.....	5 00
568.	Miss Ida J. Hagen, premiums, Dept. L.....	5 00
569.	Magdalena Goetz, premiums, Dept. L.....	3 00
570.	Mrs. Johanna Bulmaester, premiums, Dept. L.....	2 00
571.	Anna Biegler, premiums, Dept. L.....	5 00
572.	Elsie Haus, premiums, Dept. L.....	3 00
573.	Blossom Wilcox, premiums, Dept. L.....	6 00
574.	Oscar Olson, premiums, Dept. L.....	6 00
575.	Mil. Edel-Roller Assoc., premiums, Dept. L.....	12 00
576.	H. A. Briggs, bal. premiums, Dept. A.....	80 00
577.	Pabst Stock Farm, premiums, Dept. A.....	443 00
578.	Alex. Galbraith, premiums, Dept. A.....	102 00
579.	McLay Bros., premiums, Dept. A.....	226 00
580.	Aug. Uihlein, premiums, Dept. A.....	119 00
581.	J. R. Peak & Son, bal. premiums, Dept. A.....	93 00
582.	Progress Stud., premiums, Dept. A.....	39 00
583.	A. Stericker, bal. premiums, Dept. A.....	50 00
584.	Robert Hardy, premiums, Dept. A.....	15 00
585.	C. C. Harris, premiums, Dept. A.....	45 00
586.	J. C. Land, premiums, Dept. A.....	15 00
587.	Geo. Brew, premiums, Dept. A.....	27 00
588.	A. R. Ives, premiums, Dept. A.....	104 00

No.	To whom and for what.	Amount.
589.	W. J. Breese, premiums, Dept. A.....	146 00
590.	Void .....	.....
591.	Carroll Bros., premiums, Dept. A.....	49 00
592.	Geo. Harding & Son, premiums, Depts. A & C.....	252 00
593.	E. E. Potter, premiums, Dept. A.....	15 00
594.	T. J. Fleming, premiums, Dept. A.....	10 00
595.	William Brown, premiums, Dept. A.....	24 00
596.	John Sleep, premiums, Dept. A.....	65 00
597.	Geo. McEerrow, premiums, Depts. A and C.....	250 00
598.	Chas. T. Hill, premiums, Depts. A and D.....	42 00
599.	A. E. Wardell, premiums, Dept. A.....	20 00
600.	J. A. Shields, bal. premiums, Dept. A.....	35 00
601.	J. H. Williams, premium, Dept. A.....	34 00
602.	A. H. Weinbrenner, premium, Dept. A.....	5 00
603.	F. R. Austerman, premium, Dept. A.....	14 00
604.	A. A. Fuller, bal. premiums, Depts. A and B.....	25 00
605.	Geo. Harding & Son, bal. premiums, Dept. B.....	140 00
606.	C. F. Rice, premiums, Dept. B.....	111 00
607.	E. W. Bowen, premiums, Dept. B.....	64 00
608.	Chamberlin & Rosa, bal. premiums, Dept. B.....	20 00
609.	James Watters, bal. premiums, Dept. B.....	11 00
610.	Divan Bros., premiums, Dept. B.....	5 00
611.	J. R. Peak & Son, premiums, Dept. B.....	12 00
612.	H. N. Thompson, bal. premiums, Dept. B.....	55 00
613.	A. C. Binnie, bal. premiums, Dept. B.....	55 00
614.	W. A. McHenry, bal. premiums, Dept. B.....	70 00
615.	E. H. White, bal. premiums, Dept. B.....	50 00
616.	O. H. Swigart, bal. premiums, Dept. B.....	35 00
617.	A. Dutton & Son, bal. premiums, Dept. B.....	60 00
618.	S. A. Converse, bal. premiums, Dept. B.....	56 00
619.	Hoffman Bros., premiums, Dept. B.....	114 00
620.	T. H. Inman, bal. premiums, Dept. B.....	72 00
621.	H. W. Ayres, bal. premiums, Dept. B.....	48 00
622.	Rust Bros., premiums, Dept. B.....	75 00
623.	Karlen Co., premiums, Dept. B.....	30 00
624.	W. B. Barney & Co., bal. premiums, Dept. B.....	59 00
625.	A. Two & Son, bal. premiums, Dept. B.....	18 00
626.	Chas. Solvesen, premiums, Dept. B.....	95 00
627.	Geo. C. Hill & Son, premiums, Dept. B.....	116 00
628.	J. H. Beirne, premiums, Dept. B.....	87 00
629.	F. Rietbrock, premiums, Dept. B.....	22 00
630.	W. Nicholls, bal. premiums, Dept. B.....	25 00
631.	E. A. Smith & Son, bal. premiums, Dept. B.....	40 00
632.	Case & Walker, premiums, Dept. B.....	166 00
633.	C. C. Beebe, premiums, Dept. B.....	8 00
634.	G. A. Buckstaff, premiums, Dept. B.....	10 00
635.	Void .....	.....
636.	F. W. Joches, work	16 95
637.	Henry Knaab, work	19 80
638.	Joe Buck, work	45 50
639.	Jno. Neese, work	17 50
640.	Geo. Schlichter, work	17 70
641.	Ed. Barnekow, work	13 50
642.	E. Rodecker, work	38 50
643.	J. Scholte, work	22 75
644.	Herb Skinner, work	22 35
645.	J. F. Piffer, work	22 00
646.	Peter Buck, work	10 15
647.	E. J. Terry, work	9 00

No.	To whom and for what.	Amount.
648.	Anton Gimmer, work	14 00
649.	Ed. Miller, work	8 75
650.	John Miller, work	17 50
651.	M. Leach, work	10 50
652.	Alex. McCurry, work	6 00
653.	C. Miller, work	6 00
654.	Peter Fiege, work	7 60
655.	J. W. Brisbord, work	8 40
656.	Wm. Hulburt, work	9 55
657.	J. Ellis, work	10 50
658.	Wm. Piper, work	5 00
659.	A. J. Dallman, work	8 75
660.	C. Korn, work	4 50
661.	Geo. Baer, work	2 25
662.	Wm. Cox, work	14 75
663.	J. De Groat, work	14 00
664.	A. Wilsey, work	14 70
665.	Mrs. F. Skinner, work	31 50
666.	Wm. Buckingham, work	31 50
667.	J. Breen, work	29 80
668.	Peter Herbert, work	25 50
669.	Edna Phillip, use of pony	10 00
670.	J. D. Queech, work	10 50
671.	O. G. Cheney, work	26 30
672.	S. M. Tibbetts, work	23 45
673.	Herman Franke, work	18 00
674.	Peter Mergler, work	18 00
675.	H. Klamm, work	9 57
676.	Frank Leonard, work	10 50
677.	Ben. Piffer, work	10 50
678.	Geo. Killips, work	10 00
679.	Guy Keefer, work	8 40
680.	Void .....	....
681.	Geo. Allen, bal. premiums, Dept. C.....	59 00
682.	W. O. Fritchman, premiums, Dept. C.....	46 00
683.	W. S. Dixon, bal. premiums, Dept. C.....	12 00
684.	R. J. Stone, bal. premiums, Dept. C.....	10 00
685.	Robert Taylor, premiums, Dept. C.....	144 00
686.	F. H. Patten, bal. premiums, Dept. C.....	27 00
687.	Crodian & Gardner, premiums, Dept. C.....	130 00
688.	H. E. Moore, premiums, Dept. C.....	131 00
689.	A. E. Green, premiums, Dept. C.....	61 00
690.	W. H. Edwards, premiums, Dept. C.....	36 00
691.	E. W. Monnier, premiums, Dept. D.....	54 00
692.	Herbert L. Sweet, bal. premiums, Dept. D.....	11 00
693.	Jacob Kreuschner, premiums, Dept. D.....	15 00
694.	M. W. Reed, premiums, Dept. D.....	144 00
695.	J. H. Kivlin, premiums, Dept. D.....	9 00
696.	Joseph Gordon, premiums, Dept. D.....	49 00
697.	A. Selle, premiums, Dept. D.....	5 00
698.	Thos. Teal & Son, bal. premiums, Dept. D.....	68 00
699.	H. P. West, premiums, Dept. D.....	282 00
700.	H. Hansen, bal. premiums, Dept. D.....	14 00
701.	Geo. W. Trone & Sons, bal. premiums, Dept. D.....	60 00
702.	W. W. Vaughn, bal. premiums, Dept. D.....	25 00
703.	M. E. Newburn, premiums, Dept. D.....	170 00
704.	N. B. Cutler, bal. premiums, Dept. D.....	40 00
705.	J. L. McMurray, bal. premiums, Dept. D.....	72 00
706.	E. G. Roberts, bal. premiums, Dept. E.....	266 00

No.	To whom and for what.	Amount.
707.	S. S. Rich, premiums, Dept. E.....	16 50
708.	Daggett Bros., premiums, Dept. E.....	6 00
709.	M. L. Smith, premiums, Dept. E.....	5 00
710.	Gordon Harper, premiums, Dept. E.....	9 00
711.	W. F. Grimshaw, premiums, Dept. E.....	2 50
712.	Geo. Cook, premiums, Dept. E.....	22 00
713.	Otto Kuehn, premiums, Dept. E.....	9 50
714.	C. H. Kuehn, premiums, Dept. E.....	8 50
715.	E. R. Wehr, premiums, Dept. E.....	4 50
716.	Geo. Kreuscher & Co., premiums, Dept. E.....	37 50
717.	Kasten Bros., premiums, Dept. E.....	6 50
718.	Arthur Ott, premiums, Dept. E.....	2 50
719.	F. R. Austerman, premiums, Dept. E.....	3 00
720.	Edgewood Poultry Yards, premiums, Dept. E.....	3 00
721.	S. J. Filer, premiums, Dept. E.....	3 00
722.	Stewart & Pasbrig, premiums, Dept. E.....	15 00
723.	John C. Schulz, premiums, Dept. E.....	10 00
724.	J. R. Love, premiums, Dept. E.....	12 00
725.	Journett Bros., premiums, Dept. E.....	4 00
726.	J. E. Donovan, premiums, Dept. E.....	4 00
727.	C. F. Eckstein, premiums, Dept. E.....	13 00
728.	Wm. Klose, premiums, Dept. E.....	3 00
729.	M. F. Madden, premiums, Dept. E.....	1 00
730.	Frank Jirachek, premiums, Dept. E.....	4 00
731.	L. P. Gillon, premiums, Dept. E.....	3 60
732.	Greenwald Bros., premiums, Dept. E.....	4 50
733.	Chas. Pappenheimer, premiums, Dept. E.....	11 50
734.	Hasselkus & Heberlein, premiums, Dept. E.....	1 00
735.	Henry Gieratz, premiums, Dept. E.....	9 50
736.	F. C. Rader, premiums, Dept. E.....	3 00
737.	Ed. A. Swender, premiums, Dept. E.....	7 00
738.	H. D. Tower, premiums, Dept. E.....	5 00
739.	Waukesha Belgian Hare Co., premiums, Dept. E.....	15 00
740.	D. P. Ritchey, expense of horse show	1,874 05
741.	Mrs. C. A. Scott, Supt. Dept. K and asst. in office.....	102 50
742.	A. J. Phillips, premiums, Dept. H.....	79 00
743.	A. D. Barnes, premiums, Dept. H.....	59 50
744.	Wm. Fox, premiums, Dept. H.....	68 50
745.	Mrs. Robt. Ramsey, premiums, Dept. H.....	60 00
746.	J. S. Palmer, premiums, Dept. H.....	56 00
747.	Wm. Ablard, premiums, Dept. H.....	16 50
748.	Kelly Bros., premiums, Dept. H.....	11 00
749.	Geo. H. Jeffrey, premiums, Dept. H.....	30 50
750.	Mrs. B. C. Ingersoll, premiums, Dept. H.....	8 00
751.	Henry Schuster, premiums, Dept. H.....	31 50
752.	Jno. M. Dunlop, premiums, Dept. H.....	77 00
753.	John Grape, premiums, Dept. H.....	34 00
754.	S. D. Ringrose, premiums, Dept. H.....	25 00
755.	Mrs. D. W. Barnes, premiums, Dept. H.....	26 50
756.	Mary A. Clapp, premiums, Dept. H.....	7 50
757.	H. H. Rand, premiums, Dept. H.....	50
758.	Marathon Co., premiums, Dept. F.....	125 00
759.	Price Co., bal. premiums, Dept. F.....	45 00
760.	Douglas Co., bal. premiums, Dept. F.....	69 00
761.	Taylor Co., premiums, Dept. F.....	105 00
762.	Waukesha Co., premiums, Dept. F.....	102 00
763.	Barron Co., premiums, Dept. F.....	98 00
764.	Walworth Co., premiums, Dept. F.....	92 00
765.	Ashland Co., premiums, Dept. F.....	88 00

No.	To whom and for what.	Amount.
766.	Oconto Co., premiums, Dept. F.....	82 00
767.	Kenosha Co., bal. premiums, Dept. F.....	27 00
768.	Wm. Mabee, premiums, Dept. G.....	2 45
769.	Hugh Nisbet, premiums, Dept. G.....	6 34
770.	W. Nisbet, premiums, Dept. G.....	1 16
771.	Chas. Rehm, premiums, Dept. G.....	1 16
772.	J. T. Rice, premiums, Dept. G.....	2 90
773.	Ida Robertsen, premiums, Dept. G.....	11 60
774.	Frank Straus, premiums, Dept. G.....	5 22
775.	E. Speiker, premiums, Dept. G.....	1 16
776.	E. J. Schubert, premiums, Dept. G.....	5 80
777.	Henry B. Stanž, premiums, Dept. G.....	27 11
778.	N. Simond & Co., premiums, Dept. G.....	6 65
779.	M. G. Thelen, premiums, Dept. G.....	5 22
780.	F. A. Viergutz, premiums, Dept. G.....	8 12
781.	L. T. Voigt, premiums, Dept. G.....	6 24
782.	John Vogt, premiums, Dept. G.....	14 65
783.	Joe Vogt, premiums, Dept. G.....	29 41
784.	P. W. Wallace, premiums, Dept. G.....	2 45
785.	Ed. Wunsch, premiums, Dept. G.....	18 01
786.	W. N. Waddell, premiums, Dept. G.....	4 64
787.	Chas. Westcott, premiums, Dept. G.....	8 84
788.	Orren A. Ward, premiums, Dept. G.....	2 10
789.	J. N. Wigginton, premiums, Dept. G.....	8 00
790.	H. W. Austin, premiums, Dept. G.....	4 64
791.	D. A. Anthony, premiums, Dept. G.....	5 25
792.	J. G. Aune, premiums, Dept. G.....	5 80
793.	Chas. Brinkman, premiums, Dept. G.....	15 00
794.	H. Bilgrien, premiums, Dept. G.....	7 88
795.	Thos. E. Bolchen, premiums, Dept. G.....	5 80
796.	Julius Berg, premiums, Dept. G.....	5 22
797.	Jacob Baehler, premiums, Dept. G.....	13 12
798.	J. F. Bachman, premiums, Dept. G.....	9 88
799.	E. Briggs, premiums, Dept. G.....	4 64
800.	Jno. Chalupnik, premiums, Dept. G.....	7 54
801.	C. B. Cornelius, premiums, Dept. G.....	15 28
802.	R. Conrad, premiums, Dept. G.....	12 03
803.	Jno. Cannon, premiums, Dept. G.....	7 35
804.	S. D. Cannon, premiums, Dept. G.....	7 00
805.	Thos. Hepworth-Dixon, premiums, Dept. G.....	9 42
806.	Otto Freund, premiums, Dept. G.....	5 51
807.	W. H. Freund, premiums, Dept. G.....	2 18
808.	Gentilly Dalry Assoc., premiums, Dept. G.....	8 12
908.	Fred W. Grover, premiums, Dept. G.....	5 22
810.	John Grootemout, premiums, Dept. G.....	4 64
811.	A. E. Helmer, premiums, Dept. G.....	5 62
812.	H. H. Huhn, premiums, Dept. G.....	1 74
813.	H. Hornick, premiums, Dept. G.....	1 74
814.	Geo. Hornick, premiums, Dept. G.....	8 12
815.	Howard Hoffman, premiums, Dept. G.....	5 80
816.	Thos. Johnson, premiums, Dept. G.....	5 80
817.	Jno. Jacquote, premiums, Dept. G.....	5 22
818.	Theo. Keller, premiums, Dept. G.....	5 80
819.	Otto A. Kielsmeier, premiums, Dept. G.....	6 89
820.	Edgar Lepley, premiums, Dept. G.....	1 98
821.	Cleveland Creamery Co., premiums, Dept. G.....	5 12
822.	Henry McKinney, premiums, Dept. G.....	5 22
823.	Jacob Marty, premiums, Dept. G.....	6 00
824.	Mrs. Otto Stoffel, premiums, Dept. L.....	6 50

No.	To whom and for what.	Amount.
825.	Wagner rBos., premiums, Dept. M.....	18 50
826.	Tony Pasbrig, premiums; Dept. M.....	14 00
827.	John Schardt, premiums, Dept. M.....	2 56
828.	Johnson & Schmidt, premiums, Dept. M.....	13 50
829.	W. M. Keipper, premiums, Dept. M.....	50
830.	F. B. F. Rhodes, premiums, Dept. M.....	2 00
831.	Albert Keipper, premiums, Dept. M.....	37 50
832.	H. Vanselow, premiums, Dept. M.....	35 00
833.	A. Fiebrantz, premiums, Dept. M.....	2 00
834.	W. A. Gibson, premiums, Dept. M.....	8 00
835.	Martin Grund, premiums, Dept. M.....	50
836.	Wm. Korb, premiums, Dept. M.....	20 00
837.	Herman Kreutchmeier, premiums, Dept. M.....	8 00
838.	John A. Koenig, premiums, Dept. M.....	7 00
839.	W. D. Harper, Jr., premiums, Dept. M.....	11 00
840.	J. W. Campbell, premiums, Dept. M.....	6 00
841.	R. B. Dobrogowski, premiums, Dept. M.....	21 00
842.	Tony Williamson, premiums, Dept. M.....	30 00
843.	T. B. McCauley, premiums, Dept. M.....	2 00
844.	John Micholski, premiums, Dept. M.....	1 00
845.	Dore & Crabb, premiums, Dept. M.....	4 00
846.	C. F. Chamberlin, premiums, Dept. M.....	11 00
847.	F. J. Chik, premiums, Dept. M.....	6 00
848.	L. A. Jansen, premiums, Dept. M.....	56 00
849.	B. Remmer, premiums, Dept. M.....	2 00
850.	H. C. Boers, premiums, Dept. M.....	12 00
851.	Frank Macho, premiums, Dept. M.....	5 00
852.	F. J. Tower, premiums, Dept. M.....	7 50
853.	C. Williamson, premiums, Dept. M.....	6 00
854.	Geo. Ewa d, premiums, Dept. M.....	95 00
855.	H. E. Aldrich, premiums, Dept. G.....	8 73
856.	W. Abbott, premiums, Dept. G.....	9 70
857.	R. L. Adams, premiums, Dept. G.....	1 75
858.	F. W. Ashmun, premiums, Dept. G.....	3 85
859.	F. P. Bower, premiums, Dept. G.....	1 40
860.	John E. Boettcher, premiums, Dept. G.....	4 20
861.	C. O. Black, premiums, Dept. G.....	4 00
862.	Dan Jleuer, premiums, Dept. G.....	4 20
863.	Fred Bolden, premiums, Dept. G.....	3 50
864.	Robt. M. Bussard, premiums, Dept. G.....	3 15
865.	R. I. Bjerregaard, premiums, Dept. G.....	1 40
866.	F. J. Biehn, premiums, Dept. G.....	3 15
867.	Burwood Stock Farm, premiums, Dept. G.....	21 67
868.	Jos. Last, premiums, Dept. G.....	35
869.	H. Bast, premiums, Dept. G.....	4 10
870.	C. J. Chapin, premiums, Dept. G.....	2 00
871.	Mrs. E. J. Czamanske, premiums, Dept. G.....	8 24
872.	C. H. Christianson, premiums, Dept. G.....	3 85
873.	W. H. Cockerel, premiums, Dept. G.....	2 80
874.	M. D. Cunningham, premiums, Dept. G.....	5 82
875.	Anton Kohl, premiums, Dept. G.....	70
876.	Mrs. F. W. Curtis, premiums, Dept. G.....	7 46
877.	Howard Coulson, premiums, Dept. G.....	2 10
878.	W. H. Caflich, premiums, Dept. G.....	4 95
879.	T. Cornelienso, premiums, Dept. G.....	4 20
880.	Crystal Creamery Co., premiums, Dept. G.....	3 15
881.	Alan Carswell, premiums, Dept. G.....	3 50
882.	A. L. Covill, premiums, Dept. G.....	5 47
883.	F. M. Collins, premiums, Dept. G.....	5 60

No.	To whom and for what.	Amount.
884.	S. J. Dufner, premiums, Dept. G.....	3 85
885.	J. R. Driscoll, premiums, Dept. G.....	2 20
886.	Ole Esker, premiums, Dept. G.....	16 65
887.	Albert Erickson, premiums, Dept. G.....	3 15
888.	Magnus Fortun, premiums, Dept. G.....	2 42
889.	E. W. Fisher, premiums, Dept. G.....	7 94
890.	A. E. Faast, premiums, Dept. G.....	1 75
891.	J. H. Grady, premiums, Dept. G.....	3 15
892.	D. J. Gibson, premiums, Dept. G.....	1 40
893.	L. W. Genske, premiums, Dept. G.....	3 15
894.	A. S. Grenife, premiums, Dept. G.....	2 80
895.	H. Hermanson, premiums, Dept. G.....	7 42
896.	G. H. Holmes, premiums, Dept. G.....	2 80
897.	E. L. Hovey, premiums, Dept. G.....	3 50
898.	W. J. Hyne, premiums, Dept. G.....	7 76
899.	Ulrich Huber, premiums, Dept. G.....	6 79
900.	A. R. Holcomb, premiums, Dept. G.....	1 75
901.	Jackson Butter & Cheese Co., premiums, Dept. G.....	1 75
902.	W. Judevine, premiums, Dept. G.....	4 20
903.	J. A. Klokker, premiums, Dept. G.....	1 75
904.	M. G. Koepsell, premiums, Dept. G.....	2 80
905.	Otto ... Kielsmeier, premiums, Dept. G.....	5 33
906.	C. Kates, premiums, Dept. G.....	5 60
907.	T. M. Kimball, premiums, Dept. G.....	3 54
908.	F. H. Kelling, premiums, Dept. G.....	4 90
909.	M. J. Lathrop, premiums, Dept. G.....	4 20
910.	H. H. Leach, premiums, Dept. G.....	12 42
911.	H. C. Larson, premiums, Dept. G.....	4 20
912.	Mrs. A. W. Lehman, premiums, Dept. G.....	4 85
913.	M. Mortensen, premiums, Dept. G.....	3 15
914.	F. E. McCormick, premiums, Dept. G.....	6 30
915.	E. B. Melendy, premiums, Dept. G.....	5 48
916.	G. E. Mansfield Co., premiums, Dept. G.....	4 20
917.	H. A. Millus, premiums, Co. G.....	5 60
918.	C. F. Meyer, premiums, Dept. G.....	1 40
919.	Jas. G. Moore, premiums, Dept. G.....	4 20
920.	C. H. Masche, premiums, Dept. G.....	2 10
921.	A. Otterson, premiums, Dept. G.....	79
922.	Pewaukee Creamery Co., premiums, Dept. G.....	4 42
923.	E. A. Paddock, premiums, Dept. G.....	2 20
924.	J. W. Koepsell, premiums, Dept. G.....	5 60
925.	G. L. Ross, premiums, Dept. G.....	14 21
926.	E. W. Ripley, premiums, Dept. G.....	2 80
927.	C. F. Ruedebusch, premiums, Dept. G.....	12 74
928.	Mrs. Wm. Sweeney, premiums, Dept. G.....	9 86
929.	A. C. Steinhauer, premiums, Dept. G.....	3 15
930.	Wm. Stoneman, premiums, Dept. G.....	2 45
931.	Silver Springs Creamery Co., premiums, Dept. G.....	4 20
932.	D. Sheldon, premiums, Dept. G.....	3 01
933.	S. S. Sorrenson, premiums, Dept. G.....	1 75
934.	Ernst Sanzelius, premiums, Dept. G.....	3 15
935.	Mrs. A. P. Stafford, premiums, Dept. G.....	6 30
936.	A. D. Smith, premiums, Dept. G.....	3 85
937.	A. F. Strebe, premiums, Dept. G.....	3 15
938.	Clay Tyler, premiums, Dept. G.....	4 60
939.	Mrs. A. L. Tenney, premiums, Dept. G.....	20 77
940.	Gus. Trager, premiums, Dept. G.....	3 50

No.	To whom and for what.	Amount.
941.	W. A. Voigt, premiums, Dept. G.....	3 50
942.	M. L. Van Drever, premiums, Dept. G.....	3 50
943.	W. M. Van Liere, premiums, Dept. G.....	3 50
944.	Jas. Van Dusen, premiums, Dept. G.....	5 11
945.	L. O. Wahler, premiums, Dept. G.....	2 45
946.	Wm. E. Wright, premiums, Dept. G.....	7 76
947.	J. F. Weber, premiums, Dept. G.....	3 15
948.	Fred Wuethrich, premiums, Dept. G.....	10 56
949.	S. C. Wollensak, premiums, Dept. G.....	3 50
950.	Louis Woelffer, premiums, Dept. G.....	1 75
951.	West & Stiles, premiums, Dept. G.....	7 76
952.	W. W. Wigginton, premiums, Dept. G.....	3 50
953.	Jno. Wunsch, premiums, Dept. G.....	5 60
954.	J. C. Winn, premiums, Dept. G.....	4 20
955.	W. R. Wigginton, premiums, Dept. G.....	2 97
956.	F. F. Zimmerman, premiums, Dept. G.....	2 45
957.	Cleveland Creamery Co., premiums, Dept. G.....	2 80
958.	G. E. Jordan, premiums, Dept. G.....	4 60
959.	Void	
960.	Geo. G. Cox, bills paid	19 88
961.	Gimbel Bros., merchandise	4 10
962.	G. A. Butter, sash and doors	159 00
963.	Wauwatosa Stone Co., stone	5 12
964.	F. W. Schneck & Co., furniture	484 85
965.	A. Le Feber, feed	43 06
966.	Western Paper Co., merchandise	4 62
967.	Mil. Elec. R. R. & Light Co., wiring office	217 50
968.	Wis. Iron & Wire Works, seats	350 00
969.	Menomonee Falls-Lannon Stone Co., crushed rock	506 66
970.	Hoffman & Billings, pipes, &c.....	234 34
971.	Wisconsin Farmer, advertising	10 00
972.	Wisconsin Agriculturist, advertising	150 00
973.	Chicago Produce, advertising	10 00
974.	Michigan Farmer, advertising	19 95
975.	Wauwatosa Independent, advertising	6 60
976.	Jas. E. Patton Co., paints, etc.	363 74
977.	O. L. Packard Mach. Co., shafting, etc.	71 15
978.	J. Pritzlaff Hardware Co., hardware	5 50
979.	C. Hennecke Co., pigeon cases	13 70
980.	Jos. Sterzinger, mason work	159 00
981.	J. R. Fleming, livery	6 00
982.	Hall Steel Tank Co., tanks	23 00
983.	W. L. Carlyle, judging Dept. A.....	40 00
984.	J. A. Countryman, judging swine	30 70
985.	N. E. France, judging in Dept. F.....	10 00
986.	Cream City Ball-Posting Co., advertising in Milwaukee.....	202 12
987.	E. A. Hartman, extra work as clerk	50 00
988.	W. M. Powrie, survey of track	94 00
989.	L. E. Scott, assistant marshal	12 00
990.	John S. Eastman, assistant marshal	17 50
991.	E. L. Hubbard, assistant marshal	17 50
992.	W. H. Applebee, assistant marshal	17 50
993.	D. E. Jacobs, assistant marshal	17 50
994.	D. Bradfute, returned stall rent	12 00
995.	Alfred von Gotshausen, returned gateage	1 50
996.	Clarence Wedge, judging Dept. H.....	38 75
997.	Geo. Brown, work	28 70
998.	John M. True, salary and expense allowance, Sept.....	125 00
999.	Dora Weber, assistance in office	28 25

No.	To whom and for what.	Amount.
1000.	J. J. Ochsner, additional prems. Dept. F.....	2 00
1001.	Herbert L. Sweet, additional prems. Dept. F.....	20 00
1002.	M. C. Bergh, expenses at fair	22 04
1003.	J. O. Davidson, expenses at fair	18 34
1004.	R. J. Coe, card holders	8 55
1005.	McLay Bros., additional prems. Dept. A.....	1 00
1006.	H. G. Riess, rent time announcer	6 82
1007.	T. M. E. R. & L. Co., light at office	10 18
1008.	W. J. Fraser, judging in Dept. B.....	41 56
1009.	P. R. Hannifin, merchandise	35 56
1010.	B. F. Cable, advertising Waukesha Co.	11 85
1011.	A. E. Green, bal. prems. Dept. C.....	12 00
1012.	W. B. Barney & Co., bal. prems. Dept. B.....	10 00
1013.	A. A. Fuller, bal. prems. Dept. B.....	5 00
1014.	C. Williamson, bal. prems. Dept. M.....	1 00
1015.	Chas. Fischer, rent house for Phillipp.....	22 80
1016.	Gallagher Tent & Awning Co., flags and rope	39 20
1017.	Sussex Band, music	50 00
1018.	W. H. Edwards, bal. prems. Dept. C.....	18 00
1019.	T. H. Inman, bal. prems. Dept. B.....	8 00
1020.	H. N. Thompson, bal. prems. Dept. B.....	8 00
1021.	Geo. Ewald, bal. prems. Dept. M.....	5 00
1022.	Dore & Crabb, bal. prems. Dept. M.....	4 00
1023.	Otto L. Kuehn, bal. prems. Dept. M.....	1 00
1024.	H. Vanselow, bal. prems. Dept. M.....	1 00
1025.	Geo. G. Cox, salary Supt. of grounds	100 00
1026.	Robert Phillip, wages, Sept.	40 00
1027.	C. F. Curtiss, judging in Dept. B.....	100 00
1028.	H. S. Tipple, nails, hardware	156 24
1029.	Taylor & Tower, lumber	1,480 92
1020.	Taylor & Tower, lumber furnished Williams	53 36
1031.	J. Sterzinger, mason work for Williams	265 00
1032.	J. Holzer, painting, for Williams	65 00
1033.	Azro Williams, bal. on dwelling	678 08
1034.	J. H. Steiner, Secy. Am. Trotting Assoc., dues.....	75 00
1035.	Waukesha Despatch, 3,000 entry lists, speed	18 00
1036.	F. G. Arnold, Secy., circuit advertising.....	54 65
1037.	W. D. Harper, Jr., bal. prems. Dept. M.....	1 00
1038.	Frank E. Stone, soliciting speed entries	65 98
1029.	M. F. Lannon Stone Co., bal. crushed rock.....	49 61
1040.	Chamberlain & Rosa, A. S. H. B. spec. prem.....	64 50
1041.	Geo. Harding & Son, A. S. H. B. spec. prem.....	266 50
1042.	James Watters, A. S. H. B. spec. prem.....	48 50
1043.	Divan Bros., A. S. H. B. spec. prem.....	15 50
1044.	E. W. Bowen, A. S. H. B. spec. prem.....	32 00
1045.	C. F. Rice, A. S. H. B. spec. prem.....	55 50
1046.	J. R. Peak & Son, A. S. H. B. spec. prem.....	6 00
1047.	Otto A. Kielsmeier, bal. prem. Dept. G.....	2 80
1048.	Peter Nickel, watching at fair, 1900	16 00
1049.	The Seebote, returned gateage	1 00
1050.	Void .....	....
1051.	Void .....	....
1052.	Void .....	....
1053.	Void .....	....
1054.	Joe Buck, work after fair	9 70
1055.	Geo. Schlichter, work after fair	4 50
1056.	O. G. Cheney, work after fair	6 00
1057.	E. Rodecker, work after fair	8 25
1058.	Des Moines Tent & Awning Co., rent and damage of tent.....	135 56

No.	To whom and for what.	Amount.
1059.	D. Mildrath, expenses as ticket seller	2 00
1060.	Chas. Liebenthal, blacksmithing	20 27
1061.	John M. True, expenses trip to Milwaukee	5 25
1062.	Geo. Wylle, expenses	7 11
1063.	Frank Jirachek, harness repairs	8 10
1064.	John W. Groves, Sec'y, returned Assoc. money.....	24 00
1065.	C. T. Hill, bal. prems. Dept. D.....	2 00
1066.	John M. True, expenses, self and Curtiss, to Milwaukee.....	10 84
1067.	Wis. Iron & Iron Works, stamp die	5 00
1068.	M. L. Smith, bal. prems. Dept. E.....	1 00
1069.	E. C. Peterson, returned entry fee	2 00
1070.	Louis Woelffer, additional prem. Dept. G.....	1 44
1071.	Gazette Printing Co., advertising	5 00
1072.	Western Horseman, advertising Speed Dept.....	32 00
1073.	Horse Review, advertising Speed Dept.	32 80
1074.	The horseman, advertising Speed Dept.....	41 80
1075.	Spirit of the Times	32 00
1076.	Kentucky Stock Farm, advertising Speed Dept.....	33 60
1077.	Spirit of the West, advertising Speed Dept.....	24 00
1078.	A. Le Feber, oats	22 60
1079.	F. A. Huebner, expenses	6 52
1080.	John M. True, expense allowance, Oct.	25 00
1081.	C. H. Everett, expenses	9 30
1082.	Taylor & Tower, lumber	93 18
1083.	John M. True, expenses trip to Milwaukee	4 87
1084.	Kate F. Peffer, bal. of prems. Dept. G.....	4 00
1085.	Krock & Van Ells, premiums, Dept. M.....	13 00
1086.	Dan Bleuer, return expressage	2 50
1087.	Louis Woelffer, bal. prems. Dept. G.....	1 71
1088.	F. A. Huebner, expenses	6 52
1089.	C. W. Harvey, expenses	6 38
1090.	S. D. Hubbard, expenses	29 35
1091.	J. H. Pilgrim, premiums, Dept. B.....	15 00
1092.	A. G. Zeitung, advertising	25 00
1093.	David Wedgewood, expenses	28 20
1094.	Geo. Klein, expenses	10 88
1095.	N. P. Nelson, lime	2 25
1096.	Geo. G. Cox, salary Supt. of grounds	100 00
1097.	Robert Phillip, wages, October	40 00
1098.	John M. True, salary, October	100 00
1099.	Arthur Bergh, work in office	5 00
1100.	N. Greenfield, M. E. Ch., dinners, etc.....	14 50
1101.	Divan Bros., bal. Am. S. H. B., premium	10 00
1102.	C. H. Everett, expenses	3 10
1103.	Joe Buck, work	47 85
1104.	Emmett Wiltzens, work	30 80
1105.	Wm. Haberman, work	30 80
1106.	Jerry De Broat, work	30 80
1107.	Tony Getcell, work	18 40
1108.	Peter Buck, work	11 20
1108½.	Bert Segrist, work	16 60
1109.	John Neese, work	15 05
1110.	O. G. Cheney, work	15 05
1111.	Geo. Walsh, work	9 60
1112.	Wm. Flaherty, work	9 60
1113.	Herman Johnson, work	9 60
1114.	George Wylle, expenses	5 66
1115.	Frank Jirachek, harness work	3 95
1116.	A. Le Feber, bal. feed bill for fair	57 79

No.	To whom and for what.	Amount.
1117.	Geo. Schneider, daily papers	2 10
1118.	F. W. Curtis, State Fair Park views	53 00
1119.	A. Le Feber, oats	21 00
1120.	John M. True, expense allowance, Nov.	25 00
1121.	Chris Hanson, plans for dwelling	48 00
1122.	Episcopal Ch. dining hall, dinners	10 00
1123.	John M. True, salary, Nov.	100 00
1124.	Geo. McKerrow, expenses	14 26
1125.	Joe Buck, work	66 80
1126.	Emmett Wiltzeus, work	57 60
1127.	Wm. Haberman, work	58 00
1128.	Jerry De Groat, work	66 80
1129.	Tony Getcell, work	30 40
1130.	T. Diamond, work	78 35
1131.	Ed. Barnekow, work	29 90
1132.	William Heart, work	23 60
1133.	Peter Buck, work	19 60
1134.	C. H. Buck, work	5 60
1135.	Wm. Jones, work	10 40
1136.	H. Neeb, work	10 50
1137.	C. H. Mead, work	30 40
1138.	John Neese, work	27 65
1139.	Bert Segrist, work	27 65
1140.	O. G. Cheney, work	29 20
1141.	Geo. Walsh, work	27 65
1142.	Wm. Flaherty, work	28 50
1143.	H. Johnson, work	27 65
1144.	William Cox, work	30 75
1145.	Wm. Barnekow, work	29 20
1146.	H. Hanson, work	29 20
1146.	H. Hanson, work	16 60
1147.	Geo. G. Cox, sundry bills	22 13
1148.	Geo. G. Cox, salary, Supt. of grounds	100 00
1149.	Robert Phillip, wages, Nov.	30 00
1150.	Geo. Allen, protested premiums	24 00
1151.	A. Le Feber, oats	22 78
1152.	John M. True, expenses Am. Assoc. of Fairs	11 85
1153.	Geo. G. Cox, sundry expenses	16 63
1154.	H. S. Tipple, nails, etc.	10 13
1155.	Taylor & Tower, lumber	223 21
1156.	F. W. Harland, assistance at track	45 00
1157.	Mil. Elec. Ry. Co., use of scrapers	40 00
1158.	Wm. Powrie, survey widening track	20 00
1159.	Chas. Liebenthal, blacksmithing	14 00
1160.	Joe Buck, work	15 60
1161.	Jerry De Groat, work	10 80
1162.	Wm. Haberman, work	8 80
1163.	Peter Buck, work	6 80
1164.	Wm. Heart, work	3 60
1165.	Bert Segrist, work	1 55
1166.	John Neese, work	4 85
1167.	H. Hanson, work	3 15
1168.	O. G. Cheney, work	4 70
1169.	William Cox, work	15 70
1170.	Wm. Barnekow, work	12 55
1171.	Wm. Buckingham, work	7 80
1172.	T. Diamond, work	8 60
1173.	Geo. G. Cox, salary Supt. of grounds	100 00
1174.	Clarence Armstrong, premium, Dept. A.	5 00

No.	To whom and for what.	Amount.
1175.	John M. True, expense allowance, Dec.	25 00
1176.	C. W. Jarvis, drayage	50
1177.	Robert Phillip, wages, Dec.	30 00
1178.	John M. True, salary, Dec.	100 00
1179.	G. H. Van Houten, Secy., Fair Assoc. dues	25 00
1180.	George Wylie, expenses, Chicago Con.	11 80
1181.	Geo. McKerrow, expenses, Chicago Con.	6 16
1182.	Jos. Sterzinger, tiling and work	11 00
1183.	Chas. Nobles, work	1 75
1184.	William Cox, work	6 30
1185.	Wm. Barnekow, work	11 00
	Total	<u>\$51,096 49</u>

AWARD OF PREMIUMS AT STATE FAIR, 1901.

HORSES.

Judge—Prof. W. L. CARLYLE, Madison.

PERCHERON AND FRENCH DRAFT.

Stallion 4 years old or over.

First H. A. Briggs, Elkhorn.
 Second Pabst Stock Farm, Milwaukee.
 Third Pabst Stock Farm, Milwaukee.

Stallion, 3 years and under 4.

First H. A. Briggs, Elkhorn.
 Second H. A. Briggs, Elkhorn.
 Third H. A. Briggs, Elkhorn.

Stallion, 2 years and under 3.

First Pabst Stock Farm, Milwaukee.
 Second H. A. Briggs, Elkhorn.
 Third Alex. Galbraith, Janesville.

Stallion, 1 year and under 2.

First H. A. Briggs, Elkhorn.
 Second Pabst Stock Farm, Milwaukee.
 Third H. A. Briggs, Elkhorn.

Stallion foal.

First Pabst Stock Farm, Milwaukee.
 Second Pabst Stock Farm, Milwaukee.

Mare, 4 years or over.

First	Pabst Stock Farm, Milwaukee.
Second	Pabst Stock Farm, Milwaukee.
Third	Pabst Stock Farm, Milwaukee.

Mare, 3 years and under 4.

First	Pabst Stock Farm, Milwaukee.
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Mare, 2 years and under 3.

First	Pabst Stock Farm, Milwaukee.
Second	Pabst Stock Farm, Milwaukee.
Third	Pabst Stock Farm, Milwaukee.

Mare, 1 year and under 2.

First	Pabst Stock Farm, Milwaukee.
Second	Pabst Stock Farm, Milwaukee.
Third	Pabst Stock Farm, Milwaukee.

Filly foal.

First	Pabst Stock Farm, Milwaukee.
Second	Pabst Stock Farm, Milwaukee.

Four, animals, get of one sire.

First	Pabst Stock Farm, Milwaukee.
Second	H. A. Briggs, Elkhorn.

Two animals, the produce of one dam.

First	Pabst Stock Farm, Milwaukee.
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 CLYDESDALES AND ENGLISH SHIRES.
Stallion, 4 years or over.

First	Alex. Galbraith, Janesville.
Second	McLay Bros., Janesville.
Third	Alex. Galbraith, Janesville.

Stallion, 3 years and under 4.

First	Alex. Galbraith, Janesville.
Second	Alex. Galbraith, Janesville.
Third	Alex. Galbraith, Janesville.

Stallion, 2 years and under 3.

- FirstMcLay Bros., Janesville.
 SecondMcLay Bros., Janesville.
 ThirdAlex. Galbraith, Janesville.

Stallion, 1 year and under 2.

- FirstMcLay Bros., Janesville.

Stallion foal.

- FirstMcLay Bros., Janesville.
 SecondMcLay Bros., Janesville.
 ThirdMcLay Bros., Janesville.

Mare, 4 years old or over.

- FirstMcLay Bros., Janesville.
 SecondMcLay Bros., Janesville.
 ThirdMcLay Bros., Janesville.

Mare, 3 years and under 4.

- FirstMcLay Bros., Janesville.

Mare, 2 years and under 3.

- FirstMcLay Bros., Janesville.
 SecondMcLay Bros., Janesville.

Mare, 1 year and under 2.

- FirstMcLay Bros., Janesville.
 SecondMcLay Bros., Janesville.
 ThirdMcLay Bros., Janesville.

Filly foal.

- FirstMcLay Bros., Janesville.

Four animals, the get of one sire.

- FirstMcLay Bros., Janesville.

Two animals, the produce of one dam.

- FirstMcLay Bros., Janesville.

STANDARD-BRED AND REGISTERED TROTTING HORSES.

Stallion, 4 years old or over.

First	J. R. Peak and Son, Winchester, Ill.
Second	August Uihlein, Milwaukee.

Stallion, 3 years and under 4.

First	Progress Stud, Milwaukee.
Second	August Uihlein, Milwaukee.

Stallion, 2 years and under 3.

First	Pabst Stockc Farm, Milwaukee.
Second	J. R. Peak and Son, Winchester, Ill.
Third	August Uihlein, Milwaukee.

Stallion, 1 year and under 2.

First	Pabst Stockc Farm, Milwaukee.
Second	August Uihlein, Milwaukee.

Stallion foal.

First	August Uihlein, Milwaukee.
Second	J. C. Land, Waukesha.
Third	Progress Stud, Milwaukee.

First	J. R. Peak and Son, Winchester, Ill.
Second	Pabst Stock Farm, Milwaukee.
Third	August Uihlein, Milwaukee.

Mare, 3 years and under 4.

First	J. R. Peak and Son, Winchester, Ill.
Second	August Uihlein, Milwaukee.
Third	George Brew, Milwaukee.

Mare, 2 years and under 3.

First	J. R. Peak and Son, Winchester, Ill.
Second	August Uihlein, Milwaukee.
Third	Progress Stud, Milwaukee.

Mare, 1 year and under 2.

First	J. R. Peak & Son, Winchester, Ill.
Second	George Brew, Milwaukee.
Third	August Uihlein, Milwaukee.

Filly foal.

- FirstProgress Stud, Milwaukee.
 SecondPasbt Stock Farm, Milwaukee.
 ThirdPabst Stock Farm, Milwaukee.

Four animals, the get of one sire.

- FirstJ. R. Peak & Son, Winchester, Ill.
 SecondPabst Stock Farm, Milwaukee.

Two animals, the produce of one dam.

- FirstJ. R. Peak & Son, Winchester, Ill.
 SecondAugust Uihlein, Milwaukee.

CLEVELAND BAYS, GERMAN, FRENCH AND OTHER IMPORTED
 COACH BREEDS.

Stallion, 4 years old or over.

- FirstArthur Stericker, Janesville.
 SecondA. R. Ives, Delavan.
 ThirdRobt. Hardy, Waukesha.

Stallion, 1 year and under 2.

- FirstA. R. Ives, Delavan.

Stallion foal.

- FirstA. R. Ives, Delavan.

Mare, 4 years old or over.

- FirstPabst Stock Farm, Milwaukee.
 SecondA. R. Ives, Delavan.
 ThirdPabst Stock Farm, Milwaukee.

Mare, 3 years and under 4.

- FirstA. Montgomery Ward, Oconomowoc.

Filly foal.

- FirstPabst Stock Farm, Milwaukee.

Two animals, the produce of one dam.

- FirstA. R. Ives, Delavan.

TROTting HACKNEYS AND AMERICAN-BRED COACHERS.

Stallion, 4 years old or over.

First Arthur Stericker, Janesville.
 Second A. Montgomery Ward, Oconomowoc.

Stallion, 3 years and under 4.

First Arthur Stericker, Janesville.
 Second Alex. Galbraith, Janesville.

Stallion, 2 years and under 3.

First Arthur Stericker, Janesville.

Stallion, 1 year and under 2.

First Pabst Stock Farm, Milwaukee.

Stallion foal.

First Pabst Stock Farm, Milwaukee.

Mare, 4 years old or over.

First A. Stericker, Janesville.
 Second J. R. Peak & Son, Winchester, Ill.
 Third Pabst Stock Farm, Milwaukee.

Mare, 3 years and under 4.

First J. R. Peak, Winchester, Ill.
 Second Pabst Stock Farm, Milwaukee.

Mare, 2 years and under 3.

First Pabst Stock Farm, Milwaukee.
 Second J. R. Peak & Son, Winchester, Ill.

Mare, 1 year and under 2.

First J. R. Peak, Winchester, Ill.

Filly foal.

First J. R. Peak & Son, Winchester, Ill.
 Second Pabst Stock Farm, Milwaukee.

Four animals, the get of one sire.

First J. R. Peak & Son, Winchester, Ill.
 Second Pabst Stock Farm, Milwaukee.

Two animals, the produce of one dam.

- First J. R. Peak & Son, Winchester, Ill.
 Second Pabst Stock Farm, Milwaukee.

SADDLE HORSES.

Saddle horse, over 15 1-4 hands.

- First A. Montgomery Ward, Oconomowoc.

Saddle horse, over 14 1-4 hands and under 15 1-4.

- First George Brew, Milwaukee.

Saddle pony, under 14 1-4 hands.

- First Alex. Galbraith, Janesville.
 Second A. A. Fuller, North Lake.

HARNESS HORSES.

Pair, 15 3-4 hands or over.

- First Will Breese, Waukesha.
 Second A. R. Ives, Delavan.

Pair, 15 hands and under 15 3-4.

- First Geo. Harding & Son, Waukesha.
 Second E. E. Potter, Hebron, Ill.
 Third T. J. Fleming, North Greenfield.

Single, 15 3-4 hands or over.

- First J. R. Peak & Son, Winchester, Ill.
 Second A. R. Ives, Delavan.
 Third J. C. Land, Waukesha.

Single, under 15 3-4 hands.

- First Arthur Stericker, Janesville.

ANNUAL REPORT OF THE

PONIES.

Stallion, 3 years old or over.

First	Robert Hardy, Waukesha.
Second	August Uihlein, Milwaukee.

Mare, 3 years old or over.

First	August Uihlein, Milwaukee.
Second	Clarence Armstrong, Wauwatosa.

Mare, 1 year old and under 2.

First	A. E. Wardell, Oconomowoc.
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Foal, stallion or filly.

First	August Uihlein, Milwaukee.
Second	A. E. Wardell, Oconomowoc.

FARMERS' CLASSES.

GRADE DRAFT.

Brood mare, with foal at side.

First	Wm. Brown, Emerald Grove.
Second	John Sleep, Waukesha.
Third	Carroll Bros., Waukesha.

Mare or gelding, 3 years old or over.

First	John Sleep, Waukesha.
Second	Will Breese, Waukesha.
Third	Carroll Bros., Waukesha.

Mare or gelding, 2 years old and under 3.

First	John Sleep, Waukesha.
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Mare or gelding, 1 year and under 2.

First	John Sleep, Waukesha.
Second	Carroll Bros., Waukesha.

Colt foal, either sex.

First	John Sleep, Waukesha.
Second	Carroll Bros., Waukesha.
Third	Wm. Brown, Emerald Grove.

Grade draft farm team, weighing not less than 3,200 lbs.

FirstGeo. McKerrow & Sons, Sussex.

Pair of chunks, not less than 2,500 lbs.

FirstCarroll Bros., Waukesha.

SecondChas. T. Hill, Brookfield.

GRADE COACHERS.

Brood mare, with foal at side.

FirstWill Breese, Waukesha.

SecondJ. A. Shields, Pewaukee.

Mare or gelding, 3 years old or over.

FirstWill Breese, Waukesha.

SecondGeo. McKerrow & Sons, Sussex.

Mare or gelding, 2 years old and under 3.

FirstWill Breese, Waukesha.

SecondWill Breese, Waukesha.

Mare or gelding 1 year and under 2.

FirstJ. A. Shields, Pewaukee.

Colt foal, either sex.

FirstJ. A. Shields, Pewaukee.

SecondWill Breese, Waukesha.

NON-REGISTERED ROADSTERS.

Brood mare, with foal at side.

FirstWill Breese, Waukesha.

SecondJohn H. Williams, Waukesha.

ThirdA. H. Weinbrenner, Milwaukee.

Mare or gelding, 3 years old or over.

FirstJ. A. Shields, Pewaukee.

Mare or gelding, 2 years old and under 3.

FirstJ. A. Shields, Pewaukee.

SecondWill Breese, Milwaukee.

ThirdJohn H. Williams, Waukesha.

Mare or gelding, 1 year old and under 2.

First	John H. Williams, Waukesha.
Second	F. Austermann, Waukesha.
Third	Will Breese, Waukesha.

Colt foal, either sex.

First	Will Breese, Waukesha.
Second	F. Austermann, Waukesha.
Third	John H. Williams, Waukesha.

CATTLE.

Judge of Beef Breeds—Prof. C. F. CURTISS, Ames, Iowa.

SHORTHORNS—OPEN CLASS.*Bull, 3 years old or over.*

First	Geo. Harding & Son, Waukesha.
Second	C. F. Rice, Indianola, Ill.
Third	E. W. Bowen, Delphi, Ind.
Fourth	Chamberlin & Rosa, Beloit.

Bull, 2 years old and under 3.

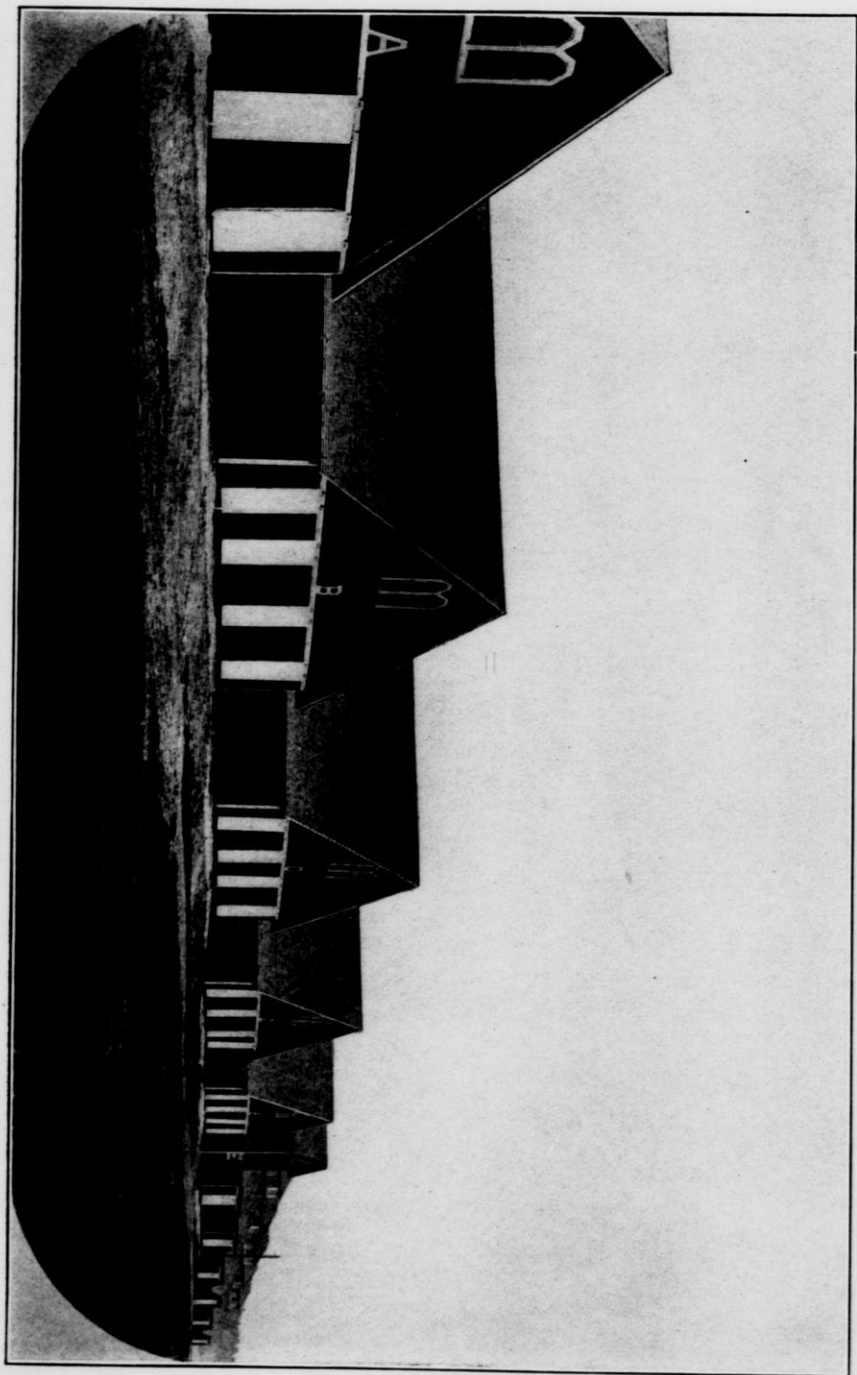
First	Geo. Harding & Son, Waukesha.
Second	C. F. Rice, Indianola, Ill.
Third	Jas. Watters, Mineral Point.
Fourth	Divan Bros., Browntown.

Bull, 1 year old and under 2.

First	C. F. Rice, Indianola, Ill.
Second	Chamberlin & Rosa, Beloit.
Third	Geo. Harding & Son, Waukesha.
Fourth	Jas. Watters, Mineral Point.

Bull, under one year.

First	Geo. Harding & Son, Waukesha.
Second	Geo. Harding & Son, Waukesha.
Third	Chamberlin & Rosa, Beloit.
Fourth	C. F. Rice, Indianola, Ill.



CATTLE AND HORSE BARN.



Cow, 3 years old or over.

- FirstGeo. Harding & Son, Waukesha.
- SecondE. W. Bowen, Delphi, Ind.
- ThirdGeo. Harding & Son, Waukesha.
- FourthC. F. Rice, Indianola, Ill.

Heifer, 2 years old and under 3.

- FirstGeo. Harding & Son, Waukesha.
- SecondE. W. Bowen, Delphi, Ind.
- ThirdGeo. Harding & Son, Waukesha.
- FourthE. W. Bowen, Delphi, Ind.

Heifer, 1 year old and under 2.

- FirstGeo. Harding & Son, Waukesha.
- SecondJ. R. Peak & Son, Winchester, Ill.
- FourthC. F. Rice, Indianola, Ill.
- ThirdC. F. Rice, Indianola, Ill.

Heifer, under 1 year.

- FirstGeo. Harding & Son, Waukesha.
- SecondE. W. Bowen, Delphi, Ind.
- ThirdGeo. Harding & Son, Waukesha.
- FourthJas. Watters, Mineral Point.

Breeder's Herd.

- FirstGeo. Harding & Son, Waukesha.
- SecondE. W. Bowen, Delphi, Ind.
- ThirdC. F. Rice, Indianola.
- FourthJas. Watters, Mineral Point.

Get of sire.

- FirstGeo. Harding & Son, Waukesha.
- SecondC. F. Rice, Indianola, Ill.
- ThirdChamberlin & Rosa, Beloit.

Produce of dam.

- FirstGeo. Harding & Son, Waukesha.
- SecondC. F. Rice, Indianola, Ill.
- ThirdChamberlin & Rosa, Beloit.

Champion bull, over 2 years.

- FirstGeo. Harding & Son, Waukesha.

ANNUAL REPORT OF THE

Champion cow, over 2 years.

FirstGeo. Harding & Son, Waukesha.

Champion bull, under 2 years.

FirstC. F. Rice, Indianola, Ill.

Champion heifer, under 2 years.

FirstGeo. Harding & Son, Waukesha.

Wisconsin Shorthorn Breeders' Assoc. special for bull under one year.

FirstGeo. Harding & Son, Waukesha.

SecondChamberlin & Rosa, Beloit.

SHORT HORNS—STATE CLASS.

Bull, 3 years old or over.

FirstGeo. Harding & Son, Waukesha.

SecondChamberlin & Rosa, Beloit.

ThirdGeo. Harding & Son, Waukesha.

Bull, 2 years old and under 3.

FirstGeo. Harding & Son, Waukesha.

SecondJas. Watters, Mineral Point.

ThirdDivan Bros., Browntown.

Bull, 1 year old and under 2.

FirstChamberlin & Rosa, Beloit.

SecondGeo. Harding & Son, Waukesha.

ThirdJas. Watters, Mineral Point.

Bull, under 1 year.

FirstGeo. Harding & Son, Waukesha.

SecondGeo. Harding & Son, Waukesha.

ThirdChamberlin & Rosa, Beloit.

FourthJas. Watters, Mineral Point.

Cow, 3 years old or over.

FirstGeo. Harding & Son, Waukesha.

SecondGeo. Harding & Son, Waukesha.

ThirdJas. Watters, Mineral Point.

FourthDivan Bros., Browntown.

Heifer, 2 years old and under 3.

First	Geo. Harding & Son, Waukesha.
Second	Geo. Harding & Son, Waukesha.
Third	Jas. Watters, Mineral Point.
Fourth	Chamberlin & Rosa, Beloit.

Heifer, 1 year old and under 2.

First	Geo. Harding & Son, Waukesha.
Second	Geo. Harding & Son, Waukesha.
Third	Divan Bros., Browntown.
Fourth	Jas. Watters, Mineral Point.

Heifer, under 1 year.

First	Geo. Harding & Son, Waukesha.
Second	Geo. Harding & Son, Waukesha.
Third	Jas. Watters, Mineral Point.
Fourth	Jas. Watters, Mineral Point.

Breeder's Herd.

First	Geo. Harding & Son, Waukesha.
Second	Jas. Watters, Mineral Point.
Third	Divan Bros., Browntown.

Get of sire.

First	Geo. Harding & Son, Waukesha.
Second	Chamberlin & Rosa, Beloit.
Third	Divan Bros., Browntown.

Produce of dam.

First	Geo. Harding & Son, Waukesha.
Second	Chamebrlin & Rosa, Beloit.
Third	Divan Bros., Watertown.

Champion bull, over 2 years.

First	Geo. Harding & Son, Waukesha.
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Champion cow, over 2 years.

First	Geo. Harding & Son, Waukesha.
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Champion bull, under 2 years.

First	Chamberlin & Rosa, Beloit.
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ANNUAL REPORT OF THE

Champion heifer, under 2 years.

FirstGeo. Harding & Son, Waukesha.

Wisconsin Shorthorn Assoc. special, bull under 1 year.

FirstGeo. Harding & Son, Waukesha.

SecondChamberlin & Rosa, Beloit.

 HEREFORDS.
Bull, 3 years old or over.

FirstH. N. Thompson, Woodstock, Ill.

Bull, 2 years and under 3.

FirstA. A. Fuller, North Lake.

Bull, 1 year and under 2.

FirstH. N. Thompson Woodstock, Ill.

Cow, 3 years old or over.

FirstA. A. Fuller, North Lake.

Heifer, 2 years old and under 3.

FirstH. N. Thompson Woodstock, Ill.

SecondA. A. Fuller, North Lake.

ThirdA. A. Fuller, North Lake.

Heifer, 1 year old and under 2.

FirstH. N. Thompson, Woodstock, Ill.

SecondA. A. Fuller, North Lake.

ThirdA. A. Fuller, North Lake.

Heifer calf.

FirstH. N. Thompson, Woodstock, Ill.

SecondA. A. Fuller, North Lake.

ThirdA. A. Fuller, North Lake.

Produce of dam.

FirstH. N. Thompson, Woodstock, Ill.

Champion bull, over 2 years.

FirstH. N. Thompson, Woodstock, Ill.

Champion cow, over 2 years.

First H. N. Thompson, Woodstock, Ill.

Champion bull, under 2 years.

First H. N. Thompson, Woodstock, Ill.

Champion heifer, under 2 years.

First H. N. Thompson, Woodstock, Ill.

ABERDEEN-ANGUS.

Bull, 3 years old or over.

First A. C. Binnie, Alta, Iowa.

Second M. P. & S. E. Lantz, Carlock, Ill.

Bull, 2 years old and under 3.

First W. A. McHenry, Denison, Iowa.

Bull, 1 year old and under 2.

First A. C. Binnie, Alta, Ia.

Second W. A. McHenry, Denison, Ia.

Third A. C. Binnie, Alta, Ia.

Bull calf.

First W. A. McHenry, Denison, Ia.

Second A. C. Binnie, Alta, Ia.

Third A. C. Binnie, Alta, Ia.

Cow, 3 years old or over.

First W. A. McHenry, Denison, Ia.

Second A. C. Binnie, Alta, Ia.

Third M. P. & S. E. Lantz, Carlock, Ill.

Heifer, 2 years old and under 3.

First W. A. McHenry, Denison, Ia.

Second A. C. Binnie, Alta, Ia.

Third A. C. Binnie, Alta, Ia.

Heifer, 1 year old and under 2.

First W. A. McHenry, Denison, Ia.

Second W. A. Mc Henry, Denison, Ia.

Third M. P. & S. E. Lantz, Carlock, Ill.

Heifer calf.

First	W. A. McHenry, Denison, Ia.
Second	A. C. Binnie, Alta, Ia.
Third	A. C. Binnie, Alta, Ia.

Get of sire.

First	A. C. Binnie, Alta, Ia...
Second	W. A. McHenry, Denison, Ia.

Produce of dam.

First	W. A. McHenry, Denison, Ia.
Second	A. C. Binnie, Alta, Ia.

Champion bull, 2 years or over.

First	A. C. Binnie, Alta, Ia.
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Champion cow, 2 years or over.

First	W. A. McHenry, Denison, Ia.
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Champion bull, under 2 years.

First	A. C. Binnie, Alta, Ia.
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Champion heifer, under 2 years.

First	W. A. McHenry, Denison, Ia.
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GALLOWAYS.
Bull, 3 years old or over.

First	E. H. White, Estherville, Ia.
Second	O. H. Swigart, Champaign, Ill.

Bull, 2 years old and under 3.

First	E. H. White, Estherville, Ia.
Second	E. H. White, Estherville, Ia.

Bull, 1 year old and under 2.

First	E. H. White, Estherville, Ia.
Second	O. H. Swigart, Champaign, Ill.
Third	E. H. White, Estherville, Ia.

Bull calf.

FirstO. H. Swigart, Champaign, Ill.
 SecondO. H. Swigart, Champaign, Ill.
 ThirdE. H. White, Estherville, Ia.

Cow, 3 years old or over.

FirstO. H. Swigart, Champaign, Ill.
 SecondE. H. White, Estherville, Ia.

Heifer, 2 years old and under 3.

First^sE. H. White, Estherville, Ia.
 SecondO. H. Swigart, Champaign, Ill.

Heifer, 1 year old and under 2.

FirstO. H. Swigart, Champaign, Ill.
 SecondE. H. White, Estherville, Ia.
 ThirdE. H. White, Estherville, Ia.

Heifer calf.

FirstE. H. White, Estherville, Ia.
 SecondE. H. White, Estherville, Ia.

Dual-purpose Cattle.

Judge, T. F. McCONNELL, Madison, Wis.

RED POLLS.

Bull, 3 years old or over.

FirstA. Dutton & Son, Centerville.
 SecondS. A. Converse, Cresco, Ia.
 ThirdJ. L. Anderson & Son, Centerville.

Bull, 2 years old and under 3.

FirstS. A. Converse, Cresco, Ia.

Bull, 1 year old and under 2.

FirstA. Dutton & Son, Centerville.
 SecondS. A. Converse, Cresco, Ia.
 ThirdJ. L. Sanderson & Son, Centerville.

Bull calf.

First	S. A. Converse, Cresco, Ia.
Second	J. L. Sanderson & Son, Centerville.
Third	A. Dutton & Son, Centerville.

Cow, 3 years old or over.

First	A. Dutton & Son, Centerville.
Second	S. A. Converse, Cresco, Ia.
Third	J. L. Sanderson & Son, Centerville.

Heifer, 2 years old and under 3.

First	S. A. Converse, Cresco, Ia.
Second	A. Dutton & Son, Centerville.
Third	J. L. Sanderson & Son, Centerville.

Heifer, 1 year old and under 2.

First	A. Dutton & Son, Centerville.
Second	J. L. Sanderson & Son, Centerville.
Third	A. Dutton & Son, Centerville.

Heifer calf.

First	A. Dutton & Son, Centerville.
Second	J. L. Sanderson & Son, Centerville.
Third	S. A. Converse, Cresco, Ia.

Get of sire.

First	A. Dutton & Son, Centerville.
Second	S. A. Converse, Cresco, Ia.

Produce of dam.

First	S. A. Converse, Cresco, Ia.
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Champion bull, 2 years old or over.

First	A. Dutton & Son, Centerville.
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Champion cow, 2 years old or over.

First	S. A. Converse, Cresco, Ia.
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Champion bull, under 2 years.

First	A. Dutton & Son, Centerville.
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Champion heifer, under 2 years.

First	A. Dutton & Son, Centerville.
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DEVONS.

Bull, 3 years old or over.

First Hoffman Bros., Rome.

Bull calf.

First Hoffman Bros., Rome.

Second Hoffman Bros., Rome.

Cow, 3 years old or over.

First Hoffman Bros., Rome.

Second Hoffman Bros., Rome.

Heifer, 2 years old and under 3.

First Hoffman Bros., Rome.

Second Hoffman Bros., Rome.

Heifer, 1 year old and under 2.

First Hoffman Bros., Rome.

Second Hoffman Bros., Rome.

Heifer calf.

First Hoffman Bros., Rome.

Second Hoffman Bros., Rome.

BROWN SWISS.

Bull, 3 years old or over.

First T. H. Inman, Hanover.

Second H. W. Ayres, Honey Creek.

Bull, 2 years old and under 3.

First T. H. Inman, Hanover.

Second H. W. Ayres, Honey Creek.

Bull, 1 year old and under 2.

First T. H. Inman, Hanover.

Second T. H. Inman, Hanover.

Bull calf.

First T. H. Inman, Hanover.
 Second H. W. Ayres, Honey Creek.
 Third T. H. Inman, Hanover.

Cow, 3 years old or over.

First T. H. Inman, Hanover.
 Second H. W. Ayres, Honey Creek.
 Third T. H. Inman, Hanover.

Heifer, 2 years old and under 3.

First T. H. Inman, Hanover.
 Second H. W. Ayres, Honey Creek.
 Third T. H. Inman, Hanover.

Heifer, 1 year old and under 2.

First T. H. Inman, Hanover.
 Second T. H. Inman, Hanover.
 Third H. W. Ayres, Honey Creek.

Heifer calf.

First T. H. Inman, Hanover.
 Second H. W. Ayres, Honey Creek.
 Third T. H. Inman, Hanover.

Get of sire.

First T. H. Inman, Hanover.
 Second H. W. Ayers, Honey Creek.

Produce of dam.

First T. H. Inman, Hanover.
 Second H. W. Ayers, Honey Creek.

Dairy Breeds.

Judge, PROF. W. J. FRASER, Urbana, Ill.

HOLSTEINS.

Bull, 3 years old or over.

FirstRust Bros., North Greenfield.
 SecondW. B. Barney & Co., Hampton, Ia.
 ThirdKarlen Co., Monticello.

Bull, 2 years old and under 3.

FirstA. Two & Son, Winnebago, Ill.
 SecondKarlen Co., Monticello.

Bull, 1 year old and under 2.

FirstW. B. Barney & Co., Hampton, Ia.
 SecondA. Two & Son, Winnebago, Ill.
 ThirdW. B. Barney & Co., Hampton, Ia.

Bull Calf.

FirstW. B. Barney & Co., Hampton, Ia.
 SecondW. B. Barney & Co., Hampton, Ia.
 ThirdRust Bros., North Greenfield.

Cow, 3 years old or over.

FirstRust Bros., North Greenfield.
 SecondKarlen Co., Monticello.
 SecondKarlen Co., Monticello.

Heifer, 2 years old and under 3.

FirstW. B. Barney & Co., Hampton, Ia.
 SecondW. B. Barney & Co., Hampton, Ia.
 ThirdRust Bros., North Greenfield.

Heifer, 1 year old and under 2.

FirstW. B. Barney & Co., Hampton, Ia.
 SecondW. B. Barney & Co., Hampton, Ia.
 ThirdRust Bros., North Greenfield.

ANNUAL REPORT OF THE

Heifer calf.

First	W. B. Barney & Co., Hampton, Ia.
Second	A. Two & Son, Winnebago, Ill.
Third	W. B. Barney & Co., Hampton Ia.

Get of sire.

First	W. B. Barney & Co., Hampton, Ia.
Second	Rust Bros., North Greenfield.

Produce of dam.

First	W. B. Barney & Co., Hampton, Ia.
Second	Rust Bros., North Greenfield.
Third	A. Two & Son, Winnebago, Ill.

Champion bull, 2 years old or over.

First	A. Two & Son, Winnebago, Ill.
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Champion cow, 2 years old or over.

First	Rust Bros., North Greenfield.
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Champion bull, under 2 years.

First	W. B. Barney & Co., Hampton, Ia.
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Champion heifer, under 2 years.

First	W. B. Barney & Co., Hampton, Ia.
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GUERNSEYS.
Bull, 3 years old or over.

First	Chas. Solveson, Nashotah.
Second	Geo. C. Hill & Son, Rosendale.
Third	Geo. C. Hill & Son, Rosendale.
Fourth	F. Rietbrock, Milwaukee.

Bull, 2 years old and under 3.

First	W. Nichols, Trempealeau.
Second	W. Nichols, Trempealeau.

Bull, 1 year old and under 2.

First	J. H. Bierne, Oakfield.
Second	Geo. C. Hill & Son, Rosendale.
Third	Geo. C. Hill & Son, Rosendale.
Fourth	J. H. Bierne, Oakfield.

Bull calf.

First	Geo. C. Hill & Son, Rosendale.
Second	Geo. C. Hill & Son, Rosendale.
Third	J. H. Bierne, Oakfield.
Fourth	F. Rietbrock, Milwaukee.

Cow, 3 years old or over.

First	Chas. Solveson, Nashotah.
Second	Geo. C. Hill & Son, Rosendale.
Third	J. H. Bierne, Oakfield.
Fourth	Geo. C. Hill & Son, Rosendale.

Heifer, 2 years old and under 3.

First	Chas. Solveson, Nashotah.
Second	W. Nichols, Trempealeau.
Third	J. Bierne, Oakfield.
Fourth	F. Rietbrock, Milwaukee.

Heifer, 1 year old and under 2.

First	Geo. C. Hill & Son, Rosendale.
Second	Geo. C. Hill & Son, Rosendale.
Third	Chas. Solveson, Nashotah.
Fourth	F. Rietbrock, Milwaukee.

Heifer calf.

First	J. H. Bierne, Oakfield.
Second	Chas. Solveson, Nashotah.
Third	F. Rietbrock, Milwaukee.
Fourth	Geo. C. Hill & Son, Rosendale.

Get of sire.

First	J. H. Bierne, Oakfield.
Second	W. Nicholls, Trempealeau.
Third	Geo. C. Hill & Son, Rosendale.
Fourth	Fred Rietbrock, Milwaukee.

ANNUAL REPORT OF THE

Produce of dam.

First	J. H. Bierne, Oakfield.
Second	Chas. Solveson, Nashotah.
Third	Geo. C. Hill & Son, Rosendale.
Fourth	W. Nicholls, Trempealeau.

Champion bull, 2 years old or over.

First	Chas. Solveson, Nashotah.
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Champion cow, 2 years old or over.

First	Chas. Solveson, Nashotah.
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Champion bull, under 2 years.

First	J. H. Bierne, Oakfield.
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Champion heifer, under 2 years.

First	Geo. C. Hill & Son, Rosendale.
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Special Exhibitor's Herd.

First	Chas. Solveson, Nashotah.
Second	Geo. C. Hill, Rosendale.
Third	W. Nicholls, Trempealeau.
Fourth	F. Rietbrock, Milwaukee.

Breeder's Young Herd.

First	Geo. C. Hill & Son, Rosendale.
Second	J. H. Bierne, Oakfield.
Third	Chas. Solveson, Nashotah.

 JERSEYS.
Bull, 3 years old or over.

First	Case & Walker, Rushville, Ind.
Second	E. A. Smith & Son, Ringwood, Ill.
Third	C. C. Beebe, Racine.

Bull, 2 years old and under 3.

First	Case & Walker, Rushville, Ind.
Second	G. A. Buckstaff, Oshkosh.

Bull, 1 year old and under 2.

First E. A. Smith & Son, Ringwood, Ill.
 Second C. C. Beebe, Racine.
 Third G. A. Buckstaff, Oshkosh.

Bull calf.

First Case & Walker, Rushville, Ind.
 Second Case & Walker, Rushville, Ind.
 Third E. A. Smith & Son, Ringwood, Ill.

Cow, 3 years old or over.

First E. A. Smith & Son, Ringwood, Ill.
 Second Case & Walker, Rushville, Ind.
 Third E. A. Smith & Son, Ringwood, Ill.

Heifer, 2 years old and under 3.

First Case & Walker, Rushville, Ind.
 Second Case & Walker, Rushville, Ind.
 Third Case & Walker, Rushville, Ind.

Heifer, 1 year old and under 2.

First Case & Walker, Rushville, Ind.
 Second E. A. Smith & Son, Ringwood, Ill.
 Third Case & Walker, Rushville, Ind.

Heifer calf.

First Case & Walker, Rushville, Ind.
 Second Case & Walker, Rushville, Ind.
 Third E. A. Smith & Son, Ringwood, Ill.

Get of sire.

First Case & Walker, Rushville, Ind.
 Second E. A. Smith & Son, Ringwood, Ill.

Produce of dam.

First Case & Walker, Rushville, Ind.
 Second E. A. Smith & Son, Ringwood, Ill.

Champion bull, 2 years old or over.

First Case & Walker, Rushville, Ind.

Champion cow, 3 years old or over.

First E. A. Smith & Son, Ringwood, Ill.

ANNUAL REPORT OF THE

Champion bull, under 2 years.

First E. A. Smith & Son, Ringwood, Ill.

Champion heifer, under 2 years.

First Case & Walker, Rushville, Ind.

FARM CLASS.

Dairy cow, over 3 years old.

First J. H. Pilgrim, Milwaukee.

Second J. H. Pilgrim, Milwaukee.

SHEEP.

Judge of Mutton Breeds—Prof. C. F. CURTISS, Ames, Iowa.

SHROPSHIRE.

Ram, 2 years old or over.

First W. O. Fritchman, Muscatine, Iowa.

Second W. S. Dixon, Brandon.

Third Geo. Allen, Allerton, Ill.

Ram, 1 year old and under 2.

First Geo. Allen, Allerton, Ill.

Second Geo. Allen, Allerton, Ill.

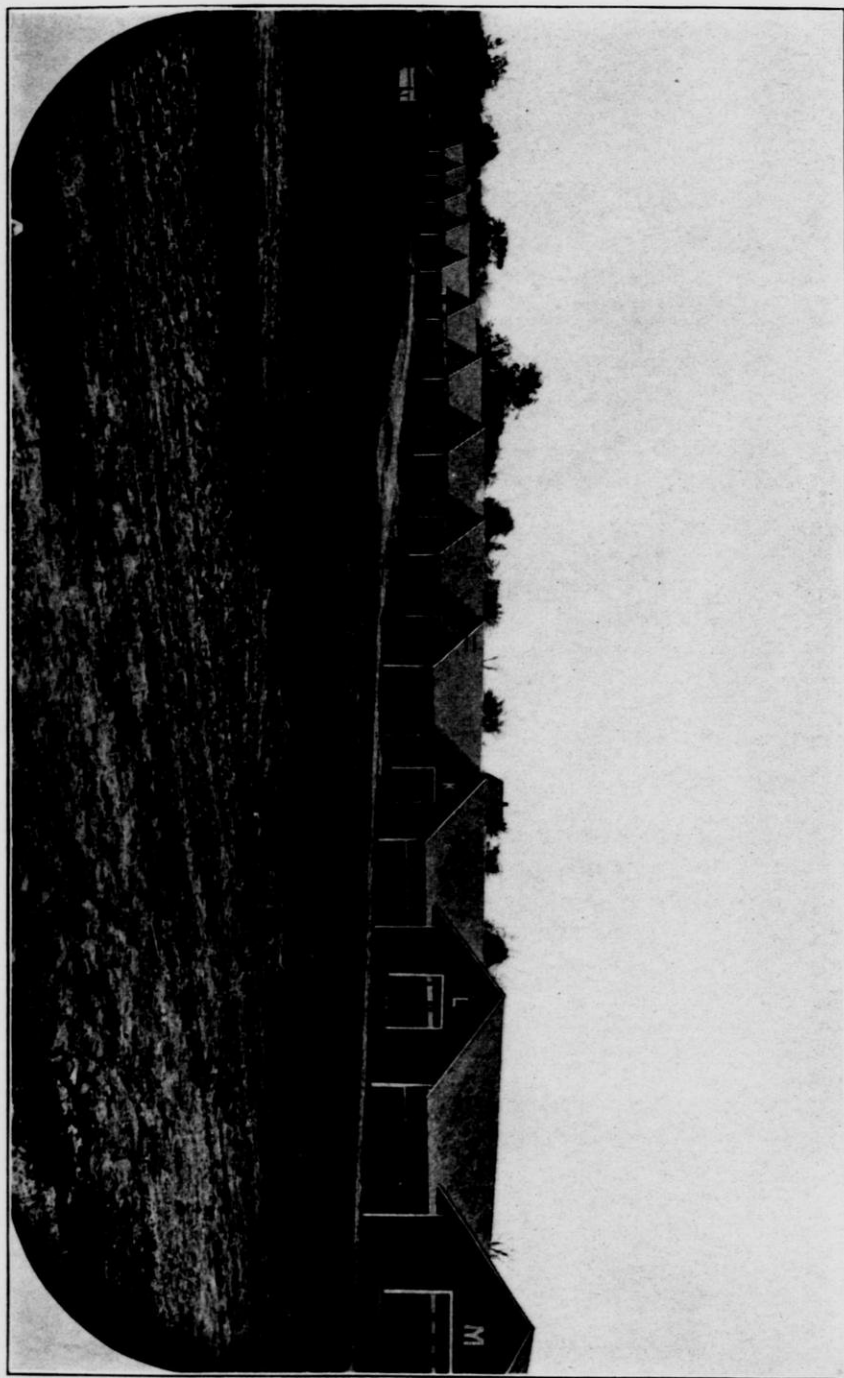
Third W. S. Dixon, Brandon.

Ewe, 2 years old or over.

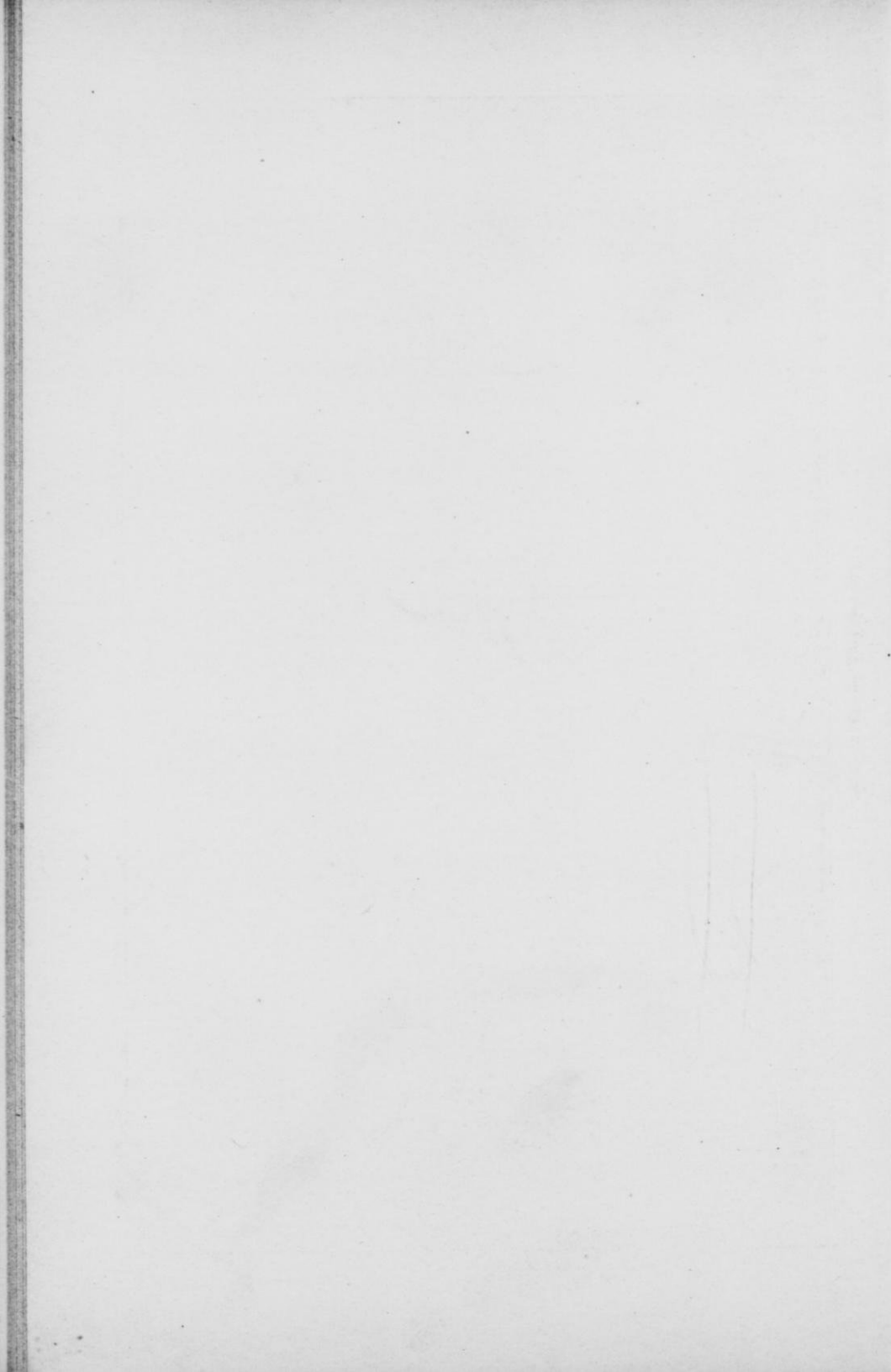
First Geo. Allen, Allerton, Ill.

Second W. O. Fritchman, Muscatine, Iowa.

Third W. O. Fritchman, Muscatine, Iowa.



SWINE AND SHEEP BARN.



Ewe, 1 year old and under 2.

- First Geo. Allen, Allerton, Ill.
 Second W. O. Fritchman, Muscatine, Iowa.
 Third W. S. Dixon, Brandon.

Ewe, under 1 year.

- First Geo. Allen, Allerton, Ill.
 Second Geo. Allen, Allerton, Ill.
 Third W. S. Dixon, Brandon.

Flock

- First Geo. Allen, Allerton, Ill.
 Second W. O. Fritchman, Muscatine, Iowa.
 Third W. S. Dixon, Brandon.

Pen of lambs.

- First Geo. Allen, Allerton, Ill.
 Second W. S. Dixon, Brandon.
 Third J. F. Weaver, Sussex.

Champion ram, any age.

- First Geo. Allen, Allerton, Ill.

Champion ewe, any age.

- First Geo. Allen, Allerton, Ill.

OXFORDS.

Ram, 2 years old or over.

- First Geo. McKerrow & Sons, Sussex.
 Second R. J. Stone, Stonington, Ill.
 Third Geo. McKerrow & Sons, Sussex.

Ram, 1 year old and under 2.

- First Geo. McKerrow & Sons, Sussex.
 Second Geo. McKerrow & Sons, Sussex.
 Third Geo. McKerrow & Sons, Sussex.

Ram, under 1 year.

First	R. J. Stone, Stonington, Ill.
Second	Geo. McKerrow & Sons, Sussex.
Third	Geo. McKerrow & Sons, Sussex.

Ewe, 2 years old or over.

First	Geo. McKerrow & Sons, Sussex.
Second	Geo. McKerrow & Sons, Sussex.
Third	R. J. Stone, Stonington, Ill.

Ewe, 1 year old and under 2.

First	Geo. McKerrow & Sons, Sussex.
Second	Geo. McKerrow & Sons, Sussex.
Third	R. J. Stone, Stonington, Ill.

Ewe, under 1 year.

First	Geo. McKerrow & Sons, Sussex.
Second	Geo. McKerrow & Sons, Sussex.

Flock.

First	Geo. McKerrow & Sons, Sussex.
Second	Geo. McKerrow & Sons, Sussex.

Pen of lambs.

First	Geo. McKerrow & Sons, Sussex.
Second	Geo. McKerrow & Sons, Sussex.

Champion ram, any age.

First	Geo. McKerrow & Sons, Sussex.
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Champion ewe, any age.

First	Geo. McKerrow & Sons, Sussex.
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 SOUTHDOWNS.
Ram, 2 years old or over.

First	Geo. Allen, Allerton, Ill.
Second	Geo. Allen, Allerton, Ill.
Third	Geo. McKerrow & Sons, Sussex.

Ram, 1 year and under 2.

First	Geo. McKerrow & Sons, Sussex.
Second	Geo. Allen, Allerton, Ill.
Third	Geo. McKerrow & Sons, Sussex.

Ram, under 1 year.

First	Geo. Allen, Allerton, Ill.
Second	Geo. McKerrow & Sons, Sussex.
First	Geo. McKerrow & Sons, Sussex.

Ewe, 2 years old or over.

First	Geo. Allen, Allerton, Ill.
Second	Geo. McKerrow & Sons, Sussex.
Third	Geo. Allen, Allerton, Ill.

Ewe, 1 year old and under 2.

First	Geo. McKerrow & Sons, Sussex.
Second	Geo. McKerrow & Sons, Sussex.

Ewe, under 1 year.

First	Geo. McKerrow & Sons, Sussex.
Second	Geo. McKerrow & Sons, Sussex.
Third	Geo. McKerrow & Sons, Sussex.

Flock.

First	Geo. McKerrow & Sons, Sussex.
Second	Geo. McKerrow & Sons, Sussex.

Pen of lambs.

First	Geo. McKerrow & Sons, Sussex.
Second	Geo. McKerrow & Sons, Sussex.

Champion ram, any age.

First	Geo. McKerrow & Sons, Sussex.
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Champion ewe, any age.

First	Geo. Allen, Allerton, Ill.
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HAMPSHIRE.

Ram, 2 years old or over.

First	Robt. Taylor, Abbott, Neb.
Second	F. H. Patten, Spring Prairie.

Ram, 1 year old and under 2.

First	Robt. Taylor, Abbott, Neb.
Second	Robt. Taylor, Abbott, Neb.
Third	F. H. Patten, Spring Prairie.

Ram, under 1 year.

First	Robt. Taylor, Abbott, Neb.
Second	Robt. Taylor, Abbott, Neb.
Third	F. H. Patten, Spring Prairie.

Ewe, 2 years old or over.

First	Robt. Taylor, Abbott, Neb.
Second	F. H. Patten, Spring Prairie.

Ewe, 1 year old and under 2.

First	Robt. Taylor, Abbott, Neb.
Second	Robt. Taylor, Abbott, Neb.
Third	F. H. Patten, Spring Prairie.

Ewe, under 1 year.

First	Robt. Taylor, Abbott, Neb.
Second	Robt. Taylor, Abbott, Neb.
Second	Robt. Taylor, Abbott, Neb.

Flock.

First	Robt. Taylor, Abbott, Neb.
Second	F. H. Patten, Spring Prairie.

Pen of lambs.

First	Robt. Taylor, Abbott, Neb.
Second	F. H. Patten, Spring Prairie.

Champion ram, any age.

First	Robt. Taylor, Abbott, Neb.
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Champion ewe, any age.

First Robt. Taylor, Abbott, Neb.

Hampshire-Down Breeder's Assoc. Special.

First F. H. Patten, Spring Prairie.

COTSWOLDS.

All premiums in this class were taken by George Harding & Son, Waukesha.

CHEVIOTS.

All premiums in this class were taken by Crodian & Gardiner, Fin-castle, Ind.

Fine Wool Breeds.

Judge—D. B. JONES.

AMERICAN MERINOS.

Ram, 2 years old or over.

First H. E. Moore, Orchard Lake, Mich.

Second W. S. Dixon, Brandon.

All other premiums in this class were taken by H. E. Moore, Orchard Lake, Mich.

FRENCH OR DELAINE MERINOS.

Ram, 2 years old or over.

First	Geo. Harding & Son, Waukesha.
Second	Robt. Taylor, Abbott, Neb.
Third	A. E. Green, Orchard Lake, Mich.

Ram, 1 year old and under 2.

First	Geo. Harding & Son, Waukesha.
Second	Robt. Taylor, Abbott, Neb.
Third	A. E. Green, Orchard Lake, Mich.

Ram, under 1 year.

First	Geo. Harding & Son, Waukesha.
Second	A. E. Green, Orchard Lake, Mich.
Third	A. E. Green, Orchard Lake, Mich.

Ewe, 2 years old or over.

First	A. E. Green, Orchard Lake, Mich.
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Ewe, 1 year old and under 2.

First	A. E. Green, Orchard Lake, Mich.
Second	A. E. Green, Orchard Lake, Mich.

Ewe, under 1 year.

First	A. E. Green, Orchard Lake, Mich.
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Flock.

First	Geo. Harding & Son, Waukesha.
Second	Geo. Harding & Son, Waukesha.

Pen of lambs.

First	A. E. Green, Orchard Lake, Mich.
Second	Geo. Harding & Son, Waukesha.

Champion ram, any age.

First	Geo. Harding & Son, Waukesha.
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Champion ewe, any age.

First	A. E. Green, Orchard Lake, Mich.
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FARMER'S CLASS.

Three fat lambs.

First	W. H. Edwards, Sussex.
Second	W. H. Edwards, Sussex.

Three grade ewes, 1 year old.

First	W. H. Edwards, Sussex.
Second	W. H. Edwards, Sussex.

Three grade ewes, 1 year old or over.

First	W. H. Edwards, Sussex.
Second	W. H. Edwards, Sussex.

SWINE.

Judge—J. A. COUNTRYMAN, Rochelle, Ill.

POLAND CHINAS.

Boar, 2 years old or over.

First	Ed. W. Monnier, Elizabeth, Ill.
Second	Herbert L. Sweet, Oshkosh.
Third	Jacob Kreuscher, Somers.

Boar, 1 year old and under 2.

First	M. W. Reed, Whitewater.
Second	Ed. W. Monnier, Elizabeth, Ill.
Third	A. Selle, Mequon.

Boar over 6 months and under 1 year.

First	Joseph Gordon, Mineral Point.
Second	M. W. Reed, Whitewater.
Third	Herbert L. Sweet, Oshkosh.

Boar, under 6 months.

First	M. W. Reed, Whitewater.
Second	Joseph Gordon, Mineral Point.
Third	Herbert L. Sweet, Oshkosh.

Sow, 2 years old or over.

First	Ed. W. Monnier, Elizabeth, Ill.
Second	H. L. Sweet, Oshkosh.
Third	Joseph Gordon, Mineral Point.

Sow, 1 year old and under 2.

First	H. L. Sweet, Oshkosh.
Second	H. L. Sweet, Oshkosh.
Third	M. W. Reed, Whitewater.

Sow, over 6 months and under 1 year.

First	Joseph Gordon, Mineral Point.
Second	Ed. W. Monnier, Elizabeth, Ill.
Third	Jacob Kreuzscher, Somers.

Sow, under 6 months.

First	M. W. Reed, Whitewater.
Second	Joseph Gordon, Mineral Point.
Third	M. W. Reed, Whitewater.

Produce of dam.

First	M. W. Reed, Whitewater.
Second	J. H. Kivlin, Brooklyn.

Get of sire.

First	Ed. W. Monnier, Elizabeth, Ill.
Second	M. W. Reed, Whitewater.

Champion boar.

First	M. W. Reed, Whitewater.
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Champion sow.

First	H. L. Sweet, Whitewater.
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BERKSHIRES.

Boar, 2 years old or over.

First	Thos. Teal & Son, Utica, Iowa.
Second	H. Hansen, Oshkosh.
Third	G. W. Trone & Son, Rushville, Ill.

Boar, over 6 months old and under 1 year.

First	Thos. Teal & Son, Utica, Iowa.
Second	H. P. West, Fayetteville.
Third	H. Hansen, Oshkosh.

Boar, under 6 months.

First	H. P. West, Fayetteville.
Second	H. P. West, Fayetteville.

Sow, 2 years old or over.

First	Thos. Teal & Son, Utica, Iowa.
Second	Thos. Teal & Son, Utica, Iowa.

Sow, 1 year old and under 2.

First	Thos. Teal & Son, Utica, Iowa.
Second	Thos. Teal & Son, Utica, Iowa.
Third	Thos. Teal & Son, Utica, Iowa.

Sow, 6 months and under 1 year.

First	Thos. Teal & Son, Utica, Iowa.
Second	Thos. Teal & Son, Utica, Iowa.
Third	H. P. West, Fayetteville.

Sow, under 6 months.

First	H. P. West, Fayetteville.
Second	H. Hansen, Oshkosh.
Third	H. Hansen, Oshkosh.

Produce of female.

First	H. P. West, Fayetteville.
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Get of sire.

First	Thos. Teal & Son, Utica, Iowa.
Second	H. Hansen, Oshkosh.

Champion boar.

First Thos. Teal & Son, Utica, Iowa.

Champion sow.

First Thos. Teal & Son, Utica, Iowa.

CHESTER WHITES.
Boar 2 years old or over.

First M. E. Newburn, Hennepin, Ill.

Second W. W. Vaughn, Spring Prairie.

Third Geo. W. Trone & Son, Rushville, Ill.

Boar, 1 year old and under 2.

First M. E. Newburn, Hennepin, Ill.

Second M. E. Newburn, Hennepin, Ill.

Third W. W. Vaughn, Spring Prairie.

Boar, over 6 months and under 1 year.

First M. E. Newburn, Hennepin, Ill.

Second M. E. Newburn, Hennepin, Ill.

Third Geo. W. Trone & Son, Rushville, Ill.

Boar, under 6 months.

First W. W. Vaughn, Spring Prairie.

Second M. E. Newburn, Hennepin, Ill.

Third W. W. Vaughn, Spring Prairie.

Sow, 2 years old or over.

First M. E. Newburn, Hennepin, Ill.

Second M. E. Newburn, Hennepin, Ill.

Third M. E. Newburn, Hennepin, Ill.

Sow, 1 year old and under 2.

First M. E. Newburn, Hennepin, Ill.

Second M. E. Newburn, Hennepin, Ill.

Third M. E. Newburn, Hennepin, Ill.

Sow, 6 months and under 1 year.

First	M. E. Newburn, Hennepin, Ill.
Second	M. E. Newburn, Hennepin, Ill.
Third	M. E. Newburn, Hennepin, Ill.

Sow, under 6 months.

First	M. E. Newburn, Hennepin, Ill.
Second	W. W. Vaughn, Spring Prairie.
Third	M. E. Newburn, Hennepin, Ill.

Produce of dam.

First	W. W. Vaughn, Spring Prairie.
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Get of sire.

First	M. E. Newburn, Hennepin, Ill.
Second	W. W. Vaughn, Spring Prairie.

Champion boar.

First	M. E. Newburn, Hennepin, Ill.
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Champion sow.

First	M. E. Newburn, Hennepin, Ill.
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VICTORIAS.

Boar, 2 years old or over.

First	Geo. InEichen, Celina, Ohio.
Second	H. P. West, Fayetteville.

Boar, 1 year old and under 2.

First	H. P. West, Fayetteville.
Second	Chas. T. Hill, Brookfield.
Third	Geo. InEichen, Celina, Ohio.

Boar, over 6 months and under 1 year.

First	H. P. West, Fayetteville.
Second	Chas. T. Hill, Brookfield.
Third	Geo. InEichen, Celina, Ohio.

ANNUAL REPORT OF THE

Boar, under 6 months.

First	Geo. InEichen, Celina, Ohio.
Second	Chas. T. Hill, Brookfield.
Third	Geo. InEichen, Celina, Ohio.

Sow, 2 years old or over.

First	Geo. InEichen, Celina, Ohio.
Second	Geo. InEichen, Celina, Ohio.
Third	H. P. West, Fayetteville.

Sow, 1 year old and under 2.

First	Geo. InEichen, Celina, Ohio.
Second	Geo. InEichen, Celina, Ohio.
Third	H. P. West, Fayetteville.

Sow, over 6 months and under 1 year.

First	Geo. InEichen, Celina, Ohio.
Second	H. P. West, Fayetteville.
Third	Geo. InEichen, Celina, Ohio.

Sow, under 6 months.

First	Geo. InEichen, Celina, Ohio.
Second	Geo. InEichen, Celina, Ohio.
Third	H. P. West, Fayetteville.

Produce of dam.

First	H. P. West, Fayetteville.
Second	Chas. T. Hill, Brookfield.
Third	H. P. West, Fayetteville.

Get of sire.

First	Geo. InEichen, Celina, Ohio.
Second	H. P. West, Fayetteville.

Champion boar.

First	H. P. West, Fayetteville.
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Champion sow.

First	Geo. InEichen, Celina, Ohio.
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DUROC-JERSEY.

Boar, 2 years old or over.

First	Geo. W. Trone & Sons, Rushville, Ill.
Second	Geo. W. Trone & Sons, Rushville, Ill.
Third	N. B. Cutler, Carthage, Ill.

Boar, 1 year old and under 2.

First	N. B. Cutler, Carthage, Ill
Second	Geo. W. Trone & Sons, Rushville, Ill

Boar, over 6 months and under 1 year.

First	Geo. W. Trone & Sons, Rushville, Ill
Second	Geo. W. Trone & Sons, Rushville, Ill
Third	M. W. Reed, Whitewater.

Boar, under 6 months.

First	N. B. Cutler, Carthage, Ill.
Second	M. W. Reed, Whitewater.
Third	M. W. Reed, Whitewater.

Sow, 2 years old or over.

First	Geo. W. Trone & Sons, Rushville, Ill.
Second	Geo. W. Trone & Sons, Rushville, Ill.
Third	N. B. Cutler, Carthage, Ill.

Sow, 1 year old and under 2.

First	N. B. Cutler, Carthage, Ill.
Second	Geo. W. Trone & Sons, Rushville, Ill.
Third	Geo. W. Trone & Sons, Rushville, Ill.

Sow, over 6 months and under 1 year.

First	N. B. Cutler, Carthage, Ill.
Second	Geo. W. Trone & Sons, Rushville, Ill.
Third	Geo. W. Trone & Sons, Rushville, Ill.

Sow, under 6 months.

First	M. W. Reed, Whitewater.
Second	N. B. Cutler, Carthage, Ill.
Third	M. W. Reed, Whitewater.

Produce of dam.

First	M. W. Reed, Whitewater.
Second	N. B. Cutler, Carthage, Ill.

Get of sire.

First	Geo. W. Trone & Sons, Rushville, Ill.
Second	N. B. Cutler, Carthage, Ill.

Champion boar.

First	N. B. Cutler, Carthage, Ill.
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Champion sow.

First	Geo. W. Trone & Sons, Rushville, Ill.
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ALL OTHER DISTINCT BREEDS.

Boar, 2 years old or over.

First	J. L. McMurray, California, Mich.
Second	H. P. West, Fayetteville.
Third	H. P. West, Fayetteville.

Boar, 1 year old and under 2.

First	H. P. West, Fayetteville.
Second	H. P. West, Fayetteville.

Boar, over 6 months and under 1 year.

First	J. L. McMurray, California, Mich.
Second	J. L. McMurray, California, Mich.
Third	A. A. Fuller, North Lake.

Boar, under 6 months.

First	J. L. McMurray, California, Mich.
Second	H. W. Ayers, Honey Creek.
Third	J. L. McMurray, California, Mich.

Sow, 2 years old or over.

First	J. L. McMurray, California, Mich.
Second	J. L. McMurray, California, Mich.
Third	H. P. West, Fayetteville.

Sow, 1 year old and under 2.

First J. L. McMurray, California, Mich.
 Second J. L. McMurray, California, Mich.
 Third H. P. West, Fayetteville.

Sow, over 6 months and under 1 year.

First J. L. McMurray, California, Mich.
 Second J. L. McMurray, California, Mich.
 Third J. L. McMurray, California, Mich.

Sow, under 6 months.

First J. L. McMurray, California, Mich.
 Second J. L. McMurray, California, Mich.
 Third H. P. West, Fayetteville.

Produce of dam.

First H. P. West, Fayetteville.
 Second H. P. West, Fayetteville.

Get of sire.

First J. L. McMurray, California, Mich.
 Second H. P. West, Fayetteville.

Champion boar.

First J. L. McMurray, California, Mich.

Champion sow.

First J. L. McMurray, California, Mich.

BEST EXHIBIT OF SWINE OWNED AND BRED BY A WISCONSIN EXHIBITOR.

First Joseph Gordon, Mineral Point.
 Second M. W. Reed, Whitewater.
 Third Jacob Kreuschcer, Somers.

The Wisconsin Swine Breeders' Association paid \$5.00 premium in each class, in department, for best boar pig under six months, bred and owned by the exhibitor.

POULTRY.

Judge—S. BUTTERFIELD, London, Ont.

BARRED PLYMOUTH ROCKS.

Cock.

First W. F. Grimshaw, Wauwatosa.
 Second E. G. Roberts, Fort Atkinson.

Cockerel.

First Geo. Cooke, Lamberton.
 Second Geo. Kreuzscher, Somers.

Hen.

First Geo. Kreuzscher, Somers.
 Second W. F. Grimshaw, Wauwatosa.

Pullet.

First E. G. Roberts, Fort Atkinson.
 Second Geo. Cooke, Lamberton.

WHITE PLYMOUTH ROCKS.

Cock.

First Edgewood Poultry Yards, Milwaukee.
 Second E. G. Roberts, Fort Atkinson.

Cockerel.

First Geo. Kreuzscher, Somers.
 Second Geo. Kreuzscher, Somers.

Hen.

First Edgewood Poultry Yards, Milwaukee.
 Second Arthur Ott, North Greenfield.

Pullet.

First Arthur Ott, North Greenfield.
 Second Geo. Kreuzscher, Somers.

BUFF PLYMOUTH ROCKS.

Cock.

First E. G. Roberts, Fort Atkinson.
 Second Kaston Bros., Milwaukee.

Cockerel.

First Frank R. Austermann, Waukesha.
 Second S. J. Filer, Waukesha.

Hen.

First E. G. Roberts, Fort Atkinson.
 Second Kaston Bros., Milwaukee.

Pullet.

First Frank R. Austermann, Waukesha.
 Second E. G. Roberts, Fort Atkinson.

GOLDEN WYANDOTTES.

Cock.

First E. G. Roberts, Fort Atkinson.
 Second S. S. Rich, Horicon.

Cockerel.

First E. G. Roberts, Fort Atkinson.
 Second Geo. Cooke, Lamberton.

Hen.

First S. S. Rich, Horicon.
 Second Geo. Cooke, Lamberton.

Pullet.

First E. G. Roberts, Fort Atkinson.
 Second Geo. Kreuzscher, Somers.

ANNUAL REPORT OF THE

SILVER WYANDOTTES.

Cock.

First	E. G. Roberts, Fort Atkinson.
Second	E. G. Roberts, Fort Atkinson.

Cockerel.

First	E. G. Roberts, Fort Atkinson.
Second	S. J. Filer, Waukesha.

Hen.

First	E. G. Roberts, Fort Atkinson.
Second	Geo. Kreuzscher, Somers.

Pullet.

First	E. G. Roberts, Fort Atkinson.
Second	S. J. Filer, Waukesha.

BUFF WYANDOTTES.

Cock.

First	E. G. Roberts, Fort Atkinson.
Second	C. H. Kuehn, Milwaukee.

Cockerel.

First	Daggett Bros., North Greenfield.
Second	Daggett Bros., North Greenfield.

Hen.

First	E. G. Roberts, Fort Atkinson.
Second	Daggett Bros., North Greenfield.

Pullet.

First	Daggett Bros., North Greenfield.
Second	Daggett Bros., North Greenfield.

WHITE WYANDOTTES.

Cock.

First Geo. Kreuscher, Somers.
 Second E. G. Roberts, Fort Atkinson.

Cockerel.

First Geo. Cooke, Lamberton.
 Second Geo. Kreuscher, Somers.

Hen.

First Stewart & Pasbrig, Milwaukee.
 Second J. R. Love, Waukesha.

Pullet.

First Geo. Cooke, Lamberton.
 Second J. R. Love, Waukesha.



BLACK WYANDOTTES.

Cock.

First E. G. Roberts, Fort Atkinson.

Hen.

First E. G. Roberts, Fort Atkinson.



BLACK JAVAS.

Cock.

First E. G. Roberts, Fort Atkinson.

Cockerel.

First Stewart & Pasbrig, Milwaukee.

Hen.

First E. G. Roberts, Fort Atkinson.

AMERICAN DOMINIQUES.

Cock.

First E. G. Roberts, Fort Atkinson.

Hen.

First E. G. Roberts, Fort Atkinson.

WHITE DORKINGS.

Cock.

First E. G. Roberts, Fort Atkinson.

Hen.

First E. G. Roberts, Fort Atkinson.

BLACK LANGSHANS.

Cock.

First Stewart & Pasbrig, Milwaukee.
 Second Geo. Cooke, Lamberton.

Cockerel.

First E. G. Roberts, Ft. Atkinson.
 Second Stewart & Pasbrig, Milwaukee.

Hen.

First Geo. Kreuschner, Somers.
 Second Geo. Cook, Lamberton.

Pullet.

First E. G. Roberts, Ft. Atkinson.
 Second Stewart & Pasbrig, Milwaukee.

DARK BRAHMA.

Cock.

First E. G. Roberts, Ft. Atkinson.
 Second J. R. Love, Waukesha.

Cockerel.

First J. R. Love, Waukesha.
 Second J. R. Love, Waukesha.

Hen.

First E. G. Roberts, Ft. Atkinson.
 Second J. R. Love, Waukesha.

Pullet.

First J. R. Love, Waukesha.
 Second J. R. Love, Waukesha.



LIGHT BRAHMAS.

Cock.

First E. G. Roberts, Ft. Atkinson.
 Second Geo. Kreuzer, Somers.

Cockerel.

First E. G. Roberts, Ft. Atkinson.
 Second Geo. Kreuzer, Somers.

Hen.

First J. R. Love, Waukesha.
 Second E. G. Roberts, Ft. Atkinson.

Pullet.

First J. R. Love, Waukesha.
 Second Stewart & Pasbrig, Milwaukee.

BUFF COCHINS.

Cock.

FirstGreenwald Bros., Milwaukee.
 SecondGeo. Cooke, Lamberton.

Cockerel.

FirstGreenwald Bros., Milwaukee.
 SecondE. G. Roberts, Ft. Atkinson.

Hen.

FirstGreenwald Bros., Milwaukee.
 SecondWm. Klose, Milwaukee.

Pullet.

FirstGeo. Kreuscher, Somers.
 SecondE. G. Roberts, Ft. Atkinson.

PARTRIDGE COCHINS.

Cock.

FirstGeo. Kreuscher, Somers.
 SecondE. G. Roberts, Ft. Atkinson.

Cockerel.

FirstGeo. Kreuscher, Somers.
 SecondGeo. Kreuscher, Somers.

Hen.

FirstGeo. Kreuscher, Somers.
 SecondGeo. Kreuscher, Somers.

Pullet.

FirstGeo. Kreuscher, Somers.
 SecondL. P. Gillon, Hale's Corners.

WHITE COCHINS.

Cock.

First E. G. Roberts, Ft. Atkinson.

Cockerel.

First Joerndt Bros., Kenosha.

Hen.

First E. G. Roberts, Ft. Atkinson.

Pullet.

First Joerndt Bros., Kenosha.



BLACK COCHINS.

Cock.

First E. G. Roberts, Ft. Atkinson.

Cockerel.

First E. G. Roberts, Ft. Atkinson.
 Second Joerndt Bros., Kenosha.

Hen.

First E. G. Roberts, Ft. Atkinson.

Pullet.

First E. G. Roberts, Ft. Atkinson.



BLUE ANDALUSIANS.

Cockerel.

First John E. Donovan, Milwaukee.
 Second John E. Donovan, Milwaukee.

Pullet.

First John E. Donovan, Milwaukee.
 Second E. G. Roberts, Ft. Atkinson.

SINGLE COMB BROWN LEGHORNS.

Cock.

First E. G. Roberts, Ft. Atkinson.
 Second Geo. Kreuzscher, Somers.

Cockerel.

First Geo. Kreuzscher, Somers.
 Second M. F. Madden, Troy.

Hen.

First Gordon Harper, Milwaukee.
 Second E. G. Roberts, Ft. Atkinson.

Pullet.

First E. G. Roberts, Ft. Atkinson.
 Second C. F. Eckstein, Wauwatosa.

ROSE COMB BROWN LEGHORNS.

Cock.

First E. G. Roberts, Ft. Atkinson.
 Second John C. Schulz, St. Francis.

Cockerel.

First John C. Schulz, St. Francis.
 Second E. G. Roberts, Ft. Atkinson.

Hen.

First John C. Schulz, St. Francis.
 Second E. G. Roberts, Ft. Atkinson.

Pullet.

First John C. Schulz, St. Francis.
 Second John C. Schulz, St. Francis.

SINGLE COMB WHITE LEGHORNS.

Cock.

First E. G. Roberts, Ft. Atkinson.
 Second Chas. Pappenheimer, Waukesha.

Cockerel.

First E. G. Roberts, Ft. Atkinson.
 Second Geo. Kreuscher, Somers.

Hen.

First Geo. Cooke, Lamberton.
 Second Geo. Cooke, Lamberton.

Pullet.

First Geo. Cooke, Lamberton.
 Second Geo. Kreuscher, Somers.

ROSE COMB WHITE LEGHORNS.

Cock.

First E. G. Roberts, Ft. Atkinson.
 Second Geo. Kreuscher, Somers.

Cockerel.

First E. G. Roberts, Ft. Atkinson.
 Second Geo. Kreuscher, Somers.

Hen.

First E. G. Roberts, Ft. Atkinson.
 Second Hasselkus & Heberlein, Milwaukee.

Pullet.

First Geo. Kreuscher, Somers.
 Second Geo. Kreuscher, Somers.

BLACK LEGHORNS.

Cock.

First E. G. Roberts, Ft. Atkinson.

Cockerel.

First E. G. Roberts, Ft. Atkinson.

Hen.

First E. G. Roberts, Ft. Atkinson.

Pullet.

First E. G. Roberts, Ft. Atkinson.

BUFF LEGHORNS.

Cock.

First E. G. Roberts, Ft. Atkinson.
 Second Kaston Bros., Milwaukee.

Cockerel.

First E. G. Roberts, Ft. Atkinson.
 Second Kaston Bros., Milwaukee.

Hen.

First Kaston Bros., Milwaukee.
 Second Kaston Bros., Milwaukee.

Pullet.

First E. G. Roberts, Ft. Atkinson.
 Second M. L. Smith, Waupun.

BLACK MINORCAS.

Cock.

First E. G. Roberts, Ft. Atkinson.
 Second E. G. Roberts, Ft. Atkinson.

Cockerel.

FirstC. F. Eckstein, Wauwatosa.
SecondE. G. Roberts, Ft. Atkinson.

Hen.

FirstC. F. Eckstein, Wauwatosa.
SecondE. G. Roberts, Ft. Atkinson.

Pullet.

FirstC. F. Eckstein, Wauwatosa.
SecondC. F. Eckstein, Wauwatosa.



WHITE MINORCAS.

Cockerel.

FirstE. G. Roberts, Ft. Atkinson.

Pullet.

FirstE. G. Roberts, Ft. Atkinson.



WHITE-FACED BLACK SPANISH.

Cock.

FirstFrank Jirachek, North Greenfield.

Hen.

FirstFrank Jirachek, North Greenfield.

Pullet.

SecondFrank Jirachek, North Greenfield.

ANNUAL REPORT OF THE

MOTTLED HOUDANS.

Cock.

First E. G. Roberts, Ft. Atkinson.
 Second S. S. Rich, Horicon.

Cockerel.

First E. G. Roberts, Ft. Atkinson.
 Second S. S. Rich, Horicon.

Hen.

First S. S. Rich, Horicon.
 Second E. G. Roberts, Ft. Atkinson.

Pullet.

First E. G. Roberts, Ft. Atkinson.
 Second S. S. Rich, Horicon.

 BUFF LACED POLISH.
Cock.

First E. G. Roberts, Ft. Atkinson.

Cockerel.

First E. G. Roberts, Ft. Atkinson.

 BLACK POLISH.
Cock.

First E. G. Roberts, Ft. Atkinson.

Cockerel.

First E. G. Roberts, Ft. Atkinson.
 Second Geo. Cooke, Lamberton.

Hen.

First E. G. Roberts, Ft. Atkinson.
 Second Geo. Cooke, Lambertton.

Pullet.

First E. G. Roberts, Ft. Atkinson.
 Second Geo. Cooke, Lambertton.

WHITE POLISH.

Cock.

First E. G. Roberts, Ft. Atkinson.
 Second E. G. Roberts, Ft. Atkinson.

Cockerel.

First E. G. Roberts, Ft. Atkinson.
 Second E. G. Roberts, Ft. Atkinson.

Hen.

First E. G. Roberts, Ft. Atkinson.
 Second E. G. Roberts, Ft. Atkinson.

Pullet.

First E. G. Roberts, Ft. Atkinson.
 Second E. G. Roberts, Ft. Atkinson.

SILVER POLISH.

Cock.

First E. G. Roberts, Ft. Atkinson.
 Second E. G. Roberts, Ft. Atkinson.

Cockerel.

First E. G. Roberts, Ft. Atkinson.

Hen.

First E. G. Roberts, Ft. Atkinson.
 Second E. G. Roberts, Ft. Atkinson.

Pullet.

First E. G. Roberts, Ft. Atkinson.

ANNUAL REPORT OF THE

GOLDEN POLISH.

Cock.

First	E. G. Roberts, Ft. Atkinson.
Second	E. G. Roberts, Ft. Atkinson.

Cockerel.

First	E. G. Roberts, Ft. Atkinson.
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Hen.

First	E. G. Roberts, Ft. Atkinson.
Second	E. G. Roberts, Ft. Atkinson.

Pullet.

First	E. G. Roberts, Ft. Atkinson.
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BLACK HAMBURG.

Cock.

First	Otto L. Kuehn, Milwaukee.
Second	E. G. Roberts, Ft. Atkinson.

Cockerel.

First	E. G. Roberts, Ft. Atkinson.
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Hen.

First	Otto L. Kuehn, Milwaukee.
Second	Otto L. Kuehn, Milwaukee.

Pullet.

First	Otto L. Kuehn, Milwaukee.
Second	E. G. Roberts, Ft. Atkinson.

SILVER SPANGLED HAMBURGS.

Cock.

First	S. S. Rich, Horicon.
Second	E. G. Roberts, Ft. Atkinson.

Cockerel.

First	Chas. Pappenheimer, Waukesha.
Second	Geo. Cooke, Lambertton.

Hen.

FirstS. S. Rich, Horicon.
 SecondE. G. Roberts, Ft. Atkinson.

Pullet.

FirstS. S. Rich, Horicon.
 SecondS. S. Rich, Horicon.

SILVER PENCILED HAMBURGS.

Cock.

FirstE. G. Roberts, Ft. Atkinson.

Cockerel.

FirstE. G. Roberts, Ft. Atkinson.
 SecondChas. Pappenheimer, Waukesha.

Hen.

FirstChas. Pappenheimer, Waukesha.
 SecondE. G. Roberts, Ft. Atkinson.

Pullet.

FirstChas. Pappenheimer, Waukesha.
 SecondChas. Pappenheimer, Waukesha.

GOLDEN SPANGLED HAMBURGS.

Cock.

FirstE. G. Roberts, Ft. Atkinson.

Hen.

FirstE. G. Roberts, Ft. Atkinson.
 SecondE. G. Roberts, Ft. Atkinson.

GOLDEN PENCILED HAMBURGS.

Cock.

First	E. G. Roberts, Ft. Atkinson.
Second	E. G. Roberts, Ft. Atkinson.

Hen.

First	E. G. Roberts, Ft. Atkinson.
Second	E. G. Roberts, Ft. Atkinson.

BROWN RED GAMES.

Cock.

First	E. G. Roberts, Ft. Atkinson.
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Hen.

First	E. G. Roberts, Ft. Atkinson.
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CORNISH INDIAN GAMES.

Cock.

First	Stewart & Pasbrig, Milwaukee.
Second	E. G. Roberts, Ft. Atkinson.

Cockerel.

First	S. S. Rich, Horicon.
Second	Stewart & Pasbrig, Milwaukee.

Hen.

First	E. G. Roberts, Ft. Atkinson.
Second	Stewart & Pasbrig, Milwaukee.

Pullet.

First	S. S. Rich, Horicon.
Second	Stewart & Pasbrig, Milwaukee.

PYLE GAMES.

Cock.

First E. G. Roberts, Ft. Atkinson.

Hen.

First E. G. Roberts, Ft. Atkinson.

Pullet.

First E. G. Roberts, Ft. Atkinson.

BLACK BREASTED GAME.

Cock.

First E. G. Roberts, Ft. Atkinson.

Cockerel.

Second E. G. Roberts, Ft. Atkinson.

Hen.

First E. G. Roberts, Ft. Atkinson.

Pullet.

First E. G. Roberts, Ft. Atkinson.

BLACK TARTAR GAMES.

E. G. Roberts, Ft. Atkinson, took all premiums in class.

GOLDEN DUCKWING GAMES.

All prizes taken by E. G. Roberts.

SILVER DUCKWING GAMES.

All first prizes in class taken by E. G. Roberts.

SILVER SEABRIGHT BANTAMS.

Cock.

First	Otto L. Kuehn, Milwaukee.
Second	E. G. Roberts, Ft. Atkinson.

Cockerel.

First	E. G. Roberts, Ft. Atkinson.
Second	Otto L. Kuehn, Milwaukee.

Hen.

First	E. G. Roberts, Ft. Atkinson.
Second	Otto L. Kuehn, Milwaukee.

Pullet.

First	Otto L. Kuehn, Milwaukee.
Second	E. G. Roberts, Ft. Atkinson.

GOLDEN SEABRIGHT BANTAMS.

Cock.

First	M. L. Smith, Waupun.
Second	C. F. Eckstein, Wauwatosa.

Cockerel.

First	Geo. Cooke, Lambertton.
Second	John C. Schulz, St. Francis.

Hen.

First	John C. Schulz, St. Francis.
Second	John C. Schulz, St. Francis.

Pullet.

First	Geo. Cooke, Lambertton.
Second	Geo. Cooke, Lambertton.

SILVER DUCKWING BANTAMS.

Cock.

First	E. G. Roberts, Ft. Atkinson.
Second	E. R. Wehr, Milwaukee.

Cockerel.

First E. G. Roberts, Ft. Atkinson.

Hen.

First E. G. Roberts, Ft. Atkinson.

Second E. R. Wehr, Milwaukee.

Pullet.

First E. G. Roberts, Ft. Atkinson.

BLACK BREASTED RED GAME BANTAMS.

Cock.

First C. H. Kuehn, Milwaukee.

Second E. G. Roberts, Ft. Atkinson.

Cockerel.

First C. H. Kuehn, Milwaukee.

Second C. H. Kuehn, Milwaukee.

Hen.

First C. H. Kuehn, Milwaukee.

Second C. H. Kuehn, Milwaukee.

Pullet.

First E. G. Roberts, Ft. Atkinson.

Second C. H. Kuehn, Milwaukee.

RED PYLE GAME BANTAMS.

Cock.

First E. G. Roberts, Ft. Atkinson.

Second Stewart & Pasbrig, Milwaukee.

Cockerel.

First E. G. Roberts, Ft. Atkinson.

Second E. R. Wehr, Milwaukee.

Hen.

First E. G. Roberts, Ft. Atkinson.

Second E. G. Roberts, Ft. Atkinson.

ANNUAL REPORT OF THE

Pullet.

First E. R. Wehr, Milwaukee.
 Second Stewart & Pasbrig, Milwaukee.

BROWN RED GAME BANTAMS.

Cock.

First E. G. Roberts, Ft. Atkinson.

Cockerel.

First E. G. Roberts, Ft. Atkinson.

Hen.

First E. G. Roberts, Ft. Atkinson.

Pullet.

First E. G. Roberts, Ft. Atkinson.

GOLDEN DUCKWING GAME BANTAMS.

All first prizes in class to E. G. Roberts. No seconds.

WHITE GAME BANTAMS.

Cock.

First E. G. Roberts, Ft. Atkinson.

Cockerel.

First E. G. Roberts, Ft. Atkinson.

Hen.

First E. G. Roberts, Ft. Atkinson.

Pullet.

First E. G. Roberts, Ft. Atkinson.
 Second S. S. Rich, Horicon.

PARTRIDGE COCHIN BANTAMS.

Cock.

First Henry Guertz, Milwaukee.
Second Wm. Klose, Milwaukee.

Cockerel.

Second Henry Guertz, Milwaukee.

Hen.

First Henry Guertz, Milwaukee.
Second Wm. Klose, Milwaukee.

Pullet.

First Henry Guertz, Milwaukee.

BUFF COCHIN BANTAMS.

Cock.

First E. G. Roberts, Ft. Atkinson.
Second E. G. Roberts, Ft. Atkinson.

Cockerel.

First Gordon Harper, Milwaukee.
Second E. G. Roberts, Ft. Atkinson.

Hen.

First M. L. Smith, Waupun.
Second E. G. Roberts, Ft. Atkinson.

Pullet.

First Henry Guertz, Milwaukee.
Second E. G. Roberts, Ft. Atkinson.

WHITE COCHIN BANTAMS.

Cock.

First Henry Guertz, Milwaukee.
 Second E. G. Roberts, Ft. Atkinson.

Cockerel.

First Gordon Harper, Milwaukee.
 Second Gordon Harper, Milwaukee.

Hen.

First E. G. Roberts, Ft. Atkinson.
 Second Henry Guertz, Milwaukee.

Pullet.

First E. G. Roberts, Ft. Atkinson.
 Second Gordon Harper, Milwaukee.

BLACK COCHIN BANTAMS.

Cock.

First E. G. Roberts, Ft. Atkinson.
 Second Gordon Harper, Milwaukee.

Cockerel.

First E. G. Roberts, Ft. Atkinson.
 Second Stewart & Pasbrig, Milwaukee.

Hen.

First Gordon Harper, Milwaukee.
 Second E. G. Roberts, Ft. Atkinson.

Pullet.

First E. G. Roberts, Ft. Atkinson.
 Second E. G. Roberts, Ft. Atkinson.

BLACK ROSE COMBED BANTAMS.

Cock.

First C. F. Eckstein, Wauwatosa.
 Second E. G. Roberts, Ft. Atkinson.

Cockerel.

First E. G. Roberts, Ft. Atkinson.
 Second E. G. Roberts, Ft. Atkinson.

Hen.

First C. F. Eckstein, Wauwatosa.
 Second E. G. Roberts, Ft. Atkinson.

Pullet.

First E. G. Roberts, Ft. Atkinson.
 Second E. G. Roberts, Ft. Atkinson.

WHITE JAPANESE BANTAMS.

Cock.

First E. G. Roberts, Ft. Atkinson.
 Second C. F. Eckstein, Wauwatosa.

Cockerel.

First E. G. Roberts, Ft. Atkinson.

Hen.

First C. F. Eckstein, Wauwatosa.
 Second E. G. Roberts, Ft. Atkinson.

Pullet.

First E. G. Roberts, Ft. Atkinson.

SWEEPSTAKES.

American Breeds.

First E. G. Roberts, Ft. Atkinson.

Asiatic Breeds.

First E. G. Roberts, Ft. Atkinson.



TURKEYS.

Bronze.

First E. G. Roberts, Ft. Atkinson.
 Second H. P. West, Fayetteville.

Black.

First E. G. Roberts, Ft. Atkinson.

Slate.

First E. G. Roberts, Ft. Atkinson.

White Holland.

First E. G. Roberts, Ft. Atkinson.
 Second Geo. T. Gillon, Hale's Corners.

Narragansett.

First E. G. Roberts, Ft. Atkinson.
 Second E. G. Roberts, Ft. Atkinson.

Buff.

First E. G. Roberts, Ft. Atkinson.
 Second E. G. Roberts, Ft. Atkinson.

DUCKS.

Pekin.

FirstH. D. Tower, Milwaukee.
 SecondH. D. Tower, Milwaukee.

Aylesbury.

FirstGeo. Kreuzscher, Somers.
 SecondE. G. Roberts, Ft. Atkinson.

Rouen.

FirstE. G. Roberts, Ft. Atkinson.
 SecondE. G. Roberts, Ft. Atkinson.

Muscovy.

FirstE. G. Roberts, Ft. Atkinson.
 SecondE. G. Roberts, Ft. Atkinson.

East India.

FirstE. G. Roberts, Ft. Atkinson.
 SecondE. G. Roberts, Ft. Atkinson.



GEESE.

Toulouse.

FirstE. G. Roberts, Ft. Atkinson.
 SecondGeo. Kreuzscher, Somers.

Emden.

FirstE. G. Roberts, Ft. Atkinson.
 SecondM. L. Smith, Waupun.

African.

FirstE. G. Roberts, Ft. Atkinson.
 SecondE. G. Roberts, Ft. Atkinson.

Wild.

FirstE. G. Roberts, Ft. Atkinson.

Chinese White.

First	E. G. Roberts, Ft. Atkinson.
Second	E. G. Roberts, Ft. Atkinson.

Chinese Brown.

First	E. G. Roberts, Ft. Atkinson.
Second	E. G. Roberts, Ft. Atkinson.

MISCELLANEOUS FOWLS.

Guinea fowls, mottled.

First	E. G. Roberts, Ft. Atkinson.
Second	Chas. Pappenheimer, Waukesha.

Guinea fowls, white.

First	E. G. Roberts, Ft. Atkinson.
Second	E. G. Roberts, Ft. Atkinson.

English Pheasants.

First	F. C. Rader, Milwaukee.
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Rumpless fowls.....

First	E. G. Roberts, Ft. Atkinson.
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Japanese Silkies.

First	E. G. Roberts, Ft. Atkinson.
Second	E. G. Roberts, Ft. Atkinson.

Frizzles.

First	E. G. Roberts, Ft. Atkinson.
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Call Ducks.

First	E. G. Roberts, Ft. Atkinson.
Second	Chas. Pappenheimer, Waukesha.

White Crested Ducks.

First	E. G. Roberts, Ft. Atkinson.
Second	E. G. Roberts, Ft. Atkinson.

BELGIAN HARES.

Buck, 1 year old or over.

- FirstWaukesha Belgian Hare Co., Waukesha.
 SecondEd. R. Suender, Chicago.

Doe, 1 year old or over.

- FirstWaukesha Belgian Hare Co., Waukesha.
 SecondEd. R. Suender, Chicago.

Buck, over 6 months and under 1 year.

- FirstWaukesha Belgian Hare Co., Waukesha.
 SecondEd. R. Suender, Chicago.

Doe, over 6 months and under 1 year.

- FirstWaukesha Belgian Hare Co., Waukesha.
 SecondEd. R. Suender, Chicago.

Doe with litter.

- FirstWaukesha Belgian Hare Co., Waukesha.

AGRICULTURE.

Judge—H. B. DRAKE, Beaver Dam.

GRAINS.

Winter wheat.

- FirstJ. H. Pilgrim, Milwaukee.
 SecondJohn Grape, Waukesha.

Spring wheat.

- FirstH. P. West, Fayetteville.
 SecondJ. H. Pilgrim, Milwaukee.

Oats, Welcome type.

First	W. F. Pilgrim, Wauwatosa.
Second	John Grape, Waukesha.

Oats, Russian type.

First	J. H. Pilgrim, Milwaukee.
Second	H. P. West, Fayetteville.

Barley, bearded.

First	W. F. Pilgrim, Wauwatosa.
Second	John Haus, Jefferson.

Barley, beardless.

First	Samuel Smith, Sparta.
Second	John Grape, Waukesha.

Rye, spring.

First	H. P. West, Fayetteville.
Second	John Haus, Jefferson.

Rye, winter.

First	John Haus, Jefferson.
Second	Samuel Smith, Sparta.

Buckwheat, Japanese.

First	J. H. Pilgrim, Milwaukee.
Second	West & Stiles, Lake Mills.

Buckwheat, silver hull.

First	J. H. Pilgrim, Milwaukee.
Second	M. J. Madden, Troy.

Flax seed.

First	J. H. Pilgrim, Milwaukee.
Second	H. P. West, Fayetteville.

Timothy seed.

First	M. J. Madden, Troy.
Second	H. P. West, Fayetteville.

Red Clover Seed.

First	W. F. Pilgrim, Wauwatosa.
Second	John Grape, Waukesha.

White clover seed.

First J. H. Pilgrim, Milwaukee.
 Second W. F. Pilgrim, Wauwatosa.

Alsike clover seed.

First H. P. West, Fayetteville.
 Second J. H. Pilgrim, Milwaukee.

Red top seed.

First J. H. Pilgrim, Milwaukee.
 Second H. P. West, Fayetteville.

Rape seed.

First H. P. West, Fayetteville.
 Second J. H. Pilgrim, Milwaukee.

Millet, golden.

First H. P. West, Fayetteville.
 Second J. H. Pilgrim, Milwaukee.

Millet, white.

First West & Stiles, Lake Mills.
 Second M. J. Madden, Troy.

Peas, extra early.

First J. H. Pilgrim, Milwaukee.
 Second John Grape, Waukesha.

Peas, Alaska.

First W. F. Pilgrim, Wauwatosa.
 Second John Haus, Jefferson.

Peas, green field.

First Mrs. B. C. Ingersoll, Prospect.
 Second H. P. West, Fayetteville.

Peas, white field.

First Mrs. B. C. Ingersoll, Prospect.
 Second H. P. West, Fayetteville.

Peas, white marrowfat.

First	Mrs. B. C. Ingersoll, Prospect.
Second	M. J. Madden, Troy.

Peas, early wrinkled.

First	W. F. Pilgrim, Wauwatosa.
Second	John Grape, Waukesha.

Lentil seed.

First	John Grape, Waukesha.
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Beans, navy.

First	Casper Olson, Genesee.
Second	John Haus, Jefferson.

Beans, any other white field variety.

First	Mrs. B. C. Ingersoll, Prospect.
Second	Casper Olson, Genesee.

Wax beans.

First	Mrs. B. C. Ingersoll, Prospect.
Second	John Grape, Waukesha.

Lima beans.

First	John Grape, Waukesha.
Second	J. H. Pilgrim, Milwaukee.

Corn, white dent.

First	Samuel Smith, Sparta.
Second	Chas. Pappenheimer, Waukesha.

Corn, white flint.

First	J. H. Pilgrim, Milwaukee.
Second	John Haus, Jefferson.

Corn, yellow flint.

First	West & Stiles, Lake Mills.
Second	Samuel Smith, Sparta.

Corn, yellow dent.

First	Samuel Smith, Sparta.
Second	John Haus, Jefferson.

Early sweet corn.

First J. H. Pilgrim, Milwaukee.
Second Casper Olson, Genesee.

Late sweet corn.

First West & Stiles, Lake Mills.
Second D. Sheldon, Lake Mills.

Pop-corn.

First Chas. Pappenheimer, Waukesha.
Second J. H. Pilgrim, Milwaukee.

LEAF TOBACCO.

First H. P. West, Fayetteville.
Second Casper Olson, Genesee.

VEGETABLES.

Judge—L. L. OLDS, Clinton.

Turnip, blood beets.

First Mrs. B. C. Ingersoll, Prospect.
Second John Grape, Waukesha.

Long blood beets.

First Mrs. B. C. Ingersoll, Prospect.
Second Casper Olson, Genesee.

Long red mangolds.

First John Grape, Waukesha.
Second Mrs. B. C. Ingersoll, Prospect.

Yellow tankards.

First Casper Olson, Genesee.
 Second John Grape, Waukesha.

Yellow onions.

First John Grape, Waukesha.
 Second Casper Olson, Genesee.

Red onions.

First Casper Olson, Genesee.
 Second Mrs. B. C. Ingersoll, Prospect.

White onions.

First Casper Olson, Genesee.
 Second Mrs. B. C. Ingersoll, Prospect.

Cabbage, drumhead.

First Casper Olson, Genesee.
 Second John Grape, Waukesha.

Cabbage, pointed.

First John Grape, Waukesha.
 Second Casper Olson, Genesee.

Long red carrots.

First Mrs. B. C. Ingersoll, Prospect.
 Second Casper Olson, Genesee.

White carrots.

First Casper Olson, Genesee.
 Second Mrs. B. C. Ingersoll, Prospect.

Oxhart carrots.

First Mrs. B. C. Ingersoll, Prospect.
 Second Casper Olson, Genesee.

Cauliflower heads.

First John Grape, Waukesha.

Celery.

First John Grape, Waukesha.
 Second Mrs. B. C. Ingersoll, Prospect.

Parsnips.

First Casper Olson, Genesee.
 Second Mrs. B. C. Ingersoll, Prospect.

Water melons.

First John Grape, Waukesha.
 Second Casper Olson, Genesee.

Musk melons.

First W. F. Pilgrim, Wauwatosa.
 Second Casper Olson, Genesee.

Winter squashes.

First Casper Olson, Genesee.
 Second John Grape, Waukesha.

Largest squash.

First Casper Olson, Genesee.
 Second John Grape, Waukesha.

Largest pumpkin.

First Casper Olson, Genesee.
 Second John Grape, Waukesha.

Tomatoes.

First Mrs. B. C. Ingersoll, Prospect.
 Second Casper Olson, Genesee.

Flat turnips.

First W. F. Pilgrim, Wauwatosa.
 Second John Grape, Waukesha.

Rutabagas.

First Mrs. B. C. Ingersoll, Prospect.
 Second John Grape, Waukesha.

Yellow pumpkins.

First Casper Olson, Genesee.
 Second John Grape, Waukesha.

Egg plants.

First	Casper Olson, Genesee.
Second	John Grape, Waukesha.

Cucumbers.

First	Casper Olson, Genesee.
Second	John Grape, Waukesha.

Peppers.

First	Casper Olson, Genesee.
Second	John Grape, Waukesha.

POTATOES, PROFESSIONAL CLASS.

Ohio family.

First	Kelly Bros., Mineral Point.
Second	H. P. West, Fayetteville.

Rose family.

First	H. P. West, Fayetteville.
Second	Kelly Bros., Mineral Point.

Hebron family.

First	H. P. West, Fayetteville.
Second	Kelly Bros., Mineral Point.

Snow flake family.

First	Kelly Bros., Mineral Point.
Second	H. P. West, Fayetteville.

Burbank family.

First	Kelly Bros., Mineral Point.
Second	H. P. West, Fayetteville.

POTATOES, FARMERS' CLASS.

World's Fair.

First Casper Olson, Genesee.
 Second J. H. Pilgrim, Milwaukee.

Early Ohio.

First Mrs. B. C. Ingersoll, Prospect.
 Second J. H. Pilgrim, Milwaukee.

Rural New Yorker No. 2.

First Mrs. B. C. Ingersoll, Prospect.
 Second Casper Olson, Genesee.

Early Rose.

First Casper Olson, Genesee.
 Second J. H. Pilgrim, Milwaukee.

Beauty of Hebron.

First Casper Olson, Genesee.
 Second Mrs. B. C. Ingersoll, Prospect.

Early Vaughn.

First Mrs. B. C. Ingersoll, Prospect.

Early Michigan.

First Casper Olson, Genesee.
 Second Mrs. B. C. Ingersoll, Prospect.

Burbank.

First Casper Olson, Genesee.

** Empire State.*

First Casper Olson, Genesee.

American Wonder.

First Casper Olson, Genesee.

Rose of Erin.

First Casper Olson, Genesee.
 Second John Grape, Waukesha.

Carmen.

First	Casper Olson, Genesee.
Second	John Grane, Waukesha.

 COUNTY EXHIBITS.

Judge—L. L. OLDS, Clinton.

First, Marathon County	2,080 points.
Second, Price County	1,980 points.
Third, Douglas County	1,805 points.
Fourth, Taylor County	1,735 points.
Fifth, Waukesha County	1,690 points.
Sixth, Barron County	1,625 points.
Seventh, Walworth County	1,515 points.
Eighth, Ashland County	1,460 points.
Ninth, Oconto County	1,395 points.
Tenth, Kenosha County	1,275 points.

 BEES AND HONEY.

Judge—N. E. FRANCE, Platteville.

Italian bees.

First	E. D. Ochsner, Prairie du Sac.
Second	J. J. Ochsner, Prairie du Sac.

Carniolan bees.

First	J. J. Ochsner, Prairie du Sac.
Second	E. D. Ochsner, Prairie du Sac.

White comb honey.

First	E. D. Ochsner, Prairie du Sac.
Second	J. J. Ochsner, Prairie du Sac.

White extracted honey.

First E. D. Ochsner, Prairie du Sac.
Second J. J. Ochsner, Prairie du Sac.

Amber comb honey.

First E. D. Ochsner, Prairie du Sac.
Second Mrs. Robert Ramsey, Baraboo.

Amber extracted honey.

First E. D. Ochsner, Prairie du Sac.
Second Mrs. Robert Ramsey, Baraboo.

Dark comb honey.

First E. D. Ochsner, Prairie du Sac.
Second Mrs. Robert Ramsey, Baraboo.

Dark extracted honey.

First H. P. West, Fayetteville.
Second Mrs. Robert Ramsey, Baraboo.

Most attractive display comb honey.

First E. D. Ochsner, Prairie du Sac.
Second J. J. Ochsner, Prairie du Sac.

Most attractive display extracted honey.

First E. D. Ochsner, Prairie du Sac.
Second J. J. Ochsner, Prairie du Sac.

Bees' wax.

First E. D. Ochsner, Prairie du Sac.
Second J. J. Ochsner, Prairie du Sac.

Display apiarian implements.

First E. D. Ochsner, Prairie du Sac.
Second J. J. Ochsner, Prairie du Sac.

CULINARY.

Judge—Miss IDA HAGEN, Manitowoc.

White bread.

FirstMrs. T. P. Leonard, North Greenfield.
 SecondViola Albert, Milwaukee.

Indian bread.

FirstMrs. L. Yanke, Waukesha.
 SecondMrs. G. Rood, Stevens Point.

Rye bread.

FirstMrs. L. Yanke, Waukesha.
 SecondSusie Abert, Milwaukee.

Graham bread.

FirstSusie Abert, Milwaukee.
 SecondMrs. A. L. Tenney, Hartland.

Light rolls.

FirstMrs. L. Yanke, Waukesha.
 SecondSusie Abert, Milwaukee.

Baking powder biscuits.

FirstMrs. T. P. Leonard, North Greenfield.
 SecondMrs. Wm. Sweeney, Fox Lake.

Doughnuts.

FirstElla Leonard, Milwaukee.
 SecondMrs. T. P. Leonard, North Greenfield.

Fruit cake.

FirstSusie Abert, Milwaukee.
 SecondMrs. G. Rood, Stevens Point.

Nut cake.

FirstMrs. T. P. Leonard, North Greenfield.
 SecondElla Leonard, Milwaukee.

Angels' cake.

First Susie Abert, Milwaukee.
 Second Mrs. E. W. Fisher, Janesville.

Sunshine cake.

First Mrs. Theo. L. Newton, Beaver Dam.
 Second Mrs. C. G. Porter, Wauwatosa.

Torte cake.

First Viola Abert, Milwaukee.
 Second Ella Leonard, Milwaukee.

Layer chocolate cake.

First Viola Abert, Milwaukee.
 Second M. I. Strong, North Greenfield.

Layer cocoanut cake.

First Ella Leonard, Milwaukee.
 Second Mrs. T. P. Leonard, North Greenfield.

Layer orange cake.

First Ella Leonard, Milwaukee.
 Second Mrs. L. Yanke, Waukesha.

Layer fig cake.

First Ella Leonard, Milwaukee.
 Second Mrs. L. Yanke, Waukesha.

White cookies.

First Ella Leonard, Milwaukee.
 Second Mrs. T. P. Leonard, North Greenfield.

Dark cookies.

First Viola Abert, Milwaukee.
 Second Mrs. L. Yanke, Waukesha.

Apple pie.

First Ella Leonard, Milwaukee.
 Second Mrs. A. Le Feber, North Greenfield.

Mince pie.

First Mrs. L. Yanke, Waukesha.
 Second Susie Abert, Milwaukee.

Lemon pie.

First	Mrs. Wm. Sweeney, Fox Lake.
Second	Mrs. L. Yanke, Waukesha.

Saratoga chips.

First	Mrs. L. Yanke, Waukesha.
Second	Susie Abert, Milwaukee.

CANNED GOODS, ETC.

Canned peaches.

First	Mrs. Geo. B. Smith, Green Bay.
Second	Mrs. B. C. Ingersoll, Prospect.

Canned plums.

First	Mrs. L. Yanke, Waukesha.
Second	Mrs. John Haus, Jefferson.

Canned currants.

First	Mrs. L. Yanke, Waukesha.
Second	Mrs. Geo. B. Smith, Green Bay.

Canned tomatoes.

First	Mrs. B. C. Ingersoll, Prospect.
Second	Mrs. L. Yanke, Waukesha.

Canned gooseberries.

First	Mrs. A. L. Tenney, Hartland.
Second	Mrs. L. Yanke, Waukesha.

Canned red raspberries.

First	Mrs. B. C. Ingersoll, Prospect.
Second	Mrs. Geo. B. Smith, Green Bay.

Canned black raspberries.

First	Mrs. L. Yanke, Waukesha.
Second	Mrs. John Haus, Jefferson.

Canned strawberries.

First	Mrs. L. Yanke, Waukesha.
Second	Mrs. John Haus, Jefferson.

Canned grapes.

First Mrs. John Haus, Jefferson.
 Second Susie Abert, Milwaukee.

Canned blackberries.

First Mrs. L. Yanke, Waukesha.
 Second Mrs. John Haus, Jefferson.

Canned cherries.

First Ella Leonard, Milwaukee.
 Second Mrs. John Haus, Jefferson.

Canned pears.

First Mrs. B. C. Ingersoll, Prospect.
 Second Susie Abert, Milwaukee.

Canned pineapple.

First Susie Abert, Milwaukee.
 Second Mrs. John Haus, Jefferson.

Plum jelly.

First Mrs. B. C. Ingersoll, Prospect.
 Second Ella Leonard, Milwaukee.

Currant jelly.

First Ella Leonard, Milwaukee.
 Second Mrs. B. C. Ingersoll, Prospect.

Red raspberry jelly.

First Mrs. L. Yanke, Waukesha.
 Second Mrs. Geo. B. Smith, Green Bay.

Crab apple jelly.

First Mrs. Geo. B. Smith, Green Bay.
 Second Mrs. John Haus, Jefferson.

Blackberry jelly.

First Mrs. L. Yanke, Waukesha.
 Second Mrs. Geo. B. Smith, Green Bay.

Grape jelly.

First Mrs. T. P. Leonard, North Greenfield.
 Second Ella Leonard, Milwaukee.

Quince jelly.

First	Mrs. B. C. Ingersoll, Prospect.
Second	Mrs. L. Yanke, Waukesha.

Raspberry jam.

First	Ella Leonard, Milwaukee.
Second	Mrs. L. Yanke, Waukesha.

Blackberry jam.

First	Mrs. John Haus, Jefferson.
Second	Mrs. Geo. B. Smith, Green Bay.

Strawberry jam.

First	Ella Leonard, Milwaukee.
Second	Mrs. L. Yanke, Waukesha.

Plum jam.

First	Mrs. L. Yauke, Waukesha.
Second	Susie Abert, Milwaukee.

Crabapple pickles.

First	Mrs. B. C. Ingersoll, Prospect.
Second	Mrs. L. Yanke, Waukesha.

Pickled peaches.

First	Mrs. B. C. Ingersoll, Prospect.
Second	Susie Abert, Milwaukee.

Pickled pears.

First	Susie Abert, Milwaukee.
Second	Mrs. L. Yanke, Waukesha.

Dill pickles.

First	Susie Abert, Milwaukee.
Second	Mrs. L. Yanke, Waukesha.

Sour pickles.

First	Mrs. A. Le Feber, North Greenfield.
Second	Mrs. George B. Smith, Green Bay.

Sweet cucumber pickles.

- FirstMrs. L. Yauke, Waukesha.
SecondMrs. Geo. B. Smith, Green Bay.

Cauliflower pickles.

- FirstMrs. L. Yauke, Waukesha.
SecondMrs. B. C. Ingersoll, Prospect.

Onion pickles.

- FirstMrs. L. Yauke, Waukesha.
SecondMrs. B. C. Ingersoll, Prospect.

Mixed pickles.

- FirstMrs. Geo. B. Smith, Green Bay.
SecondSusie Abert, Milwaukee.

Mustard pickles.

- FirstMrs. John Haus, Jefferson.
SecondMrs. L. Yanke, Waukesha.

Catsup.

- FirstMrs. Geo. B. Smith, Green Bay.
SecondSusie Abert, Milwaukee.

Best and largest exhibit canned goods, etc., etc.

- FirstMrs. L. Yauke, Waukesha.
SecondMrs. Susie Abert, Milwaukee.

DAIRY.

Judge—JOHN MIDDLESTADT, Chicago.

BUTTER.

Creamery.

	Score.
Robt. L. Adams, Dousman	92½
F. W. Ashman, Woodlawn	95½
Henry Bast, Garnet	93
Jos. Bast, Stockbridge	90½
C. O. Black, Marshall	96½
F. J. Biehn, Kenosha	94½
R. P. Bjerregaard, New Franken	92
Dan Bluer, Omro	96
J. E. Boetcher, Guthrie	96
Fred. Bolden, Salem	95
F. P. Bowar, Cazenovia	92
R. M. Bussard, Poynette	94½
W. H. Caffisch, Baraboo	94½
Allen Carswell, Range	95
C. J. Chapin, Amherst	94
C. H. Christianson, De Forest	95½
Cleveland Creamery Co., Cleveland	94
G. Cornelinson, Cooksville	96
A. L. Covill, Nelsonville	95½
F. M. Collins, Wolf Creek	97
Anton Cole, Magnolia	91
Howard Coulson, Allenton	93
Crystal Creamery Co., New Centerville	94½
J. L. Driscoll, Ash Ridge	96
S. J. DuFner, Leon	95½
Albert Erickson, Volga	94½
Ole Esker, Bloomer	97¾
Albert E. Faast, Tarrant	92½
L. W. Genske, Royalton	94½
D. I. Gibson, Nelson	92
G. Gordon, Amherst	94

	Score.
J. H. Grady, Bloomer	94½
A. S. Grenlie, Alban	94
H. Hermanson, Scandinavia	96½
G. H. Holmes, Baraboo	94
A. R. Holcomb, Poplar Grove, Ill.	92½
E. L. Hovey, Bonus, Ill.	95
W. J. Hyne, Evansville	97
Gus. Imme, Tess Corners	90
Jackson B. & C. Co., Jackson	92½
Walter Judevine, Gratiot	96
C. M. Kates, Custer	97
F. H. Keller, Pipeville	96½
O. A. Kielsmeier, Hika	94
T. L. Kimball, Gratiot	95
J. A. Klokker, Markesan	92½
J. W. Koepsell, Lewiston, Minn.	97
H. C. Larson, Dodgeville	96
M. J. Lathrop, Ebenezer	96
G. C. Mansfield Co., Johnsons Creek ..	96
C. H. Marche, Janesville	93
F. E. McCormick, Hetzel	97½
E. B. Melendy, Sheboygan	95
C. F. Meyer, Lomira	92
H. A. Milius, Almond	97
J. G. Moore, Albion	96
Martin Mortenson, Sioux City, Iowa ..	94½
Oscar Otterson, Deer Park	91
E. A. Paddock, Tibbets	92
G. E. Peterson, New Holstein	88
Pewaukee Creamery Co., Pewaukee ..	94
E. W. Ripley, Salem	94
C. F. Ruedebusch, Beaver Dam	96
E. Sämzelius, Schuyler, Neb.	94½
D. Sheldon, Lake Mille	92½
Silver Springs Creamery Co., Milwaukee	96
Albert D. Smith, Springfield	95½
S. S. Sorensen, Alpha, Minn.	92½
Wm. Stoneman, Forestville	93½
A. C. Steinhauer, McFarland	94½
A. F. Strebe, Brothertown	94½
Clay Tyler, Cobb	96½

	Score.
M. L. Van Drever, Bloomer	95
Jas. Van Dusen, Hebron	95½
W. M. Van Liere, Woodworth	95
W. A. Voigt, Naugart	95
L. O. Wahler, York	93½
J. F. Weber, Toland	94½
W. R. Wigginton, Warrens	92
J. C. Winn, Richland City	96
Louis Woelfer, Lake Mills	96½
S. C. Wollensak, Grellton	95
John Wunsch, Steuben	97
Fred Wuethrich, Mayville	94
F. Zimmermann, Mt. Vernon	93½

Print creamery butter.

W. H. Caffisch, Baraboo	95
A. L. Covill, Nelsonville	94½
J. F. Dalavine, Jefferson	95
G. E. Gordon, Amherst	95
H. Hermanson, Scandinavia	96½
W. J. Hyne, Evansville	96
Walter Judevine, Gratiot	90
G. C. Mansfield Co., Johnson's Creek	95½
E. A. Paddock, Tibbets	92½
Pewaukee Creamery Co., Pewaukee	94½
C. F. Ruedebusch, Beaver Dam	91½
D. Sheldon, Lake Mills	93½
Jas. Van Dusen, Hebron	93½
W. R. Wigginton, Warrens	94½
Louis Woelfer, Lake Mills	94

Dairy butter.

W. Abbott, Athens	94½
H. E. Aldrich, Burlington	94
Burwood Stock Farm, Milwaukee	95
L. D. Culver & Son, Ellenboro	85
M. D. Cunningham, Kansasville	91
Mrs. T. W. Curtis, Poynette	91
Mrs. E. J. Czamanske, Randolph	93½
E. W. Fisher, Janesville	91½
Ulrich Huber, So. Germantown	92

	Score.
Otto A. Kielsmeier, Hika	90½
H. H. Leach, North Brookfield, Mass.....	93
Mrs. A. W. Lehmann, Neosho	90
G. L. Ross, Lake Geneva	94
Mrs. A. P. Stafford, Fox Lake	91½
Mrs. Wm. Sweeney, Fox Lake	91½
Mrs. A. L. Tenney, Hartland	93
West & Stiles, Lake Mills	93

Dairy print butter.

Mrs. T. W. Curtis, Poyette	88
E. W. Fisher, Janesville	88
H. H. Leach, North Brookfield, Mass.....	93½
G. L. Ross, Lake Geneva	94½
Mrs. Wm. Sweeney, Fox Lake	91½
Mrs. A. L. Tenney, Hartland	90½

Granulated butter.

First	G. F. Ruedebusch, Beaver Dam.
Second	Burwood Stock Farm, Milwaukee.
Third	Pewaukee Creamery Co., Pewaukee.
Fourth	Henry Bast, Garnet.

Butter in novel form.

First	D. A. Anthony, Rutland.
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CHEESE.

Judge—E. L. ADERHOLD, Neenah.

FACTORY CHEESE.

Cheddars.

	Score.
J. F. Bachman, Black Creek	95
S. D. Cannon, Dale	98
John Cannon, New London	98½
Cleveland Creamery Co., Cleveland	94
R. Conrad, Edwards	96
Thos. Hepworth-Dixon, Chippewa Falls	96
A. E. Helmer, Evans Mills, N. Y.	95¼
Otto A. Kielsmeier, Hika	93
Edgar Lepley, West Lima	92
Wm. Maybee, Waldwick	93½
Hugh Nisbet, Bloom City	94½
N. Simon & Co., Neenah	97¾
Joe Vogt, Orihula	97¾
John Voght, Orihula	97¼
P. W. Wallacec, Hortonville	93½
O. A. Ward, Fairburn	93
Chas. Westcott, Orihula	96
Ed. Wunsch, Sheboygan	96¾

Flats or daisies.

D. A. Anthony, Rutland	94½
J. G. Aune, Plain	95
H. W. Austin, Fennimore	93
J. F. Bachman, Black Creek	95½
Julius Berg, Sevastopol	94½
T. E. Bolchen, Mt. Ida	95
Em. Briggs, Appleton	94
John Chalupink, Tisch Mills	95
Cleveland Creamery Co., Cleveland	90½
R. Conrad, Edwards	95
C. B. Cornelius, Boom	97

	Score.
Thos. Hepworth-Dixon, Chippewa Falls	94½
Otto Freund, Chilton	94¾
Gentilly Dairy Assoc., Gentilly, Minn.....	96½
Arnold Grimm, Manawa	88
F. W. Grover, Elroy	94½
A. E. Helmer, Evans Mills, N. Y.....	92¾
Geo. Horneck, Rhine	96½
Howard Huffman, Buck Creek	95
H. H. Huhn, Branch	91½
Thos. Johnson, Boaz	94½
Theo. Keller, Saukville	95
Otto A. Kielsmeier, Hika	93
John Klossner, West Concord, Minn.....	88
Edgar Lepley, West Lima	90½
Hy McKinney, Boscobel	95
W. Nisbet, Hub City	91½
Hugh Nisbet, Bloom City	91½
Chas. Rehm, Fredonia	91
J. T. Rice, Graham	92½
Ida Robertson, Menasha	98
Ernest J. Schubert, Eastman	95
E. Spieker, Random Lake	91
Frank Straus, Silver Creek	94½
Henry B. Stanz, Milwaukee	96
M. G. Thelen, Keowns	94½
F. A. Viergutz, Chippewa Falls	96½
Joe Vogt, Orihula	98½
John Voght, Orihula	96¾
L. T. Voght, Louis Corners	94
W. N. Waddell, Muscoda	94
O. A. Ward, Fairburn	88
Chas. Westcott, Orihula	94
Ed. Wunsch, Sheboygan	97½

Young Americas.

John Chalupink, Tisch Mills	96
Cleveland Creamery Co., Cleveland	96
R. Conrad, Evans	96½
W. H. Freund, Hayton	96¾
John Grootemout, Brillion	96

	Score.
A. E. Helmer, Evans Mills, N. Y.....	96½
Henry Horneck, Rhine	96
Otto A. Kielsmeier, Hika	94½
Hugh Nisbet, Bloom City	95
L. T. Voght, Louis Corners	95½
Ed. Wunsch, Sheboygan	97

Brick cheese.

Jacob Baeler, Beaver Dam	96½
H. Belgrien, Iron Ridge	93
Chas. F. Brinkman, Brinkman	97
Henry B. Stanz, Milwaukee	92¾

Swiss cheese.

H. Belgrien, Iron Ridge	91
Jacob Marty, Brodhead	92
Henry B. Stanz, Milwaukee	96

Edam cheese.

First	J. W. Wigginton, Kilbourn.
Second	C. B. Cornelius, Boom.

HORTICULTURE.

Fruit.

Judge—CLARENCE WEDGE, Albert Lea, Minn.

APPLES—PROFESSIONAL.

20 varieties, adapted to Wisconsin.

First	A. J. Philips, West Salem.
Second	A. D. Barnes, Waupaca.

10 varieties, adapted to Wisconsin.

First	A. J. Philips, West Salem.
Second	A. D. Barnes, Waupaca.
Third	Wm. Fox, Baraboo.

5 winter varieties.

- First A. J. Philips, West Salem.
 Second Wm. Fox, Baraboo.
 Third A. D. Barnes, Waupaca.

Seedling apples.

- First A. D. Barnes, Waupaca.
 Second A. J. Philips, West Salem.

Best winter apple.

- First A. D. Barnes, Waupaca.
 Second A. J. Philips, West Salem.
 Third Wm. Fox, Baraboo.

Best fall apple.

- First A. J. Philips, West Salem.
 Second A. D. Barnes, Waupaca.
 Third Wm. Fox, Baraboo.

Largest apple.

- First A. J. Philips, West Salem.
 Second A. D. Barnes, Waupaca.

Handsomest apple.

- First A. D. Barnes, Waupaca.
 Second A. J. Philips, West Salem.

Plate Duchess of Oldenburg.

- First A. J. Philips, West Salem.
 Second Wm. Fox, Baraboo.

Plate Golden Russet.

- First A. J. Philips, West Salem.
 Second A. D. Barnes, Waupaca.

Plate Pewaukee.

- First A. D. Barnes, Waupaca.
 Second Wm. Fox, Baraboo.

Plate St. Lawrence.

- First A. D. Barnes, Waupaca.
 Second A. J. Philips, West Salem.

Plate Tallman Sweet.

First	A. J. Phillips, West Salem.
Second	A. D. Barnes, Waupaca.

Plate Utter.

First	A. J. Phillips, West Salem.
Second	Wm. Fox, Baraboo.

Plate Alexander.

First	A. D. Barnes, Waupaca.
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Plate Walbridge.

First	Wm. Fox, Baraboo.
Second	A. J. Phillips, West Salem.

Plate Wealthy.

First	A. D. Barnes, Waupaca.
Second	A. J. Phillips, West Salem.

Plate McMahon.

First	A. J. Phillips, West Salem.
Second	A. D. Barnes, Waupaca.

Plate Newell.

First	Wm. Fox, Baraboo.
Second	A. D. Barnes, Waupaca.

Plate Wolf River.

First	A. J. Phillips, West Salem.
Second	A. D. Barnes, Waupaca.

Plate N. W. Greenings.

First	A. J. Phillips, West Salem.
Second	A. D. Barnes, Waupaca.

Plate Haas.

First	A. J. Phillips, West Salem.
Second	A. D. Barnes, Waupaca.

Plate Fall Orange.

First	A. D. Barnes, Waupaca.
Second	Wm. Fox, Baraboo.

Plate Repla Malenka.

First Wm. Fox, Baraboo.
 Second A. J. Philips, West Salem.

Plate Longfield.

First A. J. Philips, West Salem.
 Second Wm. Fox, Baraboo.

Plate Yellow Transparent.

First A. D. Barnes, Waupaca.

Plate Hibernial.

First A. J. Philips, West Salem.
 Second A. D. Barnes, Waupaca.

Plate Fameuse.

First A. D. Barnes, Waupaca.
 Second A. J. Philips, West Salem.

Plate McIntosh.

First A. J. Philips, West Salem.

Plate Switzer.

First A. J. Philips, West Salem.
 Second A. D. Barnes, Waupaca.

Plate Lubsk Queen.

First A. J. Philips, West Salem.
 Second A. D. Barnes, Waupaca.

Plate Seek-no-further.

First A. D. Barnes, Waupaca.

Plate Eureka.

First A. J. Philips, West Salem.

Plate Avista.

First A. J. Philips, West Salem.

Plate Malinda.

First A. J. Philips, West Salem.
 Second A. D. Barnes, Waupaca.

Plate Hyslop crab.

- First A. J. Philips, West Salem.
 Second A. D. Barnes, Waupaca.

Plate Transcendent crab.

- First A. J. Philips, West Salem.
 Second A. D. Barnes, Waupaca.

Plate Whitney crab.

- First A. J. Philips, West Salem.
 Second A. D. Barnes, Waupaca.

Plate Sweet Russët crab.

- First A. J. Philips, West Salem.
 Second A. D. Barnes, Waupaca.

Plate Martha crab.

- First A. J. Philips, West Salem.
 Second A. D. Barnes, Waupaca.

Plate Virginia crab.

- First A. D. Barnes, Waupaca.
 Second A. J. Philips, West Salem.

Collection of crab apples.

- First A. J. Philips, West Salem.
 Second A. D. Barnes, Waupaca.
 Third Wm. Fox, Baraboo.

 APPLES—AMATEURS.
20 varieties adapted to Wisconsin.

- First Mrs. Robert Ramsey, Baraboo.
 Second J. S. Palmer, Baraboo.
 Third Wm. Ablard, Fond du Lac.

10 varieties adapted to Wisconsin.

- First J. S. Palmer, Baraboo.
 Second Kelly Bros., Mineral Point.
 Third Mrs. Robert Ramsey, Baraboo.

5 winter varieties.

- First Mrs. Robert Ramsey, Baraboo.
 Second Wm. Ablard, Fond du Lac.
 Third Geo. H. Jeffrey, Milwaukee.

Seedlings.

- First J. S. Palmer, Baraboo.
 Second Mrs. Robert Ramsey, Baraboo.
 Third Geo. H. Jeffrey, Milwaukee.

Winter apple.

- First Mrs. Robert Ramsey, Baraboo.
 Second Mrs. B. C. Ingersoll, Prospect.
 Third Kelly Bros., Mineral Point.

Fall apple.

- First Mrs. B. C. Ingersoll, Prospect.
 Second Mrs. Robert Ramsey, Baraboo.
 Third J. S. Palmer, Baraboo.

Largest apple.

- First Wm. Ablard, Fond du Lac.
 Second Mrs. B. C. Ingersoll, Prospect.
 Third Mrs. Robert Ramsey, Baraboo.

Handsomest apple.

- First J. S. Palmer, Baraboo.
 Second Geo. H. Jeffrey, Milwaukee.
 Third Mrs. Robert Ramsey, Baraboo.

Plate Duchess of Oldenburg.

- First Mrs. Robert Ramsey, Baraboo.
 Second J. S. Palmer, Baraboo.

Plate Golden Russet.

- First Wm. Ablard, Fond du Lac.
 Second Mrs. B. C. Ingersoll, Prospect.

Plate Pewaukee.

- First Wm. Ablard, Fond du Lac.
 Second J. S. Palmer, Baraboo.

Plate St. Lawrence.

First	Geo. H. Jeffrey, Milwaukee.
Second	Wm. Ablard, Fond du Lac.

Plate Tallman Sweet.

First	Mrs. Robert Ramsey, Baraboo.
Second	Mrs. B. C. Ingersoll, Prospect.

Plate Utter.

First	J. S. Palmer, Baraboo.
Second	Wm. Ablard, Fond du Lac.

Plate Alexander.

First	Mrs. B. C. Ingersoll, Prospect.
Second	Geo. H. Jeffrey, Milwaukee.

Plate Walbridge.

First	J. S. Palmer, Baraboo.
Second	Mrs. Robert Ramsey, Baraboo.

Plate Wealthy.

First	J. S. Palmer, Baraboo.
Second	Mrs. Robert Ramsey, Baraboo.

Plate McMahon.

First	Mrs. Robert Ramsey, Baraboo.
Second	Kelly Bros., Mineral Point.

Plate Newell.

First	Kelly Bros., Mineral Point.
Second	Mrs. Robert Ramsey, Baraboo.

Plate Wolf River.

First	Wm. Ablard, Fond du Lac.
Second	Mrs. B. C. Ingersoll, Prospect.

Plate N. W. Greening.

First	Mrs. B. C. Ingersoll, Prospect.
Second	Mrs. Robert Ramsey, Baraboo.

Plate Haas.

First Wm. Ablard, Fond du Lac.
Second Mrs. Robert Ramsey, Baraboo.

Plate Fall Orange.

First Mrs. Robert Ramsey, Baraboo.
Second J. S. Palmer, Baraboo.

Plate Repla Malenka.

First Mrs. Robert Ramsey, Baraboo.
Second J. S. Palmer, Baraboo.

Plate Longfield.

First Mrs. Robert Ramsey, Baraboo.
Second Kelly Bros., Mineral Point.

Plate Yellow Transparent.

First Mrs. Robert Ramsey, Baraboo.
Second J. S. Palmer, Baraboo.

Plate Hibernial.

First Kelly Bros., Mineral Point.
Second Mrs. Robert Ramsey, Baraboo.

Plate Windsor.

First Geo. H. Jeffrey, Milwaukee.

Plate Seek-no-further.

First Mrs. Robert Ramsey, Baraboo.

Plate Fameuse.

First J. S. Palmer, Baraboo.
Second Wm. Ablard, Fond du Lac.

Plate Hyslop crabs.

First Mrs. Robert Ramsey, Baraboo.
Second J. S. Palmer, Baraboo.

Plate Transcendent crabs.

First Geo. H. Jeffrey, Milwaukee.
Second Mrs. Robert Ramsey, Baraboo.

Plate Whitney crab.

- First Geo. H. Jeffrey, Milwaukee.
 Second Kelly Bros., Mineral Point.

Plate Sweet Russet crab.

- First Mrs. Robert Ramsey, Baraboo.

Plate Martha crab.

- First Geo. H. Jeffrey, Milwaukee.

Collection of crab apples.

- First Mrs. Robert Ramsey, Baraboo.
 Second Geo. H. Jeffrey, Milwaukee.
 Third Kelly Bros., Mineral Point.

Sweepstakes.

- First A. J. Philips, West Salem.
 Second A. D. Barnes, Waupaca.
 Third Mrs. Robert Ramsey, Baraboo.

State Horticultural Society special—Largest and Best Display of apples.

- First A. J. Philips, West Salem.
 Second Mrs. Robert Ramsey, Baraboo.
 Third Wm. Fox, Baraboo.

PEARS.
6 varieties.

- First Geo. H. Jeffrey, Milwaukee.
 Second A. D. Barnes, Waupaca.
 Third J. S. Palmer, Baraboo.

Plate Flemish Beauty.

- First J. S. Palmer, Baraboo.
 Second A. D. Barnes, Waupaca.

Plate Kieffer.

- First J. S. Palmer, Baraboo.
 Second Mrs. B. C. Ingersoll, Prospect.

Plate Seckel.

- First A. D. Barnes, Waupaca.
Second Geo. H. Jeffrey, Milwaukee.

Plate Duchess.

- First Geo. H. Jeffrey, Milwaukee.

PLUMS.

10 varieties.

- First Geo. H. Jeffrey, Milwaukee.
Second Mrs. Robert Ramsey, Baraboo.
Third Wm. Fox, Baraboo.

Five varieties, native.

- First Wm. Fox, Baraboo.
Second Mrs. Robert Ramsey, Baraboo.
Third Geo. H. Jeffrey, Milwaukee.

Five varieties, European.

- First Geo. H. Jeffrey, Milwaukee.

GRAPES—PROFESSIONAL.

First prizes throughout class were taken by William Fox, Baraboo.
No second prizes were awarded.

GRAPES, AMATEUR.

Twenty varieties.

- First Henry Schuster, Middleton.
Second Geo. H. Jeffrey, Milwaukee.

Ten varieties, adapted to Wisconsin.

- First Henry Schuster, Middleton.
Second J. S. Palmer, Baraboo.

Five varieties, adapted to Wisconsin.

First	Henry Schuster, Middleton.
Second	J. S. Palmer, Baraboo.

Single variety.

First	J. S. Palmer, Baraboo.
Second	Henry Schuster, Middleton.

Cane of Worden.

First	Mrs. Robert Ramsey, Baraboo.
Second	Henry Schuster, Middleton.

Cane of Delaware.

First	Henry Schuster, Middleton.
Second	Mrs. Robert Ramsey, Baraboo.

Cane of Brighton.

First	Henry Schuster, Middleton.
Second	J. S. Palmer, Baraboo.

Cane of Concord.

First	Henry Schuster, Middleton.
Second	J. S. Palmer, Baraboo.

Plate of Salem.

First	J. S. Palmer, Baraboo.
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Plate of Agawam.

First	Henry Schuster, Middleton.
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Plate of Worden.

First	Mrs. Robert Ramsey, Baraboo.
Second	J. S. Palmer, Baraboo.

Plate of Moore's Early.

First	J. S. Palmer, Baraboo.
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Plate of Brighton.

First	Henry Schuster, Middleton.
Second	J. S. Palmer, Baraboo.

Plate of Concord.

First Henry Schuster, Middleton.
Second J. S. Palmer, Baraboo.

Plate of Moore's Diamond.

First J. S. Palmer, Baraboo.

Plate of Wilder.

First Henry Schuster, Middleton.
Second J. S. Palmer, Baraboo.

Plate of Delaware.

First J. S. Palmer, Baraboo.
Second Henry Schuster, Middleton.

Plate of Green Mountain.

First J. S. Palmer, Baraboo.

Plants and Flowers.

Judge—WILLIAM TOOLE, Baraboo.

Collectional green house plants, professional.

First John M. Dunlap, Wauwatosa.
Second John Grape, Waukesha.

Show of foliage plants.

First John Grape, Waukesha.
Second John M. Dunlap, Wauwatosa.

Palms.

First John M. Dunlap, Wauwatosa.
Second S. D. Ringrose, Wauwatosa.

Greenhouse plants in bloom.

First John M. Dunlap, Wauwatosa.
Second S. D. Ringrose, Wauwatosa.

Ferns.

- First John M. Dunlap, Wauwatosa.
 Second John Grape, Waukesha.

Geraniums in bloom.

- First S. D. Ringrose, Wauwatosa.

Carnations in bloom.

- First S. D. Ringrose, Wauwatosa.

CUT FLOWERS.

Most artistic floral design.

- First John M. Dunlap, Wauwatosa.
 Second S. D. Ringrose, Wauwatosa.

Most artistic basket of flowers.

- First John M. Dunlap, Wauwatosa.
 Second S. D. Ringrose, Wauwatosa.

Bouquet.

- First John M. Dunlap, Wauwatosa.
 Second S. D. Ringrose, Wauwatosa.

Display of roses.

- First John M. Dunlap, Wauwatosa.
 Second John Grape, Waukesha.

Display of Pansies.

- First John Grape, Waukesha.
 Second John M. Dunlap, Wauwatosa.

Display of Asters.

- First John M. Dunlap, Wauwatosa.
 Second S. D. Ringrose, Wauwatosa.

Display of gladioli.

- First John M. Dunlap, Wauwatosa.
 Second S. D. Ringrose, Wauwatosa.

Display of carnations.

- First John M. Dunlap, Wauwatosa.
Second S. D. Ringrose, Wauwatosa.

Display of lilies.

- First John Grape, Waukesha.

Display of Dahlias.

- First John M. Dunlap, Wauwatosa.
Second John Grape, Waukesha.

Display of cut flowers.

- First John M. Dunlap, Wauwatosa.
Second John Grape, Waukesha.

FLOWERS BY AMATEUR.

CUT FLOWERS.

Most artistic floral design.

- First Mary P. Clapp, Wauwatosa.
Second Mrs. L. W. Barnes, Waupaca.

Most artistic basket of flowers.

- First Mrs. L. W. Barnes, Waupaca.
Second Mary P. Clapp, Wauwatosa.

Pair of bouquets.

- First Mrs. L. W. Barnes, Waupaca.
Second Mary P. Clapp, Wauwatosa.

In display of verbenas, asters, pansies, dianthus, petunias, gladioli and sweet peas first prizes were awarded to Mrs. L. W. Barnes, Waupaca. No second prizes were awarded.

Display of phlox.

- First Mrs. L. W. Barnes, Waupaca.
Second Mary P. Clapp, Wauwatosa.

Display of zinnias.

First	Mary P. Clapp, Wauwatosa.
Second	Mrs. L. W. Barnes, Waupaca.

Display of dahlias.

First	Mrs. L. W. Barnes, Waupaca.
Second	Mrs. H. H. Rand North Greenfield.

Display of cannas.

First	Mrs. L. W. Barnes, Waupaca.
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Display of cut flowers.

First	Mrs. L. W. Barnes, Waupaca.
Second	Mary P. Clapp, Wauwatosa.

ART.

Judge—FRANK ENDERS, Milwaukee.

PAINTING.*Landscape from nature.*

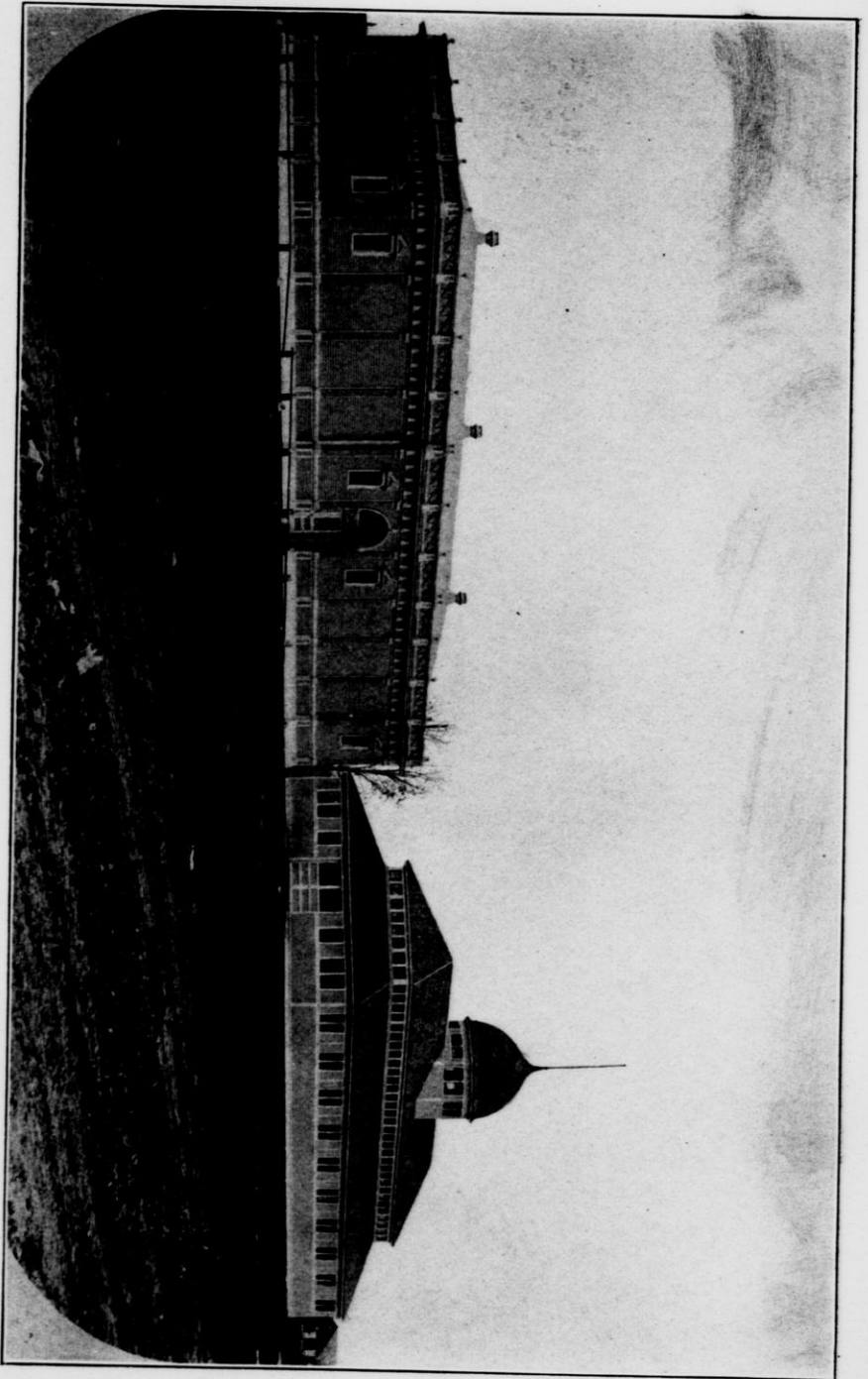
First	H. Pfeifer, Milwaukee.
Second	A. E. Becker, Milwaukee.

Landscape in oil, copied.

First	Mrs. Anna E. Pierce, Wauwatosa.
Second	Mrs. J. M. Chenoweth, Monroe.

Portrait from life.

First	C. Sprinkmann, Milwaukee.
Second	Miss Jessie Schley, Milwaukee.



ART HALL.

HORTICULTURAL BUILDING.



Portrait, copied.

First Miss A. W. Bankes, Waukesha.
Second Mrs. C. B. Stewart, Milwaukee.

Animal.

First Mrs. W. W. Lloyd, Milwaukee.
Second A. E. Becker, Milwaukee.

Still life.

First Miss Jessie Schley, Milwaukee.
Second Miss A. W. Bankes, Waukesha.

Marine.

First Mrs. O. Pratt, Spring Prairie.
Second A. C. Wainwright, Benton Harbor, Mich.

Figure from life.

Second A. E. Becker, Milwaukee.

Figure, copied.

First Miss Jessie Schley, Milwaukee.
Second A. C. Wainwright, Benton Harbor, Mich.

Fruit piece.

First Mrs. J. M. Chenoweth, Monroe.
Second Mrs. C. B. Stewart, Milwaukee.

Flower piece.

First Mrs. J. M. Chenoweth, Monroe.
Second Mrs. C. B. Stewart, Milwaukee.

Collection.

First Herman Pfeifer, Milwaukee.
Second J. J. Aylward, Milwaukee.

WATER COLORS.

Landscape from nature.

- First A. E. Becker, Milwaukee.
 Second L. M. Churbeck, Brockton, Mass.

Landscape, copied.

- First L. M. Churbeck, Brockton, Mass.
 Second Herman Pfeifer, Milwaukee.

Figure from life.

- First Herman Pfeifer, Milwaukee.
 Second L. M. Churbeck, Brockton, Mass.

Figure, copied.

- First A. E. Becker, Milwaukee.
 Second Lelia A. Dow, Madison.

Animal.

- First Herman Pfeifer, Milwaukee.
 Second A. E. Becker, Milwaukee.

Marine.

- First W. J. Aylward, Milwaukee.
 Second Herman Pfeifer, Milwaukee.

Still life.

- First Herman Pfeifer, Milwaukee.
 Second Lelia A. Dow, Madison.

Portrait.

- First Herman Pfeifer, Milwaukee.
 Second J. L. Frank, Des Moines, Iowa.

Fruit.

- First J. L. Frank, Des Moines, Iowa.
 Second Mrs. A. W. Bankes, Waukesha.

Flower.

- First Adeline B. Bellman, Fort Atkinson.

Collection.

- FirstL. M. Churbuck, Brockton, Mass.
SecondW. J. Aylward, Milwaukee.
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PASTEL.

Landscape.

- FirstMrs. J. M. Chenoweth, Monroe.
SecondA. C. Wainwright, Benton Harbor, Mich.

Marine.

- FirstMrs. J. M. Chenoweth, Monroe.
SecondA. C. Wainwright, Benton Harbor, Mich.

Flowers.

- FirstMrs. J. M. Chenoweth, Monroe.
SecondA. C. Wainwright, Benton Harbor, Mich.

Fruit.

- FirstMrs. J. M. Chenoweth, Monroe.
SecondA. C. Wainwright, Benton Harbor, Mich.

Figure.

- FirstMrs. J. M. Chenoweth, Monroe.

Portrait.

- FirstA. E. Becker, Milwaukee.
SecondMrs. J. M. Chenoweth, Monroe.

Still life.

- FirstMrs. J. M. Chenoweth, Monroe.

Animal.

- FirstA. E. Becker, Milwaukee.
SecondMrs. J. M. Chenoweth, Monroe.

Collection.

- FirstMrs. J. M. Chenoweth, Monroe.

PHOTOGRAPHY.

Group of landscapes—Amateur.

First Mrs. L. M. Buell, Beloit.

Group of snap-shot pictures—Amateur.

First Mrs. L. M. Buell, Beloit.

Collection by amateur.

First W. J. Aylward, Milwaukee.

Second Mrs. L. M. Buell, Beloit.

Collection by professional.

First A. E. Becker, Milwaukee.

CHINA PAINTING.

Bread and butter plates.

First Mrs. W. W. Lloyd, Milwaukee.

Second Wanda Buetow, Milwaukee.

Cup and saucer.

First Thos. Kallaus, Milwaukee.

Second .. Wanda Buetow, Milwaukee.

Fancy plate.

First Mrs. H. G. Winther, Milwaukee.

Second Miss Louise Morrow, Green Bay.

Pin or pen tray.

First Mrs. Anna E. Pierce, Wauwatosa.

Second Mrs. A. Kingsbury, Beaver Dam.

Olive dish.

First Mrs. W. W. Lloyd, Milwaukee.

Second Mrs. A. Kingsbury, Beaver Dam.

Cracker jar.

First Thos. Kallaus, Milwaukee.

Second Mrs. A. E. Rich, Janesville.

Candle stick.

- FirstMrs. J. M. Chenoweth, Monroe.
 SecondMrs. W. W. Lloyd, Milwaukee.

Salad dish.

- FirstMiss Louise Morrow, Green Bay.
 SecondMrs. Anne E. Pierce, Wauwatosa.

Vase.

- FirstMrs. A. E. Rich, Janesville.
 SecondThos. Kallaus, Milwaukee.

Platter.

- FirstMrs. H. G. Winther, Milwaukee.
 SecondMrs. A. E. Rich, Janesville.

Photograph frame.

- FirstMrs. J. M. Chenoweth, Monroe.
 SecondMrs. J. M. Chenoweth, Monroe.

Pitcher.

- FirstMrs. A. E. Rich, Janesville.
 SecondThos. Kallaus, Milwaukee.

Lamp.

- FirstMrs. W. W. Lloyd, Milwaukee.
 SecondMrs. Anna E. Pierce, Wauwatosa.

Tea caddy.

- FirstMrs. J. H. Elward, Milwaukee.

Six cups and saucers.

- FirstMrs. H. G. Winther, Milwaukee.
 SecondMrs. Anna E. Pierce, Wauwatosa.

Six lunch plates.

- FirstMrs. W. W. Lloyd, Milwaukee.
 SecondMrs. H. G. Winther, Milwaukee.

Chocolate pot.

- FirstMrs. W. W. Lloyd, Milwaukee.
 SecondMrs. J. M. Chenoweth, Monroe.

Bread and milk set.

- First Mrs. W. W. Lloyd, Milwaukee.
 Second Miss Louise Morrow, Green Bay.

Cream and sugar set.

- First Thos. Kallaus, Milwaukee.
 Second Wanda Buetow, Milwaukee.

Punch bowl.

- First Mrs. Anna E. Pierce, Wauwatosa.
 Second Mrs. A. E. Rich, Janesville.

Brush and comb tray.

- First Miss Louise Morrow, Green Bay.
 Second Thos. Kallaus, Milwaukee.

Fruit dish.

- First Mrs. A. E. Rich, Janesville.
 Second Miss Louise Morrow, Green Bay.

Portrait on china.

- First Thos. Kallaus, Milwaukee.
 Second Mrs. J. M. Chenoweth, Monroe.

Chop dish.

- First Mrs. L. M. Buell, Beloit.
 Second Miss Louise Morrow, Green Bay.

Bonbon dish.

- First Thos. Kallaus, Milwaukee.
 Second Miss Louise Morrow, Green Bay.

Jardinere.

- First Miss Louise Morrow, Green Bay.
 Second Mrs. Anna E. Pierce, Wauwatosa.

Collection.

- First Miss Louise Morrow, Green Bay.
 Second Thos. Kallaus, Milwaukee.

MISCELLANEOUS.

Miniature on ivory.

First Mrs. J. M. Chenoweth, Monroe.

Burnt leather.

First Adeline B. Bellman, Fort Atkinson.

Second A. C. Tuthill, Monroe.

Wood carving.

First Caroline Schmasow, Milwaukee.

Second A. C. Tuthill, Monroe.

Burnt poker work on wood.

First Mrs. L. M. Buell, Beloit.

Second Adeline B. Bellman, Fort Atkinson.

Painting on velvet.

First Adeline B. Bellman, Fort Atkinson.

Second A. C. Tuthill, Monroe.

Painting on silk or satin.

First A. C. Tuthill, Monroe.

Second Mrs. L. M. Buell, Beloit.

Painting on bolting cloth.

First Mrs. Frank Moore, Baraboo.

Second Mrs. L. M. Buell, Beloit.

Painting on celluloid.

First Mrs. John Nicholson, Monroe.

Second Mrs. J. M. Chenoweth, Monroe.

WOMAN'S WORK.

DRAWN WORK.

Pair pillow shams.

First	Mrs. Hy Fischer, Jefferson.
Second	Mrs. I. Jay Knapp, Milwaukee.

Six doilies.

First	Mrs. L. M. Buell, Beloit.
Second	Mrs. Hy Fischer, Jefferson.

Lunch cloth and six napkins.

First	Mrs. Hy Fischer, Jefferson.
Second	Clara L. Kellogg, Westfield, Mass.

Sideboard cover.

First	Mrs. Hy Fischer, Jefferson.
Second	Mrs. A. Kingsbury, Beaver Dam.

Center piece or stand cover.

First	A. C. Tuthill, Monroe.
Second	Viola Abert, Milwaukee.

Tray or carving cloth.

First	Mrs. A. Kingsbury, Beaver Dam.
Second	Mrs. Hy Fischer, Jefferson.

Pair towels.

First	Mrs. Frank Moore, Baraboo.
Second	Susie Abert, Milwaukee.

Handkerchief.

First	Mrs. Frank Moore, Baraboo.
Second	Mrs. C. A. Gorder, Waukesha.

Collection drawn work.

First	A. C. Tuthill, Monroe.
Second	Mrs. Hy Fischer, Jefferson.

EMBROIDERY.

Pillow shams.

- FirstMrs. Theo. L. Newton, Beaver Dam.
 SecondCaroline Schmasow, Milwaukee.

Needle etching.

- FirstMargaret Schuchardt, Milwaukee.
 SecondMary C. Nicholson, Monroe.

Lunch cloth.

- FirstA. C. Tuthill, Monroe.
 SecondMrs. H. M. Bell, Green Bay.

Stand or table cover, in rope silk.

- FirstClara L. Kellogg, Westfield, Mass.
 SecondMrs. G. Rood, Stevens Point.

Embroidery on bolting cloth.

- FirstMrs. John Nicholson, Monroe.
 SecondMrs. A. Kingsbury, Beaver Dam.

Floss embroidery.

- FirstMrs. J. M. Shealy, Milwaukee.
 SecondMrs. Otto Stoffel, Racine.

French embroidery.

- FirstClara L. Kellogg, Westfield, Mass.
 SecondMrs. Theo. L. Newton, Beaver Dam.

Necktie case.

- FirstCaroline Schmasow, Milwaukee.
 SecondA. C. Tuthill, Monroe.

Hand-made underwear.

- FirstMrs. Theo. L. Newton, Beaver Dam.
 SecondMrs. A. F. Warden, Waukesha.

Baby pillow.

- FirstMrs. Carrie Baerwald, Milwaukee.
 SecondMrs. John Nicholson, Monroe.

Sofa pillow, linen.

- FirstMrs. J. M. Shealy, Milwaukee.
 SecondMrs. John Nicholson, Monroe.

Sofa pillow, silk or satin.

- FirstClara L. Kellogg, Westfield, Mass.
 SecondMrs. A. Kingsbury, Beaver Dam.

Sofa pillow in cross stitch.

- FirstClara L. Kellogg, Westfield, Mass.
 SecondMrs. G. Rood, Stevens Point.

Sofa pillow in couching.

- FirstClara L. Kellogg, Westfield, Mass.

Mosaic pillow.

- FirstClara L. Kellogg, Westfield, Mass.
 SecondMrs. Frank Moore, Baraboo.

Photo holders.

- FirstA. C. Tuthill, Monroe.
 SecondCaroline Schmasow, Milwaukee.

Pin cushion.

- FirstMrs. John Nicholson, Monroe.
 SecondMrs. H. M. Bell, Green Bay.

Foot rest.

- FirstMrs. John Nicholson, Monroe.
 SecondMrs. C. A. Gorder, Waukesha.

Chair roll or head rest.

- FirstCaroline Schmasow, Milwaukee.
 SecondSusie Abert, Milwaukee.

Poster sofa pillow.

- FirstMrs. I. Jay Knapp, Milwaukee.
 SecondViola Abert, Milwaukee.

Portiere.

- FirstClara L. Kellogg, Westfield, Mass.

Music folio. ..

First Clara L. Kellogg, Westfield, Mass.

Fancy work basket.

First A. C. Tuthill, Monroe.

Second Viola Abert, Milwaukee.

Set six tumbler doilies.

First Clara L. Kellogg, Westfield, Mass.

Second Mary P. Clapp, Wauwatosa.

Six plate doilies.

First Mrs. H. M. Bell, Green Bay.

Second Mary C. Nicholson, Monroe.

Whisk broom holder.

First G. E. Talbert, Beaver Dam.

Second Ella Leonard, Milwaukee.

Carving or platter cloth.

First Mrs. H. M. Bell, Green Bay.

Second Mrs. Theo. L. Newton, Beaver Dam.

Handkerchief.

First Mrs. A. Kingsbury, Beaver Dam.

Second Mrs. G. Rood, Stevens Point.

First Mrs. A. Kingsbury, Beaver Dam.

Second Mrs. P. W. Wegner, Milwaukee.

Laundry bag.

First Mrs. A. W. Johnson, Green Bay.

Second Miss Ida Hagen, Manitowoc.

Stocking bag.

First Caroline Schmasow, Milwaukee.

Second Viola Abert, Milwaukee.

Magazine or book cover.

First Caroline Schmasow, Milwaukee.

Second A. C. Tuthill, Monroe.

Sideboard cover.

First	Mrs. G. Rood, Stevens Point.
Second	A. C. Tuthill, Monroe.

LACE.

Battenburg center piece.

First	Margaret Schuchardt, Milwaukee.
Second	Mrs. John Nicholson, Monroe.

Battenburg dresser set.

First	Mrs. I. Jay Knapp, Milwaukee.
Second	Mrs. A. W. Johnson, Green Bay.

Battenburg curtains.

First	Miss Magdalena Goetz, Milwaukee.
Second	Mrs. H. M. Bell, Green Bay, Wis.

Antique piece.

First	Mrs. J. M. Chenoweth, Monroe.
Second	Mrs. W. P. Wegner, Milwaukee.

Point lace yoke or handkerchief.

First	Mrs. Mary E. Price, Milwaukee.
Second	Mrs. G. E. Talbert, Beaver Dam.

Honiton center piece.

First	Mrs. J. M. Chenoweth, Monroe.
Second	Mrs. H. M. Bell, Green Bay, Wis.

Honiton lace.

First	Mrs. J. M. Chenoweth, Monroe.
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Honiton toilet mats.

First	Mrs. I. Jay Knapp, Milwaukee.
Second	Mrs. J. M. Chenoweth, Monroe.

Honiton handkerchief.

First	Mrs. Frank Moore, Baraboo.
Second	Miss Ida Hagen, Manitowoc.

Tatting center piece.

First A. C. Tuthill, Monroe.
 Second Mrs. A. Kingsbury, Beaver Dam.

Tatting handkerchief.

First Mrs. G. E. Talbert, Beaver Dam.
 Second Luccy Cavell, Whitewater.

Antique embroidery on lace.

First A. C. Tuthill, Monroe.
 Second Mrs. Theo. L. Newton, Beaver Dam.

Battenburg yoke or collar.

First Mrs. Clara M. Moyer, Milwaukee.
 Second Mrs. A. Gulick, Woodworth.

Battenburg sideboard cover.

First Mrs. I. Jay Knapp, Milwaukee.
 Second Mrs. Alfred Bloor, Milwaukee.

Netted lace handkerchief.

First Susie Abert, Milwaukee.
 Second Mrs. I. Jay Knapp, Milwaukee.

Honiton applique.

First Mrs. A. Kingsbury, Beaver Dam.
 Second Mrs. G. E. Talbert, Beaver Dam.

Collection hand-made handkerchiefs.

First Mrs. Mary E. Price, Milwaukee.
 Second Mrs. G. E. Talbert, Beaver Dam.

Hand-made lace tie.

First A. C. Tuthill, Monroe.
 Second Mrs. A. Gulick, Woodworth.

Brazilian point handkerchief.

First Viola Abert, Milwaukee.

KNITTING.

Fancy Shawl.

- First Lucy Cavell, Whitewater.
 Second Mrs. Carrie Baerwald, Milwaukee.

Silk Mittens.

- First Mrs. John Nicholson, Monroe.
 Second A. C. Tuthill, Monroe.

Lady's underskirt.

- First Susie Abert, Milwaukee.
 Second Mary C. Nicholson, Monroe.

Slippers or shoes.

- First Susie Abert, Milwaukee.
 First Lucy Cavell, Whitewater.

Leggins.

- First Lucy Cavell, Whitewater.
 Second Mrs. L. Yanke, Waukesha.

Fascinator.

- First Mrs. A. Gulick, Woodworth.
 Second A. C. Tuthill, Monroe.

Lounge or carriage robe.

- First A. C. Tuthill, Monroe.
 Second Mrs. L. Yanke, Waukesha.

Fancy Hood or cap.

- First W. P. Wegner, Milwaukee.
 Second Lucy Cavell, Whitewater.

Lace.

- First Mrs. Joanna Bulmeister, Milwaukee.
 Second Margaret Schuchardt, Milwaukee.

Woolen mittens.

- First Lucy Cavell, Whitewater.
 Second Mary Nicholson, Monroe.

Counterpane.

- Second A. C. Tuthill, Monroe.

CROCHET.

Shawl.

- First Mrs. Hy Fischer, Jefferson.
Second A. C. Tuthill, Monroe.

Fascinator.

- First Mrs. A. W. Johnson, Green Bay.
Second Mrs. A. G. Rood, Stevens Point.

Baby's house sack.

- First Mary C. Nicholson, Monroe.
Second Lucy Cavell, Whitewater.

Lady's or child's skirt.

- First Mrs. Carrie Baerwald, Milwaukee.
Second Mrs. G. Rood, Stevens Point.

Invalid slippers or shoes.

- First Viola Abert, Milwaukee.
Second Mrs. A. Kingsbury, Beaver Dam.

Lace or insertion.

- First Mrs. A. P. Wegner, Milwaukee.
Second Mrs. John Nicholson, Monroe.

Lounge or carriage robe.

- First Caroline Schmasow, Milwaukee.
Second Margaret Schuchardt, Milwaukee.

Window curtains.

- Second Mrs. I. Jay Knapp, Milwaukee.

DOMESTIC MANUFACTURES.

Magazine holder.

- First Caroline Schmasow, Milwaukee.
Second Mrs. I. J. Knapp, Milwaukee.

Traveling bag.

- First Clara L. Kellogg, Westfield, Mass.
 Second A. C. Tuthill, Monroe.

Handkerchief case or box.

- First Mrs. G. Rood, Stevens Point.
 Second M. I. Strong, North Greenfield.

Home-made rug.

- First Mrs. Carrie Baerwald, Milwaukee.
 Second Mrs. Carrie Baerwald, Milwaukee.

Kitchen apron.

- First Mrs. Carrie Baerwald, Milwaukee.
 Second A. C. Tuthill, Monroe.

Mantle or piano scarf.

- First Mrs. A. Kingsbury, Beaver Dam.
 Second Clara L. Kellogg, Westfield, Mass.

Pieced quilt, quilted.

- First Mrs. John Nicholson, Monroe.
 Second Mary C. Nicholson, Monroe.

Log cabin quilt, wool.

- First Mrs. John Nicholson, Monroe.
 Second Mrs. Frank Moore, Baraboo.

Log cabin quilt, silk.

- First Mrs. John Nicholson, Monroe.
 Second Mrs. W. Fairweather, Milwaukee.

Silk puff, or fancy quilt.

- First Miss Lena Hilker, Hubbleton.
 Second Mrs. J. H. Elward, Milwaukee.

Shopping bag.

- First Mrs. L. Yanke, Waukesha.
 Second Clara M. Moyer, Milwaukee.

Rag carpet.

- Second Mrs. G. Rood, Stevens Point.

Home made, fancy apron.

- FirstMrs. Frank Moore, Baraboo.
 SecondMiss Ida Hagen, Manitowoc.

Counterpane.

- FirstMrs. Carrie Baerwald, Milwaukee.
 SecondClara L. Kellogg, Westfield, Mass.

Patch work quilt.

- FirstMrs. W. S. Cole, Pleasant Prairie.
 SecondClara M. Moyer, Milwaukee.

Patched mending.

- FirstMiss Ida Hagen, Manitowoc.

Fancy pin cushion.

- FirstSusie Abert, Milwaukee.
 SecondMrs. W. P. Wegner, Milwaukee.

CHILDREN'S.

Patch work quilt.

- FirstAnnie Biegler, Milwaukee.
 SecondMary P. Clapp, Wauwatosa.

Plain sewing

- FirstMary P. Clapp, Wauwatosa.
 SecondMiss Elsie Haus, Jefferson.

Dozen button holes.

- FirstBlossom Wilcox, West Green Bay.
 SecondBlossom Wilcox, West Green Bay.

Outline sofa pillow.

- FirstMary P. Clapp, Wauwatosa.
 SecondAnnie Biegler, Milwaukee.

Outline pillow shams.

- FirstMary P. Clapp, Wauwatosa.
 SecondAnnie Biegler, Milwaukee.

Knitted lace or insertion.

- FirstMiss Elsie Haus, Jefferson.
 SecondMary P. Clapp, Wauwatosa.

Doll's outfit.

- FirstMary P. Clapp, Wauwatosa.

Six embroidered doilies.

- FirstMary P. Clapp, Wauwatosa.
 SecondAnnie Biegler, Milwaukee.

Specimen pencil drawing.

- FirstMary P. Clapp, Wauwatosa.

Specimen pen and ink etching.

- FirstOscar Olson, Milwaukee.
 SecondMary P. Clapp, Wauwatosa.

Specimen water color painting.

- SecondOscar Olson, Milwaukee.

Hemstitching.

- FirstBlossom Wilcox, West Green Bay.
 SecondMary P. Clapp, Wauwatosa.

Map of Wisconsin.

- FirstMary P. Clapp, Wauwatosa.
 SecondOscar Olson, Milwaukee.

Specimen hand writing.

- FirstOscar Olson, Milwaukee.
 SecondBlossom Wilcox, West Green Bay.

 SINGING BIRDS.
Three canaries.

- FirstMilwaukee Edel Roller Assoc., Milwaukee.
 SecondMilwaukee Edel Roller Assoc., Milwaukee.
 ThirdMilwaukee Edel Roller Assoc., Milwaukee.

 PIGEONS.

A large and very excellent exhibit was made in this department, patronized by exhibitors from several states.

We regret that we are not able to give a list of awards.

SPEED DEPARTMENT.

Starting judge—C. G. WILCOX, De Pere, Wis.

Judges—J. A. Smith, Waukesha; Lansing Warren, Milwaukee;
W. J. Clason, Jr., Sparta.

2-14 Trot. Purse, \$600.00.

Johnnie Moloch, blk. s., Riverside Farm, Berlin.....	3-1-1-1
Maj. Swift, br. g., Jerome Travis, Tyro, Kan.....	1-2-2-2
Col. Dickey, b. g., I. Stevenson, Marinette.....	2-4-5-5
Alcabel, blk. s., Geo. Schley, Milwaukee	4-3-3-3
Time, 2.18¼; 2.15½; 2.17, and 2.16½.	

2-21 Trot Purse, \$600.00.

Claria, Geo. Loomis, Minneapolis, Minn.....	1-1-1
Bonnie Medium, b. g., F. D. Cheesebro, Delavan.....	2-2-7
Lady Arthur, b. m., Amos Richards, Dodgeville.....	7-5-2
Baby C., br. m., John Swansbro, Waukegan, Ill.....	4-3-6
Time, 2.17¾; 2.18¼; 2.18½.	

2-40 Trot. Purse, \$500.00.

Comsa, blk. m., O. Ames, Wheaton, Ill.....	1-1-1
Debs, br. h., I. Stephenson, Marinette	2-2-2
Edith Moss, blk. m., Dick McMahon, Chicago, Ill.....	5-3-3
Daisy Direct, Kalamazoo Stock Farm, Kalamazoo, Mich.	3-4-6
Time, 2.27¼; 2.25¼; 2.26½.	

2-14 Pace. Purse, \$600.00.

Dr. H., b. g., Richard Holmes Milwaukee	1-1-3-4-2
Theresa Wilkes, b. m., J. T. Coleman, Wausau.....	4-3-2-1-1
Gwen Arthur, b. m., Amos Richards, Dodgeville.....	3-4-1-5-3
Pinta, b. m., A. A. Montbriand, St. Paul, Minn.....	6-2-5-3-4
Time, 2.16¾; 2.15¼; 2.12¾; 2.15¼; 2.15¼.	

2-24 Pace. Purse, \$500.00.

Mabel Star, ch. m., P. C. Donovan, Neche, N. D.....	1-1-1
Ida Van Cortland, br. m., Bantell Bros., Bay City, Mich.	2-2-2
Lillian Actor, b. m., A. L. Nickey, Milwaukee.....	3-4-3
Mollie Casey, blk. m., F. P. Casey, Chicago.....	4-3-4
Time, 2.22½; 2.21¾; 2.22¼.	

2-11 Pace. Purse, \$600.00.

C. F. W., blk. m., M. J. Sullivan, La Crosse.....	1-1-1
Carmeleta, b. m., Dick McMahon, Chicago, Ill.....	2-7-2
Albert Allison, s. h., G. W. Hackley, Higginsville, Mo....	4-2-3
Sol. B., s. h., I. Stevenson, Marinette.....	3-3-7
Time, 2.14½; 2.14½; 2.14½.	

REPORTS OF DEPARTMENT SUPERINTENDENTS.

DEPARTMENT "A."

To the Wisconsin State Board of Agriculture—

Gentlemen:—I submit herewith my report as Superintendent of the Horse Department, during the fair held in Milwaukee, Sept. 9 to 13 inclusive.

The exhibit was large and a very creditable one.

The draft breeds were more largely represented, and the exhibits were of such excellence that universal commendation and admiration were expressed by the large throng of visitors to the barns and show ring. The coachers and roadsters were represented by a grand lot of horses, bought out in excellent show condition.

The judging was done by Prof. W. L. Carlyle of the state university, and there were none who did not concede his qualifications and absolute impartiality in awarding premiums.

Mr. James Dillon, as assistant superintendent, was very efficient, and earned the praise and gratitude of the exhibitors, because of his uniform courtesy and efforts to make their "yokes easy and their burdens light."

The department will expand, there is no doubt about it.

More room will be needed, is needed now.

There is no room for argument on this proposition either.

Judging pavillion is almost a necessity; otherwise everything seems to be about O. K.

The central office, which is that of secretary, had the records

so systematic and perfect that "a wafaring man, though a fool, need not err therein."

Possibly that's the reason we kept things straight.

Respectfully submitted,

W. L. HOUSER,

Superintendent.

DEPARTMENT "B."

To the Wisconsin State Board of Agriculture—

Gentlemen:—I herewith present to you, my report of the Cattle Department, for the State Fair of 1901.

It affords me great pleasure to state that the exhibit was a large one. The stalls were all filled, notwithstanding that an additional barn containing room for one hundred cattle, had been built since last fair.

The several leading breeds were well represented, dairy and beef, and some of the choicest animals ever exhibited were to be seen on our fair grounds.

Among the dairy breeds, the Guernseys were the most numerous; of the beef breeds, the Shorthorns.

In the Dual-Purpose class, the Red Polls made a fine showing, but we labored under the same difficulties, experienced in previous years, in securing a judge for the class.

The Farmers' class was a farce, as it has been in former years.

There was little competition; just animals enough to take the premiums, and these the same as exhibited in preceeding years.

Some animals entered would be no credit to any farmer's herd, and the judge very properly declined to consider them, in the ring.

I earnestly recommend that this class be dropped from our list.

The large tent under which cattle were judged, proved a great advantage, though hardly light enough for cloudy weather, such as we had during fair.

It suggested the desirability of having a permanent, well lighted ampitheater.

More light in the barns would be an advantage, and windows in the sides of buildings would give this, and also an additional means of ventilation.

Other improvements might be suggested, but as "Rome was not built in a day," I am in hopes that in the near future, Wisconsin may complete the equipment of its fair grounds, and make it possible to hold here, the leading fair of our great country.

Respectfully submitted,

CHARLES LINSE,
Superintendent.

DEPARTMENT "C."

To the Wisconsin State Board of Agriculture—

Gentlemen:—I am pleased to submit a brief report of my department.

The exhibit of sheep, at the recent state fair, was I think the best, that has been held under your management.

More of the large breeders and importers were represented than ever before, and representatives of the best flocks in the country were there, and in large numbers.

I recommend that more classes be made, as several important breeds are not yet recognized by us, and as other fairs in the circuit have classes for these, it causes dissatisfaction, to not have a place with us. The rule that all ewes must have been owned by the exhibitor six months before time of showing, has always caused trouble, and, if possible, I think an arrangement should be made that will protect the local breeder, and at the same time, not bar recent importations.

I would also recommend that there be better conveniences arranged, for those who would like to witness the judging in this class;—a place where they can be seated, and also be protected from rain or sun. This would add much to the practical value of the exhibit.

Respectfully submitted,

H. A. BRIGGS,

Superintendent.

DEPARTMENT "D."

Wisconsin State Board of Agriculture—

Gentlemen:—While fifty cent corn, as a rule, is not conducive to a large hog exhibit, the show of 1901 fell little short of any of its predecessors.

Never before have animals of better quality been on exhibition; all the leading breeds being out in force.

Hon. J. A. Countryman of Rochelle, Ill., made the awards, to the satisfaction of all concerned.

GEORGE WYLIE,

Superintendent.

DEPARTMENT "E."

Wisconsin State Board of Agriculture—

Gentlemen:—As superintendent of the Poultry department, I am pleased to report that the exhibit of fowls, at the State Fair of 1901, surpassed all former exhibits.

This was largely due to the fact that people are beginning to realize that this is one of the most important industries in the state.

I would recommend that several additional varieties be placed in our next premium list.

I would also recommend that hereafter, the superintendent of this department,—as well as all other departments be allowed to employ and pay his own help.

I was not able to give this department as much attention, as I should have done, being called to the speed department, but I believe everything passed off satisfactorily to exhibitors and visitors alike.

Respectfully submitted,
C. G. WILCOX,
Superintendent.

DEPARTMENT "F."

Wisconsin State Board of Agriculture—

Gentlemen:—I take pleasure in presenting to you the report of Department F for 1901.

The exhibit was very good, in every respect, in all classes.

Ten counties made extensive and very complete county exhibits.

The sugar beet exhibit, arranged by the Menomonie Falls Beet Sugar Co., added interest to the department.

The grain exhibits were superior to any previously made, at our fairs. General satisfaction was manifest with the efficiency of judging, in all classes; and exhibitors will generally join me in expression of thanks to judges, for their evident fairness and impartiality.

Respectfully submitted,
F. A. HUEBNER,
Superintendent.

DEPARTMENT "G."

To the Wisconsin State Board of Agriculture—

Gentlemen:—I hereby submit my report, as superintendent of the Dairy department, of the fourth annual fair, held under your management, for the year 1901.

The number of entries and exhibits far exceeded those of any previous state fair, and the quality of exhibits averages very high.

There are 90 exhibits of creamery butter, and but two of these failed to score over 90 points.

\$290.00 was pro rated to the 88 exhibitors in this classe.

In the Creamery Print class, there were fifteen exhibits.

One failed to come up to the minimum number of points required. There were twenty exhibitors in Dairy class, and but one failed to come up to the standard.

In Dairy Prints there were six exhibits, all of which came up to standard. In "Granular Butter" there were ten exhibits, and in the class for "Butter in Novel Forms" one.

In the American Cheese classes there were 70 exhibits.

The lowest score in Cheddars was 92 points. Two fell below standard, in "Flats and Daisies."

"Young Americas" were all prize winners.

There were two exhibits of "Edam Cheese," four of "Brick," and two of "Swiss,"—all of which won prizes.

The above does not include the fine exhibit made by the Dairy School.

While the Dairy Hall was enlarged, the past season, by an addition of 30 feet on the south end, to give additional room for exhibitors, all space was occupied, and several exhibitors were refused room, while some that did exhibit were crowded in their space.

The Vermont Farm Machine Co. of Bellows Falls, Vt. made an exhibit of U. S. separators, dog or sheep power, and other dairy implements. The Le Laval Co., of Chicago, exhibited several hand and power separators. F. B. Fargo & Co., of Lake

Mills, Wis., exhibited several creamery engines, and a power churn.

The Creamery Package Co., of Chicago made a very large and fine display of dairy implements, embracing nearly every thing used in a creamery. R. R. Bates of Madison, Wis. representing the Worcester Salt Co. made an exhibit of his goods.

The splendid success of this department is largely due to the support of Prof. Henry, and his model dairy school, under the able management of Prof. E. H. Farrington, and his competent and gentlemanly corps of assistants.

One of the finest attractions, in Dairy Hall, was the exhibit of butter in novel and artistic forms, made by the University Dairy School.

Another interesting educational exhibit was the samples of cheese made from a given amount of milk, with a varying amount of butter fat in different samples.

For a fuller and more complete statement of the Dairy School work and exhibit, see following report of Prof. Farrington.

THE DAIRY SCHOOL EXHIBIT.

The dairy school exhibit this year was given considerable more space in the dairy building than formerly as the exhibit they made last year took up so much room that other exhibitors did not have all the space they wanted. The addition that was made to the building gave space for seats that were very generously patronized by visitors who could watch the machines used for butter making and the cheese making operations that were carried on during the fair. The dairy school exhibit occupied nearly one side and one end of the building and also one entire end of the refrigerator. A supply of milk was received each day and this was separated with machines run by a gasoline engine which also furnished the power for churning and running other dairy machinery in the building. Cheese making was also carried on during the fair in the dairy school exhibit and the work of the school was illustrated by many charts and maps in another part of this exhibit.

A number of new features were added this year such as a collection of large bottles containing the constituents of milk, butter and cheese. A library for dairymen, the butter maker and cheese maker and an exhibit of the work done in dairy machinery by the dairy students. A great many pictures and charts were placed in this exhibit and the information contained on them is here given.

A butter exhibit room was built in the refrigerator between the cheese refrigerator and the butter refrigerator. This proved to be a great convenience for the judges and it also gave an opportunity for any butter maker or cheese maker to talk over his exhibit with the judge after the package had been scored.

Large printed charts in the exhibit of the Wisconsin Dairy School contained the following information:

Dairy Products of Wisconsin, for the year 1900.

Butter, eighty million pounds	\$16,000,000
	Value.
Cheese, sixty million pounds	6,000,000
Milk and cream consumed by our 2,066,000 people.....	8,400,000
Increase of stock from the one million cows	2,500,000
	<hr/>
Total	\$32,900,000

WISCONSIN DAIRY STATISTICS.

One million cows are kept on one hundred and sixty thousand farms in Wisconsin. These cows supply milk to one thousand creameries and one thousand eight hundred cheese factories. The twenty-eight hundred creameries and cheese factories in the state are valued at seven million dollars. One-fourth the total butter produced is dairy butter and three-fourths creamery butter. One-fourth the cheese made is Swiss, brick and Limburger and three-fourth of it is Cheddar cheese.

Wisconsin produced over sixty million pounds of cheese in 1889. This is more than one-fourth of the entire cheese product of the United States.

Shipments of Swiss, Brick and Limburger cheese from Green

county in 1899 reached over twelve million pounds, which is about one-half the total annual production of these cheese in the state

The Wisconsin Dairy School uses about three million pounds of milk per year in giving its practical instruction in butter making, cheese making, milk and cream pasteurizing and experimental work. The milk is now furnished by one hundred patrons living in the vicinity of Madison. This gives our students a milk supply similar to that of the 2,800 creameries and cheese factories of the state.

The products of the Dairy School are:

- Fancy print and package butter.
- Full cream Cheddar cheese.
- Swiss, brick and Limburger cheese.
- Pasteurized milk and cream.

1,142 Butter Makers and Cheese Makers have attended the Wisconsin Dairy School since it started in 1890. 120 students are given instruction each winter in Factory Butter Making, Factory Cheese Making, Milk Testing, Milk and Cream Pasteurizing, Dairy Machinery Repairing and Management.

The winter term begins Nov. 12, 1901, and closes February 6, 1902.

Dairy certificates have been granted to 240 students.

The Babcock Milk Test originated at the Wisconsin Dairy School. It is now universally used for testing the milk of creamery and cheese factory patrons and for locating unprofitable cows. By detecting the losses in skim milk, buttermilk and whey it effects a saving of \$800,000.00 annually to Wisconsin alone. Over 80,000 copies of bulletins and reports describing this test have been issued by the Wisconsin Experiment Station.

The Wisconsin Curd Test was developed at the Wisconsin Dairy School where students are taught how to use it. It detects and locates the source of impure milk so that floating curds and "huffy cheese" may be avoided. The state traveling cheese instructors find this test to be of great benefit in showing patrons that cheese factory milk must be well cared for. Losses of thou-

sands of dollars annually to the Wisconsin cheese industry are now prevented by the use of the Wisconsin Curd Test.

AN EXAMPLE.

Showing how the *Wisconsin Curd Test* helped a *Swiss Cheese Maker*.

A certain Swiss cheese factory the milk was so defective that the 600 pounds of cheese made daily did not grade above No. 2 cheese which sold for three cents below the price of No. 1 cheese. This caused a loss of \$18.00 per day to the patrons. In order to locate this trouble a Curd Test was made of the milk brought by each patron. This showed that the defective milk came from one herd of eleven cows. The milk given by each of these cows was next examined and the Curd Test showed that one cow with a diseased hoof was responsible for the No. 2 cheese. This cow's milk was kept out of the factory supply and No. 1 cheese was made. The losses from defective milk at one factory for one day amounted to double the cost of a Curd Test and the time to use it.

Six cheese made at the Wisconsin Dairy School to show that the amount and the quality of cheese varies with the richness of the milk. Each cheese was made from the same weight of milk.

200 lbs. of skim milk testing 0.1 per cent. fat.....	11 lbs. cheese.
200 lbs. of milk testing 1.0 per cent. fat.....	13.4 lbs. cheese.
200 lbs. of milk testing 2.0 per cent. fat.....	16 lbs. cheese.
200 lbs. of milk testing 3.0 per cent. fat.....	16.3 lbs. cheese.
200 lbs. of milk testing 4.0 per cent. fat.....	21.6 lbs. cheese.
200 lbs. of milk testing 5.0 per cent. fat.....	24.8 lbs. cheese.

A duplicate set of these cheese was sent to the Paris Exposition April 15, 1900. This exhibit was awarded a Gold Medal.

DAIRY MACHINERY.

The Wisconsin Dairy School is now provided with a special building and equipment for giving practical instruction in the use and management of Dairy machinery.

In the basement of this building dairy students learn to fire and care for two large boilers, one of which burns wood and the other coal. The fuel burned each day is weighed and measured by the students and all the work of firing is done by them under the supervision of an instructor.

On the first floor steam engines, boiler feed water pumps, injectors, governors, steam gauges, etc., etc. are taken apart and put together.

Separators are set up and connected with the line shaft by pulleys. The shafting is also hung and lined up by the students.

A large room on the second floor is fitted with benches and tools for giving a course of instruction in Pipe Cutting and Fitting, Belt Lacing and Tin Soldering.

Samples of students work are shown in this exhibit.

TEST YOUR COWS.

Weighing and testing the milk of thirty-four cows on four farms showed the butter value of each cow's milk for one year to be as follows:

	Best cow.	Poorest cow.
Farm A	\$53 35	\$28 72
Farm B	58 20	44 83
Farm C	60 72	37 96
Farm D	55 49	39 60

Does each one of your cows give milk enough to pay for her feed?

The average composition of Milk, Butter and Cheese is shown in this exhibit. The bottles contain the weight of each constituent found in the amount of Milk, Butter and Cheese shown.

	<i>Parts.</i>
<i>Milk and its constituents:</i>	
Water	87
Fat	4
Casein	2.5
Milk sugar	4.8
Ash .....	.7
	<hr/>
Total	100
 <i>Butter and its constituents:</i>	
Water	12
Fat	84
Curd	1
Salt	3
	<hr/>
Total	100
 <i>Cheese and its constituents:</i>	
Water	36
Fat	33
Casein	27
Salt	4
	<hr/>
Total	100

Respectfully submitted,
 JOHN W. THOMAS,
 Superintendent.

DEPARTMENT "H."

Wisconsin State Board of Agriculture—

Gentlemen:—I herewith submit a brief report of my department. This being, what is termed "the off year" for apples, and also the most unfavorable season, I have ever seen, I thought that surely the exhibit would be exceedingly slim, but instead of being nearly a failure, every shelf in the department was full of highly colored, fine fruit.

It seems unnecessary to mention any exhibitor in particular, as all took hold to make the exhibit a grand success.

The exhibit of plums was, if possible, even larger and better than that of a year ago.

A good many visitors expressed themselves as being well repaid for their visit to fair, by seeing this exhibit alone.

It would seem that these exhibits would stimulate the planting of this valuable fruit.

In the floral department, we had a full house, and one large exhibit had to be crowded into the fruit department.

I desire to express my sincere thanks to judges and exhibitors, for their uniform kindness and consideration, shown all around.

1902 should be our fruit year again, and I hope to see some improvements made in the Horticultural building, and a list of premiums offered for the best and most attractive exhibit of horticultural products, outside of the regular premiums already offered.

R. J. COE,
Superintendent.

DEPARTMENT "J."

Wisconsin State Board of Agriculture—

Gentlemen:—In making my report as superintendent of department J for the year 1901, I desire first to extend my hearty thanks to those exhibitors who did so much to make this department a success. The exhibits far surpassed those ever before seen on the grounds. Following is a brief list of exhibits and persons in charge:

Petrie, Elliot & Herrington, Madison, Wis., carriages, farm implements and wagons.

Deere & Co., Moline, Ill., M. E. Waite exhibitor in charge, plows, harrows, hay rakes and cultivators.

Deere & Mausur, Moline, Ill., M. E. Waite exhibitor in charge, corn shredders, hay loaders and seeders.

Rock Island Plow Co., Rock Island, Ill., M. J. Brown exhibitor in charge, plows, harrows, planters and cultivators.

J. I. Case Threshing Machine Co., Racine, Wis., A. A. Stelling exhibitor in charge, engines, threshers and tanks.

Fricke Threshing Machine Co., Waynesboro, Pa., Robert Walker exhibitor in charge, threshers and engines.

Smalley Mfg. Co., Manitowoc, Wis., Kelly exhibitor in charge, feed cutters, grinders and horse powers.

H. R. Nelson, Lena, Ill., H. R. Nelson exhibitor in charge, carriages and sleighs.

Satley Mfg. Co., Springfield, Ill., J. Z. Heime exhibitor in charge, engines and threshers.

Satley Mfg. Co., Springfield, Ill., B. J. Detrick exhibitor in charge, plows and harrows.

Stoughton Wagon Co., Stoughton, Wis., James Rice exhibitor in charge, wagons and sleighs.

Janney Mfg. Co., Ottumwa, Ia., W. G. Sproat exhibitor in charge, corn huskers and shredder.

Dallman & Cooper, Fond du Lac, Wis., W. F. Viel exhibitor in charge, shredders and engines.

Fish Bros. Wagon Co., Racine, Wis., J. C. Wetherby exhibitor in charge, wagons.

Lindsay Bros., Milwaukee, Wis., E. M. Renolds exhibitor in charge, feed mills and feed cutters.

E. W. Ross Co., Springfield, Ohio, H. T. Mecklenburg exhibitor in charge, feed cutters.

A. J. Rorsch, Milwaukee, Wis., plows and cultivators.

Stolph & Lietler, Milwaukee, Wis., E. Stolph exhibitor in charge, farm implements.

Michigan Buggy Co., Kalamazoo, Mich., J. W. Feek exhibitor in charge, cutters.

G. D. Colton & Co., Galesburg, Ill., W. L. Lyon exhibitor in charge, feed grinders.

Janesville Machine Co., Janesville, Wis., A. N. Healy exhibitor in charge, farm implements.

Hirsch Bros., Milwaukee, Wis., farm implements and carriages.

Standard Tire Setter, Keokuk, Iowa, G. G. Biggs exhibitor, tin setter.

J. I. Case, Racine, Wis., J. H. Hagenah exhibitor in charge, plows, harrows and cultivators.

Milwaukee Hay Tool Co., Milwaukee, Wis., C. A. Gutenkunst exhibitor in charge, huskers.

Monitor Mfg. Co., Minneapolis, Minn., Geo. A. Heath exhibitor in charge, drills and seeders.

A. W. Stevens Husker Co., Marinette, Wis., H. M. Hardgrove exhibitor in charge, huskers, shredders, engines and burr stones.

Kemp & Burbee Mfg. Co., Syracuse, N. Y., M. R. Pharis exhibitor in charge, manure spreader.

Belle City Mfg. Co., Racine, Wis., Fred Rogers exhibitor in charge, feed cutters.

Stover & Co., Chicago, Ill., J. J. Baker exhibitor in charge, carriages and sleighs.

Iowa Grinders & Steam Works, Waterloo, Iowa, E. D. Wood exhibitor in charge, sweep grinders.

Melvin Mitchell, Madison, Wis., carriages and sleighs.

F. W. Metzger, Kalamazoo, Mich., wind mills.

Rosenthal Husker Co., Milwaukee, Wis., A. L. Hornburg exhibitor in charge, huskers.

Fuller & Johnson, Madison, Wis., H. G. Rinder exhibitor in charge, carriages and farm implements.

J. L. Owens, Minneapolis, Minn., fanning mills and bean threshers.

C. P. & J. Lawson, Milwaukee, Wis., gas engines.

American Harrow Co., Detroit, Wis., A. F. Manning exhibitor in charge, manure spreaders, cultivators and harrows.

Central Implement Co., Lansing, Mich., G. E. Dailey exhibitor in charge, farm implements.

Safety Shredder Co., New Castle, Ind., A. D. McConnell exhibitor in charge, shredders and engines.

Milwaukee Machine Co., Milwaukee, Wis., R. B. Mann exhibitor in charge, gas engines.

I. B. Rowell, Menomonee Falls, Wis., W. T. Camp exhibitor in charge, farm implements.

D. M. Sechler Carriage Co., Moline, Ill., W. W. Dolbear, exhibitor in charge, corn planters.

Ely Tank Heater Co., DeKalb, Ill., Geo. S. Long exhibitor in charge, tank heaters.

F. W. Moldenhauer & Co., Oconomowoc, Wis., milk measuring machine.

Dowagiac Mfg. Co., Madison, Wis., H. O. Brown exhibitor in charge, drills and seeders.

Wood Bros. Self Feeder Co., Des Moines, Ia., A. McGregor exhibitor in charge, self feeders.

Johnson & Field, Racine, Wis., G. W. Wild exhibitor in charge, fanning mills.

E. P. Dickey Fanning Mill Co., Racine, Wis., F. W. Dickey exhibitor in charge, fanning mills.

Racine Carriage Co., Racine, Wis., E. T. Raht exhibitor in charge.

Mason Lubricator Co., Peoria, Ill., L. J. Mason exhibitor in charge, lubricators.

Van Schaick Husker, Walworth, Wis., huskers.

The Wonder Washer, Minneapolis, Minn., J. C. Fairweather exhibitor, washing machines.

Van Brunt & Wilkins, Horicon, Wis., Dahart exhibitor in charge, drills and seeders.

Milwaukee Rice Mch. Co., Milwaukee, Wis., Rice machines.

Mosley Folding Bath Tub Co., Chicago, Ills., W. G. Reynolds, exhibitor, Folding bath tubs.

In closing I desire to extend my thanks to the board of management for the many courtesies shown my department during the fair of 1901.

Yours respectfully,

JAMES E. SEAVER,
Superintendent.

DEPARTMENT "K."

Wisconsin State Board of Agriculture,

Gentlemen:—The plan of dividing the Art hall exhibits into two departments proved to be a wise one, and I believe wrought good results. The walls of the building were in good condition, the new paint harmonizing well, and the general effect was very much improved. There were a number of new exhibits, and several large exhibits of pictures were sent from a great distance—one from Massachusetts—to be taken care of and re-shipped at the close of fair. Nothing was injured or lost.

The display of paintings, in oils and water colors, was good. There was a marked improvement in quality and style. The quantity was sufficient to cover every available inch of space—then it was the old story, "not enough room." Photography was introduced as a new class, and there were some excellent and attractive things in that line. In the miscellaneous class, there were several valuable pieces of carved wood, a collection of burnt wood and leather,—all of which gave tone and variety to the Fine Arts exhibit.

The china painting exhibit was one to be proud of, the largest and best ever shown at the state fair. It made a fine show and would have been doubly so if there had been that much more room in the cases. As it was, exhibitors were obliged to crowd in together, thus destroying and hiding the effect of many attractive and valuable pieces of work. China being so perishable, there is great danger in crowding and re-handling. Many pieces represent weeks and months of close, hard labor, and one feels that the risk is great in such close quarters. However, the exhibitors all seemed to accept the situation as cheerfully as possible, and were hopeful of more room in the future.

I think there should be a special judge for china painting. Two days would be sufficient time in which to do the work. This would enable the judge in paintings and photography to do his work in two instead of three days. It would, I am sure, give better satisfaction all around. I heartily recommend the ap-

pointment of such a judge, and it is the sentiment of all who entered china painting this year.

Respectfully yours,

MRS. CHARLES A. SCOTT,

Superintendent.

DEPARTMENT "L."

Wisconsin State Board of Agriculture,

Gentlemen:—The number of exhibits of "Woman's Work" at last fair was unusually large, every inch of space being occupied, and in many cases articles had to be hung over one another. The quality of the work was very fine, judging not only from my own standpoint and that of my judge, but from the remarks passed by spectators who are in the habit of visiting the fair each year, the common expression being: "I never saw so large and beautiful a display in this department."

I would suggest that before another fair there be a place arranged under the showcases for stowing boxes, satchels, etc., that exhibitors have their goods packed in, and also that some much needed articles—notably a light step-ladder, that can be used inside the cases—be provided.

We would prefer that space for the piano exhibit and singing birds be provided in some other building, and that the room occupied by them be devoted to the regular department exhibits.

I think the work of the judge was very satisfactory, no exhibitor making complaint during work or after the awards were made. A few questions were asked concerning reasons for awards, which questions were answered to the satisfaction of the inquirer. Every article entered was returned to the owner either in person or by express, before I left the grounds, and I have heard of no losses.

MARY E. CHADWICK,

Superintendent.

DEPARTMENT "M."

Wisconsin State Board of Agriculture,

Gentlemen:—I herewith submit my report of the Pigeon department of the late state fair.

One thousand one hundred seventy-four birds were exhibited, divided as follows:

415 pairs, entry fees	\$103 75
184 single birds, entry fees	27 60
8 exhibition coops, entry fees	20 00
	<hr/>
Total	\$151 35

Disbursements.

Superintendent's salary	\$50 00
Asst. superintendent's salary	18 00
Helper's salary	12 00
Night watchman's salary	10 00
Three judges' salary	55 00
Feed	5 00
Incidentals	1 35
	<hr/>
Total	\$151 35

The expenses of the department, aside from the premiums, are fully covered by the receipts. The quality of our show was not excelled at any meeting of the season, even in the East, where much is made of exclusive pigeon shows. Our department was well patronized by spectators at all times when people were on the grounds. Our heaviest exhibits were of Homers, Pouters, Swallows, Magpies, Jacobins, and Tumblers; and in young birds these breeds were also well represented. We had with us the winners from the Eastern shows.

Respectfully submitted,

L. A. JANSEN,
Superintendent.

SPEED DEPARTMENT.

To the Wisconsin State Board of Agriculture,

Gentlemen:—The following is a correct report of receipts and expenditures of Speed department for the year 1901.

Receipts.

Cash from entries	\$1,580 00
Cash from score card privilege	37 50
Deducted from winnings	940 00
	<hr/>
Total	\$2,557 50

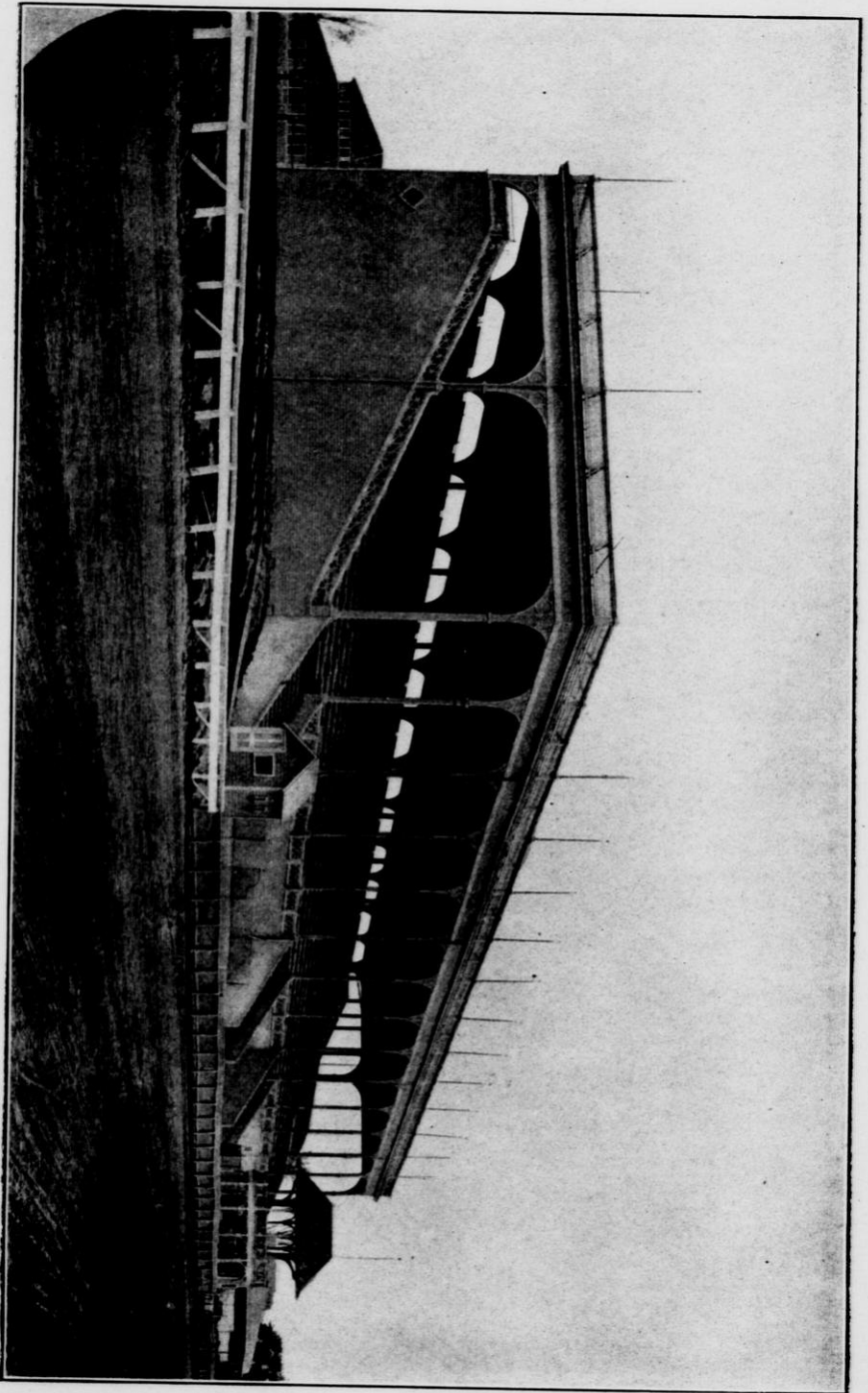
Disbursements.

Turned over to secretary	\$1,617 50
Deducted from winnings	940 00
	<hr/>
Total	\$2,557 50
Due from suspensions	\$410 00

There were six races given, two for purses of \$500.00 each, and four of \$600.00 each, aggregating \$3,400. The bad weather affected my department more than any other, but I think the horsemen went away with a kindly feeling for us for the effort we made to give them a chance to win some money. I was well pleased with our field of horses, as we certainly had a large list of high grade horses, and had the weather been favorable, I am satisfied that we would have shown the public by far the best meeting in the western circuit.

I would recommend that a few larger purses be offered at future meetings, of perhaps \$1,500 each. I believe the brewers, merchants and manufacturers of Milwaukee would go behind four such purses and they would not cost us a cent. This is done in other places.

With the new one-half-mile track completed, we have the best place in the West for trainers, as you have the best one-half-mile



GRAND STAND, STATE FAIR PARK.

track in the state, and the best one-mile track in the West. I look for a bright future for the Wisconsin state fair, and feel that the Speed department under more favorable circumstances will show up well.

I desire to thank you all for the many kindnesses you have shown me, and desire to say that if I have erred in the performance of my work, it has been an error of judgment and not of intention.

Yours very truly,

FRANK W. HARLAND,
Superintendent.

SUPERINTENDENT OF GROUNDS.

I beg to submit the following statement of moneys received by me as superintendent of grounds, during the season of 1901, for which I hold the secretary's receipt. For an account of the expenditure of funds, by me, for improvements, as ordered by the board, you are respectfully referred to the secretary's report of expenditure of state appropriation.

Received.

From rent of pasture	\$184 00
From rent of stalls	152 20
From sale of old building, &c.	36 50
Total	\$373 20

Respectfully submitted,

GEO. G. COX,
Superintendent.

SUPERINTENDENT OF GATES.

To the Wisconsin State Board of Agriculture,

Gentlemen:—I herewith submit my report of expenses of Department of Gates for year 1901:

Anton Peters	\$21 80
Wm Sutherland	10 00
Robt. Vickery	21 60
Elmer Berdeau	21 60
Ben Allen	21 60
Wm. McAllister	22 22
M. C. Welton	15 00
S. C. Welch	14 44
Henry Green	15 35
Ed. Kayser	15 35
G. W. Burnside	16 22
J. F. Flanders	13 48
J. E. Tucker	16 00
E. C. Stratton	15 35
C. L. Pearson	15 55
Geo. Jones	16 22
Arthur Cleveland	15 96
Allen Classon	16 22
Chas. Wheelock	7 50
C. J. Tempero	12 85
R. O. Wedgwood	28 30
J. A. Wedgwood	6 00
<hr/>	
Total	\$358 61

Respectfully submitted,

DAVID WEDGWOOD,
Superintendent of Gates.

REPORT OF TRANSPORTATION.

Received.

Of John Miller, for drayman's privilege	\$8 00
Of E. Basfus, for drayman's privilege.....	8 00
Of E. Neeb, for drayman's privilege	8 00
Of J. De Groat, for drayman's privilege	8 00
Of Frank Shulte, for drayman's privilege	8 00
Total	\$40 00

Paid.

J. Miller, cartage of tent	\$1 00
J. De Groat, cartage of Dairy School outfit.....	4 50
Total	\$5 50

Credit balance, \$34.50, which is carried to Forage Department account.

JOHN LEFEBER,
Superintendent.

REPORT OF FORAGE DEPARTMENT.

Feed furnished free.

To cattle, hog and sheep barns	\$87 10
To horse show	13 10
To fire department	3 64
Total	\$103 84

Receipts.

Sept. 7th	\$9 80
Sept. 8th	85 46
Sept. 9th	80 20
Sept. 10th	71 25
Sept. 11th	59 90

Sept. 12th	94 70
Sept. 13th	549 72
Sept. 14th	47 99
Sept. 15th	19 34
Over cash	3 05
Oct. 4th, of Geo. Webber	33 15
Oct. 10th, of A. Cotzhausen	102 48
Oct. 24th, rebate on alfalfa	19 85
Credit item from feed returned	54 11
Transportation dept.	34 50
<hr/>	
Total	\$1,265 50

Disbursements.

Denzer, cabbage	\$25 15
Hohl, cabbage	22 40
Car of alfalfa	248 75
Paine, beets	7 10
Pofter, straw	25 14
McKowen, straw	36 71
Jungblood, straw	16 75
A. Le Feber, feed	748 89
G. Le Feber, use driving horse	8 00
T. O'Hara, team	20 00
Telephone	40
Stationery	3 90
O. R. Tower, weigh bills	3 30
Fleming, teaming	80
Geo. Douville, help	18 00
Aug. Trotter, help	18 00
John Roberts, help	13 50
John Le Feber, Supt.	75 00
E. Le Feber, Asst. Supt.	31 50
<hr/>	
Total	\$1,323 29

Respectfully submitted,

JOHN LEFEBER,

Superintendent.

SUPERINTENDENT OF PRIVILEGES.

Wisconsin State Board of Agriculture,

Gentlemen:—The superintendent of privileges asks leave to report as follows:

Dr. balance	\$57 79
To amount received from dining hall privileges	\$575 00
To amount received from lunch counter privileges.....	537 00
To amount received from shows	192 00
To amount received from all other sources	717 50
Total	\$2,021 00

Contra, Credit.

By receipts of secretary, for	\$1,946 00
By amount returned to White & Jackson.....	25 00
By note due from C. H. Noble	50 00
Total	\$2,021 00

An itemized report of my receipts is filed with the secretary.

S. D. HUBBARD,
Superintendent of Privileges.

REPORT OF MARSHAL.

Paid.

Marshal and assistants	\$112 50
Day police	82 00
Night watchmen	83 00
For use of horses	40 00
Total	\$317 50

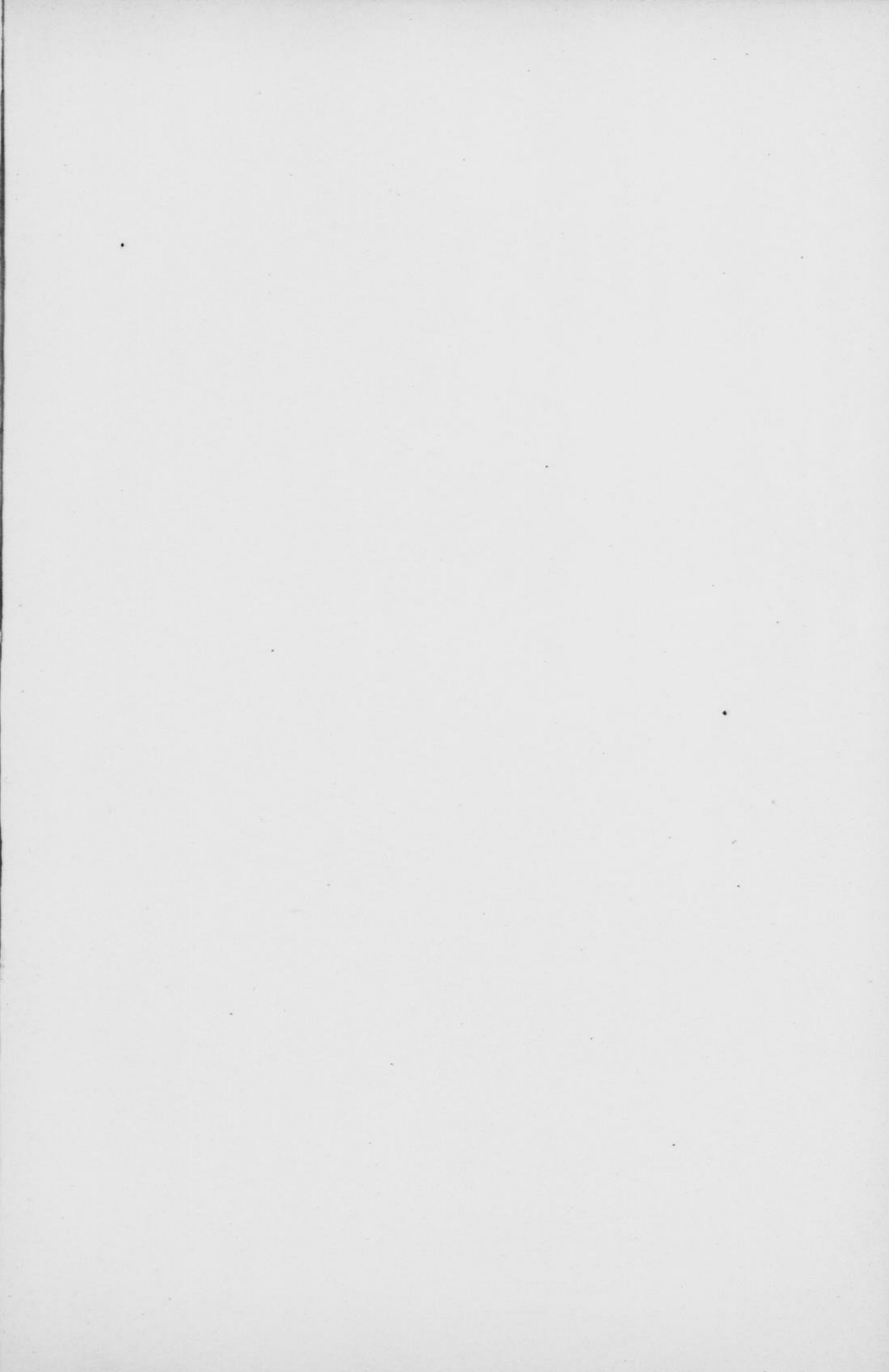
Itemized Statement.

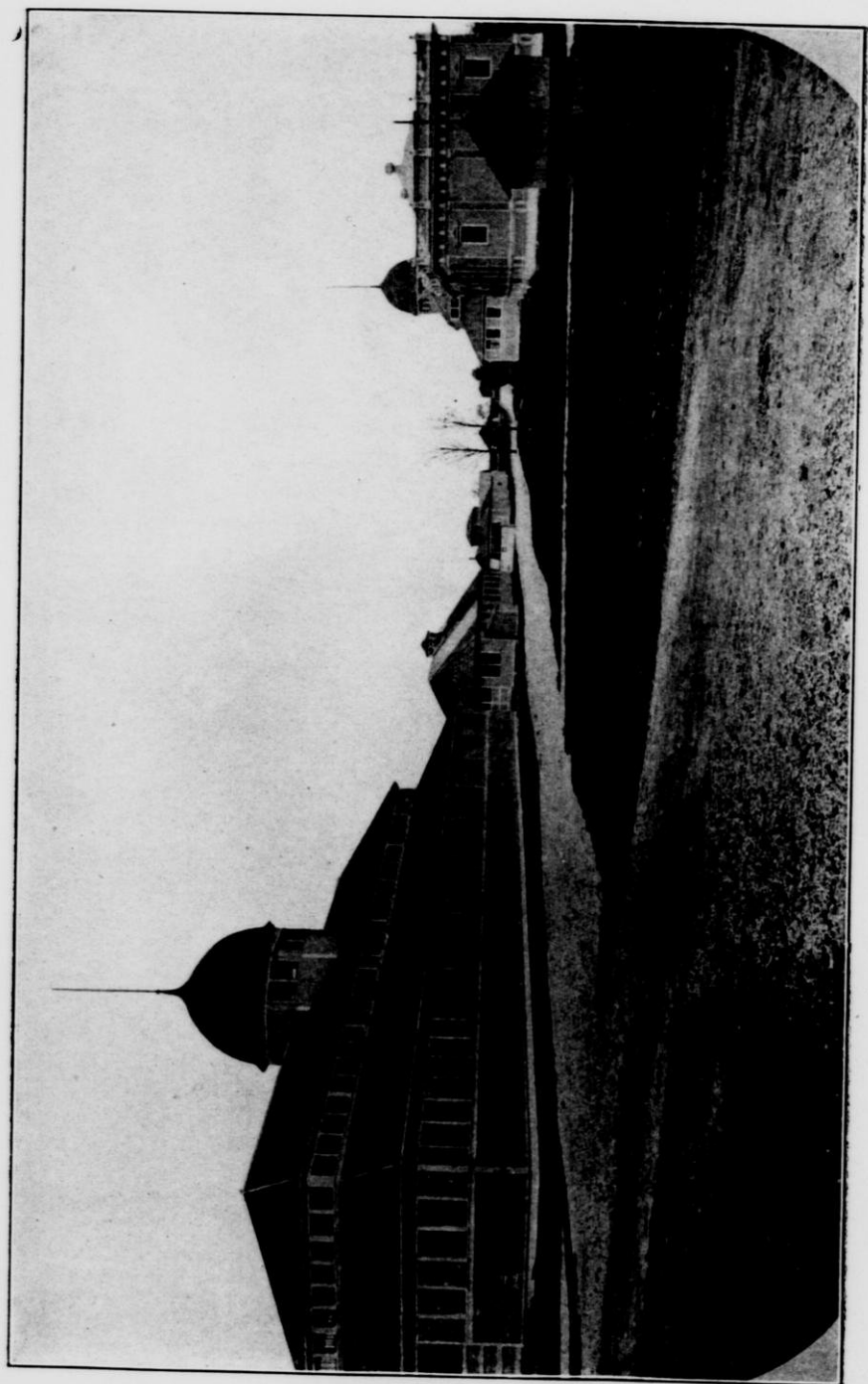
Geo. G. Cox, marshal, 5 days	\$25 00
L. E. Scott, assistant, 5 days	17 50
John S. Eastman, assistant, 5 days	17 50
E. L. Hubbard, assistant, 5 days	17 50
W. H. Applebee, assistant, 5 days	17 50
D. E. Jacobs, assistant, 5 days	17 50
John Hoyer, night watch, 7 nights	14 00
Wm. Cox, night watch, 7 nights	14 00
Gust Pratsch, night watch, 5 nights	10 00
Ed. Walsh, night watch, 5 nights	10 00
Jos. Minnich, night watch, 5 nights	10 00
Herb. Skinner, night watch, 6 nights	12 00
E. B. Osborn, night watch, 5½ nights	11 00
C. Barnekow, night watch, 1 night	2 00
P. Roche, police, 4 days	8 00
C. Butler, police, 4 days	8 00
J. C. Graf, police, 4 days	8 00
W. H. Peck, police, 4½ days	9 00
Anton Grimmer, police, 4 days.....	8 00
Ed. Leiniger, police, 4 days	8 00
M. Muckelston, police, 4 days	8 00
G. V. Roach, police, 4 days	8 00
Reed Shepard, police, 4 days	8 00
John Olsock, police, 2½ days	5 00
John Leininger, police, 1 day	2 00
H. G. Meigs, police, 1 day	2 00
For horses, four days	40 00
 Total	 \$317 50

I desire to recognize the gentlemanly bearing and efficient assistance of the representatives of the city police force that were with us during the fair.

Respectfully submitted,

GOERGE G. COX,
Marshal.





VIEW FROM OFFICE BUILDING.

REPORT

OF THE

Agricultural Convention

Held at Madison, February 5, 1901.

President McKerrow in the chair.

The Chairman: We are here this morning to open the first Farmers' convention, under the auspices of the Wisconsin State Board of Agriculture. For some reasons it may be said that this meeting has not been as well advertised as it should have been, and these reasons are that some of the parties who were approached to take part in this program had to ask questions before answering positively whether they could go on the program or not. Others delayed answering, so that it also delayed the secretary, and several agricultural papers had made up their forms for last week's issue before they received this program, and it has not been as widely spread throughout the farming district of Wisconsin as it should have been. We hope, however, to have a very fair attendance here.

In opening this meeting, let me say that the main object is to secure material for a report to be published and sent out to the farmers of Wisconsin and to some extent those of adjoining states. To make this report valuable, readable and practi-

cal, it will devolve upon every person here present to do his best in making the discussions what they should be,—close to the practical side of farm life. Therefore, let me ask you on behalf of the State Board of Agriculture to follow each speaker carefully and draw out with your questions, after he has finished, what he has left unsaid that ought to be said. We want to spend at least one-half of the time in these meetings in a free-for-all discussion so that we may cover as completely as possible the practical side of each of these questions which appear on this program.

We have with us a gentleman who has an enviable reputation as a swine breeder and whose stock has for many years been seen at the leading northwestern fairs, and I will say for him that he has been very successful in the show ring. I now take pleasure in introducing to you Mr. H. P. West of Fayetteville, Walworth county, who will talk to you of "Some of the Successes and Failures in Swine Husbandry."

SOME OF THE SUCCESSES AND FAILURES IN SWINE HUSBANDRY.

One of the first conditions of successful swine husbandry must be a liking for the business and the animals, and this will be known by the treatment the farmer gives his swine. It is a good schooling for any would-be breeder or feeder to go to the yards of some of our successful breeders and study their methods. You may have an idea you know all the essentials to success as a breeder and feeder, but if you are observing, you can't visit a brother breeder without gaining some new ideas.

Farmers should keep all the hogs on their farms that they can handle profitably. In the first place, the farmer or feeder must adopt some business method in regard to pork production and be quick to take advantage of and follow a business proposition in breeding and feeding, and not breed in a haphazard

way. The progressive farmer can't stand still. He must move forward; there is no room for a back number, especially in swine breeding and feeding. We are not farming in the past, but in the present and future, as new demands and ideas keep us on the rush to be first in the market with the new idea hog product. And what is it at the present time? It is the 200 to 250-pound pig that will furnish the greatest amount of ham, lard and bacon at five to eight months of age.

I would ask, what are you going to breed for? If for the market and you have no preference as to breed or color, study the demands of the market. On the other hand, if you are going to raise pure bred swine, select the breed you prefer and then select popular families with a pedigree that is right.

In the selection of brood sows, get those of good length of body, deep sides, good hams and large heart girth. I prefer a yearling or mature sow to a young one. In the selection of the boar, too much attention cannot be given. The boar, rightly selected and cared for, is a mortgage lifter. Figure him at inflated public sale prices on his pedigree, and he becomes a mortgage maker. Pedigrees are all right, and good hogs have good pedigrees, but do not make the pedigree superior to the hog. Hogs fill the meat-barrel, but pedigrees are poor eating if the hog is not attached to them. High prices for these sires may discourage the farmer and feeder from buying, but they stimulate the breeder to better efforts and a more critical study of the animal and breeding.

Breeders have learned the value of pure bred animals whose types and excellencies follow in the offspring, and they are as ready to pay their hundreds for them as breeders of twenty-five years ago were to pay their tens for choice animals. Don't be induced to buy that over-fed, excessively fat boar at the show, simply because he looks so fat and sleek and won first honors in his class. You have been many times cautioned against this, but you say: "I came to buy the best, and I am going to have the first premium pig." What is the consequence? Disappointment in the next crop of pigs, as a rule. Having selected

your boar, his health and comfort should be looked after the entire year. Boars that are achieving success as sires are not kept in close pens and fed corn and water, but are allowed plenty of exercise on the ground and given a variety of feed.

Hogs and feed at the present time demand a good, fair price, and the man who expects to raise a crop of pigs for next season's market will do well to give careful attention to the brood sow's care and feed for the next two or three months, for on this largely depends the size and thrift of the litter.

My plan at the present time is about as follows: I keep old sows and gilts separate, as the gilts require more and better feed as they have more growth to make. Provide comfortable sleeping quarters, bed liberally with marsh hay, wheat or rye straw; do not use oat straw. Keep a box of wood ashes and salt where they can have access to it. Give all the hogs a little kerosene in their drink once or twice a month. My sows at the present time have the run of the cow yard. In the morning I feed whole oats scattered on the ground where they must work to get their breakfast. At noon they get a drink made of wheat middlings, milk and water,—all they will eat. At night I give about four ears of corn to each animal. Let them have plenty of fresh water. I continue this mode of feeding, with some variations of oil meal and roots, during the last three or four weeks before farrowing. At least two weeks before farrowing get the sows in pens by themselves where you wish them to farrow, that they may get acquainted and feel at home.

Be on hand when the little fellows come and if in cold or damp weather provide some artificial heat to be used if necessary. A box or barrel lined with burlap or canvas, a hot plank or bricks put in the bottom of the barrel, some fine hay or straw on these, a blanket thrown over the top of the barrel, and you have a summer house for the little fellows. I have hung a lighted lantern in the barrel to furnish the heat, but there is some danger attached to this. Care should be taken not to get it too warm in the barrel. As the pigs arrive, put them in the barrel; when the sow is through

farrowing get the little fellows all down by the mother to nurse, after which put them back in the barrel. In about an hour place them by the sow again, and if she is quiet and pigs all right I should leave them with her.

It is difficult to make any iron-clad rules at this time; the attendant must use a good deal of "gumption." I always say, don't molest the sow unless necessary. Soon after farrowing give her a drink of water into which you have put a handful of bran or oil meal; then let her alone for twenty-four hours. Feed lightly for a week or ten days, after which feed the sow all she will eat three times a day of whatever you think will make milk and produce a good growth in the pigs. Give the pigs plenty of exercise or you will soon find they have fat accumulation of the heart, which causes thumps and death will be the result.

Provide a trough with oat meal, soaked corn and a little sweet milk as soon as the pigs will drink; put it where the pigs can have access to it and the sow cannot. Get sow and pigs on grass as soon as you can. Do not wean the pigs. If properly fed they will generally wean themselves at about eight weeks old. The kind of pasture used will have to be determined by conditions and circumstances. Clover without question is best, but barley, oats, rape and peas sown in succession make a good green feed for growing pigs; but you must feed plenty of corn, oats, and milk. I feed corn and lots of it, and am not afraid of it; but I feed something else to make the pigs eat more corn. The best lot of pigs I ever raised were fed on corn meal with a little oil meal, wheat middlings, whey and all the ear corn they would eat. I have never been able to raise a good lot of pigs on clear corn, and I have never been able to raise a good lot without corn. A man can feed more corn if his hogs are on grass. There are farmers who raise just as good hogs as anybody produces, and raise them on corn. There is a good deal said about a balanced ration for swine and I believe in it but some are liable to make a hobby of this and go to extremes. Some say they can make no money feeding hogs as they have to pay out all the profit buying feed. Every farmer should study

his own conditions and produce on the farm the feeds necessary as a matter of economy. Instead of buying bone meal feed your ashes, charcoal, roots, potatoes and other vegetables. Study the necessities of your pigs and keep them growing. Corn and oats fed growing shoats will nearly double their selling value at present prices.

Breed your own feeding stock for two reasons: First, to be sure of good quality; second, to lessen the chances of disease. One of the great hindrances in Swine husbandry is the alarming prevalence of disease in certain localities.

Keeping your hogs in a thrifty condition, proper feed, cleanliness and using disinfectants may aid somewhat in warding off disease.

My advice to any feeder, if cholera gets into his herd, is to sell all well animals at once, use all the sure cure remedies you choose on the sick ones and those that have been exposed and after they have all died and you have burned or buried them, clean up the pens, yards and houses, disinfect thoroughly. Buy some sows, put them in new quarters for a while, breed them and by the time the litters arrive there will be little danger of contracting the disease from the old yards and pens.

The new century and especially the new year promises much for the swine industry. The favorable markets of the past year and the bright prospects of the new should cause the breeder and feeder to rejoice. No matter how great our success has been, let us profit by any past mistakes, and be ever on the alert for still greater victories, by a study to systematize, economize our work of feeding and thereby increase our profits.

DISCUSSION.

Mr. Hubbard: Mr. West tells us not to use oat straw for bedding. I would like to know why.

Mr. West: There is usually in oat straw a smut or rust or something that under certain conditions with certain breeds of

hogs produces a rough and irritated skin,—a diseased skin. You do not notice it so much on a black as on a white hog.

Mr. McKerrow: Does it affect thin-haired hogs the most?

Mr. West: Yes, as a rule.

Mr. McKerrow: Is not the reason that you do not notice it on black hogs because they are black? A. Yes.

Mr. Hubbard: Why do you feed kerosene?

Mr. West: To destroy worms and tone up the system. I believe it is good for them, and I have never had any bad effects.

Mr. McKerrow: As good as patent medicines and tonics manufactured for that purpose?

Mr. West: I am not saying anything in disparagement of patent medicines, but kerosene is my tonic.

Mr. Hubbard: Would not turpentine be better?

Mr. West: I think it is good, but more care and caution should be used in giving turpentine. With kerosene, if I am in a hurry I can pour it around and if it happens to run on their heads it does not do any harm. Turpentine I should mix in a pail beforehand. I calculate to give them about a tablespoon of kerosene each.

Prof. Henry: I am very much interested in your feeding oats to your brood sows. Do you sprinkle oats thinly on the ground or floor and allow them to take that up?

Mr. West: When the ground is frozen, as at present, I take the oats and scatter on the ground. When it is muddy I put them on the floor. I do not put them in the troughs where they can gorge themselves with great mouthfuls.

Prof. Henry: You would feed the oats whole?

Mr. West: Yes, it saves grinding.

Mr. Cogswell: Is there a way of feeding with a self-feeder?

Mr. West: I never used but one self-feeder. It was not a success with me. It might not be so in your case. I filled my self-feeder and if I neglected to go to it every day, it would get clogged and the first thing I knew the pigs were down to the pan looking for something to eat.

Prof. Henry: "The eye of the master fattens his cattle,"

and I do not think a man can ever substitute a wooden box for the human intellect, even for a hog.

Question: If you had your hogs running upon pasture would you feed them all the same feed they would eat, or would you stint them to some extent?

Mr. West: It would depend somewhat upon what I proposed to do with those hogs or pigs or shoats, as the case might be. For growing pigs I would give them all they would eat. They won't rely wholly upon the feed that you give them. They will take all the green forage that they need.

Mr. Cahoon: In feeding old corn and new, I have a notion that old corn is better for hogs than new. What do you think?

Mr. West: I feed old corn. I calculate to keep some over. I start my hogs in the fall on a full feed before the new corn is fit to feed.

Mr. Faville: Can you make the most profit from them when they are out to grass by giving them all the corn they want and taking grass as the supplemental feed? Is that what you mean?

Mr. West: I can make the most money by giving them good pasture. You must use a good deal of judgment in regard to this. Your pasture must influence your feeding.

Prof. Henry: If you wanted to get them ready for market as soon as possible, would you feed heavily? A. I would.

Mr. Faville: The best money I ever made out of pasture hogs was from hogs in a nice clover pasture, plenty of it, access to pure water, and salt and ashes when they wanted it and feeding just one pound of shelled corn per day to each hog.

Mr. True: At what age did you sell them?

Mr. Faville: When they were about ten months old. They ran in the clover pasture from the first of May until the middle of September. But the pasture had begun to fail a little bit and they were sold out of the pasture without any more feeding than that one pound of corn.

Mr. West: Do you think that those hogs would have eaten more if they had been given it?

Mr. Faville: Undoubtedly they would, but not so much of the clover, and the clover was cheaper than the corn. I made

from actual weight more pounds of pork from an acre of clover than any man can make from an acre of corn.

Mr. Everett: Could you have done as well with the clover and without the corn?

Mr. Faville: I do not think I could. I have never been successful in making hogs do well with clover alone. I do not recommend it. I think we want some corn with it.

Mr. Van Meter: I believe that our Experiment Station says that there is no value in clover alone for pork making.

Prof. Henry: The Experiment Station has never said that. It has a number of experiments on record which have never been published, but have been held back for still more evidence. We have never yet been able to make any gain on hogs which were kept on blue grass pasture or clover without grain additional.

Mr. Van Meter: How does that harmonize with Mr. Faville's statement about making a satisfactory gain?

Prof. Henry: My idea is that the clover will just about support the hog, leaving the corn for pure profit.

Mr. Faville: It was not guess work with us. We measured it carefully every day. The hogs were bought in the spring, fifty of them, and turned into an eight-acre clover field, when it had got just nicely started. We did not wait until it got into bloom. The hogs were turned out as soon as there was enough for a good fair bite. They were fed as I told you. The clover outgrew the hogs, and I saw that they were leaving bunches around. We had eight head of cattle and they were turned in there three days to eat down the clover and keep it from getting rank.

Prof. Henry: We have not published our results, because we do not consider them conclusive. I only state this to the meeting as a report of considerable work done but nothing has yet been published by the Station. I want it understood in that way. The fact that we have not succeeded does not indicate that someone else cannot succeed. The Wisconsin Station should not be quoted as saying that you cannot make hogs gain on clover alone.

Mr. VanMeter: Did not you print this, Mr. Henry?

Prof. Henry: It has never been printed in a station report.

Mr. Faville: It has been said that one swallow does not make a summer. One experiment does not prove very much. That is the only one I ever made. The corn was not thrown into a pile or into the dirt, but was scattered so that the hogs who got more than a kernel at a time did well. There that one thing than you would think. Mr. West touched upon that point,—making the sows pick up one kernel at a time.

Mr. West: I would like to ask how much milk they had.

Mr. Faville: No milk at all. The man on the farm had one cow. There was no milk of any account. They had the slops that came from the house. They had access to clean water. In the shed in a trough there were salt and ashes mixed together.

Mr. West: Perhaps one reason why I have succeeded better in the swine business is because I am somewhat given to experimenting myself. In regard to the pasture and the feeding, however, I know whereof I speak in regard to this instance a year ago. I sowed a piece of ground to barley, rape and peas,—a mixture of the seeds. When that was well up I ran a portable fence through the field. I turned about 20 shoats into about a third of it. They soon ate it off. They got all the feed they wanted besides. Every few days I changed that fence and gave them another third of the piece and still fed corn heavily. I wanted to put those shoats on the market in the early fall. I kept moving that fence back and forth and fed all the corn they could eat. If they had not relished the pasture they would not have eaten it down. There must have been benefit in the pasture.

Mr. Faville: The controversy is not whether we did not make more weight of pork, but whether it was made for less money.

Mr. McKerrow: I think it has been demonstrated in several experiments that a combination of skimmed milk and corn gives a greater yield of weight in pork than either one of these feeds fed alone and fed up to the capacity of the animal to take them. I am one of those who believe that certain foods have a hygienic effect upon the digestive organs of an animal and a combination

of such a food and a heavy food like corn will give a far better return than either one of them fed up to the capacity of the animal. So we can reconcile what Prof. Henry says about the hogs not gaining on clover alone, and your hogs gaining well on clover and even a single pound of corn a day, because their systems were in condition to make the best out of that pound of corn. I will give a little experience. Some years ago there was a short crop of corn in our section. Most of us farmers in those days were wintering pigs on corn, and as there was a short crop of corn it meant thin pigs in the spring. I went out and bought forty of those thin pigs and started them in the month of March. We put them on a mixed grain feed. We had not a very large amount of corn on hand and, therefore, I bought the major portion of the feed used, middlings, bran, about equal quantities by weight, and process oil meal, I began by giving them about one-half of their feed ration in oil meal. I ground the corn on the cob and made it into a thick slop, and fed these pigs what they would eat up readily at first, leaving them a sharp appetite. They at first spent a great deal of time in the grass field, but as we increased this grain feed they ate less and less grass and we got to feeding them all they would take of the grain. Our object was to make weight as fast and as cheaply as possible, because we wanted to sell them in the July market, which we succeeded in doing. If we had only given a pound of corn we would never have gotten them on the July market, and time was money in that case. We sold them the first of July at \$5 per hundred. They cost us, figuring it all up less than \$3 a hundred and we got \$5 for that pork. Had we carried those pigs longer with a pound of corn and pasture, and put them upon the September or October market, we would have taken from a dollar to a dollar and a half less per hundred. So, each man must adapt these methods to his own conditions. If he wants to save time, considering time money in the production of his pork, then I think Mr. West takes the right position. If he wants to spend a good deal of time, then let him put them on clover with a little addition of corn.

Prof. Henry: In furtherance of our partially completed

work, I will say that Prof. Geo. E. Morrow, a man known to many Wisconsin residents, and who has now left us having died a year ago, in summing up his work along this line at the Illinois Experiment Station, said that they had never succeeded in making gain by letting hogs run on blue grass pasture, without grain.

Mr. McKerrow: We have in our state a gentleman who was once a coal merchant in Milwaukee, and he had the idea that he could make pork very cheap from grass and tried it for three seasons, weighing his hogs out and weighing them in, and after that trial he went to feeding them some corn, about on Mr. Faville's plan, and he told me that he would never try to make any more pork on grass alone, because he did not get the pork.

At first he wanted to carry the hogs through and have them ready for the corn crop, but concluded that it did not pay to do it that way.

Mr. Van Meter: Has the Station made any experiment in regard to the use of rape?

Prof. Henry: Yes, we have conducted rape experiments with grain addition,—with rape and clover in comparison with one another. You will find those published in the reports for every year for six or seven years. We succeeded in making the rape eaten by hogs on an acre equal 2,760 pounds of mixed middlings and corn. We kept some pigs on grain alone and others on rape and grain, and the latter produced such results that, allowing for the value of the corn the rape was equal to 2,700 pounds of grain per acre. We find that using an acre of rape along with the grain saves 2,700 pounds of grain. You can figure the grain at \$15 a ton. That would make the rape worth \$20 an acre and it costs \$5 or less to grow it.

Mr. Ames: To what extent do you buy mill feeds,—bran and middlings? Do you buy considerable?

Mr. West: Yes, I do.

Mr. Ames: Are they satisfactory articles in purity, etc.?

Mr. West: Well, I have dealt with different milling companies and different commission men in regard to the purchase of mill feed, but I endeavor to get as pure an article as I can.

Sometimes I fail anyway. If I can secure on a guarantee of purity, what I want I always do it.

Mr. Ames: When you raise a thing at home you know what it is. In buying these mill feeds we know but little what they are. Not long since I had a talk with one of our best hog men and he spoke of having recently bought four or five tons of mill feed, middlings supposed to be corn and oats mostly, but, as another man said, he could not fool his cows with the goods that he bought. This has led me, being a producer of different farm animals, to raise at home all the things that would serve the same purpose as those feeds which I bought. Instead of sowing oats alone, I put in a pretty good mixture of wheat. It at once cut out the cost of our cash feed bill. The thought of cutting out that cash outlay and getting something about which I knew, prompted me to mix wheat with oats and I fed it to the sows the same as you do, except in my case we have a mixture of one-fourth at least in bulk of wheat. For anything that I would feed oats to I would prefer this mixture.

Mr. McKerrow: Do you clean the wheat out?

Mr. Ames: Take the wheat to the mill for flour—for human use.

Mr. Van Meter: Is not corn a cheaper feed for hogs than wheat at the present price?

Mr. West: No, sir, I think not. If you are going to depend wholly upon the corn you can better afford to feed some wheat as a muscle maker, to balance the ration.

Mr. Van Meter: Could you not make it up cheaper with oats than wheat?

Mr. West: I like the two.

Mr. McKerrow: You like to carry the two together rather than the oats alone?

Mr. West: I do, I get a better yield. You need oats and wheat to make muscle and bone. The corn produces the fat. I think you get a larger yield from this succotash than you will from clear oats.

Mr. McKerrow: A larger number of pounds per acre?

Mr. West: Yes.

Mr. Faville: Have you had any pigs get so fat while they were sucking the sow that they had the thumps and died?

Mr. West: I have; not of late years. Not since I learned something of Prof. Henry.

Mr. Ames: Have you ever used any soft coal?

Mr. West: I have.

Mr. Faville: Give them all they will eat?

Mr. West: I pile it up in one corner of the pen and let them help themselves.

Mr. McKerrow: Do you use any charcoal?

Mr. West: Yes, I do. I make charcoal of cobs. I pour kerosene on my cobs and when they are well burned I spread them out.

Discussion closed.

Mr. McKerrow: The next topic upon our program is "Our Beef Breeds of Cattle," which was to be presented to us by Hon. Geo. Wylie, but as Mr. Wylie has not put in an appearance and owing to the fact that we have already laid over one number of our program until this afternoon, I am inclined to think we had better go on with this discussion.

I see before me gentlemen who have had a good deal of experience in some of the beef breeds and these gentlemen are eminently able to open this discussion in good form. Therefore, I will call upon a gentleman who is well known in his own locality as a very successful farmer and beef producer in a farmer's way. He does not feed steers by the hundreds, but in small numbers and has one of our leading beef breeds of cattle upon his farm. I take pleasure in calling upon Mr. Cochrane to tell us about the Short-horns of Dunn county.

Mr. Cochrane: I do not know that I can say anything more than you already know. If you don't know, you ought to. If I am going to talk to you on beef, I would say commence the same as the mother does with the child to make a good man,—as soon as he is born. Then you want a good mother and a good father and something very good to eat and I will warrant you will make beef. If you are going to let the cow raise the calf for you, be careful before you start that she don't kill it. The

way I do is to feed my calf new milk until it is five or six weeks old, until it can eat a little, and then feed skim milk and add a little more feed. The main thing is to keep it growing, not let it stand a day. If it stands a day you will lose money. It wants to be carried right straight along. Do not feed very much fat stuff. When it begins to eat I find that good bran and oats, about half and half and a little corn is good, and then with its milk you can make a very good yearling.

Another thing. If it is calved in the fall do not let it out of doors until it is a year old. If it is a September calf you will naturally keep it in the barn all winter. If it is a spring calf I would not let it out in the summer at all. It is not very much trouble to feed it. Feed it what corn it will eat without hurting it. A calf is not apt to hurt itself. I have corn laying by my calves all the time and they do not eat to hurt themselves. I generally feed about seven or eight months. Let them out to water every day. They like it. They don't know which way to kick first. It is fun for them. When you are feeding them through the summer, when they begin to want water they will ask for it. They do not drink very much and I very seldom put any in the milk, but put it in the buckets they have been fed milk in. Have room enough for them to play in. I have one place where I feed them milk and another place where I give them oats and hay and let them eat it as they want to. I do not keep them out of doors. If you have a good barn you can keep them warm and clean and comfortable and they will grow.

I chop corn up,—run it through a chopping machine, corn stocks and all. Now I have seventeen calves and I give them a two-bushel basket twice full three times a day. That is not a very great pile of corn. I sprinkle that and run a little rye and oat meal along the top,—three milk-pansful to the seventeen calves twice a day.

I don't put my calves on grass until there is plenty. It puts their teeth on edge and they will stand still. When they stand still, I am losing money. I put them on June grass and clover,—white clover. It is a pasture where the timber has been partly cleaned off, and has a spring in it, plenty of good water.

When it gets up three inches high, the grass and clover,—so that you leave a mark in it when you walk across, I do not think it is necessary to give them grain after that. They will keep growing without grain. And then in the fall I would begin to give them some corn. They won't eat much. If the ear is too large break it up. They will follow you around if you handle them kindly and tell them how nicely they are doing. Give them at first a good big ear twice a day, and as the season advances add to the quantity as they like it better. Bring them up onto full feed slowly. When it comes to freeze up I take them in and put them on a dry feed, adding a little more corn and grain all the time.

Mr. McKerrow: Tell us something about Short-horns.

Mr. Cochrane: Tell you about Short-horns? A Short-horn will do anything you want her to do. If you want some beef, you can have it. If you want some milk, you can have it. If you want some butter, you can have it, and if you want some cheese, you can have. Anything you want her to do she can do. It is her character. She was born that way. I was brought up with Short-horns and I made up my mind when I came to Wisconsin—I came here as poor as Job's turkey—I made up my mind that if Short-horns would pay big rent in England, they would lift a mortgage for their laddie in America, and they did it. I had a thirty-five hundred dollar mortgage against my farm at one time. I was paying on borrowed money twelve per cent. I ran in debt and they lifted the debt. They raised a big family. They cleared a big farm and then put some buildings on it. And I have enough left to bring me here and take me home again. We figure up the first of May what our cows are doing. They average about \$45 a head.

Mr. McKerrow: That is for butter sold?

Mr. Cochrane: Yes. And I have a good many two-year-old heifers. The old woman sells the butter and she buys the trip-traps in the house and pays right down. She pays the harness maker and the blacksmith. She says: "Are you going anywheres this fall? Well, I have got some money for you." She buys all my clothes.

Mr. McKerrow: I believe the old lady is better than the Short-horns.

Mr. Cochrane: It would take a darn good Short-horn to buy her. We used to make cheese in England. Our country was a dairy country. We paid our big rents and expenses with just cheese alone. Here in this country it runs more to butter. I like butter on my bread, even if I have cheese, too. I think on the whole it is a little more expensive to butter it than to cheese it. We get twenty cents a pound for butter the year around. We have a good many cash customers. Sometimes we have a little more than our customers want, and we generally get five cents advance on the market price. We are getting now a little more on the market than our private customers are paying.

Mr. VanMeter: I would like to ask what objection you have to running calves on the pasture the first summer while they are taking milk or suckling the cow.

Mr. Cochrane: You take a calf that comes in the fall and he is a good stout calf the next spring, and if you turn him out the flies will eat more off from him than you can put on. I claim that I save money by keeping my calves in the barn until fall, and then I let them run out an hour or so. If the calves come in September, keep them in a year. You will have better calves than if you turn them into the pasture in the spring.

Mr. Cogswell: How would it do to turn them out nights?

Mr. Cochrane: That will do very well if you have a nice paddock to turn them into. I do not want the little fellows to be eaten to death by flies. I sold my steers the fore part of September, when they were coming two years old, and they averaged 1,025 pounds.

Mr. McKerrow: If these cows paid you in butter \$45, how much do you figure for skimmed milk?

Mr. Cochrane: I don't know. It helps fill up. My summer pigs do well on skimmed milk and rye meal. I generally sow the succotash patch in the spring as early as I can—probably half an acre. In the meantime I have a piece of rape

sowed. I sow the last piece of rape about the middle of July, and by the time they have eaten the first off the second is ready to go onto, and then the third lot, and so on. In October I weighed a pig and it weighed 150 pounds.

Mr. Inman: Do you use a separator?

Mr. Cochrane: Yes.

Mr. VanMeter: How many hogs do you keep?

Mr. Cochrane: I have now twenty. I would have had more, but last fall my pigs were in the pasture at farrowing time and when they were three or four days old there came a thunder storm and it killed the little fellows. I generally draw off about four good wagon loads a year.

Prof. Henry: I would like to ask Mr. Drake if it is possible for a breeder of pure bred cattle to patronize a creamery? Can a man purchase Short-horns for breeding purposes and produce butter in any quantities?

Mr. Drake: I think he can in reasonable amounts.

Prof. Henry: Do you practice that yourself?

Mr. Drake: Some of the calves we let suck the cows and some we feed skim milk, milking the cows.

Mr. McKerrow: Are you satisfied with the growth that your calves make on the skimmed milk? A. Yes.

Mr. McKerrow? What supplementary feeds do you use?

Mr. Drake: Scalded flax-seed mixed with the skimmed milk. We usually give them the whole milk until they are perhaps five or six weeks old and then change gradually to the skimmed milk until they are getting all skimmed milk.

Mr. McKerrow: How long a period to make the complete change?

Prof. Drake: About two weeks.

Prof. Henry: Can you actually sell calves that are satisfactory to the purchaser that have been reared on skimmed milk after they are six or eight weeks old? A. Yes.

Mr. McKerrow: Do you make any difference as to the sex of the calves that you feed this way? Are you inclined to feed the male calf heavier than the female?

Mr. Drake: We raise some of both sexes in that way, but

those that we let suck the cows,—perhaps we give the males the preference. They do a little better, I think, the first five or six months. I think after that those raised by hand are just as good.

Q. Do you mean separator milk?

Mr. Drake: We do not use a separator.

Mr. Ames: In view of the recent high price of oil meal, is not flax-seed a more economical feed?

Mr. Drake: Yes, flax-seed is a more economical feed for that purpose.

Mr. McKerrow: This gentleman is secretary of the State Breeders' Association of Short-horns, and we want to find out all he knows about Short-horns. Do you know anything about the milk strain of Short-horns?

Mr. Drake: We have some cows in the herd that are very good milkers. Of course, there are others that are not as good. They run more to beef than to milk. We have had several cows in the herd giving more than forty pounds of milk a day.

Mr. True: Do you recognize a line of cows of this quality, or do they happen?

Mr. Drake: I think there are some animals that are better milkers on the average than others.

Mr. Everett: Do you believe that the milk producing strain of Short-horns are as economical beef producers as, for instance, the Cruikshank family?

Mr. Drake: Perhaps not.

Mr. Ames: Is it not a fact that beauty and best milk production do not rulably go together in the young animal? A foreigner wrote to a breeder in this state asking him to send his best dairy bull. The breeder at once declined to do that and proposed to the prospective purchaser that he come and make the selection himself. The man came, but did not by any means take the best dairy bull. He selected the finest looking one. Beauty and the best dairy qualities do not rulably go together.

Mr. Briggs: Which are selling best, the reds or the roans?

Mr. Drake: There is the best demand for the reds.

Prof. Henry: It was my pleasure last summer, together with the president of this organization, to visit the Royal show of Great Britain, held at York, England. With my note book in hand I passed among the Short-horns and took cognizance of the colors of the animals exhibited. I found but one solid red Short-horn. All the rest had some white. There were seventeen snow white bulls on exhibition. The majority were roans.

Mr. McKerrow: There were about four hundred Short-horns. I also visited the leading shows and that was the rule everywhere at the great English shows. The roans were far in the majority.

Mr. Faville: I was going to inquire how these cattle were shown,—as beef cattle, or dairy cattle, or as mixed?

Mr. McKerrow: As a rule it was simply the Short-horn class, but I visited two shows where they had a class of dairy Short-horns as well as the straight Short-horn class, and some of the prize winners in the regular Short-horn class were also prize winners in the dairy class and vice versa.

Mr. Wilcox: Is there a recognized milking strain in the Short-horns in this country, and if so, what is it? I have never met a man who could distinguish what strain was the dairy strain.

Mr. Faville: I have heard that same thing for more than fifty years and I have not found out.

Mr. McKerrow: The cows that stood highest at the World's Fair were of the Clay family. I visited the largest dairy supplying milk to the London market. Every cow of the five hundred they were then milking were pure bred Short-horns, but had very little Scotch blood in them. He had given them a cross a short time before and was giving them another. He did not want to breed straight Scotch bred cattle, "beef to the toes," as they term them, for his dairy. I think it was the Booth and Bates together,—the Bates mostly.

Q Did these have a dairy indication?

Mr. McKerrow: Very good dairy indication, but I am

afraid that Governor Hoard would not have pronounced them ideal dairy cows. They were rather fleshy.

Mr. West: I would like to ask if this roan color is an indication of anything, or it is simply a fashionable color?

Prof. Henry: I think the roan color probably has but little merit in itself, and yet I cannot help fancying a roan Short-horn. I think our American breeders have paid too much attention to solid colors. The Jersey breeders have gone to solid colors. The British stockmen are wiser as a rule, in my judgment, than we are. That is the reason I brought the point up. Pick the animal and let the color take care of itself.

Mr. McKerrow: I paid a good deal of attention to what we may term the fancy points in color, not only in cattle, but in the color of the face and legs of some of the dark-faced breeds of sheep. In this country we put stress upon the show of color. While they recognize it there, yet they put that subordinate to the quality and form of the carcass. I saw animals there take prizes in the show rings that we would say here were a little off color and some of our judges would turn them down, and yet they went clear to the front in the dark-faced breeds of sheep. The Englishmen recognize quality first of all, and I think we have some things to learn of the "Johnnies."

Mr. Wilcox: Does color have anything to do with fooling the eye?

Mr. McKerrow: I have been told that certain colored animals were deceptive. There are some breeders and buyers here who can tell. Mr. Hubbard, do they fool you by the color of the animal?

Mr. Hubbard: I don't know, but there is this much about it: A carload of solid color cattle will outsell a carload of mixed, although in my opinion they may be equally as good so far as beef is concerned; but the solid color, I find, sells better.

Mr. Wilcox: If a black steer and a white steer weigh the same, would they deceive the eye as to weight?

Mr. Hubbard: I don't know that they would.

Mr. Ames: Prof. Henry, I would like to ask you what percentage of the class those white bulls constituted?

Prof. Henry: Probably 25 per cent. of the bulls were snow white. I have been told in England that the snow white bulls were quite popular for crossing purposes when the breeder wishes to get roans from common Short-horns or cattle of promiscuous breeding. White bulls are useful for that purpose, while they may not be popular for breeding among the high, fashionable families of Short-horns.

Mr. McKerrow: I would say that those white bulls that Prof. Henry spoke of ranged from calves up to bulls,—not all in one class.

Prof. Henry: I think it is well at all times that we as a people should hold ourselves level in our farming operations. Once before in my history and since my residence in Wisconsin I have seen a great deal of interest expressed in beef cattle. In 1883 beef cattle were very high in price. At that time every farmer saved every good calf and a great many poor ones. The reaction which followed when these calves matured was very great. Many people lost all they had invested in the western ranches. The reaction worked on and on until many fine herds of Short-horns were broken up and forever lost. They were sold at very low prices, even for beef. Beef was cheap. Now, the pendulum is swinging the other way. It is swinging from the low, disastrous prices to the high prices again, and a great many people are thinking of going out of dairying and going into beef raising. They are thinking of leaving the Jerseys and Guernseys and going to the Short-horns for beef. I want to sound a note of warning at this time. Do not move too rapidly. Think before you change. If you are naturally a beef producer, keep right on. If you are living in a dairy section and doing well at dairying, do not get excited because beef men are having their day. Keep your best Jerseys and Guernseys and sell the others. Keep your choice dairy animals, no matter what they are. Do not get carried away by this beef excitement. All calves now being saved are coming on the market a little later and the people in the natural

beef districts are going to hold out longer in the contest than we are in Wisconsin. In parts of Wisconsin like Grant, Iowa and parts of Rock county, the farmers have always done well as beef producers. But the dairyman on the farm has employment for all his children, which the beef producer has not. Do not think things are going to be easy and pleasant if you have a few beef animals. Let us be thoughtful and careful in this matter and remember that the larger portion of Wisconsin is a dairy region and should continue a dairy region rather than come into competition with the great plains and the corn districts of Nebraska, Illinois and Indiana. Let us not be carried too far by the present beef excitement.

Mr. Faville: I am very glad to hear Prof. Henry sound that note of warning. I have lived through several just such times and knew the result of it. In 1883 I sold a fine lot of beef cattle for \$7 a hundred in the herd at home, and you know what they have been since that. It is better to go slow.

Q. Would it not be well to have beef and milk too?

Mr. Cochrane: I think so. It is for me. I think what Wisconsin wants is a cow that will pay a good dairy profit and give a steer that will take honors on the market. I think it can be done.

Mr. McKerrow: What has been said in the way of warning will apply more directly possibly to the men who will assemble here tomorrow forenoon to listen to Mr. Hill's dairy talk. At the same time it is well to give you who are present here at this beef session a little of this warning. It may be that we will never again see exactly the conditions of 1883 in this country, because then the west was unopened, or was just being opened, and there was coming back a wave of cheap beef. There is plenty of room in the United States, to say the least, for beef and for dairying, and, possibly, for a happy medium between the two, and we have men for all these lines of work and we have sections in Wisconsin that may be especially adapted to one or the other. We may have other sections with certain farmers, certain acreage and certain class of help, and all those things taken into consideration, where we may be able

to both raise steers and make butter. Some men may not be able to do that because they have not wives after the pattern of our friend Cochrane. This afternoon, when we assemble here, we shall take up the topic of "Sheep Husbandry."

Adjourned until 2:00 P. M.

February 5th, 2:00 P. M.

Meeting called to order by Chairman McKerrow.

Mr. McKerrow: As Mr. Dixon is now here, we will take up the subject assigned to him, "Sheep Husbandry." Let me say again before opening this discussion that the value of this meeting will depend almost entirely upon the manner in which you ask questions and take part in the discussions. We always get the best, most pointed and most readable part of these meetings out of the discussion. Therefore, let me ask you to follow Mr. Dixon carefully and then bring out with your questions just what he leaves unsaid and what you think ought to be said. Mr. Dixon has something more than a local reputation as a sheep breeder. I have known of him for some twenty years in that line. He is a stayer in the business and for that reason and for many others it gives me pleasure to introduce him this afternoon to this audience as a practical sheep man.

SHEEP HUSBANDRY IN WISCONSIN.

BY J. H. DIXON.

I see no reason why Wisconsin should not rank with the first states of the union in the production of high class mutton and wool. In the first place, we have the natural surroundings, plenty of good water and grazing lands. We can raise all varieties of food-stuffs necessary for their best development, and last but not least we have undoubtedly as intelligent a lot of farmers in Wisconsin as can be found in any state in the union. To verify these statements, I only need to refer you to the sheep awards at the leading state fairs and the Chicago International of 1900; also to the Chicago lamb and sheep market, which has often been topped by Wisconsin feeders and shippers.

The road to success in sheep husbandry is the plain, simple track leading to success in other callings. The man who achieves his ambition must start right, must keep right, depending more upon his own efforts and judgment than that of other men; must meet low prices with economical management and meritorious products; must keep his face to the wind, whether it blow high or low; keep head and heart when others quail. Enough such men have always been found to keep the business abreast with kindred callings, and those in it of late have been reaping their harvest. A flock of sheep cannot be handled or fattened successfully any length of time without a close observance of their habits and peculiarities. There are a great many little things that enter into the attention and management of a successful shepherd that may seem trivial; yet they have much to do with the comfort, thrift and profit of the flock. The saying that "The eye of the master fattens," is nowhere more applicable than in the sheep fold. The competent shepherd acquires a trained eye that detects at a glance any evidence of thrift and well doing, or the reverse. Attention to these little details, accompanied by regular and quiet habits, liberal feeding, right selections, with stability of

purpose, constitute the keynote to successful sheep husbandry. Nothing contributes more to good results than contentment and quiet surroundings. The shepherd who disturbs the quiet and comfort of his flock every time he goes about it should quit the sheep business immediately. Hence the method by which sheep husbandry can be made profitable must be learned, just as every other business should be, before the person engaging in it can reasonably expect to find it profitable. The breeding and feeding of sheep is a fine art. And the ability to breed animals with more merit than their immediate parents is a gift that few men possess. Of course, none of us like to be told that we are lacking in this ability; but, nevertheless, such is the case. Breeders should aim to breed the kind of sheep that will make the most mutton and wool on the least food and in the shortest time. When sheep are bred for mere fancy points, and when constitution, substance and vitality are lost sight of, they cease to be profitable assimilators of food and are not what practical sheep men want. The ultimate end of all sheep is the stock yard or butcher's block, and the animal that gets there with the greatest profit to the man who feeds him is the kind that will win in the long run.

We must not forget the practical side of the question. Breeders of stud flocks too often lose sight of this. Most people breed and feed sheep for the stock yard. Those who do not are the exception, not the rule. The breeding or mating season seems to be one that is filled with important and anxious results. The influence of a single male goes down through the flock for generations. He may leave his mark of excellence, or give us work in weeding out year by year his faulty descendants. And as the ram is generally conceded to be half the flock, we cannot too highly emphasize the possibilities for improvement on degeneracy involved in the selection of a ram. Of course a perfect ram cannot cover the defects of a poor mother. Constitution, appetite and milk are necessary in the ewe for bringing up a good lamb.

I will now give you some of my methods of caring for them. Starting with the flock at the present time: My sheep have a

yard of their own. I separate into as small flocks as convenient; they do enough better to pay for the trouble. Clover is the model hay for sheep, but I have had equally good results with good corn fodder. Timothy and marsh hay are fairly good if cut early and supplemented with a heavier grain ration. My grain ration is usually bran, oats and corn according to their relative cost, time of year, and kind of sheep and for what purpose they are being fed. This grain ration is placed in troughs in the yard and usually once a day. During the middle of the day they get cornstalks or shredded cornstalks in the yard. I feed hay twice a day in the barn in racks with bottoms in them, and to prevent the accumulation of chaff and dirt in the fleece we always feed when out. I never allow them access to hay or straw stacks, and always keep plenty of good water and salt before them. Thus fed and cared for during the winter, they should come to spring or lambing season in good shape. I always save some of my best hay and corn fodder until then, as it is the poorest time of the year to scrimp sheep. If there is anytime of the year that breeding ewes should be extra cared for, it is then. Another reason is that from the middle of March to grass time they are more apt to get off feed, and hence more dainty about what they eat. During this season I feed plenty of bran, roots or potatoes, and their grain ration I feed twice a day.

I always tag or shear my sheep before turning to pasture or before lambing season, as it saves a great deal of trouble in starting the lambs. I usually have my lambs come from the middle of March to May 1st. See that every lamb gets started; if the ewe hasn't enough milk at first, feed it a few times with warm milk from a bottle. Have a lamb creep where they may go in or out at will. Place clean feed in it every day; a little feed stimulates the digestive machinery and so creates more appetite; more appetite means more feed, consequently more growth; in other words, early maturity is due to the cultivation of the appetite from the beginning of the life of the lamb.

To get back to the shearing question again: I say, take the wool off just as soon as the weather seems settled and warm

enough to admit of it with safety to the sheep. The practice of shearing before turning to pasture is fast coming into favor—at least in my locality. It makes it much easier to start the lambs, the wool is much whiter and cleaner, hence more salable. The sheep do better than if allowed to run until June; they suffer no drawback if kept out of storms and housed a little closer for a few days; they will be in better shape to stand the hot sun and pesky flies than sheep sheared in June. By this method sheep do better, feel more comfortable and are a great deal less trouble than by the old method. This is also the best time to cull out, as you can readily see which are inferior in fleece and as breeders. Mark them so you will readily know them when selling time comes. Do your own selecting, always keeping the best,—they are worth as much to you as to anyone else, so long as you are not everstocked.

After sheep are sheared and turned to pasture, with shade, pure water and salt, they need but little attention, though that little is necessary, until about the 1st of August, when the lambs should be weaned and placed in a field away from their mothers; said field should contain the best feed possible. Put the ewes in as dry a pasture as you have, for a few days at least, in order to dry them up. I always strip them out two or three times so as to make sure none are spoiled. Afterwards give as good feed as convenient.

In order to get good fall feed for sheep, I sow clover, rape and turnip seed in all my small grain in the spring, and if I do not get good feed, it is because of an unusually poor season for such. In 1897 I had 11 acres of barley sowed in this way, producing over 40 bushels per acre, and afterwards probably 150 bushels per acre of flat turnips. The same season I grew rape with as good success. In '98 it proved almost a failure. In '99 I had good feed. In 1900, or the past season, I had abundance of good feed again. There is no feed that will make sheep gain as fast and as cheap. In this way a flock owner can have his sheep in good condition to enter winter quarters and his lambs fat enough for market any day you wish to sell; and in addition to this, keep them out of all heavy rain storms

after the first of September, and you will be surprised to see how much better they will do and look. The old saying that "A sheep well summered is half wintered, and well wintered is half summered," is a true one.

Do not keep more sheep than you have first class arrangements for. Do not make "air ship" calculations, and then quarrel with the sheep because your dreams are not realized. Do not depend too much upon tariffs or anything outside of your own judgment and energy to increase your income from the flock. Do not abandon sheep husbandry because prices are temporarily unsatisfactory, or jump head over heels to expand your business when a boom sets in. Wool and mutton, like everything else, will vary in price, and the changes in price will come faster than any man can change his business without sacrifice. Mr. Chairman, I presume I have already taken too much of your valuable time, but I am almost done; only a single thought more to express. When my fellow farmers are thinking of engaging in some line of stock husbandry which may be pursued with pleasure and profit that should reward honest labor, free from many objections that may be urged against most other lines of livestock husbandry, one in which manual labor is comparatively light, with many hours and even days, that may be devoted wholly or in part to other work, rest, recreation, social entertainment or intellectual pursuits,—in short, when a man is looking for a business that will be likely to bring him in close contact with comfort and happiness on earth and best fit him for enjoying the happiness of an endless hereafter, he will look long and anxiously before he finds one better adapted to such ends than that of sheep husbandry. Yes, the sheep,—that useful animal,—proclaims its own worth; its snowy fleece and majestic form add beauty to hillside and valley and gold to the shepherd's purse.

DISCUSSION.

Mr. McKerrow: Let us have your questions. Mr. Dixon has had a pretty wide experience. It is a great many years

since I first saw him show sheep at Fond du Lac (I think it was). At that time he did not know very many of the tricks of the show ring, yet he showed very good sheep.

Q. In regard to rape, does Mr. Dixon find any danger from bloat in turning upon rape?

Mr. Dixon: Why, I never lost but one and I did not call that worth very much. I know there is danger. If we turn in when it is wet with rain or heavy dew and the sheep are very hungry, there is danger. I have seen them very, very full sometimes, yet it did no harm. You must be careful to turn them in the first few times when it is dry enough.

Mr. McKerrow: Don't you think the greater danger is to turn them in when the rape is immature?

Mr. Welsh: More danger upon rape than upon clover.

Mr. Dixon: I have no trouble.

Mr. McKerrow: What would you consider a safe guide for the maturity,—the time to turn them on?

Mr. Dixon: I usually turn them on when it is six or eight inches high.

Mr. McKerrow: Do you get as much feed from turning them on at that time as you would if it were a foot high?

Mr. Dixon: Well, that depends upon how heavily you turn them on. I have never had any trouble in killing it out that way.

Mr. McKerrow: How much do you sow?

Mr. Dixon: I usually sow half a pound with my grain.

Mr. McKerrow: At the time that you sow the grain?

Mr. Dixon: Yes, I place it in with the grain with a broadcast seeder.

Mr. McKerrow: Do you have any trouble from the rape growing up and becoming quite large?

Mr. Dixon: I have had a little trouble. If the grain lodges of course this will grow up through. I have had enough benefit to make up.

Mr. McKerrow: We follow the plan of sowing our rape seed a few days after we have sown the grain. We use a "shoe" drill. When we find the grain ready to come through we sow

our rape seed and harrow it and then, as a rule, we have no trouble. Otherwise one may have trouble. Do you sow 1-2 pound to the acre?

Mr. Dixon: Yes, 1-2 pound to the acre.

Mr. McKerrow: I do not think anybody should sow more than 1 to 1 1-2 with grain to the acre.

Mr. Cahoon: I have had considerable trouble with rape and I found it was a pretty precarious thing. My experience has been that quite a large number of lambs die from bloat. I had rape two or three feet high and when the lambs went into that they could not be found until we hunted for them.

Mr. McEwen: We had trouble with clover one year. They ran on that about five or six weeks. We lost a number of lambs when there came on a rain.

Mr. Dixon: Do you think the clover did it?

Mr. Cahoon: I don't know what else.

Mr. McEwen: I have used corn-meal. I think there was some oats with it. A stock-buyer said that was as bad a thing as I could feed to lambs.

Mr. McKerrow: You fed that in case they showed derangement of the bowels?

Mr. McEwen: Yes.

Mr. Dixon: I have never fed corn meal. I usually feed my corn raw. Were the lambs all right when you placed them in the field on that feed?

Mr. McEwen: In fine condition.

Mr. True: In your opinion would it be necessary to grind the corn for the purposes spoken of by Mr. McEwen, or would you prefer at that age to feed the whole corn?

Mr. Dixon: If you wanted to rush it along fast, it might be better to grind it, but I would not grind it very fine.

Mr. True: It occurred to me that the scouring on the part of the lambs might have been occasioned by feeding the ground feed,—more apt to produce it than if the feed were fed whole.

Mr. Dixon: It is so with cattle.

Mr. True: Do you think it would pay to grind any kind of feed for sheep of any age for any purpose.

Mr. Dixon: Why, I don't know as it would really pay, but sometimes if you take an animal and want to feed it up quick, you get a little better result from cracked corn than from the whole. I would like Mr. McKerrow's experience.

Mr. McKerrow: I do not grind any corn for sheep as a rule, unless, as Mr. Dixon says, I have some animals that have been on whole feed a long time and I want to get some extra fat on for the show ring. As a rule I do not grind corn for sheep. In regard to Mr. McEwen's lambs where they showed a derangement of the bowels, are you sure there were no intestinal worms in those lambs.

Ans. No, sir, I am sure of it.

Ques. Did any of them die?

Ans. They did.

Mr. McKerrow: I am very much inclined to think that the stomach worm had called upon you, but don't know. I can see how over feeding might derange the bowels. I have seen that trouble. Yet, I do not think it is true in your case. It seems that the rape was mature enough.

Question: Mr. Dixon, there is a question that I would like to ask in regard to the management of sheep. I had an experience a few weeks ago different from anything I had ever had in regard to lambs. There were six or eight of them taken sick and I wondered for a long time what was the matter with them. I do not know for a certainty yet what the trouble was. I could not explain exactly the symptoms. After a while I found that all that were sick were males. I laid it to impaction of the stomach with dry feed. When winter set in they were running on rape,—on frozen rape,—probably not a very good plan, yet they were not sick on that although they got very full. I was afraid sometimes. They had the run also of the corn field, running among the shocks, and after a little I never saw lambs do as well as they seemed to be doing. After a while I took them out and after a couple of weeks some of them were taken sick. They would not eat. They lingered a while and probably not more than one or two lived. There were six that died. It was difficult to tell they were sick without you were

looking carefully and noticing. Sometimes it would be a number of days before they would die, and occasionally they would eat a little. I would like to know the cause of the trouble and whether there is any cure for it. It was usually the very best lambs. They did not die of starvation. It was those fellows who a few days before would be disputing with each other and kicking over their heads.

Mr. Dixon: I saw his lambs,—not while they were sick. I know they made a better growth running on the corn fields than in the barn on good hay and a liberal grain feed.

Mr. McKerrow: Do you think they developed too fast?

A. I do not think so.

Q. Having lots of exercise all this time?

A. On the run most of the time.

Q. It was after you took them off the rape that they became sick?

Q. What were you feeding them when you took them in?

A. I gave them marsh hay, unground corn and oats. I should judge they did not have as good feed as they were getting when they were running out.

Q. Did you have a veterinarian inspect them? A. No.

Q. Did you have any smut in your corn that the sheep had access to?

A. No, sir, there was none.

Mr. McKerrow: Of course, I am not a veterinarian, but I theorize sometimes as the other fellows do. My first thought would be in regard to the lambs that the change to very dry feed such as marsh hay and corn and oats was a rather radical change after being in this rape, and that might have something to do with the derangement of those lambs. Again, it might have been caused by this radical change.

Mr. Dixon: I might agree with the chairman if I did not know something of the circumstances. Those lambs, I believe, were out nearly every day and had a good run. They were not enclosed in a dark, damp basement and kept there continually. They were out every day; had plenty of fresh air and sunshine.

Mr. McKerrow: It is a question for a veterinarian to pass upon.

Mr. Faville: You said you divide sheep into flocks.

Mr. Dixon: I do. I have seven in one; thirty-three in another; twenty-eight in another; fifty-eight in another and one hundred and fifteen in another.

Mr. Clinton: Don't you call 115 a pretty large flock? A. Yes.

Mr. Faville: What do you do for a sheep that bloats from eating rape or clover?

Mr. Dixon: I catch one by the hind feet and lift him up and shake him back and forth a little. It will accomplish what you want.

Mr. Faville: Do you ever give them anything?

A. Yes, I have,—not often. I have never doctored sheep, but I have cattle. I have a remedy that will cure an animal bloated from eating green feed. It will cure every time if administered while the animal can stand up. It is simply spirits of turpentine. I reduce it in a little milk or water, equal parts. I reduce it because it is very harsh. It will mix better with milk because it is oily.

Q. How much of a dose? A. About a tablespoonful. Five is enough for the largest animal. It will give relief in less time than I have been talking. I have never known it to fail. It will do the same with your sheep. The bloat will go down. Another simple remedy is to keep the mouth open with a stick.

Mr. McKerrow: And hold the head out straight.

Mr. Dixon: Last fall late when it was frozen up, I had a sheep that bloated and I thought she was about dead. I took her by the hind legs and commenced a slight motion and also put a stick in her mouth, as the gentleman has said, and in less than ten minutes that sheep was all right. If I had started for the house for turpentine, she would have been dead before I got there.

Mr. McKerrow: Mr. Dixon, when clover is badly frosted in the fall, do you find any trouble in pasturing your flocks on it?

A. I never had any trouble when the sheep were running in the pasture at the time.

Mr. McKerrow: It will pay you a good deal better to keep your flocks off from frozen clover and feed something else, even if you have to buy the other feed.

Mr. Dixon: My own clover is usually cropped down so close there is not much danger of freezing.

Discussion closed.

Mr. McKerrow: The next subject is one that is being discussed a good deal, pro and con, and there is a great diversity of opinion with reference to it,—“Modern Views of Bovine Tuberculosis,” by Dr. H. P. Clute.

MODERN IDEAS OF TUBERCULOSIS.

BY DR. H. P. CLUTE.

Mr. Chairman and Gentlemen:

When your secretary, Mr. True, requested me to address you on Modern Views of Tuberculosis, I supposed he meant from a professional standpoint. As there are so many views presented to the public through certain agricultural papers, that are non-professional, and from parties that have had no experience whatever with the disease or tuberculin test for same or have arrived at a conclusion from reading articles from such sources as mentioned; or carry the idea that, because they never had tuberculosis in their family or their own herd of cattle, that such a disease does not exist to any extent. I very frequently have filed copies of the Breeders' Gazette dug up and shown me through the country to prove some insane idea about tuberculosis or the tuberculin test. It gives me pleasure to have this opportunity to present my views to you on this subject. All skeptical parties are very easily convinced after they have once

watched a tuberculin test on a herd where there was known infection, and the subsequent post-mortems of the reacting animals, with the exception of one man, Dr. Rodermund, of smallpox fame. He admitted the animals were diseased, but thought the rest of the herd ought to be slaughtered to convince him that they were not in the same condition; although he had seen pus enough, had he been in a smearing business that day, to cover him from head to foot, in which condition he would look well in an antiseptic glass case placed in some remote corner of a dime museum. Gentlemen, there are too many Rodermunds in regard to the contagion of tuberculosis.

I will give you a synopsis of my experience with the disease, and the tuberculin test. Tuberculosis is an infectious disease caused by the bacillus tuberculosis, which was discovered by Professor Koch in the year 1882. Up to that time, the disease was thought by a majority of the medical profession to be hereditary in most cases. As soon as the bacillus was isolated it gave a field for experiments which have proven the disease to be contagious in the larger percentage of cases.

It was through Professor Koch's experiments with Koch's lymph, or the bacillus of tuberculosis neutralized, that the veterinary profession came in possession of the tuberculin test as a diagnostic agent for tuberculosis, by its causing a rise of temperature in the patient being affected with the disease, and no rise or change of temperature in those not affected.

Tuberculine is prepared by first injecting the bacillus in a horse and in twenty-one days drawing off a small quantity of blood, which at that time contains the bacillus in a mild state. On the same principle that diphtheria antitoxin is prepared, or the virus of smallpox is passed through the bovine species to make vaccine to guard against smallpox, only in the latter case the scabs from the pustules are taken.

To doubt the practicability of the tuberculin test at the present time is, I think, analogous to doubt vaccination against smallpox as being a success.

In applying the tuberculin test you must be very careful to keep the animal as near a normal state as possible, for the bo-

vine species are very susceptible to a high temperature from excitement, change of food, driving a few miles in warm weather, or from very hot weather; in the latter I have seen the temperature in many cases run up to 105° F. The normal temperature ranges from 100° to 102°, according to the kind of food the animal is receiving. A steer being fattened on corn, or a cow being forced for the milk product, often runs 102° at normal. It is not practicable to apply the tuberculin test in hot weather, as the temperature is liable to run up in the middle of the day enough to bring the animal inside of the limit of 2 degrees, which I condemn on, while many claim one degree and a half is sufficient. I had much rather keep a suspected animal not rising the required 2 degrees, and re-test at a future date. I am satisfied that the tuberculin test, when carried out properly is infallible. I apply the test by taking the temperature morning, noon and evening, to get the normal temperature. If I find all animals normal and none of them in heat, so as to give any other cause for a rise of temperature the next day, I inject tuberculin at 8 P. M., and begin to take the temperatures at 6 A. M. next morning, taking the temperature every three hours. You will generally find the temperature of an affected animal is the highest at from 13 to 16 hours after injection, and generally it will begin to recede at 21 hours; therefore it is not necessary to take any more readings of the thermometer, only in occasional cases where there is a gradual rise up to that time. The affected animals during the forenoon may have a chill, shiver, eyes staring, and if the thoracic cavity is affected or the adjacent glands, the animal generally coughs a good deal more than usual while undergoing the test.

The animals not affected do not evince any change whatever. It is not uncommon for an animal affected to run up 5 and 6 degrees. The animals in the incipient stages of the disease react the highest; the ones permeated with the disease show the least reaction. I find by giving larger doses than is ordinarily prescribed to chronic cases, they will react stronger. I have, in various parts of this state, post mortemed 278 head of cattle of all breeds and ages. In every case where the animal reacted

2 degrees, barring one, I have had no trouble to find the disease. I have held post mortems in every case where there has been a part of a herd affected, to satisfy the owner, for in many cases it would hardly be believed that the animals were diseased until it is shown on the post mortem. An expert would not be able to tell in those cases, without the aid of the tuberculin test; thus the animal may be in condition to throw off the bacillus and spread the contagion long before the owner notices that the animal is sick. This of course necessitates the slaughter of animals in the incipient stage of the disease or the isolation of same from those not reacting.

The older the dairy country, the more prevalent we find the disease. It is more widely disseminated in the southern part of the state, which rule follows the same as the larger percentage in foreign countries where dairying has been carried on extensively, and also in the eastern states. In Denmark, when they began to try to eradicate tuberculosis, the test showed 40 per cent. of the cattle to be affected. In Massachusetts, about 18 per cent., and so on down. In Wisconsin we are not so badly off, our percentage being about 7.29 per cent. affected. Out of 586 head tested, where there was known infection, 210 animals reacted to the test, which I have slaughtered and post mortemed. Out of 3,223 tested where there was no known infection, 68 reacted. The cattle tested where there was no known infection, were in state herds and stock for shipment, the larger percentage being picked milk cows for shipment to Illinois, and were from all parts of the state. Total tested, 3,809; reacted, 278. The cattle where there was no known infection being nearly six times greater than where the infection was known to be present, it is fair to presume that 7.29 per cent. is as close an estimate as we can arrive at, at the present time.

Gentlemen, while this percentage is not large, it is too large to countenance without using the most strenuous measures to prevent the spread of the contagion. The contagion of bovine tuberculosis spreads so slowly, still surely. It is hardly noticeable until the breeder or dairyman has a badly infected herd. It certainly is too large for breeders to form associations against

the eradication or reduction of same as much as possible, as has been done by the Shorthorn breeders of Iowa,—or, equivalent to the same, an anti-tuberculin association. It is as preposterous as forming an association against vaccination to stop the spread of smallpox.

When you contract to buy an animal for breeding purposes and the owner will not submit to have the tuberculin test applied, rest assured the owner is afraid the animal may be affected and does not want to run the risk of having it known. Such an animal is dangerous to take into your herd; in fact, if breeders will make it a rule not to take a strange animal into their healthy herds without submitting it to the tuberculin test, they have done a great deal toward the suppression of the spread of the contagion. A great many breeders and dairymen have suffered large losses in this state by bringing an infected animal into their herds. The Clapp herd of Guernseys, which was dispersed, carried the infection into over twenty herds as far as known.

There has been much said about the susceptibility of different breeds of cattle to contract the disease. I do not think there is any difference in regard to the different breeds if they are subjected to the same conditions and the same source of the contagion. Cattle that are housed most of the time with one that is affected will more readily contract the disease, as the bacillus in the pus raised from the lungs will readily dry and be disseminated and taken through the air passages or food; while on the other hand, light or heat or severe cold will render the bacillus inert.

You are very apt to find the animals reacting on both sides of one badly affected with pulmonary tuberculosis, for from two to three animals each way, if the animal is stanchioned near the middle of the row, and in many cases no other reacting animals in a herd of 40 or 50. The proudest breeders in the state today are the ones that have had their herds tested and the diseased ones disposed of, and well they may be. They can sell an animal for breeding purposes to a neighbor and feel that they are not endangering the herd of same to the contagion; or a milch

cow, or milk, or the product of their dairy, without feeling they are endangering the lives of any family. There is no question but the contagion is carried by the milk and is also communicable from bovine to man and man to bovine.

In one cow that had an affected udder, that I post mortemed, with two of her calves, one eight months old and one a year and a half, I found both calves badly affected along the abdominal viscera and one in the glands of the thoracic cavity and one lung. They had all reacted to the tuberculin test. It is not absolutely necessary to slaughter an animal in the incipient stage of the disease, but as you can never tell at what time they arrive at the point of spreading the contagion, I think it is better in most cases to dispose of them at once.

It has been proven in Denmark and followed up in this country that healthy calves can be raised from tuberculous cows. This is called the Danish method. It is carried out by taking the calf from the cow as soon as dropped, isolating the cow and sterilizing the milk from same to feed the calf. You can readily see that this is very expensive, as you have to keep a cow for at least a year or more to get the calf, with no other remuneration coming from same except the calf. I would recommend this, as being practicable, only where you want to preserve a strain of stock that you cannot in your estimation replace, or in case of very valuable animals.

I find one objection that some breeders of blooded cattle have to the tuberculin test, that is, that they are afraid that if any animal would react, it would be scattered abroad that they have infected animals in their herds and thereby hurt the sale of their stock. The result of a test should have directly the opposite effect, as after their herds have been tested, infected ones removed, that is evidence that their cattle are healthy and certainly worth more to any man for breeding or milk purposes. The stock raisers that grow blooded stock ought to be the first to create the latter impression; while, on the other hand, many are going directly the opposite, and the contagion goes on. I do not believe in going at it in too radical a way, the way they have done in some of the eastern states,—not but what I think

that they were right in trying to eradicate the disease, but they defeated the ends that they aimed at in many cases, simply because the breeders and dairymen had not thoroughly looked into the matter themselves and they thought they were being persecuted. I believe that when they thoroughly look into the matter and see that it is for their own interest, and more thoroughly understand the disease, that they will be the first people to help suppress it. It has been my whole aim since I have held the present office to do as much to enlighten the cattle interests on this subject as possible, and think that I have done more to do so by the post mortems I have held of reacting animals than any other way.

Gentlemen, your seeing a thing is not reading what some one else has seen, or in many cases probably has written about and not seen. I find some people that don't care to see; they are the ones that do the most talking against the tuberculin test and the presence of tuberculosis. A case of this kind occurred the other day at Fond du Lac, where I held post mortems at a slaughter house on nineteen head of cattle that reacted to the tuberculin test. These came out of three different herds; eleven were thoroughbred Shorthorns. A gentleman who had known of the cattle for some time and knew that two in one herd had died of the disease in the previous six months, said: "You have got cattle in that bunch that there is nothing wrong with." I asked him if he had had any experience with the test; he said, "No." I then asked him to come and see the post mortems, and convince himself as to whether the test was right or wrong. He said that he would not, that he didn't believe in it, that I might just as well slaughter his cattle as the ones in question. It put me in mind of a story of an Irishman who stole a dressed hog and was arrested for the theft. He went to a friend of his, an attorney, to solicit his aid in defending him. The attorney says: "Pat, did you steal that hog?" "By gorry, I did" said Pat, "but they can't prove it." "Then, Pat, you cut that hog in half and bring one-half over tonight and put it in my cellar, and I will try to clear you in court tomorrow." Pat's attorney, on making his plea to the jury, elaborated a great deal

on Pat's good qualities, told the jurors they had all been raised with him, and they knew him very well and knew well that he would not steal anything, and wound up by saying: "Gentlemen, do you think I would steal a hog? I will tell you, gentlemen, upon my honor, Pat has no more of that hog than I have." Pat was acquitted.

Now, gentlemen, I think I have given you as general an idea in a condensed form of tuberculosis in this state as is possible for me to do in the length of time allotted to me. Thanking you very kindly for your attention, I will close.

DISCUSSION.

Q. Could a layman apply the tuberculin test?

Dr. Clute: I think it could be applied, but a person not familiar with the thermometer might possibly make some mistakes.

Q. Would it always react?

Dr. Clute: In chronic cases it reacts very slightly, if at all.

Prof. Henry: Every student in the short course in agriculture is taught to apply the tuberculin test, so at least 100 students of the second year class go out each year understanding the application of the test. Our students are going back to the farms and testing their own herds and sometimes testing the herds of their neighbors. One student went home two years ago, thinking that his own herd of cattle was all right. He applied the test and found twenty diseased animals! There are a great many farmers who think their herds are all right when such is not the case. Our state veterinarian has been very wise in the way he has gone about this important matter. I wish to thank him for this paper today, and for the way he has prosecuted the work and the reasonableness with which he has presented his case. In Massachusetts a few years ago this subject was brought before the people in such a light that they were badly scared. They secured a legislative appropriation and

killed thousands of animals, and that state paid out over \$600,000 in three years in an effort to stamp out tuberculosis among cattle. The effort was not successful because the people had gone at it foolishly and the expense was such that the commonwealth could not bear the burden. Our state veterinarian and the Wisconsin agricultural college, through our Dr. H. L. Russell, have been working unitedly and energetically to teach people the dangers of this disease. If we go at it seriously and sensibly, we can eradicate this dread tuberculosis from our state. I hope Wisconsin will not take the stand taken in some states,—shut our eyes and say there is no such condition existing. Fortunately, Wisconsin breeders are taking the other view. If the directions which the Doctor sets forth are followed by our people we will proceed in a sensible way. If everybody will look to the health of his own stock, there will be no need of the state spending hundreds of thousands of dollars in the wasteful way some others have done.

Q. Does an animal with a well developed case lay on flesh?

Dr. Clute: No, not ordinarily. They may stay in good condition and be quite well developed in the disease, but will begin to run down as the disease advances.

Q. Ordinarily, how long from the incipient stage would it take to develop the disease?

Dr. Clute: From eight months to three or four years, according to the condition of the animal and the conditions it is subjected to. Anything that will debilitate the animal will give the disease a good chance to work.

Mr. Cogswell: With an animal in that condition in the herd, the other conditions being sanitary, all favorable, would it not be possible and probable that the herd would remain healthy even while that animal might go to its death?

Dr. Clute: No, not in tuberculosis.

Mr. McEwen: I might give a little testimony. I had a cow affected with this disease and she died from it. I had a veterinarian come and we had a post mortem. He declared it to be the genuine article. I notified through the health board the Doctor here, who happened to be in town. He said it did

not require any test. It was a case without a test. His assistant came and tested the herd and I got a clean bill. (By the way, that cow died before he got around.) But I had my doubts about that test. Several cows had had affected udders. One had come to ulceration. I made up my mind that I would have a little test of my own, so I had the veterinarian up from Janesville. We found that she was not affected in any way with tuberculosis. It showed that those that had been tested were free from it, as had been declared by the state veterinarian.

Dr. Hartwig: How long after the first test were they re-tested.

Mr. McEwen: They were not re-tested, except in one case. I dislike to tell about that case. A little of my own foolishness crops out there. A fellow came along selling stock food. He happened to be a friend of mine. I bought some and thought I would put the matter to a test. I had two fine young heifers that had just calved and I commenced feeding the stock food according to directions. They failed to come up to their feed in a short time. One of those cows acted as though it had tuberculosis. I said to myself I was not going to have any more advertising in the county papers, so I tested the matter myself and found she was perfectly free. The lining of the stomachs and the walls outside of the lining were congested.

Mr. McKerrow: After eating the stock food? A. Yes.

Q. Did you make a second test? A. No.

Dr. Hartwig: Do you think a man not thoroughly familiar with pathological laws is fit to make a post mortem examination, except in the advanced stages?

Dr. Clute: Not in the incipient stage. If the pus in the tubercle is large enough and granular, I think a man who has seen post mortems can tell it. There are cases where you have to go through the viscera to find it.

Dr. Hartwig: Do you think a man can properly apply a tuberculin test unless he is familiar with the test given to a domestic animal?

Dr. Clute: I think a man might, so far as understanding injecting the tuberculin and reading the thermometer is concerned,

there are conditions where a man is liable to make a great mistake, when other things come up to cause a rise of temperature. One might make a mistake in that way.

Q. How soon can you give a second test?

A. Not inside of six months at least. I have known cases where animals would not react in four months and still be affected with the disease. This causes considerable trouble. If a person injects tuberculin in a herd of cattle two or three days before calling in a man to make a qualified test, it will fail, because it won't react. I know of a case where it was done with cattle for shipment into Illinois. The cattle will not react inside of sixty to ninety days, and sometimes longer. It is a good deal like vaccination.

Q. What is the proper amount to inject in a calf from three to six months old?

Dr. Clute: It depends upon which way it is prepared. If it is Park-Davis's preparation, about one-half a gram for a calf of that size, when diluted. Of the pure, one cubic centimeter.

Mr. Faville: Do animals ever recover from it? You make a test and they respond to it, and at some future time are they sound?

Dr. Clute: Never.

Dr. Hartwig: In regard to Professor Henry's statement that the average student, or all students going out from the agricultural college, will be the persons to apply the tuberculin test, I do not doubt that, but I believe that they can be tripped very often. I have very nearly been tripped myself. I was a student in 1889. I ran against a herd three or four months ago, and the first case that showed any signs of tuberculosis was a Guernsey bull. This bull was nine months old. The owner had had several people look at him. They said he was free because he was in fair flesh. I was called to test the animal, and when I injected the tuberculin it did not react. When I got through the owner asked me what I thought. I said the animal had tuberculosis. He asked why he did not react. I said I thought he had gone so far he could not react. He said go ahead and kill the animal if I thought that was so. We

killed him and we found he had genuine tuberculosis, both pulmonary and of the alimentary tract. I would like to know what the average agricultural student could do if he did not have the proper knowledge, taking all the points into consideration.

Mr. Hill: Our own herd was tested in 1894. I am inclined to think that it was the first herd of pure bred cattle in the state subjected to the test. Dr. Clute spoke in his paper of there being thousands who would fear to buy from the herd if it were known. This subject is bound to work out its own salvation along these lines through the increased proportion of the buyers demanding the test for the sake of the immunity of their own herds.

Dr. Clute: I would like to hear from somebody in the state besides the gentleman from Rock in regard to the test. I have failed to find a man for whom I have held post mortems who has not been thoroughly convinced and as set against the disease as possible. This was the case with that herd at Fond du Lac. The man there had one of the finest Durham bulls that I have ever seen, weighing close to 1,700. He said that this animal reacted and that he would rather lose the whole herd than lose that bull. When we made a post mortem examination we found a very large tubercle in the liver and one the size of an apple between the lungs. It was only a matter of six or eight months that he would begin to go down in his condition. There happened to be one of the short-course students there. He looked the stock over and said: "I have no doubt whatever but this animal is affected, but I would advise you to keep him." Yet there was no question but that that animal in five or six months would be in such a condition as to throw off the disease.

Mr. McKerrow: Dr. Hartwig raised the question, Prof. Henry, about a Guernsey bull that did not respond to tests, and he decided that he was so far gone that he could not respond. Would the average short-course student be able to diagnose a case like this?

Prof. Henry: I do not think that the average short-course student is as wise in veterinary matters as the average veterinarian. But until veterinarians themselves make no mistakes I

think the same thing will occur with the short-course students. I think the short-course boy can go home and watch his herd better after the instruction he has been given at our college than he otherwise could. I would be the last one to advertise our boys as veterinarians, but they can do this work in many cases wisely and well. They know more about it than though they had never seen animals in that condition. I think our boys will be the best employers of veterinarians of any class of people. I do think it is possible for a carefully trained person to test his own animals for tuberculosis and draw correct conclusions from the reactions secured.

Dr. Leach: I do not think there is any question in the minds of veterinary surgeons as to reading the thermometer and injecting the tuberculin, but this matter does not stop there. All over the state of Wisconsin the same complaint comes, from not only butchers, but slaughter-house men in the cities. When a veterinarian of the state of Wisconsin tests those cattle they are sent where they should be sent in order to stop this disease and stop loss to the individual who has purchased those cattle. The state pays two-thirds of the valuation of these cattle and the owners are reimbursed, and only in that manner. When they are tested by the short-course student they are never reported to the state veterinarian nor to any source whereby the disease is stopped, but they are often sent to the slaughter-house and either the community has to consume that meat or else the larger butchers have to stand the loss themselves, and that complaint is coming continuously from these sources,—why it cannot be stopped,—and the question is whether the short-course students shall report their herd test to the state veterinarian and have that animal reach the assessor, or turned over to the butchers and have somebody suffer for that loss.

Dr. Smith: The tuberculin test is a dangerous thing in the hands of the short-course student. We have found from experience where herds were affected and short-course students have gone and applied tests. These animals were kept in that community for some time,—about six weeks or so and then they called in a veterinary to make a test. After you test those ani-

mals you cannot get a re-action again for ninety days. The veterinary gets the blame and the short-course students gets the benefit. In the course of a year or two you will find that two-thirds of the herd is affected, and I consider it dangerous medicine for any student who is not qualified to make the test. I think they were honest enough about making their statement that the animals were not diseased.

Mr. McKerrow: Is it not possible for a veterinarian to make these mistakes?

Dr. Smith: These are cases that come under our notice frequently. A man who knows a little is worse off than a man who knows nothing.

Dr. Hartwig: We do not question the ability of a short-course student to inject the tuberculin and read the thermometer. There is no question about that. They are better equipped to do that than the farmer or stockmen. When the short course students go wrong they are not all of them honest enough to report it, and that is where the veterinarian gets it when the cases do not re-act.

Prof. Henry: Now there are several ways of handling diseased animals. Suppose, for instance, that a man has 20 thoroughbred Shorthorns. Ten re-act. The man may not wish to kill them. He tests them himself or has a veterinarian do so. He can keep those ten diseased animals and use them for breeding stock, isolating them from the rest of the herd. One of our students has done that and he has carried on his work satisfactorily. He has kept his diseased cattle separated from the well ones. In that way he has been able to preserve the progeny of his valuable diseased animals while not endangering those not having the disease. A farmer in this state put his well animals on one side of the barn and the diseased ones on the other side and removed the calves dropped by diseased cows to the well side as soon as they were born. After this dairyman had kept the whole herd,—sick and well, for some time he had so many healthy animals that he concluded to dispose of all the diseased ones. We bought the last of the diseased cows and brought them to the University farm and they are there now. We have

studied these diseased animals year after year and have found many valuable facts; a bulletin on the subject by Dr. H. L. Russell giving the results in detail will be sent to any and all persons applying for it.

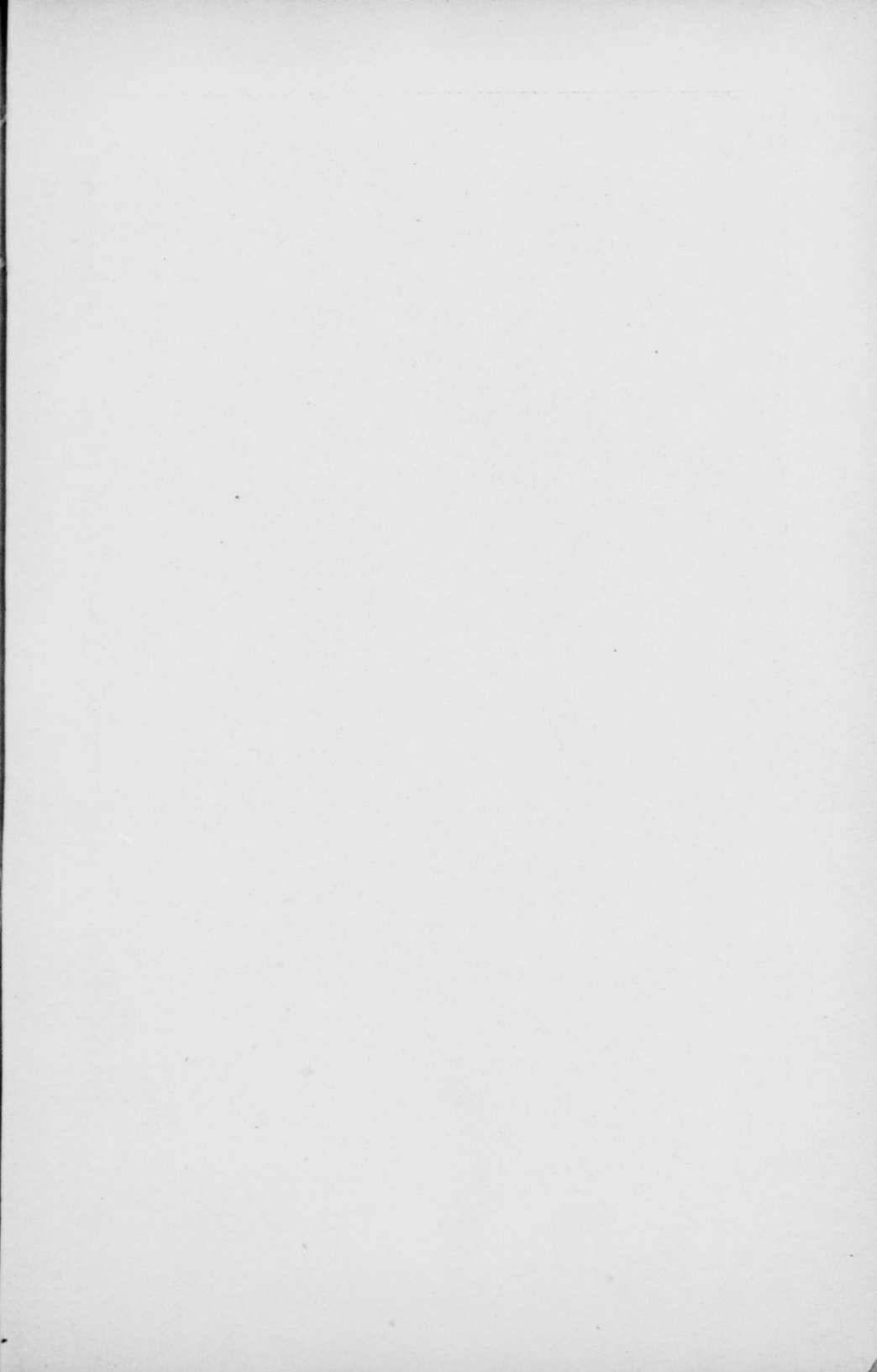
I do not think the state ought always to step in and take away a man's right to keep diseased animals. It may be best, but it is well worth considering that the owner has some right to these animals provided he takes proper care of them. If it interferes with the best interests of the commonwealth to have our students do this work, we want to know it. We can gain information here which will set us all to thinking about this disease which has come into our state and which we must attack wisely and vigorously. I believe we are going to do it. I want to say to the legislators here that the subject of bovine tuberculosis will be a live question in the hall of this building at no distant day. At this time and until there is adequate legislation let each man see that his own herd is free from disease. Governor Hoard said the other day that he killed five animals in his own herd having tuberculosis for the sake of the herd. If we go on feeding and milking cows, keeping more and more cattle on the farm, under higher pressure, we must exercise more intelligence, more watchfulness, more push to keep ourselves up to the times. Live stock matters grow more and more difficult as we increase in the amount of stock kept on a given farm. A great city has very different rules for sanitation from a village. We need to have more education, more watchfulness, push and intelligence if we are going to keep up with the ever increasing troubles. Denmark found more than one-third of her animals diseased. Wisconsin is not so bad by a long way.

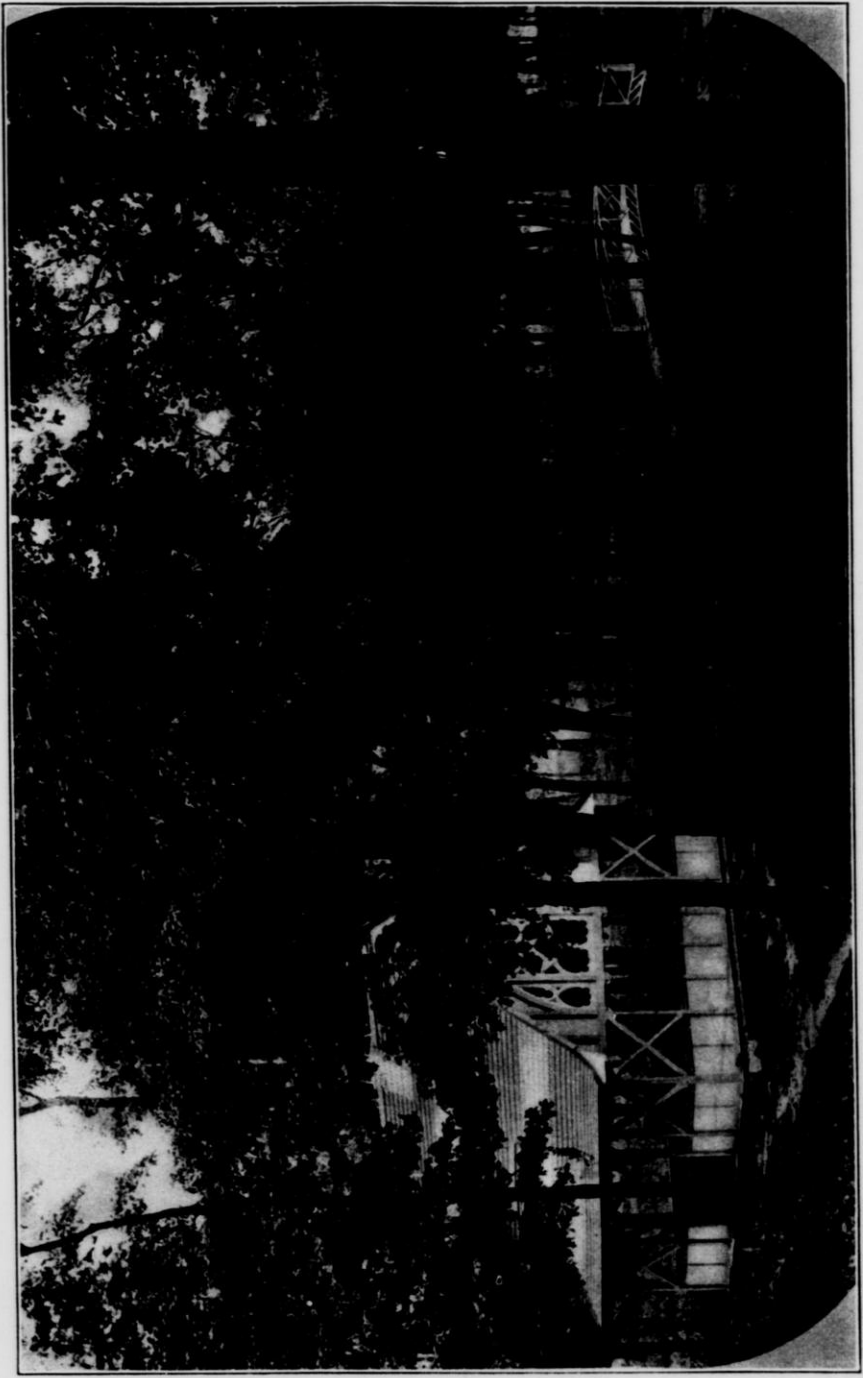
Dr. Clute: In my paper I brought out the same idea that the professor does in regard to retaining animals affected with the disease. In several cases I have accomplished this, while, of course, as the law is at present, they really ought to be condemned. I believe it is practicable in very valuable animals. Otherwise I do not. They have done that in Pennsylvania, and the owner will keep them for five or six months and send for the state veterinarian. The only way that can be done successfully

is to do it under state supervision, so that you can keep track of that stock and have a qualified man look them over once in a while. If this can be done at state expense, I think it is the proper thing to try.

Mr. McKerrow: We will have to bring this discussion to a close, but let me say that it a great question in Wisconsin as it has been in other states. The veterinarians are acting upon it. The state board of health and the state board of agriculture have concluded that they would take a hand, and have appointed a committee to confer with the state veterinarian and the state bacteriologist to discuss what may be done to help clean up the herds of Wisconsin and at the same time respect the rights of owners, and I believe that this legislature has sense enough to see that we must have some kind of a law that will take care of the diseased herds and at the same time respect the rights of the owners of those herds. When we have reached that we have reached a satisfactory conclusion of this whole matter. It may be said that no state has yet reached a conclusion that is satisfactory to everybody, but we hope in Wisconsin to get as near it as they have anywhere else.

We would like to spend another hour upon this subject, and I think it could be done profitably, but we will have to take up the next subject on the afternoon program, "The Present Condition of the Good Roads Movement," presented by Hon. R. L. Joiner, of Dodgeville.





SPRING HOUSE IN GROVE.

THE PRESENT CONDITION OF THE GOOD ROADS MOVEMENT.

BY HON. R. L. JOINER.

The principles of Highway Engineering have been as well settled by experiment, observation and experience, as the principles of any other branch of physical science.

Those principles may be grouped under three general heads:

- 1st. The location of public highways.
- 2d. The construction of highways.
- 3d. The maintenance of highways.

It may be safely said that except in bridge construction, little if anything has been added to our knowledge of these principles in the last two thousand years. The old Roman military roads, built in the beginning of our era, have some of them endured to the present day,—their location and construction so correct that the elements have not been able to destroy them, even in the absence of any repairs for hundreds of years.

Every departure from correct principles in either of these branches of highway engineering has always and always will result in a defective highway—one that is costly to maintain and unsatisfactory in service. This country compares very unfavorably with many if not all of the civilized nations of the old world, in the condition of its highways. The reason given for this state of affairs is no longer a good reason. We have excused ourselves by saying, our country is so new, our people want so many other things worse than they want good roads that permanent roads should wait awhile, and we must make the best of these temporary makeshifts, which we dignify by the name of public highways. It is also urged that our changeable climate, extremes of heat and cold, wet and dry weather, immensely increase the difficulties of the construction and maintenance of good roads. Undoubtedly, to some extent this is true. But these same difficulties have not prevented us from

making this nation, in many other respects, one of the greatest nations in the world. No expense has been spared in building railroads, all of which are only great highways for travel and commerce. We are not satisfied with anything less, and are willing to pay railroad fare and freight tariffs, which enable railroad companies to build roads, equip and maintain them so well that even our hogs and cattle ride to the city from the station with ease and safety; and we ourselves, on our infrequent visits to the capital or metropolis, ride in palatial cars, like luxurious princes, though we may ride from our homes to the station, and drive or haul our produce over roads that are practically impassable at some seasons of the year owing to their faulty construction, and many of them so badly located that for long stretches in places, we must drive in a walk, even with a light carriage, no matter in how great a hurry we may be. As we transport our produce to the station we are often compelled to lose a good market on account of bad roads, or double, treble, and sometimes increase four times the expense of wagon haul, by lightening our loads to suit the condition of the road.

The American people pay for all the luxury, convenience, speed and safety of our railroads, for we may be sure that railroads are not built from motives of philanthropy. We pay for all of it, I say, and a good round sum, too, in many instances—a sum large enough to pay all the expenses of construction, operation and maintenance, and a profit over all great enough to make millionaires of the promotors of railroad enterprises. Everything we sell, everything we buy, pays this railroad toll.

It is no less true that bad highways are a continual tax on every citizen who uses them, or who uses any article which has to be transported over them. The hundreds of millions invested in railways have immensely cheapened transportation, broadened commerce, provided markets, and made progress and prosperity possible in inland communities and states. The same result will follow a judicious system of expenditure on our public roads. It is a safe estimate that the produce and manufactures of this country are charged to the consumer with fifty cents per ton cost of highway transportation, and that this cost

could be reduced one-half if our roads were all as good as they could be made at a reasonable expense.

The arguments for good roads are unanswerable from every point of view. As an economical investment it can be demonstrated that money properly spent on good roads will pay the country more than ten per cent. per annum. As a convenience, or luxury if you please, nothing tends to bring us closer together socially, and closer to the civilizing influences of more fortunate communities. The country with its beauty, its freedom, its healthful air and broad landscapes, becomes a suburb of the town or city, with its libraries and lecture rooms, its schools and churches, its markets and many desirable advantages. All of these things are admitted, and need now only to be stated to be accepted as true. It seems to me that the argument might be closed, and that we should apply ourselves to the task,—by no means a light one,—of devising some practicable plan of distributing the expense of building good roads equitably among those people who receive the benefit from them. The railroads have solved this question by furnishing carriages and motive power and charging tolls and tariffs on freight and passengers. Toll roads have been built which simply collect toll for the use of the road. It is said that syndicates of capitalists could be formed, with sufficient capital to build good roads on all our main lines of highway, if the state would give them power to condemn land at actual value and allow them to collect toll enough to pay them three per cent. per annum on their investment over and above the cost of operation and maintenance. The American people have seen how this plan works with our railroads, and do not consider it an economical solution. At present, in this state and in almost all of the states, the land owner,—and to a very large extent, this means the farmer,—the land owner is charged with all of the expense of constructing and maintaining the highways of his locality. To understand how unjust this system is, one has only to think of the fact that the most expensive roads to build and maintain are in a hilly country where the land is poor and often of little value. This is carried so far in some towns I might name,

that the per cent. of highway taxes is three times as much in some towns as in others in the same county, when it is also the fact that the produce of the better and less taxed district is drawn over the roads of the higher taxed districts to market. The hill farmer naturally, however patriotic and public spirited he may be, bears with perfect complacency the reviling his neighbor of the prairie neighborhood freely bestows on the roads as he passes to market. Although the hill farmer may never have thought it out in words, his sense of fairness teaches him that he should not be compelled to pay a road tax four or five times greater on a dollar valuation than the prairie farmer does, for Mr. Prairie Farmer's especial accommodation or to keep him in good temper while he is hauling his produce through the hill country to market. The farmer, generally speaking, and the farmer's boy especially, laughs to himself, when he sees some pleasure carriage from the neighboring town or city wrecked in a ditch, or most unmercifully jolted over rough places in the road, regardless of the feelings of the holiday passengers, for he knows that his farm pays four or five times as much highway tax, dollar for dollar valuation, as the city dwelling or store, and the country man knows that there are miles of country roads to build, where the city man has rods of streets. Farmers generally believe that country roads, so long as they are passable, must remain much as they are, until the cost of making them good is properly distributed.

Legislatures pass highway laws and courts make decisions that we must keep our highways in good order from end to end, and in some particulars throughout their whole width. Sometimes our country towns are mulcted in heavy damages for unavoidable accidents occurring on our highways, but only a passing glance at the condition of the most of our roads shows that we hold all such laws in derision, and are compelled to take the risk of accidents and damage suits by reason of the extent of our roads and the limitations of the means to fulfill absurd requirements, and the manifest injustice of doing so under our present system.

I am not now, nor do I at any time, defend or excuse bad roads. I simply express a general protest against a system of distribution of the cost of roads which is manifestly unjust to the last degree, a system which is crude and primitive, which comes down to us from Adam's time hoary with age, a great injustice in these modern times. It is only a step removed from the methods of savage lands, and resulting, as we have often seen, in a road actually worse than the Indian trail or emigrant trail of frontier settlements. The hundreds of millions of property piled up in our cities pay no road tax, while these same roads which we have been talking about have made cities, banks, factories and railroads possible and profitable. They are the brooks and rivulets which feed and create the mighty rivers of commerce throughout the world.

Good roads will be expensive to construct, but not so expensive to maintain as our present roads. It is estimated that the saving in cost of maintenance will pay the first cost of construction in forty years. The benefits of good roads will be great and widely distributed, and not the greatest portion will inure to the farmer who, under our present system, is charged with the whole cost.

In our educational system we have adopted a wise plan. We recognize the justice and the necessity of distributing the cost of our public schools, a portion to a state school tax, another portion to a county school tax, leaving the larger portion, it is true, to the local tax payer. It is more necessary to an equitable distribution of the road tax that something like this should be done, and the wonder is that it should have been so long delayed.

Section 10, Article VIII of the Constitution of the state of Wisconsin seems to prohibit the state from assisting in highway construction. It is undoubtedly a wise provision that has protected us from the visionary schemes and corrupt jobbery which would have crippled our resources in the early history of the state, when there was a great temptation to use the credit of the state to build canals and railroads, which were much needed and which we could not build ourselves. It is to some extent a wise provision now, but if it prevents a proper distribution of road

taxes it should be modified, with careful limitations. Suppose the state was allowed to assist by appropriating one-fourth of the total tax raised for road purposes, the county one-fourth, and the locality the remaining two fourths. I do not see that there would be much inducement for extravagance on the part of the local authorities, as in any expenditure of taxes on roads, one-half would come directly out of their own people. The state of New Jersey has such a system in successful operation. That state has adopted a system of state aid to highways which has deservedly become highly popular, especially in the farming communities. Under their law the cost of building the good road is divided among the the state, the county and the adjoining property owners. The adjoining property owner pays ten per cent. of the cost, the state pays one-third, and the county (which is the political unit in that state) pays the remainder. This plan is not recommended for adoption in this state, and is only spoken of here for the principle which is involved, viz.: the distribution of the cost over the whole people benefited. It seems to proceed upon the principle that the adjoining property holder is more directly benefited than any one else, and indirectly besides as much as anyone else, a proposition I do not believe will in most cases be true.

I have given much thought to this subject of distribution of the cost, and although I am not able to demonstrate by figures or statistics my position, I have concluded that as equitable a distribution as could be made would be for the town to pay one-half, the county one-quarter, and the state the remainder of all road taxes. I would leave the management of our roads where it now is, in the hands of the town authorities. They are on the ground and are more interested in the judicious and economical expenditure of the money than anyone else can be. I would have a maximum grade limitation which should never be exceeded in the location or alteration of any highway. I would also have a state and county inspection of highways so rigid and thorough, both of construction and location, with the penalty of loss of state and county aid for work not up to inspection, which would insure a good highway.

This radical change of cost distribution is in my opinion the prime necessity, the first important thing to be done before the farmers, who now have and intend to maintain control of our country roads, will listen very attentively to lectures on good roads, or be moved to wiser methods or more costly expenditures by the gibes and sarcasms of people who neither pay road tax nor work on the public roads. When this is done and the farmer needs no education in that direction, then the highway engineer or surveyor comes in to insist on the application of scientific principles in road construction. In his path at once arises that almost impassable obstacle, the idea of the land owner that his personal convenience and wishes should be consulted and should be the paramount consideration in the location of the road through his land; and that other idea almost as troublesome, that in the award of damages for land taken he should not only be paid in full for the land so taken, but for the cost of a fence each side of the road and an exorbitant sum to compensate him for his imaginary and fancied inconvenience by reason of the road through his land. It may be necessary to exercise for a time the autocratic power of some state or county officer, who shall be such officer by appointment as far removed as possible from the influences of town politics, to obtain a location upon which it will be possible to construct a good road.

I give it to you as a surveyor's opinion that no road with a grade of more than ten feet in a hundred will ever be a good road, but that no hill that it is necessary to cross, even in the hilliest part of our state, need have a grade of over eight feet to the hundred.

Another very prevalent idea is, that roads should so far as possible,—and in many instances much farther than it is possible to make a good road,—follow the lines of the rectangular survey of our public lands. From an artist's point of view nothing mars a landscape more than to see it mapped out by roads and fences into squares and rectangles, like our great-grandmother's quilt patterns. The graceful and harmonious curves of nature's landscape gardening are not improved by art, but are destroyed and cut away by the one idea of straight

corn rows, and as many of those long rows as possible. The farmer who doesn't want his field cut up by a road because it spoils the looks of it, never thinks of the looks at all or cares much about it. His idea of beauty is utility. He is like the washerwoman who speaks of "lovely soap," meaning only that it is good soap to remove dirt.

The fact is, corn is the only crop for which it makes much difference whether the field is square or round; and in modern corn raising on hilly land, the only place where curves would be necessary on highways, the old idea of straight rows up and down the hill is being discarded. The rows follow the hill as the highway should do, with all the beautiful curves nature has marked out there. She no longer vents her wrath on such cornfields, but seeks the fields which have violated her masterpieces and the roads which are built on wrong principles, and with a sudden shower washes the soil down to the hard-pan where white beans would not grow, and tears the road into an impassable ditch.

When we get rid of these weeds, which are the heritage of our own and our fathers' slovenly methods of farming, and get a good road laid along the hillside, corn will no longer be planted in straight rows, but will be parallel to the road in rows but one way. Landscape gardening on the extensive scale of a community of farms will be possible. Some of the fine view effects of the hill country of England will be attainable, where rectangular surveying is not practiced, and no one ever dreamed of moving a road from a good location to a poorer one in order to get it on a line.

So much for the looks of the thing, which is about the only argument I have heard advanced against a scientific location of a road. I reiterate what I have often said before, that from a surveyor's standpoint, in fact, from any standpoint, it is absolutely impossible to build good roads upon their present location, with any reasonable expenditure. A very slight change in location, often not amounting to the width of the highway, will sometimes be sufficient; in other cases, it would require

a complete change of location for long distances to be of any material benefit.

This brings to the front another difficulty. Nearly all farmers like to live on the road. Why this is so, no one knows. It is probably an inherited trait from the time when the road sought the settler in his frontier home, when the road and the traveler were the farmer's only connection with the rest of the world. The roadside in thickly settled communities is a noisy, dusty, unpleasant place to live. It is not so secure from tramps, mad dogs, book agents, peddlers and marauders, and in these days of the telephone and the rural mail, is of no value as a news connection with the outside world. The rumors spread along the highway by passers by are notoriously the most unreliable news in the world. You cannot have a bright green lawn, a clean sitting room, healthy foliage on your shade trees, nor sweet smelling flowers, if you live by the roadside. Let us build our farm houses with reference to the farm and not to the road, and let the road go where it must, even if it is at the back of your buildings. Your friends, whom only you care to see in any social way, and those persons who have business with you can find you up or down the shady lane; and you can go to visit them or to your market over a road upon which it will be a pleasure and a rest to ride. Instead of market day being what it is now, often the hardest day's work for man and team in the week, it may be made a holiday.

These are some of the difficulties in the way of good road construction. They must all be met and overcome before a spadeful of earth is turned for the road. To the construction and maintenance of the road, there are no problems which can be brought that are not easy of solution. Almost any surveyor is competent to stake out the work, and in every town we have splendid fellows to handle rock and dirt. When farmers shall not have to bear more than their share of the expense and they see that work put on the road is effective to a permanent highway, the slipshod makeshift, temporary methods,—if they can be called methodical,—of our present highway matters will be a thing of the past.

A few words on the law of highways: A highway has in law, length, width and direction, fixed by a definite location. The survey is supposed to follow and mark its center line. If a road is properly laid out, and the proper releases executed by the land owner, the public acquires a right of way over that road, to its full width from the center line and extent until it vacates or abandons it. If a town allows a road to be entirely closed up by a land owner for four consecutive years, it is held in law to have abandoned it, and cannot reopen it without the consent of the land owner, except by original proceedings, as though there had never been a road there. This, however, does not apply to encroachments on a highway. It is a common practice for the farmer, on hilly land, when repairing or rebuilding his fence on the lower or field side of the road, to move the fence nearer and nearer the road until it is often as near the wheel track as it is possible to pass. I know many roads which were originally three or four rods wide, but have been contracted by this operation in the course of years almost imperceptibly until they are now not more than twenty feet wide in many places. All such fences or encroachments may be removed by the town, whenever they wish to use the land, and no lapse of time will bar that right if the road was properly laid out in the first place or the limit of the original dedication can be determined. Bear in mind, that there is a center line of each highway definitely fixed, either by a survey in the first instance, or by the land owner himself when he first fenced the road and thereby dedicated it to the public use. The land owner or anyone holding title from him cannot take back again, without official and legal consent of the town, any part of that land, be it one and a half or two rods each side of the center line.

After our good roads are built, in some places there will be extensive fills, with banks so high as to be dangerous, and which it will be necessary to guard with a railing. In such cases it might be well to allow the fence to be built on the hip of the embankment to serve as such railing, but generally no one should be allowed to encroach on the public road. In many

cases, four rods is not too wide to properly construct a road. In most cases three rods will do; in some places it will require six rods for base of fill and ditch, or top of cut, through earth.

Many of our roads were surveyed in an early day when the land belonged to the government. I understand that that fact, though no award of damages was made or release executed by the land owner, legalized the location. As the land was settled, the location did not suit the settler and each man was allowed by the town to move that road to a new location on his own land, to suit his own convenience. Now, the fence that he erected at that new roadside is held in law to mark the limit of his dedication, and marks a line which he cannot afterwards pass without legal consent of the town. Simple acquiescence on the part of the town authorities is not such legal consent. If he does move his fence further up the hill to increase his tillable land at the expense of the public, he is liable to be compelled peremptorily to remove his fence back to the line of original dedication unless it is moved far enough to cut off the whole of the original dedication and comes under the four-year law, thereby becoming a new dedication of land to the highway.

More attention should be paid by surveyors and town authorities to definiteness in locating the beginning and ending of roads, or, as surveyors express it, the initial and closing points of a highway. I have been called upon to locate and retrace the lines of an old road, which was also the boundary line between two land owners. The road had long since been abandoned and was grown up with young trees. It was described on the town records as beginning at a stake in John Smith's hog pen, and ending after numerous angles at another stake two rods south of the southwest corner of Jim Brown's stable. Upon inquiry, I learned that John Smith and Jim Brown, their hog pen and stable, had been dead and forgotten for forty years.

I will close this paper with a prediction: Good roads are coming in the near future. No man's convenience will be allowed to stand in the way of them. The cost will be equitably distributed and will not be so heavy as to increase our taxes

to any great extent. Permanent roads will be built on correct principles; roads that will cost infinitely less to maintain than our present highways. The croakers, who are now hanging on the wheels of progress in this direction, will in the end be the loudest shouters in praise of those better methods,—like the man who staid up in the loft of his cabin while his wife down below killed the bear, and who ever after boasted of the big bear *we* killed.

Thanking you, ladies and gentlemen, for your kind attention, I leave this subject with you.

DISCUSSION.

Mr. McKerrow: You have heard this most excellent paper on this question of roads, and if you have any questions Mr. Joiner can answer them fully.

Mr. Clinton: Will Mr. Joiner tell us how much it costs to build a permanent road?

Mr. Joiner: That will depend a great deal upon circumstances,—how far you have to haul gravel, the nature of the ground, the amount of damages you would have to pay for land. It would be very difficult indeed to say, but we are graveling roads in our country very cheaply. We construct them cheaply in the first place with road graders and gravel them over a bed of shales that we have in that country from the Potsdam. There is a bed of shales there four feet thick that no one supposed was good road material. It has a hydraulic quality in it. You put it on the road and the wheels crush it and it makes a cement. It does not wear as long as harder stone; still, it can be easily mended, and makes a beautiful road and is done cheaply. It would be difficult to give any kind of an opinion without knowing the facilities you have for getting stone to the ground and the draining it would take to make your roadbed dry, and the distance.

Mr. Clinton: Have you had any experience with crushed stone?

Mr. Joiner: Yes, crushed with hammers. But, since we discovered that shale we have not crushed any more stone. We dig a pit and back the team in, and with two or three scrapers we can load a wagon in two or three minutes.

Question: Do you consider gravel good road material?

Mr. Joiner: Yes, except on sand. Gravel does not seem to stay on sand.

Mr. West: I would like to ask your estimate for the cost per mile of a good road through a prairie country where we have to buy crushed stone and haul a distance of four or five miles.

Mr. Joiner: I am not prepared to answer any of these questions so as to give you anything to depend upon.

Mr. Raymer: I may give a little experience in building just this kind of a road. A road 16 feet in width, macadamized six inches in depth, rolled down well with a steam roller and wetted while it was being done, cost \$1,000 a mile. But it is safe to say, taking the state over, that you can build a road, if you do not have to haul the stone too far, for from four to six hundred dollars a mile. I do not mean a road more than 12 feet wide, and four inches—perhaps six in the center, in depth. We paid 60 cents a cubic yard for our stone at the quarry. We hauled it two or two and a half miles, crushed. It was crushed at the quarry. Good roads can be built for from four to six hundred dollars a mile,—good macadam roads, rolled with steam roller.

Mr. West: What was the road bed?

Mr. Raymer: A good deal of it over sandy hills where there had to be a good deal of grading. Earth and sand were moved from part of the road to another to get the grade which we wanted before putting on the stone.

Mr. West: This stone was placed upon a sand road-bed?

Mr. Raymer: The bed was first thoroughly rolled with a steam roller and then the stone put on.

Mr. McKerrow: Does the price include the grading as well as the macadam?

Mr. Raymer: Yes, over an unusually hard piece of road.

Mr. Linse: We have great difficulty in LaCrosse with soft lime-stone.

Mr. Raymer: We have a soft stone here. We have thirty miles of macadam in this city and it is all that stone. It makes an immense difference whether the road is thoroughly rolled before that stone is put on.

A good sandy soil is the best for a road-bed because it is thoroughly drained. After the stone is put on it should be thoroughly rolled with a steam roller.

Mr. McKerrow: The government, in reporting upon road-building in New Jersey, makes the statement that they have put this on at different depths and do not advise more than four to six inches on a sand bed. They think that the best possible road for the money expended is made by putting on this thinner covering.

Mr. Linse: We put on all the way from eight to ten inches of common limestone and we have to keep at it in making repairs. In a short time we have to replace it. I have seen four or six inches go through on a country road in five or six years.

Mr. Everett: It depends a good deal upon the quality of the stone. I do not believe there is any better material than gravel. Gravel is miniature granite. If well crushed and screened and properly put on and rolled it makes as fine a road as I know of. I have had some experience this last summer in making this kind of a road. We had a complete crushing outfit and dumping wagons to handle this material. We had a 12-ton steam road roller. We first took off the surface soil down to the clay. The gravel had been run through a crusher and screened in four sizes. The coarser size of the crushed material was put on the road six inches thick. On top of that was placed a bond of clay and fine gravel which was thoroughly washed into the coarser material, and then the whole was rolled with a heavy roller. On top of that was placed four inches of a smaller size of the screened material which was again bonded, washed down and rolled. We had ten inches of material on that road and built it for \$700 per mile. The macadam part was 22 feet wide.

Mr. McKerrow: You did not allow anything for the cost of gravel? A. No.

Mr. Hubbard: We build roads up where I live entirely differently. We live in a sandy country. We grade the road up six inches with sand. When that wears out we put on six inches more and the road lasts forever.

But, Mr. President, as Mr. Joiner says, a change must be made in the constitution, otherwise the state cannot assist in building these roads. Therefore, I rise for the purpose of getting an expression from the farmers here assembled in regard to a resolution now pending before both houses of this legislature that the statute may be changed so that the state can assist in this road-building, and I move that:

Whereas, The tax-payers of the state will receive great benefit, not only in the country but in the cities, by such a change in the statute, that, therefore, it is the sense of this assembly that such resolution do pass.

Mr. Faville: I second the motion.

The Chairman: The motion is before the convention.

Mr. Raymer: I am glad the motion has been made. I thought when the paper was being read that, strange as it may appear, the farmers generally would be the people who would oppose a state tax for the purpose of road building. I know that we had the bitterest kind of a fight in the legislature to get the mill school tax through. I was particularly attacked because I published a newspaper in the city of Madison. It showed explicitly and fully that the farmers were not in favor of taxation for the benefit of the children. The same would be true of the road tax. The state ought to pay a part of it as a state tax. That will be the only way that you will get a just system of taxation.

Mr. VanMeter: I would like Mr. Joiner to explain what benefit will accrue to us from state and county aid. I never knew a state or county that was worth a single dollar that did not come from the individual tax-payers. Why cannot we do this work locally without all this.

Mr. Hubbard: The children raised in this state are regarded as state property. Their education is cheerfully borne by the tax-payers of the state. A man with no children will cheerfully

under our laws pay his taxes into the state treasury, and a large portion goes to educate those children. I happen to live in a locality outside of a city. We farmers can build our highways to get to the city, and is not that city benefited by that highway just as much or more than we are? They receive our products. We sell them to the men who live in the city. They get their commission from the goods that we deliver over the roads that we make. I say the state should pay a part of that expense. Am I right? If I am, then every tax-payer in the state of Wisconsin should pay his just proportion of the taxation to build that highway.

The Chairman: Are you ready for the question? All those in favor of the passage of this resolution endorsing the change of the constitution so that a state tax may be levied for the building of high-ways, please rise.

Motion carried.

The Chairman. Nothing has been said about the wheels that we should use on these roads.

Mr. Faville: Not less than a 4-inch tire should be allowed to go upon the road. If I were the law-making power of the state I would decree that every vehicle going upon a road heavily loaded should have a tire not less than 4 inches.

Question: What would you do with the bicycle?

Mr. Faville: I would put a four-inch tire on it. When I came here ten years ago to live there was only one bit of macadam in the city. That was up on Langdon street. It happened to be a very rainy spring and the heavy traffic cut that road up with the narrow tired wagons. I had no interest specially, but I said to the property owners along that street, "you are fools if you sit here and allow those men to tear your street up with those narrow tires. You cannot get a street good enough to stand that. I would have the tire of the heavy traffic wagon widened to three inches or more." It set them to thinking and now we have an ordinance in this city requiring such tires to be not less than four inches.

The Chairman: What is the present law in regard to wide tires.

Mr. Faville: The present law simply exempts wide tires from taxation. We want something better than that,—something to compel the use of wide tires.

The Chairman: The bill that Mr. Cleophas is about to present in the assembly provides for the protection of highways by the use of wide tires. The bill reads as follows:

Section 1. There may be filed with the town clerk at least thirty days prior to the time of holding the annual town meeting in any town in this state, a petition in writing signed by not less than twenty electors and free-holders of the town, requesting that the electors of the town shall at such town meeting, vote on the question of using tires not less than three inches wide on all wagons carrying a burden of over 1,500 pounds, used by any resident of such town in his business on the highways of such town. Upon the filing of such petition it shall be the duty of the town clerk of said town, to post in three or more public places in said town, at least ten days prior to the holding of such annual town meeting, a notice that such question will be submitted to the electors at such town meeting.

Section 2. It shall be the duty of the town clerk of such town, to prepare written or printed ballots for the use of all voters who may desire to vote on said question; which ballots shall be in the following form:

For wide tire wagons	<input type="checkbox"/>
Against wide tire wagons.....	<input type="checkbox"/>

Said ballot shall be marked by each voter, voting on said question by making a cross at the right of the words "for wide tire wagons," if he desires to vote for said proposition, or by making a cross opposite the words "against wide tire wagons," if he desires to vote against said proposition. The votes so cast shall be deposited in a separate ballot box and shall be publicly counted and canvassed by the inspectors of the town meeting before they shall adjourn on the day of election. And said inspectors after canvassing said votes shall draw up and sign a statement, and file the same with the town clerk of said town,

showing the whole number of votes cast upon said proposition, and the number of votes cast for and against said proposition respectively.

Section 3. If a majority of the votes cast on such question be in favor of wide tire wagons, then after ninety days from the date of taking said vote it shall be unlawful and is hereby declared to be a misdemeanor for any person residing in said town to use or drive upon the highways in said town, any wagon carrying a burden of over fifteen hundred pounds, with a tire less than three inches in width.

Section 4. Any person violating any of the provisions of this act shall for each offense be punished by a fine of not more than ten and not less than three dollars and costs of the action.

Section 5. This act shall take effect and be in force from and after its passage and publication.

Mr. ———: I do not wish to attack the gentleman's views on that subject, but I would like to offer an amendment. I like the law and I am willing to go in and vote for wide-tired wagons, but a law in that form is almost useless. I think it was in 1897 that the lower house of this legislature passed a bill worded the same for the working of the road tax,—to leave it with the voters of the town whether they wanted to stay under the old system or adopt the township system and get good commissioners to make roads with half the money that they were using in the old way. They would simply vote for the old way. A lot of prejudiced people would go in and vote the thing down. They will say "We don't want wide-tired wagons." I think if this legislature wants to pass a law requiring wide-tired wagons it should pass it and give them a reasonable time to get in line, but do not give them an opportunity to vote. I hope we shall have the bill amended so as to leave out the opportunity to vote.

Mr. Faville: That is all right. If it is left to the township it won't amount to anything.

Mr. True: I want to favor a resolution endorsing the bill of Mr. Cleophas. We cannot accomplish any great thing in a short space of time. I appreciate the position taken by the gentleman at my right. It might be a good thing if he could force the whole state of Wisconsin into using wide-tired

wagons. Mr. Cleophas has the right idea, to take one step in advance. There will be townships that will adopt this provision in the law. Let them take this step and it will be a lesson to surrounding towns which will soon drop into line. But my idea is that if Mr. Cleophas should introduce a bill making it obligatory upon all farmers to put wide tires on their wagons, he would lose his measure and the whole matter would be set back two years. I favor the step that Mr. Cleophas proposes in this bill and hope that it will be endorsed by this body.

The Chairman: A number of towns in this state have done better since that township law went into force.

Mr. Scott: I will second the motion of Mr. True and wish to say that many towns have improved wonderfully under this law, and the work in Columbia county on the roads has been at least 50 per cent. better than previous to that action.

Mr. Culbertson: In our vicinity the majority of the people who have used the four-inch tire are going back to the three-inch. They say they are more satisfactory than the four-inch for general purposes,—easier on their horses. They pronounce them horsekillers among the salesmen, and consequently when I was about to buy a four-inch I could not find but two men out of twenty-five that would advise buying a four-inch tire. Since that law passed giving townships the right to work their taxes or pay it, our township has improved wonderfully. For the last ten years, even before this happened, it was voted that the township was to pay for all gravel that the district would haul for the township, and I can say as far as we are concerned we have a very few pieces of road in the town but what are well graveled and we can haul a good load at any season of the year, consequently we have not given much attention to this matter of late. I live ten miles from Appleton and there is no season of the year we cannot haul a good load to the city.

Mr. True: I would rather it would come from some one in the body of the house, but I will move that this convention endorse the bill now pending before the legislature for wide-tired wagons, introduced by Mr. Cleophas.

Motion seconded.

Mr. Thorp: I want to talk a little about wide-tired wagons, and the conditions in our country roads. I have both wide and narrow tires. I cannot go out with a wide tire and draw anything but the wagon. When we get good roads wide tires will be all right. But there are places in this state where they have not good gravel roads and if you compel people to use wide tires, they will have to stay at home until the roads are dry.

Mr. McKerrow: This bill leaves it to the township.

Mr. True: You are simply allowing towns to do as they see fit in this matter.

Rising vote upon motion of Mr. True called for and carried in the affirmative.

Adjourned until 7:30 p. m.

EVENING SESSION.

7:30 P. M.

Meeting called to order by Chairman McKerrow.

The Chairman: Our secretary took the liberty of making the statement upon the program that the president of the state board of agriculture would address you. This is a mistake for I do not deal in addresses. That is not in my line. If it were "wool" or "sheep" that I were to talk to you about, I might furnish it to you all wool and a yard wide. Instead of making an address I will read you a communication from one of the gentlemen upon our program who failed to materialize this afternoon,—Mr. Rietbrock of Milwaukee, who is a farmer in Waukesha, Columbia and Marathon counties, and a lawyer in Milwaukee, and was to have talked upon "What the Farmer Fails to Do." He says: "I cannot be at Madison at this time on account of the serious illness of my wife. I regret this very much."

While we are waiting for the next speaker I suppose I will have to fill in the time by saying something, not in the way of an address, however.

Standing here as I do as a representative of the State Board of Agriculture, representing in a sense the greatest industry of the state and, as we think, the most important, when I start out to talk along this line of agriculture and our relations as a board to it, I am pretty apt to get to boasting, and you will have to pardon me for this. The very air of this country of ours produces enthusiasm as is well demonstrated in the story of the young man who grew up in this country, etc.

We who live in Wisconsin and are farmers or agriculturists have a right to be proud of the advancement that our state has made along this particular line. I was especially proud a few days ago when a paper published in Michigan fell into my hands and I saw an editorial upon a part of the governor's message, which said that the governor of Michigan had called attention in his message to the fact that the farm lands in the southern portion of Wisconsin as compared with the farm lands in southern Michigan of equal quality were worth ten per cent. more per acre; and then he noted the fact that in Wisconsin much more attention had been given to the education of the people along agricultural lines; that we had more farmers' institutes and conventions in Wisconsin; that we had built up the live stock and dairy interests of the state until they were ten-fold as compared with those of Michigan. Naturally I felt somewhat proud. We should feel proud of the advancement which Wisconsin has made, but there is a chance for further advancement, and the Wisconsin Board of Agriculture feels this. We are asking to have the legislature of Wisconsin give us funds to build amphitheaters where the people may sit in comfort and witness the handling and judging of stock. But I will stop, as I see that our speakers for the evening are at hand, asking your pardon for thus breaking off abruptly.

It has been customary at farmers' conventions of this kind to listen for a time at least to the chief executive of our state. The Wisconsin State Board of Agriculture called upon our present governor and he was very loath to promise to be here this evening, stating that he had refused to go out and make

talks everywhere; but we knew full well that the best of the Wisconsin farmers would be in attendance upon this convention, and we insisted that they must hear the governor of this great state. He, therefore, kindly consented to be here if he could so arrange matters. I am pleased to present to you at this time a gentleman who needs no introduction, as his name is a household word throughout the length and breadth of the state, Governor La Follette.

ADDRESS OF GOVERNOR LA FOLLETTE.

It is a pleasure to welcome the representatives of agriculture as you assemble to consider questions of concern to your industry. Your proceedings will be followed with the deepest interest and your presence here prove beneficial not alone to you but to the general public as well. Whatever is important to agriculture is equally important to the state. Whatever the state may properly do in aid of agricultural advancement should be done to the uttermost limit. In no other direction can it more strongly and securely build for its own future. We all rejoice in the development of our commonwealth along every line of human achievement. We are justly proud of its high commercial rank, its stable financial and business institutions, its marvelous progress in manufactures. But, welcoming and encouraging all this growth and diversity in every direction, it is still my earnest hope, that agriculture may ever remain the foundation of our statehood.

In no way can government be more helpful to the great interests you represent than by furnishing with liberal hand the means to thoroughly reorganize and radically improve the district school system of our state. There is authority for the statement that attendance upon these schools is actually diminishing, and further that "for every hundred pupils now attending district school only one pupil reaches a high school." Investigation of this subject increases the interest and excites the concern of every thoughtful citizen, and the power and in-

fluence of this organization should be directed toward uplifting and strengthening the district school. In this great work of reconstruction I trust that there will be added to the course of study in these schools elementary education in agriculture.

Only little more than a decade has gone by since the work of the farm institute was inaugurated in Wisconsin. It will never be possible to measure the good accomplished by the men, who, braving ridicule and misrepresentation, gave many years of devoted service to securely establishing this traveling school of agriculture. The elementary principles inculcated, the better methods adopted, the inspiration and quickening which resulted from farm institute education has added enormously to the wealth of the state. Under a very able management the teaching of agriculture at our state university is accomplishing a work the increasing value of which is now everywhere recognized. During my course at the university I well remember that there was but a single student in the agricultural college. Today there are 435. But the farm institute begins its work at the top instead of at the bottom. It must revolutionize established custom, overcome fixed prejudice and settled habit. It can reach only the more ambitious and progressive, while at the very best but a few from each county can secure the exceptional advantages offered by the agricultural college.

For many years to come the district school must furnish education for the great mass of boys and girls born upon the farm. Probably not less than 75 per cent. of these will never attend any other school. How vital it is then that we should make these long neglected schools our first care and bestow upon them such attention and such aid as will insure the results so essential to agricultural prosperity and the welfare of the state.

The appropriations necessary to accomplish a reorganization and upbuilding of our district school system, to provide for the pressing needs of the university, the over-crowded condition at the agricultural college and in the normal schools will, if made, greatly increase expenditures for educational purposes for the ensuing year. In addition, I have no doubt that the officers of the state board of agriculture will impress you with

their view of the importance of making certain permanent improvements at the state fair grounds. That your interest has prompted you to urge the necessity of some of these appropriations I have already been made aware, and that your representatives in the legislature will hear from you upon the subject I have no doubt.

I may therefore be permitted to say to you as tax payers that those increased expenditures will require increased revenues and that any tax measure which has the countenance and support of your influence should be a just measure, one that does not go beyond the public needs, because an undue increase in revenues will inevitably be followed by extravagance in expenditure, but one so framed as to exact from every class and kind of taxable property a just and proportionate share of the total amount necessary for the public revenues.

As the interests of agriculture are important to the state, so is every question of government to the farmer. That the burdens of taxation rest disproportionately upon the owners of lands, live stock and farm machinery is beyond dispute. That this is so because the influence which you exert on legislation is disproportionate to your numbers, cannot be doubted. That this is due to faults in the system of nominating candidates for office no candid man will deny. That the farmer is as much interested in good government as any citizen, is abundantly proven by his unflinching presence at the polls on town meeting day and at the general election. That he does not more frequently and more generally participate in the selection of caucus delegates is because he knows that this method of effecting nominations does not as a rule subserve but in fact subverts representative government; and that he as a tax payer is more often misrepresented than represented by candidates so selected.

The rugged, honest, self-reliant life and thought of the farm is potent for all that is good in government and all that is exalting in citizenship. It is of supreme importance to the permanency of our political institutions that this wholesome influence find full measure of expression in all matters pertain-

ing to the state. How can this be so certainly secured as by direct vote for the nomination of all candidates at a primary election. But all at once it is claimed that the primary election is a cunningly devised plan to deprive the agricultural interests of any representation. The farmer is now solemnly warned by the city manipulator of delegates and conventions that the primary election which insures an equal voice and an equal vote to every man will be especially dangerous to the country with its large majority votes under a system where the majority must absolutely control.

Gentlemen located in the cities and centers of political control need not be so apprehensive. There is not a county in the state in which the country vote has not from time to time been polled almost to the last man at the caucuses, not once in a season but often two or three times in a single season in the struggles which ensue over county nominations, legislative nominations, congressional nominations and often over state nominations.

When it is remembered that all this effort to poll the full vote will be concentrated by all candidates of all parties for all offices upon one and the same day with the interest of the voters in all these nominations to be served and protected by but a single visit to the polls, no man can for one moment doubt that the entire vote of the country will be polled on primary election day. Can it be possible that the fear of a full vote in the country is the real cause of apprehension on the part of some of the critics of nominations by a direct vote of the people? Let us hope not, for under a primary election as under general elections, great bodies of men cannot be united and voted as a unit excepting upon some great principle which appeals upon the broadest ground to their intelligent judgment.

The Chairman: The next topic upon our program is an address upon "Agricultural Instruction for Farmers' Boys and Girls," to be given you by a gentleman whom we have heard

talk to farmers before at the Farmers' Institutes in some parts of the state, Hon. L. D. Harvey, State Superintendent of Public Instruction:

ADDRESS OF SUPERINTENDENT HARVEY.

Mr. Chairman, Ladies and Gentlemen:

The business of education is the training of men and women. business of education is the training of men and women. Men and women in society may be put in four classes. There is one class composed of those who think, but do not do; another class, those who do, but without thinking; a third class who neither think nor do; and a fourth class who think and do because of their thinking.

I take it, it is the business of the public school, of the university, and of every educational institution to train men and women for the latter class,—people who can show, as a result of their training, power to do something in the world's work, and power to do something that is regulated by clear thinking for a definite purpose and to definite ends. And tonight, if I am to talk to you upon this subject of agricultural instruction, if I am to propose to you such a modification of our course of study in the common schools, such an addition to our educational facilities as this implies, you have a right to ask me at the outset to state the conditions which exist today and which make such a change desirable. And, therefore, I wish to make to you a preliminary statement of the conditions that exist, especially in the district schools of this state, and you will pardon me, I know, if I state that I know what I am talking about. I was brought up in the district school. I taught for years in the district school, and for twenty years in this state I have been making a study of these matters in connection with the institute work which has taken me into every part of the state. I have come in contact with thousands of teachers in these schools, and during a considerable portion of that time have been concerned with the training of teachers for the common schools of the state.

I think I am speaking advisedly as to the condition of these schools today, and if you note any tone of pessimism, it is not an expression of feeling, but of knowledge.

Last year there were enrolled in the common schools of this state 444,000 children. Of this number a little more than fifty per cent. were enrolled in the district schools of the state. Statistics in my office show that during the last year in the 221 high schools of the state there were enrolled non-resident pupils,—those who did not live in the cities and villages where the high schools were located and so came from the district schools or small graded schools,—1.6 per cent. of the number of pupils enrolled in the district schools; or, but little more than one in a hundred of the pupils enrolled in the district schools are to be found in high schools.

Another thing: I have reports from seven gentlemen who at this time are at work in as many different counties in this state visiting the county superintendents and the district schools and talking in the evenings to the people of those communities, and these reports show some startling things. One of them I want to give you just now. A gentleman last week in one of the counties of this state visited eighteen schools, and he reported that in sixteen of those schools he found but ten children who had reached the age of fourteen years. Think of it for a moment. In sixteen of these common schools of the state, not one child to each school who had reached even the age of fourteen years. And think further, that these children who have left these schools have not left them to go into the high schools. They are not there. They have left them to begin the work of life.

I want to call your attention to another fact, and that is this: Last year there were 935, almost one thousand,—nearly one-sixth of all the district schools in the state of Wisconsin,—that had an average daily attendance of ten or less,—chiefly less.

I need not spend any time discussing before this intelligent audience what must be evident to you all, that a school with an attendance of two, three or four pupils is a school which might about as well be closed, for no matter what the qualifications

of the teacher in such a school, the numbers are so small, the lack of interest so great, the lack of that spirit of emulation which comes with numbers is so evident, and the loss of interest on the part of the teacher is so certain, that such a school must be practically a failure.

Let us look at this for a moment. Take, if you please, the assumption that there were in round numbers 1,000 schools of that kind with a maximum number of ten in each school, and you have ten thousand children in these schools. Statistics further show that last year 2,938 teachers in the district schools of this state were employed at a salary of \$25 or less,—chiefly less. Now, in these thousand schools of which I am speaking, the great majority of the teachers were working at the lowest salary at which teachers are engaged. But let us put it at \$20 a month and see what we are paying out for this class of schools which are almost absolutely useless:

1,000 schools—\$20 per month for 7 months	\$140,000
\$50 additional expenses per school	50,000
	\$190,000
Making	\$190,000

paid for what may be called an excuse for instruction of these 10,000 children. They are not instructed. They are not trained. They are not educated. I believe that in numerous cases it would be far better for the children if these schools were closed and the children remained at home. Nineteen dollars per capita, and there you have the most expensive schools in the state of Wisconsin and at the same time schools that are worth the least.

This is a condition of things, it seems to me, which makes it evident that in the rural districts something needs to be done to better things. That is one set of conditions which exist. Let us take another set of conditions:

Nearly one-half the teachers in these country schools are low-priced teachers; and that means, my fellow citizens, teachers a number of whom have simply stepped out of the school in which they are teaching today, taken the county superintend-

ent's examination, and have gone back to teach in those schools from which they came with no other instruction than that afforded in those schools; and I want to ask you, representative farmers who are here tonight, if the farmers' boys and girls are entitled to instruction no better than this? Is there a difference between the quality of brain in the farmer's boy or girl and the city-bred boy or girl? The farmer's boy is to be a citizen of the state, to be a man among men, and he is entitled to the same privileges, the same opportunities to secure an education that any other boy is entitled to.

These are the conditions which confront us in these schools. The country schools are the poorest because of the conditions which surround them, because of their isolation, because of the scattered population, and because (pardon me for saying it, but it is true) of the lack of interest on the part of the people who support these schools. I know what I am talking about because I have been among these people. It is true, unfortunately true, that in all the history of educational movements in this state from the time of the organization of the state government up to today, there has never been any well organized, concerted movement among the people in the agricultural communities for securing a better realization of their needs and their possibilities. We have discussed educational matters in the cities and villages, at the teachers' institutes, but we have not reached the people who are directly interested.

I am glad to say that we are trying an experiment that promises something of hope in this direction. In this state within the next thirty days twenty-eight counties will have been visited, and in those counties seven of the best men in educational work in the state of Wisconsin have left their work in the normal schools and gone into these district schools to see their conditions and meet the people and the boards of education and to address them in the evening and every evening in the week, to bring before them, if possible, something of the opportunities which they ought to have and do not have, something of the opportunities which are about them but which they do not seize; to stimulate them to a better appreciation of the condition of

things so that there shall come a movement that shall result in better educational facilities for the farmer's boy and girl.

These are the conditions which exist in the country schools today. For many years there have been many men in educational circles who have deplored the condition of the district school. They have said "Let us appropriate more money to the district school." It is not a question of money. More money would not help the district school today. There is necessity for something else and better in organization, something better in administration, something better in the course of study,—these first and foremost and then the money will help. I take it, the first thing is to do what we can with the conditions that exist. Better those, if possible, and not simply cry for more money. Let us make the best of the money we have and of the conditions we have.

A suggestion or two now. If it were possible to make the people see the advantages of closing these small schools, consolidating them with other schools and making a central school, making larger districts and transporting the pupils to and from the school, it would be possible without a dollar of increased expenditure to wipe out these nine hundred and thirty-five small schools in the state and to bring these children to centers where they would have the same advantages that the boys and girls have in the centers of population,—in the cities. We are coming to see that. It is a new thing in Wisconsin, but an old thing in thirteen states of this Union, and I want to call your attention, my friends, to the fact that in the states where this has been tried there live today nearly one-half the population of the United States, and that in every state where it has been undertaken, with small beginnings, with some fear and doubt as to its success, no longer is there any fear, no longer is there any doubt, but the experiment begun in so small a way has been growing steadily and is growing constantly in popular favor. People are realizing the possibility of bringing the children to the school, instead of bringing the school to the children as in years past, and that it is sound economy to do so. We have been bringing poor schools to the children, but it is possible to

bring the children to as good schools in the country as can be found anywhere in the state, and more than that,—it is possible to do it without increasing by one dollar the expense.

I have told you something of the conditions in the district schools. What can be done further to better them? A better teaching force would help very materially. These men who are visiting these schools report to me that they find many earnest, faithful, excellent teachers; that they find large numbers who are utterly failing to do the work for which they are in the schools. If we could do in more counties of this state what is now done in two, namely, establish a county training school where the teachers of that county could be trained for the distinctive work of the country schools and where, as has been demonstrated, it can be done at a very trifling expense to the county and state, at the lowest expense to those taking the training, we would then have taken one step in the right direction. But if all that were done, my friends, I fear we would not then realize what I said at the outset tonight was one of the chief ends of education,—to train men and women to think and to do because of their thinking.

So it seems to me it comes to this: Is there a possibility of so modifying the course of study which is now offered to the country boy and girl as to make it possible to do for them in their training what they need to have done and what is not done today? And this brings me to the question: Will agricultural instruction offered freely to the people in these rural communities meet the needs?

Let us see what it will do. Is there a necessity for it today? The fact that you farmers have come here from different portions of the state to confer together, to listen to addresses, to take part in discussions upon subjects which are of vital interest to you; the fact that the farmers in the state in large numbers are attending the farmers' institutes this winter and have done so in years past; the fact that nearly four hundred boys of the state are attending the agricultural college; the fact that there are twelve hundred more of them who have had that training and are now scattered through the state occupying posi-

tions of trust and are proving the quality of instruction which they have had;—these facts, it seems to me, all go to show that there is a steadily growing recognition of the value of agricultural instruction.

I want to call your attention to another fact, my friends. The necessity for this kind of instruction is greater today than ever before. At no time in the history of this nation have the farmers ever stood facing the problems which have been crowding upon every industrial organization as they are today. Competition is no longer confined to the industrial and commercial world. The farmer finds himself face to face with the problem of competition with farmers in other localities. It is no longer a question of the man who can work the longest hours and the hardest, but it is a question of the man who puts the most keen thinking into his work; who not only does something, but does it because it comes out of purposeful thinking, and to do that most effectively that man must be trained in his thinking.

Is it possible that in almost every other line of human endeavor schools have been organized and carried on to train men, to train them for the law, for the ministry, for engineering, for every department of technical labor, and that there is no necessity for a school that shall specifically train the farmer for his work?

But, you will say, it is not the business of popular education to train mechanics or to train farmers. I grant you that.

But is it not the business of popular education to train men to occupy positions as men, wherever they may be, and is a man any the less educated because as a result of his training he is better fitted for his environment than he was before?

There are people who say that the purpose of education is simply to develop intellectual power. I am a believer in this: that while that is a necessity, and while that should always be kept to the front in any educational institution or in any educational system, at the same time there is no necessity of putting a lot of work upon those things which have no interest for the individual, either present or future, just for the pur-

pose of giving him training, when you can just as well give him that training and at the same time give him a body of useful knowledge concerning things which are about him and things which he can use in future life.

Not only that, my friends, but I take it that one of the chief lines of work which any school has to do is to create new interests in the things about the pupils; interests that shall not last but for a day or an hour; not the simple outgrowth of something brought in to entertain, to amuse, but interests that touch the springs of action; interests which will spur on to renewed effort.

I want to ask you if there is any line of work in the whole range of education that offers greater facilities for this than are offered in agricultural instruction. Remember this, that of all the vocations in which men can engage, there is no one which has underlying it so wide a range in almost every department of science as that of agriculture. A man who knows geology, botany, zoology, chemistry, physics or biology,—all of these things,—will find upon the farm daily and hourly use for them: If that be true, then is it not wise that we should undertake to afford to these farmers' boys and girls whatever is possible in the way of fundamental instruction in these subjects, and instruction in the proper carrying on of the business of the farm? If the boy spends six or eight years in the school thinking of none of these things, with no attention given to the phenomena about him, with no interests developed along these lines of which I have been speaking, how much has he been fitted for the distinctive work of farming? He has been trained to think, perhaps, but if you couple with that, training him to think about something which is of vital interest to him, and training him to do those things through experiment and through demonstration, you will fix in his mind clearly what he is working for, and you will give him a training that will give him power in the use of his hands as well as his head. And I believe that no skill of hand can be developed without brain power being developed. Brain activity always lies back of a well-ordered command of the hand.

So I would have offered an opportunity for these boys and girls of the country to get what I conceive to be a practical education. There are men who do not like that term. There are school-masters and professors who do not like the term "practical education." They think you are lowering standards when you talk about practical education. I do not think so. I would have such an education for the farmer's boy as would put him in touch with the soil and make him see in it something besides dirt, which would show him the elements of that soil; which would make him understand how they came to be there; which would make that soil to him as interesting as the open book he loves to read; which would make him know what elements of that soil would be taken out by certain classes of products, and how, when those elements were exhausted, they might be restored; what is the best order of crops and the largest returns for the investment of work and money.

I believe that that is not only practical, but it is of the highest disciplinary value as well. And it does not matter to this farmer's boy whether he stays upon the farm or goes to the city to practice a profession—the law, or medicine, or whatever it may be—for that kind of training is worth infinitely more to him than the kind of training which he gets in the district school today.

If there shall be added to this a study of the plant life about him, which shall concern itself with something more than the mere formal work in botany; that shall go back and determine why particular kinds of plant life grow in certain soils, shall study the economic value in production of this or that kind of plant life upon the farm, and how to get better results for the time and energy spent, I believe that kind of instruction, whether it be for the farmer's boy or girl or the boy or girl in the city, is a kind of instruction that is not only practical, but is of the highest value for disciplinary purposes.

If the boy can go out from the school which he attends at his home, knowing something of the animal life of the farm, knowing something of breeds and breeding, of feeds and feeding, knowing something of the care of stock, knowing something of

how to treat the diseases of stock, knowing how to judge and determine the kinds best adapted for certain definite purposes which he has in mind, knowing how to treat the insect pests which destroy the crops, I believe the boy who has that kind of training is better fitted for the contact with the world, whether it be upon the farm, in the shop or in the office, than the boy who has had none of it; that it is eminently practical and that it is of the highest order for intellectual training.

I believe that the boy in the country who has an opportunity to learn something of a system of accounts which will enable him, if he remains upon the farm, to determine where he is making money and where he is losing money, will find it practical there or elsewhere. I believe the will receive something of practical value and of the highest utility for training purposes. It is training that will result in the power to do that which the mind wishes to have done. More than that, it is developing will power, which, after all, controls and determines what shall be the making of the man.

This kind of instruction, I submit to you, is eminently practical instruction, and is as valuable to the boy who remains upon the farm as to the boy who goes into the city. It is coming to be recognized, and today in our cities we are seeing the manual training idea growing with this thought; that doing is a part of education and that we may well train the child in the public schools to do some things in that training that will give him a respect for honest labor. And I think that is not one of the least of the values of this kind of instruction.

Let me ask you a question. If instruction along the lines of which I have spoken were afforded the country boy, what would be its result upon his modes of thinking, upon his interests, and upon his ideas for the future? Many a boy leaves the farm and goes to the city. Why? Because he sees in the city, in the masses that are moving before him as in kaleidoscopic form, something which he misses upon the farm. Here is the isolation of the farm. There is the comradeship of the city. But there is another thing that sends him from the farm. From first to last in how many a home the boy sees nothing which

inspires him to think that there is anything for him there but hard, laborious toil from morning to night. But through such a school training as I have indicated you will open up to him vistas of which he had never dreamed. He will see the opportunities for intellectual development opening up, and the intellectual activity inspired in him will repeat itself, and there has been awakened in him an interest in the things about him. He sees that here is an opportunity to do the best thinking of which he is capable, and he sees when he comes to study the problem further that not only is there an opportunity for that, but that the returns for that thinking and doing upon the farm are in the main more secure, more sure and larger than come to the majority of the farmers' boys who leave the farm to go to the city.

We sometimes hear it said, when we are deploring conditions in the country relating to education: "How is it that that is true? These schools must be better than you say because statistics show that among the men who have come to the front in commerce, in industrial pursuits, in the professions or banking, the great number come from the farms." The conclusion is urged that it is because of the superior instruction they had upon the farm. My friends, it is in spite of it. It is because of what the farm did for them and what nature did for them, and not because of what the school did for them. They are like the people who go to the Klondike. We hear of the man who made a million, but not a word of the men who lost every dollar there, with death or disease their only rewards. We do not hear of the thousands who go from the country to the city and become submerged and engulfed. Do not think for a moment that because some rugged, vigorous spirit has gone to the city and conquered the situation and risen above his surroundings and stands a leader among men, it is because of the education which he has had in the country.

What I am pleading for to-night is that we shall afford opportunities for education, not for the one boy in ten thousand, but for the ten thousand boys who do not now have it,—facilities which will appeal to the parents of those children and will result

in keeping them longer in school. My conclusion based on conversations upon this subject with farmers in the different parts of the state is that if you can show them that a kind of instruction can be given their children which will better fit them for the life upon the farm, that shall interest them in that work, that shall be an inducement for them to remain there, bring them larger returns for the energy which they put forth there, you will find that those people at once become interested in keeping their children longer in school.

I have talked about the farmer's boy. Let me talk about the farmer's girl for a moment. She must not be left out of the calculation. She does not need all the kinds of instruction already mentioned, but there is another kind of instruction which she does need and which should come in place of it. There should be facilities, it seems to me, in the country as well as in the city, for the girls to learn something that shall fit them for the duties of wifehood and motherhood. I believe it is possible to organize such lines of educational work as shall open up new possibilities and greater capacity on the part of the girls of this country than exist there today. I would like to see opportunities offered these girls to get instruction in some phases of domestic economy that shall make them masters in that realm in which they are to reign; that will enable them to make the home more than a mere stopping place; instead, a place that shall be a center of joy and comfort. I should like to see every girl become master of that subtle art,—the art of preparing food adapted to the needs and conditions of those who are to be fed. You have heard for years, and the gentlemen who have had in charge the farmers' institutes have been talking to you about the balanced ration. You are interested in a balanced ration for the cow; you are interested in a balanced ration for the horse to get certain results; you are interested in this for every kind of domestic animal except only man, and I submit to you that a balanced ration for that animal is of about as much importance as for the hog or the horse. A balanced ration, my friends, was a thing that I never heard of when I was a boy. You might as well have been talking Greek to the farmer as to talk of a balanced ration. That is a purely

scientific product. It has been worked out in laboratories by men who have been giving years of study to the subject in the institutions which the state has afforded. They have worked that out and have given it to the farmers of the state, and the results have been largely increased products.

Now, my friends, every girl who goes into a home becomes interested in this subject of a balanced ration for herself, her children and husband, for everyone for whom she prepares food or supervises its preparation. There come times in the lives of these girls when some one dependent upon them lies at death's door, when it is only a question of skillful nursing, and careful feeding, and I submit to you that the preparation in a school which shall train the girl so that in that emergency she is able to rise to meet it, to furnish what ought to be furnished is worth as much as sentential analysis.

So I say we ought to have these facilities offered for the farmer's boys and girls,—agriculture for the boys, domestic economy for the girls and manual training for both along lines that will round out their education.

You will say I am talking about a thing that cannot be put into the district school. I do not expect to put it into the district school. I am arguing for a class of schools just now that does not exist in the United States. There is not one of them here. But go over across the water. Go to Denmark, Sweden, Norway, Finland, Belgium, Switzerland, Germany, Ireland, England, Scotland, Wales, and you will find that they have established a class of schools to which the pupils go when they come out of schools like our district schools and which furnish facilities for this instruction that I have been telling you about tonight. Go into the Scandinavian peninsula,—Norway with 49, Denmark, Sweden and Finland with scores of them. In those four countries taken together there are 87 schools, secondary in character,—schools of just about the kind that would be adapted to the needs of our country boys and girls when they have finished the district schools. You will find them all over Europe.

We boast of our educational system, but we boast sometimes without knowledge. We are not in the race at all with the

European countries when it comes to a question of practical education along agricultural and technical lines and along the lines of domestic economy. We are just beginning to face the problem. I wish I had time tonight to tell you something about what is done in those countries.

There has just been issued a report, published under the direction of the legislature, on this matter of agricultural instruction and manual training. This report will give somewhat in detail the conditions in these schools in foreign countries, in most of the countries of the world. That information has been gathered with considerable labor and time, and I think it is worth reading. If you care to call at my office, I shall be glad to furnish you a copy.

They have found in those countries that that kind of education is a necessity and they have found that it pays. And, after all, gentlemen, there is no argument that appeals to the average human being more powerfully than the one that "it pays;" that there is money in it. That is why you come here tonight. That is why you go to farmers' institutes. That is what you go to farmers' conventions for,—to get something better, that your efforts will pay you better. And they have found out over there that these schools pay.

Let us have such schools as these. There are bills in the legislature, one in each house providing the same thing, that look toward the organization of this class of schools. The bills provide that county boards may, in their discretion, appropriate money for the establishment of county schools furnishing agricultural instruction and instruction in domestic economy,—schools that shall afford the kind of instruction which we have been discussing, adapted to the needs of the farmer's boys and girls when they have finished the district school,—adapted to the needs of the older boys and girls who may perhaps come into those schools in the winter.

That bill briefly provides that if the county shall make such provision, when such a school has been maintained a certain number of months with a course of study approved by the state superintendent and the dean of the agricultural college and

taught by properly qualified teachers, the state will then pay back to that county \$2,500. This bill, in short, provides that in such schools there shall be given specific instruction along the lines I have been talking about tonight.

But, you will say that it does not reach the farmer. Let us see what it will do. It will furnish facilities in any county where it has been established so that the boys and girls may attend it at very small cost for board and with little or no expense for transportation, and receive instruction that now is offered nowhere except in the short course in agriculture at the university. And you all know what that course has done. You know the crowded condition of that department today. They have there a much larger number of students than they can well accommodate, and yet there are only about 400. Instead of 400 boys studying agriculture in this state we ought to have thousands and thousands of them.

But, you will say, these country schools will not furnish the facilities necessary for giving instruction to that number. Let us see what it will do.

Suppose a school of that kind is established in any agricultural county in this state, centrally located, and with teachers thoroughly equipped for that kind of work. The man at the head of that institution must have had practical experience upon the farm, experience as a teacher, with a university training and training in the agricultural college,—a man who is master of his business, a man who, when he speaks upon agricultural questions, shall speak with authority, and who will command the respect and confidence of the farming population. That kind is the kind of a man I would have in that school. I would have him assisted by another individual who can take charge of the manual training and assist in the general lines of work, and by a woman who can take charge of the domestic economy, training those boys and girls along the lines which have been indicated.

Do not make the mistake of thinking that all the instruction that the farmer's boy or girl needs can be brought into the district school. It cannot be done. Sixteen schools in a single county; only ten children fourteen years of age in each of them. They

must be older to take this training. There is a limited line of work that you can put into the district schools. And that limited line of work can not be carried out in the course of study unless the teachers who have it in charge have had enough training to make it a success. There is not an instance on record in this or any other country where the attempt to put agriculture into the district schools has not been a dismal failure, except where there have been teachers trained specifically for that work.

Do not let us push this thing in advance of the preparation of our teachers. If we do we shall repeat the experiment of Canada in 1872. It was such a tremendous failure that it dropped out of sight and we heard nothing more of it for thirty years. If we push the work in advance of training teachers for it we shall repeat the experience of Ireland; we shall repeat the experiment in France, where in 1887 they made an effort to teach the elements of agriculture in the primary schools and in 1897 abandoned it because the teachers were not trained for it.

I would like to have these schools a center of training that would influence every district school teacher in the county and which will aid the district school teachers to do the best it is possible to do in the district schools.

Remember this: We cannot send out a farmer's boy at the age of twelve or fourteen years with a fair chance in the race for life with the city boy who goes on with his training until he is eighteen or twenty.

We need more time and we need a course of instruction for the farmers of this state that will appeal to them as something worth while to keep their boys and girls in school longer because they will get something out of it.

These are some of the arguments why, as it seems to me, it is necessary for us, if we are to do anything for the district school to better its conditions, to make a radical change in the course of study and add to our system such schools as I have indicated; schools that shall stand above the district school and especially designed for the farmer's boy and girl and not of the same character as the high school. They are for those who would not go to the high schools of the cities and villages about them.

It is not an easy thing to do, my friends. It cannot be done in a day. It is necessary to organize,—to find teachers to do this work. Before we can establish a single school of this kind it will be necessary to do a large amount of work. The body of knowledge which is to be taught is not gathered together. We have plenty of text-books for the higher courses, but none for this line of work. We shall have to get together this body of knowledge in such a manner that it may be utilized. If we take the initiative in Wisconsin we must make no mistake. It is not in Wisconsin alone that this question is being discussed, but it is being discussed in Minnesota, in New York, in Michigan and in Ohio as well. New York has been trying an experiment, the most hopeful perhaps of any. New York spends \$18,000 a year, appropriated by the state, under the control of the agricultural department of Cornell university and under the control of a very clear-headed man who is doing everything that can be done to make this experiment a success, and yet I am told by men in the state of New York that they are making progress chiefly where they need it the least,—in the cities. The reason is that they have not trained teachers in the country who can do this work.

This thing is in the air. There is an opportunity for us in Wisconsin to take the lead. This work lies along the line of thoroughly practical education, valuable for all purposes and pursuits. I commend this thing to you. I ask you to give it your careful consideration. I ask you to give it your support. It is not a theory. The history of all those European countries shows the value of it. It is not a fad. It is not a fancy. It is the outgrowth of careful judgment and mature thought, not of one man but of scores and hundreds of men who have been studying these problems. It is a thing that is feasible. It is a thing we can do in Wisconsin. We can do it soon. In my judgment, if we can inaugurate this system of secondary schools, adapted for the farmers' boys and girls, with courses of instruction such as I have outlined, we can then carry down into the district schools whatever is best of this kind of instruction to meet the capacities of those pupils, that shall revolutionize in twenty years the educational forces of this state. This movement will

not only affect the character of the instruction in these schools, but it will affect the courses of study in the graded and high schools as well.

It can be made a success on one condition, and that is that every man and woman who believes that it is possible to better our educational facilities and who sees along this line hope for the betterment of those facilities shall put his shoulder to the wheel and help to make it a success.

(Applause.)

The Chairman: After listening to this excellent address, while it is not the custom at evening sessions to have discussions, yet I know there are some gentlemen in the room who would like to say something. I would like to ask Dean Henry to say something upon this question.

Prof. Henry: Mr. President, Ladies and Gentlemen: It has been said in my hearing at times: "Why, Professor, you ought to have two thousand students upon the hill." We could not take care of two thousand students up there on the hill. We can take care of about one thousand, and if we go beyond that we are going to break down. It is going to be too expensive to the state to educate, in the way we are doing it at the university, a large mass of people. It is an unprofitable system if you carry it beyond a certain point. We have about 435 students this year. We have more than doubled in number in four years.

It is time that the statesmen of Wisconsin were looking after the education of the farmers' boys,—the kind of education which Supt. Harvey outlines. I am heartily in favor of this class of schools for all reasons, and they are many.

Adjourned until Wednesday, 10:00 A. M.

Wednesday, 10.00 a. m., February 6, 1901.

Meeting called to order by Mr. Hubbard, Vice Pres. of Board.

The Chairman: Our first topic this morning is "Wisconsin as a Dairy State," to be presented by Mr. Chas. L. Hill.

Mr. Hill read paper as follows:

WISCONSIN A DAIRY STATE.

I am glad for my own sake, that the management placed me on the program for a paper on this topic, for I never before so fully realized the wealth, and opportunities of Wisconsin as a dairy state.

From Kenosha county to Douglas, and from Grant to Door, a large part of our state is well adapted to dairying.

Only a few years ago we talked of Northern Wisconsin, as a vast wilderness, while now nearly every county has dairies good enough to be known all over the state.

From 1864 when the late Hon. Chester Hazen built the first cheese factory in the west, up in Fond du Lac county, to the present day is but 37 years, but in those few years the amount of cheese produced in our state has grown from 400,000 pounds up to 60,000,000 pounds worth \$6,000,000.

Wisconsin now produces one-fourth of all the cheese made in the United States, and Green county alone produces 10,000,000 pounds. If one county can do this, why cannot many others do as well, or better?

While from 1870 up to the present time Wisconsin's cheese production has increased from three million pounds up to sixty million pounds, New York has grown only from 100 million up to 129 million in 1880 and the latest figures that I have are 1894 when New York is credited with only 115 million pounds.

With the ever increasing demand for milk for the great cities, New York's cheese production is bound to steadily decrease, and Wisconsin ought to take her place as the leading state in cheese production.

In 1898 Wisconsin produced 80 million pounds of butter.

Twenty counties of the state that year made over a million pounds each.

Dane county heads the list with six million pounds and Walworth is a close second with five and one-half million pounds.

This 80 million pounds of butter is said to have brought \$13,000,000.

This butter if all had have been of the best should have brought \$16,000,000 or more, and our aim should be toward better goods and higher prices as well as toward greater production.

In 1860 our Wisconsin cow was making 60 pounds of butter per year in spite of poor feed, buildings, and care.

Now she is making her owner 150 to 160 pounds, and each year finds her a better money producer.

Many things tend toward this steady improvement.

The Wisconsin State Dairymen's association, organized in 1872, by the untiring efforts of such men as Chester Hazen, Stephen Faville, W. D. Hoard and others, has contributed very largely to Wisconsin's success as a dairy state.

The work of the Wisconsin College of Agriculture has also been one of the leading factors of our dairy growth, especially Dr. Babcock's invention of his milk test.

This test has made possible improvement in many lines that would have been impossible without it.

We were also particularly fortunate in having within our borders that splendid dairy paper, Hoard's Dairyman, and in my own case, this paper and the Babcock test have been my dairy salvation.

We would not say these things in a bragging way, as there is plenty of room for improvement, and the cow of Wisconsin ought to make at least 200 pounds of butter each per year.

In a recent talk with Prof. Carlyle he made the statement that he had almost come to believe that there had never been a heifer calf born in Wisconsin that with proper rearing, feed and care, would not have made 300 pounds of butter her best year as a mature cow.

If this is anywhere near the truth we are a long way from doing the best possible with the cows we now own.

Our Wisconsin Farmers' Institutes, the separator, and pure bred sires of the dairy breeds, have been, and will continue to be prominent factors in our dairy advancement.

We do not, even in a small measure, yet realize our possibilities as a dairy state.

Think of the wealth of the state, when the whole state comes up to the dairy production of some of the Southern counties, while these latter in the meantime forging ahead also.

Those sections of the state where dairying is followed most largely, are the ones where the large comfortable houses, big red barns, and big white school houses as well are the most numerous.

While riding recently, with one of Wisconsin's best known dairymen, 12 miles in a county where little dairying is carried on, he told me that he could well remember when he used to drive over the same road 30 years ago, taking produce to market, and his thoughts were all of the time, when if he was prospered he would own as good buildings as were on many of these farms at that time.

Now the aspect is changed; many of these places are now dilapidated; houses out of repair, barns unpainted, and in need of roofs, and in many places of even doors, fences down or badly patched, and everywhere a lack of thrift.

The dairyman in the meantime has been building, and building until probably his buildings cost more than those on any farm we passed on this ride with a single exception, and in much better repair than these.

So it is the state over; those sections where dairying is most largely followed, are the ones where prosperity is most in evidence.

We are very favorably situated indeed for markets for dairy products.

In southeast Wisconsin, Milwaukee and Chicago absorb an ever increasing amount of the dairy products, as milk and cream.

Each year the population increases, and the per capita con-

sumption as well, so we find the milkmen going farther out into the country for their supplies of milk and cream.

At my home station, Rosendale, 75 miles from Milwaukee, six or eight farmers ship milk or cream to that city.

If we will but give the city people cleaner, richer, milk, the per capita consumption will double in a few years.

In the northwestern part of the state, St. Paul and Minneapolis, are wanting more milk and cream, and the same is true of the Superior cities.

While Northern Michigan has some good dairies, still, at least for years to come, most of their dairy products will come from Wisconsin, and here too better goods mean larger demands.

Do not think any section of the state has all the good dairies, for while southeastern Wisconsin has Uncle Perry Goodrich, and Southwest Wisconsin "Our Tommy Convey," Northwest Wisconsin has Will Bradley, A. B. Whittier, and O. T. Remington, while at Tomahawk, Mr. Bradley, at Athens, Mr. Reitbrock, at Stiles, Oconto county Mr. Eldred, and at Stanley, The Wisconsin Live Stock Co. maintain model dairies.

The question that I wish to propound at this time is this—"Can we afford to take a backward step as a dairy state?"

With the looking up of the beef business, many, yes I am sorry to say, very many, dairymen are breeding what are good herds of dairy cows, to beef bulls, and will be about ready to change back again, when dairying's next boom is over.

Possibly they cannot be blamed, when many men who must know the folly of such a method are advising it.

In the Orange Judd Farmer of two weeks ago, Mr. O. C. Gregg, Supt. of Farmers' Institutes in Minnesota, is quoted as follows:

He came out strongly in favor of the dual purpose, or stockmen's, cow as he termed it. His method of obtaining such a cow was to cross a high type dairy cow, preferably a high grade of one of the dairy breeds, with a sire of the typical beef form.

The progeny was expected to become the desired stockmen's cow.

"He dwelt upon the fact that while every cross of this kind

might not result in getting the best kind of a cow for the farm, it would be the most likely field for the selection of such cows as would provide a good flow of milk, and at the same time furnish a type of steers that would feed well and show the best beef form when finished for the market." To any man who knows the difficulties of breeding a good herd of dairy, or of beef, cows either, such talk is little short of ridiculous.

I had not the time to write to Mr. Gregg, and verify this, and doubt if he said this, but it is but a sample of what is appearing in many papers today.

Does Mr. Kerrick of Illinois get his steers "that show the best beef form" from such breeding?

I guess not; but you say he is advocating a dual purpose cow; I know it, and I believe she exists, to the extent that a cow can be a *fairly* good milker and at the same time be the mother of a fairly good steer, but I am sure no man is fitted to do his best with both cows and steers, and am sure that if he was, he would not get the best of either, from this line of breeding.

If after careful consideration you wish to change from dairying to beef production, sell your good dairy cows and get some beefy type cows.

Get what *milk* they will give but *push* the beef end of it for all there is in it.

However if you will study the existing conditions carefully and the future outlook, I am sure you will stay by the dairy cow.

Where is the dual purpose herd that can show a money record like my neighbor Scribner's, that was published last year.

He has but 80 acres of land, and four acres of this are in the road.

In 1899 he sold from 24 cows, \$2,320.82 worth of cream alone, and had the skim milk to feed on the farm.

This cream was not sold at a fancy price but was sold at wholesale to a dealer in Milwaukee.

His farm brings in a large revenue beside the sales of cream, in sale of stock and so forth.

What is possible in his case is possible on many farms in Wisconsin today.

After only a few years of real dairy breeding, I know of, one county in the state, that has in it Jersey cows with butter records up to 742 pounds, Holsteins up to 822 pounds and Guernseys up to 912 pounds each in a year.

What one county has done, another can do, and with a united effort Wisconsin can, in a few years, be made to lead all other states in production of dairy products.

We may expect soon to see some of the northern counties so forge ahead as to make the southern counties hustle to keep ahead of the procession.

It was once talked that only Southern Wisconsin and territory south of it could raise good corn, but now good crops are grown as far north as Winnipeg, Manitoba.

Good corn for silage can be grown anywhere in Wisconsin. Northern Wisconsin is noted for its fine clover, and grasses, and only the cow, and good cow owners, are needed to bring wealth.

With the passage of the Grout bill greater prosperity for dairymen, than was ever before known, is just ahead, and with continued, earnest, united effort Wisconsin in two decades, or less, can lead the world in dairying.

DISCUSSION.

Prof. Henry: Mr. Hill, are you a shipper of cream?

Mr. Hill: Yes.

Prof. Henry: Do you find any trouble in feeding silage,—do you have any trouble or complaints arising from the use of silage for cows while producing cream?

Mr. Hill: I am going to surprise even the Professor, because I have a line of thought along that subject contrary to the belief of most people. We have fed silage since 1888 every year, summer and winter. We fed it all the time; have shipped cream since 1892. I believe that the reason our cream shipping has been such a success is from this fact of having a uniform ensilage

flavor in the cream. Since they do not know it they think it is the finest thing.

Mr. Linse: I have been making butter and feeding silage since 1880 and I always have the top price. It never was said that my butter was not good. For about twenty-one months I have been furnishing milk to the city of LaCrosse. At first I was a little afraid;—I commenced selling milk before I opened my silo. I wanted to save as much of it as possible for summer feeding as my pasture is limited. I was a little afraid that my customers might discover that, but never a word was said. The people said the milk was excellent. So I got over being frightened.

Mr. True: Mr. Hill, what is your custom in feeding? At what time with reference to the milking period?

Mr. Hill: I might say that I want this flavor. I feed before milking. In all these years there has never been but twice that this ensilage has been complained of. It was particularly strong then for a short time. After that we fed after milking, but began again in the fall, went back to feeding before milking. They like this ensilage flavor in cream.

Mr. True: Mr. Linse, what is your method?

Mr. Linse: Cream and milk may be a little different. Milk is the most delicate thing we know of, and people who are a little particular I was afraid might detect something, so I was cautious to feed after milking. My men would prefer to feed before milking.

Mr. Thomas: The ensilage flavor is more pronounced in milk than in cream. It is pronounced in milk, less so in cream, and cannot be tasted in the butter.

Mr. Linse: In making butter we feed before milking,—the first thing in the morning. We never had any complaint.

Mr. True: Mr. Hill, do you think it safe to recommend your method of feeding to all farmers under all conditions? Considering the character of the ensilage, and the different methods by which they manufacture the milk products?

Mr. Hill: I think the almost universal custom is to feed after milking, on account of the flavor. I would say to everybody sell-

ing cream, feed before milking unless complaint follows. I think they would find it so. In the case of all men who deliver milk to creameries and cheese factories, I would do the same thing. In selling milk it would not be advisable. Of course, I endeavor to have the corn put into the silo as mature as possible. When the cows are upon grass it is surprising to know what benefits come from feeding it. I was speaking then from the standpoint of flavor. Unless you have fed summer silage you do not know what it is to sleep nights in dry weather. You have silage right there for tomorrow and the next day. The cows are going to have something to eat.

Question: Do you commence to milk right after feeding silage?

Mr. Hill: At the present time, in the morning, we feed grain when we first go to the barn and after milking two or three cows we then feed silage. At night we feed silage before we commence to milk.

Question: Do you have any inconvenience in milking? Do the cows stand as well while eating silage as though they were milked before being fed?

Mr. Hill: The stalls are so arranged that with the exception possibly of a small heifer the silage is within their reach. They stand quietly.

Mr. Bierne: I feed directly after milking. Some cows give their milk more quietly and easier by milking before feeding, however.

Mr. Hill: You must study individual characteristics of cows.

Prof. Henry: All farmers do not need silage. There are farmers with unused straw stacks, and those who have corn stalks they are hardly able to use. Such farmers may have 200 acres of land and 10 or 12 dairy cows—they do not need a silo. It is the farmers who keep a large amount of stock on a small farm who advocate the silo. Instead of building a silo, many a man should first increase the number of cattle on his farm,—when he has done that he may then need the silo. The silo in itself does not bring profit. If a man has two wagons and they

are all he can use, he is foolish to buy a third wagon. He may build a silo and not need it at all.

Mr. Linse: I would call the attention of my friend to the fact that the silo is the greatest thing out to help us along with the summer pasture. There is not a place in the state of Wisconsin where there is not a lack of it during the summer sometime, and I do not care how large the pasture is. If a man has two hundred acres, that does not help him out when the dry weather comes. I visited two years ago Mr. Gurler in Illinois. The situation in Illinois is about the same as here. He said they feed silage all the year around.

Mr. Cochrane: I have no opposition to a silo. Feed one lot a week or ten days and then change your pasture, and by that means you keep a pretty even flow of milk.

Prof. Henry: How many acres of farm land have you?

Mr. Cochrane: 100 acres and I have 80 acres of rough land beside that. I generally keep 70 head of cattle and about as many sheep.

Mr. Solveson: What was the matter with the silage when the cream was complained of, Mr. Hill?

Mr. Hill: I think it was unusually sour.

Mr. Solveson: I have invariably practiced feeding just before milking and have had no complaints whatever.

Mr. Hill: I was in Green county for several days two or three weeks ago and realized as never before what a cow would do for a dairy even when not given the best of care.

Discussion closed.

The Chairman: We will now listen to Dean Henry upon "Fairs, and What They Do for the Farmer."

FAIRS, AND WHAT THEY DO FOR THE FARMER.

BY W. A. HENRY, DEAN OF THE COLLEGE OF AGRICULTURE,
MADISON, WIS.

We sometimes hear the statement that our agricultural fairs have outlived their usefulness, but I believe that those who thus express themselves have not carefully considered the situation. On the contrary, I believe that a study of the agricultural conditions at this time will plainly point out the necessity for better and more broadly conducted fairs rather than for their suppression or retirement.

Here is the situation: Our pioneer farmers found a region of great natural fertility made rapidly accessible to the markets of the world through railroads, canals and steamships. The very first generation occupying our fertile western lands greatly reduced the fertility of the soil, so that in this brief space of time, while the historians on the one hand are gathering up the statements of the first settlers for safe-keeping in our historical archives, those who are tilling the fields of these same first settlers today are in some cases talking of the lands as being "worn out." In large sections of our country there has been no agricultural system or but a bad one amounting almost to viciousness itself. For the country generally and for the lower half of Wisconsin in particular, we are now entering upon the second stage of agricultural development in which, if we reach any success at all, it must be through a rational system of agriculture pursued with great interest and energy. The days are past in this part of the state when a man could buy a piece of land for something less than \$10 per acre and by simply existing thereon, paying taxes and making occasional improvements, as necessity dictated, find, when old age was reached, that he had acquired a competence through a rise in values reaching \$60 to \$80 per acre in many cases. The most serious difficulties in Wisconsin farming were not after all with the pioneers, hard as was their life, but rather with their sons and grandsons who as successors to the pioneers

must now begin farming on land worth \$50 to \$60 per acre and make farming pay under such heavy capitalization. The railroad, the steamship line and the telegraph have made all the world neighbors, and to keep abreast of the times the American farmer must seize upon every possible means of improvement and help. He needs the discoveries and inventions of his Experiment Station and the training of the Agricultural College, he needs the help of the daily paper the agricultural journal and the Farmers' Institute. Each fall he should visit the county fair grounds, learning what he can there, and winding up his studies of this character by a stay at the State Fair, where he learns of the latest and best in things agricultural.

Leaving for the present the former sources of helpfulness we come at once to what the fairs may do for him. If a gardener, in the horticultural building on our State Fair Grounds, he finds the best the orchards and gradens of our state produce arranged in educational form ready for easy study. Consulting the horticulturist and gardener he learns of methods and processes of highest importance in progressive work. Passing on to the stock department he finds the finest representatives of the herds and flocks not only of our own state but from distant states and often from the old world. A thousand men have been spending money, time and thought that these animals and objects of interest should be gathered together and placed in the very best form for the edification of our farmer friend visiting the state fair grounds. Passing on to the machinery department he finds acres of ground covered with implements, many of them in operation, and everything arranged as though it were for his own especial benefit. Earnest, active agents are on hand to explain the operations of each machine and point out its merits. Our farmer friend on the fair grounds feels sure that he is seeing the latest and most improved American farm machinery, and to our fair grounds more than to any other single cause may we ascribe the up-to-date condition of our agricultural people in regard to farm machinery.

We must strengthen our efforts and double our energies in order to make our fairs do for our farmers in the lines of live

stock what has been so successfully accomplished in the great field of farm machinery. I never pass over the grounds of a great fair in operation but I am struck with the enormous influence that such institutions exert upon our people. How it brings the best of the gardeners, the stockmen and machine men face to face with the farmers and other interested in progress and development; how ten thousand people have been thinking and planning and arranging to come together with their objects of interest at one central point that our American farmer may be touched with the spirit of the latest and best in everything along his line.

And now as to some of the objects to which our Wisconsin association of state fair managers may especially direct their attention after the general exhibits have received their consideration:

The first in importance so far as Wisconsin is concerned, it seems to me, is that of collective county exhibits. For these a whole building is none too large. Then let each county, on application, be given the perpetual right to a certain area of floor space, with the understanding that it can have this for its sole use so long as it is fully and acceptably occupied. No doubt under such an arrangement the county boards in many cases would make direct appropriations for county exhibits. An architect would be employed to design booths possessing artistic merit and the finest opportunity for display. A skeleton framework including shelving could be prepared once for all, according to the designs of the architect, and this framework covered with tempting displays of grasses, flowers and fruits. Having a home place on our fair grounds, each county would take pride in the work, and our fair managers would be able to count on one successful exhibition without particular thought.

Northern Wisconsin is particularly interested in the county exhibit at this time. Millions of acres of unoccupied land are seeking settlement, and our people will flock north as they learn of the agricultural merits of that great region. For years we can look forward to the finest of possible exhibits from our northern counties. What is needed at this time is that the pro

rata premiums for county fairs should at least be doubled in order that some small part of the heavy expense incurred in such exhibits be met by others than those making the displays. With a fixed income for county exhibits provided by the state and ample space in some special building for the various exhibits provided by the fair authorities, there will be no trouble about a display of this character, and much good can be accomplished. Our farmers visiting the fair and inspecting the products exhibited from the new north will become interested in this growing portion of our state, and thus we will secure in their sons and daughters the very best class of settlers it is possible to obtain. I would rather see one young man reared on a Wisconsin farm go north as a settler than have two raw emigrants from another country locate with us,—not but what the latter are all right in many cases, but self-preservation is nature's first law, and no people from other countries can equal settlers secured from among our own citizens.

Largely through the insistent and patient efforts of Superintendent Thomas, our Agricultural College made a dairy display at the last state fair. Those who looked over that exhibit will recall the ever-present crowd of persons interested not only in the exhibit itself, but in what it represented. Such observers must have noticed how those inspecting the exhibits asked innumerable questions concerning dairying. This has led the managers of the fair to ask that there be provided a Bureau of Dairy Information and Dairy Display as a regular feature of our state fair at Milwaukee.

Today we boast of Wisconsin as a great dairy state. And so it is; but little Denmark, with a quarter the area of Wisconsin, exports about three times as much butter as our creameries produce. This will give us some idea of the opportunity yet before us in the line of dairying. On our state fair grounds should be found the latest and best dairying devices and the latest and best dairy instruction. Those who visit the grounds should be able to secure information concerning dairying, dairy devices and the Dairy School at Madison. If our Agricultural College will place a corps of able instructors in a properly

equipped booth, there will be no trouble in securing a crowd of anxious, eager inquirers who are desirous of learning as much as possible concerning our state as a dairy state, and how to produce dairy products of the highest kind. Every dollar invested in such an effort should bring back ten-fold to the state.

Then there should be a special building on the state fair grounds given over to our Short Course agricultural students. This building should contain sleeping accommodations of a simple character, so that the students could remain on the grounds to get the most possible good from the fair. Under the guidance of their teachers they could inspect the displays of grains and grasses, fruits and flowers, live stock, machinery, etc. Bringing to their work the training gathered at the school, these young men will be able to take home much more good from the fairs than the average visitor, and making use of this, become teachers and helpers of others in the home neighborhood.

There is implanted in the minds of most men an ambition to own a piece of ground, and this instinct is strong in the people of the Northwest. The lawyer, the teacher and the business man often look forward to the day when they can retire to a farm for rest and recreation. Thus we have persons of all classes interested in the success of our state and county fairs. Not a person is so far removed from nature but seeks this natural outing in the fall. It is the season for the harvest-home festival, and why should there not gather on our state fair grounds each fall a multitude of people who come for hand-shaking and general rejoicing over the harvest and the prosperity which attends our efforts? At this gathering entertainments should be provided of an elevating character, and nothing derogatory admitted under any circumstances. Good entertainments can be had if we can but pay for them, and no others should be allowed.

We hear much about our people being too absorbed in business and always rushing from one effort to the next. Our annual county and state fairs give us a natural period for relaxation united with a most glorious opportunity for self-improvement and community advancement. Let those who think lightly of our fairs as an object of education and relaxation, and those who

would prostitute them to cheap, vulgar amusements, think seriously over these matters; and if they will do so, I am sure that they will come to regard this characteristic feature of our western rural life as something neither to be despised nor degraded, as it has been too frequently in the past. The great state of Wisconsin is too rich and too wise to cut off or weaken any source of inherent strength and advancement such as our fairs can naturally be made.

DISCUSSION.

The Chairman: I would like to hear from Mr. Cogswell.

Mr. Cogswell: In Oregon we have one of the best fairs on the Pacific coast. We have not only tenting ground, but houses owned by the state that you can get for \$2 a year. I think the members have one as long as they will occupy it. When it has been unused for one season, it is forfeited to the state and somebody else gets it. The farmers come and bring their families and stay a week there. While the state of Oregon is building up a successful fair, it brings a better attendance and better results in exhibits. Everybody makes a holiday time of it. In British Columbia it is the same way. It is building up and peopling that country, bringing good farmers and good methods into that whole western country to a degree which could not be reached in any other way.

Mr. True: I am looking for Mr. McKerrow. I think that he, as a representative of the board, should be here to supplement the remarks that have been made by the professor. In his absence, I want to say that we sympathize very fully with the view taken by Professor Henry in this matter. We think that the state of Wisconsin at this time should consider this question in just the way he puts it. Is it worth while for the state of Wisconsin to hold a state fair? If so, then make it possible for the men in charge of that work to do it creditably, or else simply close them out.

The natural advantages that are found in the state fair grounds at Milwaukee are second to none in the Northwest. Visitors who come to us from adjoining states,—Minnesota, Illinois, Iowa and other states,—say that the natural advantages are greater than those of their home states. The trouble is we have never had the grounds completed for fair work. Today there is not a good road, not a good walk, or anything of the kind upon the fair grounds. The buildings were built eight years ago, and since that time nothing has been done in the way of repairs—not a particle of paint has been placed upon them. They are reaching that condition, in the natural order of things, where they are becoming dilapidated, and look anything but presentable. This winter we are asking the state to help us. We are putting this question directly before them as the professor has stated it here, and we expect that the action of the legislature this winter will determine whether Wisconsin shall continue with the state fair work.

The exact relations of the board of agriculture to the state fair may not be known to all gentlemen present. The board works without compensation. The state does not stand back of the board in the least. If there is a deficit, as there was two years ago, the board have to make this deficit good. Is it too much for this board to ask the great state of Wisconsin, which is coming to be one of the leading agricultural states of the whole union, and which has brighter prospects than any of the surrounding states because of its diversified soils and the products that come from them,—is it too much, I say, to ask of this great state that it grant to the board of agriculture the aid specified in Bill 198, A.?

It is a peculiar situation, as I have said. The grounds have passed into the hands of the state, and this board, in making this request, simply gives it an opportunity to take care of its own property. I am confident that the future of the Wisconsin state fair with this encouragement would be assured, and that there would be no need for going to the state for further support, except that which would come in this way. There are sufficient funds in the treasury to guard against any of those draw-

backs that come in the way of an occasional bad day; and with this moral and material support that we are seeking, the future work of the board would be assured.

I feel that there is an apparent lack of interest, too, throughout the state on the part of our farmers. To be sure, Milwaukee is located somewhat to one side of the state, but it is easy of access; and when other locations were considered, as we have been pleased to do at some times in the past, it has been found very difficult to get all of the facilities at any other point in the state that we find pertinent to the Milwaukee location. You gentlemen who are present, some of you, may have experienced difficulty last night in this city in securing lodgings. Think of turning the large number of people that we should have at a state fair into even a city the size of Madison. You see that the hotel accommodations would hardly be equal to the requirements. This would be the case at any other point in the state outside of the present location; and, while it may be granted that on a good many accounts other locations might be better, still, for reasons stated, it seems almost impossible to hold a successful fair anywhere else.

Mr. Hubbard: I regret that the president of our society is not here, but I want to say in behalf of the state board of agriculture, that since I have belonged to it (and I have belonged to it since its organization) we have been a set of beggars. We have never been able to run a fair, even as poorly as we have done it, without at times begging our way; and I think I express the unanimous sentiment of that board when I say that if this great state of Wisconsin, with its bright prospects for the future, for the development of that northern country with its wonderful courses of pure water, that country which must eventually become the great dairying country of the Northwest, proposes that we shall continue to be beggars, and that it will do nothing by which the development and progress of that great north shall be exhibited to the state, I think I am safe in saying that it is the unanimous sentiment of this board that the state shall take the grounds from them and we shall no longer hold a fair in this great state of Wisconsin.

Mr. True: I want to say a word more with reference to our fair. The exhibits that were seen at our last state fair will compare favorably with those at any other of the great fairs of the Northwest. The fairs start in Iowa. The live stock passes from Iowa to Minnesota, and from Minnesota to Wisconsin, so that the exhibit of live stock is virtually the same at all of the great fairs. If there is any dropping out, it is from the poorer end of the exhibit. If anyone gets discouraged, it is those that have been to Iowa and Minnesota and have failed there. The very best exhibits in the live stock department in the whole country are those at our own state fair at Milwaukee. In all lines they compare favorably with those of other states. In comparing our premiums, we find we are well up, in amount paid, with other States. We do not like the idea to go out that it is a question of management. If the state of Wisconsin will give us facilities with which to make our show and provide us with the means to do this work, there is no reason why Wisconsin should not hold as good a state fair as any other state in the Northwest.

Mr. Hill: We do not want to forget Mr. Rietbrock's suggestion made in his letter. We want a live stock pavilion in which exhibits may be held of live stock in a place where it will not be necessary to hang on the outside of a barbed-wire fence. If the fair is to become an educational feature, it must be upon a basis where people will attend for pleasure and profit, and not from a sense of duty.

Discussion closed.

Wednesday, 2:00 P. M., February 6, 1901.

Mr. Wylie in the chair.

Meeting called to order by the chairman.

(Paper read by Hon. Geo. Raymer, "The Farmers' Feathered Friends.")

THE FARMERS' FEATHERED FRIENDS.

BY HON. GEORGE RAYMER.

Early in the last century a few naturalists began the study and classification of the wild birds of North America. Previous to this time the little attention given the subject was that of a few French and English gentlemen, who came to the country to study its birds from love of them, and not with any purpose of making a natural classification of the species. About the year 1808, Alexander Wilson published a classification of something less than three hundred species. In his celebrated work on North American birds, published in 1831, John James Audubon increased the list to more than five hundred. His great work awakened such widespread interest in North American ornithology that since then many men and women have added their new discoveries, until there are now recorded in the check list of the American Ornithologists' Union more than eleven hundred species. But this was all the work of the naturalist, mainly with a view to a correct and comprehensive classification of wild birds for the purposes of science. It is true that very much was learned and published concerning the habits of life and the food of birds, but this feature was then regarded as of secondary importance. During the first half of the past century the settled portions of the country were those covered with forests, the natural home of birds, which were then abundant; while the many injurious insects of more recent years were so few that little or no attention was given to the wild birds as factors in agriculture. If one of the birds of prey chanced to secure a chicken for Sunday dinner, the trusty rifle of the pioneer was brought into service to defend the poultry. A similar treatment usually befell the insect-eating or song-bird, when it attempted to take a few ripe cherries. But the time came when the destruction of so much of the forest greatly reduced the protection nature had furnished for the birds and thereby their numbers were materially diminished. The insect

enemies of agriculture increased in an inverse ratio to the decrease of bird life, until finally inquiry was awakened as to the cause. Many students of natural history gave the subject more or less attention. The matter assumed so much importance that as early as 1885 the United States Department of Agriculture began and since then has been prosecuting a systematic investigation of the economic value of the wild birds, in their relation to agriculture. This work has so far consisted mainly in taking large numbers of the different species of our common birds, in many widely different localities and at all seasons of the year, and making examinations of the contents of the stomachs.

Up to the present time about forty thousand stomachs have been examined. It will be apparent to all that it is possible to determine very accurately, indeed, what constitutes the food of wild birds, through such a method of study, extending over a series of years, noting carefully the time and place of capture and the examination of a sufficiently large number of stomachs of each species. These examinations have included several hundred individuals of many of our more common birds. As the work has progressed the results have been published in bulletins and the substance of it also in the Year Book of the Agricultural department. This information is, no doubt, familiar to you, but it will be briefly reviewed here, to emphasize some of its more important features, before proceeding to the consideration of another very interesting phase of bird life.

The published bulletins of the Department of Agriculture form a highly instructive study, and it is both curious and surprising how the knowledge thus brought out overthrows our preconceived, indeed, our hereditary, opinions of the harmfulness or harmlessness of the birds about us. Those regarded as enemies of the farmer, or of no value, are often shown to be birds of greatest importance to agriculture. Perhaps no families in the bird kingdom have suffered more unjustly than those of the hawks and owls. These families comprise about sixty species, and every section of the country has some of them. All have been considered, and are now generally regarded, as enemies of the farmer. The Department of Agriculture has given es-

pecial attention to these birds, including the examination of 2,700 stomachs, and has clearly shown that not more than four of the hawks, two of which are not found in this state, ever do any serious injury to domestic fowls. The great horned owl is the only member of this family known to be harmful. All others of both families are beneficial from the economic standpoint, many of them the most so of any of our common birds. One of the best authorities on bird life states that one barn owl is worth more than a dozen cats in any farmer's barn. With the exceptions above stated, all the hawks and owls feed mainly upon mice, moles, gophers, crickets, grasshoppers and other injurious insects, and small animals. As boys we were accustomed to regard ourselves public benefactors if we could succeed in killing a hawk or an owl. We now know that to kill one of these birds is of greater benefit to the gophers, mice and moles in the meadow than it is to the domestic fowls unless they are actually attacked by one of the birds of prey.

Another family of birds that have not had justice at the hands of man is that of the woodpeckers. We have five species in this state, abundant enough to be considered here. The one known as the red-naped sapsucker is the little culprit guilty of doing great injury to fruit and shade trees, especially the maples, by boring holes through the bark to obtain the sap. This is the smallest of our woodpeckers, and is the only one more harmful than useful. All the other woodpeckers are beneficial and should have full protection on the farm. The redhead has been charged with pulling young corn and with eating the eggs of other birds, but the examination of over 900 stomachs did not substantiate either charge. The bird eats corn and is especially fond of berries and cherries, but his diet is chiefly insects when he can get them.

Our sturdy, noisy, all-the-year-around resident, the blue jay, is another bird that deserves more consideration than is given him. One unfortunate trait of the blue jay character is that when he appropriates to his use a grain of corn, he makes so much bluster and noise about it, that the farmer believes himself robbed of at least a half-bushel. Whoever will take the

trouble to place conveniently for the blue jay a supply of corn, and note carefully the results, will be surprised to find how sparingly he will eat of it, when the weather is such that he can obtain other food. The investigation of the blue jays showed corn in seventy of two hundred and ninety-two stomachs. There was no evidence that young corn had been pulled, and much that the greater part of the corn taken was waste grain picked up in the fields. Acorns, chestnuts, beechnuts, and chinquapins comprised forty-two per cent. of the food; and beetles, crickets, grasshoppers and caterpillars, twenty per cent. A record that shows that even a bird should not be condemned without a hearing. The blue jay could easily secure an acquittal before a jury composed of farmers on the evidence brought out by the Department of Agriculture. It is true of all the birds that eat grain, that they eat this food sparingly, except when the supply of other food is insufficient. Their natural food is insects, and the seeds of grass, weeds, and wild berries will be taken very generally in preference to grain.

This is true of the common crow, but it has been well established that this old black sinner is a terror in a field of young corn. The crow is a great destroyer of crickets, grasshoppers and other noxious insects, but he cannot rightfully claim the protection of the farmer.

The one other family of birds usually held in disfavor is that of blackbirds. Five or six species are common in this state. In localities near marshes where these birds nest, they sometimes appear in near-by fields of ripening grain, in such vast flocks that it requires a good deal of grain to give them a dinner. The season when they do most harm is short, and it is best to adopt some means of scaring them away; and to be consoled with the thought that the next field in which they alight will be the meadow, and then the crickets and grasshoppers will be gathered in as nothing else could gather them. It is not possible to tell what is the gain to agriculture by reason of the birds that feed mainly upon the multitudes of harmful insects, but it is extremely probable that the blackbirds are, on the whole, useful birds, and deserve protection as such.

These families comprise all the birds generally held in disfavor, but when tried by the severe economic test of the Department of Agriculture, the only fair conclusion to be drawn is that with three or four exceptions all of them have a value far in excess of the harm they do.

Of the other species under examination including, substantially, all of our common birds, nothing scarcely has been found injurious to agriculture, and much, very much indeed, to entitle these birds to the fullest measure of protection at all times. Viewed only from the standpoint of their economic value, there is every reason to believe that we owe vastly more to the wild birds than we, any of us, know. When three hundred cut-worms have been taken from the stomach of one robin, and when we remember that the robin's stomach must be filled about ten times a day, is it not just that such a friend of agriculture should have a few ripe cherries for dessert? The housewife will bless the golden-winged woodpecker when she knows that from the stomach of one bird there were taken three thousand ants. No lad who has to weed the garden would want to kill the song sparrow if he knew that from one little stomach there were taken five hundred pigeon grass seeds.

In the light of this evidence,—and the department has produced volumes of it,—should not the farmer give protection to his feathered friends and teach his children never to destroy their nests or eggs? Surely they have established their right to live and to claim from the hand of man kindness and care in return for the good they do.

Now, let us turn to another phase of bird life not less interesting nor less important than that of their economic value. The companionship, the beauty and the music of the birds. What is sweeter than the song of the first robin in spring? It is true now, has always been true, and will always be true that much more of man's labor is given for that which pleases the eye than is given for supplying mere physical wants. The love for that which is beautiful is inherent in every human being. Although we have been living in an age of universal mania for wealth at any sacrifice, the delusion that all human happiness

can be bought for so many dollars, and can be had in no other way, will not long survive the century that developed it. All over the country may be seen a revival of admiration for and enjoyment of the beautiful in nature. In 1850 the only public park in the United States, worthy to be called such, was Boston Common. Now, beautiful parks, pleasure grounds with shady groves and singing birds have become a feature of nearly all considerable towns. Wherever and whenever a city or town seeks to enhance to a greater degree the enjoyment, health and happiness of its people, it does so by providing a public park. But what would a park be without its flowering plants, shrubs, trees, and birds of song? Here we find man's recognition of the truth that in nature only can he find that which most charms the eye and refreshes the soul.

"The joy of him is great who strays
In shady woods, on summer days."

But does the farmer fully realize that these things so full of pleasure are more nearly within his reach than that of any other class of our people? Does he understand that his farm, which so well provides for the physical wants of himself and family, will minister even as well to that longing in the human breast for the beautiful, when given an equal opportunity? It is not a matter of dollars. The flowers, trees, shrubs and singing birds can be had on any farm without money and without price. A fair share of the farmer's labor, time and attention will enable him and his family to enjoy in full measure those beauties of nature which give to life its zest and charm. And the suggestion is here thrown out in the hope that some of those who hear it will take it home for further consideration. Upon almost every hundred acres there can be found a few acres—a little spot that the owner usually regards as waste land; a hillside, a knoll or wooded ravine. Has it ever occurred to the owner that this piece of waste land might be made to give more of value to the farm, and more of pleasure, health and happiness to himself and family than any other equal acreage in his possession? This is easily possible. Such a spot is more desirable and better adapted to the purpose of a beautiful wild-

wood park than any other. Its very roughness is only nature's added charm. The actual money cost of making here a rare and beautiful feature of the farm, with its wooded shade and singing birds, is surely within the reach of any farmer. What could be done, at less cost, that would add more to the enjoyment of life on a farm? All that is necessary would be a fence to protect it from the domestic animals, the planting each year of some trees and shrubs, and then a little care. The wild birds would come without invitation and furnish the music. Then would be banished much of that dreary monotony and solitude common to so many American farms. Would not more effort in this direction keep at home some of the boys and girls who now leave the farm for life in the city? Of course there are many reasons entering the minds of the young and ambitious that will ever call boys and girls away from the farm. The country will, however, always have its boys and girls with hearts full of love for all that is beautiful. Why not give unto these? Why not make the farm, as it is capable of being made, more healthful, more enjoyable, more beautiful, and a place of purer pleasure than can be found, or made, elsewhere in this world? In such a work the song birds will do their full share if opportunity and protection are given them. Enough has been said of the economic value of these little feathered friends of the farmer. No less important to the fullest measure of enjoyment of life on the farm is their companionship and melody. This truth is becoming better known and more appreciated from day to day, and may not that time yet come, when the love of nature shall rule, when the country home and its surroundings shall be for those who abide therein, like unto the homes of the happy birds in shrub and tree around about, and when all shall join in the same sweet chorus—

“And all the merry throng
That dwell in nests, and have the gift of song;
Whose household words are songs in many keys,
Sweeter than the instruments of man e'er caught;
Whose habitations in the tree-tops even
Are half-way houses on the road to heaven.”

DISCUSSION.

Mr. True: I wish to ask Mr. Raymer what birds he would discriminate against. If I am correct in my recollection, he proposed to withhold protection from the crow, the sap-sucker, one of the varieties of hawks, the horned owl and the English sparrow.

Mr. Faville: Is there not anything good to be said for the English sparrow?

Mr. Raymer: A great deal. I was sitting under a bass-wood tree in front of my house one day last summer, and I discovered that a large part of all the leaves of the tree were eaten, and I began to examine into it. I found at once there was a little green worm, not over half an inch in length, which could be found on every leaf. While I was investigating there came about twenty-five or thirty sparrows, and before they left the tree they had eaten out clean every worm. That I saw myself.

Mr. West: In the investigations which you refer to of the blue jay's stomach, were any indications found of young chickens?

Mr. Raymer: Not of young chickens. There were three stomachs out of 292 that had evidences of young birds. There were two stomachs that contained the eggs of other birds. But a note was added stating that the contents of the stomachs that had the remains of other birds were probably those of carrion birds that had been picked up dead.

Mr. West: We have at times been considerably troubled with the blue jays robbing nests of eggs.

Mr. Raymer: Yes. I have for three years been experimenting with blue jays in front of my house,—five of them,—and it is surprising to see how little they will eat of grain when they can get other food. The same may be said of blackbirds.

Mr. Faville: One word for the sparrow. I was standing in our yard last summer and a sparrow sided up to a dandelion and raised his foot and caught the stem of the dandelion and brought it to the ground. He picked out every seed. After he had finished there was not a seed left in that dandelion.

Mr. Raymer: That matter of eating grass seed is true of the twenty-two species of sparrows in this state. They feed largely on the seeds of grass and weeds that are injurious. The common quail ought to take about fourth place as a useful bird in agriculture because of its feeding so largely upon the seeds of weeds and grass. The bird that is entitled to first place because of its usefulness in this way is the meadow lark. Every farmer ought to look after his meadow larks. As the Department says in its bulletin, every farmer ought to make a law unto himself for the protection of this bird.

Some of the song birds have been complained of for taking cherries and berries. I do not find this so to any great extent. I have about 150 Russian mulberry trees. The birds are fond of the mulberries. I have never found on my three or four acres of raspberries that the birds had damaged them to any extent. I had to cover my cherry trees. I think it cost less than fifty cents a tree to buy netting about 20 feet square and tie it over the tree. It would not amount to more than fifteen cents a year per tree to keep them covered for a week or ten days, while the cherries were ripening. Orioles, bobolinks and robins are very fond of cherries. They will eat them and I do not blame them.

Mr. Ames: Would you go on record as recommending the English sparrow?

Mr. Raymer: I would not.

Mr. Ames: The question in my mind is whether you would go on record as pronouncing the sparrow of more benefit than harm.

Mr. Raymer: I would do that if the sparrow were not so savage in its attacks upon other birds.

You heard the gentleman say here yesterday morning that he kept his calves in the barn throughout the summer to keep them away from the flies. Another great source of harm to our animals, peculiarly true of horses, is the mosquitoes. They are as bad as the flies and do their work at night. Every man ought to encourage the swallows, the barn swallows and the martins.

They are entirely harmless and feed almost exclusively on mosquitoes.

Mr. Ames: Will you give us some suggestion for the encouragement of the swallow family, and the killing of the sparrows?

Mr. Raymer: I can not. Some places are more infested than others. They have been driven out of some cities, these sparrows. I believe they were driven out of Denver, Colorado. There are a dozen species of sparrows all over the state that are so nearly like the English sparrow that no one but a scientist can tell one from the other.

Mr. Ames: Any particular difference in their habits?

Mr. Raymer: They do not fight other birds.

Mr. West: I would like to suggest a method that came to me in sort of a haphazard way. Our boys captured two horned owls and put them in the barn. They made short work of the sparrows while they were in the barn, and it was nearly a year before any sparrows would go into the barn to stay, but the owls escaped, the door being left open. As Mr. Hubbard said, an owl is worth two or three cats in the buildings.

The Chairman: How long did you keep the owls in the barn?

Mr. West: I think they were in there about three months in the fall of the year.

Discussion closed.

THE RELATION OF THE STATE BOARD OF AGRICULTURE TO THE DAIRY INDUSTRY.

BY JOHN W. THOMAS.

(Read by Mr. True in the absence of Mr. Thomas.)

Wherever the state of Wisconsin is known its reputation and progress as a leader in the dairy industry is generally understood. In fact, the words Wisconsin and dairying are almost synonymous. In some localities of the state there are other industries that have given those places a world wide reputation, like the potato fields of Stevens Point and the breweries of Milwaukee, but taking the state as a whole, it is not mentioned prominently as a grain state, a cattle growing state or a beer state, but it is pre-eminently a dairy state.

Our farmers will milk cows, they will build silos, they will raise the right kind of crops to fill the silos and they manage the farm, its crops and their cows as if they intended to make a business of producing milk.

It is estimated that there are nine hundred thousand cows in Wisconsin. This is nearly one cow to every three inhabitants of the state. There are over two thousand creameries and cheese factories in the state and the eighty million pounds of butter produced each year is valued at thirteen million dollars. One county in the state produces over six million pounds of butter per year and there are twenty-six counties in each of which over one million pounds of butter is produced annually.

Wisconsin has also produced over sixty-five million pounds of cheese in a year. This is more than one-fourth of the entire cheese product of the United States.

In 1899 Green county alone shipped over twelve million pounds of Swiss, brick and Limburger cheese.

Such records as these are responsible for the proud place Wisconsin occupies in the dairy world, and in order to hold her position in the front rank of dairymen it is necessary to be ever watchful and progressive.

The State Board of Agriculture, since its organization, has always shown its own progressive spirit by its liberality and interest in the dairy department. Generous premiums have been offered for exhibits of butter and cheese, amounting to over a thousand dollars at last state fair and up to this year the dairy building at the State Fair grounds has furnished sufficient accommodations for the exhibits that were received.

Our experience at the last State Fair, however, has shown that the dairy department has now outgrown its quarters. The exhibit made at the fair by Prof. Farrington of our Dairy School, placed Wisconsin again far in the lead in this department. The working dairy as well as the educational part of this exhibit was something entirely new and it attracted wide attention. It was one of the features of the fair that will be copied by many of our sister states in the future.

On account of this fact and in order to promote the plan which has been so well started the accommodations for the dairy department ought to be enlarged. More refrigerator room is needed and greater accommodations for the exhibits of dairy machinery and supplies must be provided. We were obliged to refuse exhibits last fall for lack of space and those who applied early and secured their space reported doing more business than ever before at a State Fair.

The progressive dairymen of the State, the up-to-date butter-makers and the best cheese makers will all turn out each year and receive much benefit and instruction from a state fair if they feel sure before hand of finding the latest machines and supplies as well as the samples of the prize butter and cheese on exhibition at the dairy building.

A refrigerator large enough to permit the butter and cheese makers to examine the exhibits which take prizes would be well worth the cost of supplying it. This would give these men an opportunity to study the defects and the good qualities of different exhibits and aid them in their future efforts at home.

A large attendance of dairymen and factory operators will bring out the manufacturers and dealers in dairy supplies and make it necessary to provide much better and more extensive

accommodations than the present building affords. These dairy exhibits are a valuable means of improving the quality of our dairy products. The butter maker may see many of the machines and supplies that he has been reading about during the year in his dairy papers.

Such inspection gives him a chance to judge of the merits and the defects in various machines, and thus saves him many dollars either by convincing him that a certain machine will be more economical than one he is using, or by demonstrating that a much advertised process of some ingenious person is a fraud. He can also cultivate his eye and taste in the market requirements for color and salt in butter, and compare his butter with those that were given the highest score. He may get a new idea in milk testing and learn why he had had trouble sometimes in getting satisfactory tests. From the different styles of testers on exhibition he can determine which one he ought to buy, or how he can add some improvement to the one he has in use at home.

The cheese maker can not only make comparisons of his own cheese with those that took the prizes, but by talking with other makers he can learn some new things about the handling of milk in the vat or the curds on the rack, that will explain many things about which he has been uncertain. He may also see for the first time some new forms of cheese or others that are not so new but that he has never had a chance to do anything but read about. New tests like the curd test, the rennet test, acid test, etc., have been shown for the first time to many cheese makers at the fair.

If in addition to these exhibits of products and machines there is a chance to see the processes of butter making and of cheese making in actual operation during the fair, then the ambitious workman has before him everything that is needed to illustrate the art which he is practicing at home and one of the best chances in the world to compare notes with others and learn something thereby.

The dairy exhibit also affords many opportunities to the dairy farmer and the milk producer. Dairy butter is gen-

erally exhibited in a great variety of packages for one thing, and the difference in color and flavor are much greater than in the creamery butter exhibits. Some farm dairy buttermakers could easily learn at the fair why their butter must always be sold from one to five cents below their market price. The package may be unattractive or they may not know how to prepare the top of their jar of butter in a neat and taking way. These points could be easily picked up at such a butter exhibit, and every butter maker could learn how to bring his butter up to the quality and appearance of that which took the prize.

The machinery exhibit is just as valuable to the dairy as to the creamery butter makers. Farm dairy machines and supplies are always on hand and many a dairy farmer has gone home from the fair and harnessed a bull or a sheep to a piece of work that he formerly did himself with his own muscles. He also may learn how to determine which cows in his herd are failing to produce enough in a year to pay for their feed. This simple problem has been so well demonstrated by pictures and records in the dairy school exhibit at the fair, that many men who have milked cows for years were astonished to learn that dairymen had such poor cows and that they were so ignorant of how well or how poorly the cows were doing.

This testing of common cows on the farm is one of the most important and progressive lines of work for our farmers to follow, and when they have realized it sufficiently to find out just how valuable or how worthless each cow on the farm actually is proving to be, the dairy interests of the state will make one of the longest forward strides that has ever been taken in any branch of agriculture.

The work of the State Board of Agriculture in dairy lines is bound to be rewarded. Our dairy interests are enormous and the cow owners as well as the makers of butter and cheese are eager to learn the lessons taught by an educational exhibit.

THE HORSE OUTLOOK.

BY W. L. CARLYLE.

Never perhaps has the outlook for the profitable production of certain classes of horses by Wisconsin farmers been brighter than it is at the present time. During all the history of horse breeding we find that the best specimens have been produced in those sections where a varied soil and climate favored the production of a variety of grains and grasses and insured good grazing. We also find that a climate comparatively cold, with a clear, bracing atmosphere seemed to imbue the horses reared under such conditions with a vim, vigor and vitality not found in those reared in warmer and more temperate regions. That Wisconsin is eminently adapted for the production of a high grade of horses in the various classes cannot be doubted, since we have all these natural conditions, and the additional proof that in no state in the union outside of a few in New England, in close proximity to the large cities, are horses so highly valued in the last report of the Department of Agriculture as they are in Wisconsin.

The subject given me for discussion before this convention deals with breeding in Wisconsin and naturally divides itself into two sections: First, the classes or types of horses that are likely to be in demand, and second, how shall these types be produced in best form?

The Reason for Low Prices.

The expression "there is no money in horses" was almost universal during the years 1892-97, which statement was no doubt true when the average price obtained was taken into consideration. As is almost always the case under conditions of this kind, our horse breeders did not take time to consider as to the true cause for the low prices prevailing for horses, and immediately concluded that the days of profitable horse raising had gone by forever. The primary cause for these low prices no doubt was

the great financial depression prevailing at that time throughout the country, and associated with this was the introduction of improved machinery, especially the use of electricity in its different forms, which largely supplanted the cheaper grades of horses, more particularly for street car work in our larger cities. This had the effect of greatly lessening the demand for this class of horses and they were consequently thrown on the market and affected the price of all classes. The breeders of high class horses, with but few exceptions, not recognizing the fact that there must inevitably be a good demand for their horses again as soon as the large supply of cheap low grade animals had been disposed of, also discontinued their breeding operations, until we find the horse outlook as it is today, with an almost unlimited demand at good prices for high class horses of the various types and very few of them in the country to supply it. The effect of this period of low prices has not, however, been an unmixed evil. It has resulted in the disposal in one way or another of a large number of very inferior stallions and mares that had formerly been used for breeding purposes, the produce of which never was very profitable and certainly never can be reared at a profit in the future. It has also called the attention of the foreign markets to the value of the horses bred in this country, which has resulted in a greatly increased export trade. This is clearly evident from the following table giving the extent of our export trade in horses since 1890.

1890	3,501
1891	3,110
1892	3,226
1893	2,967
1894	5,246
1895	13,984
1896	25,126
1897	39,532
1898	51,150
1899	45,778

The surprising increase in the number of our horses exported during the years 1896 and 1897, over what the exports had

been before and the continually increasing numbers being exported up to the present time in spite of the higher prices paid is a very promising feature of the outlook for the future of the horse business.

Another promising feature is the unprecedented demand for certain classes of our horses for use in the British army. From statements seen in the daily press it has been estimated that orders have been issued for over fifty thousand American horses to supply the British army in South Africa within the past few months. And it would appear that the value of certain classes of American horses for this purpose will result in a steady demand from this source, and also for supplying our own army.

Again I say there is every encouragement for the farmers of Wisconsin to breed good horses, provided they will breed those types which are in demand and the extent of the profits from this business will depend only on their ability to breed good ones.

The types most in demand at good prices in our leading markets can best be shown by quoting from the yearly report of the Chicago Union Stock Yards, which is today the largest horse market in the world.

Draft horses, average price for year.....	\$152.00
Carriage horses, average price for year.....	204.00
Saddlers, average price for year.....	150.00
Drivers, including speed horses, average price for year	137.00
Bussers and "expressers," average price for year.....	114.00
General use, average price for year	103.00

Probably the greatest volume of business done in this market is in horses for general use and "expressers," which it will be observed command the lowest prices. It is quite safe to say that there is an unlimited demand for good heavy drafters, high class carriage horses and expressers, and the farmer who breeds the right type to supply the demand in these three classes may confidently look for remunerative prices for a good many years to come, and for the reason principally that the supply of breeding animals suitable for the production of these classes of

horses is decidedly limited and for the further reason that this supply cannot be greatly augmented in the next few years.

Why Brood Mares are Scarce.

The outlook for a plentiful supply of the classes of horses now in demand is not very encouraging, owing to the great lack of good brood mares in the country. These were largely disposed of in one way or another during the period of depression and stagnation in horse breeding, so that the farmers when they wish to breed horses at the present time are at a loss to find suitable foundation stock. The tendency will now be greater than ever towards breeding from inferior stock, especially on the side of the dam. It appears to be so very easy to ignore that fundamental law of all breeding, namely, that like begets like, and the tendency no doubt will be in the future, as it has been in the past, for the farmer to breed from any kind of mares that happen to be on his farm with the inevitable result that a great many horses will be reared that will not be worth what they cost. In reviving our horse-breeding business in Wisconsin we cannot exercise too much care in selecting our breeding stock, as the outlook at the present time is that there never will be any demand for the common grades of horses, such as were formerly largely used for the street car trade and similar work. Farmers, as a rule, will do well to confine their breeding operations in horses to the production of the draft or express type. Occasionally there is a man with a decided love and taste for the training of horses, and with considerable ability in this respect, in which case if he can secure brood mares of the right class he will no doubt find that the production of high class carriage horses will be the most profitable branch of horse raising that he can engage in; but I maintain that the average farmer whose attention is more or less taken up with his farm work, and who wishes to rear colts as cheaply as possible and with least possible risk, will do much better to confine his attention largely to the production of heavy draft horses, or to those of the express type, for which there will always be a good demand.

It has been a matter of much surprise to the writer to observe the haphazard manner in which the average farmer selects his brood mares. They seem to take it for granted that all the good qualities of the chosen sire will be transmitted and that none of the deficiencies of the dam will be found in the offspring. It is well to bear in mind a fact that has been observed through all the history of breeding, namely, that other things being equal, the dam exercises the greatest influence over the characteristics and quality of the offspring. The Arabs recognized this fact hundreds of years ago in their horse breeding practice, when they traced all the pedigrees of their running horses through the dams and not through the sires, as we do today. Our German shepherd at the university farm has established this fact by practical experience in sheep breeding; nothing will induce him to dispose of the ewes which he has found to be the best mothers in the flock. He has learned that these dams invariably have good lambs even if the sire be only medium in quality. The inference is obvious: do not attempt to breed any horses unless you have good mares of the type that you wish to produce. It is the height of folly to breed a heavy draft stallion to a small, common, or inferior mare, expecting to produce a profitable horse for the market under present conditions. The man who wishes to raise draft horses for profit in the future must have mares of good size, well proportioned and with a good deal of quality. They must have size first of all, for this is the prime requisite in draft horses where power is required to move heavy loads in our large cities and other places where draft horses will be required in the future. A study of the prices obtained for the various draft horses sold by a leading Chicago commission firm during a single year has shown that approximately 25 cents per pound on the average was realized on every pound of weight added to horses over 1,400 until 1,800 pounds weight was reached.

In selecting a brood mare for the purpose of breeding draft horses she would weigh not less than 1,400 pounds, and should be possessed of sufficient quality to insure offspring that will

have substance and vitality to perform a large amount of work for a term of years. The very best illustration that can be given of a horse of this character was in the now celebrated Clydesdale gelding, 12 years old, shown at the Chicago International Live Stock Show in December. This horse had been used for six years on the hard stone paved streets of Liverpool as a cart horse, and yet when shown in Chicago his limbs and feet were of as choice quality and as free from blemish as could be desired in a four-year-old. Size associated with quality and action is what is demanded of the draft horse today. By quality is meant solid, firm muscles and clean, dense, heavy bone, as evidenced in the size and conformation of the joints of the limbs, the canon bones, and the head, all of which should be clearly defined and without any coarseness of the tissues surrounding these parts. The foot of the draft horse is also a very important factor and this point should not be neglected in the selection of the brood mare. Her feet should be of good size and should be made up of hard, tough, fibrous tissue of a dense, waxy appearance, good, large and round hoof heads, wide, deep and open heels, surmounted with clean, sloping and springy pasterns. In disposition the draft mare should be kind and gentle and yet have sufficient spirit and vigor to carry herself well together and move freely. The draft stallion to which she should be bred must be her counterpart in all these things but in an intensified degree. He should be larger, stronger and more masculine, and at the same time more compact in form and more stylish and free in his movements, the outcome of good feet, well set pasterns and properly proportioned limbs and body.

The mares selected for breeding carriage horses must be chosen with even greater care, as the market for this class is much more discriminating, and much more care and skill is required in the production of this class of horses than in producing those of the draft or express type. Brood mares for

producing this class should weigh 1,100 to 1,300 pounds, and should have good style, action and quality. Style, pleasing appearance, grace of outline, symmetry of form or whatever term we may use to describe that appropriate blending of all parts of the body which constitute the chief beauty of the carriage horse is one of the first considerations in choosing a mare for breeding this class of horses; associated with this must be smooth, graceful, true and frictionless action, with good quality and with no hereditary unsoundness. Mares of this class are exceedingly rare on the farms of Wisconsin, but where they are found in the hands of enterprising breeders, with the above mentioned qualifications, they should most certainly be kept producing this class of horses, as they are the most profitable that can be reared. The selection of a sire to mate with them is also a somewhat difficult task. We have any number of so-called carriage stallions in Wisconsin, but only here and there one that has sufficient style, size, quality and action to get the class of colts desired in the market when mature. A carriage stallion must weight not less than 1,300 pounds, have a smooth, well rounded, graceful form and carriage, and be possessed of sufficient vim and courage to make him move freely and with spirit. His action also must be the counterpart of the mare's, and in an intensified degree.

A much larger number of mares suitable for the production of express horses will be found in Wisconsin than either of the above mentioned classes. The trouble is that our farmers will persist in trying to breed high class carriage or very heavy draft horses from mares that should be used for the production of expressers. When the mares on the farm do not conform fairly closely to the standards given above for carriage and draft mares they should be crossed with a clean limbed, stylish stallion of comparatively small size belonging to one of the draft breeds, perhaps, where the product will supply the very large demand for expressage or farm horses; or these mares may be bred to a good large coach or carriage stallion, when the result

of the cross will approach very nearly to the class of the horses demanded by the army for artillery and infantry types.

In choosing the breed much will depend upon the personal choice of the breeder, though an effort should always be made to continue in the same lines of breeding and not endeavor to cross pure bred stallions of one breed on high grade mares of another breed. This is quite important where a uniform class of horses is desired that will make good matched teams. The breeds most in favor for draught purposes at present are the Percheron and Clydesdale, either of which have their strong points as well as their weak ones. And here let me say that in selecting a sire from your chosen breed do not hesitate to secure the very best possible, even though the service fee be double that of an inferior one, for you cannot afford to breed to the latter at any price. In Percherons, see to it that the stallion is well proportioned, with good, clean, flat legs, large, round hoofs surmounted with strong, clean and sloping pasterns. In Clydesdales, select a horse that possesses quality of bone, as evidenced by the skin and hair surrounding his limbs; also pay particular attention to the quality of their feet and the depth and character of the middle piece, which should be surmounted by strong, muscular loin.

The breeds that will be found most useful in producing high class carriage horses are the Hackney, French Coach and American trotter. The Hackney is usually possessed of sufficient style and action, but often lacks in size and quality when mated with somewhat plain mares. In choosing a French Coach horse be sure to get action and style combined with pedigree that insures prepotency, as the grades of this breed appear to lack quality and uniformity.

The American trotter appears to lack style and size in a great many cases, and owing to his mixed breeding, he is also very apt to lack uniformity.

Finally, it is of the highest importance to select breeding stock of the different sexes that will so mate as to correct any deficiencies in the progeny that may be present in either of the

parents; and above all, study the demands of the market and aim to produce what it demands, leaving personal preference out of consideration.

DISCUSSION.

Mr. Ames: I want to ask the professor to what extent barrenness will grow upon the mares of this country. I thought the past season that I would go to work to breed horses, having at least the ordinary mares that have been described here this afternoon for brood purposes. In attempting to secure three prospective colts I utterly failed. My mares would certainly come under that two per cent., and yet I found myself failing entirely.

Prof. Carlyle: The trouble is not with your mares. It is much more to be laid to the other side of the house. That has been my experience. The use that is made of the sires in the breeding season and the way they are handled. I do not suppose there are two per cent. of the sires in this country that are used for anything else, except to drive in a buggy or stand in a box stall. One of the very best cures for barrenness has been to use the sires for practical purpose through the year. It gives them vigor and vitality. A horse is the very last animal in the world to be put in a small stall and left there to fret and get no exercise. There is no animal that likes to run about so well and which will so soon develop uselessness as a horse.

Mr. —: Put them to work on the farm; set them to plowing. I have one that has been doing all kinds of farm work for the past four years, and there never was a surer horse; and before that he was not considered sure by any means.

Mr. Ames: What per cent. of mares will he get with foal?

Mr. —: Something like 72 per cent.

Prof. Carlyle: That is a big average. I think the average horse would not get 50 per cent.

Question: If this man's mares are all right, what is the reason?

Prof. Carlyle: Sometimes all the mares are not all right. The men that handle them may not give them a proper chance.

A Member: I get about 60 per cent. with foal and about 40 living colts. That has been my experience.

Mr. Carroll: Why are there not more than two per cent. of our mares good for breeding purposes?

Prof. Carlyle: I do not say that there are not more than two per cent. in the country, but in the vicinity of Madison. Every time I get a chance I look them over. Simply because the good ones have been disposed of. Anything that will sell at all will be sold and the others are taken home. Another reason is, I fear, we have been breeding to these types. The great demand has been for common horses, but that demand is all gone. We are not going to have it again in the future. The common horses will never be profitably raised again. The ranches are producing that kind anyhow. They can produce that kind of horses for \$12 apiece, and the farmers of this country are never going to raise that kind profitably.

Mr. Ames: My mares are eight or nine years old, never having been exposed. Does age and not having been exposed add to the doubt as to getting them with foal?

Prof. Carlyle: I do not think so. It may be that you tried at a time of year when they were going downward in flesh.

Mr. Ames: That does not apply at all. This was in the summer.

Prof. Carlyle: The warm weather might account for it.

Adjourned.

STATE CROP REPORTS.

MAY 10, 1901.

Under the provisions of an act of our present legislature, we are pleased to submit the first of a series of crop reports, to be issued from this office the first of each month, during the season of growing, harvesting and marketing our farm crops.

We have been exceedingly fortunate in securing the assistance of a practical and efficient corps of correspondents, and in future issues hope to represent every county in the state.

These public-spirited gentlemen who render this service without compensation are certainly entitled to the grateful consideration of all persons interested in the agricultural prosperity of the state.

The information sought in the letter of inquiry, upon which this report is based, was:

First. The acreage of our principal farm crops compared with that of last year.

Second. The condition of those crops, subject to injury from winter-killing and unfavorable spring weather.

Third. The conditions of soil, relative to planting, and the germination of seeds.

Fourth. The condition, healthfulness and prices of farm stock.

Report were received from sixty of the seventy counties of the state, and the following estimate of acreage of crop of 1901, with that of 1900 is given:

Current
acreage 1901

	Per cent.
Winter wheat	98
Winter rye	99½
Spring wheat	98
Oats	102
Barley	99½
Corn	103½
Potatoes	100
Tobacco	107½
Pasture	101½
Meadow	102½

In most parts of the state the conditions of soil and weather were favorable for the sowing of small grains, and the degree of dryness developed later was not sufficient to interfere to any great extent with their germination.

Reports of interference by drouth with the proper growth of spring grains were frequent and becoming serious up to within a few days, but recent general rains have largely relieved anxiety upon this point, and conditions now seem favorable to rapid growth.

This report is issued before much of the corn, potatoes, or tobacco acreage is planted, but the conditions of soil, and weather prospects are favorable to the performance of this work satisfactorily.

While winter grain and grasses are reported as being in better than usual conditions, six of the southern-middle counties report the condition of clover as "Poor," and twenty-two other counties report but "Fair," the remaining thirty-two counties as "Good" and "Very Good."

It is hoped that recent and coming rains may render the next report more favorable.

There was this spring a very general shortage of hay and other coarse fodders among farmers, and as a result much of the live stock is in thin condition, and the natural tendency to turn these animals early upon pasture is detrimental alike to condition of stock and pasture. Inquiries as to degree of healthfulness of farm animals develops the fact that there is a sprinkling of bovine tuberculosis in many counties, as well as

occasional cases of glanders among horses. Very little hog cholera is reported.

Prices of farm animals are very satisfactory to owners.

Average figures from the several counties as to prices of animals of good quality and in good condition, are:

Horses, weighing 1,400 lbs. or over.....	\$146
Horses, weighing less than 1,400 lbs.....	110
Milch cows	35
Sheep	4

We shall issue another report from this office about June 10th, in which we shall aim to give a very full and accurate report of crop conditions at that time.

JUNE 1.

Reports from correspondents throughout the state, June 1st, show the season, in development of crops, to be two weeks later than usual.

Prevailing winds have been easterly, and in most sections of the state more or less damage was done by frost the last week in May.

While at date of this issue most localities report sufficient moisture in soil, the drouth had generally become quite sharp at time of rains, about May 20th, and grass and grain had already been checked in growth.

The southern-southwestern portions of the state, including the counties of Grant, La Fayette, Green, Iowa, and parts of Dane and Rock, seem to have had a greater rainfall during the month of May than any other general portion of the state.

Warm weather is greatly needed for all crops.

Winter grains, shown in our last report to be less in acreage than last year, are at present date reported as from "fair" to "good," in condition, though wheat is not yet headed.

Spring wheat, being one of our earliest sown spring grains, is in fair form and gives promise of an average crop.

Early sowed oats are in good condition and growing well, while late sowed are reported as "fair" and "poor," some fields not having come up until since the late May rain; while others, on account of drouth, have a very uneven stand.

Barley, which is usually sowed early, is reported as fair in the barley-growing districts of the state.

The present outlook for corn is anything but propitious. Planting was later than usual, and fields that were planted early have suffered from the cold weather and frosts, the plants looking yellow and sickly, and having little, if any, advantage over that planted later.

However, little complaint is made of ravages of the cut worm, and with a good stand secured, favorable weather in July and August may yet give Wisconsin a good corn crop.

Tobacco plants are said to be in good condition, though very little planting has yet been done, on account of the continued cold weather.

While most of the clover sowed last season lived through the winter, the general acreage is not large, and the stand in many parts of the state is thin, nevertheless its condition is even better than that of old, mixed meadows, which, from lack of rain in May, are thin, short and unsatisfactory.

Timothy meadows of recent seeding are fair, though short in growth. It is feared that our hay crop will be less than an average one, and farmers will do well to arrange for supplementary forage crops.

Stock was generally turned upon pasture before grass had made any strong growth, and subsequent conditions have not allowed the grass to make much gain upon heavily stocked pastures, and they are almost universally reported as "poor" or "fair," where in June they should be "good" and "very good."

The live stock and dairy interests of the state are menaced by the unpromising condition of its grass crops.

The prices of butchers' stock in local markets, already high, will doubtless be sustained.

This is to be an "off-year" with apples in Wisconsin. Trees

did not blossom heavily, and the crop will be light, though doubtless of good quality, as trees seem to be in healthful condition.

Plums and cherries promise a full crop.

Grapes and small fruits have been somewhat injured by frosts, but their show is fairly good.

Strawberries blossomed very heavily, and though they were somewhat injured by frost, will still be an average crop.

The month of June will have much to do with settling questions of present doubt, relative to our leading farm crops, and is hoped that warmer weather, accompanied by copious rains, may not much longer be withheld.

JULY 1. 1901

The report of July 1st is based upon percentages of an average condition of the several crops noted at that date, letting 100 represent the fair average condition, at this season, in an ordinary year.

With a due allowance for the extent of cultivation of the various crops reported, in the several counties of the state, we make the following estimates:

	Per cent.
Winter wheat	96
Spring wheat	96½
Rye	96
Oats	92½
Barley	93½
Corn	90
Potatoes	91
Tobacco (twelve counties).....	90
Hay	85
Pasture	86
Buckwheat	95
Beans (twenty counties).....	97
Peas	90

The crops of winter wheat, rye, and hay, may be based upon the figures here given, as they are already harvested, or so nearly ready to harvest, as to make any changes in condition improbable.

Chinch bugs are doing considerable damage in barley, spring wheat and even in oats, in some parts, the hot, dry weather being favorable for their work.

The hay crop has been badly damaged, in the middle and northern portion of the state, by rain. ,

In the potato growing counties, complaint comes of the rotting of seed after planting, making the stand of plants thin and irregular. The weather has, however, been favorable to their growth.

In Dane and Columbia counties much of the land set aside for tobacco has not yet been set and there has been heavy loss of plants from the dry hot weather, after setting.

Vernon and Crawford counties report better conditions for the crop.

Forty-five counties report soil conditions as favorable, four as too wet, and eighteen as too dry.

The dryer section of the state is that south of and including parts of Crawford, Richland, Sauk, Columbia, Dodge, and Washington counties.

Severe electrical and wind storms are reported from the middle section of the state; in many instances causing considerable damage to crops and farm buildings.

These storms were notably severe in Vernon, La Crosse and Portage counties. As a whole, the outlook for farm crops is much more favorable than it was June 1st.

Much of the state received timely rains, and except upon the lightest soils where oats suffered severely, a good showing will be made.

The weather has been ideal for the growth of corn, and the gain during the last half of June was phenomenal, though a large acreage needs cultivation at once.

The extreme heat, just now prevailing, makes farm work oppressive, and even dangerous. >

AUGUST 1.

The month of July furnishes an unusual and withal interesting chapter in the history of Wisconsin agriculture.

The unusual high temperature, continually maintained, for a long period, when accompanied by sufficient moisture, advanced crops rapidly, and generally without great injury; but in those parts of the state where little rain fell, earlier maturing crops were prematurely ripened, with considerable loss both in quantity and quality of product; while corn, late potatoes and tobacco were either blasted or held at a standstill for weeks.

While rains have relieved the condition of these crops, the extent of damage done is yet considerably a matter of conjecture, no one seeming to have before witnessed conditions identical with those now existing.

The severe drouth seems to have been mainly confined to the following counties: Columbia, Crawford, Dane, Dodge, Grant, Green, Iowa, Jefferson, Kenosha, La Fayette, Milwaukee, Racine, Richland, Rock, Sauk, Walworth, and Waukesha, and to give a better idea of the extent of threatened loss, I have considered these seventeen counties in a group with reference to the two important crops—corn and oats.

The percentage of a full crop of corn from this stricken district is, by correspondents, reported at 58.

In 1899, the last obtainable statement of crops produced, we find that these seventeen counties produced 29,508,548 bushels of corn or approximately two-thirds of the entire crop of the state.

The acreage of corn the present season is found to be slightly increased over that of 1899, and we find the apparent loss of corn crop in the counties enumerated some 12,400,000 bushels.

These same counties in 1899 produced 29,647,239 bushels of oats, this being about one-third of the oat crop of the state.

The percentage of the crop reported is 65; showing a loss of oats, in comparison with 1899, of 10,375,000 bushels.

In a further consideration of the present condition of the corn

crop I have divided the remainder of the state into two groups of counties, making the production of upwards of 100,000 bushels in 1899, the point of division. In the second group of counties, numbering 33, and comprising most of the remainder of the state, that is well adapted to corn raising, the percentage of crop shown is 94.

The third group of twenty counties, all either new and largely unsettled, or so located as not to be largely corn-producing, reports 95 per cent.

Much interest is centered in the prospective potato crop, both on account of extensive losses in other states and from the conceded importance of Wisconsin in potato production.

In 1899, eight counties—Adams, Columbia, Milwaukee, Portage, Sauk, Waukesha, Waupaca, and Waushara—produced each over 500,000 bushels of potatoes, or combined, more than one-third of the crop of the state.

These counties now report the percentage of a full crop at 72.

The three banner potato counties of the state—Portage, Waupaca and Waushara—in 1899 produced 3,100,000 bushels, or approximately one-fourth the entire state's crop.

The percentage now reported from these counties is 86.

From the seventeen counties enumerated as drouth stricken, farm live stock has been sold, in large numbers, whenever the condition would warrant a market, and cattle held are being fed much as in winter.

More rain is needed to make any marked improvement in pastures. In the central and northern parts of the state, pasturage is generally reported as abundant.

In southern Wisconsin the necessity of summer feeding of stock and the consequent shrinkage of winter feed has led to the cutting of an unusual amount of wild or marsh hay, which is this year of good quality, and is being secured in excellent condition.

Special interest, from this time, will be taken in the development of the crops of corn, late potatoes and tobacco.

The corn crop in southern Wisconsin is late, having been held in check by drouth. If, as is generally hoped, it may go on and develop ears, it will need a warm, favorable August and early

September to mature its fraction of a crop. The same requirements apply to tobacco.

The apple crop will be exceedingly light and quality poor.

Following is the summary of reports received upon the several crops from correspondents throughout the whole state, showing estimate of percentage of a full crop:

Spring wheat	92
Barley	90
Oats	80
Corn	70
Tobacco	52
Potatoes	78
Wild hay	90
Apples	20

Soil conditions, August 1st, are generally reported as favorable, but following rains are needed in southern part of state.

On account of pressure of state fair work, no bulletin will be issued September 1st.

OCTOBER 1.

The reports from correspondents, for Oct. 1st, are of special interest as giving the estimates of the principal farm crops of the state, either from results of threshed grain, or from a point of development of unharvested crops, that enables a very close estimate to be made.

The weather since August 1st has been well calculated to insure the growth and development of unripened crops, the amount of rainfall having in most localities been ample for the needs of vegetation, and the absence of killing frosts being exceptional.

In that part of the state where, at the time of issue of our last report, the ravages of the drouth made crop prospects most discouraging, under favorable conditions since existing, much higher estimates are now reported.

In the seventeen counties in the southern part of the state, classified in our last report as the "drouth-stricken section," corn has advanced from 58 per cent. to 62 per cent.,—a gain of four points; and tobacco from 52 per cent. to 72 per cent., while the reports of threshed grain show better yields than were anticipated. The only crop that shows a loss, during the past two months, is potatoes. This crop is not to be a full one in any general part of the state. Even in those sections where rain has been sufficient, during the entire season, the yield is not up to early indications.

In the whole state, with a careful consideration of the importance of the crop in the various sections, we are compelled to report a falling off of six points since August 1st; our estimate then being 78 per cent. against 72 per cent. now.

It may be of interest to state, in this connection, that from the statements of crops raised, given in reports of the secretary of state for several years past, the average yield of potatoes in the state is given as some 80 bushels per acre; it is doubted whether the present crop will fall below these figures.

Our previous estimates of small grain crops are amply sustained by reports of bushels threshed, and show these crops to be well up among yields of former years.

Our reports show an inclination to sow less winter wheat than in past years, spring wheat now yielding nearly as heavily as winter wheat and being less subject to chances of loss.

Pastures are now better than they have been since early in the season, and the continued warm wet weather gives promise of their lasting well into the late fall.

The corn crop has been more generally secured with reference to the feeding value of the roughage than usual, and the absence of frost has allowed it to be cut while in good form.

The prospects for winter feed are not so gloomy as they were at time of last report; and while large numbers of young cattle have been sold at low figures, we are of the opinion that there is ample feed in the state, to winter the farm stock now in the hands of farmers.

As a whole, the farmers of Wisconsin have little reason for discouragement at the results of their work in 1901, and lessons may be learned from peculiar conditions existing this year, suggestive of better culture and management, that may largely compensate for losses sustained.

Below we give the aggregates of estimates received from our correspondents, respecting the various crops:

YIELD PER ACRE.

Spring wheat	16	bush.
Winter wheat	18½	bush.
Rye	15	bush.
Barley	30	bush.
Oats	34	bush.
Clover hay	1½	tons.
Timothy hay	1	ton.

ESTIMATED PERCENTAGE OF FULL CROP.

Corn	70
Potatoes	72
Tobacco	75
Buckwheat	70
Beans	60
Apples	20

Our next report will be issued Dec. 1st.

 DECEMBER 1.

The months of October and November have been favorable ones for the accomplishment of farm work.

The later crops of the season have been secured in good condition; fall grains were seasonably sown, and have made good growth, and more land has been plowed than for many past falls.

Late pastures have been fair, and stock has remained upon grass later than in the average season.

Fall wheat and rye, though perhaps not as extensively sown as in past years, are reported in good condition to go into winter; while but few locations report even fair stands of young clover from last spring's seeding. This will seriously affect the hay crop of 1902.

In the central and northern parts of the state the crop of clover seed has been good, in some cases the yield being almost phenomenal.

It will be noted that the prices of farm crops are much above the average of the past five years, and farmers having a surplus of almost any crop find a market for it, at a remunerative price.

LIVE STOCK DISEASES.

While hog cholera exists in many parts of the state, it is by no means general, nor in any instance spread over any considerable district.

Cases of glanders, traceable to contagion from western range horses, shipped into the state for sale, have been reported from various parts of the state, and it is to be feared that there is more of tuberculosis among our cattle than is generally supposed.

Farmers should familiarize themselves with the symptoms of this dreaded disease, and in case of suspected animals, resort to tests by competent veterinarians, as vigilant work is required in dealing with it.

SUMMARY OF CROP OF 1901.

The letter of inquiry upon which the December report is based, had for its special object the completion of estimates of yield per acre of farm crops, and also the prices of crops at the various markets of the state.

From this and the preceding report we are able to give estimates of average yield per acre and price per bushel of all our leading farm crops.

In estimating these averages we have endeavored to give due consideration to the extent and importance of each crop in the

counties reported, and its relation to the full crop of the state; also the importance of respective markets in determining average prices.

We are confident therefore that we are able to present figures that are essentially correct when applied to the entire state.

As a summary of this and preceding reports, we give the following table of yields for 1901, and prices prevailing December 1st:

	Yield per acre.	Price
	Bushels.	per bu.
Wheat	17¼	65 cts.
Rye	15	51 cts.
Barley	30	50 cts.
Oats	34	38 cts.
Buckwheat	14	57 cts.
Corn	30	52 cts.
Beans .....	..	\$1 75
Potatoes	85	65 cts.
Hay, tame (tons).....	1¼	11 25 ton.
Hay, wild (tons) .....	..	6 50 ton.

No further reports will be issued until March, 1902.

SUMMARY REPORT.

In estimating the acreage of the several farm crops of the state, we have used as a basis the assessor's reports as made to the several county clerks, and by them reported to the secretary of state.

These reports are deficient in many particulars, notably in a failure to report acreage of cultivated meadows, as well as tobacco, and several minor grain crops.

Taking the report of the secretary of state for 1900, for a basis, and increasing or diminishing the acreage of the various crops there given, as the acreage of the year 1901 is found by

our correspondents to be greater or less than that of 1900, we reach the following conclusions:

Tabulated crop summary.

	Acreag.	Bushels.	Farm value, Dec. 1st.
Wheat	\$463,794	\$9,800,446	\$6,370,290
Rye	347,300	5,209,500	2,656,845
Barley	527,620	15,828,600	7,914,300
Oats	2,170,158	73,785,372	28,038,441
Corn	1,431,703	42,951,090	22,344,566
Potatoes	217,757	18,509,345	12,031,075

JOHN M. TRUE,
Secretary.



GRAND STAND, STATE FAIR PARK—FAIR OF 1902.