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Transactions of the Wisconsin State Agricultural Society, with the report of the state horticultural society, and condensed report on the international exhibitions of 1862 and 1867. Vol. VII 1861/1868

Wisconsin State Agricultural Society

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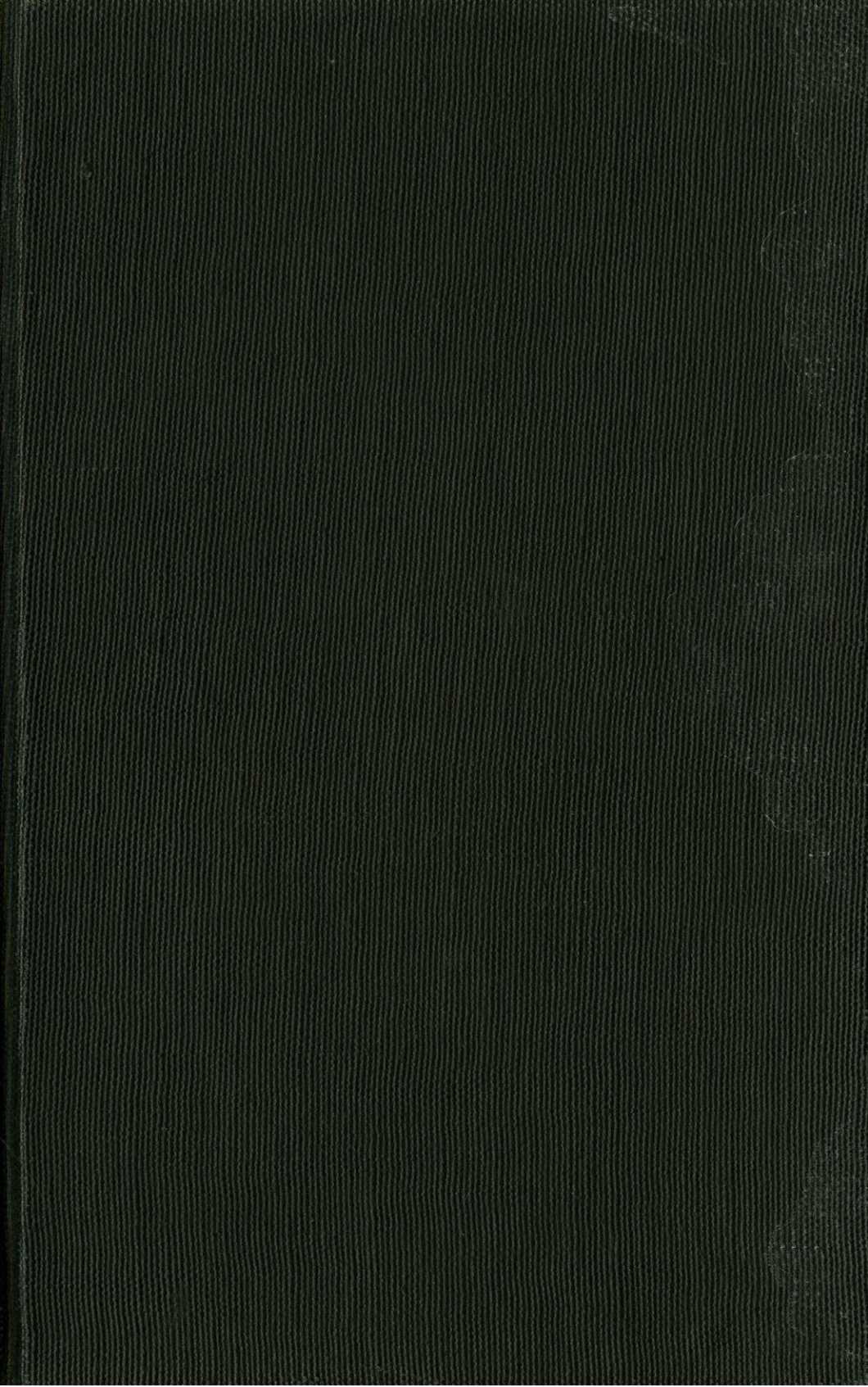
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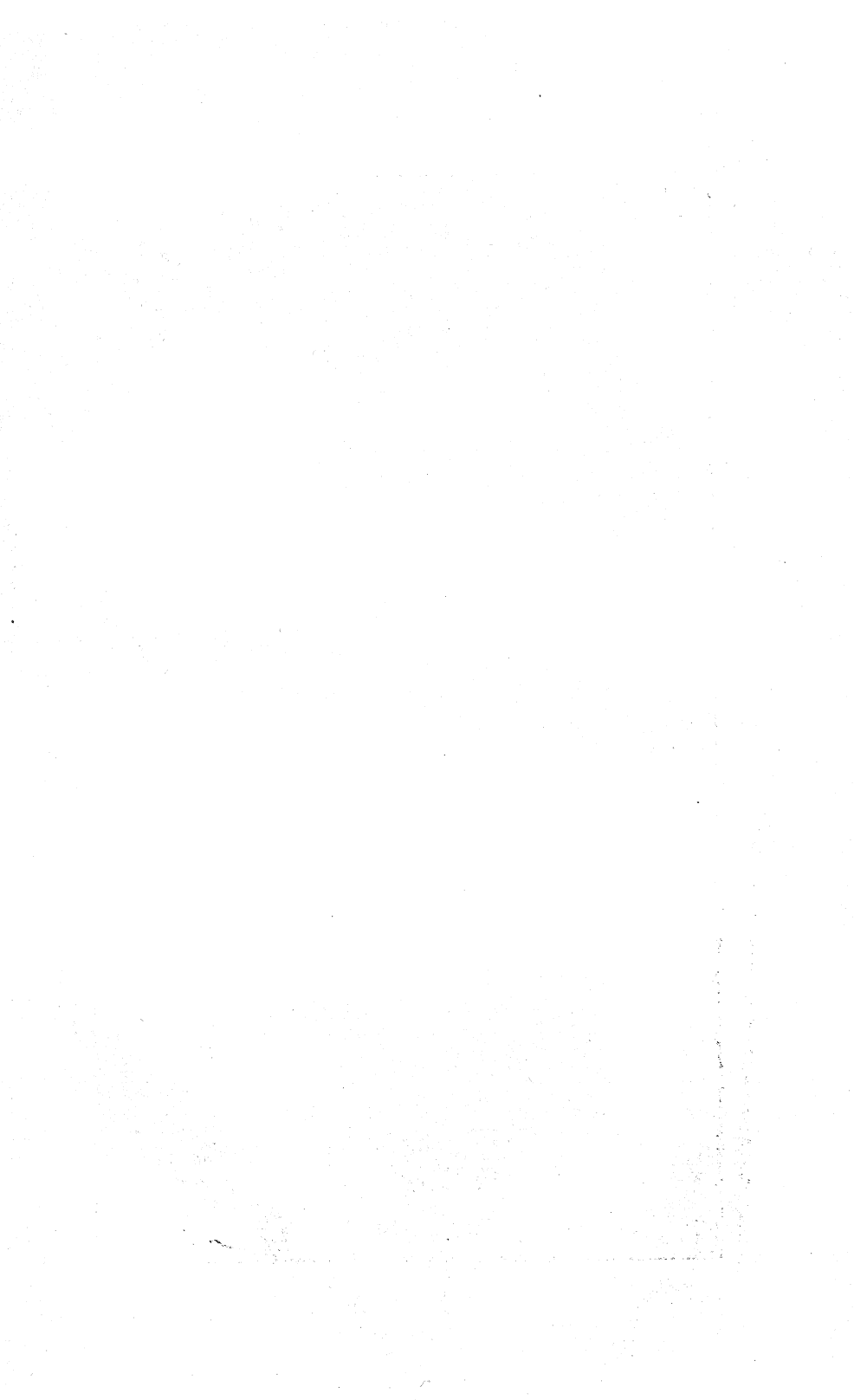
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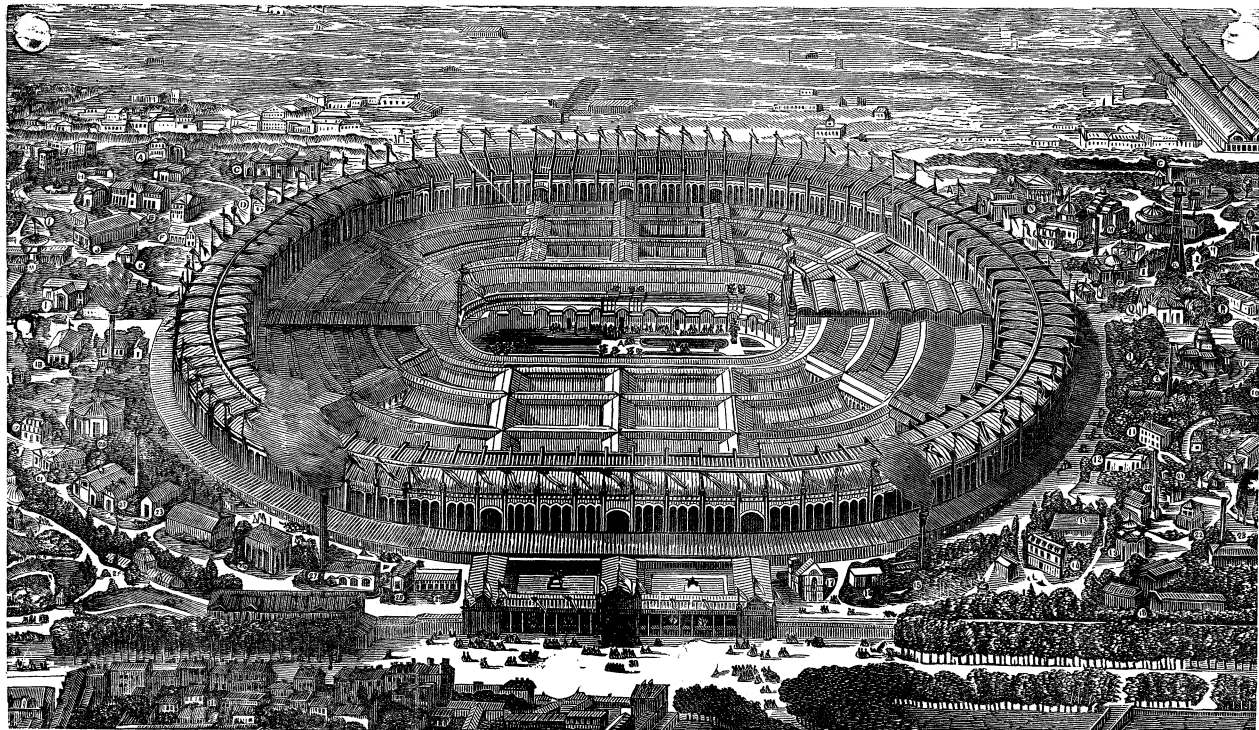
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Palace and Park of the Paris Universal Exposition of 1867.

TRANSACTIONS
OF THE
WISCONSIN
STATE AGRICULTURAL SOCIETY,
WITH THE REPORT OF THE
STATE HORTICULTURAL SOCIETY,
AND CONDENSED REPORTS ON THE
INTERNATIONAL EXHIBITIONS OF 1862 & 1867.

VOL. VII. 1861-2-3-4-5-6 7-8.

PREPARED BY J. W. HOYT, SECRETARY.

MADISON, WIS.:
ATWOOD & RUBLEE, STATE PRINTERS, JOURNAL OFFICE.
1868.

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PREFACE.

After a lapse of eight years, including the whole period of the late war, the Wisconsin State Agricultural Society is at length enabled, by means of Legislative provision, to present to the public another volume of its Transactions—a volume, which, happily, is also the beginning of a series of publications hereafter to appear annually. If it be found to contain a less variety of original matter than some previous volumes, it is because we have had no alternative but to make it just what it is—a series, mainly, of official reports.

Nevertheless, these reports—completing, as they do, the Society's record from the date of the last publication in 1860, to the end of 1868, together with several valuable addresses, and the proceedings of the State Horticultural Society, which also contain matter of practical importance—constitute, in the aggregate, a volume that doubtless will be welcome wherever received, and not less because of the information it contains than for the reason that it bridges over a long period, during which it has been impracticable to issue any volume whatever.

The condensed reports of the Secretary, as State Commissioner, on the London International Exhibition of 1862, and the Paris Universal Exposition of 1867 are embraced in the

belief that the important character of the industrial enterprises of which they make record renders their inclusion especially appropriate.

So far as it relates to the literary character of those portions original with the Secretary—which necessarily constitute a large proportion of the entire volume—and to the typographical correctness of all portions, he hopes it will be borne in mind by the reader, that nearly every page was prepared from brief notes just in advance of the compositors, while the work was in press, and in the midst of other pressing duties; so that, for the most part, it was impossible for him either to revise his manuscript, or to give to the proof of any portion of the volume that careful attention it ought to have received.

J. W. HOYT.

STATE AGRICULTURAL ROOMS, Jan., 1869.

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CONSTITUTION OF THE SOCIETY,

AS ADOPTED IN 1868.

ARTICLE I.

OF THE NAME AND STYLE OF THE SOCIETY.

This Society shall be known as the "Wisconsin State Agricultural Society." Its object shall be to promote the advancement of Agriculture, Horticulture, and the Mechanical and Household Arts.

ARTICLE II.

OF THE MEMBERSHIP.

The Society shall consist of life members, who shall pay, on subscribing, twenty dollars, and of honorary and corresponding members, who shall be elected by a vote of two-thirds of the members of the Executive Board, at any regular meeting. The presidents of County Agricultural Societies shall be members *ex officio*, entitled to the same privileges as life members, and together shall be known as the General Committee of the Society.

ARTICLE III.

OF THE OFFICERS.

The Officers of the Society shall consist of a President, one Vice President for each Congressional district of the State, a Secretary, a Treasurer, and seven additional members, who shall hold their respective offices for the term of one year from the first day of January next succeeding the date of their election, and until their successors shall have been elected, and all of whom, together with the ex-President latest in office, shall constitute the Executive Board.

ARTICLE IV.

OF THE POWERS AND DUTIES OF OFFICERS.

The Presidents and Vice Presidents shall perform such duties as are common to such officers in like associations, and as may be required by the Executive Board.

The Secretary shall keep the minutes of all meetings, and have immediate charge of the books, papers, library, and collections, and other property of the Society. He shall also attend to its correspondence, and prepare and superintend the publication of the annual report of the Society, required by law.

The Treasurer shall keep the funds of the Society and disburse the same on the order of the President, or a Vice President, countersigned by the Secretary, and shall make a report of all receipts and expenditures at the regular meeting of the Society in November.

The Executive Board shall have power to make suitable by-laws to govern the action of the several members thereof. They shall have general charge

of all the property and interests of the Society, and make such arrangements for the holding and management of general and special exhibitions as the welfare of the Society and the interests of industry shall seem to require.

The General Committee shall be charged with the interests of the Society in the several counties where they respectively reside, and constitute a medium of communication between the Executive Board and the public at large.

ARTICLE V.

OF MEETINGS AND ELECTIONS.

The Annual Meeting of the Society, for the transaction of general business, shall be held in its rooms in Madison, on the first Wednesday of December, at three o'clock P. M., in each year, and ten days notice thereof shall be given by the Secretary in one or more papers printed in the city of Madison.

The Election of Officers of the Society shall be held each year during and at the General Exhibition, and the exact time and place of election shall be notified by the Secretary in the official list of premiums and in all the general programmes of the Exhibition.

Special meetings of the Society may be called by order of the Executive Board, on giving twenty days' notice in at least three newspapers of general circulation in the State, of the time, place, and object of said meetings.

At any and all meetings of the Society, ten members shall constitute a quorum for the transaction of business, though a less number may adjourn from time to time.

ARTICLE VI.

OF AMENDMENTS.

This Constitution may be amended by a vote of two-thirds of the members attending any Annual Meeting; all amendments having been first submitted in writing at the previous Annual Meeting, recorded in the minutes of the proceedings, and read by the Secretary in the next succeeding Meeting for the Election of Officers.

LAWS OF WISCONSIN.

CHAPTER 114—G. L., 1866.

AN ACT to reorganize and enlarge the university of Wisconsin, and to authorize the county of Dane to issue bonds in aid thereof.

[Act disposing of National Land Grant for a college of Agriculture and the Mechanic Arts.]

The people of the state of Wisconsin, represented in Senate and Assembly, do enact as follows:

SECTION 1. The object of the university of Wisconsin shall be to provide the means of acquiring a thorough knowledge of the various branches of learning connected with the scientific, industrial and professional pursuits; and to this end, it shall consist of the following colleges, to-wit: 1st. The college of arts. 2d. The college of letters. 3d. Such professional and other colleges as from time to time may be added thereto or connected therewith.

SECTION 2. The college of arts shall embrace courses of instruction in the mathematical, physical and natural sciences, with their applications to the industrial arts, such as agriculture, mechanics and engineering, mining and metallurgy, manufactures, architecture and commerce, in such branches included in the college of letters, as shall be necessary to a proper fitness of the pupils in the scientific and practical courses for their chosen pursuits, and in military tactics; and as soon as the income of the university will allow, in such order as the wants of the public shall seem to require, the said courses in the sciences and their application to the practical arts, shall be expanded into distinct colleges of the university, each with its own faculty and appropriate title.

SECTION 3. The college of letters shall be co-existent with the college of arts, and shall embrace a liberal course of instruction in language, literature and philosophy, together with such courses or parts of courses in the college of arts as the authorities of the university shall prescribe.

SECTION 4. The university in all its departments and colleges, shall be open alike to male and female students; and all able-bodied male students of the university, in whatever college, shall receive instruction and discipline in military tactics, the requisite arms for which shall be furnished by the state.

SECTION 5. The government of the university shall vest in a board of regents, to consist of fifteen members, to be appointed by the governor, two from each congressional district in the state, and three from the state at large. At the first appointment, which shall be within sixty days after the passage of this act, five shall be commissioned for one year, five for two years, and five for three years. Thereafter the full term of office shall be three years from the first Monday in February, in the year in which they were appointed, unless sooner removed by the governor.

SECTION 6. The said board of regents shall succeed to the custody of the books, records, buildings and all other property of the university; and the present board of regents shall be dissolved immediately upon the organization of the board herein provided for: *provided*, that all contracts legally made, and at that time binding upon the board thus dissolved, shall be assumed and discharged by their successors.

SECTION 7. The regents and their successors in office shall constitute a body corporate, with the name and style of "the regents of the university of Wisconsin," with the rights, as such, of suing and being sued, of contracting and being contracted with, of making and using a common seal, and altering the same at pleasure. They shall have power, and it shall be their duty, to enact laws for the government of the university, in all its branches; to elect a president of the university, and the requisite number of professors, instructors, officers and employees, and to fix their salaries, also the term of office of each, and to determine the moral and educational qualifications of applicants for admission to the various courses of instruction: *provided*, that no instruction, either sectarian in religion, or partisan in politics, shall ever be allowed in any department of the university, and no sectarian or partisan test shall ever be allowed or exercised in the appointment of regents, or in the election of professors, teachers or other officers of the university, or in the admission of students thereto, or for any purpose whatever.

SECTION 8. For the time being, an admission fee and rates of tuition, such as the board of regents deem expedient, may be required of each pupil, except as hereinafter provided; and as soon as the income of the university will permit, admission and tuition shall be free to all residents of the State; and it shall be the duty of the regents, according to population, to so apportion the representation of students, that all portions of the State shall enjoy equal privileges therein.

SECTION 9. One suitably qualified pupil from each assembly district, to be nominated by the representative of such district in the legislature of the State, who, other things being equal shall prefer an orphan of a soldier who has died in defense of his country, shall be at once and always entitled to free tuition in all the colleges of the university.

SECTION 10. The president of the university shall be president of the several faculties, and the executive head of the institution, in all its departments. As such, he shall have authority, subject to the board of regents, to give general direction to the practical affairs and scientific investigations of the several colleges, and in the recess of the board of regents, to remove any employee or subordinate officer, not a member of the faculty, and to supply for the time any vacancies thus created; and so long as the interests of the institution require it, he shall be charged with the duties of one of the professorships. The secretary of state shall be secretary of the board of regents, and shall perform such duties as they shall impose. The state treasurer shall be the treasurer of the board of regents, and perform all the duties of such office.

SECTION 11. The immediate government of the several colleges shall be entrusted to their respective faculties; but the regents shall have the power to regulate the courses of instruction, and prescribe the authorities to be used in the several courses, and also to confer such degrees and grant such diplomas as are usual in universities, or as they shall deem appropriate.

SECTION 12. At the close of each fiscal year the regents, through their president, shall make a report in detail to the governor, exhibiting the progress, condition and wants of each of the colleges embraced in the university, the course of study in each, the number of professors and students, the amount of receipts and disbursements, together with the nature, costs and results of all important investigations and experiments, and such other information as they may deem important; one copy of which shall be transmitted, free, by the secretary of state to all colleges endowed under the provisions of the congressional act of July 2d, 1862, hereinbefore [hereinafter] referred to, and also one copy to the secretary of the interior, as provided in said act.

SECTION 13. For the endowment and support of the university, there are hereby appropriated: 1st The income of the university fund. 2d. The income of a fund to be derived from the sales of two hundred and forty thousand acres of land granted by Congress to the State of Wisconsin, by virtue of an act approved July 2d, 1862, entitled "an act donating land to the several States and Territories which may provide colleges for the benefit of

agriculture and mechanic arts," which fund shall be designated as the agricultural college fund. 3d. All such contributions to the endowment fund, as may be derived from public or private bounty. The entire income of all said funds shall be placed at the disposal of the board of regents, for the support of the aforesaid colleges of arts, of letters, and of such colleges as shall be established in the university, as provided in section two of this act: *provided*, that all means derivable from other public or from private bounty, shall be exclusively devoted to the specific objects for which they shall have been designated by the grantors.

SECTION 14. Meetings of the board may be called in such manner as the regents shall determine, a majority of whom shall constitute a quorum for the transaction of business, but a less number may adjourn from time to time. No member of the board shall receive compensation for his service as such member, but each member shall be entitled to reimbursement, on the audit of the board, for his traveling and other necessary expenses while employed on the business of the board.

SECTION 15. The first meeting of the regents, the appointment of which is herein provided for, shall be held in the university edifice, on the last Wednesday of June, 1866, at which time the regents when so convened, shall elect one of their number president of the board. The time for the annual election of president of the board of regents, as also the regular annual meeting, and such other meetings as may be required, shall be determined in the by-laws of the board. Immediately upon the organization of the board, it shall be their duty to make arrangements for securing, without expense to the state, or to the funds of the university, suitable lands, in the immediate vicinity of the university, not less than two hundred acres, including the university grounds, for an experimental farm, and as early as possible thereafter, to make such improvements thereon as will render it available for experimental and instructional purposes, in connection with the agricultural course in the college of arts.

SECTION 16. To enable the board of regents to purchase lands in the vicinity of the university for an experimental farm, and to improve the same, the board of supervisors of Dane county are hereby authorized and empowered to issue the bonds of said county, bearing interest at the rate of seven per cent. per annum, interest payable annually, for the amount of forty thousand dollars, such bonds to be payable on or before the first day of January, A. D. 1866, at such place as may be determined by said board of supervisors. The bonds so issued shall be delivered to the board of regents of the university, who shall faithfully apply the same, or the proceeds thereof, together with all contributions made for this specific purpose, to the purchase and improvement of the lands for such experimental farm. But if the said county of Dane, by its proper officers, shall not make provision for the issue and delivery of said bonds as aforesaid, within thirty days after the passage of this act, and if in such case the citizens of said county shall fail within thirty days after the expiration of the said first mentioned period of thirty days, to furnish guarantees satisfactory to the secretary of state, that the said amount of forty thousand dollars shall be placed at the disposal of the regents of the university at the first meeting of the board, then this act shall be null and void.

SECTION 17. So much and such parts of chapter twenty-one of the revised statutes, and of any and all acts, as contravene the provisions of this act, are hereby repealed.

SECTION 18. This act shall take effect and be in force from and after its passage.

Approved April 12, 1866.

[Section 4, as amended by Legislature of 1867.]

SECTION 1. Section four of chapter one hundred and fourteen of the general laws of the year 1865, entitled "an act to reorganize and enlarge the University of Wisconsin, and to authorize the county of Dane to issue bonds in aid thereof," is hereby amended, so as to read as follows: "Section 4. The University shall be open to female as well as male students, under such

regulations and restrictions as the Board of Regents may deem proper, and all able-bodied male students of the University, in whatever college, shall receive instruction and discipline in military tactics, the requisite arms for which shall be furnished by the State."

CHAPTER 121—G. L. 1866.

AN ACT to provide for the sale of the Agricultural College lands.

The people of the state of Wisconsin, represented in Senate and Assembly, do enact as follows :

SECTION 1. It is hereby made the duty of the commissioners of school and university lands, to immediately offer for sale at public auction, all lands known as agricultural college lands; said sale to be governed by the laws now in force governing the sale of school and university lands, so far as the same shall be applicable to and not inconsistent with the provisions of this act.

SECTION 2. The minimum price at which said lands shall be offered for sale, shall be one dollar and twenty-five cents per acre, and at least one-fourth of the purchase money shall be paid at the time of purchase; and the commissioners may, in their discretion, require a greater portion or the whole of the purchase money to be paid at the time of purchase. A credit of ten years shall be given on the unpaid purchase money, with interest at the rate of seven per cent. per annum, which interest shall be payable at the same time that the interest on school lands is now required to be paid; and all laws now in force imposing penalties for non-payment of principal or interest, and providing for the forfeiture and sale of school lands, are hereby extended and made applicable to said agricultural college lands.

SECTION 3. The moneys received on account of the sales of such lands shall be known as the agricultural college fund, and shall be invested by the commissioners of school and university lands in stocks of the state or of the United States.

SECTION 4. All laws for the protection of school lands are hereby extended and made applicable to the protection of said agricultural college lands.

SECTION 5. This act shall take effect and be in force from and after its passage and publication.

Approved April 12, 1866.

CHAPTER 82—G. L. 1867.

AN ACT to annually appropriate for a term of years, a certain sum of money to the university fund, and to authorize the levy of a tax therefor.

The people of the state of Wisconsin, represented in Senate and Assembly, do enact as follows :

SECTION 1. There shall be levied and collected for the year 1867, and annually thereafter for the next ten years, a state tax of seven thousand three hundred and three dollars and seventy-six cents, and the amount so levied and collected is hereby appropriated to the university fund income, to be used as a part thereof.

SECTION 2. The secretary of state shall apportion said tax annually among the several counties of this state, as other state taxes are apportioned by law, and the same shall be levied, collected and paid into the treasury in the same manner as other state taxes.

SECTION 3. This act shall take effect and be in force from and after its passage.

Approved April 6, 1867.

JOINT RESOLUTION.

Assigning Rooms in the Capitol to the Wisconsin State Agricultural Society.

Resolved by the Assembly, the Senate concurring, That the rooms on the north side of the west wing of the Capitol, to wit: the rooms just made vacant by the removal of the Attorney General and the Superintendent of Public Instruction, be prepared by the Superintendent of Public Property, for the use of the Wisconsin State Agricultural Society, and that the said Society be and hereby is allowed the use of the same until otherwise ordered by the Legislature.

Passed Jan. 22, 1866.—*Assembly Journal*, 1866, pp. 87, 98.

CHAPTER 74—G. L., 1868.

AN ACT to provide for the printing and publication of the Transactions of the State Agricultural Society.

The people of the state of Wisconsin, represented in Senate and Assembly, do enact as follows:

SECTION 1. The state printer is hereby directed to print on good book paper, fold, stitch and bind in muslin covers, uniform in style with the last volume published, three thousand copies of the seventh volume of "transactions of the Wisconsin state agricultural society," embracing the years 1861, 1862, 1863, 1864, 1865, 1866, 1867: *provided*, the number of printed pages of said volume shall not exceed five hundred; and to deliver the same, when complete, to the superintendent of public property, to be by him distributed as follows, to-wit: Six hundred copies for the use of the legislature, fifty copies for the state library, fifty copies for the state historical society, fifty copies to the Wisconsin agricultural and mechanical association, located at La Crosse, fifty copies to the state horticultural society, twenty-five copies to each county agricultural society in active operation: *provided*, that each of said industrial societies and associations shall furnish to the secretary of the Wisconsin state agricultural society an abstract of the [its] proceedings for publication in said volume; and all remaining copies to the said state agricultural society.

SECTION 2. The state printer is further directed, when the report of the state horticultural society, to be included in the volume of "transactions" aforesaid, shall be in press, to print, fold, stitch and cover with suitable paper, one thousand extra copies of the same for the use of said society.

SECTION 3. Hereafter, or until the legislature shall otherwise order, the transactions of the Wisconsin state agricultural society, including the report of the state horticultural society, together with abstracts of the reports of all the other industrial associations of the state, so far as the same may be furnished, and such other material as is contemplated in section six of chapter eighty of the revised statutes, shall be annually printed, published and distributed in like manner and number as provided in sections one and two of this act, on the order of the governor.

SECTION 4. This act shall take effect and be in force from and after its passage.

Approved March 4, 1868.

LIFE MEMBERS.

NAMES.	RESIDENCE.	NAMES.	RESIDENCE.
Abbott, Chauncey.	Madison.	Brown, Jas. J.	Madison.
Allen, H. M.	Evansville.	Bemis, Fred.	Madison.
Atwood, David.	Madison.	Bailey, M. T.	Madison.
Atwood, Wm. F.	Madison.	Bowen, J. B.	Madison.
Ayers, J. W.	Kenosha.	Braley, A. B.	Madison.
Allen, Jas. W.	Janesville.	Briggs, F.	Madison.
Allen, W. C.	Delavan.	Brown, F.	Madison.
Angel, R. R.	Janesville.	Brown, B. F.	Fitchburg.
Atwood, Chas. D.	Madison.	Beecroft, W. G.	Madison.
Adams, Isaac.	Cottage Grove.	Bliss, C. M.	Door Creek.
Adams, Jas.	Janesville.	Bowman, J. M.	Madison.
Babbitt, Clinton.	Beloit.	Byrne, Jno. A.	Madison.
Bacon W. D.	Waukesha.	Bruce, A. T.	Madison.
Bement, E.	Oregon.	Burnham, Miles.	Danville.
Benedict, J. D.	Bristol.	Blanchard, Will'd.	Windsor.
Benedict, S. G.	Madison.	Barry, James.	Fitchburg.
Benson, S. W.	Bloomfield.	Bird, T. E.	Madison.
*Billings, H. M.	Highland.	Carpenter, J. E.	Windsor.
Bird, J. W.	Jefferson.	Carpenter, J. A.	Waukesha.
Braza, Benj.	Wauwatosa.	Carlton, W. D.	Sun Prairie.
Briard, W. A.	Madison.	Carver, P. S.	Delevan.
Bryan, Jno.	Cross Plains.	Case, J. I.	Racine.
Boyce, A. A.	Vienna.	Chandler, J. C.	Madison.
Boyd, R. B.	Milwaukee.	Chase, Enoch.	Milwaukee.
Bullard, Jas.	Evansville.	Cummings, Wm.	Fitchburg.
Babbitt, D. H.	Janesville.	Chase, H.	Milwaukee.
Barrows, E. S.	Janesville.	Curtiss, Seymour.	Fitchburg.
Barlass David.	Emerald Grove.	Capron, Geo.	Madison.
Bull, Stephen.	Racine.	Cheney, Rufus.	Whitewater.
Bump, N. P.	Janesville.	Cochrane, John.	Waupau.
Bailey, A. P.	Sun Prairie.	Gogswell, A. W.	Brookfield.
Bemis, Jarvis.	Janesville.	*Coit, D. R.	Madison.
Bacon, J. P.	Westport.	Colby, Chas.	Janesville.
Barnes, Geo.	Janesville.	Colladay, Wm. M.	Stoughton.
Barlass, Andrew.	Emerald Grove.	Craig, A. J.	Palmyra.
Burgess, J. M.	Janesville.	Crawl, Jno.	Center.
Bostwick, Perry.	Janesville.	Cross, J. B.	Milwaukee.
Bates, A. C.	Janesville.	Child, Jno.	Lima Centre.
Bostwick, J. M.	Janesville.	Clark, C. M.	Whitewater.
Bostwick, R. M.	Janesville.	*Campbell, C. M.	Madison.
Bishop, Jno. C.	Fond du Lac.	Carpenter, J. H.	Madison.
Billings, Earl.	Madison.	Cory, J.	Footville.
		Carter, Gray.	Janesville.

NAMES.	RESIDENCE.	NAME.	RESIDENCE.
Cæsar, Wm.....	Janesville.	Elliott, E.....	Lone Rock.
Crossitt, B. F.....	Janesville.	Eaton, J. O.....	Lodi.
Crawford, E. B....	Madison.	Edgerton, E. W....	Summit.
Crosby, J. B.....	Janesville.	Ellmore, A. E.....	Mukwanago.
Cutting, J. W.	Harmony.	Ellis, J. A.....	Madison.
Curtis, F. C.....	Rocky Runn.	Ellsworth, O.....	Milwaukee.
Crawford, J. B.....	Baraboo.	Emmons, N. J.....	Milwaukee.
Carter, A. M.....	Johnston.	Enos, Elihu.....	Waukesha.
Culver, Caleb E....	Shopiere.	Echlin, J. C.....	Janesville.
Clark, Lewis.....	Beloit.	Elderkin, Ed.....	Elkhorn.
Cornell, Jas.....	Beloit.	Ellsworth, W. J....	Madison.
Children, E.....	Lancaster.	Edmunds, F. W....	Madison.
Carpenter, S. D....	Madison.		
Clark, Saterlee....	Horicon.	Fairbanks, E.....	St. Johnsbury, Vt
Church, Wm. W....	Madison.	Farwell, L. J.....	Madison.
Carr, H. B.....	Madison.	Ferguson, Benj....	Fox Lake.
Chipman, A.....	Sun Prairie.	Field, Martin.....	Mukwonago.
Colton, J. B.....	Madison.	Fenn, G. W.....	Janesville.
Cornwell, H. H....	Verona.	Fernly, Jno.....	La Grange.
Cramton, N. B.....	Verona.	Finch, Lorin.....	Bradford.
Chapman, C. R....	Leicester.	Fifield, L.....	Janesville.
		Fowle, Jacob.....	Bradford.
*Daggett, S. S....	Milwaukee.	Fifield, E. G.....	Janesville.
Darwin, A. G.....	Madison.	Fifield, D. E.....	Janesville.
Davidson, Adam...	Verona.	Furlong, Thos. T..	Janesville.
Davis S. B.....	Milwaukee.	Fisher, Seth.....	Center.
Davis, N. P.....	Pierceville.	Fisher, S. W.....	Center.
Davis, Jno.....	Milwaukee.	Fisher, C. C.....	Center.
Davis, G. L.....	Milwaukee.	Fuller, M. E.....	Madison.
Dean, N. W.....	Madison.	Fisher, Elijah.....	Newark.
Dean, E. B.....	Madison.	Foote, E. A.....	Footville.
Delaplaine, G. P..	Madison.	Fitch, W. F.....	Madison.
De Wolf, E.....	Madison.	Fuller, F. D.....	Madison.
Dewey, Nelson....	Lancaster.	Frank, A. S.....	Madison.
Dodge, J. E.....	Potosi.	Folds, Geo. H....	Madison.
Doris, John.....	Milwaukee.	Fox, W. H.....	Fitchburg.
Dousman, T. C....	Waterville.	Foote, Sidney....	Madison.
Dousman, J. B....	Milwaukee.	French, Jonathan.	Madison.
Dow, O. P.....	Palmyra.	Fitch, D.....	Madison.
Dunning, Abel....	Madison.	Firmin, F. H.....	Madison.
Durkee, Chas.....	Kenosha.		
Drakely, Sam'l....	Madison.	Gilbert, Thomas...	Oregon.
Durkee, H.....	Kenosha.	Gillett, R. E.....	Tomah.
Dunn, And.....	Portage City.	Goodrich, G.....	Whitesville.
Drury, E. W.....	Fond du Lac.	Grant, Albert....	Milwaukee.
Darling, K. A.....	Fond du Lac.	Grant, S. B.....	Milwaukee.
Dwinnelt, J. B....	Lodi.	Gurnee, J. D.....	Madison.
Doty, E. P.....	Janesville.	Guernsey, Orrin..	Janesville.
Doolittle, W. J....	Janesville.	Giles, H. H.....	Stoughton.
Dann, Obed.....	Janesville.	Graves, S. W.....	Rutland.
Dexter, W. W.....	Janesville.	Grubb, W. S.....	Madison.
Dixon, J. P.....	Janesville.	Gibbs, Chas. R....	Janesville.
Davis, W.....	Center.	Graham, Alex.....	Janesville.
Dunn, Wm.....	Madison.	Grady, F. M.....	Fitchburg.
Dean, John S.....	Madison.	Graves, R. A.....	Cambria.
Dorn, M. M.....	Madison.	Goodrich, Ezra....	Milton.
Daggett, M. L.....	Madison.	Gates, D. W. C....	Madison.
Devoe, A. B.....	Madison.	Gregory, J. C.....	Madison.

LIFE MEMBERS.

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NAMES.	RESIDENCE.	NAMES.	RESIDENCE.
Gaylord, Aug.	Madison.	Jerdee, M. P.	Madison.
Gould, L. D.	Madison.	Johnson, Jno., Jr.	Madison.
Grover, E.	Madison.	Jenks, S. R.	Madison.
Goodenow, H. D. ...	Blooming Grove.	Jones, John N.	Madison.
Gernon, Geo.	Madison.		
Haight, J. M.	Madison.	Kellogg, L. F.	Madison.
Hanchett, A. M.	Hanchettville.	Kellogg, L. H.	Milwaukee.
*Hanford, A. G.	Waukesha.	Keyes, E. W.	Madison.
Harrington, N. M. ...	Delavan.	Knapp, J. G.	Madison.
Hasbrouk, W. H. ...	Madison.	Kneeland, Moses ...	Milwaukee.
*Harvey, L. P.	Shopiere.	Knight, E.	Sun Prairie.
Hastings, S. D.	Madison.	Kent, A. C.	Janesville.
Hawes, W. N.	Verona.	Kimball, John	Janesville.
Helfenstein, J. A. ...	Milwaukee.	Kimball, M. G.	Madison.
Hibbard, W. B.	Milwaukee.	Kingsley, S. P.	Springfield.
Hill, P. B.	Milwaukee.	Kiser, Wm. C.	Madison.
Hill, J. P. W.	Windsor.	Klauber, Sam'l.	Madison.
Hinkley, B. R.	Summit.		
Holt, David	Madison.	Lamb, F. J.	Madison.
Holton, Edward	Milwaukee.	Lapham, I. A.	Milwaukee.
Hopkins, B. F.	Madison.	Larkin, C. H.	Milwaukee.
Hopkins, J. C.	Madison.	Larkin, Daniel	Milwaukee.
Hoskins, J. W.	Milwaukee.	Lawton, J. G.	Green Bay.
Hoyt, J. W.	Madison.	Learned, J. M.	Janesville.
Hughes, Wheldon. ...	Janesville.	Lockwood, Jno.	Milwaukee.
*Hunt, J. W.	Madison.	Ludington, H.	Milwaukee.
Hurlbut, E.	Oconomowoc.	Lynde, W. P.	Milwaukee.
Hutson, Sol.	Janesville.	Lester, Waterman. ...	Janesville.
Harris, Jas.	Janesville.	Ludlow, A.	Monroe.
Hodge, Robt.	Janesville.	Lloyd, Lewis	Cambria.
Haight, Nicholas. ...	Madison.	Lynch, T. M.	Janesville.
Hume, Wm.	Janesville.	Lawrence, W. A. ...	Janesville.
Hiner, W. H.	Fond du Lac.	Little, Thos. H.	Janesville.
Hammond, E. S.	Fond du Lac.	Lewis, Herbert A. ...	Madison.
Hogan, Gilbert	Janesville.	Leitch, W. T.	Madison.
Hall, Augustus.	Janesville.	Leitch, W. T., Jr. ...	Madison.
Hill, James H.	Madison.	Leslie, Jno.	Madison.
Hollister, R. M.	Janesville.	Lyman, L. H.	Madison.
Hodson, C. W.	Janesville.	Lewis, Jno. L.	Madison.
Harvey, J. W.	Madison.	Larkin, Wm.	Madison.
Hancock, Brad.	Marshall.	Larkin, B. F.	Madison.
Hopkins, James.	Madison.		
Hammond, L. M.	Madison.	Mann, I. L.	Fitchburg.
Hausman, Jos.	Madison.	Mann, J. E.	Madison.
Hill, H. J.	Madison.	McDonald, A.	Alloa.
Hawes, J. F.	Madison.	Macy, J. B.	Fond du Lac.
		Marshall, Sam'l. ...	Madison.
Ingham, A. C.	Madison.	Martin, C. L.	Janesville.
		Martin, A. C.	Ashton.
Janssen, E. H.	Mequon.	Maxson, O. F.	Prescott.
Johnson, J. C.	Leyden.	Mills, Simeon.	Madison.
Juneau, Paul.	Juneau.	Miltimore, Ira.	Janesville.
Jenkins, J. C.	Janesville.	Mitchell, Alex.	Milwaukee.
Jackman, Hiram ...	Janesville.	McBride, Alex.	Madison.
Johnson, M. B.	Janesville.	McCarty, F. D.	Fond du Lac.
Jacobs, H. C.	Janesville.	Morse, D. S.	Milwaukee.
Jerdee, L. P.	Madison.	Morse, Sam'l.	Milwaukee.
		McPherson, J. P. ...	Springdale.

NAMES.	RESIDENCE.	NAMES.	RESIDENCE.
McGregor, Alex....	Nepuskin.	Pratt, E. E.	Madison.
Masters, E. D.	Jefferson.	Perry, B. F.	Madison.
Miner, Cyrus.	Janesville.	Palmer, J. Y.	
*Mabie, E. F.	Delavan.	Park, W. J.	Madison.
Moseley, G. F.	Janesville.		
Mosher, J. C.	Lodi.	Reed, Harrison....	Madison.
Matteson, Clinton..	Rosendale.	Reed, Herbert....	Madison.
Mason, Geo. A.	Madison.	Reynolds, Thos....	Madison.
Martin, S. W.	Madison.	Resague, A. C.	Janesville.
McCullough, And....	Emerald Grove.	Richards, Richard.	Racine.
Martin, Nath'l....	Monroe.	Richardson, D.	Middleton.
McConnell, T. J.	Madison.	Richardson, Jas....	Madison.
McCormick, J. G.	Madison.	Robbins, J. V.	Madison.
Mears, Wm. A.	Madison.	Roddis, T. R.	Milwaukee.
Merrill, Alf.	Madison.	Roe, J. P.	Franklin.
Main, Alex. H.	Madison.	Rogers, C. H.	Milwaukee.
McDougall, G. W....	Madison.	Rogers, J. S.	Burlington.
Moxley, A. R.	Madison.	Rowe, W. E.	Mazomanie.
McKenna, David....	Madison.	Rowley, N. C.	Verona,
Morden, Ed.	Madison.	Ruble, Simon.	Beloit.
Murray, Geo.	Racine.	Ruggles, J. D.	Madison.
		Richmond, Amaz'h	Whitewater.
Needham, J. P.	Wauwatosa.	Rowe, Richard W.	Madison.
Newcomb, S. B.	Cold Spring.	Rogers, Anson....	Janesville.
Nichols, L. T.	Janesville.	Raymond, S. O.	Geneva.
Norton, J. B.	Madison.	Rizer, J. O.	Oregon.
Nott, B. T.	Oregon.	Richardson, R. J..	Janesville.
Newton, Ephraim..	Oregon.	Richardson, H.	Janesville.
		Rice, E. M.	Whitewater.
Olney, C. W.	Madison.	Rexford, J. D.	Janesville.
Ott, Geo. V.	Madison.	Keynolds, Jno....	Kenosha.
		Reardon, Chas....	Janesville.
Paddock, Geo.	Milwaukee.	Riebsam, C. R.	Madison.
Palmer, H. L.	Milwaukee.	Reynolds, Jno....	Madison.
Peffer, G. P.	Pewaukee.	Roderman, Jno....	Madison.
Pinckney, B.	Fond du Lac.	Reynolds, M.	Madison.
Plumb, T. D.	Madison.	Rawson, C. A.	Madison.
Porter, Wm. F.	Madison.	Ross, Jas.	Madison.
Porter, Wm. H.	Madison.	Robbins, J.	Vienna.
Power, D. G.	Madison.	Rodgers, Lawrence	Westport.
Powers, D. J.	Madison.		
President St Peter's	Springfield.	Sage, E. C.	New Lisbon.
Val. Farm's Club		Sexton, L.	Milwaukee.
Proudfit, And.	Madison.	Scott, S. B.	Milwaukee.
Plumb, J. C.	Milton.	Seville, Jas.	Merrimac.
Payne, Wm.	Janesville.	Sheperd, C.	Milwaukee.
Pember, R. T.	Janesville.	Shipman, S. V.	Madison.
Perrine, L. W.	Janesville.	Sinclair, Jeff.	Milwaukee.
Palmer, O. M.	Oregon.	Slaughter, G. H.	Middleton.
Parsons, P. B.	Madison.	Smith, Geo. B.	Madison.
Parmely, Ira.	Center.	Sallisburg, R. W..	Fitchburg.
Perkins, P. M.	Burlington.	Smith, J. B.	Milwaukee.
Pond, Sam'l A.	Albany.	Spaulding, Wm....	Janesville.
Park, John W.	Vernon.	Sheldon, D. G.	Madison.
Parker, C. H.	Beloit.	Spaulding, Jos....	Janesville.
Patten, L. F.	Janesville.	Stilson, Eli.	Oshkosh.
Pinney, S. U.	Madison.	Stewart, G. H.	Beaver Dam.
Paine, Geo.	Madison.	Stewart, C. K.	Danville.

NAMES.	RESIDENCE.	NAMES.	RESIDENCE.
Sherman Geo.....	La Prairie.	Utter, Jas.....	Oregon.
Sherman Amaziah..	La Prairie.	Vaughn, O. A.....	Lodi.
Sherman Adelmar..	La Prairie.	Van Slyke, N. B..	Madison.
Squire, Thos. B....	Waterloo.	Vilas, L. B.....	Madison.
Simmons, C. J.....	Monroe.	Vilas, Chas. H.....	Madison.
Sherman, J. M.....	Burnett.	VanNostrand, A. H	Madison.
Sullivan, Jas.....	Burke.	Van Etta, Jacob..	Madison.
Smith, S. W.....	Janesville.	Vilas, Wm. F.....	Madison.
Skinner, E. W.....	Madison.	Vilas, L. M.....	Madison.
Spencer, R. C.....	Milwaukee.	Viall, Andrus.....	Madison.
Slaughter, W. B...	Middleton.		
Slocum, G. A.....	Janesville.	Webster, Martin..	Fox Lake.
Smith, H. L.....	Janesville.	*Weed, Chas.....	Madison.
Smith, M. C.....	Janesville.	West, S. C.....	Milwaukee.
Skelley, Chas.....	Janesville.	White, W. A.....	Madison.
Stannard, A. C....	Milton.	Whittlesey, T. T..	Pheasant Branch
Schutt, U.....	Janesville.	Wilcox, C. F.....	Janesville.
Snell, H.....	Madison.	*Willard, J. F.....	Janesville.
Sloan, I. C.....	Janesville.	Williams, D.....	Springfield.
Smith, J. Morris...	Janesville.	Williams, C. H.....	Baraboo.
Sheldon, S. L.....	Madison.	Williams, G. M...	Whitewater.
St. John, J. W.....	Janesville.	Williams, Daniel..	Madison.
Smith, S. B.....	Vernon.	Wilson, H. O....	Milwaukee.
Stockman, Jno.....	Milton.	Wolcott, E. B....	Milwaukee.
Stone, G.....	Beloit.	Warren, J. H.....	Albany.
Stowe, Lafayette...	Sun Prairie.	Williams, S. G....	Janesville.
Scollan, Frank.....	Madison.	Wilson, Zebina...	Palmyra.
Stevens, J. T.....	Madison.	Willey, O. S.....	Madison.
Steensland, H.....	Madison.	Wheelock, W. G...	Janesville.
Skinner, Geo. J....	Madison.	Webb, Jas. A.....	Janesville.
Sheldon, A. H.....	Madison.	Williams, Randall.	Janesville.
Sharp, J. W.....	Cottage Grove.	Wright, J. S.....	Emerald Grove.
Storm, Wm.....	Madison.	Williams, C. L....	Madison.
Shipman, A. C.....	Sun Prairie.	Wright, Josiah T..	Janesville.
Sanderson, R. B...	Poynette.	Wright, N. A.....	Prairie du Chien
Sutherland, C.....	Syene.	Wylie, Geo. W....	Elkhorn.
Smith, Adam.....	Burke.	Worthington, D...	Madison.
Swain, Wm. W....	Verona.	Wheeler, Guy.....	La Prairie.
		Wait, J. B.....	Waitsville.
Taylor, W. R.....	Cottage Grove.	Wright, D. H.....	Madison.
Tenney, H. A.....	Madison.	Worthington, B. M.	Madison.
Thomas, M. J.....	Fond du Lac.	Wootton, Rob't...	Madison.
Todd, J. G.....	Janesville.	Werner, Jno.....	Sauk.
Throop, B.....	Milwaukee.	Welch, W.....	Madison.
Townley, Jno.....	Moundville.	Williams, J. P....	Madison.
Taylor, Ek.....	Mukwanago.	Warren, W. R....	Madison.
Tallman, W. H.....	Janesville.	Wheeler, W. A....	Madison.
Treat, R. B.....	Janesville.	Wightman, H.....	Blk Earth.
Twining, M. S.....	Magnolia.	Willson, Wm.....	Westport.
Tierney, K.....	Madison.	Wright, Geo.....	Mt. Horeb.
True, W. H.....	Fitchburg.	White, A.....	Verona.
Thompson, W. H...	Madison.	Williams, S. B....	Madison.
Tolford, J. W.....	Madison.	Wheelwright, J...	Middleton.
Torgerson, Lars...	Madison.		
Terwilliger, Jas...	Syene.	Young J. E.....	Harmony.
Thompson, Ole.....	Madison.		

*Deceased.

TRANSACTIONS.

GENERAL REPORT.

To His Excellency, LUCIUS FAIRCHILD,

Governor of the State of Wisconsin:

SIR:—

In complying with the provisions of section 6 of chapter 80, of the Revised Statutes, and of chapter 74 of the General Laws of 1868, it has seemed proper to precede the detail of the transactions of the State Agricultural Society, for the several years respectively since the date of our last published report, with a brief general survey of the whole period embraced.

The year 1860, of which Volume VI was a comprehensive report, was a golden year in the history of our commonwealth. By a steady influx of population from the Eastern and Middle States, and from the best portions of the Old World, Wisconsin had risen, as if by magic, from the sparsely inhabited territory of twelve years before, to the dignity of a great and prosperous State, with more than three-quarters of a million souls, and eight representatives and senators in the common National Council. Her broad expanse of beautiful and fertile lands, though even then but partially and poorly cultivated, were yet able to challenge the older of the States to a comparison of the aggregate production of staple crops; the wheat

yield of that year being over twenty-seven millions of bushels—the largest amount that, up to that time, had ever been produced by any one State. Her pastures gave food to innumerable flocks and herds of superior blood. Her hundreds of young orchards and vineyards had begun to rejoice in crops of luscious fruit. Her forests of timber resounded on every side with the stroke of the woodman's axe and the shouts of numberless teamsters. Her mines of lead had already yielded up rich treasures to delving thousands of her hardy yeomen, and her scarcely less rich mines of zinc, and iron, and copper, had attracted the attention of enterprising capitalists in various portions of the country. Numerous factories had found their places on her exhaustless water-powers. Her noble rivers and lakes, whose waters so lately had never been disturbed by other craft than the lone canoe of the savage, now teemed with the fast-increasing commerce of a marvelous new empire—the Empire of the North-West. Railroads, with bands of iron, uniting her northern with her southern and her eastern with her western limits, already bound her territory compactly into one. Flourishing cities, towns and villages were found on her many harbors, along her water-courses and on a thousand crests of her undulating openings and prairies. The school-house, that symbol of American civilization and sign of our future glory as a nation, opened wide its friendly doors in every neighborhood. Colleges for the higher education welcomed hundreds of her aspiring youth to the treasuries of Literature, Science and the Arts. Charitable and reformatory institutions worthy of the older States fitly crowned the summit of many a noble eminence and reflected the approving smile of God upon the practical benevolence of her people; while thousands of church-spires silently pointed the citizen and stranger alike to the Great Source of this wondrous prosperity.

More marvelous changes were never wrought upon so broad an area in so short a time.

We have said the year 1860 was a golden year in our history. So, also, was it the crowning and closing year of its first period; for, with 1861, dawned a new era. The dark wing of

Civil War, which for many years had fitfully glanced in the sunshine of the nation's hope, now rested upon the country like Egyptian midnight. Suddenly, from her dream of peace and undisturbed happiness, and her vision of unexampled glory, the Guardian of our Liberties awoke to find her strongholds stoutly besieged and the Great Republic throttled by legions of implacable foes.

Then was witnessed that sublimest spectacle hitherto known among the nations—of a people by myriads, at the simple call of their chieftain, leaving the peaceful and remunerative fields of industry and going forth as with one arm and one will to battle for the integrity of their country and the vindication of principle; while at home, with re-enforced zeal, the women and children, led by such patriots as could not, or were not needed to, wield the weapons of war, carried forward the arts of peace with undiminished results; not only feeding and clothing themselves and the two millions of our warriors, but even sending bread and the products of their mechanical skill to the needy populations of foreign lands!

Nor is this the sum of the nation's industrial achievements during this eventful period. Institutions of learning for the benefit of agriculture and the mechanic arts, and liberally endowed by the National Government, have been established in many of the States. Cities have multiplied their public institutions and private abodes. Villages, by thousands, have sprung up like an efflorescence upon the broad expanse of our prairies, and carried the clamor of the mechanic arts into the heart of primeval forests. The iron horse has made his path upon the plains of the far West, and even now snuffs the cool air of the Rocky mountains on his way to the Pacific coast. The lightnings, first subjected by our Franklin and Morse, have been taught the courtesies of international intercourse. Even new States, with territory vaster than many of the most potent kingdoms of the Old World, have been added to the galaxy of the Union. And, better than all, now that the smoke of battle has cleared away, and the call of the bugle and the roar of artillery have given place to the ever-welcome music

of the farm, the forge and the factory, harmoniously blended with the glad voices of the millions of a chastened but grateful and happy people, the more than million of men who, suddenly returned from the fury and carnage of war, it was feared might too easily become demoralizers of society, and even disturbers of the peace, have thus quickly been absorbed in the whole population without other apparent influence than a quickening of its energies, the strengthening of its patriotism, and the increase of activity in every good work.

It is needless to claim that in all these triumphs of peace and moral power, as well as in those of war, Wisconsin has proudly shared. No soldiers ever fought more heroically on the field of blood, or returned more quietly and gladly to their former useful pursuits. No men of work ever strove more nobly or successfully in the fields of industry than hers.

In endeavoring to determine just what progress has been made by our State in the different branches of industry during the period under review, or indeed, during any period, the public economist is greatly embarrassed by the

LACK OF FULL AND RELIABLE STATISTICS.

On this head, the importance of which can hardly be over-estimated, we may be pardoned for speaking earnestly and pointedly.

As a State, what have we really accomplished? What are we doing that might with greater economy be omitted? And what are we failing to do that most of all needs to be done? These, certainly, are important questions—questions that every State should be able to answer without hesitation and without guessing; especially every new State, since it is questions of this kind that are constantly being asked by prospective emigrants at the East and in the Old World, and since, moreover, the material of which the future State is to be moulded is then plastic to the touch of her statesmen.

Figures, are usually considered dry reading; but to one seeking information concerning a new country where he thinks of

making a home for himself and his posterity, there is nothing so intensely interesting and satisfactory as reliable statistics.

If a farmer, or if proposing to become such, he earnestly inquires for the area of timbered, arable and cultivated lands; the kinds of crops grown; the number of acres already in pasture and meadow; the number of acres in wheat, rye, corn, barley, oats, potatoes, flax, &c.; the average yield per acre of each of these products, their quality and recognized value in the available markets, with the cost of their production and transshipment; the amount of live stock of the various classes, and the breeds best adapted; the quantity of beef, pork, mutton and wool produced, with the amount of each exported and the average price and profits realized.

If a mechanic, what so important as a full and complete knowledge of the number, character and capacity of the manufactories and workshops of the country where he would try his fortunes; the accessibility, quality and cost of the materials to be used; the price of labor; the demand for such articles as he is best qualified to manufacture and their average value in the markets?

If a miner, tradesman, mere capitalist, or professional man of any class, what so valuable as correct information concerning all these matters enumerated and a thousand others of the same sort? Every man who has ever transferred his business interests from one section to another has then realized its value in his own case, and every one in any way connected with a public office to which such enquiries are likely to be directed must have had its importance deeply impressed upon his mind. Being often in receipt of letters from intelligent gentlemen in other states and in European countries, abounding in questions like those above enumerated, we are constantly tried and mortified because of our utter inability to make satisfactory answer.

But not alone with a view to immigration is an annual statistical exhibit of our industrial condition and progress necessary. We need to know for ourselves what we are doing—else how shall we be able to correct the errors of which we

may be guilty as a people and State? True, if any particular branch of business be overdone, that fact will appear in course of time, either by the depreciation in the value of its products, or, what, as in the case of deterioration of soil, is often much more serious, by a manifest depreciation in power and capacity of the agencies necessary to their production. But would it not be vastly better to provide ourselves with the means of accurate information at once? Besides, it is quite as important to know in what particulars we are not doing enough as in what we are doing too much; and it is this class of errors—errors of omission—that can only come to our knowledge through the medium of statistical reports. We may *guess* that we are going wild on hops, but if we have no statistics as to the number of acres actually planted in excess of last year, the prospective amount required to supply the markets from the time the present planting will be ready for the harvest until we shall have reaped the profits, together with the circumstances that are likely to govern the markets in the future, we shall act without intelligence and very possibly against our own interests. We may guess that we are raising great quantities of wheat, very few cattle and very little wool, but so long as there is nothing definite and positive, we incline to slur over these great practical faults and slide along as we have been wont. Figures, on the contrary, have point and will prick us to a realization of our blunders as nothing else can.

What would be thought of a merchant who should attempt to do a wholesale business in all the departments of trade without keeping accounts of any sort? That he was either a madman or a fool, and that very soon his neighbors would have a practical illustration of the best method of doing a *smashing* commercial business.

But is not the State of Wisconsin doing very much the same thing. Agriculture, mining, manufactures, commerce—all these important branches of industry are being carried on without any definite knowledge on the part of the State as to how much is being accomplished by any one of them. We are producing much, carrying much, and importing much; but *how*

much? Is the balance as largely in our favor as it ought to be, or might be? And if not, just where is the fault, and what is the remedy? We have an active and enterprising people, and know that everybody is hard at work; but whether to the best end and with the most advantageous results—of this we know nothing.

The returns that come to the Secretary of State once in ten years are oftener than otherwise pernicious delusions, and a large number of the counties make no report at all. This condition of things should not longer be suffered to continue. If the present general system is to be perpetuated, the statute should at once be so amended as better to meet the necessities of the State.

It is questionable, however, whether really satisfactory results can be attained without the agency of a well organized Bureau of Statistics, such as several of our sister States, including Missouri, and even Minnesota and others west of us, were long since wise enough to establish, and through the practical workings of which they have already derived very marked benefits. Such a Bureau or Commission would not only regularly gather information covering the whole field of industry, but likewise enlighten the State on a thousand questions of the utmost social concern, in regard to which we are now so totally and shamefully in the dark.

In most of the European states, agencies of this sort have come to be a stern social, as well as material, necessity, and are fostered with as much solicitude as any department of the government. With us it is a question of establishing such an agency eventually, as a means of helping the State imperfectly to remedy the evils consequent on gross ignorance, or of doing it now, and thus rendering an avoidance of them easy, and assuring the greater prosperity of the commonwealth.

As Mansfield has well said, "Social Science of necessity extends its enquiries to the physical laws of man as a social being; to the resources of the country in which he lives; to the growth of society; to its labor and production; to its commerce, manufactures and arts; to its property and wealth; to

crime, poverty and mortality ; to education and religion ; and in fine, to all those facts of condition which may increase or diminish the strength, growth, or happiness of a people."

But it is this Social Science—highest and noblest of all the sciences—of which STATISTICS are the foundation and corner stone. Need anything further be urged in demonstration of their importance to every civilized State ?

We respectfully and most earnestly ask that this whole subject may receive from the Legislature of Wisconsin that early and careful consideration to which it is so manifestly entitled.

AGRICULTURE.

During the war, when husbandry was necessarily somewhat retarded by the withdrawal of so large a proportion of the working force, it is not surprising that many who had formed, or were forming, habits of more thorough and systematic management should have relaxed their efforts in that direction and made immediate advantage the chief object of their labors ; nor that, under this plan of operations, broader areas were devoted to the best paying crops than could be cultivated in the most approved manner. Nor is it strange, though none the less *reprehensible* on that account, that even during the years since the close of the war, under the stimulation of high prices, wheat, the great staple crop of Wisconsin, has, over and over again, been inflicted upon lands long since impoverished by the unchanging, *land-skinning* practices of former years. It is nevertheless a just ground of encouragement that, on the whole, there has been a steady progress in the direction of systematic farming.

LESS PREJUDICE AGAINST SCIENCE.

Our farmers have been steadily learning that Science—that great bugbear of earlier times—is simply organized *knowledge*, and, therefore, in no possible sense justly obnoxious to the contempt or prejudices of him whose success in his business must,

of necessity, be proportioned, other things being equal, to the amount of real agricultural science he may be able to master. And accordingly, it is more common—though, as yet, by no means universal—to find on **their tables**, and in their usually scanty libraries, some one or more of the many excellent agricultural journals and a more or less liberal supply of the hundreds of valuable, practical books that now treat on almost every branch of husbandry. In proportion as this foolish prejudice against all knowledge that has once found its way between the lids of a book, or into the columns of an agricultural journal, dies away, our farmers will become more successful as individuals and respected as a class.]

DRAINAGE.

The time has been when no Wisconsin farmer thought of draining his land, either by open or under drains, unless they were marsh or damaged by permanent ponds of stagnant water. Now there are many who not only drain lands of this class but such as hitherto have borne orchards of fruit or been cultivated for years as being dry enough for all practical purposes. They do not in all cases fully understand the philosophy of drainage as applied to lands not over-burdened with water, but they have learned by observation or experience that it *pays* in many cases where formerly deemed useless, and they require no further argument.

When they come more fully to understand that it not only removes stagnant water from the surface and surplus water from under the surface, but that it likewise warms the subsoil; equalizes the temperature of the soil throughout the season of growth, which is also by these means prolonged; deepens the soil; supplies a greater amount of mineral food to the crops by the oxidation of valuable substances otherwise incapable of assimilation; carries down soluble substances to the roots of plants—thus increasing the efficacy of manures; brings up from the depths below moisture and with it soluble food which else could not rise sufficiently near the surface—thus at once opening new store-houses of food and preventing the disas-

trous effects of drouth, starvation, rust and rot ; diminishes the liability to heaving and winter-killing ; and that thus in all these and other ways it tends to improve both the quantity and quality of crops ;—then drainage will be more common, and, in the case of particular locations, soils and crops, so far as means and circumstances shall warrant, become the general rule.

ROTATION AND FERTILIZATION.

It is also a ground of congratulation that the farmers of Wisconsin are beginning to realize the importance of studying more carefully the adaptation of grain crops to particular soils and conditions ; to appreciate the deteriorating effects of some crops and the ameliorating influence of others ; and to understand that, inasmuch as the plant feeds largely on elements contained in the soil, it cannot flourish either if these elements, or any one of them, be not found in the soil where planted, or, if, being present, they are not in an available form—in short, that rotation of crops and proper manuring of lands are based on science and common sense, and are, therefore, not to be disregarded.

The old rule of wheat, wheat, wheat, is giving way to a more rational practice. Clover, that invaluable ameliorator of soils, so seldom seen as late as 1860, now rejoices the hearts of thousands of weary, half exhausted fields with the promise of a better day ; and the disposition to cultivate a variety of crops has been growing stronger with advancing years.

Fewer of the old barns lie inaccessible and useless in the steaming, stenchy craters of surrounding manure heaps ; and a less number of those newly built are found standing on the brow of a hill or on the brink of some stream, with a view to an easy riddance of such “ miserable offal ” as, somehow, will accumulate in and about every stable and cow-yard !

Burning straw-stacks, kindled for a like reason, or for the sake of a cheap pyrotechnic display, are less frequently seen scattering the precious food of succeeding crops to the four winds of heaven.

Some very radical farmers, after keeping as much stock as

their farms would warrant, with an express view to an increased amount of manure, and taking great pains to convert all unfed straw and other material, into fertilizers, have gone so far as to work up great quantities of muck in stall, yard and piggery, and still not content, have dug into neighboring marl-beds, and as a delicacy for certain favorite crops, even ordered bone-dust and plaster from other states! It is proper to state, however, that the number of such is not sufficiently large, as yet, to be an occasion of well-founded anxiety on the part of the great body of our more staid and conservative farmers.]

WHEAT,

During all the past years since 1860, has scarcely lost prestige with our farmers; who, because of the scarcity of labor essential to the cultivation of all hoed crops, the increase of mechanical facilities for harvesting, and a steady increase in price, have even cultivated it with more than former zeal and energy.

The greatest crops of the period were raised in 1861 and 1863; in which years, respectively, the yield is believed to have been as high as twenty to twenty-five million, and twenty-five to thirty million bushels.

In 1864 to 1866, inclusive, the chinch bug (*Micropus leucopterus*, of Say,) committed such ravages as greatly to diminish, and in some cases almost entirely destroy, the crop. All attempted remedies, except the very manifest but rather slow and laborious one of stamping them under foot, or beating them to death with billets of wood—both of which were nearly as destructive to the wheat as to the bug—failed; so that an utter abandonment of the cultivation of this crop for a time seemed inevitable. But, happily, the intensely cold winters that succeeded, or some other natural cause or causes, so crippled the energies of the enemy that from that time forward his attacks were less and less serious, until the farmer again held undisputed possession of the field.

In 1863, just before harvest, the wheat aphid (*Aphis avenæ*, of Fab.) also made its appearance, and occasioned much alarm, though it did not prove so destructive as was feared.

As to varieties, the Canada Club, which for some years pretty much occupied the ground, has, in part, given place to others.

So long as present high prices (\$1.75 to \$2.00, and over, per bushel) continue, there is certainly profit in the business, for such as understand and regard the conditions of its successful production, and less prospect than ever of getting the great mass of our farmers out of the old beaten track.

Of the other cereal crops nothing special need be said, as their cultivation has been in no very remarkable manner disturbed, and they each relatively hold their accustomed places in the agriculture of the State.

THE POTATO

Has not been so fortunate. For, although it has pretty well escaped the rot, early in the summer of 1866 (and perhaps during the year previous, in some sections), there appeared great numbers of the *Doryphora decemlineata*, now familiarly known as the "potato-bug," and commenced so vigorous a destruction of the vines as to occasion serious alarm. This insect is familiarly known to our people as of a dark-brown, when young, but handsomely striped with yellowish-white when full grown, and as preying upon the leaves of the potato with so much vigor as, in a few days, if unmolested, to leave the crop above ground a shrivelled, blackened remnant of half consumed stalks. Of course the young and tender tuber, though untouched by the insect, is about as effectually disposed of as if literally eaten up.

The belief is prevalent that this insect first appeared in the far West, and steadily makes its way eastward. As yet no easily applied remedy has been discovered—nothing better than to go though the field once or twice a day and pick them off; a task which, though tedious, is not difficult, as being a half inch in length, they are easily seen, and no less easily captured, owing to their sluggish habit and but imperfect use of their wings. How long they will continue their destructive attacks upon successive crops, no one assumes to predict.

SORGHUM CULTURE,

Which commenced in Wisconsin, as an experiment, in the year 1857, grew rapidly in favor for a time and became so general during the period of the war and the two years succeeding as even to awaken in the minds of the more sanguine the belief that it was to become an important staple crop. According to the very incomplete returns made to the Secretary of State for the years 1860, 1865 and 1866, respectively, the acreage and product were as follows:

	1860.	1865.	1866.
Acres planted	314	1,736	3,486
Gallons of Syrup.....	51,085	138,607	403,952
Value of product.....	\$21,000	\$151,345	\$331,334

It is safe to assume that in 1866 the value of the product considerably exceeded half a million of dollars. It was in this year that the sorghum fever reached its hight. At that time hundreds of fields in every section of the State greeted the eye of the traveler with the pleasing spectacle of this luxuriant crop, lifting its millions of plume-like panicles rejoicingly in the autumn sun. On every hand groaned and creaked the crowded mill, and upward curled the cloud of vapor and smoke as incense to Ceres for this, her latest and most wonderful gift. Scores of inventors spent sleepless nights and secluded days in contriving "excelsior" and "climax" machinery. Foundries and factories roared and thundered in their efforts to supply the growing demand. Proprietors and agents clamored at all the State and County Fairs with proof undeniable of the superiority of their respective patents, until "Camp Sorghum" became a very bedlam, and awarding committees were pressed to the verge of insanity.

Thus the stir and strife continued, so long as Southern and foreign sugars stood at 25 to 35 cents per pound, and syrups at \$1.00 to \$1.50 per gallon—so long as there was a firm belief in the adaptation of both Sorghum and Imphee to our climate—while there was a prospect of the immediate establishment of refineries for improving the flavor of the molasses—so long as annually new and surprisingly cheap processes for the man-

ufacture of unmistakable *sugar* were heralded abroad and demonstrated before wondering conventions. But the war ended, and with it the hope of making sorghum always successfully compete with the sugar-cane of the South. Slowly the conviction crept over the State, as crop after crop of seed failed to ripen, that the real habitat of the plant was in lower latitudes; the promised refineries never came to the relief of the disappointed palates of fastidious consumers; and the "ten pounds" of nice, dry, genuine sorghum sugar, for which this Society, through so many years, persistently offered a handsome premium, never gladdened our eyes.

Still, Sorghum has by no means been a *multicaulis* innovation. It came, as it were, providentially, just before all saccharine supplies from the south were cut off by the rebellion, and during that protracted struggle furnished our people with a very fair substitute. Its cultivation involved no material outlay on the part of the farmer, except such as purchased machinery and apparatus for its manufacture; and probably most of these, like the manufacturers of the mills, have been several times over-reimbursed from net profits on the business. Its importation into this country will ever be an occasion of congratulation. In Ohio, Indiana, Illinois, Missouri and portions of several other states in that range, when its properties and better methods of managing its juice come to be understood, it will continue a boon to the farming population. Nor will its culture be altogether abandoned in this State. Hundreds of farmers, who have acquired a fondness for its peculiar flavor, and who have the means of manufacture already, will deem it economy to raise a sufficiency for themselves and some of their neighbors, notwithstanding the reduced prices of imported syrups and sugars; and when the means of improving its quality are discovered the number of such may be still greater than now.

HOP CULTURE,

In the extent to which it is now being carried, is another innovation upon the old routine of Wisconsin farming that dates

back but a few years and is of such importance as to require notice in this general review.

Its introduction and extraordinary run in this State are mainly due to three circumstances—the failure of the crop, or rather repeated and utter failures of it, owing to ravages of its insect foes, in New York and other portions of the East, whence Western supplies even had been largely drawn; to the fact that some of the largest establishments in the country—and a good many of them—were located in our own metropolitan city; and to the further reason that the climate and soils of Wisconsin were found to be admirably adapted to its healthy growth.

The crop in 1860 was so trifling as scarcely to deserve mention. But in the year 1864 it amounted to 385,538 pounds, as shown by the incomplete returns to the Secretary of State, with a value of \$135,127; and in 1865 to 829,377 pounds, with a total value of \$347,587. But even this was only the beginning. In 1866 the business of planting and poling began in earnest, and before the season was over the fever raged like an epidemic. Gathering renewed force with every new acre planted in the county of Sauk, where it may be said to have originated, and where the crop of 1865 was over half a million of pounds, it spread from neighborhood to neighborhood, and from county to county, until by 1867 it had hopped the whole State over; so completely revolutionizing the agriculture of some sections that one in passing through them found some difficulty in convincing himself that he was not really in old Kent, of England. Even many of our old-fashioned wheat farmers caught the infection, and for once have disturbed the routine of their operations. In 1867 the crop in Sauk county alone, which still has the honor of being foremost among the forty or more counties that have enthusiastically followed, is believed to have been over four million of pounds, with a cash valuation of but little if anything short of \$2,500,000! Cases are numerous in which the first crop has paid for the land and all the improvements; leaving subsequent crops a clear profit, minus the cost of cultivation and harvesting. The crop of the

present year, throughout the State, will be so great that we dare not venture an estimate.

The yield in various parts of the State often equals one ton to the acre, and the Wisconsin hop commands the highest price in the Eastern markets.

It is hardly the business of a review to anticipate the future; but we cannot forbear a few words of warning to the farming public, whose permanent interests are endangered by the strong hold this mania has taken upon them. They who were quick to discover the deficiency of the supply, and prompt to act, have undoubtedly reaped rich harvests of profit, and will still continue for a time to make it a paying business. But it is certainly questionable whether it be policy at this late day to make a beginning. There will probably be no immediate end to the drinking of beer and the consequent demand for hops in large and perhaps increasing quantities, but there is certainly a *limit* to the demand; and it is equally certain that Wisconsin is not the only portion of the country in which hops can or will be grown. Already the hop-louse, that great enemy of the plant, has discovered our magnificent crop of the present year, and sent out his skirmishers to prepare the way, doubtless, for a general attack. Moreover the price seems sure to decline before any newly planted yard or field can possibly yield its first marketable crop. Fifty-five cents, the price of last year's crop, paid magnificently; but twenty-five would hardly warrant the sacrifice of every other interest to go into this particular business.

AGRICULTURAL IMPLEMENTS.

As to the mechanical branch of agriculture, we may safely assert that it has made more progress during the years embraced in this Report than ever before within the same length of time. The number of original inventions may not have been greater, but under the stimulus of necessity during the war, very great improvements have been made in nearly every class of machines and implements, until now there seems but

little more wanting to give the farmer comparative independence of the slow manual labor on which but one or two decades since he was compelled to rely altogether. For the incalculable service they have rendered during our national struggle, and for the yet greater service they will render in the future by means of still further improvement and indefinite multiplication, the American inventor, manufacturer, and we may even add vendor of agricultural implements and machines, are entitled to rich material reward and the gratitude of the nation and the world.

No matter how great the industry and patriotism of the people, it is universally conceded that the success of our Government in bringing the late war to a favorable issue in so short a time and without serious financial distress or disturbance of social order, is very largely due to the numberless labor-saving inventions with which American industry has been so pre-eminently blessed.

Our farmers are, nevertheless, all the more in need of warning, lest the ease with which crops may be grown and harvested should tempt them to cover even larger areas than heretofore, without the possibility of proper manuring, and then aggravate and perpetuate that old mania for large present profits, though at the cost of ruin to their lands, which thus far has been the characteristic curse of our agriculture in the Western States.

The number of reapers and mowers annually sold in Wisconsin, during the period under review, is really marvellous; compelling the conviction that at present there must be very few farmers unsupplied. One single firm in the city of Madison is this year selling no less than six thousand machines of a particular patent. And judging from the equal activity and large income returns, of other agents, not only at this one point, but in various portions of the State, this number will be many times multiplied.

The number of farmers in the State is no criterion, however, by which to judge of the number of implements or machines of a given class that may be sold. For many of our farmers

are raising such large cereal crops as to be forced, from motives of economy, to throw aside their old implements the moment an unmistakably improved one comes to their knowledge.

Grain drills, "sulky" cultivators, revolving steel-toothed rakes, horse hay-forks, and numerous other inventions of great value are also being sold in most incredible numbers; thus further demonstrating the enterprise of our farming population, as well as the incalculable benefits conferred upon agriculture by the mechanic arts.

DOMESTIC ANIMALS.

[Thorough-bred animals of every class are becoming much more common than they were five years ago, and their influence upon the native or common stock is already very observable. In view of the marked adaptability of our State to their production, this advance in the right direction is an especial ground for hearty congratulation. There is no sufficient reason why, ultimately, we should not vie with, or even excel, Vermont and Michigan in the breeding of fine horses and sheep. And if we do not soon overtake Kentucky in the breeding of cattle, and New York in the dairy business, the failure should not be chargeable to our lack of enterprise and intelligence.]

2 [Of the *Horse*, we are able already to boast many of the finest specimens known in the west; and the number of such is rapidly increasing by the constant production and importation of superior thoroughbreds. From two or three systematic breeders of such stock in the whole state, in 1860, they have now become so numerous as to exceed the limits of our space for their mere mention.

The very decided opinion and persistent prejudice of some of the slower and over-cautious of our farmers to the contrary notwithstanding, it is only by a liberal infusion of pure blood that we shall be able to raise the standard of superiority and bring this noble animal to its highest capabilities. It is with

this view that the State Agricultural Society has, for some years, encouraged thorough-breeding by the offer of extra premiums and the privilege of a fair test of nerve and power of endurance on the occasion of our Annual Exhibitions.

At the present rate of progress, ten years will suffice to make the value of the horses of Wisconsin, number for number, fifty to one hundred per cent. greater than it is to-day.]

[*Cattle Breeding* does not yet receive its proportionate share 3
of attention. Returns even show a diminution in numbers from 1860 to 1866 in the proportion of 554,903 to 413,459. This falling off, if it has really occurred, is probably owing to the extra attention concentrated upon wool-growing and other branches of farming during that period.

The Durhams and Devons still are, as they must continue to be,—until some entirely new breed is developed,—the favorite breed; the former having no rival for beef, and the latter none for work. There are also a few small herds of Alderneys and Ayreshires, but, as yet, their influence is hardly perceptible.]

[*Dairies* for the manufacture of butter and cheese are doubt- 4
less fewer, relatively, than in 1860; first, for the reason already assigned for the falling off in cattle, and secondly, because of the late establishment, in various sections of the State, of cheese factories managed by private firms, joint stock companies, and mutual benefit associations.

That this system of throwing the milkings of a neighborhood together and carrying on the manufacture under one general management would naturally result in a more uniform product of better average quality to begin with, and a much greater probability of improvement, by means of a more careful and intelligent study of the scientific principles involved, is at once apparent; and the wonder is that the fertile Yankee mind did not get a conception of its value long before.

The scheme originated in New York, the great Dairy State of the Union, only a few years since; and though at first received with much scepticism, after two or three successful trials, it

has grown so wonderfully in favor as to have given origin to large numbers of cheese manufacturers' associations and cheese factories in nearly all the New England, Middle and Western States, and done much to increase the exports of American cheese from 6,500,000 pounds in 1857 to 100,000,000 in 1867! Not only so, the system has resulted in the manufacture of cheese *fit* to be exported; which certainly could not be alleged of the four or five millions of pounds of miserable stuff we were wont to send abroad in former times. When butter-making comes to have part in the plan of these associated dairies, as it ought to have, *its* average quality will be, in like manner, improved.

American dairies should eventually be able to compete, as to quality, with the world-noted English dairies in their own markets; and the prospect now is that very soon they will.

In the furtherance of this important enterprise associations of intelligent, interested parties—especially the New York State Cheese Manufacturers' and the American Dairymen's Associations—have rendered very important service. That no facts essential to success might be overlooked and no means of information disregarded, in 1866 the American Association even sent out a Commissioner or Delegate (X. A. WILLARD, Esq., of New York,) to the Old World with the view of adding as much as possible to the common stock of American knowledge on this subject.

The dairy business, as practiced on the farm, is an exceedingly laborious and trying one upon the female portion of the household; and on this account, also, the farmers of the West and of the whole country are to be congratulated on the highly satisfactory manner in which, as individuals, it is possible for them to escape from its further prosecution. In this state, so far as we are informed, Walworth and Fond du Lac counties are in the lead, with others following hard after them.

The value of Wisconsin dairy products in 1860 was \$1,311,043; in 1865, (several counties failing to report,) \$2,483,081—an increase of nearly 100 per cent., notwithstanding the returned decrease in the total number of neat cattle.

Sheep Husbandry is admirably suited to Wisconsin; its undulating, and in some counties hilly, surface and pure dry atmosphere going far to insure to the animal a sound constitution and comparative freedom from various diseases, which seriously militate against its success in localities characterized by the opposite conditions—facts which the following figures show are beginning to be appreciated by our farmers.

In 1860 the total number of sheep and lambs, on hand at date of census and slaughtered during the year was 487,371, with an estimated valuation of \$708,607. In 1865 the number reported was 1,078,366, with a valuation of \$2,680,267. The amount of wool produced in 1860 was 915,073 pounds, valued at \$331,147. Amount in 1865, 2,584,019; value, \$1,916,248. This remarkable increase in number and value—and the real increase has been still greater than appears by the returns; the agricultural statistics being much more thoroughly collected in 1860 than in 1865—is partly attributable to the conditions peculiar to the times. But, independent of this, much progress would have been made as a result of the conviction that wool-growing, if judiciously followed, in connection with other branches of husbandry, will yield larger average profits, one year with another, than the exclusive wheat-culture so persistently practiced by many. In 1864, farmers who had been shrewd enough to discern the signs of the times reaped golden harvests; receiving in many cases over one dollar per pound for large clips.

Since the close of the war, owing to some diminution of the demand and an unjust discrimination by the government against home producers in favor of foreign wools, prices have ruled lower; falling in 1865 to 48a57 cts., then dropping to 40a50, then to 35a45, and this year to 30a35.

The intelligent farmers of Wisconsin will not be disheartened, however. Wiser counsels will prevail in Congress one of these days. Wool must always be a staple crop, and sooner or later the bulk of its production will fall to those portions of the country best endowed by nature for this purpose.

The Legislature can do much to protect this great interest by the enactment of wise and liberal laws. /

The *Cashmere Goat*, first introduced in the United States by Dr. Jas. B. Davis, of South Carolina, in 1849, though long regarded as a beautiful but expensive novelty, and hence encouraged exclusively by here and there a wealthy amateur or "fancy" farmer, has nevertheless steadily held his way, as with an evident intent to make his permanent abode among us.

Originally but nine in number—two males and seven females—they have multiplied until now their progeny are found in nearly every state, Wisconsin included.

The great value of the fleece,—which, though much lighter in weight, is many times more valuable in the world's markets than the finest wool—added to the striking beauty of the animal when in full flowing dress of white, wavy, silk-like fleece, makes the Cashmeres a very desirable acquisition. The only question is one of adaptability to this colder climate than that of their native country. On this point there is not, as yet, complete knowledge, derived from varied and repeated experiment; on which account due caution is recommended. Still with good care, they have passed satisfactorily through several seasons in this and other almost equally cold States.

A cross with the common goat, which is found to be compatible with the production of a mixed fleece of about half the value of the pure blood, will ensure increased hardiness and at the same time a great reduction in the first cost of a flock, however; and so the possibility becomes even a probability that they will be gradually acclimated even in Wisconsin.

Of the other classes of domestic animals, there is nothing of special interest to be reported. Swine appear to be slowly conquering the prejudices of our farmers, especially since the introduction of the Suffolk and Chester White; but it seems likely to be a good while yet before the hog will be very popular in this pre-eminently wheat-growing State.

Thus, in the whole department of stock-breeding, there is progress. Farmers are being aroused to a sense of its necessity as a branch of our agriculture, and not only providing themselves, as already stated, with animals of the best breed and

blood, but they are even, in some cases, carefully studying those physiological principles of breeding, without a knowledge of which the highest degree of success is found to be impossible.

HORTICULTURE.

In the department of fruit-growing there has been much, during the past eight years, both to encourage and to discourage.

The ineffectual efforts of thousands of farmers to establish orchards abounding in favorites too tender for our climate, seconded by that most determined and provoking insect enemy, the bark-louse, had brought repeated discomfeiture. And yet, rallying from the shock of the terrible winter of '56, with a most commendable pluck and perseverance, they planted again, and during the decade ending with 1867, made such marvellous progress as to fix again in their minds the delusive hope that, at last, the most suitable varieties, soils, exposures and methods of cultivation had been determined. Orchards multiplied on every hand, and at all our State and County Exhibitions the tables devoted to fruit presented as inviting specimens as ever delighted the eye or palate of the most fastidious amateur in any of the old and best-reputed fruit-growing States.

But the last autumn, winter or spring, or all three combined, have sadly disturbed the faith and patience of farmer, gardener and nurseyman, by the fearful destruction that has come upon great quantities of the more delicate and even some of the "hardy" varieties of fruit-trees, vines and ornamental plants and shrubs. Still our leading culturists are full of courage, and will doubtless "rally once again" with the same commendable, indomitable spirit so often shown in former years.

It is useless to attempt to conceal the fact that the climatic and other conditions of Wisconsin are less favorable to general fruit-growing than those of some other States. But after all, with perseverance, acquired knowledge and unflagging effort,

we may in the future really accomplish more in this direction than will be accomplished in most of the more favored localities.

One thing seems certain, viz., that our still long lists of varieties must be heroically cut down. And it is probably no less certain that thorough drainage, high planting (on high locations), mulching, low training, and protection by means of belts of timber, have not hitherto more than half done their duty.

But a discussion of these important subjects in this connection is made unnecessary by the publication in this volume of the proceedings of the State Horticultural Society., to which you are respectfully referred.

The unabated interest in Horticulture is further demonstrated by the number of local societies lately organized in various portions of the State, as well as by the more frequent occurrence of those horticultural embellishments of city and country homes, which betoken a growing appreciation of the beautiful in Nature and in Art. Organizations of this sort may be of incalculable value in any community, and, so far as practicable, should be aided and encouraged by the State and municipal governments.

MINING.

Since 1860, when the quantity of Lead raised was reported as being 22,000,000 pounds and the product of iron (in *pigs*) between five and six millions, we have no reliable data for a comparison of the production of our mines.

The returns made to the Secretary of State, in 1866, show a remarkable decrease. How much this apparent falling off may be real and how much dependent on the assessors not receiving their blanks until many of them had well nigh finished their work, we are unable to estimate. It is nevertheless true that in one important respect there has been much real progress in our mining operations since 1860.

Ever since lead-mining commenced in Wisconsin, it has

been conducted, until very recently, by individuals, and in the most irregular, hap-hazard, and wasteful manner—very much like our farming. The proprietor of lands having found what seemed to be a rich deposit, rallied a small force of practical miners, sunk a shaft a few feet to the first rich vein, worked away until he had realized five, ten or twenty thousand dollars from his mine, and then abandoned it for other richer deposits. Thorough, systematic, exhaustive mining has been utterly unknown.

Within a very short time, however, several strong companies, backed by Eastern capital and directed by science, combined with practical skill, have purchased territory and begun operations in a manner that augurs well, not only for their particular success, but for the future of mining in Wisconsin.

Instead of mere vertical shafts, through which alone access was had to the mines, and up which all the mineral and surplus water had to be raised by hand or horse-power, these companies, by tunnelling into the deposits upon which the shaft descends, are enabled through the adit thus made, not only to effect complete and economical drainage and ventilation of their mines, but likewise to draw off the mineral on tram-ways, at a vastly greater advantage than was possible under the old method of hoisting. Not only so, these companies are making clean work as they go; taking out not simply the richly paying lead ore, to the total neglect of everything else, as was formerly the practice, but also carefully saving all the zinc ores, which, in the form of the carbonate ("dry bone") and sulphuret ("black jack"), are not unfrequently found in larger quantities than the lead, and which, since the establishment of zinc furnaces and zinc-white manufactories, at Mineral Point and La Salle, have a value of one-fourth to one-half that of the lead ores, so long the exclusive object of the miner's search.

One of these companies—the Mineral Point Mining Co., chartered in 1865—reported a handsome per cent. on its entire capital stock the second year after its organization, and has since been making a steady and highly profitable development

of its mines. Touching the production of zinc ores, the Secretary in his report of March 30th, 1866, says :

"It is safe to estimate the actual value of these ores at \$30 per ton, for rendering into spelter by our company (that of Lead being \$75.)"

The amount produced of the zinc and lead ores, respectively, was in the proportion of about eight of the former to two of the latter.

Still further, on this point—reference being made especially to the carbonate, which is the most abundant of the zinc ores about Mineral Point, and, happily, the most valuable—the Superintendent of this company, in a descriptive list of specimens sent to the Paris Universal Exposition of 1867, remarks as follows :

"Dry Bone of the Miners, from the Glass Rock opening, always containing some Galena. It is the most abundant of the zinc ores in this vicinity, and furnishes the principal supply for the Spelter works at Mineral Point and La Salle, Ill., as well as for the zinc white manufactured at Mineral Point, and contains 60 to 70 per cent. of oxide of zinc. It is found in the horrizontal openings, in sheet form of indefinite width. Thousands of tons were formerly taken out by the miners in their search for lead ores, and thrown away as worthless. It now sells readily at from ten to fifteen dollars per ton of 2,000 pounds. It is raised by the miner usually at an expense, including his labor, of about six dollars per ton. The lead ore is easily separated from it by pick-axes, wasting and jigging. The product of the mines of this ore in the vicinity of Mineral Point is estimated at one hundred and fifty thousand dollars per annum."

Notwithstanding the large amounts of mineral that have been already taken from the lead region of our State, Wisconsin still stands foremost among the States for its lead deposits, and only second for its mines of zinc. Capital and skilled labor are alone required to make that vast area embraced between the Mississippi, Wisconsin and Rock rivers and the

northern boundary of Illinois the theater of more successful mining operations than have yet been witnessed.

Our iron mining, long in abeyance for want of capital, has likewise just now received an impetus from the establishment, at Milwaukee, of a large foundry and rolling mill at a cost of half a million of dollars, with the view of bringing into use larger amounts, than have been heretofore possible, of the valuable iron deposits of Dodge county and other localities in our State.

Wisconsin is only second among the States in the extent of her iron ores—which, in respect to quality, are equal to the best in the world—and the time cannot be, or at least ought not to be, far distant when this very important element of wealth and power will receive the attention it so richly merits.

LUMBERING.

This important interest still holds its relative rank among the leading industries of the State, if, indeed, it has not outstripped some of the others.

Eight years ago, the vast quantities of logs annually taken from the several lumbering districts were painfully suggestive of the time when "EXHAUSTED" would have to be written across the entire chart of all our great forests. But year after year, with relentless and ever-increasing energy, the thousands of our lumbermen have gone forward with their ceaseless work, until within that short period scarcely less than five thousand millions feet more of lumber have been cut, manufactured and distributed over the country. And there, in primeval grandeur and solemn majesty, stand those same forests still, keeping sacred their interior mysteries, silently recording this present with the long centuries of their mighty past, and serenely defying the gathering hosts of invaders, which, as yet, only thunder at the outer gates of their unexplored solitudes!

In 1860 the amount of lumber manufactured in Wisconsin was about 400,000,000 of feet. The present annual product

is calculated to be about 800,000,000 feet, estimated by the Milwaukee Board of Trade, as follows :

Green Bay and West Shore of Lake Michigan.....	375,000,000
Wolf River Pineries.....	100,000,000
Mississippi and Tributaries.....	325,000,000

Vast as this amount really is, it seems more than probable that the next few years will show a still more rapid development of this branch of industry. The increasing tide of immigration and an unprecedented growth of population in all the Western States and Territories, several of which are but partially supplied with timber by nature, cannot fail to create a growing demand for lumber at yet higher prices, and thus still further stimulate enterprise in this direction. Constantly, new companies are forming in each of the lumbering districts ; and along all the streams new mills of greater capacity than the old ones are rising by scores, under the stimulus and hope of yet greater gains than have been hitherto realized.

The opening of new outlets for manufactured lumber, by the construction of projected railways, will still further stimulate enterprise ; and the reflecting mind is overburdened by even a partial conception of what the next ten years may realize to the great lumbering interests of Wisconsin. Whether the State cannot adopt measures for such protection of young timber of natural growth and the artificial planting of forest trees as will perpetuate a good supply in the future, and at the same time ensure a continuation of the beneficial influence of forests upon our climate, is a question that may well engage the earnest attention of our political economists.

MANUFACTURES.

If God had designed Wisconsin to be chiefly a manufacturing State, instead of agricultural which she claims to be and is, it is difficult to see more than one particular in which He could have endowed her more richly for that purpose.

For what, above all, are essential to a manufacturing country ?

First, the **material requisite** to the construction of homes and the manufacture of the bulk of articles of use and luxury; secondly, the means of a motive power; thirdly, **natural channels** for economical moving of the materials to the place of manufacture; fourthly, open avenues to the **great markets** of the world.

Material she has in **great abundance** and variety, including four of the most useful metallic ores known in the arts—iron, lead, zinc and copper; building stone, brick and potter's clay; timber in great variety, both hard and soft; and the numberless products of agriculture, such as cereal grains for all manner of foods, flax and wool for the more useful textile fabrics, and the several races of domestic animals, each portion of which is so wonderfully prolific, in these days of scientific discovery, of articles in every day use.

As to natural motive powers, no state in the United States or any single country in the known world, can boast of such as are more extensive or more available. Of coal alone, that great steam-maker of the present day, are we denied. And even this deficiency is not so serious a one as we are sometimes apt to think. For, with our modern improvements, in all factories where wood is worked exclusively, the sawdust and other waste should be nearly, if not quite, adequate to the generation of sufficient power for their use; and, if not adequate, in many portions of our State, wood is so abundant as to make fuel quite as cheap as coal would be, even if found within our limits; while those portions which are neither supplied with wood nor water-power fortunately lie so near the coal fields of upper Illinois as, with proper railroad facilities,—which are coming apace,—to be quite as well situated in that respect as the more remote portions of Illinois herself. Moreover these same sections abound in rich deposits of peat, which is destined at a very early day to be utilized for most, if not all, those purposes to which wood and coal are at present applied.

Of the third and fourth requisites, is it not enough to say that no equal area of the world, embraced under one govern-

ment, is so wonderfully furnished with transfluent and surrounding navigable waters, directly communicating with all those states and nations to which we could reasonably look for purchasers of our manufactures?

For some years—during the newness of the country—these surprising conditions of a successful and immense manufacturing business, except in the department of lumber, did not arrest the attention and compel the investment of capital. Gradually, however, different branches of manufacture received accessions of force, so that in 1860, the census rather surprised us with the amount that was actually being done in this department; showing as it did a product, including the construction of houses, of over \$20,000,000—two-fifths as large a sum as was that year realized from our agriculture.

The list of our manufacturing establishments then included, among others,

371 flouring mills, making 2,250,954 barrels of flour and yielding an income of \$11,073,586;

Tanneries yielding a revenue of \$498,268;

136 distilleries and breweries, producing 4,000,000 gallons beer and 53,100 gallons whiskey, valued at \$804,158;

Furnaces turning out pigs and castings valued at \$377,301;

Lumber establishments, yielding \$4,836,159;

16 woolen factories, with a product of \$167,600;

Establishments for the manufacture of agricultural implements and machinery, yielding \$590,269;

Boots and shoe shops and factories, producing \$902,000;

Cabinet shops, having a total income of \$402,326;

Wood and willow factories, producing \$329,755;

Paper mills making \$143,566 worth of paper;

Wagon shops producing \$449,410; and

A multitude of other kinds of establishments yielding lesser amounts.

But since 1860, in many important branches, more progress has been made than in all the previous years of our history; while several in which we are destined to do a leading business, but which had not been introduced before, have been recently

established—the rolling mill, at Milwaukee, and the zinc works at Mineral Point, both already mentioned, and establishments for the manufacture of paper machinery and of steel hammers, at Beloit, belonging to this class. These establishments will doubtless lead to the inauguration of like enterprises in still other departments of manufacture, and by the impetus thus given, contribute not a little to the general progress of this great interest.

In several branches of manufacture not so recent in their introduction in Wisconsin, development of individual enterprise has been so remarkable as to warrant some special allusion to them in this Report, even at the risk of being thought to have made invidious distinctions. Reference is more particularly made to wagon-making and the manufacture of agricultural implements and machinery, sash, doors and blinds, leather, and boots and shoes.

Wagon-making may be said to have its headquarters at Kenosha and Racine; the factory of Messrs. Fish Brothers, at the latter place, being only second in magnitude and working capacity to Schuttler's immense establishment in Chicago, which is probably the largest in the world. The average number of wagons made by them per annum, is three thousand with a cash valuation of some \$300,000.

There are other large establishments at both places above named, the aggregate of whose manufacture is probably much greater still.

One of the largest threshing machine manufactories in this country (J. I. Case & Co.'s) is located at Racine. Besides one thousand very superior threshers, which find ready market in all parts of the United States, this immense establishment also turns out a great amount of other work, including horse-powers, truck wagons, straw-stackers, horse-powers and equalizers; the annual proceeds of its business being \$1,000,000.

Reapers and mowers are very extensively manufactured at several places in the State, though more largely at Beloit, Janesville, Madison and Whitewater; at which places the ag-

gregate of but four establishments are, at present, nineteen hundred machines, with a total valuation of nearly \$400,000.

At the last named place there is also a great business done in the manufacture of various agricultural implements—as plows, by the Whitewater Plow Factory, and Esterly's Seeder and Cultivator, by George Esterly, who is this present year manufacturing no less than five thousand, valued at \$400,000.

Seeders are also extensively manufactured at Beaver Dam and Horicon; Messrs. Rowell & Co., of the first named place, turning out three thousand the present year, with a total value of at least \$210,000; and Messrs. Van Brant & Co., of Horicon, three thousand two hundred, valued at \$225,000.

The manufacture of sash, doors and blinds properly belongs in the great lumber State of Wisconsin; but, in view of the youth of the State, and the general deficiency on that account of capital for extensive operations, it certainly is a ground of just pride that, thus early in her history, she may boast of having the most extensive and the most productive factory of that kind, not merely in the West, but in the whole world. We refer, of course, to the establishment of Chas. J. L. Meyer, of Fond du Lac, whose history we may be allowed to remark, in passing, like the personal histories of so many of our leading manufacturers, affords a most interesting and instructive example of what unaided enterprise may accomplish in a few years in this Western country.

This monster factory, which in a certain sense may be said to have had its origin in a small shop built in the year 1861, measures 245 feet in length by 100 feet in width, is three stories high—affording room for 100 pieces of machinery and 400 workmen—and consumed in its construction 650,000 feet of lumber and 400,000 brick. As carried on by Mr. Meyer, the annual product of the establishment is about two and a half million lights of window sash, eighty thousand doors, sixty-two thousand pairs of blinds, and some \$75,000 worth of mouldings and other irregular work; the total value being scarcely less than a million of dollars. His market embraces all the Western and many of the Southern States, ex-

tending as far as Ohio on the east, the Mississippi States on the south, and Nebraska and Decotah on the west.

Nor are we permitted to stop even here in our brief enumeration of Wisconsin manufactories of great magnitude. For at Two Rivers are immense tanneries, owned and managed by Geo. Pfister, of Milwaukee, and the Wisconsin Leather Company, whose annual production of leather at those places and at Milwaukee is, at least, \$1,000,000 worth; while the great boot and shoe factory of Messrs. Bradley & Metcalf, at Milwaukee, annually turns out the best of work in its line to the value of over \$1,000,000, being one of the largest establishments of its kind in the United States.

Enterprise like that of these and other manufacturers whom we might name is no less an honor to the State that is the field of its activities than to those persons themselves, under whose wise and skilfull direction it has accomplished such surprising results.

In view of the new interest in this great department of our American industry, it is again to be regretted that we are without more reliable statistical information as to what is really being accomplished by it in every branch. In its absence, taking the returns to the Secretary of State for 1865 as a basis, and supplementing it by more recent information gained through private sources, we may venture the following estimates of the annual product of a few of the leading branches, as being very certainly within, and yet a tolerably clear approximation to, the real figures:

<i>Articles Manufactured in 1868.</i>	<i>Value.</i>
Lumber and Shingles,.....	\$10,000,000
Agricultural Implements and Machinery,.....	4,000,000
Wagons and Carriages and wagon work,.....	2,000,000
Wood and Willow Ware,.....	1,500,000
Cabinet Ware,.....	750,000
Sash, Doors and Blinds,.....	1,500,000
Pig Iron and Castings,.....	1,000,000
Pig Lead,.....	800,000
Brick,.....	500,000
Leather,.....	1,400,000
Boots and Shoes,.....	1,700,000
Paper,.....	600,000
Linseed Oil,.....	250,000
Whiskey,.....	1,000,000
Malt Liquors,.....	1,500,000
Woolen Fabrics,.....	1,000,000
Ready-made Clothing,.....	1,500,000

Thus it appears that the foregoing seventeen classes of our manufactures are alone capable, at this early period in the development of the State, of yielding an annual product of some thirty-one millions of dollars. If to this sum were added the actual revenue derived from all those numerous branches of manufacturing industry, which, though individually less productive than those enumerated, still, in the aggregate, yield a very large income to the people of this State, it is highly probable that the total product would rise to but little less than *forty millions of dollars*.

It is undoubtedly true that in manufactories Wisconsin has made more actual progress since 1860 than in any other one of the several departments of industry we have had under consideration; and equally true that, in view of the extraordinary natural facilities she possesses for a successful prosecution of very many important branches of the manufacturing business, she has, as yet, relatively done but little.

As was shown in our last report, and as every one familiar with our resources must know, we have unsurpassed stores of at least three of the most important metallic ores.

We have iron enough for our use through all time to come. But how many smelting furnaces have we, working up these ores and converting them into iron for our railways, machine shops, implement factories, and other establishments consuming this metal? Aye, and where are the rolling mills, foundries, machine shops and factories themselves? The former may be numbered on the fingers of one hand; and the foundries and factories, though more numerous than that, are vastly less in number than the wants of the State demand; and even such as we have, are, of course, importing ninety-nine hundredths of all the iron they consume.

We have lead enough to supply the whole country for many generations. But how many furnaces, shot-towers, lead-pipe and litharge factories greet the eye of the traveler as he passes through the great lead region of the State?

Zinc enough we have, also, to supply at least the great West

with zinc manufactures for an indefinite period. Yet only one establishment, and that owned and managed exclusively by Eastern capitalists, has yet found a place in the whole mineral region.

We have almost exhaustless supplies of timber of nearly every variety essential to the wooden manufactures commonly used in this country, much of it located on, or within easy and economical shipping distance from, the very best water-powers on the globe. But as yet, a few cabinet shops, here and there, of moderate capacity all combined, a number of shingle, sash, door and blind factories, with as many more engaged in the manufactory of wooden buckets, tubs, kitts, wagon work, barrel staves, &c., are doing all that is done to utilize that power and to help make Wisconsin what she ought to be and is surely destined to become, the great workshop of the West.

Our Agriculture is already producing large quantities of wool and flax for textile fabrics, hides, tallow, &c., and with a good home demand, would produce still larger supplies of these and other products; but, as yet, only a small proportion of these raw materials are worked up at home. The great bulk go to the Eastern States, where they are manufactured, and then returned and sold to us at a price covering cost of raw material, profits of buyers, transportation East, profits on the manufacture, transportation back again, and the further profits of the one, two, or three merchants through whose hands they finally reach the consumer.

Surely this is a miserable policy, as compared with the more rational one of building up manufacturing centers on our own soil; which, while furnishing work to tens of thousands of mechanics and ordinary laborers, with good pay and still large profits to the manufacturer, would at the same time furnish our farmers with a home market for every product of agriculture at better rates, and, in turn, supply them with manufactured articles, of almost every sort, at prices much reduced—a policy which would bring additional prosperity and happiness

to our people and ensure to the state a more rapid growth in wealth and power.

Capital and skilled labor alone are wanted to bring about so desirable a result, and these may be secured at an early day by the adoption of a liberal policy on the part of the State.

COMMERCE.

With such a development of our productive industries as the State of Wisconsin has made during the past few years, the inference is necessary that there has also been a rapid growth of our Commerce.

An examination of facts shows that this inference is even more than sustained; for, owing to the fortunate geographical position of Wisconsin and her commercial metropolis, this great interest reaches far beyond the limits of our State into that vast growing empire of the still further Northwest. It will also be remembered that the naturally tributary relation of those immense areas has been still further strengthened and confirmed within a very short period by the completion and subordination to Wisconsin interests (which in this regard are identical with the interests of those States through which they pass) of lines of railway extending into other States.

Touching the completion of one of these—Iowa and Minnesota Division of the Milwaukee and St. Paul Railway—Alexander Mitchell, Esq., President of the Company, in a circular addressed to the directors and stockholders in 1867, makes the following interesting statement of facts:

"The public have now a connected line of railway from the city of New York, via Milwaukee and St. Paul Railway, to Minneapolis, St. Paul and St. Cloud, a distance of more than 1500 miles, about one-third of which is over the Milwaukee and St. Paul Railway.

"The Winona and St. Peter, the St. Paul and Pacific, the Minnesota Valley, the Minnesota Southern, the La Crosse, Trempealeau and Prescott and the Tomah and Lake Superior Railroads, which are tributary or connecting roads with yours, are all being constructed with more or less dispatch. They now, in the aggregate, amount to about 265 miles in actual operation.

"Our new line of road opens to us and to the markets of the world an empire hitherto but little known to the railroad or commercial world. It passes through the most fertile and densely populated counties of Northern Iowa and Minnesota; it has undisputed possession of the trade of an immense region of country, unsurpassed for the richness of its soil and the industry and

enterprise of its people, from whose immense granaries will be sent forth over your railway a golden stream of wheat and other grain representing the wealth of that richest of all agricultural districts in this country."

By a consolidation of all the Wisconsin railways reaching westward and northwestward under the management of a strong company, whose interests are one with those of our own commercial metropolis and of the whole State, a point has been gained which wise and efficient direction can hardly fail to make effective in promoting the still more rapid growth of our advancing Commerce.

Development has been further facilitated by the completion of several connecting links and branches of railway within the limits of this State, and measures have likewise been adopted, though, as yet, only partially carried into effect, for the improvement of some of our harbors and navigable streams. This last is a duty of the General Government, which cannot be too strongly urged upon Congress.

In the absence of statistics exhibiting the commerce of the entire State, we must content ourselves with showing the gross earnings of railroads, those great channels of our commerce through the State, and the business done by our commercial metropolis—which it may be assumed is a fair indicator of our progress in this department—the annual statements of whose Chamber of Commerce afford reliable data.

The gross receipts of our several railways in Wisconsin for the years 1861, 1865 and 1866, respectively, were as follows:

Receipts in 1861.....	\$4,001,223
Receipts in 1865	7,126,690
Receipts in 1866.....	12,670,277

Due allowance being made for the fact that the great cereal crops of 1860 and 1861, together with the transportation of troops and munitions of war must have carried the receipts for 1861 considerably above the average for that period, these figures indicate a very rapid increase in the business of the State from year to year.

TRADE OF MILWAUKEE.

Seconded by anything like a fair amount of enterprise on the part of her merchants and business men, Milwaukee must

of necessity, have a rapid growth in commercial importance. Her position on the map of the Northwest, the excellence of her harbor, and many other natural causes, conspire to produce this result. Already she has attained the proud distinction of being the greatest primary wheat market in the world,—a distinction which the superior quality of the wheat produced by all that vast section of the Northwest naturally tributary to her will make it easy for her to maintain,—and the rapid development of our agricultural, mining and manufacturing resources, warrant the belief that in other branches of commerce she will, also, soon come to hold an enviable rank among the metropolitan cities of the Great West.

Of course the movement of flour and grain must depend upon the crops of the year reported and of the year previous ; so that figures of this kind do not fairly indicate the growth of our commerce, inasmuch as the aggregates of our grain crops in 1860, '61, '62 and '63 were greater than they have been since. Nevertheless, they help to give an idea of the magnitude of the ordinary commercial transactions of this State.

TABLE indicating the comparative movement of Grain Crops of last seven years, by Receipts at Milwaukee.

YEAR.	WHEAT.	OATS.	CORN.	BARLEY.	RYE.
1861	15,930,706	151,346	114,931	66,991	73,448
1862	15,630,995	232,756	253,954	149,997	154,476
1863	13,485,419	948,429	358,450	199,469	158,882
1864	9,147,274	1,055,844	460,575	198,325	88,541
1865	12,043,659	657,492	270,754	149,443	134,360
1866	12,777,557	1,817,230	789,080	152,696	383,030
1867	12,523,464	1,156,319	693,684	192,007	237,202

Although the question of price does not strictly come within the plan of this Report, we nevertheless deem it a matter of sufficient interest to make the following record of the average prices paid for wheat, at Milwaukee, during the several years of the period under review :

Average price in 1861.....	\$0 79½
...do...do.....1862.....	0 85½
...do...do.....1863.....	1 12½
...do...do.....1864.....	1 57½
...do...do.....1865.....	1 29½
...do...do.....1866.....	1 72½
...do...do.....1867.....	2 18½

TABLE showing Exports of Flour and Grain from Milwaukee since 1860.

YEAR	FLOUR. Barrels.	WHEAT. Bushels.	OATS. Bushels.	CORN. Bushels.	BARLEY. Bushels.	RYE. Bushels.
1860	457,243	7,568,608	64,682	37,204	28,055	9,735
1861	674,474	13,300,495	1,485	1,485	5,220	29,810
1862	711,405	14,915,680	79,094	9,489	44,800	126,301
1863	603,526	12,837,620	831,600	88,939	133,449	84,047
1864	414,833	8,992,479	811,634	146,786	23,479	18,210
1865	567,576	10,479,777	326,472	71,203	29,597	51,412
1866	720,365	11,634,749	1,636,695	480,408	18,988	255,329
1867	921,663	9,598,452	622,469	266,249	30,822	106,795

The diminution in the quantity of wheat exported in 1867, was partly owing to the large amount manufactured into flour by the Milwaukee mills. The amount actually received at Milwaukee in 1867, which, with 1866, 1865 and 1864, was a "short crop year,"—owing to unfavorableness of season and ravages of chinch bug,—it will be observed, was 12,874,859 bushels; 2,730,000 bushels of which was ground by the City mills, and 546,407 bushels left in store at the end of the year.

The narrow limits of our space will, of course, not admit of even a synoptical exhibit of the varied and extensive trade of even this one city of Milwaukee; and accordingly we conclude with a few tabular statements, showing the receipts and shipments of some of the great number of products, other than cereal crops, in which she enjoys so large a trade.

STATEMENT of the Receipts and Shipments of Field Crops, other than cereal, since 1860.

CROPS.	1861. Bush's	1862. Bush's	1863. Bush's	1864. Bush's	1865. Bush's	1866. Bush's	1867. Bush's
Beans received.....		9,202	11,913	16,891	9,690	10,916	5,948
Beans exported.....			11,800	11,813		10,700	5,900
Peas received.....							
Peas exported.....				3,448	10,902	6,813	12,454
Seeds received, (Timothy Clover, Flax, &c.....)	7,784	13,600	7,466	9,938	8,246	9,992	10,083
Seeds shipped.....	5,228	13,381	17,466		8,246	4,156	5,000

The little difference between the receipts and shipments in some cases, as shown in the above statement, is accounted for

by considerable amounts having been brought in by teams, of which no record was kept.

The total number of beef cattle received by railroad, at Milwaukee, during the several years since 1860, have been as follows :

Number Head of Cattle received in 1861.	4,311
.....do.....do.....1862.	8,855
.....do.....do.....1863.	14,655
.....do.....do.....1864.	18,345
.....do.....do.....1865.	14,230
.....do.....do.....1866.	12,955
.....do.....do.....1867.	15,527

The number of head of hogs received for the several seasons embraced within the same period—a season commencing Oct. 1, and ending March 15th—has been as follows :

SEASON.	NO. HOGS.	AV. WEIGHT.	TOTAL WEIGHT.
Season of 1861-62.....	89,461	200 lbs.	19,892,200
....do....1862-63.....	182,465	219 "	39,958,835
....do....1863-64.....	141,091	202 "	28,600,382
....do....1864-65.....	107,239	196 $\frac{1}{2}$ "	21,108,934
....do....1865-66.....	92,857	232 $\frac{1}{2}$ "	21,589,252
....do....1866-67.....	134,225	218 $\frac{1}{2}$ "	29,341,585
....do....1867-68.....	164,163	180 "	31,026,807

The following table shows the number of hides received at Milwaukee and shipped during the past eight years, as reported to the Chamber of Commerce :

YEAR.	RECEIPTS.	SHIPMENTS.	YEAR.	RECEIPTS.	SHIPMENTS.
1860..	85,409	32,941	1864..	144,334	44,961
1861..	69,743	17,991	1865..	134,019	31,449
1862..	128,168	32,042	1866..	176,217	47,072
1863..	110,849	21,807	1867..	134,124	39,141

The large difference between receipts and shipments indicate how extensively the manufacture of leather, already referred to, is carried on in that city.

The shipments of Wool from Milwaukee, since 1860, have been as follows:

In 1860.....	669,375 lbs.	In 1864.....	1,993,372 lbs.
" 1861.....	1,000,225 "	" 1865.....	2,277,850 "
" 1862.....	1,314,210 "	" 1866.....	1,597,437 "
" 1863.....	1,355,379 "	" 1867.....	2,085,006 "

The provision business of Milwaukee is illustrated by the following table showing the

TOTAL equivalent in barrels of Exports of Pork and Beef from Milwaukee during the past eight years.

YEAR.	BBLs. OF PORK.	BBLs. OF BEEF.	YEAR.	BBLs. OF PORK.	BBLs. OF BEEF.
1860..	28,019	21,390	1864..	100,963	44,672
1861..	47,528	18,665	1865..	48,707	18,719
1862..	69,099	37,998	1866..	83,175	18,114
1863..	122,009	52,552	1867..	117,626	29,197

Of the trade of Milwaukee in manufactured products, the total of which is not yet very large, we have no space in this Report to make an exhibit; nor, indeed, of her receipts and shipments of general eastern and foreign merchandise—except that they ordinarily include, for the most part, coffee, sugar, molasses, tea, salt, oil, fish, apples, coal, iron, nails, stoves, and hardware, and that they amount, exclusive of coarse freight, to nearly 100,000 tons per annum.

The Secretary of the Chamber of Commerce reports the total number of arrivals of steamers, propellers and sailing vessels entered at the Milwaukee Custom House, during the year 1867, as being 4,396, with an aggregate tonnage of 1,713,043 tons. Number of departures 4,343, with a tonnage of 1,699,825.

The trade with Western and Peninsular Michigan, has been materially augmented by the late establishment of a daily line of steamers between Milwaukee and Manistee, and an increase of facilities for commercial intercourse with points on Lake Superior.

If to the foregoing figures, which only very partially represent our leading commercial city, we were able to add such as would likewise convey some idea of the business done by Racine, Kenosha, Port Washington, Sheboygan, Manitowoc, Two Rivers and Green Bay, as well as of the large amount of transactions of the many flourishing towns which line the Mississippi river, all the way from the rich and productive Valley of St. Croix on the north to Dunleith on the south, we are confident that the grand aggregate would be one of which the youthful state of Wisconsin, only now in her twentieth year, would have just reason to be proud.

ORGANIZED AGENCIES.

The present age, so full of practical teachings of great use to mankind, has taught no lesson more thoroughly than the value of organization as a primary condition of success in every great enterprise, whether material, social, or political. It is equally true that, in learning this lesson and turning it to practical account, the American people have shown themselves to be more apt scholars than any other people on the globe. It is natural that they should be, for a cardinal principal in the policy of a democratic government is to interfere as little as possible with the personal freedom and individual activities of the people—to guide and encourage always, but to direct and govern only where there is a manifest need of such aid on their part; in which respect it differs most essentially from a despotic government like those of France and Russia, where all measures of public interest not only originate with the Imperial head, but are organized under his immediate direction and carried into practical operation by officers of his appointment.

It is needless to say that the history of the past hundred years fully vindicates the wisdom of the American policy, and that the truest and best minds in every enlightened country are certainly and inevitably coming, one by one, to a recognition of its superiority.

Organization is not only a source of strength; it is also a source of light. Its tendency is to bring into the fullest play every power of the individual, and stimulate it to the utmost extent of its capabilities; its final cause, to combine the individual agencies thus developed and concentrate them upon a definite object of common interest to all. Liberalizing in its influence upon the mind, by reason of the generous sentiment in which it has origin, it secures, at the same time, a larger advantage to the individual than could come of a more narrow and selfish policy.

So soon as a class of men devoted to the same pursuit in life are brought to the point of preferring the permanent advancement of their profession to their own temporary advantage merely, that moment the common cause begins to make rapid progress, bringing with it incidentally, but no less certainly, the higher good of each individual contributor to the general result.

Among the learned professions, so-called, this principle has long been recognized. Its fruit is that higher intelligence and *esprit de corps* which have made them a power among men in all civilized lands.

There must also be among the followers of the industrial pursuits a like higher intelligence and a like *esprit de corps*.

For the attainment of this end three classes of agencies will prove especially potent—associations and societies of practical men for the promotion of mutual advantage and the public good, boards and commissions established and sustained by the government, and educational agencies established and supported by the government and people conjointly.

INDUSTRIAL SOCIETIES AND ASSOCIATIONS

Already exist in this State to a considerable extent, in view of its recent organization, but the number could be increased with great advantage, and such as exist could be made more efficient.

Before the war, there were, besides the State Agricultural

Society, the Wisconsin Agricultural Association, located at Milwaukee, and the Fruit-growers' Association of Wisconsin, some thirty-seven county agricultural societies, three or four union societies, embracing two or more towns, each, as the field of their operations, and a number of town clubs.

The State Agricultural Society had been organized ten years ; during which time it had held ten general exhibitions, distributed premiums to the amount of about \$20,000, together with a large amount of new varieties of seeds, plants, cuttings, &c., issued six volumes of much value to the industry of the State, and established relations of correspondence and exchange of publications with all the leading organizations of like general character and aims in this country and in Europe.

The thirty-seven county societies, organized at different periods, had been actively engaged in the good work of advancing the industrial interests of their respective counties, and at the expiration of that first period were able to point with pride to the many fruits of their labors in the form of improved stock, implements and crops, and a better appreciation on the part of the farming community of the importance of system and thorough culture.

The town clubs were organized with the view of contributing to these important general results by the discussion of practical and scientific questions pertaining to agriculture, and by the founding of libraries of useful books looking to the same end. Some of them had frequent regular meetings, and published reports of their discussions and conclusions in their local newspapers for the benefit of the wider communities of county and State.

During the war, many societies of these several classes discontinued their annual exhibitions, and a few of them in the newer counties have not resumed active operations since. The number of county societies reporting to the Secretary of State and to this office in 1867, and receiving the annual appropriation of \$100 provided for by law, was 28; showing a difference of nine societies not yet sufficiently revived to resume

their regular duties. On the other hand, we hear of the organization, during the present year, of some new societies in the counties far north, and confidently anticipate that the returns for 1868 will show a larger number earnestly at work than have ever hitherto reported. The law, as it now stands, requires the reports of county societies to be made before February 1st in each year, as a condition of their receiving the \$100 appropriated by the State.] We are unable to discover any reason why these reports could not just as conveniently be made at as early a date as December; thus enabling this Society to embody the abstracts of the reports contemplated by law in the volume of that year for which they were made. And we, therefore, respectfully recommend such an amendment of the law in this particular as will secure the end proposed. Should the constitution of any society provide for the closing up of its fiscal accounts too late to render a report as early as the 10th of December impracticable, such constitution can easily be amended in that respect.

The State Agricultural Society continued such general labors as could be performed by the Secretary until 1864, when it resumed the holding of regular annual exhibitions, with even more than former zeal and success, as will appear by a reference to the proceedings of the Society and the reports herewith presented of its exhibitions for the several years since that date.

Formerly—up to 1862—the Society received an appropriation from the State of three thousand dollars annually, to be awarded in premiums and for the purchase of seeds to be gratuitously distributed. That it made good and faithful use of this money, no one will question who is familiar with its history. But when it became apparent that the annual exhibitions would have to be discontinued for a time, owing to the disturbed condition of the country, this appropriation was withdrawn, with the concurrence of the Society, though with the understanding and expectation that it would be reinstated at the close of the war, or so soon thereafter as it would be possible for the State to renew it.

It is the opinion of the officers and members of the Society that a sufficient amount of regular assistance to give greater security against disaster incident to the somewhat fortuitous circumstances of season and weather, and at the same time enable it to extend the sphere of its labors into the field of scientific and practical investigation, would be judiciously expended. But having already received generous encouragement to the extent of ample and elegant apartments in the State Capitol, and having found it possible, by dint of great exertion, under favorable circumstances, to keep up their general work and at the same time hold successful exhibitions, with a small annual balance in the treasury, they have not hitherto felt disposed to ask anything at all from the general fund of the State.

It is believed that the aid hitherto extended to the local agricultural organizations of the State has resulted in great good to the cause of industry; and so far from discontinuing the annual appropriations to county societies, as has been occasionally suggested in the Legislature, we are fully convinced that encouragement might, with great propriety and advantage, be extended still further, so as to include all industrial associations, horticultural and mechanical as well as agricultural, whose labors entitle them to help, or which give promise of real usefulness in promoting the substantial interests of the State. To the newer societies in particular, even the small amount of \$100 is a great help, and in many cases, doubtless results in an earlier organization of societies than would otherwise occur.*

The Wisconsin State Wool-growers', Bee-keepers' and Sorghum associations have each fulfilled a good office, and are entitled to the gratitude of the people and state.

We have as yet no association of either the miners or manufacturers. Both of these classes have general interests that would be promoted by organized effort, and this mention of the fact is made in the hope that it may possibly lead to movements in that direction.

The suggestion is also made as to whether the commercial and general prosperity of the State would not be further promoted by the organization, in all our large cities, of boards of trade, with a view to the promotion of just and equitable principles in trade, and to concert of action in the support of such regulations and measures as would be calculated to advance the welfare of their respective communities. Such organizations are capable of being made important centres of power and influence for the public good, independent of mere questions of trade, which, of themselves, afford sufficient reason for their establishment.

STATE AGENCIES.

As already suggested, there are certain kinds of work required to be done by the State itself directly, as being so general in their results as not to furnish a sufficient stimulus to individuals or societies to perform them, or requiring such powers and resources as neither individuals nor societies possess.

Of this nature are boards of agriculture, bureaus of statistics, bureaus of immigration and special commissions.

So long as individual citizens, from motives of professional and state pride, are induced to sacrifice time, strength and money to the industrial welfare of the whole State, and even to risk their reputation on fortuitous circumstances, and are made the depositories of sufficient power to do all that the public interests demand, a state agricultural society composed of such individuals will serve an excellent purpose. But after all, the general duties performed by such a society more strictly belong to the State government; and in every State there is likely to come a time—in several of the States it has already come—when the public interests will require that it should assume and perform them.

The importance of a Statistical Bureau, or Commission, has been already suggested, and it, or its equivalent, strongly urged in the introductory portion of this Report; the difficulties

encountered in the preparation of the statistical portions of which have only intensified the opinion therein expressed.

A Board of Immigration—thanks to your Excellency's timely recommendation, and its adoption by the Legislature—has at last been established. It is safe to say that the postponement of such action for so long a time has resulted in a virtual loss to this State of thousands of hardy, industrious immigrants who might have been induced to settle upon our lands instead of passing over them into other States, whose earlier enterprise in this direction had been the immediate occasion of their coming to this country. And even now that such a board has been created, as representing very numerous classes of our citizens deeply interested in the results of its labors, we may be pardoned for strongly expressing the opinion that a much more liberal appropriation than the three thousand dollars per annum granted by the Legislature, might, with great advantage, have been placed at its command.

The question of labor is one of vast importance to the entire people of this country, but especially to the people of the West, where the demand is so rapidly growing and ever imperative. To-day, every productive interest of this State is suffering serious loss for the want of a better supply; and the Legislature should deem it the best possible economy to provide the Board of Immigration, if continued at all, with sufficient means to enable it to do its work in the most prompt, thorough and effectual manner. Since the close of the war, and the re-establishment of the Union of States upon a more enduring basis, increased confidence in the stability of our government has brought to our shores a better class of immigrants than formerly, and the number of such may be very greatly increased by a use of the requisite means. Every cent judiciously expended in this interest is like bread cast upon the waters, sure to return with large increase after a few or many days.

Special Commissions, growing, as they do, out of special exigencies, find simple mention in this discussion. They may

often fulfill very important offices in the practical working out of the general policy of the State, and by every wise government will be planned and executed on a scale commensurate with the importance of attainable results. Three Special Commissions, in the interest of industry, have been created by the State since the date of the Society's last general Report, of which it is proper to make brief record in this place.

The first was a Commission to represent Wisconsin at the Exhibition of the Industry of All Nations, held at London, England, in the year 1862; the undersigned being the Governor's appointee. Although no provision was made for the expenses of this Commission, which were accordingly met by the Commissioner himself out of his own private funds, it is believed that the duties were faithfully performed, and that the State has since derived no little advantage from the efforts then put forth in her interest. A brief report upon that great Exhibition will be found in that part of this volume embraced under the head of "Transactions for 1862."

The second was a Commission, composed of several citizens of the State, to the Paris Universal Exposition of 1867, of which the undersigned had the honor of being a member and the President. In aid of this Commission, but at too late a day to make their labors as effective as they might otherwise have been, the sum of two thousand dollars was appropriated by the Legislature, with the proviso that no portion of said amount should be used to defray the expenses of any Commissioner. The somewhat arduous duties of this Commission have likewise been performed in as thorough a manner as the circumstances rendered possible; and while the awards made to this State and to the citizens thereof, as well as to the State Agricultural Society, for exhibitions of some of the representative products of Wisconsin, are an occasion of gratification on the part of all who are actively interested in the public welfare and honor, it is hardly a question whether the State would not have done itself much more credit and secured a much larger advantage from the rare opportunities of

the great Exposition of 1867—the grandest and most complete of the whole series—by more timely and more liberal action.

Further reference to the occasion and labors of this Commission, in this place, is made unnecessary by a full report thereof soon to be made.

Mention of these Commissions in this Report is made not more because they are a part of the history of Wisconsin industrial enterprise for the period embraced, nor because they form a part of a general system of organized agencies by means of which every State should seek to advance its material, social and political interests, than for the sake of urging the importance of more prompt, liberal and thorough action on the part of the State, when like opportunities offer themselves in the future.

The third was a Commission, consisting, by appointment of the Governor and of the State Agricultural and State Horticultural Societies, of I. A. Lapham, J. G. Knapp and H. Crocker, charged with the duty of enquiring into the disastrous effects of the destruction of forest trees, now going on so rapidly in Wisconsin, and of reporting to the Legislature such facts and recommendations in relation thereto as, to them, should seem proper.

The interesting and valuable Report of this Commission was made to the last Legislature, and is now in the hands of the people. The subject is one of great importance, and it is believed that the interests of the State would be promoted by the publication, in whole or in part, of another and larger edition for general distribution, as well as by the early adoption of measures for meeting the necessities set forth by the Commission.

EDUCATIONAL AGENCIES

Have been referred to as a third class of organizations essential to the progress of our industry, and as being justly chargeable for their origination and support to the State and people conjointly; to the State because, representing the po-

litical wisdom and practical statesmanship of the commonwealth, and being the constituted guardian of its public interests, it should be expected to lead in the inauguration of all great measures for the promotion of the common good—to the people as individuals, because the advantages thus offered by the State are wholly available by each for his own particular advancement and that of the whole class to which he belongs.

This is certainly a correct statement of the general principle; and yet it requires some modification in its application to the industrial classes, as being less qualified, at present, to appreciate the value of knowledge pertaining to their pursuits, and as requiring, therefore, more aid and encouragement from the State—whose progress so essentially depends upon their intelligence and material success—to induce them to qualify themselves more thoroughly for their work.

In democratic America, there must be, not only such equality of natural rights as the constitution already guarantees to the people, but also equality among the occupations and professions; else the seed of caste, so carefully planted in all monarchical countries, and which seems to have been self-sown even in American soil, will take deeper root than now, and bring forth its baneful fruit of adventitious aristocracy, like that which so sadly curses them.

In America, a man must be esteemed, not in proportion to the fancied rank of the profession to which he belongs but in proportion to what he intrinsically is and the use he makes of his powers, or our boasted democracy is a miserable delusion. But this principle of judgment is no less applicable to pursuits or professions than to the individual. And here lies the difficulty of all those who demand that a higher estimate than at present shall be put upon the so-called industrial pursuits. Intrinsically, they are eminently useful and noble. Theoretically and prospectively their rank is as high as the highest, demanding as they do, in order to their most successful practice and enjoyment, the widest range of knowledge and the profoundest culture. But owing to the very partial appreciation—we might say, very exceptional recognition—of these de-

mands on the part of the masses who assume to practice them, and their exceedingly small measure of either knowledge or culture, the present *real* rank of these pursuits is, of necessity, low.

How then is this necessary equality of the professions to be brought about? By a liberal diffusion of knowledge among the industrial classes. This will elevate and enoble both them and their pursuits, and nothing else can.

No matter whether the masses, who mainly constitute these classes ask for it or remonstrate against it, the pursuits, as such, require it, and the material prosperity and social and political welfare of the State imperatively demand it.

It may be assumed that it was considerations such as these that disposed the Congress of the United States to enact the law of July 2d, 1862, which so liberally provides an endowment for "at least one college in each state, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life." And it must have been considerations of this sort that induced a number of the individual states, which were the grateful recipients of this national benefaction, to make large appropriations of money for carrying this wise and noble purpose of the general government into effect. Had they done less, they would have been recreant to the trust reposed in them and false to their own real interests. Had they done yet more, the importance, nay, *necessity* of the enterprise, would have warranted them in so doing; and the truest and wisest men of all lands would have applauded their liberality.

But the work of building up agriculture and the mechanic arts, until they shall have attained positions of rank and honor corresponding to their relative necessities, is a labor of immense magnitude, and opportunities for doing better justice to themselves and the great interests for which they have been so far

prompted to act, are yet open to them, as well as to such states as have so unwisely and faithlessly allowed years to pass without doing anything in fulfillment of their pledges.

It is an occasion for congratulation, that, with us, after a somewhat protracted struggle, the important questions necessarily preliminary to the actual establishment of such an institution have been finally and wisely settled by its incorporation with the State University. The cause of industrial education doubtless enjoys the sympathy of many citizens of our State, who are still of the opinion that an entirely separate and distinct agricultural school would have been better than anything likely to be realized under the present arrangement. It is hoped, however, that all such are sufficiently strong and genuine in the interest manifested in times past, to ensure at least a patient waiting for results and an impartial judgment after a fair trial has been made, and that many will even easily forget their original preferences in the earnestness of their purpose and efforts to make the Agricultural College of Wisconsin a complete success.

To have established a strictly professional school of agriculture, or even of agriculture and the mechanic arts, would have been a palpable violation of the provisions of the congressional act, had it been desirable in itself; while to have attempted the establishment of a new and separate institution including all the required departments of instruction upon so slender a foundation as the proceeds of such sales of the college lands as were likely to be effected within a few years, or even as the cash proceeds of the whole amount of lands, would have been absurd, because utterly impracticable. And inasmuch as the State did not feel financially competent to add to the congressional endowment such sums of money as would be an adequate foundation, necessity combined with policy in demanding the consolidation of the proposed college of agriculture and the mechanic arts with some existing non-denominational institution, of which class the State University was the only representative within our territorial limits.

Are any friends of the cause still dissatisfied with the legislative decision, the incontrovertible argument of necessity should reconcile them to it.

But there were other and higher considerations than this that should have brought that decision—and which did chiefly determine it in the minds of some—even though the question of funds had, in no form, been before them. The idea of a mere agricultural school, distinct and isolated, was a too narrow one, born of prejudice—one, therefore, that needed to be rooted out of the mind of every American citizen, and, if possible, *kept* out of the mind of every farmer's and mechanic's son in the land. The industrial classes are too much cramped, fettered and blinded already by narrow and foolish notions of an essential antagonism between the different classes of society, and between the different departments in the world of letters, science and the arts. They have not yet stood upon a plane of intelligence high enough to see that the real interests of any class are so wisely and beautifully inwoven with the interests of every other that, practically, the good of one is the good of all. They have not yet learned that great, yet simple, lesson, the essential harmony and unity of all truths, so that it is philosophically and absolutely impossible for any man to know the whole of any one thing until he has gained the mastery of all things.

To eradicate all these false notions and prejudices, they need to be educated, not narrowly in an agricultural school, whose halls are strangers to every other teaching but such as is supposed to have immediate and almost exclusive application to this pursuit, but in a broad and noble university, where the love of *all* knowledge, and of knowledge *as knowledge*, without regard to the dollars and cents that can be got out of it to-day, is fostered—where all departments of learning are equally honored—where the relations of each to every other are understood and taught—where the students and teachers devoted to each and all branches of learning, whether science, language, literature, or philosophy, or any combinations of

these constituting the professional courses of instruction shall daily intermingle and enjoy friendly intercourse as peers of the same realm.

The liberalizing, refining and ennobling influence of such an association of all the departments of learning and of hundreds, perhaps thousands, of students and professors devoted to them, under the guidance, inspiration and harmonizing power of one common head, can hardly be over-estimated.

The University of Wisconsin, as re-created by the act of 1866, had its origin in thoughts and desires such as these. Universality, equality and fraternity were the central ideas—the soul of it—around which should be gathered the elements of visible form and substance as fast as the means afforded by the General Government, the State and the people would allow; adding college to college, as our national flag has added star after star, until, at length, completing the whole circle of human knowledge, the noble cluster of schools thus formed should constitute one entire constellation, shedding its brilliant and beneficent light all over our land, and challenging the admiration of the world.

That a College of Agriculture and the Mechanic Arts, as a component part of such a University, would accomplish more for the advancement of the industrial classes than could be accomplished by a separate, isolated school of even the best quality, it seems to us no unprejudiced, intelligent mind can seriously question for a moment.

We may grant that more difficulties, of necessity, lie in the way of the organization and successful management of so broad-based and comprehensive an institution as the one outlined above; but the difficulties are not insuperable, and the great end to be gained will be full compensation for any requisite amount of pains-taking and labor.

To such as entertain like opinions and sentiments, it will be gratifying, and to all it will be advantageous, to know that the ablest educators and statesmen of Europe, even, are beginning to favor the policy of uniting the agricultural schools with existing universities, although, as yet, the argument they urge is

chiefly the one of economy. During the year 1867, it was our privilege to supplement and complete a tour of observation and inspection, begun in 1862, of all the leading industrial, polytechnic and professional schools and universities of the Old World, and to compare views with many of the leading minds in all the countries of Europe; and we speak, therefore, from personal knowledge. Excepting the Royal College of Agriculture and Forestry of Wurtemberg, located at Hohenheim, and the oldest agricultural school in the world, the most promising agricultural schools in Europe are connected, by relations more or less intimate, with ancient universities; and there is manifestly a strong and growing tendency in that direction.

If we fail in Wisconsin, within reasonable time, to demonstrate the wisdom of concentration and consolidation in the case of our own University, it will not be the fault of the general system.

But we must not and shall not fail. The people will gradually come to a better appreciation of the time and means necessary to the building up of such an institution as is proposed; and while they will hold the administrators of the law upon which it rests more and more strictly to account for faithful development and thorough management, they will, themselves, cease all unreasonable carpings and complaints, and, by a genuine sympathy and hearty co-operation, strive, with a noble unanimity, to make it what it ought to be at no very distant day, the pride and glory of the commonwealth. Nor will the State fail of its duty, which is to lead and encourage the people by such consistent dealing with the institution, and such liberal benefactions, from time to time, as shall be found needful for the accomplishment of this great work.

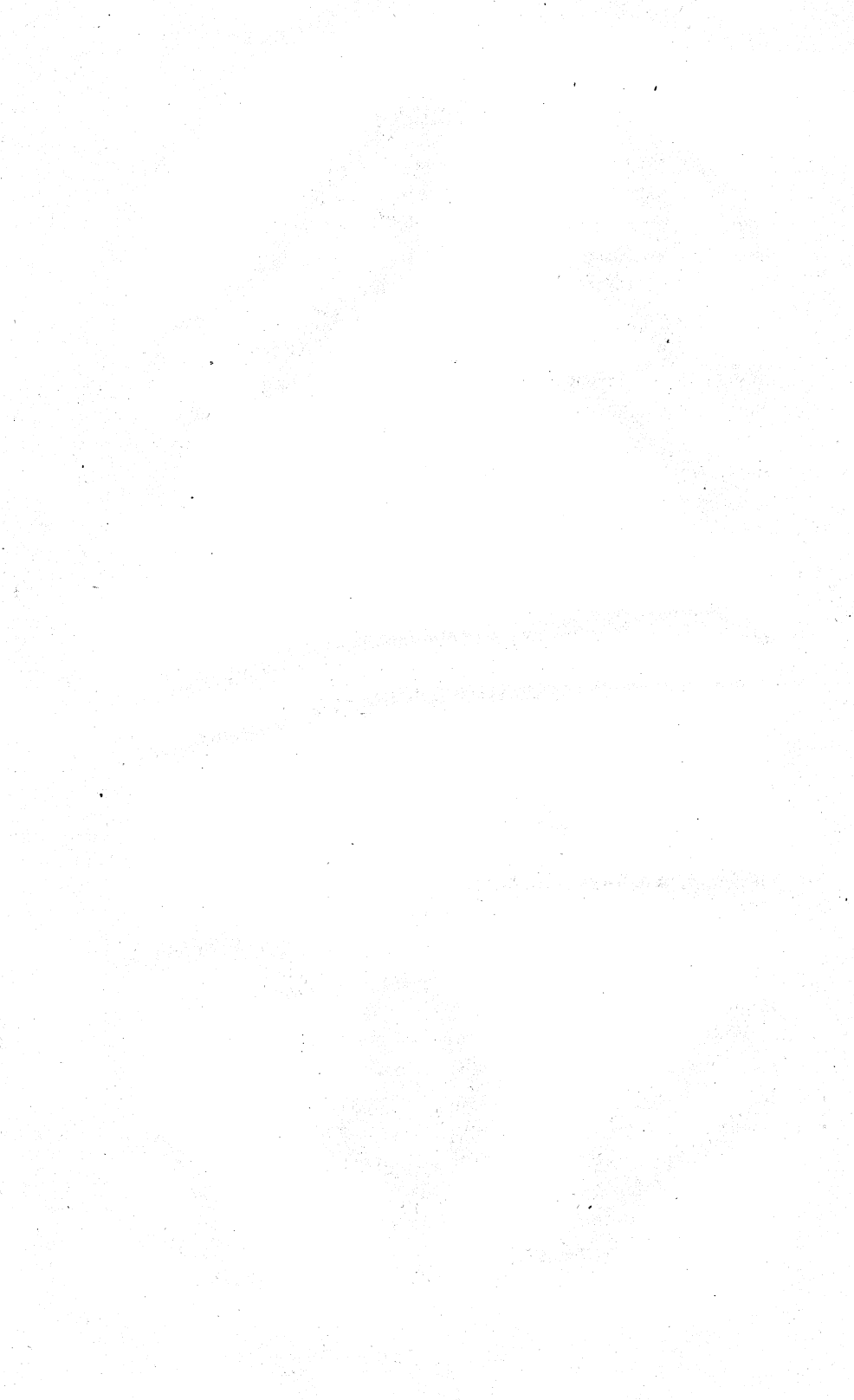
It is, also, in our power to do much, in the way of diffusing a knowledge of the sciences and their practical application to agriculture and the mechanic arts, thus contributing to the advancement of our industry and the elevation of the working classes, by means of incidental instruction given in the public schools.

At present, a majority of the teachers are but poorly qualified for this special work, because the fountain of such knowledge as is requisite to qualify them has, as yet, scarcely been opened in our State. But, with the proper development of the Agricultural Department of the University, an increasing amount of scientific instruction in the several colleges, academies, and high schools, and above all, in the State Normal Schools, together with such an awakening and stimulation of teachers and people in this behalf as may be accomplished through the agency of the Teachers' Institutes, now quite regularly held in nearly all portions of the State, there should be a steady progress in this direction.

In concluding our Report, we cannot forbear to urge, with great earnestness, the importance of this whole subject of educational agencies. For, if it be true that the perpetuity of our democratic institutions and the material prosperity of the commonwealth are alike dependent on the lifting up of the industrial pursuits to a plane of equality with the more honored professions, and also true that this can only be secured by such a diffusion of scientific knowledge among the working classes of the people as shall make them equal masters of the facts and principles that underlie success in those pursuits, then does it logically follow that the State and every intelligent citizen, of whatever profession, are bound by the highest considerations of both interest and duty to do everything in their power, whether by means of the organized agencies herein considered, or by any other, to insure its early accomplishment.

With a most favorable geographical position, with resources at once vast and varied, and with a growing population of untiring enterprise and unconquerable energy, what but a lack of true wisdom and statesmanship, on the part of those to whom has been given the shaping of her general policy and the moulding of her now plastic institutions, shall hinder Wisconsin from the attainment, even in this generation, of an unsurpassed prosperity and glory?

J. W. HOYT, *Secretary.*



TRANSACTIONS
OF THE
WISCONSIN STATE AGRICULTURAL SOCIETY
FOR 1861.

6 AG. TRANS.

OFFICERS OF THE SOCIETY.

1861.

PRESIDENT :

B. R. HINKLEY, SUMMIT.

VICE PRESIDENTS :

First District, —E. B. WOLCOTT, MILWAUKEE;

Second District,—NELSON DEWEY, LANCASTER;

Third District,—BERTINE PINCKNEY, ROSENDALE.

SECRETARY :

J. W. HOYT, MADISON.

TREASURER :

DAVID ATWOOD, MADISON.

ADDITIONAL MEMBERS OF EXECUTIVE COMMITTEE :

H. M. BILLINGS, HIGHLAND;

H. P. HALL, BURKE;

C. LOFTUS MARTIN, JANESVILLE;

BENJ. FERGUSON, FOX LAKE;

DAVID WILLIAMS, SPRINGFIELD;

S. S. DAGGETT, MILWAUKEE.

EX-PRESIDENTS, EX-OFFICIO MEMBERS :

E. W. EDGERTON, SUMMIT;

HARVEY DURKEE, KENOSHA;

J. F. WILLARD, JANESVILLE.

ANNUAL REPORT

FOR THE YEAR 1861.

His Excellency, LOUIS P. HARVEY,

Governor of Wisconsin:

SIR—The Executive Committee of the Wisconsin State Agricultural Society, in presenting the Eleventh Annual Fiscal Report, herewith submitted, desire to congratulate you and the people of the State upon the comparative prosperity with which Wisconsin has been favored during the past year.

In times of political revolution, like the present, when the Government is rocked to its very foundations, when one-thirtieth of the whole population are in arms, when the commerce of the country is seriously damaged, and the public mind is occupied, almost to the exclusion of everything else, with the great problem of continued national existence,—in times like these, it is certainly very extraordinary that our youthful State should have moved forward in a career of growth and prosperity scarcely surpassed during any year of its history since the palmy days before the financial crash of 1857.

This anomaly is doubtless owing, in some degree, to our remoteness from the actual scene of hostilities, and our consequent immunity from the desolations liable to fall upon the border States; but it is likewise and largely due to the fact that we are an agricultural people, producing immense quantities of the great food staples which must always sell at some price, and which are usually enhanced in value in time of war.

It is also an occasion for congratulation that the times have shown the population of our State to be unsurpassed in hardi-

ness, industry, energy and productive capacity by any people on the globe. Nearly one-seventh of our adult male population have left the avocations of peace and entered the ranks of war, and the distraction of attention and interest on the part of those who have remained at home must have still further diminished the productive force of the country. The crops of various kinds were, nevertheless, gathered without material waste, and the granaries of Wisconsin are, to-day, full of evidences of the extraordinary enterprise and energy of her farmers.

The wheat crop of the past year, though not so large as the great crop of 1860, nevertheless fell but little, if any, short of the average for several previous years. Owing to the inadequacy of the means of transportation, however, much of it is yet unsold, and the prices, thus far, have been far from remunerative. To remedy this deficiency, many new vessels are being constructed for our lakes, and it seems almost certain that, after the first great movement in the spring, the prices will advance to fair and remunerative rates. Other crops compare favorably, as to yield, quality and pecuniary returns, with the general average of years, and there is a healthy progress in every department of agriculture. * * *

It is especially worthy of mention that agricultural implements and machinery of various kinds, of the most approved patterns, and in a rapidly increasing ratio as to numbers, are being introduced in every part of our State. It is to be regretted, however, that so few of these implements are manufactured by our own mechanics. Hundreds of thousands of dollars are annually sent out of the State for the purchase of reapers, threshing machines, horse-powers, grain-drills, plows, harrows, cultivators, and every other kind of implement and machine in use by our farmers, who, as a necessary consequence, pay, in addition to cost of manufacture, the dealer's profit and the cost of transportation. This is certainly bad economy, and the Society would reiterate what has heretofore been said on this subject in hearty approval of the recommendation of the Executive of the State, that measures be adopted for the better encouragement of manufacturers, in general, so

that foreign capital, so much needed, may be induced to invest in this important branch of our industry.

Upon agricultural societies the past has been a **very trying** year, for the reason that the public mind has been in a constant fever of excitement upon subjects connected with the welfare of the country, and has consequently found much less interest than usual in the industrial enterprises which engage the efforts of associations of that class. Most of the county societies held fairs, however—some of them, with even more than usual success.

The State Agricultural Society has suffered from special causes worthy of mention by the Committee and of consideration by the Executive and Legislative Departments of State and by the people. Reference is made to the occupation of the Society's Fair Grounds by the troops of the State, to the exclusion of the Society therefrom. This has been not only an embarrassment but a serious damage. From motives of economy, the Society located the Annual Exhibition at Madison for two years. But this made it necessary that the buildings, fences and other improvements should be of a more substantial character than had been usual, though, at the same time, it warranted a neatness of construction which very materially added to the attraction of the grounds and the comfort of the people in attendance upon the exhibitions. Still the Society would have made a considerable gain by the said location for two years, could it have held the second exhibition as arranged; since, in addition to putting a large proportion of the receipts of the Fair and the Madison city subscription into the treasury, it would have added thereto the whole amount accruing from the sales of material—thus leaving the Society in a most excellent financial condition. The grounds were desired, however, by the Governor, for the use of our volunteer troops, and the Executive committee, feeling that, in this time of national peril, the interests of the Government were paramount to those of the Society, cheerfully tendered them to the Executive for military occupation, and subsequently relinquished the holding of the proposed Annual Fair, rather than subject

the State to an expense of several thousand dollars necessary to the fitting up of another camp. And the consequence has been that the society has lost the net receipts of the Fair, the cost of printing the premium list therefor, the Madison subscription and the advantage of selling the timber and other material while it was yet new and comparatively uninjured—advantages whose value, in the aggregate, could hardly have fallen short of five thousand dollars.

These facts will account for the embarrassed condition of the finances, as seen by the accompanying Report of the Treasurer, and should hardly fail to place the State Government and the patriotic people of Wisconsin in a friendly, if not generous attitude towards the Society.

Moreover, it should not be forgotten that the holding of exhibitions—one very important means of promoting the industrial interests of the State—is not the only office of the Society. The law under which the Society has a corporate existence [see Chap. 80, Sec. 4, Revised Statutes,] provides, that the amount annually appropriated in aid of the declared objects of the organization, shall “be expended by said Society in such manner as it may deem best calculated to promote and improve the condition of agriculture, horticulture, and the manufacturing, mechanical and household arts in this State, either for the payment of premiums at the annual cattle shows and fairs of the Society; or in the purchase and distribution of choice seeds, cuttings, plants or tubers, which have been tested and found adapted to the soil and climate of this State; or in the prosecution of scientific investigations and experiments, and the collection and diffusion of information tending to develop the natural and agricultural resources of Wisconsin.” Under authority of this act, and with the conviction that a thorough knowledge of the industrial capacity of our State would tend to the more rapid development of its resources, and at the same time immediately aid in securing to Wisconsin an honorable rank among the enterprising and progressive States of the Union, it is the purpose of the Society to undertake the important work of making agricultural surveys

of the several counties of the State; the work to be under the immediate supervision of the Secretary, and carried forward as fast as the funds of the Society will warrant.

Nor are the operations of the Society, outside of the management of the annual fairs, limited to such scientific investigations, as will appear by the following sections of the By-Laws, defining the duties of the Secretary :

" 2. To open and carry on such correspondence as may be advantageous to the Society or to the common cause of agricultural improvement, not only with individual agriculturalists and eminent, practical and scientific men of other industrial pursuits, but also with other societies or associations whose objects are kindred to ours, whether in this country or foreign lands, and to preserve a journal of such correspondence in the archives of the Society.

" 3. To collect and arrange for convenient examination, standard agricultural works and periodical publications, together with such models, machines and implements as may be donated to, or otherwise acquired by the Society.

" 4. To investigate, as far as practicable, the nature of fertilizers, indigenous and cultivated plants, insects injurious to vegetation, &c., and to collect and preserve such specimens thereof as will illustrate the natural history and agricultural resources, condition, and progress of the State.

" 5. To institute, and collect reports therefrom, needed experiments relative to the preparation of the various soils of the State for economical culture; the cultivation of different grains, fruits, and garden vegetables; the breeding and raising of stock, &c. &c.

" 6. To visit, by the advice of the Executive Committee, or as his own judgment may direct, the various portions of the State, and to give lectures on the science and practice of agriculture, wherever and whenever they may be deemed most necessary or desirable.

" 7. To co-operate with the Superintendent of Public Instruction and the Agent of the Normal School Board for the introduction and use, in the schools of Wisconsin, of standard works on agriculture and the other industrial arts and sciences, and for the general promotion of the cause of industrial education.

" 8. To attend as many as possible of the industrial exhibitions of the country, particularly the County Fairs of Wisconsin. * *

" 9. To carefully prepare and superintend the publication of the Annual Report of the Society to the Governor of the State; embodying therein the proceedings of the State Agricultural Society, an abstract of the reports of the incorporated county agricultural societies of the State, and such reports, essays and addresses or other matter of information as may be calculated to enhance the value of said Report.

" Finally, it shall be his duty, not only by the means above named, but also through such other instrumentalities as he may devise, and the Committee approve, to devote himself faithfully and unreservedly to the promotion of the industrial interests of the State."

This general work of the Society is always going on, and during the past year has been prosecuted without interruption and with more than usual vigor, because of the omission of the Fair.

The "Annual Report" referred to in section 9 of the By-

Laws, is likewise provided for in section 6 of chapter 80 of the Revised Statutes, which reads as follows:

¶ "Sec. 6. It shall be the duty of the said Executive Committee of the Wisconsin State Agricultural Society to collect, arrange and collate all the information in their power in relation to the nature, origin and preparation of soils, the cultivation and growth of crops, the breeding and management of stock, the application and character of manures and fertilizers, the introduction of new cereal and other grains, and other agricultural subjects, and report the same, together with a statement of their own proceedings, to the Governor of the State in the month of January in each year, to be by him laid before the Legislature.

Now, it cannot but be apparent that the preparation of such a report necessarily involves a vast amount of labor, which neither the Society nor the State can afford to expend in vain. And the inference is plain and legitimate that it is the intention of the law said report should constitute a volume of considerable dimensions, and that it should be published *by the State*, and in creditable style for preservation and use, and for distribution to other States in exchange for similar publications. The Executive Committee are, therefore, unanimous in an expression of the earnest hope that the Legislature will so far appreciate the important work in which the Society is engaged as to establish and perpetuate a liberal policy in this respect.

Wisconsin possesses vast resources of wealth. Indeed, for industrial capacity, it is surpassed by no State of equal area in the Union; and, accordingly, it should be the policy of the State Government to foster and strengthen all institutions and agencies faithfully and efficiently devoted to the promotion of its industrial interests. Especially is it important that this should be done in times like these, when the tendency is to forget that industry is the only real source of wealth—the only sure foundation of our strength and prosperity as a State and Nation.

On behalf of the Executive Committee.

J. W. HOYT, *Secretary*.

TREASURER'S REPORT.

To the Executive Committee of the Wisconsin State Agricultural Society:

The Treasurer of the Wisconsin State Agricultural Society would respectfully submit the following report of the receipts and expenditures for the year 1861:

(1869.)

RECEIPTS.

Dec. 11..	Balance in treasury, as per report of 1860,....	\$	97
	1861.		
Feb.....	Received on loan of Bank of Madison,.....	198	53
March 2..	Received amount of State appropriation,....	3,000	00
	Received of J. V. Robbins, rents,.....	116	00
	Received of Gov. Randall, rent of grounds,..	125	00
	Received of J. W. Hoyt, cash col'd on rents..	129	00
			<u>\$3,569 50</u>

DISBURSEMENTS.

By amount of bills for services at last Fair,.....	\$211	05
By amount to M. M. Dorn & Co., for livery, in 1860,...	41	00
By amount to Church and Hawley for use of furniture at last Fair,.....	10	00
By amount to L. B. Mason, for dinner tickets taken at last Fair,.....	26	00
By amount on premiums awarded in 1860,....	211	00
By amount paid for use of Fair Grounds,.....	80	22
By amount to cancel note of W. Leffingwell,.....	1,035	00
By amount to cancel note of State Bank,.....	500	00
By amount to cancel note,.....	200	00
By amount to S. Klauber, for muslin used at Fair,....	75	00
By amount to J. McGregor, for pump for Fair Grounds,.	15	60
By amount to W. F. Porter, on rent of Ag. Rooms,....	100	00
By amount of expenses of Executive Committee,.....	159	50
By amount on salary of Secretary,.....	700	00
By amount for incidental expenses of office,.....	133	59
By amount to D. J. Powers (office expenses in '59),....	14	16
By amount to Church & Hawley, for furniture,.....	7	00
By amount to D. Clark, for use of furniture during Fair,	7	30
By amount of sundry small bills,.....	42	02
		<u>\$3,568 44</u>

Balance in treasury Dec. 10, 1861,..... \$1 06

DAVID ATWOOD, *Treasurer.*

EXECUTIVE MEETINGS.

STATE AGRICULTURAL ROOMS,
MADISON, Feb. 5, 1861.

The Committee met pursuant to requirements of the By-Laws.

Present—B. R. Hinkley, President, J. I. Case, J. V. Robbins, B. Ferguson, I. A. Lapham, O. T. Maxson, Charles H. Williams, David Williams, David Atwood and J. W. Hoyt.

President in the chair.

On motion, the subject of Rules and Premiums for the next State Fair was taken up and proceeded with until 12 M., when the committee adjourned to meet at 2 o'clock P. M.

2 O'CLOCK P. M.

Committee met pursuant to adjournment.

Present, same members as at morning session.

On motion, the office of General Superintendent was abolished and the duties performed by him were assigned to the President.

On motion, W. R. Taylor was appointed Chief Marshal for the Fair of 1861, and the following gentlemen were elected Superintendents of the several departments:

Superintendent of Gates.—D. Williams, Springfield.

Department of Horses.—B. Pinckney, Rosendale.

of Cattle.—B. Ferguson, Fox Lake.

of Sheep.—J. E. Dodge, Lancaster.

of Swine.—H. P. Hall, Burke.

of Agricultural Products.—O. T. Maxson, Prescott.

of Fruits and Flowers.—Thos. Hislop, Milwaukee.

of Machinery.—C. W. Olney, Madison.

of Manufactures.—D. Daggett, Milwaukee.

of Fine Arts.—J. C. Pickard, Madison.

of Plowing Match.—W. F. Porter, Madison.

of Equestrianism.—J. V. Robbins, Burke.

On motion of the Secretary,

Resolved, That the premiums of last year be increased by an amount equal to twenty-five per cent.

Various alterations were made in the Rules and Prize List of 1860, so as better to adapt it to the present wants of the State.

On motion of Mr. Maxson,

Resolved, That the salary of the Secretary be fixed, for the present, at \$1200 per annum, and that, in view of the extra labors devolved upon him during the year 1860, and the highly satisfactory manner in which he discharged those duties, his salary for said year likewise be made up to \$1200.

Voted, that the Secretary be authorized to publish the Premium List in the "Wisconsin Farmer," and that he be instructed to procure its publication in

pamphlet form, in such number as his judgment may approve, and that the general work of advertising and otherwise preparing for the next Exhibition be confided to his charge.

The several bills of members for expenses in attending upon this meeting having been audited and paid, on motion,

The Committee adjourned *sine die*.

J. W. HOYT, *Secretary*.

SPECIAL MEETING.

STATE AGRICULTURAL ROOMS, June, 1861.

The Committee met in response to a special call from the President.

Present—Messrs. Hinkley, Hall, David Williams, Atwood and Hoyt.

President Hinkley, on taking the chair, stated in general terms the object in making the call; whereupon the Secretary offered the following preamble and resolutions:

WHEREAS, War, for the defense of the constitution and the laws of the United States, has been forced upon the Government by an open defiance of its authority, on the part of several of the States; and

WHEREAS, It has become necessary, in order to the suppression of this rebellion, that the State Governments promptly and efficiently co-operate with the Federal Government in raising and equipping forces for an increase of the military power; and

WHEREAS, It has come to the knowledge of this Committee that the grounds now in the possession of the State Agricultural Society, known as the State Fair Grounds, together with the improvements thereon, are desired by the Executive of this State, as a place for the encampment and discipline of the troops being raised under his call; therefore,

Resolved, That the State Fair Grounds be, and the same are, hereby tendered to His Excellency, the Governor of Wisconsin, for use as a *Campus Martius* until such time as the Society shall be able to resume possession thereof without serious detriment to the paramount interests of our common country.

Resolved, That the Secretary is hereby instructed to forward a copy of the foregoing resolution to His Excellency, the Governor, without delay.

Adopted unanimously.

The Secretary having been instructed to make provision for the Annual Fair, without reference to the temporary relinquishment of the Society's Grounds, and at the same time authorized, in the event of its appearing to be impracticable to hold the Exhibition, after due consultation, by correspondence, with the members of the Executive Committee, to announce the postponement of the same through the papers of the State,

The committee adjourned *sine die*.

J. W. HOYT, *Secretary*.

MEMORANDUM.

STATE AGRICULTURAL ROOMS, August 5, 1861.

Having become satisfied, after a general correspondence with members of the Executive Committee, that a decided majority deem it expedient, if not, indeed necessary, to postpone the Annual Exhibition of the Society for at least one year, I have, with great reluctance, and with serious misgivings as

to the propriety of such suspension, this day issued the following official notice of

POSTPONEMENT OF THE FAIR:

STATE AGRICULTURAL ROOMS, MADISON, Aug. 5, 1861.

When it became apparent that the perpetuity of our Government would necessitate a war with the traitors who had taken up arms for its destruction, and that several regiments of troops were likely to be wanted from this State, the Commander-in-Chief of the Wisconsin Militia found it desirable to establish a Camp at Madison. The State Fair Grounds, being admirably adapted to the purposes of an encampment and easily susceptible of such modifications as would fit them for the comfortable occupancy of successive regiments, were naturally desired by the Governor, who was anxious to be able to make prompt and patriotic responses to the urgent demands of the Federal Government. Accordingly, the Executive Committee, glad of their ability to favor the State and advance the cause of the Union, cheerfully tendered to His Excellency "the use of the Fair Grounds for a *Campus Martius*, until such time as the Society shall be able to resume possession without serious detriment to the paramount interests of our common country." They were gratefully accepted by the Governor and immediately occupied by the Second Regiment. Experience soon proved that in order to the comfort of the soldiers and their economical subsistence, various improvements and enlargements would be necessary; which were accordingly made at a final aggregate cost of nearly \$4,000.

Subsequently the 5th and 6th Regiments were encamped upon the Grounds, and it began to appear doubtful whether the Society would not be driven to the alternative of either postponing its Fair or insisting upon future regiments being quartered, at however great expense and inconvenience, in other portions of the State. The improvements referred to were valueless to the Society; indeed it would cost a thousand dollars to get rid of them. It was determined in Executive Council, therefore, notwithstanding the arrangements, including the issue of the Premium List, to sacrifice the lesser interests of the Society to the greater interests of the State and country, and postpone the Fair for one year, in case any considerable additional number of troops should be demanded of Wisconsin, and the Governor should feel that the Grounds must be had for their occupancy.

The recent call of the 7th and 8th Regiments to this place, and the yet later order from the Secretary of War for five additional Regiments of Infantry and five Batteries of Artillery have decided those questions, and I have, therefore, been instructed by the Executive Committee to publish the postponement.

This necessity is an occasion of profound regret, as it is even more important now than ever that the agricultural interests of the country should be carefully fostered. It is believed, however, that all friends of the Union and of the State Agricultural Society will appreciate the reasons and motives which have actuated the Committee, and that nothing will be omitted by either individual farmers or County Agricultural Societies, that may be necessary to the best development and progress of our industrial interests as a State, during this period of our national trial.

J. W. HOYT, Sec'y W. S. A. S.

EXECUTIVE MEETING.

STATE AGRICULTURAL ROOMS, Dec. 10, 1861.

The Committee met pursuant to requirement of By-Laws.

Present—Messrs. Hinkley, D. Williams, Hall, Atwood and Hoyt.

President Hinkley in the chair.

On call, the Treasurer presented his Annual Report, for the fiscal year just closed. [For Report see page 89.]

Which, on motion, was accepted, and after a careful comparison with the Secretary's accounts and vouchers, approved by the committee.

On motion of D. Williams, it was

Resolved, That Dr. J. W. Hoyt, Secretary of this Society, be and he hereby is, granted leave of absence during the next spring and summer, to represent this State, by appointment of the Governor, as Commissioner to the International Exhibition of 1862.

On motion of the Secretary, it was

Resolved, That the President and Treasurer be and they hereby are, appointed a committee to wait upon the Governor and make application for the amount of one thousand dollars, as a consideration for the use of the Society's Grounds, and the improvements thereon, during the past year, and that, if practicable, they report before the final adjournment of this meeting.

On motion. the committee adjourned to 7 1-2 o'clock this evening.

7½ O'CLOCK P. M.

Committee met pursuant to adjournment.

Present, same members as before.

Committee appointed to negotiate with the Governor for payment of rent on grounds, not being ready to report, after the settlement of sundry bills,

Adjourned *sine die*.

J. W. HOYT, *Secretary*.

ANNUAL MEETING OF SOCIETY.

STATE AGRICULTURAL ROOMS, MADISON, Dec. 11, 1861.

The Annual Meeting was held pursuant to the requirements of the Constitution, at 3 o'clock P. M. of this day.

President Hinkley in the chair.

The Secretary on behalf of the Executive Committee, read the required statement of the Society's fiscal affairs for the year 1861; showing the total receipts to have been \$3,569 50, and the disbursements, \$3,568 44.

Which was approved.

Secretary gave notice of an intent to offer, at the next annual meeting, the following amendments to the constitution, to wit:

Strike out the second paragraph in Article V., as published in the 5th volume of Transactions of the Society—said paragraph commencing with the sixth line and ending with the twentieth of said Article V—and substitute therefor the following, to wit:

"The election of all officers of this Society shall be held, each year, during and at the State Fair; and the exact time and place of the election shall be notified by the Secretary in the public newspapers, at least twenty days before such election; and the Life Members of the Society and the Presidents of the several County Agricultural Societies, legally organized and in active operation within this state shall be the legal voters thereat; and the officers so elected shall continue in their respective offices during the period of one year from the first day of January subsequent to their election, and until their successors shall have been duly elected and qualified."

The Society voted an approval of the action of the Executive Committee in postponing the Annual Exhibition and then, on motion,

Adjourned *sine die*.

J. W. HOYT, *Secretary*.

ABSTRACT OF RETURNS OF COUNTY AGRICULTURAL SOCIETIES FOR 1861.

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STATE AGRICULTURAL SOCIETY.

COUNTIES.	ORGANIZED.	REPRESENTATIVE OFFICERS.			PLACE & DATE OF FAIR.		FINANCES.			
		PRESIDENTS.	SECRETARIES.	TREASURERS.	PLACE.	DATE.	RECEIPTS.	EXP'DIT'RS.	AM'T PAID PREM'S.	AM'T IN TREASURY
Adams,.....	1859	H. W. Kingsbury,	H. V. Brown,....	S. Thompson,....	Friendship,...	Oct. 4	\$150 00	\$78 75	\$60 75	\$71 25
Bad Ax,....	1856	W. T. McConnell,	R. O. Bierce,....	A. Smith,.....	Viroqua,....	Oct. 9-11	238 00	239 41	52 50	.....
Brown,....	1858	Wm. Scott,.....	M. P. Lindsley,...	D. N. Luther,....	Green Bay,...	Oct. 1- 2	190 00	190 61	132 67	.....
Calumet,....	1856	M. Merrill,.....	F. J. Curtiss,....	J. H. Stanley,...	Gravesville,...	Spt. 25-26	291 00	235 39	86 00	55 61
Columbia,...	1857	J. Q. Adams,...	H. Converse,....	F. C. Curtis,....	Portage,....	Spt. 18-20	475 21	459 00	883 00	16 21
Crawford,...	1858	E. Davis,.....	Rufus King,....	W. E. Parish,....	Bell Centre,...	Spt. 17-19	200 25	144 50	101 50	55 75
Douglas,....	1859	Wm. Mann,.....	W. Crandell,....	E. W. Anderson,...	Hall of Soc'y,...	Oct. 29-31	231 00	47 50	47 50	189 50
Eau Claire,...	1859	E. W. Robbins,...	W. P. Bartlett,...	De W. C. Clark,...	Eau Claire,...	Spt. 10-12	390 28	387 81	130 50	2 45
Fond du Lac,	1861	H. Conklin,....	I. Brown,.....	A. B. Taylor,....	Fond du Lac,...	Spt. 24-25	387 03	385 01	56 25	2 02
Grant,.....	1855	.....	J. A. Jones,....	W. N. Reed,....	Lancaster,...	Spt. 18-19	766 43	721 05	387 25	45 38
Green,.....	1857	E. T. Gardner,...	W. W. Wright,...	Thos. Emerson,...	Monroe,....	Spt. 26-28	384 86	384 86	297 43	.....
Green Lake,...	1854	L. Shorman,....	M. H. Powers,....	M. H. Powers,....	Markesan,...	Oct. 23	313 07	303 02	231 70	10 05
Iowa,.....	1856	L. W. Joiner,...	O. D. Wigginton,...	S. Hoskins,....	Dodgville,...	Oct. 15-16	380 70	395 27	235 50	.....
Jefferson,....	1853	H. H. Wild,....	Jas. Barr,.....	G. L. Chapin,...	Jefferson,...	Spt. 18	219 50	210 54	159 00	8 96
Kenosha,....	1856	H. S. Thorp,...	J. M. Leland,....	J. Q. Fowler,....	Kenosha,....	Spt. 24-25	485 73	197 35	91 37	288 40
La Crosse,...	.....	.....	.....	.....	La Crosse,...	Oct. 3- 4	1,174 15	1,140 39	219 00	33 76
La Fayette,...	1857	G. W. Russell,...	A. W. Hovey,....	C. Z. Cutting,...	Darlington,...	Spt. 25-26	348 35	323 14	192 00	20 21
Manitowoc,...	1857	C. Klingholz,...	C. Hottelmann,...	M. Fellows,....	Manitowoc,...	Oct. 15-16	200 82	165 45	95 00	35 37
Marquette,...	1859	G. W. Robinson,...	J. Edson, jr,....	C. S. Kelsey,....	Oxford,.....	Oct. 8- 9	279 79	217 65	177 02	62 14
Monroe,....	1858	R. H. McMahon,...	H. E. Kelley,....	A. H. Condit,...	Sparta,....	Spt. 19-20	329 80	177 90	105 00	151 90
Outagamie,...	1860	W. H. P. Bogan,...	B. Douglass,....	C. G. Atkins,....	Appleton,...	Oct. 1- 2	211 03	206 70	183 25	4 33
Ozaukee,....	1859	F. W. Horn,....	W. F. Bonniwell,...	B. O. Kussow,...	Cedarburg,...	Oct. 4- 5	391 45	359 95	191 60	31 50
Pierce,....	1859	W. C. Denison,...	A. H. Young,....	M. U. Barb,....	Prescott,....	Oct. 4- 5	283 75	265 58	120 00	18 17
Polk,.....	1851	D. Mears,....	L. Fordland,....	W. Kent, jr,....	Osceola,....	Oct. 8- 9	291 00	291 00	17 00	.....

Racine,.....	1857	J. I. Case,.....	G. Goodrich,....	F. Drake,.....	Union Grove,	Spt. 17-19	811 04	827 37	604 70	.....
Rock,	1854	.....	.....	.....	Janesville, ..	Spt. 17-19	841 44	783 17	506 50	58 27
St. Croix,...	1858	S. Staples,.....	S. S. Starr,.....	J. S. Gibson,....	Hudson,....	Oct. 2- 3	267 06	224 40	85 00	42 66
Sauk,	1855	P. Cooper,.....	H. H. Potter,....	R. R. Remington,	Baraboo,....	Spt.	377 42	328 21	286 78	49 21
Sheboygan, ..	1857	A. A. Vanwie,...	C. L. Gould,.....	J. B. Richardson,	Sheb. Falls..	Spt. 18-19	841 48	261 82	235 00	179 61
Trempeleau, ..	1859	Jno. Gillies,....	G. Y. Freeman,...	E. C. Perkins,...	Galesville,...	Oct. 16-17	205 00	180 50	87 50	24 50
Walworth, ..	1856	S. Brooks,.....	E. Elderkin,	J. F. Brett,.....	Elkhorn,	Spt. 11-13	1,850 14	1,805 11	701 00	45 03
Washington, ..	1858	Tim. Hall,.....	J. Woolfitt,.....	W. Rohn,.....	Cedar Creek,	Oct. 8-10	217 45	211 94	192 75	5 51
Waupaca, ...	1857	Thos. Pipe,.....	W. B. Mumbrue,...	E. Townsend,....	Waupaca,....	Spt. 18-19	252 75	243 97	169 24	8 83
Waushara, ..	1857	A. Noyes,.....	S. R. Clark,.....	A. Nash,.....	Wautoma,...	Oct. 2- 3	268 04	151 43	77 50	116 61
Winnebago, ..	1855	A. H. Cronkhite,.	B. S. Heming,...	J. M. Ball,.....	Oshkosh,....	Spt. 17-19	515 82	512 78	347 78	3 04
							\$14,032 05	\$12,585 16	6,791 59	1,478 38

TRANSACTIONS

OF THE

WISCONSIN STATE AGRICULTURAL SOCIETY

FOR 1862.

7 AG. TRANS.

OFFICERS OF THE SOCIETY.

1862.

PRESIDENT :

B. R. HINKLEY, SUMMIT.

VICE PRESIDENTS :

First District, —E. B. WOLCOTT, MILWAUKEE;

Second District, —NELSON DEWEY, LANCASTER;

Third District, —BERTINE PINCKNEY, ROSENDALE.

SECRETARY :

J. W. HOYT, MADISON.

TREASURER :

DAVID ATWOOD, MADISON.

ADDITIONAL MEMBERS OF EXECUTIVE COMMITTEE :

H. M. BILLINGS, HIGHLAND ;

H. P. HALL, BURKE ;

C. LOFTUS MARTIN, JANESVILLE ;

BENJ. FERGUSON, FOX LAKE ;

DAVID WILLIAMS, SPRINGFIELD ;

S. S. DAGGETT, MILWAUKEE.

EX-PRESIDENTS, EX-OFFICIO MEMBERS :

E. W. EDGERTON, SUMMIT ;

HARVEY DURKEE, KENOSHA ;

J. F. WILLARD, JANESVILLE.

ANNUAL REPORT

FOR THE YEAR 1862.

His Excellency, EDWARD SALOMON,

Governor of the State of Wisconsin:

SIR:—The Executive Committee of the Wisconsin State Agricultural Society, in submitting the Twelfth Annual Statement of its fiscal affairs, would respectfully further report:

That the past year has been even more trying to the industry of the State, and upon all associations and institutions organized for its advancement, than the year preceding.

AGRICULTURAL CONDITION AND PROGRESS.

The wheat crop, which is, unhappily, almost the entire reliance of a large proportion of our farmers, in some parts of the State has been a serious failure, owing to the combined causes of bad management, unfavorableness of weather at the most important period of the season, and a partial deficiency of working force by reason of the large number of farmers who have enlisted in the ranks of war. Moreover, the price of grain actually produced has scarcely been equal to a compensating rate for the most productive yield; while everything the farmer has been obliged to buy has cost him nearly twice as much as in former years.

Two feasible remedies against a successive recurrence of like embarrassments suggest themselves, to wit: Increased facilities for getting the products of our agriculture to Eastern markets, and certain material modifications of the present agricultural practice.

The first of these remedies is the more palpable, and has al-

ready awakened so deep and active an interest in all parts of the West that it is highly probable that the plans for enlarging the Erie canal, and for otherwise facilitating commercial relations between the eastern and western portions of the country will be carried into execution at an early day; to which end it is earnestly hoped that the Legislature of this State will omit no action that may properly be taken to insure their success. If, in addition to the execution of these plans, some just regulation could be devised and enforced, by which our own railroads could not lawfully charge so large and unlimited a proportion of the market price of grain for carrying it from the interior of the State to the lake shore, such measure would also materially conduce to the prosperity of the agriculture of the State, and have the cordial approbation of the great body of the people.

The second remedy relates to a change in our system of farming, and is therefore within the control of the farmers themselves.

It is an established principle of agricultural science that no soil, however rich naturally, can produce a full crop of any kind, without either rotation or manure, for an indefinite succession of years. And it is, in part, because of a practical disregard of this fundamental principle, that our agriculture, though its aggregate results are often large, is nevertheless so much less productive than it should be.

Since the early settlement of Wisconsin, wheat has been cultivated to the exclusion of much else that might have been more profitably produced, and to the serious neglect of stock-growing, so essential to the continued fertility of the soil. The great crop of 1860, which should have been attributed to unusual favorableness of season and to the protracted drouth of the year previous, has had the effect to encourage a continuation of this fallacious practice, and it would seem necessary that failure should succeed failure in order to an efficient correction of the error.

The cultivation of sorghum, which had been to some extent introduced before the commencement of the war, has

much increased under the stimulation of the high prices of foreign-produced sugar and molasses, so that there is reason to hope that, as a State, we may ultimately produce enough of these articles for home consumption. As yet, however, we lack the means of manufacturing refined sugar and syrup, though it is hoped that ere long this desideratum will be supplied by the establishment of one or more refineries within the boundaries of this State.

The culture of flax, as a means of supplying a substitute for cotton, is justly attracting much attention in many parts of the country. The State of New York has placed some \$3,000 in the control of the State Agricultural Society to be used in securing a thorough course of experimentation with a view to so "cottonizing" flax as that it may be manufactured by means of cotton machinery. It is not the wish of this Society that any appropriation be made by this State for a like purpose, but if any measure could be adopted by the Legislature to encourage the establishment of mills and factories for the manufacture of oil and the dressing of flax fibre, there is little doubt that such means would result to the advantage of the productive industry of the State.

Sheep husbandry has already felt the stimulus of the increased demand for wool, and hundreds of our farmers who have hitherto given little or no attention to this branch of agriculture, are now engaging in it with great zeal. The dry and healthful climate, and well-watered surface of Wisconsin, admirably adapt it to the rearing of sheep and the production of good wool; while our distance from the great markets and the high tariff for transportation thereto, furnish another important incentive to the production of whatever will economically yield the largest money returns in proportion to weight. Wool-growing should be ranked among our most important agricultural interests, and, as such, is eminently entitled to legislative protection.]

INDUSTRIAL EDUCATION.

[Each succeeding year adds to our conviction that one of the

primary wants of the agriculture of this country is adequate means for the education of farmers' sons and others in the best known practice, and in the scientific principles involved therein.

With a view to supply this deficiency, the intelligent agriculturists of this State, together with their representatives in Senate and Assembly, have in years past repeatedly urged upon Congress the propriety of donating lands sufficient in quantity for the endowment of at least one institution in each State, where the object shall be to teach such branches of learning as are directly related to agriculture and the mechanic arts. Those petitions have at last been answered, and Wisconsin now has it within her power to secure 240,000 acres of land for the endowment of such an institution. The conditions to be complied with to secure the grant are just and reasonable, and as the more immediate representatives of the industrial interests of the State, we would respectfully urge the importance of prompt action in acceptance of the grant, in the location of the lands now being rapidly taken up by individuals under the homestead act, and the provision of means for ensuring a full and satisfactory compliance, in all respects, with the conditions of the grant. We also beg to suggest, that in devising a plan for the organization of the institution, great care should be taken to devolve the important trust of guardianship upon those most directly and deeply interested in the objects contemplated, and that it should be protected as far as possible against the baleful influence of political partizanship.]

AGRICULTURAL SOCIETIES.

[Owing to the distractions of war and the enlistment of large numbers of those who have always been active in agricultural enterprises of a public character, but few county fairs have been held during the past year. Some of these were quite successful; others have been partial failures. The organizations have generally been kept up, however, and there is a commendable determination on the part of nearly all to continue their efforts with unflagging zeal for the promotion of

the important objects for which they were established. Societies of this class are the means of great good, and it is hoped that nothing will be done by the Legislature to curtail their usefulness.

The State Agricultural Society still suffers embarrassment from the distracted condition of the country; on account of which condition and of entire exclusion from its exhibition grounds, (now Camp Randall), we were again compelled to postpone the holding of the accustomed Annual Fair; and the Society is thus, for the second year, deprived of this source of income. Moreover, the State has now entirely withdrawn the aid it has heretofore rendered to the agricultural interests through this medium; so that the Society is now either compelled to close its doors and cease its labors, or to maintain its existence at the expense of individual officers, whose long devotion to, and appreciation of its objects makes them unwilling that it should become extinct.

The Society should, at some time, realize something from the sale of its fair ground improvements to the General Government, but no portion of the amount due has yet been paid, nor are we encouraged by our agent at Washington to confidently hope that it will be. Should this claim be cancelled by the Government, the Society would be enabled at once to settle its outstanding obligations and leave the Treasury unembarrassed by debt; but on the other hand, should this claim not be paid at once, the burden of sustaining the Society must fall heavily upon the few who have its interests in official trust.

From the report of the Treasurer, herewith submitted, it will appear that the small fraction of what should have been the appropriation to the Society for the year 1862, has been, in part, expended in carrying on the office business of the society; a use, which though not originally contemplated by the law, has, nevertheless, to the Society appeared warrantable, under the circumstances, and will no doubt be sanctioned by the State.

In every one of the now loyal States of the Union there ex-

ists either a board of agriculture or a state agricultural society, sustained, in part, by appropriations from the public treasury; and in no one of them, except Wisconsin, has it been deemed the dictate of wisdom, in these times when nothing appears more likely to insure the success of the national cause than the superior resources of the Northern States, to curtail the usefulness of its chief agricultural organization by an entire withdrawal of the aid it has been customary to afford in times when the efforts of that organization were less imperatively demanded than now.

It is not the intention of the Executive Committee to claim that the State Agricultural Society is the only agency by which this State may efficiently supervise its industrial resources, but they do respectfully urge that no state government may wisely omit, by means of some central and competent agency, directly and uninterruptedly to exercise such supervision.

THE WORLD'S INDUSTRIAL EXHIBITION.

During the spring and summer months, it was the privilege of the undersigned, in the two-fold capacity of Delegate from the State Agricultural Society and State Commissioner, to attend the third of what bids fair to be a continued series of international exhibitions of industry and art—the first having been held at London in 1851, the second at Paris in 1855, the third, and last, also at London. What the county exhibition is to the county, and our annual exhibitions are to the State, that same are these national exhibitions to all the world—with this advantage in their favor, namely, that, owing to the remoteness of the the nations from each other and the differences of language, customs and laws, the nations have less facility for learning from each other, except through extraordinary means, such as these grand industrial reunions, than have the individuals which compose a county, or the counties which constitute a state. •

The Exhibition of 1862 has proven an unparalleled success, having brought together a greatly increased number of nations,

people and products, over those of 1851 and 1855, each of which—the first one in particular—was deemed, and was, a most marvellous success in its time. Nearly every kingdom, principality and power was represented by its products, as well as people, and the opportunity for studying the condition and progress of the nations of the world was therefore complete.

To new countries, naturally well endowed, and desirous of increased population, the Exhibition afforded a rare opportunity for bringing their advantages permanently and effectually before the world; on which account, as well as for many other reasons, it is to be profoundly regretted that America was not more worthily represented. The United States, notwithstanding the war, was able to show, and should have shown, capacities and powers such as are not dreamed of in the Old World, and which would have gone very far towards compelling a too reluctant respect, and securing at least that unqualified and absolute neutrality and non-intervention, if nothing more, of which we now seem likely to fail.

The belief is prevalent throughout Europe, especially in England, that a thorough, practical and permanent suppression of the rebellion of the Southern States is altogether improbable, if not indeed impossible; and inasmuch as these European nations fancy themselves selfishly more interested in the cotton than in the manufacturing States, and are, moreover, much more strongly in sympathy with the aristocratic sentiment which prevails throughout the former than with the democratic ideas which prevail in the North, it is hardly surprising that they should easily credit the reports of our enemies touching the inability of the government to overpower them and re-establish the union of all the States. If, therefore, instead of the 153 exhibits made by this country, of the 25,000 made by all, we had made a demonstration proportionate to our real ability—which was much less impaired by the war than foreign nations supposed—the false notions entertained by them of our straitened and crippled condition would have been measurably corrected.

As it was, enough was done by the few exhibitors of

machinery and implements from the United States to re-affirm and pretty well establish our supremacy in this most important of all the departments of national industry. To have given to the world the combined reaper and mower, the cotton-gin and the sewing machine, and to have made good our title to these by such improvements from year to year as maintain their unquestioned superiority over all imitations of them by foreign inventors, of itself secures to America a most enviable position among the progressive nations of the world, and, during the Great Exhibition, enabled the American visitor to hold up his head, notwithstanding the meagreness of our general display.

The result of a critical examination, by competent judges and by the international juries, has shown that American pre-eminence is not confined to superiority in the these utilitarian inventions, however, but that even in the quality of our pianos and of some of our works of art our claim to superiority is equally good.

All in all, it is well that something was done to give the United States a footing in this great industrial exhibition, and too much praise can hardly be bestowed upon the few enterprising gentlemen who, in default of a national demonstration, so bravely took upon themselves the responsibility and labor of making at least a very partial representation of American industry.

J. W. HOYT,

Secretary Wisconsin State Agricultural Society.

TREASURER'S REPORT.

To the Executive Committee of the Wisconsin State Agricultural Society :

I have the honor to report the transactions of the treasury of the Wisconsin State Agricultural Society, for the fiscal year ending December 10, 1862, as follows :

RECEIPTS.

Dec. 11, 1861, To amount of balance as per last report,...	\$1 06
Feb. 7, 1862, amount of State bond,.....	905 00
March 1, 1862, amount received on State appropriation, 712 20	
	\$1,618 26

DISBURSEMENTS.

To W. A. Hayes, as tax on Fair Grounds,.....	\$57 18
To B. R. Hinkley, for expenses as member of Executive Committee and bills paid,.....	123 25
To Benj. Ferguson, for expenses incurred as member of Executive Committee in 1861,.....	22 80
To W. F. Porter, on rent of Agricultural Rooms for 1861, .	150 00
To J. W. Hoyt, on salary due in 1861,.....	700 00
To J. W. Hoyt, on salary due in 1862,....	530 00
For incidentals,.....	4 79
	\$1,588 02
Balance in treasury December 10, 1862,.....	\$30 24

DAVID ATWOOD,

Treasurer State Agricultural Society.

NOTICE TO THE PUBLIC.

STATE AGRICULTURAL ROOMS,

April 6th, 1862.

In the exercise of the privilege granted me by the Executive Committee, I have accepted the appointment tendered by His Excellency, Alex. W. Randall, Governor, as Commissioner for Wisconsin to the Exhibition of the Industry of all Nations, to be held at London, England, from May 1st to Oct. 1st, and, this morning, leave for New York, *en route* for London. Until my return, the office of the State Agricultural Society will be closed.

J. W. HOYT, *Secretary.*

EXECUTIVE MEETING.

SPECIAL SESSION.

STATE AGRICULTURAL ROOMS.

MADISON, July 29, 1862.

Pursuant to a call of the President for a Special Meeting of the Executive Committee, the following members were present:

B. R. Hinkley, David Williams, David Atwood, S. S. Daggett, and Benj. Ferguson.

B. R. Hinkley, President, in the chair.

The President stated the object of the meeting to be to determine whether the Society should, this year, hold a Fair. He also gave an account of the action of himself and the Treasurer, in the disposal of the Fair Grounds at Madison, to the State Government for military purposes.

After a free discussion of the propriety of holding an exhibition, in which the present condition of the country, growing out of the war, was commented on,

On motion of Mr. Williams, it was unanimously

Resolved, 1. That the Executive Committee of the State Agricultural Society deem it inexpedient to attempt the holding an exhibition during the present year.

Resolved, 2. That the doings of the President and Treasurer, in disposing of the interest of the Society in the Fair Grounds, at Madison, to the State, are hereby approved.

On motion of Mr. Daggett, it was

Resolved, That, in view of the present condition of the finances of the Society, and the uncertainty when it will be possible to resume the holding of its accustomed exhibitions, and in consideration of the Secretary's expressed preference that his salary be either reduced for the present or entirely discontinued, the said salary is hereby fixed at \$1000 per annum from and after the first day of January, 1862.

The President laid before the committee a proposition from Geo. R. Chittenden, Esq., proposing to donate a Wheeler & Wilson's Sewing Machine for the best specimen of work, done upon that kind of a machine, shown at the next Fair.

Voted, That the thanks of the Society be tendered to Mr. Chittenden, whose generous offer must be declined on account of the resolution for a postponement of the exhibition just adopted.

On motion of Mr. Williams, the committee adjourned *sine die*.

E. B. QUINER, *Secretary pro tem*.

B. R. HINKLEY, *President*.

MEMORANDUM.

STATE AGRICULTURAL ROOMS.

MADISON, Sept. 6th, 1862.

After an absence of just five months, during which time I have carefully studied the great exhibition at London—the grandest gathering hitherto witnessed of the products and people of all lands—and made a somewhat extended tour of observation, industrial and educational in its character, through France, Switzerland, Germany, Prussia, Belgium, England, Scotland and Ireland, I have this day returned to find the dark cloud of war still resting upon my native land, and that the holding of an industrial exhibition in Wisconsin, this year, has been voted impracticable by the Executive Committee of the State Agricultural Society.

J. W. HOYT, *Secretary*.

STATE AGRICULTURAL ROOMS,

Dec. 10, 1862.

Committee met as required by the By-Laws.

Present—Messrs. Hinkley, Atwood, D. Williams, Hall, Ferguson and Hoyt. President Hinkley in the chair.

On call, the Secretary gave a brief account of what he had sought to accomplish in Europe, and consented to comply with the Committee's request for the preparation of a more detailed account of the International Exhibition and of his travels in the 7th Volume of Transactions.

The Treasurer made his Report for the fiscal year ending with this date, [see page 107];

Which, after a careful examination by the committee was unanimously approved.

In response to inquiries concerning the disposition of the Fair Grounds, the President made the following statement of facts:

“It having become apparent that the war must be one of some years' continuance, so that it would be out of the question to hold annual exhibitions on the Society's grounds until after the return of peace; and it being highly important, moreover, that the treasury of the Society be replenished from some source, it seemed to me best that an effort be made to induce the general government to purchase the improvements belonging to the Society, but really occupied by the United States.

"Accordingly, I called a meeting of the members of the Executive Committee with the view of laying this matter before them and determining upon what course to pursue.

"The number of members in attendance was not large, but the decision was unanimous that the improvements should be sold, and the President and Treasurer were appointed a committee to make disposition of them to the best advantage of the Society.

"In the performance of this duty the committee waited upon the Q. M. General of the State and endeavored to secure a satisfactory settlement with him. He felt unwilling, however, to acknowledge the whole amount of the Society's claim, and accordingly it was agreed that the amount to be audited should be determined by arbitration, and A. A. McDonnell and H. A. Tenney were chosen as the parties who, together with a third to be selected by them, should examine the Society's books and property and settle the amount that ought to be paid by the government. These gentlemen selected Simeon Mills as the third member of the board of appraisement, and after a careful investigation, agreed that the value of the Society's Fair Grounds improvements was \$4,956 22; which sum they recommended be allowed by the authorities of the United States.

"The Q. M. General approved of this decision and put the claim for that account in the way of collection. Up to this date, however, nothing has been received by the Treasurer, and we are unable to determine the cause of the delay. The balance sheet of the Treasurer reveals the necessity that exists for its payment, and I recommend that the Secretary spare no pains to secure a settlement at the earliest day practicable."

The Secretary stated that he had already sought, by enquiry at the office of the Q. M. General, and by correspondence with the War and Treasury Departments, to learn the cause of non-payment, but as yet, with no satisfactory results.

After the settlement of sundry claims against the Society, by securing postponement of demand, on motion,

The Committee adjourned *sine die*.

J. W. HOYT, *Secretary*.

ANNUAL MEETING OF SOCIETY.

STATE AGRICULTURAL ROOMS,

Dec. 10, 1862.

Pursuant to the requirements of the Constitution, the Wisconsin State Agricultural Society met in their rooms this day at 3 o'clock P. M.

President B. R. Hinkley in the chair.

The attendance was larger than at any previous meeting since the modification of the constitution requiring the election to be held at and during the Annual Fair.

The President made a general statement of the transactions of the officers of the Society, during the year, including the sale of the improvements on the Fair Grounds to the general government for the amount of \$4,956 22.

The Treasurer reported the total receipts for the year as being \$1,618 26; the expenditures \$1,588 02.

[See statement reported to the Governor, on page 107.]

The Secretary read the notice, filed and published by him, one year ago, of an intent to offer an amendment, at this meeting to article V. of the Constitution.

[See minutes of Annual Meeting of 1861, on page 93.]

Hon. Simeon Mills moved to strike out of the proposed amendment the words "shall be notified by the Secretary in the public newspapers of the State, at least twenty days before such election," and substitute in lieu thereof the following, to wit: "shall be distinctly notified by the Executive Committee, in all the published programmes of the Annual Fair."

Which was adopted.

When, on motion, the amendment as amended was unanimously adopted.

On motion of S. D. Hastings, the Society adjourned *sine die*.

J. W. HOYT, *Secretary*.

Pres. G. L. Case
Rec'd for
Racine

ABSTRACT OF RETURNS OF COUNTY AGRICULTURAL SOCIETIES FOR 1862.

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STATE AGRICULTURAL SOCIETY.

COUNTIES.	REPRESENTATIVE OFFICERS.			PLACE AND DATE OF FAIR.		FINANCES.			
	PRESIDENTS.	SECRETARIES.	TREASURERS.	PLACE.	DATE.	RECEIPTS	EXPENDITURES.	AMOUNT PREMIUMS	AM'T IN TREAS'RY.
Adams,.....	H. H. Kingsbury.	H. V. Brown,....	Seth Thompson,...	Friendship,....	Sep. 25-26	\$255 37	\$172 25	\$116 25	\$83 12
Calumet,.....	Calvin Merrill,...	Edwin Alden,....	Ansel Watrous,...	Gravesville,...	Oct. 1-2	200 55	155 39	45 39	45 16
Columbia,.....	John Q. Adams,...	Henry Converse,...	F. C. Curtiss,....	Portage City,...	Sep. 24-26	405 50	426 35	347 00	.....
Fond du Lac,...	Edward H. Jones,	Isaac Brown, ...	A. B. Taylor,....	Fond du Lac,...	Sep. 23-24	216 52	219 21	.....	.....
Grant,.....	J. C. Holloway,...	J. W. Blanding,...	T. M. Barber,....	Lawcaster,	Sep. 17-18	743 90	743 90	308 70	.....
Green Lake,...	S. M. Knox,....	M. H. Powers,...	M. H. Powers,....	Berlin,.....	Oct. 1-2	462 75	355 04	260 88	107 71
Iowa,.....	L. W. Joiner,....	Rich'd Arundell,	Samuel Hoskins,...	Dodgeville,...	Oct. 1-3	332 54	322 50	170 50	10 04
Kenosha,....	Edward Bain,....	J. M. Leland,....	J. D. Fowler,...	Kenosha,.....	Sep. 25-26	801 40	724 12	115 58	77 28
La Crosse,....	.....	A. A. Harwood,...	B. A. Veit,.....	La Crosse,....	Sep. 26	573 02	548 95	284 50	26 07
Monroe,.....	D. McBride,....	G. H. Ledyard,...	Thos. B. Tyler,...	Sparta,.....	Oct. 2-3	257 90	113 00	24 75	144 90
Manitowoc,....	Chas. Klingholz,...	Chas. Hottlemann	M. Fellows,.....	Manitowoc,...	Oct. 18	243 22	194 65	75 00	48 57
Ozaukee,.....	Wm. F. Bonniwell	Wm. Vogemtz,...	B. O. ZastroKusson	Cedarburg,....	Oct. 7-8	272 33	246 96	143 00	25 37
Outagamie,....	W. H. P. Bogan,...	B. Douglas,.....	C. G. Atkins,....	Appleton,	Oct. 1-2	257 63	249 75	249 75	7 88
Rock,.....	Joseph Spaulding	G. S. Strasberger,	W. Lester,.....	Janesville,...	Sep. 17-19	841 44	783 17	506 50	58 27
Sheboygan,....	Sher'n Cummings	N. C. Farnsworth,	J. B. Richardson,	Sheboygan Falls	Sep. 17-18	500 22	494 04	209 00	6 18
Trempealeau,...	.....	G. Y. Freeman,...	John Nichols,...	Galesville,....	Sep. 24-26	389 24	286 84	17 75	102 40
Vernon,.....	Thomas Cade,....	R. C. Bierce,....	Isaac Spencer,...	Viroqua,.....	Oct. 9-11	201 00	165 00	40 50	36 00
Walworth,....	O. Preston,.....	Edward Elderkin,	J. F. Brett,.....	Elkhorn,.....	Oct. 9-11	1,349 48	1,167 32	596 50	182 16
						8,635 81	7,545 84	3,616 50	1,113 00

GLIMPSES OF WESTERN EUROPE.

To the Executive Committee of the Wisconsin State Agricultural Society :

GENTLEMEN:—Finding it convenient, while in Europe, as your delegate and as State Commissioner to the London International Exhibition of 1862, to spend a little time in making a succession of rapid tours through portions of Western Europe, I have the honor so far to comply with your request for a report of observations made as to submit, from my notes of travel and experiences at London, such portions as are likely to interest you because of their bearing upon industrial, educational and social questions in which I know we feel a common interest :

LIVERPOOL TO LONDON.

APRIL 28, 1862.

At last, I stand, once more, on *terra firma*—the five days of furious storm and the no less relentless demon of sea-sickness behind me. This, then, is the Old World, whence my ancestors went out more than two hundred years ago, little dreaming that they were the destined founders of an empire which, before the year of our Lord 1900, would be mightier than any the world had hitherto seen. And this is Liverpool, famous for its commerce with all the countries on the globe. Off, in the morning, for London.

Morning's here. The railway depot and train are the only essentially foreign objects yet seen. Each coach is divided into three apartments. In each apartment there are two seats facing each other like the front and back seats of a stage coach, and long enough to accommodate four persons each. There are no moveable windows except in the doors on either side, in which there is a pane of glass, let up or down by a strap, stage-coach fashion. Of course ventilation is more difficult and the getting up and moving about to rest one's self, or to look up a friend on the train is out of the question. In some of the coaches—perhaps in all—the middle apartment is used for baggage ; in which particular the arrangement is quite convenient, as one's luggage can be more easily looked after. True to the English idea of caste, the coaches are labelled "First Class," "Second Class," and "Third Class." First class coaches are comfortably cushioned, second class coaches favored with a kind of half cushion of leather, extending about half the width of the seat from the front, with leather at the back, and third class coaches are furnished with bare benches. The fare in the first class is one third to one-half higher than the regular fare in the United States, in the second class about equal to regular U. S. fare, in the third class about one third less. The engines are plain, bungling looking things, in strong contrast with the fine locomotives of America. But when I come to speak of the road itself, I have none but words of commendation. Substantial in construction, and excellent in all its appointments.

The route to London presents a succession of charming pictures—even all the more pleasing and grateful because of the snow and ice but so recently

left in America. Out of mid-winter, as by a single step, into the month of June. Beautiful, verdant meadows and pastures, "spotted with fire and gold in the tint of flowers;" sleek, fat Durham cattle, and Leicester sheep lying on the banks of beautiful streams and on the velvet knolls, or wading in the tall grass; gardeners cultivating their cabbages, beets, onions and beans; farmers hoeing their wheat and planting their later spring crops; with cozy cottages, handsomer gentlemen's residences and lordly castles, and new and thriving, or gloomy old cities and villages—their moss-grown walls and turrets carrying one back a thousand years—all along the way, make the journey of 205 miles seem at once but a league and the stretch of a continent. The five hours and forty minutes occupied in making the *run* are soon passed, and, ere aware of it, I am in London, the great metropolis of the world.

EXHIBITION PALACE, May 1.

Here at last, in this vast temple dedicated to the industrial progress of the world. Crossing Hyde Park, I could hardly believe that its lofty, far-distant, crystal domes were parts of one and the same building. Present myself at the office of the Royal Commission, where I am cordially received and tendered such facilities as are requisite to a pleasant and profitable attendance upon the Exhibition.

The interior of the palace is at once grand and beautiful; the lofty nave and transepts not only affording opportunities for the most impressive displays of representative products, but likewise those far-reaching vistas which a building of this construction alone could give. And then the arrangement is calculated to heighten the effect and fill the mind of the beholder with wonder and awe, as presenting, not simply a multitude of the most attractive products of all lands, but the great wonderful world itself, in microcosm.

The long waited for hour of opening was ushered in with a pomp and magnificence well suited to the occasion, and now, with its glitter and glory of state pageant, its devout prayer to the Giver of All Good, its sublime music by an orchestra of two thousand four hundred singers and instrumental performers, and its thunder of cannon, is numbered with the great events of history.

America is here only semi-officially and occupying one-tenth of the space she ought to have filled. Mr. Holmes, the U. S. Agent, has labored zealously and made the most of the material at command. Many of our exhibitors have been greatly behind in getting their valuable contributions here and will probably lose the opportunity of having them examined by the juries. Why is it that our thorough-going, wide-awake Yankees are everlastingly behind time on all such occasions? Probably not a few only commenced building their wonder-working machines after they ought really to have been planted in the palace. The trouble is, Jonathan of necessity keeps so many irons in the fire that some of them are very apt to burn. He has too much to do; while John has too *many* to do; that's the difference.

OFF FOR THE CONTINENT.

After some two weeks, spent chiefly in the Exhibition, with occasional excursions into London, which, in itself, is a world condensed, during which time there have been such constant accessions to the Exhibition, in the form of new arrivals of goods from every part of the world, that it seemed better to defer the work of thorough inspection and comparison for a time, I determined to take a look at the world on the other side of the channel, returning when the Exhibition is fairly ready and the weather better established.

MAY 16.—Off according to programme, bound for Paris, via Southampton, Havre and Rouen. * * Southern counties of England neither so handsome nor so well cultivated as the western. Land quite wet from recent rains. Crops looking badly. Southampton an uninteresting town. Have taken a little steamer, (built after an American model), and am skimming over the water of the bay delightfully; passing fortifications, the fine Netley Navy

Hospital, lordly mansions and distant villages, on my way to the beautiful Isle of Wight, on whose account I came this route. Voyage of twenty-two miles ended before noon, and we land at West Cowes, leaving Ryde and the channel fleet, at Spithead, to the left.

First of all, I must visit the Osborne estate of the Queen and pay my respects to Her Majesty. And as the weather is perfect and my mood a little dreamy, will start up the hill on foot. * * Osborne is indeed a lovely spot. The estate embraces about 2,000 acres, enclosed with a paling of boards, upright and lapped, so as to shut out all hope of obtrusive peepings-in. Entrance substantial and tasteful. Palace, built of a handsome free-stone, in plain but elegant English style. Situated on an eminence, its two square towers are visible from a long distance; furnishing, substantial, unostentatious; grounds, tastefully laid out, with beautiful gravel walks and carriage ways winding through velvet lawns and shady groves. The Queen being absent in Scotland, loses the honor of a call from one of her warmest admirers.

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From Osborne, through fragrant groves to Whippingham Chapel, (Prince Albert's favorite,) thence to Newport and Carrisbrook Castle, (famous for having been the place where Charles the First was imprisoned), and thence, by a most delightful route on the west side of the river, past Honey-Hill, Gurnard and other little villages, to Gurnard Bay, and so along the beach to the harbor of Cowes, arriving in time for the evening boat to Southampton. It would hardly be possible to crowd more quiet, sweet enjoyment of nature, art and rural life into one day.

Agriculturally considered, the Isle of Wight presents but little that is worthy of notice. The soil is variable—in some parts of the island a deep hard clay, in others a calcareous and flinty gravel. The crops are evidently not very large, though the cultivation is good. A number of tile factories supply good tile for thorough drainage. Of all public improvements, the roads appeared most remarkable. They are mostly narrow, but the smoothest and handsomest I ever saw. Enclosed with beautiful green hedges all the way, substantially macadamized, with a surface as smooth as any sanded garden walk, and, furthermore, without any of those miserable ditches which make most roads in America so unpleasant and unsafe, they afforded constant pleasure, and made my afternoon pedestrianism of 14 miles seem but a single hour's promenade in some delightful park.

A pleasant passage across the channel—a thing never heard of before—to Havre, in whose active commercial streets I first touch the soil of the Continent, and find my quick questions as promptly answered in a foreign tongue. Must rub up my French a little, or I shall be taken for an Englishman.

Up the valley of the Seine by rail, through the garden-like fields and orchards of old Normandy. Once an independent power, giving kings to England, and thus putting her stamp upon the composite race whence we Americans have sprung—founding Quebec, and planting her colonies not only on the St. Lawrence, but also in South America, and on many islands of the sea—famous in story wherever and so long as the history of the Romans and the Northmen, and the names of William the Conqueror, of Charlotte Corday and Joan of Arc are known—now a quiet, loyal portion of the French Empire. Rouen is announced. I stop for the night. A fine old city, pretty well shut in by distant hills; interesting for its old Gothic churches of nearly a thousand years, and for many historic events.

And now for the Queen City of the world. A glorious Sunday morning. Shall attend divine service in the grand old Notre Dame. * * Beautiful fields, gardens and groves—more frequent and more elegant houses—princely mansions—a thousand church spires, and the glitter of a vast and brilliant city—Paris!

Out of the rain and fog, and smoke, and everlasting jam, in the narrow, crowded streets of overgrown, hard-working London, into the clear sunshine of Paris, with its broad avenues, beautiful gardens, charming fountains, deep shady woods, magnificent public works, monuments and statues, all made more brilliant and enchanting by the gay and happy mood of the pleasure-taking and pleasure-making population, what a change! I can hardly realize

it, and find myself asking, "Is not this, after all, a fairy dream, which will leave me, at the waking, still in the midst of gloomy London, elbowing my way to the Great Exhibition?"

During my stay of a week, I have witnessed no collision of man with his fellow, heard no hard words, and not once been asked for alms. Always cheerful, affable, approachable and polite, they seem to require nothing but a little more solidity and a profounder religious sentiment to make them the most agreeable people to live among in the world.

Napoleon understands them well, and admirably adapts his administration to their peculiar traits of character—achieving glory for the Empire by his feats of arms, adding, by means of the most prodigal expenditures, to the transcendent beauty and attractiveness of the capital, and at the same time holding them to their places by the unyielding reins of a strong government. If he can financier his treasury into a more sound and happy condition, I see no reason why he may not succeed in establishing quite a permanent Napoleonic dynasty.

But I have not forgotten, in the midst of all the dazzling splendor of the court and city, that the chief object of my visit to France was rather to get some idea of the industry of the country.

Thus far the agriculture has been a surprise—better than expected. More beautiful fields of wheat, rye, oats, sanfoin, lucerne and potatoes I have never seen. There are beautiful hedges along the railway and around the dwellings, but otherwise no enclosures for miles.

Interesting excursions to Versailles, St. Cloud, St. Denis, and professional visits to the Agricultural School at Grignon, the Veterinary School at Alfort, the Royal Polytechnic and other institutions—of which I may sometime publish an account—and good bye to the great capital.

PARIS TO GENEVA, VIA LYONS.

Fontainebleau, where the kings and emperors of France, since the days of Louis VII., have delighted themselves with the beautiful scenery of the place, the splendid works of art, and the exciting sports of the wood, is a peep at paradise. No wonder I lingered by its beautiful lakes and streams, and wandered by moonlight in its majestic, glorious wood until the mute statues and half-hushed birds were my only companions and the iron gates were closed! The gardens and fountains, too, are lovely—partly a *la Versailles*, partly unique.

The Palace occupies ten or twelve acres of ground, and though not so grand in its external as the Louvre and the Tuilleries is nevertheless magnificent and gorgeously decorated within; a favorite with Napoleon the Great and Josephine.

* * * Down the beautiful Saone, (pronounced *Sone*,) stopping at Dijon and Chalon-sur-Saone. Crops of grain and grass looking well, though the cultivation is hardly as good as in Northwestern France. The vine shows itself on the way, clothing many fields and all the favorable hill sides. It is looking splendidly and gives good promise of a great crop. The grass crop is about half cut, and the wheat is perceptibly beginning to change its shade of deep green to a brighter hue. Scenery on the Saone, much of it, very beautiful; rivalling, it is said, that on the Rhine, which I have yet to see.

Lyons! the great silk city of Europe; numbering some 700 large establishments where it is manufactured. It was these manufactories that brought me all these 316 miles from Paris, and I feel well repaid for the journey. The city itself is well worth a visit, being one of the handsomest, as well as one of the most populous in France. It is located at the junction of the Saone with the Rhone, lying between and on both sides of these charming rivers. The Rhone is crossed by eight fine stone and suspension bridges, the Saone by nine. Population, including the suburbs, about 275,000. On the north side, lies a mountain, from the top of which, in a clear day, the summit of Mont Blanc, though distant an hundred miles, is said to be distinctly visible. The process of silk manufacture is most interesting. Silks of every pattern

and color in the thousands of looms—all worked by hand and foot. Visit the Veterinary School. Spend the Sunday. Grand military review. * * *

A delightful ride along the banks of the wild blue Rhone has brought me well nigh to Geneva, gem of the Mountain Republic.

Well, my tour through France has been exceedingly satisfactory—has given me enlarged views of her resources and progress, and probably a juster idea of both people and government. The empire is alive and resolute. A nation with a Napoleon at the head, infusing and diffusing his own ambition and fiery energy everywhere, could not long be a dozing nation if it would.

The aspect of the country is remarkably diversified; the sections through which flow her four great rivers, (the Seine, the Loire, the Garrone, and the Rhone), presenting some of the finest scenery in the world—broad cultivated fields, with here and there groves and heavy bodies of timber, beautiful sloping vineyards, and grand old mountains, crowned with evergreen forests, or never-melting snows. Her climate, too, is unsurpassed,—cool in the north, adapted to the growth of the cereals; mild and equable in the central portions, where the vine flourishes best; dry and hot in the olive regions of the south. Her industry bears evidence of progress in every department. Agriculture here, as everywhere, is behind, yet advancing. Yankee implements and a little Yankee *gumption* are needed. Still, a country that produces an annual crop of 225,000,000 bushels of wheat, 85,000,000 of rye, 50,000,000 of barley, 14,000,000 of oats, 250,000,000 bushels of potatoes, 900,000,000 gallons of Wine, 300,000,000 lbs. of beet sugar, \$20,000,000 worth of silk and honey, together with much else, and that numbers 3,000,000 horses, 12,000,000 cattle, 35,000,000 sheep, 1,000,000 mules, 5,000,000 swine and 1,000,000 goats may justly claim pretty respectable rank among the producing kingdoms of the world.

But the whistle of the locomotive and the shout of "Geneva!" from the train attendants, put an abrupt termination to my calculations and reveries. * * * Up with the rising sun, I sally forth to see whether I am to be disappointed. * * * No. With Lake Lemman (Geneva) on the north, the mountains of Savoy (late a part of Sardinia) and the picturesque valley of the Rhone on the south, the Jura mountains on the west, and the majestic Alps, crowned by Mont Blanc, on the east, there is probably no city in Europe of superior natural interest and attractiveness. After a stay of two days, climbing the Jura, riding on the lake, watching the dashing heaven-blue waters of the river which divide the city and furnish power for its mills and manufactories, and last of all looking into the mysteries of watch-making, I am every hour more loth to leave. But Mont Blanc is beyond, standing majestic behind the veil of clouds which unhappily obscure his face, and provokes me to the task of climbing the mountains which lie between.

ACROSS THE ALPS TO MARTIGNY.

* * * * Day-dawn found me just entering the beautiful valley of Cluses—one of the most charming little garden vales I ever saw. Rich crops of wheat, barley and grass were bending under the weight of fruit and dew, the morning birds were carolling their sweet songs, the matin bell of the village church, by a mysterious echo chimed its anthem as it were from the clouds, and the finger of Aurora was upon the tops of the mountains. Oh, it was a morning to be remembered forever!

Arrived at Cluses—a very little town of perhaps 50 houses, immediately at the entrance of a narrow defile, which separates two converging ranges of the Alps—I halted, bathed, slept; breakfasted and dined together, and at noon resumed my journey. The day was one of God's best—the way as enchanting as imagination could picture—smooth as a floor, shaded by trees on either side, winding along the banks of the milky Arve, and overhung by rocky ribs of the mountain, more than two thousand feet above. Near the little village of Maglan was passed the cataract of Arpenaz, which leaps from a projecting rock 800 feet high, touching but once in its way and, then only to fill the air with its jeweled, snowy spray and set a rainbow of glory on its front.

Just at eve, while yet the sun was lingering upon the mountain's icy peak, and gilding the river and valley with a soft and mellow light, I came suddenly in view of Sallanche, its charming cluster of white houses resting so sweetly in the far-reaching shadow of the mountain above. Another turn in the way, and there was Mont Blanc! clothed in his jeweled robes of everlasting snow and crowned with ice that shall be his coronet while time endures. And there he stands before me now, as it were the throne of Heaven's Majesty, the "Great White Throne" of his final Judgment! Serene and awful, let me be silent in thy presence, O Mountain of the Almighty! * * *

My last jottings left me still at Saint Martin's, on the open porch of my Franco-English host, looking out wonderingly and with swimming eye upon the majestic King of the Alps. The very top of the mountain, which, late in the afternoon, had glittered with a pure and perfect whiteness, toward evening assumed a golden tint, the glory of which was indescribable. But suddenly the sun went down quite behind the grand old mountain, over whose shoulder he had been looking and glowing all the late afternoon hours, and it was night. For a while, the mountains were dimly seen and distant; but gradually the clear white light of the stars illumined their snow-mantled summits, and they stood near again, with a new and overawing grandeur.

When I awoke it was 4 o'clock, and the highest peak of Mont Blanc was roseate with the light of the morning. It seemed but a two-hours' walk to his base, and I flattered myself that directly after breakfast I should begin the long-anticipated climbing of his snowy slopes. What, then, was my consternation, when mine host assured me that it was not a foot less than 18 long miles, yet, to Chamouni, where the climbing was fairly to commence! At this rate, it would be after dinner, instead of after breakfast, when I might begin the ascent; and so I resolved to start at once, taking breakfast on the way.

Six miles further up the valley, winding my way around the lesser mountains which lay between, refreshed rather than wearied by the walk through waving fields of grain and sweet-smelling clover, fresh with dew, and I came to the little village of Chede. Hitherto the road over which I had traveled had been a veritable highway, such as any State of the good old Union at home might covet. But it was a highway no longer, and if I had come thus far in "diligence" or carriage, it could have gone no further with safety to itself or humanity to the horses or mules. I was glad, therefore, to be a-foot and independent. At the end of eight miles, the little village of Servoz, near which I breakfasted royally on bread and milk, in a neat little cottage by the way.

Next to the mountains themselves, the objects of most curious interest were the human habitations—ofttimes so high above my own dizzy height, and so utterly inaccessible, that a balloon was suggested as the only possible means of communication on the part of the humble dwellers there with the other scattering inhabitants of the mountains. There they were, tucked away, a half mile above the wild gorge below, with ice above and snow on either side, yet surrounded by little verdant fields and orchard trees in blossom, and animated by groups of merry children and the tinkling bells of clambering goats.

* * * At noon, the lovely vale of Chamouni; where, filled with ecstasy and awe, I stood, at last, under the very shadow of the Great Mountain.

The valley itself is more than three thousand feet above the level of the sea, and yet so rich is the verdure of the fields, so perfect and profuse the flowers which usually grow in warmer altitudes, that one finds it not difficult to fancy himself in the very bosom of sunniest France.

It was well I had breakfasted heartily at Servoz, for the enthusiasm that seized me at the thought of actually standing upon that very Mer de Glace (sea of ice), in the midst of those icy peaks, the sight of which I had all my life coveted more than the seeing of any other natural object in the world, would not for a moment entertain the sordid question of provender. "Would I not dine?" No, I would not, until my feet had first touched the everlasting ice of Mt. Blanc! My excellent host of the Hotel de Saussure

saw I was in earnest, and so placing before me a flask of wine proposed to find me a guide and mules. "I want neither a guide, nor yet mules, sir; I'm obliged to you." This he would not believe, but before the mules were at the door or alpin-stocks were forced upon me, I had myself found the upward winding path and was climbing the rocky ribs of the mountain, empty handed, on foot, and alone. Up, up I went as it had been on eagle's wings; now following the narrow, stony path, now dashing across the angles made by the zigzag course of the beaten way, and several times startling returning trains of travelers on slow-footed mules, with as many guides.

At last, Montanvert and the wonderful Mer de Glace, with its fearful yawning chasms and huge masses of rock and ice. The Mer de Glace so often mentioned, is, as the name indicates, a literal sea of ice, appearing upon the surface as though it had been recently frozen while lashed into fury by a storm. It is one-fourth to a half mile in breadth and some miles in length, sloping gradually toward the plain, until it reaches Montanvert, where it drops off like Niagara and becomes a frozen cataract, known as Glacier des Bois. It was formerly supposed to be stationary forever, but investigations have shown that the particles of ice have a slow imperceptible motion among themselves, so that the whole body of the sea, as if semi-fluid, is gradually moving toward the valley. Altogether it presents one of the most interesting phenomena in the natural world, and, while the Alps endure, will be an object for the wonder and study of man. * * * * *

It was my desire to spend the night at *Le Jardin*, a mile or more above Montanvert, on the Mer de Glace, where dwells a family in cozy icy quarters, from year to year, but my self-prescribed limit of time would not allow, and so about five o'clock I shook hands with my guides and made a rapid descent to Chamouni, for I was to sleep at Argentieres, yet six miles further up the Arve. Only four miles had been made, however, when night found me on the side of a mountain, steep, and dark with cedar, pine and larch, and upon the brink of the Arve, whose foam-white waters dashed with loud roar over a cataract far below. On the other side the mountains were black with ever-greens and perpendicular for more than a thousand feet, thus deepening the grandeur of the scene and almost compelling me to stop and meditate upon the almightiness of the God of the mountains. Fatigue lent another inducement and I did pause for almost an hour, resting upon the generous face of a great flat rock, with the soft side of a boulder for my pillow, and gazing, possibly for the last time, upon the star-illumined face of Mont Blanc. At first, the soft, fleecy clouds, like ethereal drapery, enveloped his shoulders only, his jeweled coronet of centuries unnumbered glittering as with the radiance of heaven. But soon this drapery of cloud was drawn as a curtain before the face of his majesty, and he graciously bade the world and me "good-night."

Another mile brought me to this humble dwelling, where I find a cordial welcome from a hospitable Switzer, his wife and some fifteen children, plenty of good bread and milk and a clean, comfortable bed.

At the village of Argentieres, which lies at the head of the lovely vale of Chamouni, and bravely confronts a grand old glacier, large enough to wash it from its place and submerge the entire valley, should it suddenly become liquid, the way I had designed to take leads me upward toward the snow-mantled peak of L'Aiguillet, on whose top rest portentous clouds of the morning. Already a sprinkle of rain begins to fall, and I must avail myself, for the first time since leaving Versailles, of my umbrella, which has so faithfully served me as a staff. But a clever goatherd tells me it is not to be a rainy day, and so, at this sublime elevation, I may halt a moment and look backward. Farewell, fairy vale! Farewell, milky Arve, along whose wild and beautiful banks I have these three days wandered in dreamy ecstasy! Farewell, O, king of the Alps, whose presence still sublimely overshadows me, and whose majestic form of all the works of God shall ever stand fast and first in the soul of memory!

The rain has stopped; the clouds break and the genial face of the sun looks kindly over the tops of the mountains. The rough and winding path descends again, and my feet now walk upon the brink of a little stream, source of the

river Eau Noire, which, though parallel in its course, flows in a direction directly opposite to that of the Arve, and empties into the Rhone on the further side of the mountains, whose snows and ice supply them both. * * *

At one o'clock, leg-weary and hungry, I entered the hot and dusty streets of Martigny, bathed, dined, and, through the beautifully shaded avenue which connects the old and the new town, made my way to the R. R. depot, reaching it just in time to get my ticket and take the train.

MARTIGNY TO VILLENEUVE.

A sharp shrill scream of the locomotive and we are out of sight of Martigny, and the long train, like a swift fiery serpent, is winding its way through the narrow and beautiful valley of the upper Rhone—now so close to the mountain, on the side where I sit, that nothing is visible but his rocky ribs—now farther away, so that I may glance upward to his towering peaks, and at the same moment enjoy the charming landscape and beautiful river.

Another scream of the whistle—another village in sight—'tis Villeneuve! Sixty miles in so short a time? Verily these Swiss engines are not so slow, after all. I had thought to stop at Montreux, a league further on, but the sight of this pleasant little village and of beautiful Lake Lemman (Geneva) so charms me that I cannot go on. Am out of the car in a jiffy, make for the gate, and show my ticket. "*Votre billet c'est a Montreux, Monsieur!*" I know my ticket is to Montreux, but I stop here. I deliver it up, enquire for the Hotel de Byron, and slowly wend my way thither. It is quite a little walk to the foot of the mountain, where it lies nestled amid shrubbery and flowers, and I may sit down on this bridge and view the scenery, which for grandeur and beauty combined excels anything I have yet seen in Europe.

I enter the charming and ample grounds which surround the Hotel de Byron. It is a beautiful freestone mansion, with iron verandas, all covered over with climbing roses—the most delightful and inviting traveler's rest my weary feet have ever entered. I secure a handsome room, fronting the lake, enjoy a nice cold bath, and lie down to rest.

The call to supper startles me from sleep, and the gathering shadows of evening tell me how near I came to losing the glory of a sunset such as it may never be my good fortune to witness again. * * I am seated by the window, through which trailing vines and fragrant roses peep into my chamber; the air has been cooled and purified by the gentle shower of rain just fallen, and with head reclining against the casement, I look out with a delicious dreaminess upon the unrivalled scene.

At my left, in the beautiful valley through which flows the heaven-blue Rhone, lies the little town of Villeneuve, on the right, the villages of Montreux, Vevay and Morges, backed by far-reaching, terraced vineyards, on the slopes of the mountains. Before me is blue and placid Lake Lemman, its deep waters girt in by the snow-clad Alps on the left, and majestic Jura on the right, as a crystal mirror is bordered round with massive frame of bronze, nay, of gold, for the sun, just going down behind the Jura pours a flood of light all over the scene, crimsoning the water and covering the mountains with a golden blaze. Upon the bosom of the lake a fleet of

"White sails go skimming down,"

each making its goal the Isle de Byron, which seems to float therein as an emerald might float in molten silver; and then, almost at my feet—its ancient walls, still, as of old, by Lemman's waters blue—the old Prison of Chillon, so famed in the early times of Switzerland, and evermore immortalized by that touching poem of the gifted Lord Byron.

The imagination could hardly conceive of a picture more grand and beautiful, or fraught with deeper historic interest. Oh, if I could only put it upon canvass, as God is now engraving it for me on the tablet of memory!

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When I awoke again at 9 o'clock, the scene was changed, but none the less interesting. The moon had risen in her glory, shedding a mild and mellow radi-

ance upon town and castle prison, sheening the lake with silver and crowning the tops of the mountains with a pure and holy light. All nature was hushed and still, save the rippling of water on the peppy shore and the music of muffled oars lazily plied by lovers on the lake. * * * It is now half past seven in the morning, and after a visit to the castle and a row around it on the lake, I am waiting for the train to Lausanne. It comes.

VILLENEUVE TO BASLE, VIA LAUSANNE.

I waive an adieu to Villeneuve, dash past the chateau of Chillon, and am winding my swift way around the shore of the lake. On my right is the continuous slope of the mountains, clothed almost to the summit with terraced vineyards, beautifully green, and still fresh with the dew of the morning. On my left, between railway and lake, a succession of charming little cottages, trellised with vines, and each entered through an arched gateway covered with roses. Nothing could be more refreshing and beautiful. Montreux, Clarens and Vevay are passed, and I am so soon in view of Ouchy and Lausanne, lake port and capital of the Canton of Vaud. Here I shall spend a few hours and then turn my face northward for Basle, where I am to have my first view of the Rhine.

An interesting old town, this Lausanne. Very old. The great cathedral was consecrated by Pope Gregory A. D. 1000, and how much further back the city should date its origin no one knows. Located on three commanding hills, from which the view of the surrounding mountains, their slopes covered with vineyards, of the rich valleys that lie between, and of Lake Lemane, is extremely fine. * * *

In more recent history, Lausanne is noted for having been the residence of Gibbon, while he wrote his famous history of the decline of the Roman Empire. * * *

The railroad leads me through the beautiful plain which spreads out between Basle and Lausanne, and affords once more a glimpse of broad fields, bearing rich crops of grain, of grass and roots. On my left are the grand old Jura Mountains, shutting out from my view the fields of sunny France. Every few moments the whistle calls us to a halt at some station, old or new—for be it known villages are some times born of railroads in the old world as well as in the new, but the most of them present nothing worthy of note.

Another scream of the locomotive, and the station guards shout in at the windows, "Neuchatel! Neuchatel!" But what of it? Nothing, only that this is the place famous in all the world for the manufacture of clocks and watches. It is a dingy looking old Swiss town, lying rather low, and presenting no particular attraction to the eye of the stranger. The Swiss have not learned to apply machinery to the manufacture of watches, and have no need, therefore, for large establishments. On the contrary, of the thousands of *Neuchatelers* who devote their lives to this business, each one giving himself exclusively to a certain branch of the manufacture takes the material to his own home and there does the work assigned him. When a quantity of that particular article is completed, he takes them to the workman who next has need of them; he to another, and so on, until, at last, the several parts have found their way into the hands of the man or men whose business it is to put them together; when the clocks or watches thus finished are turned over to the capitalist who furnished the material and by whose order the work was executed by all.

Off again. Good bye, O ye watchmakers! * * * * *

Basle is in view. Hardly *in view* either, for it is night, and but little is visible save the thousands of lights which, glaring and glimmering high and low, prove to my curious eyes that this city, also, is built on hilly ground.

I have risen with the morning light, and am standing on the banks of the glorious old Rhine! The sun pours a flood of golden light across the flowing stream and gilds the old city into a richness not its own. But my thoughts dwell most on the river. Who can think of it without the association of strange scenes in the far feudal past—of poetic legends and more recent yet

quaint and delightful vintage scenes in the far-famed vineyards that for many centuries have clothed its sunny banks?

The Rhine divides the city, and although there are bridges of stone, the light and gaily-painted ferry boats, with striped awning screens, are plying back and forth for the accommodation of the people, who seem to so love the old river as to prefer the ferry, at two sous, to the bridges at nothing.

A gymnasium with twelve professors, a polytechnic school, university with twenty-four professors, the agricultural school, and the Erasmus College show that, not alone commerce and manufacturing arts flourish here, but education. The cathedral was built in 1000, and will probably last another decade of centuries without becoming dilapidated. The botanical garden affords many attractions. The library connected with it is said to be the richest of its kind in the world.

Agriculturally considered, the canton of Basle is one of the finest of Switzerland; while as a manufacturing and commercial city, Basle (which is the capital of the canton) is the first town in Switzerland. Its chief manufactures are paper, silk, gloves, leather, printed cottons, hosiery and jewelry; in the interest of which there are several large establishments.

BASLE TO FRANKFORT-ON-THE-MAIN.

* * * **Strasbourg!** On French soil again? Only for one day. A fine old city, well worth the time. Formerly subject to the German emperors; ceded to Louis XIV in 1681; now one of the best fortified towns in Europe. Manufactures woolen and cotton goods, clocks and watches, jewelry, hardware &c. Some large dye-works, sugar refineries and breweries. Famous cathedral, founded A. D. 804; rebuilt A. D. 1007-1439; most remarkable tower in the world; being 466 feet high, and surfaced all over with most elaborate carvings and added decorations—18 feet higher than St. Peter's at Rome, and 15 feet higher than the great pyramid. * * *

In Germany again. Grand Duchy of Baden. Course of the railway still down the valley of the Rhine. **Carlsruhe, the Capital!** Visit to the Polytechnic School—one of the best in Europe, well equipped and well managed.

* * * **For Baden-Baden next**—noted for its hot springs. Great watering place.

On the western side, along the Rhine, there is a strip of very fertile land, where are growing fine crops of wheat, barley, Indian corn, beans, potatoes, flax, hemp and tobacco. East of this strip, the country rises until it becomes mountainous, some of the highest peaks being as high as 4,650 feet. It is here that lies the famous **Black Forest**

Fruits and wines of excellent quality are produced in all the more favorable portions of Baden; even on the mountains quite respectable crops of rye and oats. Agriculture is without system, however, the stock being of inferior quality, and the farming implements more than fifty years behind the times. Plows with wooden mold-boards; the clumsiest harrows the world ever saw, with wooden pins for teeth; wagons such as any very awkward Yankee farmer could get up for himself, and drawn by *cows lashed to them by the horns!* Manufacturing is likewise behind the age. Iron, hardware, cotton yarn, cloth and salt are its chief products.

The village of **Baden-Baden** is delightfully situated in the valley of the **Oos**. To my eye one of the most charming little towns on the continent. Many of the dwellings and public houses are surrounded with shrubbery and flowers, even to the summit of the hills on either side, and the streets are remarkably neat and clean. Population about 6,000.

Some of the springs are made all the more attractive to visitors by fine public buildings, embracing spacious halls for dancing, beautiful saloons for all kinds of gaming, restaurants, reading rooms and handsome porticoes for promenading. * * *

Another hour and I am in **Heidelberg**, and have already caught a view of the old University. It consists of a series of plain structures, quite unimposing, and requiring positive history to convince one that here have taught and been taught some of the most distinguished literateurs, divines and

scienists of modern or medieval times. The institution was founded over 500 years ago by Elector Rupert I. Its library numbers nearly a quarter of a million of books and 2,000 valuable MSS. The University embraces not only theological, medical and law departments, but likewise includes a School of Agriculture and Forestry—in which, however, the instruction is rather behind the times.

The town itself is barely worth looking at; at least, its two or three principal streets, lined with old, dingy, and rather slipshod stores, workshops and saloons, do not so impress me as to awaken much enthusiasm. To-day, that which interests me most is the query as to how the people subsist. Literally speaking, the question is easily enough settled, for at any hour of the day, and at almost any hour of the night, not less than about one half of the entire population may be seen in the numerous restaurants, demonstrating their respective capacities for beer! But, unlike the Yankee, who slides into the whiskey shop, swallows his poison, and then either goes out to his business or staggers into the gutter, the Germans sit over their beer for hours at a time, jabbering, playing at games of chance, and smoking their monstrous pipes. The question of how they secure the means to live is, therefore, still in doubt, being but partially solved by the discovery that they live much more simply and inexpensively than do the people of America. One moderate roll of hard-baked bread and a few quarts of beer is ample satisfaction for a full meal here, while the Yankee must have three kinds of meat, other things in proportion, and five courses of pastry and knick-knacks to finish off with. The true mode of living lies between these two extremes. If people will drink beer, and may be allowed to congratulate themselves on a superior quality of that article, then blessed are these Germans, for no better beer ever flowed into the bottomless pit of the most lucky Teutonic stomach than is perpetually foaming in the great liberal mugs of this beer-making and beer-drinking city. * * * *

At length we approach Frankfort. The city of all others in Germany remarkable for its historic associations. It was here where, for many years, the Emperors of Germany were crowned—where the greatest of German poets, Goethe, was born—where the immortal Luther, the world's greatest reformer, lived and wrote—and it is here where that peculiar enterprise, so characteristic of the American people, has made its way more effectually than in any part of the continent I have yet seen. The streets, the architecture of the more recent buildings, the sale-shops and public houses constantly suggest, to the American traveler, New York and other cities of the United State. It is a free town, with 70,000 inhabitants, and the seat of the German Diet. The evening shades close around me, and yet I have visited none of the distinguished public buildings, none of the fine promenades so characteristic of Frankfort, none of the several private residences remarkable for their association with some of the greatest men of the dead past; I have thus far endeavored simply to gain a general idea of the city as a whole. But the streets are bright with the light of burning gas, and I must improve the hours between this and midnight, for in the early morning I turn my face westward. * * * *

Have seen the *Domkirche*, where the Emperors of ancient Germany were crowned (a fine old cathedral, the last remaining specimen of the ancient German style of architecture); have walked round and round the monuments of Goethe and Guttenberg in the Hop Market; have stood before the modest old two-story mansion in the Hirschgraben, where Goethe was born, and thought of the wonderful sway of Poetry over the human mind in all generations; have sought out the quaint old house of Luther, with its three stories and high steep roof, each story so projecting over the narrow street that one could almost shake hands with his third-story neighbor on the opposite side; paused at the dwelling in the Judenstrasse where Rothschild and his children were born, and at the present counting house of Rothschild, ruler of all the money kings and dictator to the thrones of Europe; have lunched and slept, and am now on my way down the picturesque valley of the Main and through the famous vineyards of Hocheim, source of the popular Hock wines, to Mayence, on the Rhine.

FRANKFORT TO COLOGNE.

Mayence has a population of near 40,000, and is the most important fortress of the German Confederation. The garrison, half Austrian and half Prussian, numbers 10,000 men. The first thing which strikes me is the magnificent view here possible of the Rhine, the Taunus mountains, the vineyards of Hocheim, and the valley of the Main; one of the rare pictures which can never be effaced from the memory. My second thought is of the peculiar style of its architecture. Most of the public buildings are of red sandstone and some of them have stood nearly a thousand years.

Many objects challenge the traveller's attention; but the most interesting of them are the relics of Roman power which carry one back through the long interval of seventeen hundred and ninety-five years, when the legions of Titus, after the conquest of Jerusalem, came to this place and established a garrison which was to impose upon the Germans the government and institutions of the Great Empire. It was from the very Wiesbaden I see in the distance, that, in times a little latter, the hordes of native warriors poured down upon the Roman Eagles and drove them beyond this province of the Rhine, and thus began the war which, after many alternate defeats and victories, resulted, at last, in giving these rich valleys of the Rhine and its tributaries to the Germans, for an undisputed inheritance. Thus wane the power and the glory of one empire, that another, better fitted to fulfill the designs of Providence, may be built up on its ruins.

Who has not longed for a midsummer voyage on this glorious river? Who that has read the pastoral poetry and the rich legendary literature of classic Germany, has not often dreamed of its full-flowing tide, meandering its way through castle-crowned hills and vine-clad slopes to the Netherlands and thence to the sea?—of the warring strifes of feudal times?—of the floral and autumnal festivities of later days? I have, and here is the realization! Not the feudal strifes, nor yet the autumnal festive scenes; the one are long past; the other are only now in preparation. But here is the Rhine!—the same that vexed the Roman generals many long centuries ago, and has since been the witness of some of the greatest events of history. Born of Alpine snows, but hence flowing through gardens, and vineyards, and Elysian fields. I have embarked, and am comfortably seated on the covered deck of the little steamer that is to bear me to Cologne. Mayence and Casel recede, and countless villages approach and are passed in succession. The river is broad from here to Bingen—in many places 2,000 feet wide—and its course is swift. Beautiful little islands are sprinkled along, like tiny emeralds in a necklace of pearls; some of them set off with handsome chateaux, and others rocky and but little changed from nature. Bold bluffs, rising, now and then, into the dignity of mountains whose lofty summits seem ambitious of a place in the clouds, shut in the swelling stream. Old castles in ruins, from the highest points on those heights look down from the dark past of ten centuries ago. Here and there a cleft in the interrupted range allows the favor of a glimpse of what lies beyond and within. Terraced vineyards, such as, for steepness, difficulty of making and the quality of the product, are found nowhere else in the world, astonish and delight all the voyagers. And the villages, little and large, are dotted in upon the slopes, at the mouths of smaller tributary streams and along the narrow beach, as though all Germany had made its abode on the borders of the favorite river.

Thirty-six miles since we embarked at Mayence, and it is just a little past noon—almost 12 miles an hour, including numberless stops. Pretty well.

Am well pleased with my dashing visit to the city of Coblenz.—most pleased with that to the cloud-capt citadel, the checkered history of which is full of romantic interest. The fortifications there are armed with 400 cannon and cost over \$5,000,000. But the view from the summit, that was glorious. The several chains of mountains—the valley of the Rhine, and the Rhine itself, with its islands—the navigable Moselle, with its charming scenery—the city within the angle formed by their confluence—the Chartreuse on the

vine-clad heights beyond, and the more than thirty towns and villages in the plain below! Few places in the world afford such a view. * * *

Bonn!—another large town of Roman origin—famous for many remarkable events; famous also for its great University, and as being the birth place of the immortal Beethoven, one of the world's greatest musical masters. Here likewise I stop for an hour; viewing the ancient wonders, the University, the Agricultural School, the splendid gardens, and taking my bread and beer in the *Rheingasse*, just opposite the house where Beethoven was born—a plain two-story dwelling, with stucco finish outside, not looking a bit as though it had given so great a genius to the world. But, then, is this not the history of nearly all the remarkable men who have ever lived? Genius is oftenest born in obscurity. It is thus that nature renews her intellectual forces.

At last, my feet tread the streets of Cologne. And here I may look backward, for I have already seen the best portion of this, the king of West European rivers. Taking its source in the grand old Alps—strengthened in its progress by the gathered waters of Switzerland—embracing the icy flow from 370 glaciers and 350 smaller rivers—now flowing slowly and wide through the broad valley of the upper Black Forest and encircling its thousands of little islands, now again narrowed down to a deep and strong current, dashing its way through the rocky ramparts of Bingen and Andernach and bearing its majestic course through dark defiles in the historic mountains of Rhenish Prussia—and hence more quietly, as if with assured greatness, through the rich garden lands of Holland to the Northern Sea—it is truly a glorious river, even to a native American, born in the valley of the Ohio and finally settled on the banks of the great Father of Waters. No wonder every German heart is proud of the Rhine. The Yankee must make a thousand years more of history, before his noble Hudson will outrival it.

Cologne is a town of 100,000 inhabitants and has greatly interested me by its Roman antiquities, its numerous old churches, its grand cathedral, and much else. Founded more than fifteen hundred years ago, what wonderful changes have occurred in its history. First an intrenched Roman camp, then the abode of the ancient Ubians, it afterwards witnessed the coronation of the Emperor Vitellius, and then of Clovis, King of the Franks, was united by Otho the Great to Germany in the 10th century, exerted a powerful influence in, and was the chief support of, the famous Hanseatic League, in the 14th century, was conquered by the French in 1794, by the Russians in 1814, and finally fell into the hands of Prussia, by whom it is still held.

The people show their origin by a peculiar physiognomy, different from that of Germans of pure blood, but are industrious and prosperous.

The cathedral is most worthy of notice. It was begun in 1248, slowly progressed for two or three hundred years, remaining *in statu quo* for about three hundred more, and is now again going forward. Its foundation is in the form of a cross, and when completed it will be one of the grandest temples in the whole world—length 500 feet, width 230, two towers, each 500 feet high, the arches supported by a quadruple row of columns sixty-four in number. Its architecture is pure Gothic and it is designed to follow, in every particular, the ancient German model. Though, as yet, but little more than the choir, with surrounding chapels, and one tower of the height of 160 feet, are finished, I have thus far seen no work of man on the continent which has so stirred within me emotions of the sublime. 'Twas at twilight I first saw it, and the vision is still before me—the great temple standing in solemn majesty; the old, by its moss-covered walls appealing to the dead Past, the new, by its lately chiseled columns, its scaffolding and mighty construction engines, looking bravely forward to the 500 years hence, when it may have been finished, and—in a new spirit, possibly by another race of people—finally consecrated to the worship of the true God. I, also, did myself the pleasure of paying a moonlight visit to the house where my favorite artist, Peter Paul Rubens, was born, and where the unfortunate Marie de Medecis, Queen of Henry IV of France, ended her eventful life. A plain, two-story and a half dwelling, with a beautiful head and bust of the great artist, carved in wood, in the transept over the door.

Notwithstanding its sixty cologne factories, the city of Cologne is, by no

means, the sweetest and neatest of all German towns, and I am glad to be on the railway cars, dashing westward.

COLOGNE TO BRUSSELS.

Between Cologne and Aix la Chapelle, the country is quite flat and cultivated in good German style. Wheat, rye, oats, barley, hemp and the sugar beet are looking well.

The engine whistles, and the agents announce "Aachen!" from which I know that we approach the old imperial city of Aix la Chapelle, on the frontier between Rhenish Prussia and Belgium, and about 40 miles from Cologne. A handsome, well built city, with at least one broad, beautiful street, through which, as I look upward towards the summit of the slope on which the town is built, the eye is charmed by the magnificence and beauty of city and suburbs. A stirring place too, with modern improvements and a manifest disposition to get back as much as possible of the prosperity and importance it once enjoyed. But it's of no use, O, ye Chapellers; it was Charlemagne who made your hill-girdled city once so famous, and Charlemagne has been dead a thousand and forty-nine years! You may vigorously carry on your numerous factories for the making of needles, of kerseymere, of files, and of copper and brass wires, and so make your goodly city a greater blessing to the province than before, but the great emperors will no more come to you for coronation and burial.

The warm sulphur springs of Aix la Chapelle are noted, and large numbers of foreigners annually come here for their health.

—So much of Prussia and the other German States. Famous for its literature, its science and its admirable systems of education, Germany is nevertheless, behind in the arts. and especially in the mechanics of agriculture and the breeding of cattle and horses. What the German States lack is unity. That secured, with their extensive mineral resources, their quarter of a million square miles of productive lands, their facilities for manufacturing and commerce, what may not their forty-four millions of intelligent, industrious and liberty-loving people accomplish within the next century! * * *

And now I touch the soil of Little Belgium—the garden of Europe. Famous for the fertility of its soil and the perfection of its system of agriculture; for the extent and great value of its mines of coal, iron, lead, zinc and manganese; for the magnificence of its forests of timber; for its teeming factories, whence are obtained the best linens, laces, cloths, carpets, porcelains, cutlerly and fire-arms known to the commerce of the world; for the extent of its internal improvements; for its fine old cities noted for the magnificence of their buildings, the productions of their industry, and the number of their institutions of learning and public libraries, for the denseness of its thriving, happy population, and for its heroic history.

From Aix la Chapelle to Liege the country is mountainous—the people largely devoted to mining and manufactures. Verviers, on the way, is a stirring town, noted for its cloth factories; and Liege, at the confluence of the Neuse and the Ourthe, both navigable rivers, and at the point of intersection of several of the most important railroads of the kingdom, is known the world over for its superior fire-arms and cutlery—as the place where the Belgian rifles are made. Located in the very heart of the mining section of the country, where iron and coal are both inexhaustible, of superior quality and easily obtained, it is natural that it should be the great Birmingham of this kingdom.

Passing through Liege to the westward, the railway rises by one of the steepest grades known in the world—so steep that the trains are obliged to be drawn up the incline by a stationary engine at the summit; from which point the view of the valley and of the great smoking, thundering city is truly magnificent.

Thence to Brussels, the brilliant capital of the kingdom, and distant about seventy miles, the surface of the country slopes ocean-ward, and is distinguished alike for its mines and its agriculture. The farms are not only garden patches in size, but gardens in reality. Crops grown, as in France, without fences between. All the cereal grains, meadows, and various root crops,

including the sugar beet, occupy every foot of arable land, while the vines are seen upon all the sunny slopes of the hills, where nothing else could be grown.

Brussels is one of the most beautiful and interesting cities on the continent. Founded in 7th century, and successively controlled by the early Frankish, the Spanish, the Austrian, the French and the Hollandish dynasties, and, at last—since 1830—the capital of the new-born, independent kingdom of Belgium, it has had a checkered history, and to-day shows interesting marks of the various nationalities under which it has flourished during the past thousand years.

For beauty of plan, elegance of buildings, boulevards, and profusion of statuary, fountains, gardens and shaded promenades, it is strikingly like Paris. But it is not only beautiful, it is one of the great centres of industry; especially celebrated for its manufactures of fine lace, its linens, damasks, carpets, ribbons, jewelry, mathematical and musical instruments, coaches, chemicals, soaps and glass.

Brussels is also celebrated for the great battles which have been fought in its vicinity. One of them, in 1815, decided the fate of European empires. What names in modern history so familiar, or so famous, as Napoleon, Wellington, Waterloo!

BRUSSELS TO LONDON.

After a pleasant evening's walk to Waterloo (distant only 15 miles) along the smooth and densely shaded highway, which skirts the great forest of Soignes, and a night passed on the battle field, I am again borne westward on my way to Ostend; passing through the fine old manufacturing town of Ghent, which lies in the midst of the low, rich lands of northern Belgium.
* * * Ostend! A fortified town of some commercial importance, confronting Dover on the other side of the Channel. * * *

Morning has come. My feet have left the continent. Tucked away in a mean little steamer (they have none other on the British Channel), after five hours of horrible sea-sickness, I stand on the "sea-girt isle," beneath the towering chalk cliffs of Dover. * * *

—It is nine o'clock in the evening of the month of June; the train slowly enters a vast weltering city, whose million lights seem to welcome me home again to this, the present great center of the world. The solid rock of London bridge is pressed by my weary feet once more, and the sublime dome of St. Paul's guides me on my way to the hospitable mansion of the upright Judge, whose guest I am glad, again, to become.

It seems a life time since I was here before. And what wonder? Have I not made the tour of Western Europe. Up the Seine, down the Saone, up the Rhone, across the Alps on foot, and down the Rhine! A grand circuit of some two thousand miles, stopping at every place of either natural or historic interest on the way!

MATTERS IN AND ABOUT LONDON.

* * * The Exhibition has grown during my absence on the continent, and is now in perfect order—more magnificent than ever. The throng of visitors increases daily. Constant arrivals of distinguished personages from other countries. As predicted, some of our slow American exhibitors were so behind time that their articles will not be seen by the juries. Indeed, some machines cannot be admitted to the palace. All in all, the American court is much more respectable than it seemed possible at first to make it; some few articles and machines attracting great attention.

THE SOCIAL SCIENCE CONGRESS.

The meeting of the British National Association for the Advancement of Social Science is now in progress; the distinguished President, Lord Brougham,

presiding daily at the sessions. Having the honor of membership, and being deeply interested in the objects of the Association, I hastened on my tour more than I otherwise would, in order to be present at this meeting, which will continue some ten days. The Congress is divided into several sections—as the Section of Education, the Social Economy Section, etc.—the meetings of which are held simultaneously in different apartments of Guild Hall. Though styled “British,” this noble association is international in many of its aims, and is, this year, attended by large numbers of the friends of Social Science from every part of the world. In the two sections above named, as well as in the Sanitary Section, I have felt a profound interest. Am much pleased with the liberality of Lord Brougham and other prominent English gentlemen on the all-important questions of education and social economy. They not only feel, but frankly acknowledge, the backwardness of the British nation in respect of them, and manifest a genuine and most earnest desire for the light, come from what quarter it may. * * * Addressed the Educational Section, yesterday morning, on the subject of industrial education in Europe and America; taking the broad ground, that the only sure way of making a nation permanently prosperous and happy, is to educate, as thoroughly and practically as possible, the laboring classes of the people. * * * * * This morning, in the Social Economy Section, a most interesting and spirited discussion followed the reading, by the distinguished Miss Frances Power Cobbe, of an able essay on the Employments of Women; Lord Brougham in the chair. The majority of the members were emphatically on the liberal side—so much so that, in such remarks as I ventured to make upon the question, I couldn’t but compliment the noble spirit which prompted the earnest deprecation, by almost every speaker of that absurd and selfish exclusiveness of spirit, by which, for so many ages, the women of all countries have been practically narrowed down to the fewest possible number of pursuits, with unreasonable and inadequate compensation for their labors. There is a great work to be done in this particular field of Social Economy, and it is a most gratifying to find the statesmen of conservative old England already alive to its importance.

During these sessions of the British Social Science Congress, there has also been a meeting at Burlington House of a kindred continental organization—*Le Societe des Bienfaisances*—of which the great French orator, M. Berryer, is President; and this evening, the two organizations, having completed their labors, held a joint session, at which eloquent speeches were made by the two presidents and others. Lord Brougham, now nearly 90, showed the fire of his palmier days; talking with great earnestness and power, and with a vehemence of manner most surprising for one of his years. * * *

This evening was signalized by a grand Soiree at Westminster Palace—by which is meant the Houses of Parliament, with all the Halls and apartments therein contained. These, for the first time in history, and as a special complement to England’s ablest statesman, were tendered to Lord Brougham, for the purpose of a reception, to be given by him to the members of the congress, Commissioners to the Exhibition, and other distinguished personages now in London.

The palace was magnificently illuminated in every part, and was thronged by what is believed by those who ought to know, the most brilliant multitude of savans, statesmen, poets, military heroes, nobles, princes and other persons of rank, the world ever saw together. The whole number was scarcely short of five thousand persons, who in their brilliant and jewelled costumes, made a most dazzling spectacle for the eyes of a plain republican citizen of America. Refreshments in the ancient hall; music prepared for the occasion by the best artists in the world, and performed by the most noted English, French and German bands. His Lordship stood for more than two hours to receive his many happy guests and then pleasantly mingled with the multitude. The most magnificent affair of the kind I shall ever see, I presume.

ROYAL AGRICULTURAL EXHIBITION.

This year the Exhibition of the Royal Agricultural Society has also partaken of the international character; the different classes being "open to the world." The exhibition is being held in a portion of Battersea Park, which lies on the south side of the Thames, three or four miles above London Bridge. Grounds fitted up with temporary structures, consisting of simple sheds for stock, wide enough for two tiers of animals, head to head, covered with canvas, and arranged in straight lines across the entire grounds, with avenues between. Animals, so classified that all of one genus, race, and breed are found together. Implements, machines and products of the earth also under similar sheds.

Several features of these exhibitions are worthy of note, as differing from ours. First, the entries are all required to be made long enough before the exhibition to allow of the preparation and printing of a full catalogue of animals and articles to be exhibited; the live-stock catalogue being distinct from that embracing machinery, implements and manufactured articles. Secondly, these catalogues are sold to such as want them. The sales of catalogues of this exhibition have amounted to \$5,250 and would have reached a higher sum had the edition not been exhausted. Price, 25 cts. Third, animals are better classified than we usually find them in America—not alone, all animals of a breed being together, but also all of a breed whose age is the same, so that each committee as well as the public can more easily compare them. Fourth, the judges have the first day entirely to themselves; the public not being admitted until after the awards have been made and the prize badges put on. Under this arrangement the exhibition is much more instructive and the judges do their work better than under any other. Fifth, the rates of admission differ for different days—a very important thing here in London, where the crowd is usually so immense that the aristocracy would rather pay ten prices and have the grounds a little more to themselves. This year the Society have varied this rule of excluding the public on the judges' day, by admitting all who chose to pay \$5 each for admission. Number of visitors over 1100. Lowest price on regular days, 25 cts. Sixth, all persons entering the grounds pass through a revolving gate, which passes but one person at a time and registers him as he goes. No swindling collusions between ticket sellers and gate keepers. Seventh, the producers and manufacturers here turn out with the evident intention on the part of each that his department and class shall rank No. 1—and this, although the premiums are not proportionally so much larger than with us at home.

The Exhibition is really magnificent—the finest, it is said, ever held in England, or in any other part of the world. In the department of horses, the breeds styled "Agricultural"—including Suffolks, Clydesdales and miscellaneous breeds—are most numerous and interesting. One of the Clydesdale stallions, "Champion," aged six years, weighs twenty-five hundred and seventy-six pounds, and looks as though he might draw off all London, if fairly hitched to it. The carriage horse here is generally a cross of the Thorough-bred with the Cleveland Bay. Roadsters not numerous, and not superior. Thorough-breeds few in number, but very fine. The cattle make a great show; there being, of British breeds, 250 short-horns, 123 Herefords, 66 Devons, 29 Sussexes, 20 Jerseys, 16 long-horns, 25 Norfolk and Suffolk Polled cattle, 11 Guernseys, 17 Polled Aberdeens and Anguses, 20 Galloways, 27 Highlands, 69 Ayrshires, 11 Welch cattle, and a few Kermies from Ireland; of foreign breeds, 48 French representatives, 60 Dutch, Flemish and Swiss. The sheep department includes nearly all the breeds of Great Britain and the Continent; the South-Downs, Shropshires, Cotswolds, Leicesters, Oxfordshire Downs, Hampshire Downs and black-faced sheep, ranging about in the order named, and being the most prominent. Whole number of entries, 793; of which 202 were Downs. Merinoes not in favor here. In the swine department, the general classification is by size and color. Smaller white breeds seem to have rather the preference. Number of entries, 192; many of them pens of three or more. Amount of prizes awarded in Live Stock Department of Exhibition, \$20,000. Fair show of seeds and other agricultural products by the Highland Agricultural Society

of Scotland. Machinery and Implement Department perfectly magnificent. Number of entries 5,094, with a total valuation of \$500,000. One spirited exhibitor has implements here worth \$25,000. English implements are generally characterized by too great weight and clumsiness. Some American hoes and forks, remarkable by contrast for handsome shape, lightness and finish, attract much attention. The exhibitor—a progressive and shrewd English dealer—imports them because, as he says, the English manufacturers seem to be incapable of acquiring the Yankee knack of making them. These few imported implements are good agricultural missionaries.

GREAT TRIAL OF STEAM PLOWS.

For want of suitable land near the Exhibition Grounds, the Royal Society made arrangements for a trial of steam plows at Farningham, some 24 miles out of London, in the county of Kent. In making the excursion I was fortunate in having the company of my excellent friends Hon. C. L. Flint, of Massachusetts, and Hon. Frederick Smythe, of New Hampshire. After a rapid whirl through the far-reaching suburbs of London, and a dash into the country, passing numerous highly cultivated fields of wheat, barley and hops, the scene of action was soon reached, and the motley crowd of curious visitors, representing nearly every nation, piled out and hurried up the road to the field where the trial was already in progress.

Just before reaching the spot, a short turn in the road brought us suddenly before an iron monster, with heart of fire and breath of steam, snorting and dashing up the hill, like a very devil of the olden time! This singular looking creature proved to be Aveling's Agricultural Locomotive Engine. It had been sent a mile distant for wood and water, and when its wild scream first startled us, had in train several tons of these essentials, though moving up the steep grade with all the majestic ease of an elephant drawing a light barouche. We afterwards saw it climbing steep hills in a stubble field, with its attending car full of curious spectators. A single engineer directed its movements with perfect facility, causing it to make graceful curves or short turns, as occasion required or pleasure dictated.

This engine has an improved patent extra large boiler, fitted with 37 $2\frac{1}{2}$ inch tubes, external plates of the best Butterley iron, fire box and tube plates of Bowling iron, with extra stays for high pressure. The fire grate measures 31 inches by 34, and is suitable for wood or coal fuel. The cylinder, ten inches in diameter, is surrounded by a jacket and placed on the forward part of the boiler; by which arrangement priming in ascending steep inclines is prevented. The crank shaft is of common iron. The engine is fitted with improved governor, reversing link motion, patent tender and water tank, under foot-plate, driving chain and gear, steam pressure gauge, extra lock-up safety-valve, steam jet blower, firing tools and wrenches, driving wheels 5 ft. 6 inches in diameter, 12 inches wide, patent steerage and screw brake for descending inclines. It is remarkable for simplicity and power—being capable of drawing ten tons up an incline of one foot in six, and is easily managed by any ordinary engine driver. The two prominent plows in England are those of Fowler, of Cornhill, the original inventor of the steam plow, and of the Messrs. J. & F. Howard, of Bedford. Both of these, together with others, engaged in this trial. * * * *

But the great question arises, is steam plowing in England economical? To this we are bound to reply, No, we think not. The best work that we have ever heard of either plow doing was ten acres in ten hours; and this is remarkable success. Six to eight acres is probably the average. And when we consider the cost of the apparatus—\$1500 to \$2000, though the engine may be used for other purposes—the wear and tear of ropes and machinery, the consumption of fuel, the number of men employed and the liability to delays by breakage and other derangements, it looks to us like small results for the investment.

Such work as we saw could have been done equally well by four men with each an ordinary Yankee plow and one span of horses, at an expense of, say, \$10; while here were employed an expensive engine—costing more than eight horses, and of much less general use on the farm—a horse and cart to

supply fuel and water, and eight men. But it is furthermore fair to infer that on a trial, such as this was, more and better work would be done than would be practicable as the average ; so that it is probably more nearly correct to offset three men with plows against the steam apparatus, instead of four. Such being our premises, we cannot get the consent of our judgment to endorse the steam plowing of England as economical, unless it be on very large estates and under peculiar circumstances. I stick to the *idea*, however, and shall continue to hope for its full realization, at some day, on our great Western prairies.

FARMS OF THE LATE PRINCE ALBERT.

* * * But I must not linger at the great Palace. Famous in history as linked with the progress of the empire during a period of some eight hundred years, it still stands, solemn and grand, upon Windsor's commanding hill, appealing to the nation's reverence for the heroic Past, and mutely deprecating the sure and steady progress of the mightier Present. The Windsor royal estate embraces about 14,000 acres, including 40 miles of roadway, and is one of the most beautiful in England. In the midst of it, there are three royal farms, all of which were managed by Prince Albert, and a dairy establishment notable for the unexampled perfection of its appointments. The Prince was distinguished for his successful breeding of all classes of stock, as well as for skill in general farm management, and I have pleasure in this opportunity of seeing the various farms of which he had control, so soon after his death. The Shaw Farm embraces 800 acres; of which, however, less than 200 are under the plow, the rest being in meadow and pasture. The farm establishments, including dwelling, barns, cattle-sheds, wagon-sheds, engine-house, tool-house, piggeries and aviary, though not extensively gotten up, are constructed after an excellent design, upon a square plot of ground, and altogether present a very pleasing appearance. The Prince was ever on the alert for new improvements, as may be seen by the methods he adopted for cultivating and harvesting his crops and taking care of his stock. A steam engine threshes the grain, and elevates it to the graneries, cuts the straw, roots and other feed, cooks the potatoes, and in many other ways makes itself useful. Grain-drills, improved horse-hoes and cultivators, and Wood's Reaper and Mower are in proper place and in good order; six pairs of splendid Clydesdale horses, for farm work, are being harnessed for the afternoon task; and a herd of the finest bred Durham cattle are doing their best to convert the provender into the best of meat and milk.

The Flemish Farm consists of 400 acres, half of which is under plow at present. Establishment good. Herd, Herefords, and one of the purest and best in the kingdom. Number of all ages, about 100.

The Forfolk Farm embraces 700 acres, 200 being arable. Noted for its superior herds of Devon cattle and Berkshire swine. On these several farms, the average yield of wheat has been for several years past, about 42 bushels; of oats, 86; of beans, 52; of Swedes, 14 tons; of Mangels 40 to 60 tons per acre.

But Frogmore Dairy is even more interesting than the farms. It was built under the express direction of the Prince, and fitly represents the poetic phase of this always interesting branch of husbandry. The dairy herd consists of some 200 head of Durhams, Durham grades and Jersey's. The cow-house, like the most of those on the best farms on the continent, is constructed with double rows of stalls, with broad feed-ways between; the cows when stalled, standing in long rows, face to face, and secured by a chain with a ring that slides up and down the stanchions. The water is conveyed through pipes to troughs always within reach, and kept clean by frequent change and occasional scrubbing; ample provision is made for draining all liquid manures to one general manure house, from which it may be pumped either upon the covered heaps of stall manure, or into manure carts for the direct application to the lands of garden and farm. Littering of the stalls is properly attended to and currying is not neglected. Economical provision is also made for converting the milk slops and other waste products of the farm into numbers of beautiful (if a hog may ever be said to be beautiful) White

Windsor swine, the total annual value of which is often between three and four thousand dollars. The dairy-house itself "caps the climax." Princely indeed. Exceedingly beautiful and attractive on the exterior, it is surpassingly so inside. Length of milk room, 36 feet; width, 24 feet; height 22 feet; the roof supported by handsome pillars. Ceiling double, with ornamental opening for better ventilation. Walls double. Entire interior surface—walls, floor and ceiling—of porcelain; that of the walls being pure white, of the cornice and ornamental portions of the ceiling embossed and colored, of the floor in form of tiles in beautiful colored patterns. Broad pure white marble table running lengthwise through the center, with a shallow marble conduit of same width beneath, always full of clear, cold running water. Also a broad white marble shelf of the height of the table running entirely around the room. Pans and dishes, all of white porcelain or glass. But all of these most elegant fittings and furnishings did not satisfy the cultivated taste and affectionate heart of the noble Prince. Up, in the walls, in handsome porcelain pannels, are most exquisite representations, in *basso-relievo*, of poetic rural scenes illustrative of the four seasons,—such as plowing and sowing the seed, reaping the grain at harvest, the gathering of autumnal fruits and so on,—while above, at suitable intervals of space, are beautiful porcelain medallion likenesses, in relief, of his numerous children. All in all, this royal dairy house is a perfect work of art; nor is evidence wanting that the whole establishment is uniformly managed with that excellent thrift and economy for which the great and good Albert was so eminently distinguished.

FOURTH OF JULY CELEBRATION IN THE CRYSTAL PALACE.

Of the numbers of Americans in London, some two hundred of us concluded to celebrate the day of our National Independence—not really for the sake of "bearding the Lion in his den," and yet not without some regard to the very sinister dealings of the English government towards our own in this time of its peril. And so the great Banquet Hall in the Crystal Palace, at Sydenham, was engaged, the Stars and Stripes were proudly unfurled, and all true Americans and many English and other foreign friends of America invited to come under its folds. Hon. Freeman Morse, American Consul at London, presided at the dinner, and the hours from 5 o'clock until 10 o'clock of one of the most glorious days ever vouchsafed for this always favored occasion were patriotically spent in sumptuously dining together and making a free declaration of principles. Many of the speeches were published in the London papers, and there is reason to presume that some light on our National affairs was thus shed upon the now strangely beclouded English mind.

LONDON TO OXFORD, BIRMINGHAM AND MANCHESTER.

It is the 16th of July. I have finished my inspection of the Exhibition, distributed my reports to the representatives of all nations, collected some two thousand samples of their industry, packed my luggage, said good-bye to friends, and have actually started home!

That I might be as little encumbered as possible, I ordered my trunk and boxes of specimens, books, &c., to be forwarded direct to Dublin, and have with me but a little bag as large as a lady's reticule, and my faithful umbrella. Thus equipped I am ready for my homeward tour, via Birmingham, Manchester, Leeds, Newcastle-upon-Tyne, Edinburgh, the north of Scotland, and the chief cities of Ireland.

The day is beautiful and not too warm for comfort. The London and Northwestern Railway seems to appreciate my desire to get on in my journey and carries me at the rate of fifty miles an hour. London recedes; broad cultivated fields of half-harvested grass and grain flit by on either side with the swiftness of the wind, and ere I had thought of it the white towers of Windsor Castle are in sight. Slough is announced, and the passengers for Windsor tumble out.

Twenty or more villages have been passed, and I stand under the shadow of the ancient walls of Oxford, proud seat of the renowned University.

"Ye fretted pinnacles, ye fanes sublime,
 Ye towers that wear the mossy vest of time,
 Ye massive piles of old munificence,
 At once the pride of learning and defence,
 Ye cloisters pale, that, lengthening to the sight;
 To contemplation, step by step, invite;
 * * * * *
 Hail, Oxford, hail!"

More than eight hundred years ago this great university was founded—so long ago that history is uncertain as to the precise date. How has it grown since that small beginning! and what multitudes of the learned men of England and of the world have gone forth from its halls to enlighten and elevate or to mislead mankind!

The popular idea of Oxford is that of one grand college, whereas it really consists of nineteen colleges, each with its imposing array of faculty and students, yet all under one central government. These colleges have been founded at different periods, within the past several centuries, by wealthy men, aided by royal munificence, and for more than three hundred years have been a power in the English nation—not intellectually alone, but politically also. In the great revolution which resulted in the overthrow of Charles I, it espoused the cause of that unfortunate king, who made the university his headquarters, and it has since taken an active part in many of the struggles that have uplifted and eventually advanced the English nation; though as a rule, I am sorry to say, it has oftener than otherwise been on the wrong side.

We Americans who open our eyes with astonishment when it is proposed to endow some college with a fund that shall yield an annual income of twenty thousand dollars, may be expected to open them wider when we are told, on good authority, that the total revenue of Oxford University is no less than one million, eight hundred and forty thousand dollars per annum!

The buildings of the University are, many of them, very fine, and their numerous turrets, domes, and spires of stone give to the city of Oxford a magnificent appearance, especially as seen from any of the hills which, like an amphitheatre, gird it round on every side. * * *

Off again by the railway, and this time by a slower train, that I may see more of the glorious scenery through which I am to pass. A half dozen towns of general interest, and then Warwick! This place has long been famous in English history, and is still attractive by the fine old castle on the banks of the Avon, occupied successively by some of the most distinguished nobility of England. Warwickshire is considered one of the richest, best cultivated and most picturesquely beautiful counties of England. Here the long-horn cattle flourish. Agriculture progressive. * * *

By a branch of the railway, I am enabled to switch off and make a short visit to that Mecca of the literary world, the birth place of Shakspeare.—Stratford-upon-Avon is a quiet old municipal borough and market town, about 96 miles northwest of London, and with a population of three or four thousand. It was a place of some consequence at least a thousand years ago, and but for William Shakspeare would have been scarcely more important now.

The train stops, and by the winding way I turn my steps into Henley street, where stands the humble, time-worn cottage in whose low and narrow chamber the immortal bard first saw the light. A wooden frame filled in with brick, the outside timbers all exposed to the weather. The tooth of time has gnawed upon them some, but now they are kept varnished, and may thus be preserved for centuries. The cottage is two stories high, the lower eight and the upper seven feet between the joints. The roof is steep, and over the doors and windows are hoods made of boards, supported by simple brackets. The windows are very small, and of diamond-shaped panes about as large as my hand set in leaden sash.

The ceiling is written all over with names in pencil, and the windows also bear the autographs of diamond-fingered visitors. Among the latter I trace the names of Walter Scott and Lord Byron. By the window I sit silent, and reflect upon the the unrivalled sway of the Monarch of the Mind whose childish feet from this then obscure place went forth to plant them on the throne of universal empire. How rare it is that a true genius is born into the arms of royalty. Genius is the great leveler of class, the contemner of those

miserable assumptions whose only foundation is adventitious and changing circumstance. Shakspeare was the son of a common glover, and to the day of his death wore no title, inherited or conferred. But what earl, or duke, or king would not give the empire of the world, were it his to give, could he but go down the ages with the simple name and imperishable glory of William Shakspeare! * * *

From the classic fields of Stratford-upon-Avon and of Shottery to the smoke and roar of great Birmingham, how marked the contrast! The way hither has been through magnificent scenery, the approach heralded by the gleaming fires of furnaces, the thickening smoke of monster foundries, rolling mills and manufactories, and by the bewildering dissonances of clank and champ and hiss and ringing crash, which here, as nowhere else in all the world, surprise and stun the ear. It is as if Pluto and Vulcan had joined hands to batter down and re-forge the world, and this Birmingham were their grand, central workshop. Leading city of England in the working of metals; also famous for its manufacture of india rubber fabrics, papier mache, mother of pearl, tortoise-shell and ivory goods, and glass ware. Stands upon a number of sandstone hills, well built; population, a quarter of a million. It owes its greatness to the rich mines of iron and coal in the midst of which it is located, and to the genius of the immortal Watt, which gave the world that wonder-worker, the steam engine. For many centuries it was a town of no special importance, though so favorably located. But immediately after the application of steam as a motive power, and the construction of a railroad to London—completed in 1838—it became the centre of an immense traffic and has since rapidly advanced in wealth and population. * * *

Lancashire. Who does not know that that means cotton? Yes, there is at least one place where Cotton is King. Lancashire is his empire; Manchester the seat of government. Just now when the cotton interest is defying every other in my native land, and fiercely attempting to establish its supremacy there and everywhere, Manchester is a place of peculiar interest. A large and handsome city, built chiefly upon high ground, undulating, and upon both sides of the river Irwell; the east and west side connected by eight bridges, both divisions meandered by numerous railroads and canals; population about half a million. Thirteen hundred years ago it was an important station of the Druids, whose altar they called Meyne. To-day it is one of the finest and wealthiest cities of Europe; distinguished alike for its splendid edifices, for the number and quality of its public institutions, religious, educational, industrial and charitable, for the activity and enterprise of its people, and especially as being the greatest cotton manufacturing city in the world.

One hundred years ago the amount of raw cotton imported into Manchester was a little over two million pounds; in 1800 it was fifty-six millions, and in 1856 one thousand and twenty-one millions. Value of the exports of cotton manufactures in 1860, about two hundred and fifty millions of dollars.

But the amount manufactured is not the only thing of interest. The wonderful improvements in the quality is also worthy of note. At first, indeed but a few years since, the spinning was not only slowly but roughly done; the finest threads being comparatively coarse and knotty. Now processes are in use by which an almost invisible thread is made nearly as smooth and uniform as the most infinitesimal gold wire. Think of 15,000 spindles running in one factory, each making 5,000 revolutions in a minute, and winding up a thread so fine that it requires 2,500 hanks or skeins, of 840 yards each, to make one pound; or, in other words, so fine that 20 pounds of it tied end to end would reach around the world! Think of a fabric so gossamer-like that a lady could put a dress pattern into one side of her *porte monnaie* and hardly know it was there! Such are the achievements of this wonderful age.

One of the most interesting of all the processes we examined was the means used for spinning these fine threads. When spun as fine as possible, they are each passed through a flame of burning gas, and then through holes in a brass plate, made by machinery, just the size of the intended thread. The flame singes off all superfluous fibres, and the infinitesimal perforation in the metal scrapes off all knots and reduces it to a uniform size. The singeing is a surprise to every new spectator; for the thread moves so swiftly that it

seems to stand still in the flame, and the wonder is why it doesn't burn off.

In the world there are now forty millions of cotton spindles whirring; and twenty-one millions of these are in Great Britain. America ranks next, operating six millions of spindles; France five and a half millions.

MANCHESTER TO NEWCASTLE-ON-TYNE, VIA SHEFFIELD AND LEEDS.

* * * * *

I have left Manchester, ticketed for Sheffield. The Swift-moving train is already leaving the spires and curling smoke of the great cotton city behind. Many stops, but so brief that my patience is not even tried, much less exhausted, as a thousand times it has been on our American railways. Time is precious here, and every man connected with the road and train appears to be a part of them, and to move with the despatch and regularity of machinery. A village is in sight, and though some miles ahead, our mile-in-a-minute speed soon annihilates the intervening space. The locomotive whistles its salute (with a voice more shrill than those of our Yankee engines) and in a moment more, the vigorously applied breaks bring us to a short halt. Some passengers tumble out, others immediately take their places, and ere we have time to look at our watch, the station bell rings, and away we go, like the wind. There's some pleasure in such railway travelling.

In advance of us there seems to be a range of hills. Already the train enters a deepening *cut*. Darkness, gas light, and cavernous thunder! We are dashing through a tunnel. Light dawns! but we have been a long time under ground. About five minutes. We have passed the famous Woodhead Tunnel, at the summit of the Manchester, Sheffield and Lincolnshire railway, three miles and sixty feet in length! Tunnels are very numerous in England, constituting about one-hundred and thirtieth of the aggregate length of all the railways, or some seventy miles altogether. English engineers prefer tunneling the rock to making a cut deeper than sixty feet. When the rock is not perfectly solid, the roof is arched with several successive arcs of brick, the upper arch some times extending on either side into a nether arch beneath the railway; thus forming a complete circle of brick masonry.

The scenery along the way is beautiful; the undulating surface marked by majestic groves, meadows, and rich pastures, with grazing herds, and now and then a fine old residence, gray with the lapse of centuries, but suggestive of all comfort and independent living. Derbyshire is more hilly than many of the counties of England through which I have heretofore passed, but is nevertheless a good agricultural district.

Sheffield! City long famous for its superior cutlery, and still chief seat of the English manufacture of cast, shear and blister steel of all sorts, steel wire, cutlery and tools of every description, railway carriage springs, &c; and also noted for its silver, silver-plated, German silver, britannia and other white metal wares. It was formerly an old manor of the Earls of Shrewsbury, who had a castle in the town, and a fine manor house near by, in one or the other of which was passed the greater period of the captivity of Mary, Queen of Scots. The city has a population of nearly 190,000, and teems with the wonderful activity of its multitude of workshops. * * * *

And now for Leeds, the second noted manufacturing town in the West Riding of Yorkshire. A Short run, and soon over. Rather an irregularly built city, of some 191,000 inhabitants, on both sides of the navigable river Aire. It communicates with the German Ocean through the Aire, and with St. George's Channel by means of a canal, and is also the centre of an important network of railways; thus giving it great importance in a commercial point of view. It was once a Roman station, and successively passed under the control of the Northmen, the Saxons, and the Normans. Now distinguished as being the seat of the largest number of woollen factories concentrated at any place in the world.

The route hence is almost due north, and leads from Yorkshire through the county of Durham, and into Northumberland. Here is where originated the short-horn breed of cattle. The pastures are rich, and the flocks and herds along the way are worthy of the country. The fields are well cultivated, and

the best drained sections are clothed with excellent crops. * * *

The twilight comes, and I have not yet reached the end of my day's journey. But at last we know by the distant glimmer, of a thousand lights that we are near to it. Newcastle lies on the left bank of the river Tyne, and about eight miles from the German Ocean, while on the right bank is the dingy old manufacturing town of Gateshead; the two connected by the famous "high level bridge." Gateshead is announced! And now we are crossing the bridge. It looks to be far down to the water (and it is some 118 feet), and seems very long as the stout locomotive draws the heavy train over it. What if the bridge should give way under its mighty load! George Stephenson, chief of the world's engineers, made it; there is no danger.

From the magnificent Central Railway Station I make my way to a hotel, and wait for the morning light. The coal mines, an hundred extensive factories, the old Castle, famous in history, and many other things of great interest await me. Prof. McChesney, of Chicago, is American consul here, and, I trust, will be my exploring companion. * * *

In company with the genial Professor, have made the rounds, visiting the factories, one of the deepest and most interesting mines, and spent a part of the evening at the fine old castle of Lord Ravensworth.

NEWCASTLE TO EDINBURGH.

Good bye, old Newcastle! I would tarry longer, but my eyes long for the hills and heather of classic old Scotland. I am to go by the way of Hawick, Melrose, Abbotsford to Edinburgh; thence through the Highlands and back *via* Glasgow.

The train moves off in its majesty, and Newcastle recedes. Splendid cultivated fields—showing that the farmers of Northumberland know what they are about—and beautiful scenery flit past in pleasing panorama. The agricultural portions of this northernmost county of England seem to equal anything that I have yet seen in Europe. Towns unimportant.

Now we approach the Cheviot Hills. At the U. S. Fair at Richmond, Va., in 1858, Lord Napier, then British Minister, (and at home President of an Association for the Improvement of Cheviot Sheep) gave me an interesting account of this mountainous district. The hills, with their dark and rugged sides are still here, and the sheep are here with their tinkling bells, grazing in quiet comfort, but the noble Lord, whose efforts have so much contributed to the improvement of the one and the other, has himself been gathered into the fold of the Great Shepherd. At length, with the glory of the setting sun gilding the tops of the eastern summits, the train passing through deeply shaded defiles, we cross the intangible line which separates the once rival but now reconciled parts of the realm. It is better that they are one, and so may they ever remain. God so willed it. Peace to the ashes of their respective heroes.

A rush of thoughts strangely blended, as the mind returns in retrospect to the small but grand and heroic kingdom left behind. By what mighty struggles has it fought and worked its way through many long centuries to this glorious present, wherein it ranks first in the perfection of its agriculture, first in manufactures, first in commerce, first in wealth, first in power! Move on, noble realm, giving the laws, literature, science, and christianity of an advancing civilization to the great needy world! The thunder of thy workshops shall ever be welcome music; thy beautiful verdant fields and thy magnificent fleets of shuttle ships, weaving the commerce of the world on all the seas, shall be a welcome sight to all peoples. As God's sun of light and fire never leaves all parts of thine empire in night, so may the sun of thy prosperity never go down, leaving thee in the darkness of departed greatness and glory!

The whistle of the locomotive startles me, stops my musings, and notifies me that we are entering the old town of Hawick. A place of some 7,000 inhabitants, near the confluence of the rivers Teviot and Sletterich, and chiefly engaged in the woolen, lambswool and cotton hose manufacture and trade.

Time will not permit me to tarry, and yet this train will convey me to Jedburg, quite out of my intended line of travel. No train more direct until

to-morrow. Distance to Melrose, 15 miles. Would my patience suffer more by the delay, or my legs from the journey on foot? Patience is of more value, and so I risk the legs. "The way to Melrose, if you please sir?" "That is it, sir; smooth and not difficult." "Thank you." The night is pleasant, the time sufficient, and I shall not hasten my steps. * * Fancy leads me to wander from the way and climbing yonder mountain wait for the rising sun. May be it will reveal to my gaze a good part of all Scotland! * * * * *

At length the tops of the eastern hills are touched by the finger of Aurora, and a soft and radiant light steals over the world: and now in even more than wonted majesty and glory, the sun, thus fitly heralded, appears. Verily my dream was not a vain one; for does not "the glory of the whole earth" lie before me? Mountains and valleys, rivers, verdant fields and barren moors, a score of villages, and in the far distance the longed-for Edinburgh, city of centuries! I stand upon the Eildon Hills. Melrose, with its far-famed old Abbey, built by David I. almost a thousand years ago, lies at my very feet, and Abbotsford, home of the immortal Scott, near by, on the rolling Tweed. Charming visits to the Abbey and to Abbotsford, and then off for Edinburgh.

The splendid fertile farms of East Lothian, with their fine old substantial dwellings, barns and other buildings, flit by like leaves on the wind; the locomotive whistles its bold, cheery salute; the grey old spires and castle towers return a grim and stately welcome, and we are at last in the very precincts of Edinburgh, ancient metropolis of heroic old Scotia! The railway enters the city through the valley once known as North Loch, but now redeemed from the straggling waters of the Firth of Forth and made beautiful as Fontainebleau by the substitution therefor of blooming gardens and sparkling fountains.

First of all we pass Holyrood Palace, and the remains of a dilapidated Abbey built in the old times of 700 years ago—a famous spot in the history of Scotland. The Abbey, founded in 1128, included with it a circuit of some five miles, which entire area was (and we are told still remains) a sanctuary for debtors, within which no bailiff, with his *posse comitatus*, dare enter. What a heaven for shiftless fellows, poor unfortunates and unscrupulous scalawags! The wonder is that a circuit of only five miles should not be uncomfortably packed a good part of the time. Either the dwellers in the "Land O'Cakes" are remarkably honest, or the officers of the law are unmercifully swift. The Abbey has gone to ruins but the Palace is still kept in good repair.

On the right as we pass to the station, is seen Caton Hill, 344 feet above the level of the sea, and crowned with Lord Nelson's tall and circular tower, with the half completed Parthenonic National monument to the memory of heroic Scotchmen who fell in the Napoleonic wars, with monuments to Playfair, Dugald Stewart, a Corinthian temple, with a statue of Robert Burns, and the High School, the Observatory and Gaol. The *tout ensemble* of this array of public and artistic works is thoroughly suggestive of Athenian and Roman scenes, and produces a pleasing effect upon the mind of the beholder. The train stops. I ascend a staircase, pass through the great waiting room and stand upon High Bridge. Immediately before me, in the beautiful valley of the Loch, are railway tracks, winding like serpents through grassy lawns and charming gardens; and further on, standing grim and grey upon the very brow of a bold projecting cliff, three hundred feet above the valley, is the veritable old castle of which we have all read and dreamed, glowering down upon the city, old and new, with glimpses of a magnificent landscape yet beyond. On the high hillside are college buildings, the Bank of Scotland and quaint old blocks of merchant shops and dwellings, some of them eleven stories high! While to the right, parallel with the valley and lined with stately buildings, and especially marked by the towering Gothic monument to Sir Walter Scott, lies Princess' street, one of the most charming promenades of Europe. The effect is beyond description, surpassing anything that I have hitherto experienced in my European travels. * * *

Here I find a friend of Wisconsin acquaintance, Mr. J. P. Faulkner, barrister, by whom I am cordially received and entertained. In the evening, after a day charmingly spent in visiting the city and its surroundings, we sup

together at the fine old residence of Mr. Grey, one of the most successful of the many superior farmers of the Lothians.

At first it seemed incredible that any one should be able to pay a rent of \$50 per acre for land and yet handsomely support a large and expensive family and still have a considerable surplus for bank deposits. But, on learning Mr. G.'s method of agriculture—his thorough manuring of his soil and crops, the fine system of rotation, by which he always keeps the soil in heart, and his superior management of stock, making the most economical use of roots, potatoes, cabbage and of much that is usually thrown away—when I learned in short that nothing was lost and everything was skillfully turned to the best possible account and put into market at the best possible time, it became easy to figure up the profits even in spite of such rents. This was a farm especially adapted to grain and root crops, not so profitable as some of the meadow farms which receive a rental of £50 (\$250) and yet by means of four and five magnificent crops of grass, made possible by drainage with sewerage water, pay still larger returns to the lessee. * * *

After tea, a stroll in the fruit and flower garden—just enough to satisfy me that the farmers of Lothian know how to provide themselves with the luxuries as well as the necessities of life—and then a return on foot past Salisbury Craigs and Arthurs's seat—craggy elevations of much local interest—to the city, delighted and instructed by our rambles.

Under the further guidance of my excellent friend, I have seen the objects of chief interest in Edinburgh—the interior of the Castle—the ancient houses of Parliament, now occupied as court rooms—the world-famed University—the Industrial Museum, where may be seen all the varieties of stone, wood, agricultural implements and agricultural products of Scotland—the great agricultural warehouse of Messrs. Lawson, the most distinguished seedsmen of the United Kingdom—the magnificent monument to Scott, an exquisitely wrought Gothic Tabernacle of stone 150 feet high, with a fine Statue of Sir Walter in the sitting posture within—the beautiful streets, public squares and historic statues of the new city—and last of all glimpses of Leith, the port on the Firth beyond.

There are 70 printing establishments here, turning out 20 periodicals and reviews, some of them, as the *Edinburgh Review* and *Blackwood's Magazine*, noted the word over for their ability, 26 daily and weekly newspapers; while in book-making Edinburgh surpasses every other city of its size in the world.

To-morrow I shall leave for the Highlands, tarrying for a while amid the scenery made classic by Scotts' incomparable *Lady of the Lake*.

EDINBURGH TO GLASGOW BY THE TROSACHS.

I am ticketed for Callender *via* Sterling, and already the grey old city of centuries is behind me. We wind through the beautiful narrow valleys and pierce the opposing hills. Tunnels common. John Bull isn't to be baffled.

Sterling! with its castle-crowned hill, winding streets and ancient shops and dwellings. The original was Stryveling, suggested by the fact that here, in the fierce feudel times Scot strove with Pict, clan with clan, and Scotch with English, until the spot was henceforth famous as a battle ground.

I stand upon its battlements. What a magnificent prospect! Nothing could surpass it. To the northward and westward are the Grampian mountains, the noble peaks of Benlomond, Benledi and Benvoirlich rising majestic above the rest; Gartmore House and the house of Cardross, the scene of the old legend of Sir James the Rose; and the villages of Craigforth, Meiklewood and Blair Drummond. A right-about-face brings under the eye a picture less grand but none the less inspiring and beautiful. The Forth with its silver stream, threads the fertile valley; there are the villages of Ninians and the Sterling bridges; about us lie the Gowlan Hills. * * *

* * * The cars again. The railway lies in the valley of the Forth and the journey is made delightfully exciting by scenes of historic and legendary interest. At Callander we leave the railway and take our place—those of us who propose a tour in the Trosachs—in an old fashioned stage coach. I want to see everything by the way and so take a seat on top. Callander is soon left behind and now by a

rustic bridge we cross the classic Teith. The narrow fertile valley, the villas and cottages by the way, and the grim old mountains above and beyond.

Already we touch and wind our way along the base of the noblest of them all. More than a thousand years ago, a Gaelic legend says, an angel of fire appeared to the people on the top of it; since which time it has been known as *Benledi*, the Hill of God. And there is the narrow, silvery Loch-Achray!

The quick-rolling wheels have borne us many miles on the enchanting way.

"There," says the driver, "is Lanric Mead!" Where? "Just there, sloping to the Loch." In a trice I have left the coach, leaped the fence and am gathering butter-cups from the midst of the mead.

"The gathering place is Lanric Mead!
Speed, stranger, speed,"

shouts a fellow traveler; and with singular aptness, too, for it is likely to require the legs and wind of a Bull-Run soldier to overtake the coach. * * *

Suddenly, we come upon the neat and substantial Trosachs Hotel; and while my fellows go in to drink their ale, I walk on, gathering mementoes.

* * * A flash as of burnished silver in the sun! Is it possible? Have I walked so far that I have really stumbled upon the lake in advance of all my companions? Aye, Loch-Katrine, in all the glory of noon-tide!

"With promontory, creek and bay,
And islands that, empurpled bright,
Float amid the glorious light,
And mountains, that like giants stand,
To sentinel enchanted land.
High on the south, huge Ben-venue,
A wildering forest, feathering o'er
His ruined sides and summit hoar;
While on the north, through middle air,
Ben-an heaves high his forehead bare!"

No picture of the Old World, or New, has so enchanted me with the wildness of its beauty and the romance of its story.

* * * The driver's piping horn! The crack of his whip, and the rumbling of wheels! My companions alight, amazed to find how they have been outstripped by me, and all enthusiastic at thought of a voyage upon the Loch. We go aboard; the bell rings out its warning, and the shore is left behind. Katrine was formerly the favorite resort of robbers of whom Rob Roy was chief. Eilan Varnoch, the famous "Ellen's Isle" of "The Lady of the Lake," just before us, is the very spot where the freebooters divided their plunder.

Music! The favorite music of Scotland—the bagpipe, I mean. An old Highlander, whose head is white with the frosts of no less than seventy winters, seems bound to perfect the illusion of our senses and to convince us that we are really in the midst of times five hundred years ago.

The water of Loch Katrine is cold and pure. The city of Glasgow, 34 miles distant, is supplied with 50,000,000 gallons daily. This immense volume of water is carried through great iron pipes and through seventy tunnels, with an aggregate length of thirteen miles, and across deep valleys, which last are either spanned by aqueduct bridges consisting of iron troughs supported by rubble stone, or meandered by syphon pipes four feet in diameter. It was certainly an herculean work to span such valleys and pierce such mountains, and could not have cost less than seven, perhaps ten, millions of dollars.

We touch the western shore after a most charming voyage of nearly ten miles, and again take the stage. A rough, picturesque country. Loch Lomond! largest of the Scottish lakes. A beautiful sheet of water.

The shrill whistle of the steamer hurries us down the cliff to the shore, and in a few moments we are fairly under way. Loch Lomond is some twenty-four miles in length, from north to south, six to eight miles in width at the southern extremity, narrowing down to one mile at the north, and has an average depth ranging from sixty to four hundred feet; the greater depth being at the north end, where it is narrowest. It is shut in by high mountains on the north, and throughout its whole extent is dotted with islands.

As we proceed southward the scenery gradually changes. The islands increase in number, the mountains diminish in altitude, and the beach widens.

At length the open country between the lake and Glasgow lies spread out in all its breadth and beauty before us, and in the distance the frith of the Clyde, into which, through the river Leven, the surplus waters of Lomond are poured. Ben Lomond and other lofty peaks in all their solemn grandeur at the north, and the wide spread valley and plains dotted with villas on the south—this is our last picture of this most beautiful of Lochs.

A railway train awaits us at the head of the Leven, and in less than thirty minutes—distance only twenty miles—our eyes shall rest on the spires and towers of great Glasgow, third city of the British realm.

Glasgow is really a great and flourishing city. But then is it not old enough to be something of a town? Founded, tradition says, in 539. Whether this be true or not, we know that it was already a place of some importance as long ago as 1300, when the immortal Wallace met and defeated the English Percy here in High Street. But that is nothing; Glasgow is eminently a city of to-day—full of active life and energy—building ships for many countries—forging five-sixths of all the malleable iron produced by Scotland—manufacturing some of the best marine engines in the world, together with immense quantities of chemicals, glass, pottery wares, cotton, woolen and silk fabrics, shawls, carpets and numberless fancy articles—noted also, for its extensive commerce, and scarcely less for its literary and scientific institutions. Population nearly half a million.

The commercial importance of Glasgow is very remarkable in view of the fact, that naturally the river Clyde, on which it stands, many miles from the sea, was a shallow, swift and sand-bedded stream, utterly incapable of navigation by any sort of boat and with little prospect of its ever becoming so. But what are natural obstacles in the way of the concentrated energies of a vigorous and resolute people? The sturdy Scotchmen of the rich, beautiful and renowned valley of the Clyde were not to be baffled. If God had not given them a great navigable river, with capacity for the mighty ships of the 19th, or any century, then they would make one for themselves. They have made it, and to-day, here are great ships, in the very heart of the city, bearing the flags of every civilized nation and unloading their rich cargoes from even South America and various far off semi-barbarous countries of the East.

Among her educational institutions, the one which (not excepting the Royal University, which is a noble institution and of great renown) has interested me most is the Andersonian University, established, within recent date, for the instruction of the working classes in the physical and natural sciences and in literature and the arts. This institution, has also, at present, a medical department, and is giving instruction of the utmost practical value, to 1700 students. One such college in each large city of the realm would do more for the progress of liberal ideas and overturning of an already tottering aristocracy than all the purely political machinery that can be brought to bear; for its tendency is to demonstrate the truth

“That a man’s a man for a’ that.”

Educate the working classes, or at first only a few of the most gifted among them, and the progress of democratic ideas is assured.

The old University, founded over 400 years ago, is still flourishing; attended by about 1000 students; library of 60,000 volumes; museum valued at nearly three-quarters of a million dollars; handsome botanical garden of 40 acres. The city abounds in fine public buildings, and some of the handsomest streets and squares are made yet more attractive by statues in bronze and marble by modern masters.

A trip into the country—up the valley of the Clyde—satisfies one that agriculture is no less flourishing here than commerce and manufactures. Many of the farms are models of neatness and thorough culture. It is here, where that famous breed of horses, the Clydesdale, originated, and where it still holds pre-eminence. Horses weighing 2000 pounds and over are common in all parts of this valley.

GLASGOW TO BELFAST.

Have said good-bye to Glasgow and am dashing through the charming shire of Ayr, one of the most attractive portions of Scotland. Surface hilly; the highest of the mountains rising to 2000 feet above the level of the sea. Mines of iron, lead and antimony; quarries of rare building stone; valleys beautifully cultivated—the rich pastures animated by such Ayrshire cattle as would awaken thoughts of profitable dairying in the mind of any Wisconsin farmer; interesting relics of Druidical and Roman life; mediæval structures in decay; the monuments of covenant martyrs, and thriving factories where are made quantities of fine linen, woolen and cotton goods, and the world-famed Paisely shawls; Turnberry Castle (ancestral home of the family of Bruce);

“—Alloway’s auld haunted kirk,
Where ghaists and houlets nightly cry,”

and where Tam O’Shanter had his midnight vision; aye, and Ayr,—

“Auld Ayr, wham ne’er a town surpasses
For honest men and bonny lasses,”—

birth place of Robert Burns;—all these, as a medley to the ear, come trooping to the sight of him who passes through this extreme southwestern corner of glorious old Scotland. * * * * *

From Androsan by steamer across the Irish sea to Belfast. Oh, these channels! A voyage across them doesn’t last long, but, otherwise it’s more to be dreaded than the ocean, with its grand mountain swells.

The old demon of sea sickness, from whose gripe it seems, I am never to escape, has again seized me, and reawakened inexpressible desires to abolish the whole digestive apparatus.

At dawn, Belfast! I walk the plank and my feet, for the first time, touch the Emerald Isle!—land of rich resources made fruitless by internal dissensions, intestinal wars, and vain struggles with oppressive foreign powers for at least two thousand five hundred years; land whose history is emblazoned all over with the names of brilliant scholars, artists, poets, statesmen and warriors, and yet whose condition has been for all these dark centuries that of poor Ireland, demanding the sympathy and commiseration of all generous people throughout the world! If my observations should betray unusual interest, what wonder? Is not every true American heart in perpetual bonds of sympathy with every other that beats for liberty and independence? And, besides, are not the people who inhabit this island the fathers and mothers, brethren and sisters of some millions of our own countrymen, out of whose sinew and muscle have come much of the material wealth and power that now are the wonder of the world? * * * * *

And this is Belfast, seat of linen manufacture. Strongly in contrast with the cities through which I have just been passing on the other side, and yet, after all, a very pleasant looking town of 100,000 inhabitants, with many fine buildings and quite a considerable number of factories, foundries, vitriol works, distilleries, flouring mills, rope and ship yards, etc. Built on the Lagan, an unimportant stream, except that its mouth makes a harbor, and was in fact the origin of Belfast, which else had probably never been.

BELFAST TO DUBLIN.

The way to Drogheda lies, at first, through a low and, just now, rather wet country, with a dark, rich, mucky soil, capable of producing large crops of grass, and, where properly drained, of potatoes and almost any of the crops grown in this latitude. Cultivation really quite good. The cattle—of which there are not a few by the way—are in good condition, and look as if destined for an English market; mostly of English breeds, with a sprinkling, now and then, of the singular-looking black Kerries. The farmers in this county (Down) are said to make a very good quality of butter and cheese and a great deal of it. Swine also abound. * * *

Now we strike i to the hills—some of them pretty high, too. Cattle and sheep—Southdowns, Leicesters, and what, at a distance, appear to be Lincoln

and Cheviots. Hills, indeed! Mountains now—the Mourne, highest, I believe, in Ireland. * * * County of Louth. Gradually the mountains diminish in size—hills—undulations—and, finally, a great level country again. Drogheda is announced! Not a very euphonic name, surely, but a place of some historic note, as being the point, where, in the 17th century, the English troops were generally concentrated upon the insurgents of Leinster and Ulster, as having been stormed and carried with great slaughter by Cromwell, in 1649, and as being the place where the great German General, Schomberg, leader of the troops of King William III of England, fell.

The Drogheda of to-day is a flourishing town of some 17,000 inhabitants, with quite extensive cotton and linen factories, tanneries, etc., and considerable commerce with Liverpool and other points on the English and Irish coasts. * * * * *

Dublin! chief city of Ireland, and once its proud capital, where sat the Irish parliament and made laws for a free people; now, fourth city of the British realm. Population about 800,000. Built on both sides of the Liffey, and on a level plain, at first it reminds me of Chicago, albeit a second look to the westward, finds a range of magnificent hills for a background—an important feature, in which the Chicago landscape is painfully deficient. Here I must spend three or four days, visiting the museums, literary, scientific and industrial institutions, and especially the noted agricultural school at Glasnevin, near by. * * * * *

The new portion of the city—that which lies on the north side—is really very handsome for the most part; including several beautiful streets and elegant buildings. The Custom House and the Post-Office are especially fine. The view along the quay, and of the business portions of the city generally, as seen from the magnificent bridge that spans the Liffey, on Sackbutt street, is very fine. Looking eastward you have the Custom House, the whole range of shipping along the river and in the mouth of the harbor. On the north is an interesting view of the Post-Office and the hundreds of elegant shops that line the avenue, with the pleasing suburbs beyond. On the south are also fine shops, relieved by the old Houses of Parliament and Trinity College. While to the westward, beyond all the shipping and warehouses, factories and depot, the great park, with the fine Wellington obelisk crowning its commanding summit. Another interesting and peculiar feature of Dublin is a circular avenue of some nine miles circuit, extending around the outskirts of the city, passing the Botanical Gardens and many beautiful suburban mansions. A charming drive on a pleasant summer's evening. * * * * *

The Agricultural School at Glasnevin has interested me much; being both better and not so good as I had been led to anticipate. Instruction fair and practical; farm pretty well managed. * * * * *

Trinity College, though formerly religiously exclusive, has, of late become more liberal, admitting a few Catholics. Edifice Corinthian in its architecture and rather imposing. Library large and valuable. Number of students, some 2000. There are numerous other colleges here, both Protestant and Catholic. Of the extraordinary array of industrial, scientific and literary societies which, with its colleges, make Dublin one of the first great learned centres of the world, none have interested me more than the Royal Dublin Society; which, besides having extensive museums of agriculture and of natural history, a botanical garden, a library of over 30,000 volumes, a gallery and school of art, frequented by some 5000 students, had, also, courses of free lectures on science, art, industry, etc., attended by twenty to thirty thousand persons, annually.

A Museum of Irish Industry has been recently formed, with a government school of science applied to mining and the other practical arts. It provides also a course of lectures which have been attended by five to ten thousand persons in one year.

To the American Consul, whose acquaintance I had previously made at London, I am indebted for many courtesies, which it will be pleasant long to remember. * * * * *

DUBLIN TO CORK.

The way through the county of Kildare is over a country, now flat and boggy, now undulating and a little hilly. Soil abounding in clay and evidently fertile. Here and there a flouring mill, woolen or cotton factory in the principal towns by the way. With two railroads and canals, Kildare is pretty well provided for in a commercial way. Here we have the Carragh of Kildare—a broad open plain of some 5,000 acres, with one of the best race courses in the kingdom. * * * Queen's county.

At first, more undulating. Slieve Bloom mountains visible at the northwest. Mines of iron and copper and anthracite coal. * * *

Ah, here are the regular bogs of Irish peat—broad in extent, with quantities of the fuel stacked up to dry, and hundreds of hands cutting and throwing it out of its deep beds. * * *

Kilkenny county. Level, in the main, with hills now and then, upon some of which are relics of the Pagan era, in the form of piles of stone, cromlechs and cairnes. Some mines of anthracite coal and occasionally quarries of a handsome black marble. * * *

Tipperary county. Undulating, with rich, fertile soil, producing excellent crops of cereals and grass. Great numbers of cattle. By the way, a fellow traveler tells me the farmers of this section including, also, portions of Cork county, make and export large quantities of excellent butter. Evidences of mines of copper, lead and coal, and quarries of slate, which seem to be pretty extensively worked. * * *

At last, "Cork!" is the cry, and I hurry out to get a view of this somewhat noted town, and the last of any magnitude that I shall behold, for this time, at least, on the Old World side of the great deep.

The original name—the Irish—of Cork was Carcagh, the signification of which is swamp. City, low and flat, standing upon an island, though backed by hills. Wall, now pretty well demolished; built by the Danes in the 9th century. Some portions of the city look very well, but the greater part is old and weather-worn, without much in the way of public buildings to relieve the eye. Population, about 80,000, large numbers of whom have the appearance of needing to emigrate to America at the earliest day practicable. Old Market—where old clothes, boots and shoes, articles of household use, half spoiled provisions, and fifty thousand indescribable and unnamable old traps, in every stage of dilapidation, are put upon sale to the poor, ragged half-starved wretches who stand about, by the scores and hundreds, higgling for a trade, looking, first at their few greasy coppers, and then wistfully at the coveted treasures on sale—presents one of the most heart-sickening spectacles I have witnessed in Europe.

Among the public buildings are four monasteries, and two nunneries, a house of correction, a female penitentiary, Queen's College, the Cork Library, Mechanics Institute, and the Royal Cork Institute, established in 1807, in the interest of agriculture. There are also several schools of an inferior grade, and a number of horticultural and agricultural societies. Considerable commerce; imports, chiefly timber; exports, agricultural. It so happens that just at this date there is a county agricultural exhibition in blast, to which I am cordially invited * * * A considerable affair, comparing favorably with our own county fairs. Some fine stock and creditable exhibitions of field and garden products. Premiums larger than are usually paid at our fairs.

From the heights of Queenstown, I look out upon the grand old Atlantic. The horrors of the former voyage are all forgotten in the growing desire to strike hands with friends from whom I seem to have been separated for years, and now I even long to commit myself to the billows. This, the lower harbor, is a magnificent one—three miles long and about two miles wide, and so completely shut in by land that shipping is entirely secure. Entrance channel two miles long and one mile wide, guarded by two forts that effectually control it.

The war in America appears to have no effect to retard the exodus of the poor people of Ireland. Every week hundreds go out in quest of better fortunes, willing to hazard even the perils of war, or anything else, than longer endure the wretchedness that comes of a poverty and a tyranny from which there

is but the faintest hope of escape. The worst of it is, the very poverty they would escape renders emigration impossible. Under these circumstances, it is gratifying to find that they have learned the value of association, by means of which, from time to time, one and another of their number is enabled to make his way to the land of promise. The plan is this: A large number of the poor people anxious to go to America form a club, with the agreement that at certain intervals, each will pay into the common treasury so many pence; and when the total of the contributions amounts to a sufficient sum to pay the passage of one person, all the members cast lots to determine whose the precious boon shall be. In this way, hundreds of the industrious yeomanry of America have reached her shores.

Multitudes of persons, old men and women, young men and maidens, are seen gathering in from every quarter of southern Ireland in the hope of finding room in the steerage of the ship whose coming I also, await. Probably more than half of them will have to wait for another chance. Some of them are fine specimens of the Celtic man, and all are buoyant with hope. Thank God for a spot of earth somewhere under the all-embracing heavens, whose priceless boon of the privilege to be all one's powers will enable him to become is freely offered to the poor and oppressed of every land. Under wise and equal laws, framed and administered in the spirit of a genuine christian philanthropy, the Emerald Isle could soon be made to blossom as the rose. Is it not a most melancholy fact, that the reason it does not is largely found in the injustice of a nation which claims to be at once the most powerful and the most christian on earth? * * *

Ship ahoy! A noble ship steams up in view. Queenstown is all alive. Hundreds of eager eyes are strained to see if it comes to bear the forms of loved ones to the far-off land. Mine also are strained. "City of Baltimore!" "City of Baltimore!" is the cry, and the bustle increases. Friends about to be separated stand nearer to each other, grasp hands and look more deeply and anxiously into the swimming eye. Will the soul of which these are the windows be ever true, though the ocean roll between and long years, aye a life-time, pass without a reunion? Will the sun of prosperity shine ever upon the departing ones? and how will it fare with the poverty stricken and sorrowing parents, brothers, sisters, and lovers left behind? * * * But time and tide wait not for adieus. The tug is at the wharf. The baggage of all is aboard. The embraces have ended, and the sun of hope, revived and re-assured, has dried up the fountain of tears. The steadied voices of two hundred emigrants call out the last good bye with ringing cheery note, while as many hats and handkerchiefs, half sadly and half gladly, wave their adieus to the loved ones on shore.

Good bye, say I, also. Good bye to Erin, land of crushed hearts and hopes. May the God of mercy and of justice bless thee with the early recovery and wisest use of thy long-lost liberty and independence! * * *

It is perhaps useless to say, that in these fragmentary notes, I have only presented a sketchy outline of the *field* of my observations; It being my purpose whenever the State shall have resumed the publication of the Society's Transactions, to embody all important facts and conclusions in such practical papers therefor as shall be deemed of interest to the industrial public of this country. As I shall probably report at some length on the Great Exhibition, as Commissioner, I shall be excused for the brevity of the allusions to it in the foregoing memoranda. While my observations in other lands have had the effect to confirm original convictions of the superiority of our own civil institutions, they have no less thoroughly satisfied me of the fact that, in most branches of industry and in many departments of national administration and social life, we have yet very much to learn from the Old World.

J. W. HOYT.

REPORT

ON THE

INTERNATIONAL EXHIBITION OF 1862.

BY THE

COMMISSIONER FOR WISCONSIN.

10 AG. TRANS.

STATE AGRICULTURAL ROOMS,
MADISON, Dec. 30, 1862.

His Excellency, EDWARD SALOMON,

Governor of the State of Wisconsin:

SIR:—Having been commissioned by your predecessor, Hon. ALEX. W. RANDALL, late Governor of Wisconsin, to represent this State at the London International Exhibition of 1862, and having discharged the duties of the appointment, I have the honor to submit the Report herewith transmitted.

Respectfully, your obedient servant,

J. W. HOYT, *Commissioner*.

INTERNATIONAL EXHIBITION OF 1862.

REPORT.

His Excellency, EDWARD SALOMON,

Governor of the State of Wisconsin :

SIR :—The grand conception of a gathering of the representative products and people of all lands under one roof had its origin in the noble mind of His Royal Highness, the late, lamented Prince **ALBERT**, who thus, by his unselfish reaching forward for the best good, not of his own country alone, but of the race, has marked the beginning of a new era in the history of civilization.

The Exhibition of 1851, with its wonderful Crystal Palace, so vast and so magnificent that even to him who has gazed upon it, and traversed its great aisles and lofty galleries, it persists in seeming like a creation of the fancy, impossibly real—its wilderness of no less marvellous objects, brought together from every clime—its multitudes of wondering people of all kindreds and tongues,—all these have swept past us like a great panorama to be dreamily remembered. But the results of that Exhibition are substantial and permanently beneficent. Not by court representatives, with diplomatic phrase and sinister intent, but of and for *themselves* the *nations* there met and in native truth and sincerity saluted each other as brothers and joined hands for the progress of the world.

It was hardly possible that such an exhibition as that should be without successors. Rivalry is often a good seconder of

philanthropy and easily turned to good account. Two attempts had already been made—the first at New York, in 1853, and the second at Paris, in 1855—neither of which approached their great prototype in any respect. Then, after a lapse of eleven years, during which great progress had been made in science and the arts, it was resolved by the same noble Prince that there should be another Universal Exhibition on the very spot where the first experiment was so eminently successful; and which, by comparison therewith, should help the world to know what progress it is really making.

The Exhibition of 1862 is, then, a sort of second mile-stone, set up by the nations on the great highway of human progress. In it all thoughtful individuals and civilized nations have found direct interest. To the laborer it has brought rest and added powers—to the philosopher, a rich store of material for study—to the philanthropist, comforting assurances of the final escape of even the masses from enslavement to the primary necessities of man—to the nations, the brighter hope of universal peace and brotherhood.

In reporting upon this Exhibition, I shall observe the natural order of considering, first, the connection of our own country with it, secondly, the general character of the Exhibition as a whole, thirdly, the part taken in it by the various countries respectively, fourthly, the conclusions deducible as to the relative progress of the nations represented.

CONNECTION OF THIS COUNTRY WITH THE EXHIBITION.

The isolated geographical position of the United States, as one of the great powers, affords at once a reason why we should not, and yet should, take prominent part in all really international industrial exhibitions. We may excuse ourselves, in some measure, from making a thorough representation of our resources and industry across the water, because of our immense distance from the present great centres of civilization, where the exhibitions, in order to be international, must, of necessity, be held. But, after all, this reason is rather spe-

cious than real—one that might apply about as well to Austria, Russia and Sweden as to us, of whose goods there requires to be quite as much handling as of ours. But if it were true that it requires more effort on our part to lay down our minerals, agricultural products, machinery and manufactures at London or Paris than is required of those other countries, have we not a triple inducement—the desire to learn what we can of the older nations—the desire to teach them some things which, by reason of our isolation and the vastness of opportunities in this new world, we have been stimulated to invent or discover in advance of the rest of the world—and last, but by no means least, the desire to acquaint the overgrown populations of the Old World with the immensity of our resources, the native magnificence of our country and the glory of our free institutions, and thus induce an influx of immigration and capital to our shores?

To all who were familiar with the facts, it was apparent that even the very partial exhibition of American industry of 1851, conferred a great advantage on our manufacturing industry; and, accordingly, when it became public through the timely announcement of the Royal Commission, that Great Britain proposed holding a still more and complete and universal exhibition than the first, the purpose was at once fixed in the minds of the active and progressive men of this country to make the International Exhibition of 1862 an occasion for such a demonstration of the resources of our country and the genius and energy of our people as would fairly represent us before the enlightened nations of the world.

But, unhappily, just when the moment for action had come, the thunder-bolt of war fell upon the country with a suddenness and a violence that, for a time, irresistibly turned the thoughts of both people and government quite away from the arts of a peaceful industry and forced them into the unwonted channels of a destructive energy. The consequence was, that, notwithstanding the preliminary steps already taken early in 1861, by the appointment of a home commission to make ar-

rangements for a suitable representation of the products of the United States, ere the summer had passed, the Government, plunged deeper every month into new trials from which the way out seemed more difficult and uncertain, dispaired of success in a double test of its resources and powers, and therefore formally withdrew from the proposed competition at London.

This withdrawal, of the national government was, of course, a voluntary relinquishment of the space applied for and duly assigned by the Royal Commission. So that individual states which might have wished to be represented on their own account were virtually cut off from so doing. But it so happened that New York and some of the other states, alive to their industrial interests and to the honor of our common country, had already shipped many articles of importance and value, and were generally under such headway that this unexpected act of the State Department, at Washington could not immediately stop them. And accordingly the Executive committee of the Board of Home Commissioners authorized their veteran chairman, Hon. B. P. Johnson, of New York, to act as Commissioner, with J. E. Holmes, Esq., of Ohio, who had thus far acted as the U. S. Agent at New York, as Assistant Commissioner, and finally succeeded, through the cordial aid of Minister Adams, at London, in recovering authority from the Royal Commission to occupy so much of the space originally assigned to the United States, as had not been, since its relinquishment, assigned to other countries.

As soon as possible, Assistant Commissioner Holmes, who had been constituted the agent of many of the exhibitors, went forward to London, and, by grace of the British Commissioners, who were exceedingly kind and obliging, engaged in the laborious undertaking of installing the American Department of the Great Exhibition, without a dollar from the Government, or other help than such as was generously tendered by a few patriotic citizens of the United States, temporarily residing in London, reinforced, after the formal opening, by a less number of Commissioners who had been sent out in a like beggarly manner, by several of the individual states.

This is the explanation of how this first great power came to be represented at all at that great gathering of the nations.

The circumstances of our condition at home served as an excuse with the rest of the world, but not so with ourselves. Had the Government been wise enough to have early placed a moderate sum of money in the hands of a small commission of competent men, fully alive to the importance of the enterprise, and left them to carry it forward, an exhibition might have been made, which, by its extent, value and completeness, would at once have attracted attention and commanded the admiration of the whole world.

But the result has shown that even with the broken and shattered fragment of an exhibition almost organized, that would have brought great honor and lasting advantage to our country, the few laborious, self-sacrificing men who served her cause so faithfully against all odds have again brought off from a sharply contested field fresh leaves for her laurel wreath.

THE EXHIBITION BUILDING.

The world-famed Crystal Palace of '51, having been removed to Sydenham, it became necessary to erect a new building for 1862. And inasmuch as the first great exhibition had awakened a universal interest among all nations, it was safe to presume that the second would be yet greater and require a palace of still vaster proportions.

Under the inspiration of His Royal Highness Prince Albert and the efficient agency of the Society of Arts, of which he was the recognized head, the requisite subscription of some \$2,000,000 was raised, the location made on Cromwell, Prince Albert and Exhibition roads, immediately south of Kensington Gardens, and the designing of the palace and the superintendence of its construction entrusted, not to Sir Joseph Paxton, the architect of the Crystal Palace, as the world had a right to expect, but to Capt. Fowke, of the Royal Engineers. As a result, the plan was inferior, as to external appearance,

yet really better adapted to the purpose for which it was intended, in the end giving very general satisfaction.

The building of 1851 covered 19 acres; this of 1862, a little less than 26. The flooring space afforded by the former was 989,784 square feet; in the latter, some 450,000 more. The main portion of the palace of 1862, or that finished in uniform style, and supplied with galleries, is rectangular in form, measuring 1200 by 700 feet, with a tower at each of the four corners and at the center of the south side, and with two immense domes—one at the center of the east, and the other at the center of the west end of the palace. The walls on the east, west and south are of brick; the north side, fronting the Horticultural Gardens of the Royal Society, is of glass. The domes, 160 feet in diameter and over 200 feet high, are also of glass; the roof self-supporting, and mostly of glass, letting in a flood of light, sufficient for a close inspection of the minutest articles.

Interiorly, this main building is divided longitudinally on a right line connecting the two domes by a grand nave, 85 feet wide and 100 feet high, over-arched by a roof supported by deep girders of wood, on the fronts of which, in bright bold letters, are the names of the countries whose exhibition courts lie on either side. At each end, crossing this nave at right angles, and with one of the grand domes over its center, there is a transept, of equal width and height, and constructed in like manner. While directly across the center of the palace, from the central tower and entrance on Cromwell road to the main entrance in the Royal Society's Gardens, there is another broad avenue. If, now, it be borne in mind that parallel to the three outer walls of brick, and extending their whole length, some 60 feet from them, there is a brick wall from ground to roof, opening into the exhibition courts by great arched door-ways below and glass windows above—thus affording separate space on the ground floor for wagons, fire engines, masses of mineral and other heavy articles, and offices, but more particularly forming a grand gallery, with abundant wall room, and more than half a mile in length, for works of art—

and then noted that along the whole course of this inner wall, as well as on both sides of the nave, transepts, central avenue and yet other avenues, which divide the whole palace into vast open courts, there are lofty and spacious galleries, for the display of the lighter materials on exhibition, while along the garden side there are suits of handsome refreshment rooms, you will have as good a conception of the main body of the Exhibition Palace of 1862 as I can briefly give in words.

The style of the interior architecture is light and graceful—the galleries being of iron and supported by handsome bronzed pillars—and the permanent decorations exceedingly tasteful and pleasing. In addition to this main portion, which is so well arranged and durably constructed that it may be allowed to remain for a subsequent exhibition, there were two immense temporary extensions called “annexes,” each 200 feet in width and 975 and 800 feet in length respectively; the larger one of which is devoted exclusively to operative machinery, and the other to agricultural and mining implements and products. These “annexes” were continuous in a northward direction, of the two transepts, and their extremities were connected by curved facades with the magnificent crystal conservatory of the Royal Society, whose beautiful gardens, made attractive by inimitable lawns, parterres, flowing streams, cascades, fountains and statues, were thus completely enclosed.

THE OPENING OF THE EXHIBITION.

I was fortunate enough, despite the opposing elements, to arrive in London on the day before the opening, which took place according to the programme, and most fortunately too, on the first day of May. For the first time within the memory of man, London fog was under bonds, and though it rained a trifle in the morning, in good time the sky cleared up and vouchsafed one of the balmiest and most golden May days the world ever saw—a day that must ever be bright in the memory of the thronging multitudes who were a part of the great occasion.

The long months of patient, skilfull labor on the part of

commissioners, architects, contractors and laborers had been completed ; the widely distant crystal domes of the mighty palace stood perfected in their unequalled magnificence ; the deep mines of the earth, numberless mountain gorges and gulches and the diamond-yielding sands of many a river had been explored and searched with a more than wonted care ; the forests had relinquished their tallest and stateliest timber ; the fields of a thousand husbandmen in remote and diverse lands had been tilled with unusual labor and skill that they might produce a better quality of fiber grain and fruit ; lesser and greater workshops had hummed and roared and thundered for the construction of unheard-of implements and machinery ; while in the more quiet factory, private abode and retired study, ten thousand hands directed by an inspiration they had never known before, noiselessly wrought the countless articles of use and luxury which so wonderfully characterize this most wonderful age ; and now, at last, proud ships, freighted with cargoes diverse and marvellous, from every land on all the continents and from strange and distant isles, had come over the seas, and the products of the genius and labor of all peoples, from the frozen North to the sunny South, and from the old and worn-out East to the new and mighty West, lay side by side, each challenging the world's admiration and demanding impartial comparison with every other ! What wonder that the representatives of all nations and kindreds were gathered to witness the grand spectacle, while the whole world waited for the appointed hour, that they might, in full accord, rejoice together over these new triumphs of the Industry of Man !

The procession, which comprised a great number of high dignitaries—princes, dukes, nobles, archbishops, ministers of state, lord mayors, foreign ministers, ambassadors and commissioners, with many noble and royal ladies in gay and jewelled attire, as, with a flourish of trumpets, it entered the Palace and with measured tread moved along the crimson-carpeted aisles of the grand avenue and nave, made a splendid and most imposing pageant.

The Queen being anxious to mark her interest in an under-

taking, in promoting which the Prince Consort had taken so active a part, in view of the impossibility of herself officiating in the opening ceremony, as in 1851, had been pleased to appoint His Royal Highness the Duke of Cambridge, His Grace the Archbishop of Canterbury, the Lord High Chancellor, the Earl of Derby, the Lord Chamberlain, Viscount Palmertson and the Speaker of the House of Commons to conduct it in her name.

The place appointed for the opening ceremonial was at the extremity of the nave, directly under the western dome, where, underneath a magnificent canopy, stood the throne and chair of state, with marble busts of the Queen and Prince Consort on either side. Here, therefore, when the procession had halted, the Duke of Cambridge took his position in the center of the dais, with the Crown Prince of Prussia on his right, Prince Oscar of Sweeden on his left, and the other chief dignitaries according to rank. The orchestra, composed of two thousand selected singers and four hundred instrumentalists, whose position was a quarter of a mile distant, beneath the eastern dome, pealed forth

"God save our glorious Queen,
Long live our noble Queen;
God save the Queen!
Send her victorious,
Happy and glorious,
Long to reign over us,
God save the Queen!"

and there was quiet. The Earl Granville, Chairman of Her Majesty's Commissioners for the Exhibition, then presented his address to the Queen's representatives, and after a response by the Duke of Cambridge, the procession moved down the grand nave to the platform in front of the orchestra. Then a grand overture by Meyerbeer, and a chorale by Dr. Sterndale Bennett to the following words by the Poet Laureate:

Uplift a thousand voices full and sweet,
In this wide hall with earth's invention stored,
And praise th' invisible, universal Lord,
Who lets once more in peace the nations meet,
Where Science, Art and Labor have outpour'd
Their myriad horns of plenty at our feet.

Oh, silent father of our Kings to be,
Mourn'd in this golden hour of jubilee,
For this, for all, we weep our thanks to thee!

For the world-compelling plan was thine,
And, lo! the long, laborious miles
Of palace; lo! the giant aisles,
Rich in model and design.
Harvest-tool and husbandry,
Loom and wheel and engin'ry,
Secrets of the sullen mine,
Steel, and gold, and corn, and wine,
Fabric rough, or fairy fine,
Sunny tokens of the Line,
Polar marvels, and a feast
Of wonder, out of the West and East,
And shapes and hues of Art divine!
All of beauty, all of use,
That one fair plannet can produce,
Brought from under every star,
Blown from over every main,
And mixt, as life is mixt with pain,
The works of peace with works of war.

And is the goal so far away?
Far, how far, no man can say,
Let us have our dream to-day.

O ye, the wise who think, the wise who reign,
From growing commerce loose her latest chain,
And let the fair white-winged peacemaker fly
To happy havens under all the sky,
And mix the seasons and the golden hours,
Till each man find his own in all men's good,
And all men work in noble brotherhood,
Breaking their mailed fleets and armed towers,
And ruling by obeying Nature's powers,
And gathering all the fruits of peace and crown'd with
all her flowers.

This was followed by a grand march by Auber, a prayer by the Bishop of London, the Hallelujah Chorus and the National Anthem, joined in most heartily by the eighty thousand joyous people present, with the waving of hats, handkerchiefs and the banners of all nations; when the procession returned to the throne, from which, in the name of the Queen, the Duke of Cambridge declared the Great Exhibiton open. Then the canon pealed their hoarse thunders to the world, and the work of inspection began.

A FIRST GENERAL SURVEY.

Before undertaking a critical examination of the myriads of objects presented and a philosophical comparison of the most

important of them—which I saw must require many weeks of severe labor—I determined first, to indulge in a rapid general survey—a *coup d'œil*—of the Exhibition as a whole, that I might better know where to begin its study and how much time to give to each country and class. And so with a plan of the building in hand, I first took a position directly under the eastern dome, looking down the grand nave toward the western.

Language is powerless to describe the magnificent spectacle. A perfect wilderness of objects of every conceivable kind! Flashing jewels, brilliantly dyed fabrics of every possible color and pattern; clouds of delicate lawns and almost invisible laces; furniture and upholsteries for the palaces of kings; glittering implements of steel, and batteries of deep-mouthed, solemn cannon; precious wares of glass and porcelain and silver and gold; hollow ware, hardware and wooden ware for every known use; trophies of iron and steel and polished brass from a thousand foundries and work-shops; towering monuments of massive mineral from the bowels of the earth, and roof-touching trophies of timber from the far-off forests of the New World or distant isles of tropical seas; all instruments of music, from the silver-throated flute to the majestic organ, standing stately and grand in this new, vast temple dedicated to the Progress of Man; while, high overhead, upon the arched and self-supporting girders of nave and transepts, the emblazoned names of all nations, colonies and principalities under heaven, made yet more effective by the gaily-flaunted banners which decorated the galleries on every side, gave assurance that here the people of every zone and clime had brought the products of their industry and genius and spread them before the world, each for the inspection of all. Add to this the hum and rattle and roar of remote machinery, the ringing of bells, the pealing of grand organs, the trampling of myriads of restless feet, and the music of eighty thousand human voices in all the babbling tongues of earth, and you have a faint conception of a *tout ensemble* at once bewildering, grand and glorious!

There, in the southeast corner tower, was America, with her little collection of staple products and curious inventions ; her few musical instruments and works of art intruding upon the extreme southern end of the eastern transept. But all else occupying that vast area of more than 18,000 square rods which lay on the east side of the transverse central avenue, together with the galleries above it and a large proportion of the eastern and more than half of the western "annexe" were the products of the

UNITED KINGDOM OF GREAT BRITAIN AND HER COLONIAL POSSESSIONS.

Immediately on my left, beneath the dome, was Victoria's trophy—a gilded pyramid six feet by six at the base and forty feet high, representing the bulk of solid gold derived from that far-off colony since the Exhibition of 1851. Before me, along the centre of the nave and in the courts prominently fronting thereon, were statues in marble and bronze, obelisks, light-houses, collections of beautiful porcelain, trophies of guns, leather, woolen fabrics and foods ; together with magnificent cases of gold and silver plate and precious stones. On my left, along the transept, were metallic screens of surpassing beauty, splendid displays of London and mediæval hardware, chimes of steel bells filling the great palace with their stirring calls to worldly activity or religious duty as the ear of the listener might interpret, with Gothic brass-work, gas-fittings, church lamps, grates of superior style, terra-cotta work, enamelled slates and marble mantels and other objects exhibited for architectural beauty at the side ; while high over all, and at the very extremity, next the American court, stood the great cathedral organ, whose solemn notes pealed out in sublime music through all the grand aisles of the temple.

On the right, stretching away to the other extremity of this same transept, and under the gallery next the eastern wall of the palace, there were, first, another great organ, then the fine timber trophies of Van Dieman's Land, New Brunswick and Canada, 90 feet high ; a shaft of coal from Nova Scotia, 30

feet in height ; a trophy of natural objects from Vancouver's Island ; minerals, agricultural products, and simple manufactures from Prince Edward's Island ; agricultural and horticultural implements, cereal grains, skins and minerals from Canada ; seeds, spices, silver filigree work and beautiful laces from Malta ; wools, spices, fibres and their rude manufactures from Ceylon's distant isle ; and tropical fruits, rum and other spirits from Jamaica, Barbadoes and Bermuda.

The eastern annexe, which, it will be borne in mind, was continuous of this transept, likewise belonged to the British department and was filled to overflowing with products of British mines and quarries and with innumerable articles manufactured therefrom—chemicals including a marvellous collection of new dyes and pigments ; animal and vegetable substances and their manufactures, including gutta-percha and India rubber goods ; wax, tallow, soaps, candles and perfumery ; agricultural and horticultural implements of every sort ; and a vast number of other machines, such as fire-engines, flouring and other mills, bread-making machinery and quartz crushers.

On the west side of the nave, (looking westward) and between it and the outer wall on Cromwell road, as far as to the central avenue, there were : first, on the outer side, a magnificent display of carriages of every style and description in the United Kingdom ; then metallic manufactures of every sort, including stoves and cooking ranges, bedsteads of iron and brass, chandeliers in *ormolu*, steel fenders, fire grates, carriage and railway springs, leathers of every sort, furs and furrier's goods, machine processes, such as chromo-lithography, copper-plate printing, bristle and cork cutting, paper collar making, medal striking, medal and chain making, silk velvet weaving, envelope folding and mechanical type-setting ; then a fine exhibition illustrative of civil engineering, including models of bridges, docks, railways and viaducts ; most interesting models in military engineering and in naval architecture, to-wit : fortifications, barracks, field and floating bridges, equipage, tents, ambulances, hospitals, cannon and small arms, shot and shell, life-boats, merchant ships and iron plated ships of war ;

then a very large and fine display of manufactures of glass, porcelain, earthen, terra-cotta and wedgewood wares, both modern and antique, and, last of all, the most brilliant array of gold and silver plate and precious metals and jewels the world ever saw.

On the opposite side of the nave, were found pianos and other musical instruments; furniture of every description, modern, mediæval and antique; and, finally, another most interesting and picturesque group of British Colonies, to-wit: The Bahamas, with seeds, woods, fibres, cotton, sponges and shells; the Ionian islands, with their fine collection of natural products and manufactured articles; Trinidad, with its asphaltum, lignite, coal, minerals, native woods, skins, fibres, oils and chemical products; New Zealand, with mineral ores, gold, sulphur, coal, woods, seeds, cereals, wool, coffee, textile fabrics, rude domestic implements and yet ruder weapons of war; Natal, with a fine collection of food substances, skins, horns, fibres, wool, woods, minerals and other specimens of natural history, and Kafir manufactures; Cape of Good Hope, made doubly hopeful by thus bringing out into the light of civilization an interesting collection of her remarkable fibres and other vegetable productions; Queensland and New South Wales with their fine display of wools, woods, cereals, gums, spices, oils, gold copper and other ores, clays, pottery and surgical instruments; the Australias, (East and West) showing the finest wheat, wool, and gold, with copper ores, preserved fruits and various manufactures; and Victoria with the products of her manufacturing industry, and her splendid trophies of wool and of gold.

In the British galleries, immediately above the colonial courts just described, was India, (including Bengal, Oude, the Punjab, Burmah, the Straits settlements and the northwestern provinces,) presenting her wonderful array of ivory, teas, oils, gums, resins, medicinal substances, clay, figures, straw manufactures, cotton, wool, hemp, silk, and brilliant manufactures of these, in the form of carpets, shawls, embroideries, velvets, and, last, but not least, her paintings and her gods! The other open galleries in the British department were occupied

by displays of paper, printing, book-binding, fabrics of wool, cotton, hemp, flax and silk, and by lace, hosiery, thread, carpets, clothing, dressing-cases, philosophical and surgical instruments, &c.; while the closed galleries, next the outer walls, on Cromwell and Exhibition roads, were devoted to what is said to have been the finest exhibition of works of art ever made by British artists.

In the central avenue, to which I have already several times referred, as being at the same time the dividing line between Great Britain and her colonies and the rest of the exhibition, and between the east and west halves of the palace proper, there were still other objects of British origin and of notable character—Durham's statue of the Queen, Jones' Greek temple, with Gibson's tinted statue of Venus, Benson's immense and wonderful clock, a statue of Shakspeare and an extensive case with a complete collection of samples of Liverpool imports being the most important.

Beyond the central avenue, I encountered the courts of

OTHER COUNTRIES.

First, upon the left of the nave, Italy, with a beautiful display of the products of her mines and her agriculture, carved woods, decorative furniture, saddlery, cases of furs, velvets, silks, straw manufactures, flowers, Florentine mosaics, bronzes, statuettes; Rome, with her splendid collection of statues, and paintings, inlaid and other mosaics, cameos and bronzes, together with a variety of textile fabrics and porcelain manufactures; Portugal, with her show of vegetable productions, wines and oils, shawls, silk and cotton fabrics, straw manufactures, corks and cork manufactures; and Spain, displaying cases of figs, olives, raisins, wines and oils, together with numerous products of her quarries and mines.

Then came the empire of brilliant, glory-loving France; occupying one grand open court more than ten times as large as these, and the most tastefully arranged and magnificent one in the whole palace, and presenting to the admiring gaze of the multitudes who thronged about her

hundreds of splendid glass cases of beautiful and costly goods, not alone a vast collection of all those numberless articles of taste and fancy in which the world has long recognized her as superior, but likewise an equally fine display of the more substantial manufactures and by far the largest and finest collection of agricultural products (of France proper and the French Colonies) of any country making exhibition.

Next in order, and next in rank also, were grouped the "States of the Zollverein," (including Prussia, Saxony, Baden, Bavaria, Brunswick, Hanover, Hesse, Nassau, Oldenburg, Wurtemberg, Mecklenberg, Schwerin and Frankfort, with some other small duchies and towns,) occupying many lesser courts and the south end of the western transept, and making a fine show of a great number of the substantial products of their numerous and various quarries and mines, as well as of their agricultural products, together with woolen, worsted, cotton and silk fabrics, fire-arms, cutlery, clocks, musical instruments, leather, earthenwares, jewelry, meerschaums and amber manufactures, printing, books and charts, and, in the transept, to the right of the throne, magnificent royal trophies, by the King of Prussia, of porcelain, of Bohemian glass, of fire arms, and of silver plate, with a noble display of paintings and other works of art of the Zollverein States in the "foreign" art gallery contiguous; and, finally, "The Hanover Towns," (Bremen, Hamburg and Lubeck,) showing basket work, carved work in wood, decorative furniture curiously made of harts' horns, friction balances and some other articles.

Passing thus to the place of the throne, and thence down the nave towards the starting point, noting the numerous fine statues, monuments, trophies and cases of precious stones by the way, until the central avenue was reached, on making a "right-about face," there, directly in front and to the right of the nave, were the several courts of the remaining countries represented, to-wit:

Costa Rica, Uruguay, Peru and Venezuela, with small collections of their native minerals, vegetable productions, skins, dried fish and wool; Brazil, making a handsome display of

minerals, gold, diamonds and other precious stones, with field and garden seeds, nuts and manufactured articles; classic Greece, with her olives, figs, raisins, cereals and manufactures; old Egypt with her brilliant and grotesque exhibition of embroidered garments, richly mounted saddlery and antiquated arms; the Ottoman Empire, showing cereals and other agricultural products, leather and leathern manufactures, carpets, embroideries and filigree work; Russia, making a noble exhibition of minerals—including magnificent malachite, gold and silver ores, and precious stones from the Ural mountains—cereals, seeds, flax, hemp, cotton, silk and wool, and their manufactures, skins and furs, leathers and leathern manufactures, gold and silver plate; Sweden and Norway, displaying Bessamer steel, iron, copper and other metals, philosophical instruments, silver ware, silks, national costumes, figures and portraits; Denmark, with earthenware, porcelain manufactures, furniture, work in silver and gold, and musical instruments; glorious, free Switzerland, making a beautiful show of watches and watch-making machinery, musical instruments, cutlery, optical and philosophical instruments, silk and velvet goods and engravings; Holland, with her agricultural products, linen and woollen fabrics, hardware, furniture, silver ware, fine diamonds, and beautiful works of art, in the gallery; Belgium, presenting minerals and agricultural products, hardware and fire-arms, textile fabrics, silks and velvets, cotton, linen and mixed goods, and in the galleries such a show of laces as she alone could offer; and last of all, in the transept, the Austrian empire, with her long oppressed dependency, the kingdom of Hungary, together showing, on the lower floor, a fine collection of cereal grains, wools, vegetable fibres, wines, wax, soaps, mineral products, including coal, sulphur and rock salt, Bohemian glass, meerschaum pipes, maps, charts, books, musical instruments, photographs, &c., and, in the galleries above, woollen, cotton and silk and linen fabrics, shawls and a great variety of articles of use and luxury.

From this point, a single step led into the great western annex, where had been reserved the grandest spectacle of all

mighty engines for land and sea, that give to man an irresistible power ; countless mills for grinding and pressing and crushing ; wonderful looms and spinning jennies, each doing the work of hundreds of human hands ; machines, too, for making every article of manufacture known to the commerce of the world ; tremendous hydraulic machinery, pouring over and over again, into vast reservoirs, floods of water, with a roar that suggested the thunders of Niagara,—all mingling their ceaseless hum and whirr, and champ, and rattle and roar with ten thousand human voices in one grand symphony, telling, as a sure prophecy, of the good time coming, when the whole human race shall have been lifted up and measurably redeemed from the drudgery of toil !

The nations represented here were few in number :—England, occupying more than half the space ; France, with a fine display ; Belgium, next in rank ; Prussia next ; then Austria, Sweden, Denmark, Italy, Switzerland, and finally, the most inconspicuous, but not the least important of all, America.

A majority of the works of art, as I have already said, had place in the great Art Gallery, which occupied the space between the two brick walls of the three exposed sides of the palace ; the aggregate length being a trifle less than half a mile. The main entrance was at the central tower on Cromwell road ; the British artists occupying all that portion to the right, and the other countries, more particularly, France, Italy, Austria, the German States and Belgium, filling that on the left of the tower. When it is remembered that the exhibition in this department was not confined to the works of living artists, but included many of the finest works by the old masters, it will at once appear how rich and magnificent an entertainment this department afforded to such as had the requisite time and culture for its study and enjoyment.

Having completed the proposed general survey of the Exhibition, as a whole, I commenced a systematic study of it by classes, comparing country with country, in each department ; to which labor I gave two full months, going usually at six or seven o'clock in the morning and retiring when the palace was closed for the night.

CLASSIFICATION.

The entire collection constituting the Exhibition may be embraced under five general divisions :

- DIVISION I. Raw Materials.
- II. Machines, Implements, Instruments and Apparatus.
- III. Textile, Felted and Laid Manufactures.
- IV. Metallic, Vitreous and Ceramic Manufactures.
- V. Works of Art.

Objects exhibited in the Industrial Departments—with which I have chiefly to deal—were divided into thirty-six head classes, some of which, for convenience of juries, were subdivided into sections ; so that the total number of classes and sections was sixty-five, to wit :

- CLASS I. Mining, Quarrying, Metallurgy and Mineral Products.
- II. Chemical Substances and Products and Pharmaceutical Processes.
 - Section a.* Chemical Products.
 - b.* Medical and Pharmaceutical Products and Processes.
- III. Substances used for Food.
 - Section a.* Agricultural Produce.
 - b.* Drysaltery, Grocery and Preparations of Food sold for consumption.
 - c.* Wines, Spirits, Beer and other drinks and Tobacco.
- IV. Animal and Vegetable Substances used in Manufactures.
 - Section a.* Oils, Fats, Wax and other Products.
 - b.* Other Animal Substances used in Manufactures.
 - c.* Vegetable substances used in Manufactures.
 - d.* Perfumery.
- V. Railway Plant, including Locomotive Engines and Carriages.
- VI. Carriages not connected with Rail or Transportation Roads.
- VII. Manufactories, Machines and Tools.
 - Section a.* Machinery employed in Spinning and Weaving.
 - b.* Machines and Tools employed in the Manufacture of Wood, Metal, &c.
- VIII. Machinery in general.
- IX. Agricultural and Horticultural Machines and Implements.
- X. Civil Engineering, Architectural and Building Contrivances.
 - Section a.* Civil Engineering and Building Contrivances.
 - b.* Sanitary Improvements and Constructions.
 - c.* Objects shown for Architectural Beauty.
- XI. Military Engineering, Armour and Accoutrements, Ordnance and small arms.
 - Section a.* Clothing and Accoutrements.
 - b.* Tents, Camp Equipages and Military Engineering.
 - c.* Arms and Ordnance.

- CLASS XII. Naval Architecture, Ships' Tackle.**
Section a. Ships for purposes of War and Commerce.
b. Boats, Barges and Vessels for amusement.
c. Ships Tackle and Rigging.
- XIII. Philosophical Instruments and processes depending on their use.**
- XIV. Photographic Apparatus and Photography.**
- XV. Horological Instruments.**
- XVI. Musical Instruments.**
- XVII. Surgical Instruments and Appliances.**
- XVIII. Cotton.**
- XIX. Flax and Hemp.**
- XX. Silk and Velvet.**
- XXI. Woolen and Worsted, including Mixed Fabrics generally.**
- XXII. Carpets.**
- XXIII. Woven, Spun, Felted, and Laid Fabrics, shown as specimens of printing and dyeing.**
- XXIV. Tapestry, Lace and Embroidery.**
- XXV. Skins, Furs, Feathers and Hair.**
Section a. Skins and Furs.
b. Leather and manufactures from Hair.
- XXVI. Leather, including Saddlery and Harness.**
Section a. Leather, and manufactures severally made of leather.
b. Saddlery, Harness.
- XXVII. Articles of Clothing.**
Section a. Hats and Caps.
b. Bonnets and general Millinery.
c. Hosiery, Gloves, and Clothing in general.
d. Boots and Shoes.
- XXVIII. Paper, Stationery, Printing and Book-binding.**
Section a. Paper, Card and Mill Board.
b. Stationery.
c. Plate, Letter press and other modes of Printing.
d. Book-binding.
- XXIX. Educational Works and Appliances.**
Section a. Books and Maps.
b. School Fittings, Furniture and Apparatus.
c. Appliances for Physical Training, including Toys and Games.
d. Specimens and Illustrations of Natural History and Physical Science.
- XXX. Furniture and Upholstery, including Paper Hangings and Papier Mache.**
Section a. Furniture and Upholstery.
b. Paper Hangings and General Decorations.
- XXXI. Iron and General Hardware.**
Section a. Iron Manufactures.
b. Manufactures in Brass and Copper.
c. Manufactures in Tin, Lead, Zinc, Pewter and General Brasiery.
- XXXII. Steel, Cutlery and Edge Tools.**
Section a. Steel Manufactures.
b. Cutlery and Edge Tools.
- XXXIII. Works in Precious Metals and their Imitations, and Jewelry.**
- XXXIV. Glass.**
Section a. Stained Glass and Glass used in Buildings and Decorations.
b. Glass for Household use and Fancy Purposes.
- XXXV. Pottery.**
- XXXVI. Dressing Cases, Despatch Boxes and Traveling Cases.**

The Fine Art Department embraced the following classes :

- CLASS XXXVII.** Architecture.
 Section a. Designs.
 b. Models.
- XXXVIII.** Painting.
 Section a. Oil Paintings.
 b. Water Color Paintings and Drawings.
- XXXIX.** Sculpture, Die-Sinking and Intaglios.
- XL.** Engraving and Etching.

The arrangement of articles in the building was not so systematic as to make it entirely convenient examining them under the classifications, though as much so, perhaps, as the construction of the building would allow.

GENERAL DISCUSSION OF THE EXHIBITION.

To make a critical discussion of these several forty classes is rendered impossible by the proper limits of this report ; and, accordingly, I content myself with such remarks upon the five general divisions of the Exhibition as have practical bearing upon the interests of this country, or as may serve to present, in a clear and concise manner, the salient characters of the exhibitions of other leading nations.

In Division I, which includes the first four classes above enumerated, the exhibition, though less attractive to the public generally, was extensive and exceedingly fine—certainly the greatest collection of the products of the quarries, mines and furnaces, forests and farms of the world ever gathered into one place. This was a most interesting circumstance, being, as it was, in harmony with the fact, thus made more palpable, of the wonderful activity in the exploration, discovery and utilization of the hidden materials designed for man's use, by which all civilized nations have been remarkably characterized during the past few years.

Experience, not content with the results of the past, has called in the aid of science ; which being thus encouraged and taxed to its utmost, has itself made a wonderful development under this new stimulation. New material has been discovered, and the old has been put to new uses. Every day new and remarkable discoveries are being made, and man is thus

just beginning to appreciate his almost total ignorance of the real resources of this wonderful world, in which, for so many generations, he has groped his way into the twilight of a morning which this active nineteenth century promises to make radiant and golden ere its close.

As might have been expected from the known variety and extent of her resources, coupled with the fact of the Exhibition being on her own ground, Great Britain led the world in the display of building stones, metallic ores, and minerals generally. This remark also applies equally to metallurgic processes and the extent to which they are practically carried on. Free-stones, granites, marbles, and other first-class building materials, which abound in many parts of the United Kingdom, were there in long array; so, also, coals from her apparently inexhaustible mines; and the metallic ores and metals proper—iron ores, pigs, castings and wrought iron, from every portion of the kingdom, and ores of lead, zinc, nickle, tin and silver—a splendid collection. Some of the exhibitions were beautifully and systematically arranged, so as to illustrate the various stages through which the ores are carried, in reducing them to a condition for use—the ore first, then the crude metal from the smelting furnace, then the refined metal, and, finally, the various implements and articles of hardware, for the manufacture of which the metal from that particular ore was found to be best adapted; these various manufactured articles being also arranged so as to illustrate the successive steps necessary in the process of manufacture.

Mining, as an art, has made great progress during the past few years—greater than during all the ages before—through the applications of geology, chemistry and the physical sciences. The questions of mode of occurrence, shafting, ventilation, drainage, and others, must long be the subjects of laborious study and patient experiment.

In the department of manufactured iron, many remarkable specimens were shown; a “double-throw” crank-shaft of 1,350 horse power, intended for Her Majesty's steam ram Northumberland, being a wonderful product of the forge. Its weight,

as it came from the hammer, was 24 tons, 10 cwt., 3 qrs. and 19 lbs.—the largest double-crank shaft ever made. Next to this the most notable thing in the way of hammered iron, and as showing the progress made in the working of metals, was a plate of iron 5 1-2 inches thick, 6 feet wide and 30 feet long.

France, Belgium, some of the German States, Sweden and Russia likewise made very fine exhibits of minerals, metallic ores and metals; those from Russia being peculiarly interesting, because of variety, beauty, and the remote and diverse quarters from which they came. From America, there was a remarkably fine group of the silver ores and cinnabar of Nevada; also a fine display, in small specimens, of gold from the Washoe mines, and a handsome cabinet of silver and copper ores from Lake Superior.

In the department of timber, the Colonial Possessions of Great Britain excelled all other exhibitors; showing a vast number of varieties from every quarter of the habitable globe.

In the department of chemical substances and products, it is, perhaps, difficult to say which is, to-day, doing the most, England or France. The finest exhibition, however was English, and a magnificent one it was, particularly in the way of dye-stuffs and pigments, of which the exhibition exceeded any heretofore made. Many of them are of very recent origin; as, for example, the derivatives from coal. The world has been familiar with stone coal for many generations, and thinking men have marvelled at the inexhaustible stores of it in those parts of the earth where it seems to be most needed for the production of heat and the generation of steam; but who could have dreamed, twenty years ago, that out of that black, shapeless mass, which men quarry from the depths of the earth and sell for a few shillings a ton, should come, obedient to the magic wand of science, all manner of snow-white oils, a host of substances that, as yet, defy all rules of classification, and, stranger than all, a multitude of such delicate, brilliant and altogether incomparable colors as the mauve and magenta of to-day?

Food substances were shown in by far the largest quantity

and in much the most attractive form by France. Next, by Austria, and next by Russia. Nearly every country from the islands of the Southern ocean to the Arctic sea, brought wheat—Australia the best, (69 lbs. per bushel). Prussia showed the best barley, (69 lbs.); Austria and Prussia the best rye; Tasmania the best oats, (51 lbs. 10 oz.); America the best Indian Corn.

In the way of prepared food, Austria furnished the best flour, England the best cheese, Italy the best preparations of wheat flour, such as vermicelli, &c., the United States the best corn flour ("Maizeni").

Of fibres there were fine collections from nearly all countries; some of the British colonies, showing several quite new varieties that promise to be useful. Russian hemp, Saxon wool, American cotton and French silk were entitled to rank first among the numerous exhibitions of textile fibres.

Division II, including Machinery and all else from class 5 to 17 inclusive, was the most magnificent of all, especially to the American, because it is therein that we promise to outstrip the world.

Here, also, all in all, England, at present, ranks foremost, though compelled to acknowledge that in some of the most useful inventions of the age, she is herself borrower. Her claim to superiority in class 8 is alone sure of being allowed. For in classes 5, 6, 7, 9, 14 and 16, America is unquestionably superior in ability, though not in the extent of her accomplishment; and in some of the remaining classes of the division, France is at least a rival contestant, if not an acknowledged superior.

Particularization is, of course, out of the question. Nevertheless, I cannot omit mention of the fact, that one of the most, if not the most, valuable inventions brought to the notice of the world was a loom, shown by the inventor, Mr. A. Smith, of West Farms, New York. It is intended for weaving the Axminster carpets or any other tufted or pile fabric which requires cutting and is produced from a pattern. Unlike the Jacquard,

or the old draw loom, the pattern designed is formed by the arrangement of spools, which are suspended over the machine, to the number of 270. These produce a pattern the whole width of the material and one and a half yards long; and at every throw of the shuttle, a piece of mechanism rises up, like so many fingers, catches hold of the threads and weaves them in. A knife then passes swiftly over it and cuts off the tufts to any length required. Any design can be woven on it in parts, which, when united, will have the appearance of being woven in one piece. This loom received great attention from scientific men and practical manufacturers and was probably the most remarkable new machine on exhibition. The London *Mechanics' Magazine* spoke of it as destined to achieve great results, and Earl Granville, Chairman of the Royal Commission, who is well acquainted with weaving operations, said it was "perhaps the most useful invention produced within the past several years—itself an honor to America if she had sent nothing else to the Exhibition."

American reapers, cork-cutters, rope-makers, sewing, washing, milking and boot-making machines, likewise attracted great attention, as well as many other curious and valuable inventions, after the foreign public had recovered from the first feeling of disappointment and contempt for us, because of the meagreness of our display; so that, after a while, the London *Times* was gracious enough to speak of them even in terms of enthusiasm, saying, among other things, that "after the models and gigantic engines in the western annexe, the very ingenious, small, hand labor-saving machines in the American court, which approach the inspirations of genius, in the simple means by which their great results are effected, are most looked after, and are worthy of a more extended notice than they have yet received from the mass of visitors."

A model life-boat by Dr. I Schott, and a rotary harrow by Orman Coe, both of Port Washington, Wisconsin, were worthy of attention, and especially deserving of mention in this report, as being the only exhibits from Wisconsin.

As to musical instruments, it is an occasion for congratula-

tion that Messrs. Steinway & Sons have beaten the world, after a protracted and stubborn contest.

In Division III, including all textile, felted and laid manufactures, there was perhaps a more equal division of honors among the leading European nations than in any other one of the five; England ranking first in cotton fabrics, France in silks and fine woolen and worsted goods, England, Austria, Prussia, Belgium and Saxony in the coarser woollens and other fabrics, and Ireland and Belgium in linens; while, in the way of fine felts, the most delicate tissues, laces, embroideries, laid manufactures and a thousand articles of luxury, France is still incomparable.

Improvement in no branch of the arts has been more marked, during the past ten years, than in dyeing, and the presumption is, that ten years more will show wonderful progress in the manufacture of all sorts of dyed and printed fabrics. In this division, America, though far behind, as yet, is nevertheless making rapid progress. Already her cottons appear at home in the midst of England's best. The only exhibition of printed fabrics, however, was by the Manchester Print Works, to whose enterprising proprietors was awarded a medal.

In Division IV, (metallic, vitreous and ceramic manufactures,) the display was no less magnificent. England had pre-eminence, of course, in the whole branch of metallic manufactures, her exhibition of manufactures of iron, steel, brass and general hardware being beyond all competition. She also held high rank in the quality of her work in the precious metals, as did, also, Prussia, Denmark and Russia. But for beauty of design artistic execution, and telling effect, as well as in the quality of the material used in the manufacture of fine jewelry, France was no less peerless. Her exhibition of cheap imitations of jewelry and precious stones was very extraordinary, almost marking an era in the production of cheap and beautiful ornaments for the million.

The palm for superiority in the line of vitreous and ceramic

manufactures may be said to have been handsomely contested by England and France; Bohemia coming in, of course, for honors in her peculiar branch of glass manufactures. In the heavier and more substantial class of wares, England undoubtedly had precedence; while, in the class of delicate and exquisitely beautiful wares, remarkable no less for design than for execution, her rival across the channel held pre-eminence.

Division V affords a vast field for comment, but must be content with a mere passing notice, in view of the extent to which this report has already been carried.

With the rank that different nations hold in the department of Fine Arts the world is already familiar. It is needful, therefore, in this place, merely to mark such notable instances of progress on the part of a nation or nations as especially characterize this period.

There is a natural order in the development of a nation of which no degree of intellectuality of its people can give it independence. This law of progress is such that Art, which is a product of the highest culture—a kind of blossoming, as of a century plant, after long years of preparatory life—develops late, if not latest. In this view, it is remarkable that America, latest born of all the nationalities, and up to this time so thoroughly occupied with the rougher work of clearing up a new continent, should have been able, thus early, to challenge the oldest to a trial of skill in the fields of artistic genius.

It is nevertheless true, and was so admitted by thousands of the best judges of many of the nationalities, that some of the finest works in this department were from American hands—and this, although her more widely distinguished artists were not represented. Cropsey's "Autumn on the Hudson" and Storey's beautiful marble statue of Cleopatra would have been an honor to any nation in any age; and, had prizes been awarded in this department at all, golden honors would, beyond a doubt, have fallen upon these magnificent works.

CONSTITUTION OF JURIES.

The juries consisted of the nominees of the foreign com-

missioners, with the addition of a certain number of British and colonial jurors; the whole number of juries corresponding to the number of the industrial classes and sections, in which alone awards were to be made; and the number of members ranging from 5 to 18, according to the importance, difficulty or complexity of the class. Each class jury had its chairman, (appointed by the Royal Commission,) and these chairmen together, constituted a Council with supervisory control. Assistants and experts could be called to the aid of any jury when needed.

THE RULES GOVERNING THE ACTION OF JURORS

were just and reasonable; evincing an honorable purpose on the part of both Royal Commission and Council to ensure impartial and correct awards. The following is the substance or some of the more important:

Medals to be awarded without reference to nationality.

All medals of one kind, without gradations, and to be awarded for merit, without any distinction of degree and without reference to competition between producers.

Medals in the division of Raw Materials to be awarded for novelty in the mode of obtaining, applying and adapting raw materials and produce; for skill and excellence in known methods of obtaining, applying or adapting them; for excellence in the qualities obtained, combined with utility; for the value of the instructions of any series exhibited.

Machinery to be rewarded on the basis of fitness for the object sought to be obtained, economy in first cost, durability, economy in maintenance, and excellence of workmanship.

Carriages for transport and for the public service to be rewarded on the basis of lightness, with sufficient solidity for safety, durability, and cheapness; those of luxury, to be considered with reference to the successful application of any new material, with elegance of design and excellence of workmanship, strength, lightness and reasonable cheapness.

Agricultural and Horticultural Implements to be rewarded on the conditions commonly adopted by the leading agricultural societies in making their awards.

Civil Engineering, Architectural and Building Contrivances to be considered with reference to science and skill, with economy; fitness in the application of materials; success in the work in which the drawing a model is executed, perfection of workmanship in the model and drawing exhibited.

Military Engineering, &c., and Naval Architecture to be rewarded on account of meritorious combination in the models or drawings; advantages obtained by experiments in carrying out the means proposed; actual improvements in design, marked by fitness, efficiency and economy of production.

Philosophical Instruments, for novelty of invention, ingenuity of construction; new application of old principles; application of new principles; improvements in beauty of form; increased durability; extended applications; excellence and precision in workmanship, and economy of production.

Photography to be rewarded on the same conditions as attached to philosophical apparatus. Photographic impressions, for novelties in the mode of

production, durability, excellence in the results obtained, and artistic merit. Photographic materials, for novelty or new applications, increased sensitiveness, or powers of retention, and facilities of operating.

Jury on Horological Instruments to take into account accuracy and certainty, stability, strength, durability, simplicity, economy and goodness of execution; finish to be subordinate.

Jury on Musical Instruments to consider novelty of invention, novel application of old inventions, improvement of mechanical action, tune, perfection of workmanship, beauty of design combined with general excellence, increased facility of action, cheapness combined with durability.

Surgical instruments to be considered with regard to novelty of a useful character, ingenuity in the application, extension or modification of principles already known, or for new combinations, mechanical skill, including cheapness and finish.

Juries on Textile Fabrics and Classes XVIII to XXX, inclusive, to make their awards on the basis of increased usefulness, such as permanency of dyes, improved forms and arrangements, superior quality or skill in workmanship, new use of known materials, use of new materials, new combinations of materials, beauty of design in form or color, or both, with reference to utility, cheapness, relating to excellence of production.

Metallic, Vitreous and Ceramic Manufactures to be rewarded on the ground of inventions or discoveries as to economy, increase or perfection of production, regularity of manufactures, combined with excellence of design, novel application of known discoveries, increased utility, combined with novelty and beauty, excellence of workmanship and quality.

THE HIGH CHARACTER OF THE JURIES

has been an occasion of universal remark. The principle of selection, on the nomination by exhibitors, was calculated to secure the most competent men present from the different countries in the first place, and the freedom with which juries were allowed to call in the aid of experts, together with the length of time granted them for their examinations and the preparation of their reports, furnished a further guaranty of correctness in the final awards, in which, I believe, the acquiescence of exhibitors and public was very general and cordial.

THE PRESENTATION OF AWARDS,

which took place on the 12th day of July, was made the occasion for another splendid state ceremonial. The juries had labored with faithfulness and unflagging zeal for two and a half months, and had reported their decisions to the Royal Commission; hundreds of thousands of people, including great numbers of the most intelligent representatives of all lands, had also made their examinations and pronounced their unofficial verdict; the twenty-five thousand exhibitors, some of whom had spent years of thought and labor in making

preparation for this test of their powers, and had come from both hemispheres to submit the products of their industry and genius to the inspection of the world, and all of whom were there at sacrifice of time and means and at risk of reputation, were waiting with intense anxiety for the hour that should reveal their success or defeat.

The great day at last came. Nothing had been spared by the executive to make the arrangements perfect. Indeed, two schemes or programmes had been prepared—one for fair weather and the other for wet—so that there could be no surprise from the elements! Once again, however, Providence favored London with sunny skies and a balmy atmosphere. The weather was perfect, and the ceremonial could be held in the beautiful gardens of the Royal Society; where, at an early hour, the throne was placed, surrounded by an immense platform for the Royal Commission, the council, the juries, the court representatives of foreign countries and the large number of distinguished guests, and where, long before ten o'clock, tens of thousands of eager spectators had gathered—thousands along the avenues of approach, thousands about the throne, and multitudes composing gay and fantastic groups about the reservoirs and fountains. And yet countless thousands still poured into the palace from every avenue and entrance, until it seemed that all London and the rest of the world were coming. Bands of music in every quarter—in the palace everywhere, in the music houses, in the terraces, and on the lawns—each playing its own airs for the enjoyment of its own group or admirers, and yet sufficiently remote from every other to interfere with none. Cheers went up on the arrival of each of the royal guests at the entrance to the conservatory, where already the groups of nobles, dukes and princes was large and brilliant; until finally the procession of nearly 700 jurors and councillors, some in academic and some in court costume, radiant with gold lace and bullion, and a few in the plain, simple dress of the American citizen, headed by the band of the Royal Engineers, passed from the palace into the gardens, and by a graceful sweep made its way

to the front of the throne; upon which, in due time, appeared His Royal Highness the Duke of Cambridge, attended by their royal highnesses, the Pasha of Egypt, Prince Carignan of Italy, Prince Hermann of Saxe-Weimer Eisenach, and a great number of court personages of high rank and reputation, including members of the British Houses of Parliament, and the ministers from all foreign countries at the court of St. James.

After the cheering of the brilliant *cortege* had died away, Lord Granville, accompanied by his brother commissioners, advanced in front of the throne and addressed the international guests as follows:

"I have the pleasure of welcoming, on the part of Her Majesty's Commissioners for the International Exhibition, the distinguished representatives of foreign nations, who honor us by taking part in the proceedings of this day. The readiness with which the governments of foreign countries have responded to the invitation of the English government is highly appreciated by the people of this country. I have now to request that the special representatives will receive the report of the Council of Chairmen of Juries. The awards will then be delivered to Her Majesty's Commissioners. We wish the assistance of the special representatives to make known the awards in the building, as it will be agreeable to the exhibitors from the several countries to learn from a distinguished representative of their own nation the appreciation by the juries of their successful labors. In passing through the building the special representatives will not fail to observe that the industry of all nations has shown a remarkable development since the last international exhibition—a development which, justifying the anticipation of an illustrious Prince, now, alas! no more, owes much to the facility given by such exhibitions for comparing the state of industry in each country, and affords a starting point for further progress."

Lord Taunton, as President of the Council of Juries, then read the following highly interesting report:

"The work of the several juries having been brought to a termination, it becomes the duty of the council of chairmen to explain the manner in which the juries were constituted, and the result of their labours.

The juries consisted of English and Foreign members in varying proportions. The English jurors were in the first place nominated by exhibitors, and these nominations having been carefully considered, Her Majesty's Commissioners invariably appointed such persons as appeared to be named by the general agreement of a trade or district. In cases where the nominations were not made on a common understanding, the Royal Commissioners were guided in their choice by the number of votes given to particular individuals, and, in some instances, by the desire expressed by exhibitors that the commissioners should themselves select persons possessing the necessary qualifications.

The British Colonies were represented by jurors recommended by the several colonial commissioners.

Foreign nations taking part in the Exhibition had a right to nominate one juror for every class in which they were represented by 20 exhibitors, and for every section of a class in which they had 15 exhibitors. As an alternative,

each nation had a certain number of jurors allotted to it, in proportion to the space which it occupied in the building, and several countries accepted this alternative. Her Majesty's Commissioners, without fixing any arbitrary proportion between Foreign and English jurors, appointed as many of the latter to the jury as the experience of past Exhibitions showed to be necessary for its efficiency.

The juries were 65 in number, grouped so as to form 36 classes or head juries, corresponding to the 36 industrial classes under which the objects are arranged in the Exhibition. Each of these head juries, when subdivided into sections, acted as a united body for the confirmation of awards. Before, however, these awards were considered final, they were brought before and received the sanction of a council, consisting of the chairmen of the 36 head juries. The chairmen, forming the council which regulated the affairs of the juries, were nominated by Her Majesty's Commissioners from the jurors of different nations, a number being allotted to each country relatively to the space assigned to it in the building. The council was presided over by a chairman appointed by Her Majesty's Commissioners.

Her Majesty's Commissioners decided that only one description of medal should be awarded by the juries. This decision considerably facilitated their labours, as it became necessary only to reward excellence wherever it was found, without reference to competition between exhibitors. As the work of the juries advanced, it was ascertained that many articles possessed excellence of a kind which deserved a special mention, without, however, entitling them to a medal; and although it involved some departure from the principle that had been originally laid down, yet the council of chairmen acceded to the wish of the juries, and permitted such cases to be classed and published under the title of "Honourable Mentions."

The jurors and their associates engaged in examining the objects of the Exhibition amounted to 612 persons, of whom 287 were foreigners, and 325 English. They are men of high social, scientific, and industrial position, drawn from nearly every civilized country in the world. Their labours have occupied two months, and have been of the most arduous description, as they had to examine the objects displayed by at least 25,000 exhibitors. It can scarcely be expected that none of the articles exhibited have escaped their attention. In a few instances the delay of arrival or of arrangement has rendered it impossible for the juries to examine every article now within the building; while, in other cases, errors in classification have rendered it doubtful to which of the juries the duty of examining some particular object should fall. Every effort, however, has been made to conquer these obstacles, and the omissions, if any, must be very few in number, and are not owing to the want of attention of the juries or of the officers engaged in facilitating their work.

The number of medals voted by the juries amount to nearly 7,000, and the honourable mentions to about 5,300. The proportion of awards to exhibitors is greater than in the International Exhibition of 1851, but less than in that of 1855.

Notwithstanding the varied nationalities represented in the juries, it is gratifying to record that the utmost harmony has prevailed during the whole time that the jurors have been associated in their labours. The mutual dependence and intimate alliance between the industries of the world have been illustrated by the zealous and impartial efforts of the jurors of different nations to recognise and reward the merit displayed in the exhibitions of their industrial competitors.

We are glad to observe that the state of industry, as shown in the International Exhibition, gives evidence of a singularly active and healthy progress throughout the civilized world; for while we find every nation searching for new raw materials or utilizing products hitherto considered as waste, we are struck especially with the vast improvement in the machinery employed to adapt them to industrial purposes, as well as with the applications of science, and with the great and successful attention which is now given to all the arts necessary to gratify our taste and sense of beauty.

We cannot conclude this report without expressing our obligations to Dr.

Lyon Playfair, the special commissioner for juries, for the constant and intelligent assistance which he has rendered to us throughout our labours, as well as to the deputy commissioners and secretary, who have acted under his direction, and have afforded efficient aid to the several juries during their inquiries."

During this part of the ceremonial, thousands of persons interested in the awards to the several nations, had stationed themselves as near as possible to the beautifully decorated national trophies which had been erected along the nave, in front of the exhibition courts of their respective countries, in order to witness the delivery of the awards; and at the conclusion of Lord Taunton's report the procession re-formed, with the Duke of Cambridge and the foreign ministers or other special representatives who were to deliver the awards to the presidents of the various national commissions, at its head, and entered the building at the northern annexe; passing, after the delivery of the awards on food substances, agricultural implements, minerals, &c., there exhibited, to the dais beneath the eastern dome, where were assembled, in a most interesting group, the many representatives of England's far off colonies.

Here there was, of necessity, a protracted halt, but one which the entire vast multitude, who thronged the transept, far-reaching nave, and long lines of galleries, very greatly enjoyed. It was a beautiful and noble spectacle that held them one moment enchained, and then drew forth most glad and vociferous cheers. It was Victoria, Queen of the little sea-girt isle, calling about her the proud representatives of more than a score of flourishing colonies, to reward them as her children for their fidelity to her interests, for their contributions to the progress and glory of her empire, and, more than all, for helping to plant the standard of civilization and of civil and religious liberty in every quarter of the globe! One by one, those colonies had been begun by here a handful and there a handful of resolute, ambitious, brave and heroic pioneers, and the work of organization and development pushed forward until some of them had grown to be strong and vigorous nations; and now, all together, from the bleak Atlantic coast of the North American continent—from the valley

of the St. Lawrence and the basin of the great lakes—from the more northern, yet more sunny climes on the Pacific coast—from the tropic isles of the Caribbean Sea and the late savage islands of the Pacific, Indian and Southern oceans—from the extreme limit of the African continent, and from Old Asia, cradle of the human race,—from every continent and every sea they were come, bearing with them the trophies of their labor and laying them all at her feet, meet tribute to her and to him with whom originated these peaceful gatherings of the nations, fit offering upon the altar of a common glorious empire !

The delivery to the colonies completed, the procession moved down the steps from the dais into the middle of the grand nave ; the Duke Cambridge, through the ministers of the various countries at the British court, delivering to the president of the commission of each country the awards to which they were respectively entitled. The scene all the way down was a magnificent one, and truly international ; the representative citizens of different countries seeming to vie with each other in the enthusiasm of their cheers, as one representative after another received the awards to which his countrymen were entitled. Many exceedingly interesting incidents occurred at the various courts, but the limits and objects of this report will not permit their recital.

The awards to American exhibitors were delivered by Minister Adams and received by Col. B. P. Johnson, U. S. Commissioner.

From the nave the procession moved down the western transept, through the machinery annexe, where other awards were delivered, and thence into the garden, and back again to the throne, where the programme of this, the second grand *fete*, was concluded by an exceedingly fine and spirited performance by all the bands, of " God save the Queen ! "

AWARDS TO THE DIFFERENT COUNTRIES.

The entire list of awards, as published by the Royal Commissioners, makes an imperial octavo volume of 460 pages. By a comparison of the published list of entries with this vol-

ume of awards, I have been enabled to make the following synopsis of the number of entries made and the proportion of medals won by some of the leading nations represented :

Great Britain made 6,965 entries, and won 1,640 medals, or one for every 4.24 entries.

The British colonies made 3,245 entries, and won 768 medals, or one for every 4.22 entries.

France made 3,636 entries, and won 1,381 medals, or one for every 2.63 entries.

Zollverein States made 2,875 entries, and won 705 medals, or one for every 4.07 entries.

Italy made 2,070 entries, and won 327 medals, or one for every 6.33 entries.

Austria made 1,410 entries, and won 490 medals, or one for every 2.84 entries.

Spain made 1,133 entries, and won 120 medals, or one for every 9.44 entries.

Belgium made 862 entries, and won 239 medals, or one for every 3.6 entries.

Turkey made 787 entries, and won 176 medals, or one for every 3.37 entries.

Russia made 729 entries, and won 152 medals, or one for every 4.43 entries.

United States made 113 entries, and won 57 medals, or one for every 1.98 entries.

The total of awards to the American department including "honorable mentions," was eighty-seven—a much larger proportion than was received by any other nation.

But mere awards, whether of medals and honorable mentions, or of medals alone—which is the better test—do not decide the real merit of the exhibition or any part of it; we must also know upon what *classes* of articles those honors were conferred. To meet, to some extent, this demand, the following tabulated synopsis is presented :

TABLE showing the number of Medals awarded, in the several Industrial Classes, to some of the Leading Countries represented at the International Exhibition of 1862.

No. of class.	Titles of Industrial Classes.	Great Britain.	B. Colonies.	France.	Zollverein States.	Italy.	Austria.	Spain.	Belgium.	Turkey.	Russia.	America.
I	Mining, Quarrying, Metallurgy and Mineral Products.....	86	66	34	41	21	30	7	12	..	12	..
II	Chemical Substances and Products and Pharmaceutical Processes:											
	<i>Sec. a.</i> Chemical Products..	68	14	62	43	10	26	6	11	7	..	5
	<i>b.</i> Med. and Pharm. Products and Processes	8	1	8	6	..	1	..	..	..	..	1
III	Substances used for food:											
	<i>Sec. a.</i> Agricultural Products	13	76	86	16	17	26	21	12	6	21	2
	<i>b.</i> Preparations of Food as sold for consumption.....	30	65	106	13	40	30	2	4	2	5	..
	<i>c.</i> Wines, Spirits, Beer, &c., and Tobacco..	9	92	91	71	40	56	21	8	8	13	..
IV	Animal and Vegetable Substances used in Manufactures:											
	<i>Sec. a.</i> Oils, Fats, Wax and their Products	19	7	25	10	9	10	8	8	..	3	1
	<i>b.</i> Other Animal Substances used in Manufactures	25	61	58	15	..	14	3	2	..	..	..
	<i>c.</i> Vegetable Substances used in Manufactures	45	244	112	35	42	63	2	14	28	27	..
	<i>d.</i> Perfumery.....	10	6	17	..	3	..	1	2	3	..	..
V	Railway Plant, including Locomotives and Carriages.....	15	1	5	6	1	3	..	3	..	..	..
VI	Carriages not connected with Rail or Tram Roads.....	23	..	5	2	..	..	..	1	..	2	2
VII	Manufacturing Machines & Tools:											
	<i>Sec. a.</i> Machinery employed in Spinning & Weaving.....	19	..	10	1	2	..	..	3	..	..	6
	<i>b.</i> Machines, &c., used in Working Wood & Metal.....	42	..	24	12	1	2	..	4	..	..	..
VIII	Machinery in general.....	67	2	29	13	..	3	..	6	..	..	20
IX	Agricultural and Horticultural Machines and Implements.....	47	9	11	2	6	4	..	..	..	1	6
X	Civil Engineering, Agricultural & Building Contrivances:											
	<i>Sec. a.</i> Civil Engineering & Building Contrivances.....	29	5	32	10	4	8	..	1	..	1	..
	<i>b.</i> Sanitary Improvements and Constructions..	10	6	6	..	..	3	..	4	..	1	..
	<i>c.</i> Objects shown for Architectural Beauty..	22	3	14	6	6	1	1	7	..	3	..

Table showing the number of Medals awarded, &c.—continued.

No. of class.	Titles of Industrial Classes.	Great Britain.	B. Colonies.	France.	Zollverein States.	Italy.	Austria.	Spain.	Belgium.	Turkey.	Russia.	America.
XI	Military Engineering, Armor, &c., Ordnance and Small Arms: Secs. a & b. Clothing and Accoutrements, Tents, &c., and Military Engineering	10	...	4	...	...	1	...	1	...	...	...
	c. Arms and Ordnance	28	...	14	6	6	1	1	7	...	3	1
XII	Naval Architecture, Ships, Tackle, &c.: Sec. a. Ships for War or Commerce	15	...	1	...	...	...	...	...	...	...	...
	b & c. Life Boats, &c., Ship's Tackle	17	4	6	...	...	...	...	...	...	2	1
XIII	Philosophical Instruments & Processes depending on their use	51	...	25	15	3	4	...	2	...	...	1
XIV	Photography and Photographic Apparatus	26	7	32	7	1	4	...	1	...	1	...
XV	Horological Instruments	36	...	19	11	...	3	...	...	...	...	...
XVI	Musical Instruments	27	...	34	21	2	13	...	6	...	...	3
XVII	Surgical Instruments	32	...	20	3	1	5	...	...	...	1	1
XVIII	Cotton	32	7	23	16	3	8	...	4	...	2	...
XIX	Flax and Hemp	34	...	10	22	4	8	...	11	...	...	...
XX	Silk and Velvet	33	...	80	14	38	9	3	...	8	5	...
XXI	Woolen and Worsted, including Mixed Fabrics generally	83	5	74	35	...	26	5	15	...	7	6
XXII	Carpets	14	8	9	2	...	1	...	4	4	...	...
XXIII	Woven, Spun, Felted & Laid Fabrics, shown as Specimens of Dyeing and Printing	19	2	37	11	1	8	2	3	...	2	1
XXIV	Tapestry, Lace and Manufactures	32	9	40	6	2	...	3	...	3	4	...
XXV	Furs, Feathers and Hair: Sec. a. Skins and Furs	9	5	2	2	...	1	...	1	1	8	...
	b. Feathers and Manufactures from Hair	9	...	5	2	...	1	...	1	...	...	...
XXVI	Leather, Saddlery and Harness: Sec. a. Leather	21	2	23	23	4	5	...	8	...	5	...
	b. Saddlery and Harness	24	2	2	1	...	1	1	...	...	...	...
XXVII	Articles of Clothing: Sec. a. Hats and Caps	5	...	5	2	1	3	2	2	...	2	...
	b. Bonnets & Millinery	3	2	10	2	3	1	1	...	...	...	...
	c. Hosiery, Gloves and Clothing	20	...	37	10	2	13	2	4	5	1	...
	d. Boots and Shoes	25	5	12	5	...	6	1	2	4	4	...
XXVIII	Paper, Printing and Bookbinding: Sec. a. Paper, Cards & Mill-board	6	...	10	13	2	3	...	...	...	...	3
	b. Stationery	31	1	11	18	...	3	...	3	...	...	...
	c. Plate, Letter Press and other modes of Printing	33	...	29	17	3	5	...	2	...	...	...
	d. Bookbinding	12	4	11	2	3	3	...	1	...	1	...

Table showing the number of Medals awarded, &c.—concluded.

No. of Class.	Titles of Industrial Classes.	Great Britain.	B. Colonies.	France.	Zollverein States.	Italy.	Austria.	Spain.	Belgium.	Turkey.	Russia.	America.
XXIX	Educational Works and Appliances	76	30	70	20	19	23	..	4	..	1	..
XXX	Furniture, Upholstery, Paper-hanging, Papier Mache	39	5	36	9	13	6	1	5	..	3	..
XXXI	Hardware:											
	<i>Sec. a.</i> Manufactures in Iron	96	1	37	48	..	20	..	4	..	3	..
	<i>b.</i> Manufactures in Brass and Copper.....	23	..	44	7	..	..	..	3	..	..	..
	<i>c.</i> Manufactures in Tin, Lead, Zinc & Pewter	5	..	..	..	..	1	..	1	..	..	..
XXII	Steel:											
	<i>Sec. a.</i> Steel Manufactures..	21	..	..	2	..	..	..	..	..	..	..
	<i>b.</i> Cutlery & Edge Tools	31	2	16	11	2	6	..	2	..	..	2
XXXIII	Works in precious Metals, their imitations, and Jewelry	26	10	35	16	6	8	1	..	..	4	..
XXXIV	Glass:											
	<i>Sec. a.</i> Stained Glass & Glass for decoration.....	8	..	11	2	3	..	..	7	..	..	..
	<i>b.</i> Glass for household use and fancy purposes	9	..	11	3	1	7	..	..	..	1	..
XXXV	Pottery.....	19	..	14	6	2	2	1	1	..	1	..
XXXVI	Dressing Cases, Despatch Boxes and Travelling Cases.....	8	..	7	3	..	4	..	..	..	2	..

Here we have the data for a most interesting study of the nations, industrially considered.

The following is a complete list, by classification, of

AMERICAN EXHIBITS TO WHICH PRIZES WERE AWARDED:

CLASS I. MINING, MINERALS, &c.

Thomas Meads, Lake Superior, cabinet copper and silver ore....	Hon. Men.
New Jersey Zinc Company, Spiegel iron produced from Frank- linite	Hon. Men.
J. Morsheimer, Commissioner from Nevada Territory, silver and gold ores, &c., from the celebrated Washoe mines.....	Hon. Men.

CLASS II. CHEMICAL SUBSTANCES, &c.

F. S. Pease, Buffalo, N. Y., refined petroleum and lubricating oils, &c.....	Medal.
Glen Cove Starch Co., New York, samples starch, &c.....	Medal.
Kingsford, Oswego, N. Y., silver starch.....	Medal.
H. G. Hotchkiss, Lyons, N. Y., wintergreen oil	Medal.

Alfred Hall, Lyons, N. Y., oil peppermint..... Hon. Men.
 Section B, Philadelphia College of Pharmacy, American vegetable
 drugs, &c..... Medal.

CLASS III. SUBSTANCES USED AS FOOD, &C.

Hecker Bros., N. Y., superior wheaten flour..... Medal.
 Stebbins & Co., Rochester, N. Y., barrel superior flour..... Hon. Men.
 Glen Cove Starch Co., N. Y., samples corn flour called "Maizena" Medal.
 J. Waddell, Springfield, Ohio..... Hon. Men.

CLASS IV. ANIMAL AND VEGETABLE SUBSTANCES USED IN MANUFACTURES.

F. S. Pease, Buffalo, N. Y., collection of oils, chiefly animal..... Medal.
 Section A.—R. A. Tilghman, Philadelphia, fatty acids from aqueous
 saponification..... Medal.

CLASS V. RAILROAD PLANT, &C.

No Exhibitors.

CLASS VI. CARRIAGES NOT CONNECTED WITH RAILROAD OR TRAM ROADS.

Brewster & Co., New York, phaeton..... Medal.
 Blanchard & Brown, Springfield, Ohio, wooden wheel, spokes ma-
 chine-made..... Medal.

CLASS VII. MANUFACTURING MACHINES AND TOOLS.

Wheeler & Wilson, New York, sewing machines..... Medal.
 A. Howe, New York, sewing machines..... Medal.
 I. M. Singer, New York, sewing machines..... Hon. Men.
 Wilcox & Gibbs, New York, sewing machines..... Hon. Men.
 C. R. Goodwin, by Bigelow, Boston, sewing machines..... Hon. Men.
 Alexander Smith, West Farms, N. Y., power loom for weaving
 tufted fabrics..... Medal.
 Sanford & Mallory, N. Y., flax and fiber dressing machine..... Hon. Men.
 G. H. Sanborn, cord and rope making machinery..... Hon. Men.
 W. D. Richards, improved boot and shoe machinery..... Medal.
 P. H. Wemple, Albany, N. Y., machine for boring slats, blinds,
 &c..... Hon. Men.
 Blake & Bros., New Haven, Conn., stone-breaking machine..... Medal.
 Fred. Otto Degner, New York, printing press..... Hon. Men.
 Edward Conroy, Boston, cork-cutting machine..... Medal.

CLASS VIII. MACHINERY IN GENERAL.

F. E. Sickles, New York, steam steering apparatus..... Medal.
 John H. Allen, New York, horizontal iron condensing engine.... Medal.
 W. D. Andrews, centrifugal pump and engines..... Medal.
 Capt. John Ericsson, New York, caloric hot-air engine..... Medal.
 A. G. Gibson, improved carriage coupling..... Medal.
 John C. Gore, Jamaica Plains, Mass., belt shifter..... Medal.
 C. L. Goddard, New York, mestizo burring picker..... Medal.
 T. Hansbrow, California, pumps..... Medal.
 Kershaw & Colvin, Philadelphia, cow milker..... Medal.
 Lee & Larned, New York, steam fire engine..... Medal.
 C. Near, N. Y., self-registering dynamometer..... Medal.
 D. Parker, Canterbury, New Hampshire, washing machine..... Medal.
 Brothers Peasant, Ericsson's hot air engine..... Medal.
 C. T. Porter, Auburn, N. Y., invention of governors..... Medal.
 Richards, Hartford, Conn., exhibited by C. T. Porter, indicator
 for engines, &c..... Medal.
 J. Ross, Rochester, N. Y., conical burrstone mills..... Medal.
 Henry Steel, Jersey City, steam pump..... Medal.

S. Wilcox, jr., Rhode Island, hot-air engine.....	Hon. Men.
John Dickenson, diamond mill-dresser.....	Hon. Men.
J. J. Eckel, N. Y., combination press and corn presser for cotton, hay, &c.....	Hon. Men.
A. M. Foote, New York, a lock umbrella stand.....	Hon. Men.
H. H. Parker, ratchet drill.....	Hon. Men.
——— Walcott, button-hole cutter.....	Hon. Men.
Walker & Effenstein, portable mineral and soda water apparatus.	Hon. Men.
Wentworth & Jarvis, windmill, water elevator and regulating power.....	Hon. Men.

CLASS IX. AGRICULTURAL AND HORTICULTURAL MACHINES, &C.

Cyrus H. McCormick, Chicago, Ill., reaper and hay raker.....	Medal.
Walter A. Wood, Hoosick Falls, N. Y., reaper and mowing ma- chine and grass mower.....	Medal.
Russell & Tremain, Fayetteville, N. Y., reaper and mowing ma- chine.....	Hon. Men.
Kirby & Osborn, Auburn, N. Y., Kirby's combined reaper and mower, and mower.....	Hon. Men.
Douglass Axe Co., Mass., axes and wood-working tools.....	Medal.
Wentworth & Jarvis, Burlington, Iowa, automaton farm gate and windwill, (on windmill).....	Hon. Men.
Levi A. Beardsley, South Edmeston, N. Y., hay and earth eleva- tor.....	Hon. Men.
Robert Price, Albany, N. Y., churn and mop, (on mop).....	Hon. Men.
Batcheller & Son, hand tools.....	Medal.
Blanchard & Brown, cotton planter.....	Medal.
J. F. & W. Dane, Ohio, steel plows.....	Medal.

CLASS X.

No exhibitor.

CLASS XI. MILITARY ENGINEERING, &C.

Colt's Patent Fire-arm Manufacturing Co., Hartford, Conn., guns and pistols.....	Medal.
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CLASS XII. NAVAL ARCHITECTURE AND SHIPS, TACKLE, &C.

H. H. Ward, Auburn, N. Y., and night signal telegraph.....	Medal.
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CLASS XIII. PHILOSOPHICAL INSTRUMENTS, &C.

Darling & Swartz, Bangor, Maine, steel rules, measures, &c.....	Medal.
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CLASS XIV.

Busts of Governors of the several States, U. S.....	Hon. Men.
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CLASS XV.

No exhibitor.

CLASS XVI. MUSICAL INSTRUMENTS.

Steinway & Sons, New York, pianos.....	Medal.
G. H. Hulskamp, New York, pianos.....	Medal.
G. H. Hulskamp, New York, violins.....	Medal.

CLASS XVII. SURGICAL INSTRUMENTS.

Dr. Robert Bates, Penn., mechanical appliances for curing stam- mering.....	Medal.
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CLASSES XVIII, XIX, XX.

No exhibitor.

CLASS XXI. WOOLEN AND WORSTED GOODS.

Manchester Print Works, New Hampshire, delaines..... Medal.

CLASS XXII.

No exhibitor.

CLASS XXIII. WOVEN AND SPUN FABRICS, &C.

Manchester Print Works, New Hampshire, printed fabrics..... Medal.

CLASS XXIV.

No exhibitor.

CLASS XXV. SECTION B. FEATHERS AND HAIR.

Wilkins & Co., New York, curled hair and bristles..... Hon. Men.

CLASS XXVI.

No exhibitor.

CLASS XXVII. ARTICLES OF CLOTHING.

Section C.—Manchester Print Works, woolen hosiery..... Hon. Men.

CLASS XXVIII. SECTION B. STATIONERY, &C.

S. Sweet, New York, process producing blocks for printing..... Medal.

G. M. Saxton, New York, process sealing official documents..... Medal.

American Bank Note Co., New York, variety and excellence of bills..... Medal.

CLASSES XXIX, XXX, XXXI.

No exhibitor.

CLASS XXXII. SECTION B. CUTLERY AND EDGE TOOLS.

W. Blackwall, London, American tailors' shears..... Medal.

Douglass Axe Co., edge tools, (see Class IX)..... Medal.

CONCLUDING REMARKS.

I must now conclude this report. It has already extended quite beyond the limits anticipated when it was commenced; and yet I hardly know how I could have said less and done the great occasion any sort of justice. By the faithful distribution, among foreign commissioners and intelligent citizens, representing the various nations, of the two thousand copies of my report of 1860, on the Resources, Condition and Progress of Wisconsin, which were forwarded to me, at London, by your

predecessor, I trust that something has been done to turn the Exhibition to our practical advantage, as a State ; and now, if this report should have the effect to awaken an increased interest in the subject of international exhibitions, so that, in the event of another, we may be ready to do our full share in properly representing the resources and wonderful progress in industry of our common country, I shall feel that my labors have not been in vain.

It is seldom that the lessons taught by great events are carefully studied and faithfully applied, by either nations or individuals ; yet it is hardly conceivable that a vast exhibition, like the one just closed, gathering together the thinkers and workers of all lands, and establishing between them relations of friendship and cordial sympathy, should fail of the most profitable results to the industry of all ; nor that, by thus diffusing the blessings of civilization, and uniting all peoples and nations more firmly in the bonds of mutual interest and friendly association, these great world's gatherings must tend to the earlier realization of a universal peace among men.

J. W. HOYT,

Commissioner for Wisconsin.

TRANSACTIONS

OF THE

WISCONSIN STATE AGRICULTURAL SOCIETY

FOR 1863.

OFFICERS OF THE SOCIETY.

1863.

PRESIDENT :

B. R. HINKLEY, SUMMIT.

VICE PRESIDENTS :

First District, —E. B. WOLCOTT, MILWAUKEE;

Second District,—NELSON DEWEY, LANCASTER;

Third District,—BERTINE PINCKNEY, ROSENDALE.

SECRETARY :

J. W. HOYT, MADISON.

TREASURER :

DAVID ATWOOD, MADISON.

ADDITIONAL MEMBERS OF EXECUTIVE COMMITTEE :

H. M. BILLINGS, HIGHLAND;

H. P. HALL, BURKE;

C. LOFTUS MARTIN, JANESVILLE;

BENJ. FERGUSON, FOX LAKE;

DAVID WILLIAMS, SPRINGFIELD;

S. S. DAGGETT, MILWAUKEE.

EX-PRESIDENTS, EX-OFFICIO MEMBERS :

E. W. EDGERTON, SUMMIT;

HARVEY DURKEE, KENOSHA;

J. F. WILLARD, JANESVILLE.

ANNUAL REPORT

FOR THE YEAR 1863.

His Excellency, JAMES T. LEWIS,

Governor of the State of Wisconsin:

SIR:—I have the honor herewith to submit to you, for transmission to the Legislature, the Fiscal Report of the Wisconsin State Agricultural Society for the year ending Dec. 9, 1863.

There is occasion for congratulation that, while the war has continued during the past year with unabated fury and but little definite promise of an early close, the arts of industry in every department have made good progress in all the Northern States. Providence has favored us with bountiful harvests, and the cause of Justice and the Union is thus reinforced by an abundant supply of the material upon which, as well as upon the courage, patriotism and unflagging energy of the people of the loyal States, and the justice of our cause, our hopes of ultimate success are based.

Under all the circumstances, it was not deemed advisable to attempt an Exhibition of the industry of the State during the past year; though it is the confident expectation of the Executive Committee that the Society will be able to resume this portion of its regular work the present year.

As will appear by a reference to the Report of the Treasurer, the Society has, at length, succeeded in securing payment, by the General Government, for the improvements on Camp Randall, sold to the War Department in 1862. This brings much needed relief to the finances of the Society, by enabling it to discharge all obligations and make arrangements for another Exhibition with assurance of success.

On behalf of the Executive Committee,

Respectfully submitted,

J. W. HOYT, *Secretary.*

STATE AGRICULTURAL ROOMS, Jan., 1864.

TREASURER'S REPORT.

To the Executive Committee of the Wisconsin State Agricultural Society :

The financial transactions of the Wisconsin State Agricultural Society, for the year 1863, have been as follows:

RECEIPTS.

To balance in treasury, as per last Report,.....	\$30 24	
June 24, to cash from the United States, per J. W.		
Hoyt, (draft),.....	4,956 22	
		\$4,986 46

DISBURSEMENTS.

Dec. 9, By orders returned and cancelled this day, (marked "A"),.....	\$2,227 65	
		\$2,227 65
Balance in treasury December 9, 1863,.....		
		\$2,758 81

Respectfully submitted,

DAVID ATWOOD, *Treasurer.*

I hereby certify, that, having carefully examined the foregoing Report of the Treasurer, with the accompanying vouchers, we find the same in all respects just and true, and that bills and vouchers for the several items are on file and open to examination in the office of the Society.

B. R. HINKLEY,

President and Chairman of Com. of Examination.

STATE AGRI'L ROOMS, Dec. 9, 1863.

PROCEEDINGS.

EXECUTIVE MEETINGS.

STATE AGRICULTURAL ROOMS,
February 3, 1863.

Comittee met pursuant to requirement of By-Laws.

Present—Messrs. Hinkley, Hall, D. Williams, Ferguson, Atwood and Hoyt.
President Hinkley in the chair.

It not being certain whether it would be practicable to hold an Exhibition the present year, it was

Moved and carried, that it was not deemed necessary, at this time, to prepare a new list of premiums.

The Secretary reported that there was good reason to believe that the Society would ultimately secure payment of the amount due from the United States for the Fair Grounds improvements, but that, as yet, it had been out of his power to learn, either through the Quarter-Master General of the State or the representatives of the State now in Washington, why payment was delayed, and expressed the opinion that it might be necessary for some member of the Committee to visit Washington and press the claim to an early settlement.

Whereupon Mr. Williams offered the following:

Resolved, That in case payment of the Society's claim against the United States shall not have been made by the first day of May next, the Secretary is hereby authorized and directed to proceed to Washington and use his best endeavors to secure an immediate settlement.

Unanimously adopted.

On motion, Committee adjourned *sine die*.

J. W. HOYT, *Secretary*.

MEMORANDA.

STATE AGRICULTURAL ROOMS, May 6, 1863.

The Government of the United States not having made payment of the Society's claim, pursuant to instructions given at the February Meeting of the Executive Committee, I shall, this day, leave for Washington, resolved to bring with me, on my return, the full amount due.

J. W. HOYT, *Secretary*.
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STATE AGRICULTURAL ROOMS, July 3, 1863.

After an absence of nearly two months, the greater part of which has been spent in daily visits to the Treasury and War Departments, I have, at length, been enabled to return and place in the treasury of the Society the sum of \$4,956 22—amount claimed for property sold to the Government in the spring of 1862.

The account had long been in the hands of the Third Auditor, but owing to some "informalities in the application," to successive changes in the office of Second Comptroller, and, I may add, most remarkable dullness on the part of some officials and stubbornness on the part of others, had not received the proper sanction requisite to its allowance and payment by the Treasurer.

J. W. HOYT, *Secretary*.

STATE AGRICULTURAL ROOMS, Dec. 8th, 1863.

Executive Committee met to-day, in conformity with the By-Laws, to receive the Report of the Treasurer and settle up all accounts for the fiscal year ending December 9th, 1863.

Present—Messrs Hinkley, Hall, David Williams, Atwood and Hoyt.

President Hinkley in the chair.

At the request of the President, the Secretary gave a detailed account of his visit to Washington, on the business with which he had been charged, and of the difficulties encountered in securing allowance and payment of the Society's claim.

The Treasurer presented his Report, [see page 99], which after due examination by the Committee, was approved.

Moved, by the Secretary, that the Society take immediate steps to provide for resuming the work of holding Annual Exhibitions, as formerly' and that public notice be given of this intention and of the desire felt by the Committee for early applications from all such localities as may be desirous of furnishing the Society with the requisite facilities.

Motion generally approved, but action thereon finally postponed to the next meeting of the Committee.

Adjourned, to meet again on the afternoon of the 9th instant, subsequent to the adjournment of the Annual Meeting of the Society.

J. W. HOYT, *Secretary*.

EDUCATIONAL TOUR.

[During the summer of 1863, the undersigned made a visit to all the agricultural schools then in operation in the United States, or which were preparing to open, with the view of obtaining information to aid in the wise establishment of the proposed College of Agriculture and the Mechanics Arts in this State. The encouraging facts then existing were, soon after, published in the *Wisconsin Farmer*, and would be also published in this volume

but for the lapse of several intervening years, during which conditions have so changed that it is deemed better to defer the whole subject until 1869, in the volume of Transactions for which year it is the purpose to include a report covering the whole ground of Industrial Education in this country and in Europe.—SECRETARY.]

ANNUAL MEETING.

STATE AGRICULTURAL SOCIETY,

Dec. 9, 1868—3 o'clock P. M.

The Society met pursuant to the requirements of the constitution.

President Hinkley in the chair.

By request, the Secretary gave a brief account of the finally successful efforts made by the office.s of the Society to secure payment of the amount due from the General Government for the improvements on Camp Randall.

The Report of the Treasurer shows the receipts for the year ending with this date, to have been \$4,987 46; disbursements, \$2,227 65; leaving a balance of \$2,758 81.

The President explained that the lateness of the day at which the Society secured the payment of its dues from the Government made it impracticable to hold an Exhibition this year, as was contemplated at the last Annual Meeting.

The several Reports of the officers having been approved, on motion,
The Society adjourned *sine die*.

J. W. HOYT, *Secretary*.

ABSTRACT OF RETURNS OF COUNTY AGRICULTURAL SOCIETIES FOR 1863.

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STATE AGRICULTURAL SOCIETY.

COUNTIES.	REPRESENTATIVE OFFICERS.			PLACE & DATE OF FAIR.		FINANCES.			
	PRESIDENTS.	SECRETARIES.	TREASURERS.	PLACE.	DATE.	RECEIPTS.	EXPENT' RES.	AMOUNT PREM' MS.	AM'T IN TREASURY
Adams,.....				Friendship,...	Spt. ....25	\$238 00	\$96 54	\$80 45	\$141 46
Brown,.....	Stephen Burdon,	W. P. Lindsley,	D. Butler,.....	Green Bay,...	Spt. 15-16	276 73	176 73	127 56	.....
Calumet,.....				Gravesville,...	S. 30, O. 2	233 78	193 68	102 37	40 10
Columbia,...	Jno. B. Dwinnell,	Henry B. Munn,...	F. C. Curtiss,...	Lodi,.....	Spt. 22-24	669 72	619 67	421 60	46 95
Dodge,.....	John Cochrane,...	John C. Halliger,...	Spencer Givens,...	Juneau,.....	Oct. 12-14	426 13	342 58	111 95	82 55
Fond du Lac,...	Clinton Matteson,	Isaac Brown,.....	Azro B. Maylor,...	Fond du Lac,...	Oct. 1- 3	349 75	389 28	246 16	5 50
Grant,.....	J. C. Holloway,...	J. W. Blanding,...	Jno. J. Barber,...	Lancaster,...	Spt. 24-25	922 90	755 83	407 60	167 07
Green Lake,...	J. M. Know,.....	M. H. Powers,...	M. H. Powers,...	Berlin,.....	Spt. 23-24	643 16	554 20	417 70	88 96
Iowa,.....	James Tool,.....	A. J. Slye,.....	Samuel Hoskins,...	Dodgeville,...	Spt. 23-24	711 00	501 20	209 50	209 80
Kenosha,.....	Sam'l E. Tarbell,...		J. D. Fowler,...	Kenosha,.....	S. 30, O. 1	732 34	426 83	229 61	305 51
La Crosse,...	M. L. Tourtlott,...	J. P. Jackson,...	P. S. Elwell,...	West Salem,...	Oct. ....2	621 30	472 50	472 50	148 80
La Fayette,...	H. H. Gray,.....	A. F. Dickson,...	A. F. Dickinson,...	Darlington,...	Oct. 6- 8	576 60	576 50	390 80	.....
Manitowoc,...				Manitowoc,...	Oct. ....13	285 07	234 19	120 00	50 88
Monroe,.....	P. Kendall,.....	T. D. Steele,....	Thos. B. Tyler,...	Sparta,.....	Oct. 8- 9	630 80	580 43	96 85	50 37
Outagamie,...	W. H. P. Bryan,...	B. Douglass,....	C. G. Adkins,....	Appleton,...	Oct. 1- 2	267 81	267 30	212 25	26
Ozaukee,...	Patrick Halpin,...	W. T. Bonniwell, jr.	B. O. Z. Kussan,...	Cedarburg,...	Spt. 29-30	400 14	316 70	200 25	83 44
Pierce,.....	H. S. Proctor,...	J. H. Southwick,...	M. W. Barb,.....	Prescott,....	Spt. 25-25	174 52	164 74	136 00	9 78
Polk,.....	Daniel Mears,...	Isaac Freeland,...		Oscéola,.....	Oct. 7- 8	178 50	169 25	40 75	9 25
Racine,.....	E. Reed,.....	B. E. McCoy,....	Francis Drake,...	Union Grove,...	Spt. 23-24	505 02	577 78	288 89	27 24
St. Croix,...				Hudson,.....	Oct. 1. 2	232 38	262 80	94 50	.....
Sauk,.....	C. H. Williams,...	H. H. Potter,....		Baraboo,.....	S. 30, O. 1	285 55	247 00	175 11	38 55
Sheboygan,...	Sher'n Cornings,...	N. C. Farnsworth,...	J. B. Richardson,...	Sheb. Falls,...	Spt. 23-24	467 61	446 10	272 75	21 41
Trempeleau,...	Geo. Batcheler,...	G. Y. Freeman,...	John Nichols,...	Galesville,...	Oct. 7- 8	350 24	350 24	112 49	15 13
Vernon,.....				Viroqua,.....	Spt. 22-24	252 33	244 33	99 00	8 00
Walworth,...	Wm. Hollinshead,...	Edw Elderkin,...	J. F. Brett,.....	Elkhorn,.....	S. 29, O. 1	1,926 41	1,192 94	630 50	733 47
Washington,...				West Bend,...	Oct. 6- 8	200 75	192 00	165 25	8 75
						\$12,603 51	\$10,317 51	\$5,916 48	\$2,806 12

TRANSACTIONS
OF THE
WISCONSIN STATE AGRICULTURAL SOCIETY
FOR 1864.

OFFICERS OF THE SOCIETY.

1864.

PRESIDENT :

B. R. HINKLEY, SUMMIT.

VICE PRESIDENTS :

First District, —E. B. WOLCOTT, MILWAUKEE;

Second District,—NELSON DEWEY, LANCASTER;

Third District,—BERTINE PINCKNEY, ROSENDALE.

SECRETARY :

J. W. HOYT, MADISON.

TREASURER :

DAVID ATWOOD, MADISON.

ADDITIONAL MEMBERS OF EXECUTIVE COMMITTEE :

H. M. BILLINGS, HIGHLAND;

H. P. HALL, BURKE;

C. LOFTUS MARTIN, JANESVILLE;

BENJ. FERGUSON, FOX LAKE;

DAVID WILLIAMS, SPRINGFIELD;

S. S. DAGGETT, MILWAUKEE.

EX-PRESIDENTS, EX-OFFICIO MEMBERS :

E. W. EDGERTON, SUMMIT;

HARVEY DURKEE, KENOSHA;

J. F. WILLARD, JANESVILLE.

ANNUAL REPORT

FOR THE YEAR 1864.

His Excellency, JAMES T. LEWIS,

Governor of the State of Wisconsin :

SIR : In compliance with the law, I have the honor herewith to transmit the Fiscal Report of the Wisconsin State Agricultural Society for the year ending Dec. 14th, 1864.

After the lapse of three years, during which there was held no general exhibition of the industry of the State, early in the spring of 1864, the Society again rallied its forces and renewed this portion of its regular work. The sequel has shown that the public were prepared for this action on the part of the Society ; for notwithstanding the still unsettled condition of the country and the unfavorableness of the season, agriculturally considered, the Exhibition, as such, was creditable to the enterprise of our people, the attendance numerous, and the cash receipts larger than at any previous one since the organization of the State.

The Fair afforded a most satisfactory demonstration of the wonderful energy and growing zeal with which the industrial classes have pushed forward in their own legitimate work, practically unheeding the tumult of war, only just beyond the borders of their State. There were the inventors of implements and machinery with the products of their genius in the form of numberless improvements—there the producers of grain and breeders of stock, with indubitable proofs of successful effort for the attainment of results that must give to themselves larger profits and to the nation greater assurance of increased means for the early extinguishment of its immense

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burden of debt—there the fruit-growers, with surprising evidence of what resolution and perseverance may accomplish even against the odds of an adverse, if not perverse, climate and the voice of almost universal complaint coming up to them from every quarter of the State—there an army of resolute mechanics and manufacturers, offering to the over-tasked husbandman the means of multiplying his productive energies.

The State of Wisconsin has reason to be proud of her population. No more industrious, enterprising, determined and heroic people live in the world.

We cannot conclude this brief Report without again asking your attention to the importance of prompt action in the matter of the proposed College of Agriculture and Mechanic Arts, provided for in the Congressional act of 1862. Lands have been located, the net proceeds of which, if judiciously managed, should, at least, equal the sum of \$300,000. This, with such aid as the State ought to be willing to give, will constitute a foundation for the beginning of an educational work, in the interest of the industrial arts, which must ultimately result in great good to both people and State.

If it were possible, on a fair basis, to connect the proposed College with the State University, that would undoubtedly be the most economical and best disposition to make of the question; but as this is believed to be impracticable, the incorporation of a separate institution seems to be the only alternative.

The bill for the incorporation of the "State Agricultural College of Wisconsin," which passed the Senate by so large a majority, last year, appeared to us to meet the conditions of the Congressional Act and to provide for the educational wants of the industrial classes in a very satisfactory manner, and it is hoped that a similar measure may receive the approval of both branches of the present legislature.

The period allotted to the State for full compliance with the act donating the lands is passing, and we are unable to see any substantial reason why provision should not be made at once for an advantageous disposition of the lands and the early

establishment of the Wisconsin College of Agriculture and the
Mechanic Arts.]

On behalf the Executive Committee,

J. W. HOYT, *Secretary*.

TREASURER'S REPORT.

To the Executive Committee of the Wisconsin State Agricultural Society :

I have the honor herewith to submit my annual report of the financial transactions of the Wisconsin State Agricultural Society for the year 1864:

RECEIPTS DURING THE YEAR.

To cash on hand, as per last report.....	\$2,758 81
To cash for life memberships.....	140 00
To cash for entry fees at state fair.....	388 50
To cash from rents of grounds.....	369 50
To cash from sale of tickets at fair.....	4,102 38
Total.....	<u>\$7,759 19</u>

EXPENDITURES.

Dec. 14, By orders paid, and this day returned and cancelled.....	\$5,587 35
Dec. 14. By cash in the treasury to balance.....	2,171 84
	<u>\$7,759 19</u>

All of which is respectfully submitted,

DAVID ATWOOD,
Treasurer Wis. State Ag. Society.

PROCEEDINGS.

EXECUTIVE MEETINGS.

STATE AGRICULTURAL ROOMS,

February 2, 1864.

The Executive Committee met at 3 o'clock P. M., of this day.

Present—Messrs. Hinkley, S. S. Daggett, D. Williams, Atwood and Hoyt.
President Hinkley in the chair.

On motion it was unanimously

Resolved, That this society will this year attempt the holding of a general exhibition.

Moved by Mr. Williams, and carried, that the date of the Fair be, as for some years past, the last week of September.

Voted that the committee do now proceed to prepare rules and regulations with a list of premiums for the fair of 1864.

The work of revision occupied the committee until 6 o'clock, when they adjourned to meet again at 7½ this evening.

February 2, 7½ P. M.

Committee met pursuant to adjournment.

Present—Same members as before.

The work of preparing rules and list of premiums was resumed and continued until 10 o'clock.

Mr. J. C. Plumb, Secretary Wisconsin Fruit Growers' Association, presented a memorial from that society asking that certain modifications be made in the premium list in the fruit and flower departments, and submitting conditions on which the officers thereof would be glad to make their own proposed exhibition a part of the exhibition of the State Agricultural Society.

Which memorial was accepted, considered and approved as the basis of action in making provision for the Horticultural department of the State Fair. The preparation of the prize list having been concluded and the judges appointed, it was

Voted, that Col. Wm. R. Taylor act as chief Marshal for the fair, and that the superintendent of departments be as follows:

Superintendent of Gates—David Williams, Springfield.

Department of Horses—B. Pinckney, Rosendale.

Cattle—B. Ferguson, Fox Lake.

Sheep—J. E. Dodge, Lancaster.

Swine—H. P. Hall, Burke.

Agriculture—Geo. C. Pratt, Waukesha.

Fruit—J. C. Plumb, Madison.

Machinery—C. W. Olney, Madison.

Manufactures—Daniel Daggett, Milwaukee.

Fine Arts—Rev. Mr. Goodspeed, Janesville.

Equestrianism—Dr. E. B. Wolcott, Milwaukee.

Voted, that the premium list be published in the *Wisconsin Farmer*, and that 2000 copies of the same be printed in pamphlet form, for distribution to judges, officers of county societies and exhibitors at former fairs.

On motion it was

Resolved, That the president and secretary are hereby authorized to canvass the several eligible places in the state and make the most desirable location of the fair possible.

Adjourned *sine die*.

J. W. HOYT, *Secretary*.

HYATT HOUSE, JANESVILLE, Sept. 26, 1864,

7½ o'clock P. M.

Executive Committee met pursuant to call of the president, and after agreeing upon the selection of various employees and the per diem to be paid to officers and employees of every grade, and attending to various items of business, not essential to be recorded, adjourned to meet the next evening at the same place, and nightly thereafter, at 7½ o'clock, during the week.

J. W. HOYT, *Secretary*.

EXHIBITION OF 1864.

[From the Secretary's Record.]

The Exhibition of 1864 is at length among the things that were. It was gotten up with great effort on the part of the officers of the Society, and in spite of difficulties, which, in the estimation of very many of its friends, promised nothing but defeat and ruin. The sequel has shown that the Committee were right in going ahead; for, although the results were not equal to those of other and more favorable years, they were more satisfactory than anybody had dared to hope; the more interesting, and, just now, important departments, to wit, the fruit, the sheep, and the machinery and implement departments, being very handsomely represented, and the receipts being sufficient to pay all the expenses and all premiums, with a surplus of nearly a thousand dollars.

Had the weather been favorable, the receipts would have been full seven thousand dollars—larger by one thousand dollars than ever before. Next year we hope the skies will be more propitious.

BIRD'S EYE VIEW OF THE DEPARTMENTS.

At the right of the gate of entrance, and extending along the enclosure for some distance, were

The Sheep pens, filled with as fine specimens of the ovine race as ever graced even an international exhibition. The Spanish Merinoes were in greatest force; the long wool and middle wool sheep next. Wool growing is, at present, and will be, for some time to come, the most profitable branch of husbandry in Wisconsin, and we are glad to see the evidences that this is becoming the conviction of our farmers. The list of premiums awarded will show who are foremost in this business.

Next, in order of place, came

The Swine, occupying several pens. Mr. Ruble was king in this department, showing one Yorkshire boar for which he had been offered \$800; weight, 1,200 pounds.

The Poultry Pens were likewise pretty much monopolized by Mr. Ruble. This branch of husbandry does not receive the attention it deserves, and we are glad of the interest awakened by Mr. R's fine display.

The Horse Department was worthily represented as to quality, though the number of animals on exhibition was not large. The Thoroughbreds, the

Roadsters and the Trotters especially attracted the attention of visitors, and by their fine displays of blood and speed added much to the interest of the Exhibition. The thoroughbreds shown by Mr. Simon Ruble alone were valued at scarcely less than ten or twelve thousand dollars.

The Cattle Department was meagrely represented. But for Richard Richards, of Racine, Clinton Babbit, of Beloit, and A. G. Darwin, of Madison, the Short Horns would have been nowhere; and the same may be said for I. S. Newton, of Middleton, and George Baker, of Hustisford, with reference to the Devons. Cattle-breeding is not, at present, so profitable a business in this State as the raising of sheep and horses, and it would hardly have been reasonable to have expected a very large show in this department. The time is coming, however, when the cattle-breeders will have compensation for their enterprise.

Machinery and implements were there in large number and variety. Sorghum mills and apparatus in operation. Reapers and mowers, seed drills and cultivators, plows, harrows, rollers and bog-cutters, patent gates, hay gatherers, hay pitchers, washing machines, clothes wringers, and a multitude of other machinery too numerous to mention, were strewn about the Operative Machinery Hall, to the great comfort of those who were anxious that this most fascinating department should rank No. 1.

Manufacturers' Hall was respectably filled, though not so well as formerly.

Fruits, Grains and Vegetables were crowded into one large tent; the Fruit and Flower Department occupying one half. The fruit crop has been two-thirds a failure this year, and on this account we did not expect much of a show. The show was fine as to variety and quality, and respectable as to quantity.

Fine Arts Hall was handsomely decorated with paintings, photographs, embroideries and other works of art.

OPENING ADDRESS.

By B. R. HINKLEY, PRESIDENT.

Gentlemen of the State Agricultural Society and Fellow Citizens :

It is the prerogative of the Society I this day have the honor to represent to impose such duties upon its officers as may be necessary to the entire accomplishment of the important objects for the promotion of which it was originally established. And inasmuch as I hold it to be the duty of every member thereof to yield the most implicit obedience to all its requirements, there seems to be no honorable alternative for me but to formally open this State Exhibition with an address. I shall endeavor to comply with this demand upon my efforts so far as to make a few remarks appropriate to the occasion, and not being prepared to make a formal address in the popular sense, will content myself with a brief review of the circumstances and motives which have hitherto determined the policy of the present board of officers.

It is now three years since we were gathered together for the purpose of making an exhibition of the products of our industry, as a state, and of interchanging views as to the best means of advancing the material and social interests of the commonwealth. The last exhibition was the most complete and successful of any that had ever been held in Wisconsin; and the Society, stimulated by the results of that and previous efforts, was largely encouraged, so that it planned an exhibition for 1861 on a still more liberal and magnificent scale. But great political events, such as few if any anticipated, soon transpired. The whole nation was plunged into a fearful civil war; the grounds and improvements we had intended for the exhibition of 1861 were turned over to the Government for a military encampment; the Legislature, in its very questionable wisdom, repealed the law by virtue of which the Society had received from year to year an appropriation of \$3,000 from the moneys of the State; the means of the Society, to the amount of some \$5,000, remained unavailable in a recognized but unaudited account against the United States; the public mind was distracted and absorbed by the deplorable condition of the country, and postponement after postponement of our annual fairs followed as a natural, if not a necessary, consequence.

But we have not forgotten that industry is the only basis of the material prosperity of State and Nation, nor that the final triumphant issue of the Government of our choice from the deep troubles by which it has been well

nigh overwhelmed is to be secured scarcely less through the heroic efforts of persistent labor than through victories won by our arms; and, accordingly, trusting in industrial exhibitions as an important means of stimulation and information, in February last the resolution was formed, by the officers of the State Agricultural Society, to again attempt a State Fair. The Premium List was issued in May, and measures were immediately taken to insure a success. Since then, however, new difficulties have arisen. A drouth of great severity and long protraction, together with unheard-of ravages of insect foes, have reduced our crops to less than a third of what the average crops should have been, and, finally, a new draft for half a million more men for the army has again filled the public mind with thoughts of war, to the exclusion of almost everything else.

Under all these circumstances, the Executive Committee have not felt warranted in making preparations such as were made in 1860, and such as would have been grateful to their pride. The fruit of their zealous, if not entirely successful efforts is before you.

Upon the Judges, whom we have selected with great care, and upon the superintendents of the various departments, very much yet depends. We trust they will use their best endeavors to meet the demands of the occasion, and that complete success will be the result of our united labors.

It now only remains to me to declare the Exhibition open, to urge upon all the best use of the opportunity it affords, and to express the hope that, when, in 1865, we again unite in an annual festival, the victorious armies of the Republic will have so thoroughly done their work that henceforth, for many generations—yea, *for all time to come*—the Arts of Peace may have uninterrupted progress.

ANNUAL ADDRESS.

By Ex-Gov. JOSEPH A. WRIGHT, OF INDIANA.

The Annual Address, by Gov. Wright, on the "Relations of Labor to Government," was one of the ablest and most effective ever delivered before the Society. For an hour and a half he held the vast audience that crowded about the speaker's stand literally enchained by the logic, pathos, and persuasive eloquence of his masterly oration. Unhappily it was entirely extemporaneous, and before it became convenient for the author to prepare notes of it for publication, he received an appointment from President Lincoln as minister to the Prussian Government and departed for his mission without having forwarded the manuscript. In the month of June 1867, while yet at his post, and in the prime of a noble and useful life, he was called by death from his labors to his reward.

Under these circumstances we are grateful to the editors of the *Janesville Gazette* for a copy of their paper of Oct. 3, 1864, from which is copied the following very fair synopsis of the Address :

"The speaker commenced by contrasting the victories of war with the triumphs of peace. To-day we have met to celebrate the conquests of peaceful industry. Glorious, indeed, is the sight before us of these noble products of agriculture and the mechanic arts—the result of intelligent industry. Our fields serve us, but we must render service in return. In the contemplation of the wise cultivator of the soil, rapid progress is not the only object. We have no right to barter our fields for present profit—the soil is the gift of the Almighty, and the worst of all robberies is that perpetrated upon mother earth, when we take much from her bosom and give nothing back. The farmer should take advantage of everything to preserve this gift and keep it good for himself and his posterity. Not to make improvements is a crime, while it is a duty to keep unimpaired that which we have received from the Creator.

"What is the great object of assemblages of this kind? It is to educate the public mind, and especially the rising generation. All the institutions of this country are educating the people—the management of this fair will educate—railroads, courts and banks are educators in order and system. In the State of Indiana there is a railroad which is a model of regularity, so much so that an old gentleman of the speaker's acquaintance, through whose farm the road passes, relies upon its trains to give him the hour of the day. The trains were always on time, and it thereby taught punctuality to its em-

ployees, as well as the people on its whole route. Go to a city where a steam-boat is advertised to depart at a certain hour, and constantly fails to fulfill its promises, and the people will follow, in a measure, its bad example. So of every enterprise and institution in the land—they all educate the people.

"We have some things to learn from the old world, and when we can obtain lessons which will improve, they should be applied and practiced. The speaker had seen upon the public roads in Germany, miles of fruit trees, entirely unprotected even by fences, owned by hundreds of different persons, and yet none were taken except by the owners. In Berlin the parks are adorned with flowers and rare plants—they are traversed everywhere with the utmost freedom by the people, their children wandering about at will, but all remains untouched, not a blossom is plucked. We have much to learn in this respect of reverence to government and its laws. Something is wrong in our education, when we find such few examples here. Obedience to law should be taught. There is no freedom without law. This must be effected by family government here where we have no despotism to enforce obedience.

"Education promotes loyalty. Where the people are intelligent they are patriotic. Just in proportion as the blessings of a sound education are spread in a community, you will find loyalty and hatred of treason. I am not an advocate of college and boarding school education, but am in favor of free schools, where all the knowledge that the people shall need may be obtained. The influence of home should constantly surround our children. The speaker desired to see his children surround his table three times a day that he might watch over them and protect their morals. It is at the fireside where morality and justice, order and obedience, are successfully taught. Nothing can take its place. No other institution can do the work of family government.

"What is the object of your fairs? It is not so much the premium awarded which gratifies the recipient as the laudable pride that is excited. It is this that incites to further progress towards excellence.

"While in Europe, I visited the Government model farm near Paris, where one young man is received yearly from each of the seventy-two districts of the empire, and a practical agricultural education is given them. They learn by practice to do everything upon the farm. Agricultural chemistry is taught. I saw a dead horse there which the Professor informed me was worth five dollars for manure. Here it would be considered valueless—a nuisance. We overlook these things—we consider them of no use, which is a great mistake. At this school they have ascertained, by twenty-five years experiments, that the Swiss cow is superior to all others for milk and butter. There is an establishment near Paris where night manure is manufactured into a powder. It is estimated that farm products are increased by this establishment sufficient in amount to feed 200,000 people. We should in this country practice upon these hints and save every species of manure which will increase production.

"Another institution, thirty miles from London, was devoted to questions relating to manures, and their effect upon different crops. An acre of land

was used for each experiment, and the results for one, two and three years up to twenty-three, were obtained. The plot which had no manure yielded 14½ bushels of wheat to the acre, and that which had the best manure gave 60 bushels.

"To show the effect of persevering in a proper system of manuring land, the speaker said that a large tract in Prussia, which a century ago was a sand bank, destitute of every species of plant, had been rendered rich and fertile. To impart texture to the soil to get a grass plot, brush was first hauled and stuck into the ground, thus preventing the sand from drifting; then pine trees were planted, and by growing these and manuring the land for eighty years, grass was at last grown. After this there was no difficulty, for grass is the first object, and when obtained every desirable fertility of soil may be had. The speaker declared that manure was never lost by leaching on sandy and gravelly land. A foot and a half of soil was all he wanted on a gravel bank. Manures, never go down, but upward. If this were not the case, what would become of the wells and springs in a city? A contiguous manure pile was never known to injure a spring or the shallowest well. Do not, therefore, be afraid to plough in manure upon gravelly and sandy land. There is nothing lost that goes down into the soil.

"There is great deficiency of statistical information in this country. No people on earth are more imposed upon than ours by this neglect. It is known in Berlin to-day, what number of bushels of wheat have been raised in that country this year. But have we any such knowledge even for a single county? He had known wheat to vary in price in the Chicago market, in one month from \$1.60 to 80 cents. The correction of this evil is in your own power. You ought to be able to know all about the production of your staple crops each year, and one of the important objects of these fairs is to collect and systemize information on all subjects connected with agriculture.

"Governor Wright strongly recommended the cultivation of fruits and flowers. The best speech he had ever made in Indiana was by the roadside to a friend of his who was toiling in a cornfield, and by the side of whose house stood a single apple tree, growing with little labor to its owner, the fruit upon which was worth more than all his corn. The governor's eloquence induced the man to plant an orchard, and remit somewhat the labor bestowed upon raising grain. The Governor was equally emphatic in his testimony in favor of beautifying our homes with flowers. He produced a sensation among the ladies by declaring that were he in search of a wife he would not select one from a home unadorned by flowers and choice plants.

"The speaker said that notwithstanding the regular routine of business and pleasure everywhere prevailed, although the people gathered at fairs and in the marts of commerce, the thought of every one was upon the condition of the country. The speaker then proceeded at considerable length to discuss the question of State rights. He condemned those who advocated 'a peace on the basis of the federal Union of the States'—was in favor of a national Union, in which the States should have no more rights than countries and in-

vidual families. He declared that the constitution made a national and not a federal Union, and he so strongly objected to the term that he did not like to hear our army called the "federal army." He desired this to be considered abroad as one country, having one flag, which should protect every man, in all parts of the globe, who has the proud title of "American citizen." Destroy the power of the nation, and our state and county stocks, and township scrip would be worthless. Every political blessing depends upon this grand foundation of our system—unity and nationality; and let no portion go off without the consent of the whole.

"We are one people, although gathered from every part of Europe for the enjoyment of the blessings of liberty. If there is anything in the way of liberty it should get out of the way. Our government was formed for the protection of man and not of capital at the expense of the rights of man. The wealth of a country is in its labor; voluntary labor is the most effective, as an intelligent and thinking being is able to accomplish more than a machine.

"There is a silent conviction gaining ground everywhere that our flag should float only over free men. It is for the interest of all that every species of labor should be voluntary, because it is the most efficient, it is for the interest of laborers that every laborer should be free, that every man should have a home. If you deny a home to a man you destroy the family institution which is the foundation of all governments. The home must be protected from outrage, from all ownership of its members by others. Whenever labor is not voluntary, and the family is not protected, that nation will die.

"The speaker alluded in eloquent terms to the labor and devotion of the women of this country during the rebellion. He exhorted them to go on in the good work in which they had been engaged; to keep up their aid societies; to labor diligently as they had done for the sick, the wounded and for those in prison. The reward would come; the country would be saved from the assaults of traitors, and when peace crowns our hills and plains, it would be acknowledged that without the unwearied toil, the constancy and heroic faith of woman in our cause, it could scarcely have been saved.

"Gov. Wright pronounced the fair creditable to the State, considering that Wisconsin had sent 50,000 of her sons to the field to defend the government. The exhibition was noteworthy for its fine show of fruit, machinery and sheep, especially the latter, which was very creditable. He said we had a good sheep country, and urged his hearers to excel in that department, bearing in mind the three great objects in sheep breeding, which he declared to be quantity of wool, fineness and weight of carcass.

"In order to accomplish this he exhorted our farmers to abandon, to a large extent the cultivation of wheat, and turn their attention to raising grass. Grass, he declared, was the foundation of all successful agriculture. It was true, as had been said, 'no grass, no stock—no stock, no manure—no manure, no crops.'

"In conclusion the speaker made several practical suggestions:

1st. Keep out of debt.

2d. Sell whatever you have when it is ready for market.

3d. Attend all the industrial meetings and fairs, with your wife and your children.

4th. Take the agricultural papers of the State.

5th. Be loyal to your government.

"Upon the last topic the governor spoke with a fervid eloquence, rarely equalled in its power and effect. The noble sentiments uttered found a ready appreciation in the patriotic assemblage before him, who responded in enthusiastic and repeated cheers."

ELECTION OF OFFICERS

FOR 1865.

HYATT HOUSE PARLOR,

JANESVILLE, Sept. 29, 1864.

Society met pursuant to published notice, at the Hyatt House, at 7½ o'clock P. M. ; some seventy Life Members being present.

President B. R. Hinkley in the chair.

On motion, it was

Resolved, That we do now proceed to an election of officers of this Society for the year 1865.

Secretary called the roll of Life Members.

On motion of Andrew Proudfit, a committee of five was appointed to nominate officers for the ensuing year.

Said committee, after a brief conference, reported through Mr. Proudfit, Chairman, the following names:

For President.—David Williams, of Walworth Co.

Vice-Presidents.—J. I. Case, of Racine; L. B. Vilas, of Dane; and Keyes N. Darling, of Fond du Lac.

Secretary.—J. W. Hoyt, of Dane.

Treasurer.—Simeon Mills, of Dane.

Additional Members of Executive Committee.—Chas. H. Williams, of Sauk; C. L. Martin, of Rock; J. H. Warren, of Green; J. C. Eaton, of Columbia; Eli Stilson, of Winnebago; G. H. Stewart, of Dodge; and E. D. Holton, of Milwaukee.

On motion, the name of David Atwood, present Treasurer, was substituted for that of Simeon Mills; and the report as thus amended was adopted and the persons therein named elected to the various offices for which they were presented.

It is proper to state that Col. Hinkley, who had so long and ably served the Society as President, would have been unanimously re-elected, had he not peremptorily declined the nomination.

On the announcement of the result of the ballot, on motion, the following resolution was unanimously adopted:

Resolved, That the thanks of this Society are due to Col. B. R. Hinkley, the retiring President, for the ability, zeal and fidelity with which, for many years, and especially during the term of his presidency, he has labored to promote the interests of the Society and of the whole State.

To which the Colonel responded, setting forth the reasons that had determined him to decline a re-election, and announcing his purpose to continue through life to labor for the advancement of the industry of Wisconsin.

The Society then adjourned *sine die*, and proceeded to attend the meetings of the Wool-Growers and Fruit-Growers' Associations, in session at the Court Rooms.

J. W. HOYT, Secretary.

AWARD OF PREMIUMS

AT THE FAIR OF 1864.

HORSES, JACKS AND MULES.

CLASS 1.—THOROUGH BRED HORSES.

John Batie, Tafton, stallion, "Princeton," 4 yrs, 1st premium.....	\$30 00
Simon Ruble, Beloit, stallion, "Buckshot," 4 yrs, 2d prem.....	20 00
C. Loftus Martin, Janesville, stallion, "Young Princeton," under 3 yrs, 1st prem.....	8 00
Simon Ruble, Beloit, stallion colt, "Young Medoc," sucking colt, 1st premium.....	3 00
E. Millen, Janesville, sucking colt, "Young Princeton," 2d premium.....	2 00
M. W. Elkins, Beloit, sucking mare colt, 1st premium.....	3 00
M. W. Elkins, Beloit, brood mare, "Puss Ferris," 4 yrs, 1st premium.....	20 00
S. Ruble, Beloit, Brood mare, "Maria Hamilton," 4 years, 2d premium.....	12 00

JUDGES—Andrew Proudfit, Madison; O. P. Robinson, Janesville; John Forbes, Fort Atkinson.

CLASS 2.—ROADSTERS.

Geo. W. Blanchard, Lake Mills, stallion "Hambletonian," 4 yrs and over, 1st premium.....	25 00
A. McConnel, Oconomowoc, stallion, "Abe Lincoln," 4 yrs and over 2d premium.....	15 00
Emery Colby, Freeport, Ills., stallion, 3 yrs and over, 1st premium....	10 00
A. J. Warner, Shopiere, stallion, 3 yrs and over, 2d premium.....	7 00
G. W. Thustan, Waukesha, brood mare, 4 yrs and over, 1st premium.....	15 00

JUDGES—Andrew Proudfit, Madison; Dr. Robinson, Janesville; J. P. Rix, Cedar Creek.

CLASS 3.—HORSES FOR GENERAL PURPOSES.

D. Merrill, Beloit, stallion, 4 yrs and over, 1st premium.....	20 00
N. Potter, Eau Claire, stallion, 4 yrs and over, 2d premium.....	15 00
H. Smith, Shopiere, stallion, 3 yrs, 1st premium.....	10 00
H. P. Fales, Janesville, stallion, "Young Rattler," 2d premium.....	7 00
J. H. Young, Elkhorn, stallion, 2 yrs, 1st premium.....	6 00
M. K. Farnsworth, Whitewater, stallion, "Duroc," 2 yrs, 2d premium.....	4 00
A. T. Watson, Footville, stallion colt, (yearling,) 1st premium.....	5 00
P. Schmitz, Harmony, stallion colt, (yearling,) 2d premium.....	3 00
J. P. Dickson, Janesville, brood mare, 4 yrs and over, 1st premium....	12 00
L. H. Bond, Lima Centre, Black Hawk brood mare, "Belle of Wisconsin," 4 yrs, 2d premium.....	8 00
J. P. Dickson, Janesville, brood mare, 3 yrs, 1st premium.....	7 00
Thos. Barlass, Emerald Grove, brood mare, 2d premium.....	5 00
J. G. Potter, Beloit, mare, 2 years, 1st premium.....	5 00

J. O. Van Gelder, Janesville, filly, first premium.....	\$5 00
P. R. Tierney, Westport, filly, 2d premium.....	3 00
Chas. Hanford, Emerald Grove, sucking mare colt, 1st premium.....	3 00

JUDGES—J. H. Warren, Albany; Wm. Burroughs, Janesville; W. A. John. son.

CLASS 4—DRAFT HORSES.

Morgan Wescott, Barton, stallion, "Young Gifford Morgan," 1st premium.....	7 00
John Liscumb, Janesville, sucking stallion colt, 1st premium.....	3 00
Jas. Bullard, Evansville, sucking stallion colt 2d premium.....	2 00

JUDGES—Same as for class 3.

CLASS 5—JACKS AND MULES.

J. S. Owens, Evansville, jack, imported, 1st premium.....	25 00
M. C. Cook, Milwaukee, jack, 2d premium.....	10 00
Simon Ruble, Beloit, pair work mules, 1st premium.....	10 00
J. W. Smith, Whitewater, single mule, 1st premium.....	5 00

JUDGES—Same as for class 3.

CLASS 6—MATCHED HORSES AND MARES.

R. T. Pember, Janesville, pair matched geldings, 4 years old and over 1st premium.....	20 00
E. N. Sheldon, Monroe, pair matched draft horses, 4 years old and over, 1st premium.....	20 00
Gilbert Adams, Racine, pair roadsters, 5 and 6 years old, 1st premium.....	20 00

JUDGES—Emery Thayer, East Troy; Wm. Hollinshead, Elkhorn; P. E. Dickey.

CLASS 7—GELDINGS OR MARES FOR SINGLE HARNESS, SADDLE, &c.

A. G. Darwin, Madison, single horse, brown, 4 years old and over, 1st premium.....	\$10 00
J. H. Waterman, Milton, single horse, dapple grey, gelding, 4 years old and over, 2d premium.....	5 00
B. F. Pendleton, Janesville, saddle horse, brown gelding, 1st premium.....	10 00
L. Moses, Janesville, saddle horse, bay gelding, 2d premium.....	5 00

JUDGES—Same as for class 6.

CLASS 8—TROTTERS.

B. F. Annis, Lake Mills, trotting stallion, time 2.53, 1st premium....	\$30 00
S. T. Turner, Grand Rapids, Mich., trotting stallion, time 2.54, 2d premium.....	20 00
J. Bullene, Jr. Beloit, trotting stallion, time 3.00, 3d premium.....	15 00
S. Hutson, Janesville, trotting mare, time 2.45, 1st premium.....	30 00
Nelson Gatliff, Racine, trotting mare, time 2.55, 2d premium.....	20 00
Jerome Gates, Delavan, trotting gelding, time 2.42½, 1st premium....	25 00
Gilbert Adams, Racine, trotting gelding, time 2.43½, 2d premium....	15 00
A. E. Ingalls, Racine, trotting matched geldings, time 3.55, 1st premium.....	25 00

JUDGES—N. M. Harrington, Delavan; N. Potter, Eau Claire; E. Thayer, East Troy; Simon Ruble, Beloit.

CLASS 9—WALKERS.

Dr. Wm. Horne, Janesville, walking gelding, 1st premium.....	10 00
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JUDGES—Same as for class 3.

CATTLE.

CLASS 10.—SHORT HORNS.

Richard Richards, Racine, bull "Napoleon," 3 years old and over, 1st premium.....	\$25 00
Jas. Haddin, Johnstown, Durham bull, 5 years old, 2d premium.....	15 00
Clinton Babbitt, Beloit, red Duroam cow, 1st premium.....	20 00
Clinton Babbitt, Beloit, roan Durham cow, 2d premium.....	15 00
Richard Richards, Racine, heifer calf, "Arabella," 1st premium.....	7 00
A. G. Darwin, Madison, red heifer, "Wingra Belle," 2 years, 1st premium.....	15 00

JUDGES.—E. M. Danforth, Summit; Chas. H. Williams, Baraboo; Samuel Pratt, Waukesha; John Munson.

CLASS 11.—DEVONS.

Geo. Baker, Hustisford, Devon bull, 2 years, 2d premium.....	\$10 00
J. K. Kimball, Kenosha, Devon cow, 6 years, 1st premium.....	20 00
I. S. Newton, Middleton, Devon cow, 6 years, 2d premium.....	15 00
Geo. Baker, Hustisford, heifer, 2 years, 1st premium.....	15 00
I. S. Newton, Middleton, Devon heifer 1 year, 1st premium.....	7 00
Geo. Baker, Hustisford, Devon calf, 6 months, 1st premium.....	7 00
I. S. Newton, Middleton, Devon calf, 6 months, 2d premium.....	5 00

JUDGES.—Same as for Class 10.

CLASS 12.—ALDERNEYS.

Ben Reed, Madison, Alderney bull, 3 years, 1st premium.....	25 00
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JUDGES.—Same as for Class 10.

CLASS 15.—GRADE CATTLE AND WORKING OXEN.

Richard Richards, Racine, grade cow, "Maria," 3 years and over, 1st premium.....	\$10 00
C. Loftus Martin, Janesville, grade cow, 3 years and over, 2d premium.....	7 00
I. S. Newton, Middleton, 1 pair 3 year old steers, 1st premium.....	7 00

JUDGES.—Pliny M. Perkins, Burlington; H. H. Sterling.

SHEEP.

CLASS 18.—SPANISH MERINOES.

C. M. & H. B. Clark, Whitewater, Spanish buck, 2 years, 1st premium.....	\$10 00
Horace Williams, Whitewater, Spanish buck, 2 years, 2d premium....	7 00
C. M. & H. B. Clark, Whitewater, Spanish buck, 1 year, 1st premium.....	7 00
Richard Richards, Racine, Spanish buck, 1 year, 2d premium.....	5 00
C. M. & H. B. Clark, Whitewater, pen of Spanish buck lambs, 1st premium.....	5 00
R. Richards, Racine, pen of 3 buck lambs, 2d premium.....	3 00
R. Richards, Racine, pen of 3 ewes, 2 years, 1st premium.....	10 00
C. M. & H. B. Clark, Whitewater, pen 3 ewes, 2 years, 2d premium...	7 00
C. M. & H. B. Clark, Whitewater, pen of 3 ewes, 1 year, 1st premium.....	7 00
Richard Richards, Racine, pen of 3 ewes, 1 year, 2d premium.....	5 00
C. M. & H. B. Clark, Whitewater, pen of 3 ewe lambs, 1st premium...	5 00
R. Richards, Racine, pen of 3 ewe lambs, 2d premium.....	3 00

JUDGES.—S. L. Sheldon, Madison; David Smith, Harmony; Isaac Clark, Galesville.

CLASS 19.—FRENCH MERINOES.

Wm. L. D. Crandall, Milton, 1 French buck, 2 years, 1st premium,...\$10 00
 JUDGES.—Same as for Class 18.

CLASS 22.—LONG WOOL, MIDDLE WOOL, LEICESTER.

John Batie, Tafton, South Down buck, 6 years, 1st premium.....\$10 00
 M. Towers, Omro, South Down buck, 2 years 2d premium..... 7 00
 Simon Ruble, Beloit, South Down buck, 1 year, 1st premium..... 7 00
 M. Towers, Omro, South Down buck, 1 year, 2d premium..... 5 00
 Simon Ruble, Beloit, pen of 3 South Down buck lambs, 1st premium.. 5 00
 M. Towers, Omro, pen of 3 South Down buck lambs, 2d premium.... 3 00
 S. D. Butts, West Milton, pen of 3 Leicester lambs. (no competition,) 1st premium..... 5 00
 Simon Ruble, Beloit, 3 South Down ewes, 2 years and over, 1st premium..... 10 00
 Matthew Towers, Omro, 3 South Down ewes, 2 years and over 2d premium..... 7 00
 Matthew Towers, Omro, 3 South Down ewes, 1 year and under 2 years, 1st premium..... 7 00
 Simon Ruble, Beloit, 3 South Down ewes, 1 year and under 2 years, 2d premium..... 5 00
 Matthew Towers, Omro, 3 South Down ewe lambs, 1st premium..... 5 00
 JUDGES.—Same as for Class 18.

SWINE AND POULTRY.

CLASS 24.—SWINE.

Simon Ruble, Beloit, Yorkshire boar, "Don Pedro," 2 years and over, weight, 1200 lbs., 1st premium.....\$10 00
 Simon Ruble, Suffolk boar, 2 years and over, 1st premium..... 10 00
 H. P. Fales, Janesville, boar, "Chester White," 13 months, 1st premium..... 7 00
 Simon Ruble, Beloit, Suffolk sow, 2 years and over, 1st premium.... 10 00
 Simon Ruble, Beloit, Yorkshire sow, 6 months old, 1st premium..... 5 00
 Simon Ruble, Beloit, Yorkshire boar, under 1 year old, 1st premium.. 5 00
 JUDGES.—D. W. Maxon, Maxonville; I. L. Rix, Cedar Creek; Jas Catton.

CLASS 25.—POULTRY.

Simon Ruble, Beloit, best and greatest variety of poultry, 1st premium.....\$5 00
 H. P. Fales, Janesville, white China fowls, 1st premium..... 2 00
 Simon Ruble, Beloit, 1 cock and 2 hens, Bantums, very fine, no competition..... 2 00
 Simon Ruble, Beloit, 1 pair pea fowls, good, no competition..... 2 00
 Simon Ruble, Beloit, 1 pair African geese, very fine, no competition.. 2 00
 Simon Ruble, Beloit, 1 pair Muscovy ducks, very fine, no competition. 2 00
 Simon Ruble, Beloit, 1 cock and 2 hens, black Java..... 2 00
 JUDGES.—W. S. Chase, Janesville; A. W. Case, Racine; Wm. W. Lester, Janesville.

AGRICULTURAL DEPARTMENT.

CLASS 26.—FIELD PRODUCTS.

M. L. Ladd, Millard, 1 bushel pearl wheat, spring, 1st premium.....\$3 00
 A. A. Boyce, Lodi, 1 bushel Rio Grande, spring, 2d premium..... 2 00

M. L. Ladd, Millard, 1 bushel Poland oats, 1st premium.....	\$2 00
A. A. Boyce, Lodi, 1 bushel Poland oats, 2d premium.....	Trans
A. A. Boyce, Lodi, 1 bushel barley, no competition.....	2 00
N. Macomber, Emerald Grove, 1 bushel flax seed, no competition....	3 00
Wm. Spaulding, Janesville, 1 bushel Timothy seed, no competition....	3 00
Wm. Hollinshead, Elkhorn, sample of clover seed, no competition....	3 00
M. L. Ladd, Millard, 1 bushel navy beans, 1st premium.....	2 00
Wm. Spaulding, Janesville, 1 bushel beans, 2d premium.....	Trans
A. A. Boyce, Lodi, 1 bushel corn, 1st premium.....	3 00
M. L. Ladd, Millard, 1 bushel Dent corn, 2d premium.....	Trans
A. A. Boyce, Lodi, sample peach blow potatoes, 1st premium.....	2 00
Wm. Hollinshead, Elkhorn, sample peach blow potatoes, 2d premium	Trans
Wm. Spaulding, Janesville, sample pink-eye potatoes, 1st premium..	2 00
Wm. Hollinshead, Elkhorn, sample pink-eye potatoes, 2d premium...	Trans
Geo. J. Kellogg, Janesville, variety of early potatoes.....	2 00
Wm. Spaulding, Janesville, 13 varieties potatoes, 1st premium.....	5 00
Wm. Hollinshead, Elkhorn, show of excellent potatoes, 2d premium..	3 00
N. Macomber, Emerald Grove, sample of carrots, 2st premium.....	2 00
M. L. Ladd, Millard, sample of carrots, 2d premium.....	Trans.

JUDGES—Z. P. Burdick, Janesville; Albert Bemis, C. C. Fisher.

CLASS 27—GARDEN VEGETABLES.

C. G. Griffith, Janesville, twelve beets, 1st premium.....	Trans.
N. Macomber, Emerald Grove, 12 best carrots, 1st premium.....	2 00
Simon Ruble, Beloit, sample of onions, 1st premium.....	2 00
N. Macomber, Emerald Grove, sample of onions, 2d premium.....	Trans.
N. Macomber, Emerald Grove, half peck of Lima beans, 1st premi- um.....	Trans.
Wm. Hollinshead, Elkhorn, sample of sweet potatoes, 2d prem.....	Trans.

JUDGES—Geo. P. Pepper, Pewaukee; Geo. Lawrence, Waukesha; James R. Gunn. Hudson.

CLASS 28—PRODUCTS OF THE DAIRY AND HOUSEHOLD.

C. C. Fish, Centre, 1 jar of butter, 25 pounds, 1st premium.....	7 00
A. A. Keith, Johnstown, 1 jar of butter, 2d premium.....	5 00
N. Macomber, Emerald Grove, 1 jar of butter, 3d premium.....	3 00
M. S. Twining, Brodhead, 3 cheeses, 1st premium.....	7 00
F. H. Coburn, Whitewater, 3 cheeses, 2d premium.....	5 00
G. W. Coburn, Whitewater, 3 cheeses, 3d premium.....	3 00
G. W. Coburn, Whitewater, single cheese, 1st premium.....	2 00
F. H. Coburn, Whitewater, single cheese, 2d premium.....	Trans.
J. J. Clark, Janesville, 1 barrel of winter wheat flour, 1st premium..	5 00
Allen & Jackman, Janesville, spring wheat flour, 1st premium.....	5 00
B. S. Hoxie, Cooksville, best honey, 1st premium.....	5 00
Geo. J. Kellogg, Janesville, 10 pounds of honey, 2d premium.....	3 00
Geo. J. Kellogg, Janesville, 5 pounds of honey, fine sample. No premi- um offered.....	Trans.

JUDGES—Eli Stilson, Oshkosh; G. G. Gillett, Janesville; Z. Spaulding, Harmony.

FRUITS AND FLOWERS.

CLASS 29—FRUITS GROWN BY NON-PROFESSIONAL CULTIVATORS.

Geo. P. Pepper, Pewaukee, best and greatest variety of Apples, Diploma and.....	7 00
B. B. Olds, Clinton, variety of apples, 2d premium.....	5 00
C. F. Richards, Hustisford, variety of apples, 3d premium.....	3 00

John Westley, Clinton, 10 varieties of apples, 1st premium.....	\$3 00
B. B. Olds, Clinton, 10 varieties of apples, 2d premium.....	2 00
Frances Westley, Clinton, 10 varieties of apples, 3d premium.....	Trans.
B. B. Olds, Clinton, show of outumn apples, 1st premium, Diploma and	5 00
F. C. Curtiss, Rocky Run, show of autumn apples, 2d premium.....	3 00
Thos. Howland, Kenosha, show of winter apples, 1st prem., Diploma and	5 00
B. B. Olds, Clinton, show of winter apples, 2d premium.....	3 00
F. C. Curtiss, Rocky Run, show of winter apples, 3d premium.....	2 00
Geo. P. Pfeffer, Pewaukee, show of pears, 1st premium, ..Diploma and	5 00
Geo. P. Pfeffer, Pewaukee, show of grapes, 1st premium.....	3 00
J. H. Kimball, Kenosha, show of foreign grapes,	Diploma and Trans.
Geo. P. Pfeffer, Pewaukee, best variety of fruity,	Diploma and 10 00

JUDGES—L. P. Chandler, Madison; J. W. Rist, Plover; Jas. L. Tubbs, Elkhorn.

CLASS 30—FRUITS BY PROFESSIONAL CULTIVATORS.

P. B. Spaulding, Beloit, variety of apples, 1st premium and diploma and.....	\$7 00
Geo. J. Kellogg, Janesville, best and greatest variety of apples, 2d premium.....	5 00
P. B. Spaulding, Beloit, best 20 varieties of apples adapted to the Northwest, 1st premium.....	5 00
P. B. Spaulding, Beloit, show of autumn apples, 1st premium.....	5 00
Tuttle, Clark & Son, Baraboo, show of winter apples, 1st premium, diploma and.....	5 00
F. W. Loudon, Janesville, show of winter apples, 2d premium.....	3 00
F. W. Loudon, Janesville, best and greatest variety of pears, 1 premium,	Diploma and 5 00
J. S. Stickney, Wauwautosa, two varieties of pears, 1st premium.....	5 00
P. B. Spaulding, Beloit, two varieties of pears, 1d premium.....	3 00
F. W. Loudon, Janesville, greatest variety of grapes, 1st premium....	3 00
Isaac Atwood, Lake Mills, display in variety of grapes, 2p premium...	2 00
[The ten varieties exhibited by Mr. Atwood are the most popular for the Northwest, most magnificently grown, and of superior excellence.]	
L. P. Chandler, Madison, display of variety of grapes, 3d premium..	Trans.
F. W. Loudon, Janesville, fruits of all kinds, by one exhibitor, 1st premium, diploma and.....	10 00
J. C. Plumb, Madison, collection of sealed fruits, 1st premium.....	5 00
J. C. Plumb, Madison, collection of ten varieties of apple trees adapted to this climate, 1st premium,.....	Diploma and 5 00

JUDGES—F. C. Curtis, Rocky Run; E. Wilcox, Trempealeau; J. R. Shearman, Rockford, Ill.

CLASS 31—WISCONSIN WINES.

C. Hanford, Emerald Grove, assortment of wines, 1st premium, diploma and.....	\$5 00
A. Sherman, La Prairie, one bottle of white currant wine, 1st premium	3 00
Geo. P. Pfeffer, Pewaukee, sample of grape wine, 1st premium.....	5 00
C. Hanford, Emerald Grove, sample of grape wine, 2d premipm.....	3 00
Geo. P. Pfeffer, Pewaukee, sample rhubarb wine, 1st premium.....	3 00
M. L. Ladd, Millard) sample of rhubarb wine, (two bottles), 2d premium	2 00
C. Hanford, Emerald Grove, three bottles of strawberry wine, best.....	Trans.

AWARDED BY EXECUTIVE COMMITTEE.

Dr. H. Schroeder, Bloomington, Ill., six bottles of superior grape wine,.....Diploma.

JUDGES—F. C. Curtis, Rocky Run; J. S. Shearman, Rockford, Ill.; Thos. D. Plumb, Madison.

CLASS 32—FLOWERS BY NON-PROFESSIONAL CULTIVATORS.

Josephine Pepper, Pewaukee, display of quality and variety of named flowers, 1st premium.....	2 00
Miss M. L. Plumb, Madison, display of Wild flowers—only specimen presented—very good,.....	3 00
Josephine Pepper, Pewaukee, display of dahlias, 1st premium.....	2 00
Josephine Pepper, Pewaukee, display of verbenas, 1st premium.....	2 00
Josephine Pepper, Pewaukee, display of asters, 1st premium.....	2 00
Josephine Pepper, Pewaukee, display of phloxes—best specimens of phloxes—very good display,.....	2 00
Josephine Pepper, Pewaukee, display of petunias, 1st premium.....	2 00
Josephine Poffer, Pewaukee, display of pansies, 1st premium.....	2 00

JUDGES—G. W. Hazleton, Portage City; Mrs. G. W. Hazleton; Mrs. G. W. Campbell.

CLASS 33—FLOWERS BY PROFESSIONAL CULTIVATORS.

G. J. Kellogg, Janesville, best show of small evergreens, 1st premium, \$5 00	
F. W. Loudon, Janesville, best and greatest variety of green-house plants, 1st premium.....	3 00
F. W. Loudon, Janesville, twelve varieties of geraniums, 1st premium,	2 00
J. S. Shearman, Rockford, Ill., greatest number of dahlias, 1st premium,	3 00
J. S. Shearman, Rockford, Ill., twelve named dahlias, 1st premium....	2 00
J. S. Shearman, Rockford, Ill., seedling dahlias, 1st premium	2 00
F. W. Loudon, Janesville, six fuchsias, 1st premium	Trans.
J. S. Shearman, Rockford, Ill., display of quality and variety of roses, 1st premium.....	3 00

JUDGES—S. G. Benedict, Madison; Mrs. R. Hadden, Elba; Mrs. Tappan, Madison; Mrs. Foss, Janesville; N. W. Harrington, Delavan.

MACHINERY.

CLASS 35—MACHINERY, MANUFACTURES AND WORKS OF ART.

C. E. Steller, McGregor, Iowa, bog cutter, 1st premium.....	Dipl'a.
John Webster, North Prairie, bog cutter, 2d premium.....	Trans.
Shep. L. Sheldon, Madison, Ohio grain drill, 1st premium.....	Medal.
E. W. Skinner, Madison, two horse power, 1st premium.....	Dipl'a.
B. & W. Burnham, Battle Creek, Michigan, one 4 horse sweep power.....	Dipl'a.
E. W. Skinner, Madison, farm roller.....	Dip. or \$5 00
J. R. Davis, Washington, Iowa, washing machine.....	Dipl'a.
Jas. Adams, Janesville, washing machine.....	Cert. Ex.
Rock River Iron Works, Janesville, threshing machine, power included, 1st premium.....	Dipl'a.
W. W. Burson, Rockford, Ills., grain binder, 1st premium.....	Dipl'a.
J. D. Locke, Janesville, grain binder attached to reaper.....	Cert. Ex.
J. Behel, Rockford, Ills., rotary grain binder attached to J. H. Manney's combined reaper and mower.....	Cert. Ex.
F. F. Blood, Janesville, farm gate, 1st premium.....	Dipl'a.
A. Blood, Janesville, garden gate, 1st premium.....	Dipl'a.
Wm. M. Jones, Horicon, D. W. Hall & Co.'s broadcast Seeder and cultivator, combined, 1st premium.....	Dipl'a.
John Doak, Keithsburg, Ills., corn planter, 1st premium.....	Dipl'a.
B. F. Fields, Sheboygan Falls, cultivator, 1st premium.....	3 00
R. Hitchcock Janesville, two horse wheel cultivator, 2d premium.....	2 00
H. Mitchell & Co., Racine, lumber wagon, 1st premium	Dipl'a.

J. S. Owens, Evansville, improved two horse wagon—premium for the improvement—1st premium.....	Cert. Ex.
J. C. Traner, Tafton, steel crossing plow, 1st premium.....	Cert. Ex.
N. H. Pierce, Waupun, subsoil attachment, (worthy).....	Cert. Ex.
Chas. Foster, Rockford, sulky plow for general use.....	Cert. Ex.
Lepper & Morse, Fond du Lac, center draft plow.....	Cert. Ex.
C. Foster, Rockford, Ills., sulky plow.....	Cert. Ex.
Jas. Tomlinson, Racine, double stubble plow.....	Cert. Ex.
S. L. Sheldon & Bro., Madison, combined self-raking reaper and mower.....	Dipl'a.
Andrew Proudfit, Madison, Wood's self-raking reaper.....	Dipl'a.
Andrew Proudfit, Madison, Wood's two wheel mower.....	Dipl'a.
L. J. Bush, Milwaukee, Kirby's hand raking reaper, 1st premium.....	Dipl'a.
S. H. Hunsberger, Ottawa, Ills., self-raking reaper and mower.....	Cert. Ex.
N. Stillman, Chicago, Mallory & Sanford's flax and hemp machine.....	Dipl'a.
Chas. Foster, Freeport, Ills., cider mill, 1st premium.....	Dipl'a.
L. E. Porter, Lake Mills, apple stirrer.....	Dipl'a.
W. Fulding & Co., Chicago, spring tooth rake, 1st premium.....	3 00
S. E. Ament, Oswego, Ills., handled horse hay rake, 2d premium.....	2 00
C. P. Dickey, Racine, fanning mills, (S. F. Leflin's patent,) 1st premium.....	Dipl'a.
J. Nash, Janesville, fanning mills, 2d premium.....	3 00
T. G. & M. W. Palmer, Chicago, hay stacker, 1st premium.....	Dipl'a.
E. S. Barrows, Janesville, Cumming's patent cutting box, horse power, 2d premium.....	3 00
H. C. Davis, Madison, straw cutter, hand power.....	Dipl'a.
F. G. & M. W. Palmer, Chicago, corn stalk and straw cutter, 2d premium.....	2 00
Andrew Proudfit, Madison, Westcott's churn and butter worker.....	Dipl'a.
H. Thompson, Palmyra, churn power, (on power).....	Cert. Ex.
J. P. Corbine, Whitney's Point, Nonpareil butter worker.....	Dipl'a.
L. A. Hulse, Geneva, Ills., horse and hand champion corn sheller.....	Dipl'a.
L. J. Bush, Milwaukee, corn sheller, (Burnell's patent,) 2d premium.....	Trans.
L. J. Bush, Milwaukee, feed cutters for horse powers, 1st premium.....	Dipl'a.
F. G. & M. W. Palmer, Chicago, horse hay pitchfork.....	Dipl'a.
Calkins & Wing, Merton, horse hay fork, 2d premium.....	Trans.
Fowler, Wood & Berry, Upper Sandusky, Ohio, corn husker.....	Cert. Ex.
Fowler, Wood & Berry, Upper Sandusky, Ohio, hay gatherer.....	Cert. Ex.
C. Williams, Beloit, clothes wringer.....	Dipl'a.
J. De Long, Madison, clothes wringer, "New World," 2d premium.....	Trans.
S. M. Gilmore, Janesville, rock drilling machine.....	Dipl'a.

JUDGES—H. P. Hall, Madison; Richard Richards, Racine; other names not reported.

CLASS 36—MACHINERY FOR MANUFACTURING PURPOSES.

H. M. Wright, Janesville, Grover & Baker's sewing machine..... Medal.

JUDGES—A. B. Goodrich; W. Lester, Janesville; A. W. Case, Racine.

CLASS 37—MACHINERY FOR THE MANUFACTURE OF SORGHUM.

E. W. Skinner & Co., Madison, sugar mill and apparatus, complete..... Silver Medal.

E. W. Skinner & Co., Madison, sweep sugar mill, patent adjustable, 1st premium..... Dipl'a.

W. S. Follinsbee, Janesville, ten gallons black African imphee syrup, 1st premium..... \$5 00

E. Wilcox, Trempealeau, sample imphee syrup, (not entered)..... Hon. men.

JUDGES—J. O. Eaton, Lodi; A. G. Tuttle, Baraboo; E. Wilcox, Trempealeau.

CLASS 38—CARRIAGES, STOVES, HARNESES, &c.

P. L. Smith, Janesville, riding buggy, 1st premium, diploma or.....	\$5 00
Robert Hodge, Janesville, open buggy, 2d premium.....	3 00
L. F. Hathaway, Janesville, one light single shifting top buggy, 1st premium, diploma or.....	7 00
L. F. Hathaway, Janesville, one top buggy, 2d premium.....	4 00
P. L. Smith, Janesville, brette carriage, 1st premium, diploma or.....	10 00
P. L. Smith, Janesville, family carriage, 2d premium.....	5 00
P. L. Smith, Janesville, one trotting wagon, 1st premium, diploma or.....	5 00
P. L. Smith, Janesville, one pleasure wagon, 1st premium.....	5 00
P. L. Smith, Janesville, display carriages, 1st premium.....	Medal.
E. S. Barrows, Janesville, four Stewart's cooking stoves, 1st premium, diploma and.....	3 00
E. S. Barrows, Janesville, five parlor coal stove, 1st premium.....	Dip.
E. S. Barrows, Janesville, three parlor wood stoves, 1st premium....	Dip.
J. B. Hyzer, Janesville, one heat radiator.....	Trans.
Daniel Daggett, Milwaukee, two rolls of wire screening.....	Dip.
A. P. Grover, Eureka, one grain cradle, 1st premium.....	Dip.
Simon Guthrie, Waukau, grain cradle, 2d premium.....	Trans.

JUDGES—Geo. Lawrence, Waukesha; John McCulloch, Janesville; R. B. Hammond, Waukesha.

CLASS 39—CABINET WARE, COOPERAGE, WILLOW WARE, LEATHER, BOOTS AND SHOES, INDIA-RUBBER GOODS, &c.

W. C. Ritchie & Co., Beloit, display of willow ware, 1st premium, diploma and.....	\$5 00
Rupee & Groneman, Rockford, Ill., spring-bed bottom.....	Dip.

JUDGES—Orrin Guernsey, Janesville; P. Schmitz.

CLASS 41—MUSICAL INSTRUMENTS.

J. L. Darling, Janesville, square piano, 1st premium, diploma and....	\$3 00
D. D. Wilson, Janesville, parlor piano, diploma and.....	3 00
D. D. Wilson, Janesville, American organ.....	Dip.
J. L. Darling, Janesville, cabinet parlor organ.....	Dip.
J. L. Darling, Janesville, melodeon, (Prince & Co's).....	Dip.
J. R. Eldridge, Janesville, melodeons, diploma and.....	3 00

JUDGES—A. C. Davis, Madison; Mrs. E. A. Tappan, Madison; L. C. Estee

CLASS 44—TEXTILE FABRICS, CLOTHING, &c.

Jas. Cotton, Burlington, white flannel, home manufactory, 1 premium.	\$5 00
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JUDGES—Orrin Guernsey, Janesville, P. Schmitz; More Spears, Black Earth.

CLASS 45—DOMESTIC MANUFACTURES.

Mrs. D. Barlass, Emerald Grove, one wrought counterpane.....	\$2 00
Mrs. F. Newbern, Johnstown Centre, knit counterpane.....	2 00
Mrs. D. M. Lay, Rock Prairie, knit counterpane.....	2 00
Mrs. A. E. Parmlee, Centre, patch quilt.....	2 00
Mrs. Chauncey Ross, Beloit, patch quilt.....	Trans.
Rosanna Gilmore, Janesville, double carpet coverlet, 1st premium....	3 00
Mrs. Wm. Spaulding, Janesville, rag carpet.....	3 00
D. L. Hopson, Tiffany, wool carpet.....	4 00
J. Child, Lima Centre, one dozen towels, 1st premium.....	2 00
J. Childs Lima Centre, 4 linen table spreads.....	2 00
J. Childs, Lima Centre, one pound of linen thread.....	5 00

A. J. Warner, Shopiere, wool mittens, 1st premium.....	\$1 00
Miss Emeline Childs, Lima Centre, one pair of mittens.....	1 00
Geo. J. Kellogg, Janesville, three pairs of children's cotton stockings, 1st premium.....	1 00
Miss Augusta Robinson, Lima Center, one pair of socks, (juvenile class), 1st premium.....	2 00
Mrs. M. M. Flint, Beloit, machine-knit hoisery.....	5 00
Mrs. I. S. Newton, Middleton, one pair wool stockings, 1st premium..	1 00
Mrs. L. H. Child, Lima Centre, wool blanket.....	2 00
Mrs. I. S. Newton, Middleton, gent's shirts.....	2 00
Mrs. Smith, Beloit, rag hearth rugs.....	1 00
James Catton, Burlington, ten yards of woolen cloth.....	3 00

JUDGES—Wm. A. Lawrence, Janesville; Mrs. Orrin Guernsey, Janesville;
Mrs. H. M. Powers, Dartford; Mrs. L. M. Hammond.

CLASS 46—MILLINERY.

Mrs. J. R. Beals, Janesville, silk bonnet.....	Diploma \$3 00
Mrs. J. R. Beals, Janesville, bonnet flowers, 1st premium.....	2 00
Mrs. J. R. Beals, Janesville, case of millinery goods, Diploma and....	5 00

JUDGES.—Mrs. E. W. Skinner, Madison; Mrs. I. Miltimore, Janesville;
Mrs. Goodspeed, Janesville.

CLASS 47—ORNAMENTAL NEEDLE WORK.

Mrs. C. H. Clark, Milwaukee, best ottoman cover, plain.....	2 00
Mrs. O. D. Bruce, Janesville, second best ottoman cover, plain.....	1 00
Anna M. Allen, Janesville, best cover raised.....	2 00
Mrs. C. H. Clark, Milwaukee, second best ottoman cover, raised.....	2 00
Mrs. M. L. Goodrich, Milwaukee, best crotchet tidy.....	2 00
Mrs. I. S. Newton, Middleton, best kint tidy.....	2 00
Mrs. Mary A. E. Campbell, Janesville, second best knit tidy.....	1 00
Mrs. C. H. Clark, Milwaukee, best chair cover.....	2 00
Mrs. C. H. Clark, Milwaukee, best worsted embroidery.....	2 00
Mrs. O. D. Bruce, Janesville, best wrought slippers.....	2 00
Mrs. M. A. Goodrich, Milwaukee, second best wrought slippers.....	1 00
Mrs. A. Sutherland, Janesville, best fancy hair work, (hair wreath,)...	2 00
Mrs. M. A. Bachelder, Fond du Lac, best embroidered scarf.....	3 00
Mrs. M. A. Goodrich, Milwaukee, best embroidered shawl.....	3 00
Mrs. L. Parlo, Juneau, best exhibition of wax fruit.....	5 00
Miss Minnie Sweet, Milton, best exhibition of wax flowers.....	3 00
Anna W. Allen, Janesville, second best exhibition of wax flowers....	2 00
Mrs. I. S. Newton, Middleton, second best hem-stitched handkerchief.	1 00
Mrs. M. A. Goodrich, Milwaukee, second best netted tidy.....	2 00
Mrs. M. E. Stuart, Janesville, two cases of sea weed and shells, from the Pacific coast.....	Dip.

JUDGES.—Mrs. O. S. Willey, Madison; Mrs. Chase, Janesville; Mrs. C. W. Olney, Madison.

CLASS 48—WORKS OF ART.

Mrs. H. P. Fales, Janesville, oil paintings, "Figures".....	Dip.
Miss Emily C. Quiner, Madison, oil painting, "Figures" 2d premi- um.....	Trans.
Mrs. E. J. Goodspeed, Janesville, landscape painting.....	Dip.
Mrs. H. P. Fales, LaPrairie, landscape oil painting, 2d premium.....	Trans.
C. L. Martin, Janesville, collection of oil paintings by old masters, 1st premium.....	5 00
Miss Emily C. Quiner, Madison, oil painting (portrait,)....	Dip.
Mrs. H. P. Fales, Janesville, oil painting, (portrait,) 2d preimum..	Trans.
Miss E. C. Quiner, Madison, fruit painting.....	Dip.
Miss E. C. Quiner, Madison, flower painting.....	Dip.

Mrs. E. J. Goodspeed, Janesville, collection of original oil paintings,	Diploma and \$5 00
Thompson & Glass, Janesville, ambrotypes	Dip.
J. R. Porter, Janesville, plain photographs	Dip.
J. A. Tice, Janesville, colored potographs	Dip.
Miss Grace H. Stone, Sharon, crayon drawings	Dip.
S. D. Clark, Whitewater, specimen of plain and ornamental penmanship	Dip.
Mrs. Treat, Janesville, drawing in india ink	Dip.
H. Rullson, Janesville, specimen of pen drawing	Dip.
S. W. Martin, Madison, specimen of pen drawing, &c.	Dip.
N. W. Wilcox, Adrian, Mich., specimen of pen lettering, (advertisement,)	Dip.
JUDGES.—Mr. Spencer, Milwaukee; J. M. May, Janesville; John R. Bonnell.	

CLASS 49—MISCELLANEOUS ARTICLES.

Mrs. A. G. Clapp, Ripon, improved dress model	Dip.
E. B. Godfrey, Oshkosh, grav-yard fence	Dip.
E. B. Godfrey, door-yard fence	Dip.
Booth & Griffith, Janesville, Hubbard's Patent stove-pipe damper ..	Dip.
Wm. Booth, Janesville, Hyatt's patent knife and scissors sharpener	Dip.
O. Taylor, Freeport, Ills., Wm. Hulls patent copper scroll lighting rod	Dip.
L. P. Cornell, Belvidere, Ills., Sagars patent wagon brake	Dip.
S. N. Taylor, Horicon, one threshing machine, coupling or knuckle ..	Dip.
Mrs. R. H. Adams, Elba, agricultural seed wreath	Dip.
Jonas Trumble, Janesville, patent shoe-bench	Dip.
H. L. Webb, Mukwonago, model sheep rack	Dip.
Robert Hodge, Janesville, patent axles and eveners	Dip.
A. Brown, Ripon, Robinson's patent latch and catch	Dip.
R. Brodie, Janesville, water proof patent leather polish	C't. Ex.
J. W. Smith, Janesville, combined foot-stove and lantern, 1st premium	Dip.
B. S. Hoxie, Cookville, Kidder's Compound Hive	Dip.
Mrs. M. M. Flint, Beloit, knitting machine	Dip.
E. Tripp, Chicago, Ills., Atwater's Cattle Pump	Dip.
Fairbanks, Greenleaf & Co., Chicago Ills., display of scales	Dip.
J. B. Wait, Waitsville, Wright's patent pendulum spinning wheel ..	Dip.
J. B. Wait, Waitsville, clock reels	C't. Ex.
G. R. Curtis, Janesville, case of toilet goods	Dip.
C. H. Clarke, Milwaukee, case of steel letter-cutting, and die-sinking	Dip.
C. H. Clarke, Milwaukee, embossing seal press	Dip.
C. H. Clarke, Milwaukee, two frames of fancy stencils	Dip.
C. H. Clarke, Milwaukee, seventeen stencil engravings	Dip.
C. H. Clarke, Milwaukee, gilded weather ram	Dip.
J. H. Kimball, Kenosha, wringer-mop, 1st premium	Dip.
R. H. Palmer, Rockford, Ills., Union pump	Dip.
W. H. Greenman, Whitewater, one case of dentistry	Dip.
George Craven, Beloit, case of stuffed birds	Dip.
Chas. Frank, Janesville, French sheep, fancy	C't. Ex.
E. R. Doty, Janesville, door and door bell	C't. Ex.
J. G. Garrison, Salem, Iowa, hand loom	Dip.
A. Van Patten, Fond du Lac, Shepherd's patent improved blind hinge	C't. Ex.
L. H. Culver, Janesville, samples tobacco	Dip.
Miss Chauncy Ross, Beloit, specimen of "cone work"	Dip.
Jas. Bullard, Evansville, Kidder's bee hive	Dip.
F. F. Blood, Janesville, shell pyramid	Dip.
JUDGES.—M. H. Powers, Dartford, Chn; other names not reported.	

CLASS 51.— LADIES' EQUESTRIANSHIP.

Mrs. Chauncey Stevens, Janesville, ladies' equestrianship, 1st premium 20 00
Miss M. M. Taft, Brodhead, ladies' equestrianship, 2d premium..... 15 00
Miss Laura Furlong, Janesville, ladies' equestrianship, 3d premium... 10 00

JUDGES.—His Excellency, the Governor; John R. Bennett, Janesville; W. A. Johnson, Janesville; J. H. Warren, Albany.

EXECUTIVE MEETINGS AFTER THE FAIR.

HYATT HOUSE, JANESVILLE, Sept. 30, 1864.

The Ex. Committee met to audit accounts, pay bills and premiums, and generally, to close up the business of the Fair.

On motion it was

Resolved, That the Auditing Committee and the Secretary are hereby instructed to meet at this place again on the 5th prox. to pay such remaining bills and premiums as may be due to the citizens of Janesville and vicinity, and that notice of said meeting be published in the *Gazette*.

Voted that Dr. Martin be requestd to properly pack and store the tents of the society, and that the Secretary be instructed to have the same sufficiently insured against loss by fire.

Adjourned *sine die*.

J. W. HOYT, *Secretary*.

STATE AGRICULTURAL ROOMS, Dec. 13, 1864.

Executive Committee met pursuant to requirements of By-Laws.

Present—Messrs. Hinkley, Eaton, D. Williams, Atwood, Warren and Hoyt.

President Hinkley, in the chair.

On call, the Treasurer presented his statement of the financial transactions of the Society for the year ending with this date, showing receipts to the amount of \$7,759.19, expenditures to the amount of \$5,587.35, and \$2,171.84 in the Treasury. [See page 201.]

After the auditing and payment of sundry bills of members for expenses in attending upon this meeting, adjourned *sine die*.

J. W. HOYT, *Secretary*.

ANNUAL MEETING OF SOCIETY.

STATE AGRICULTURAL ROOMS, Dec. 14, 1863.

The Society met in accordance with the constitutional provision at three o'clock p. m., of this day.

President Hinkley in the chair.

The principal business was to receive the report of the Treasurer, [see p. 201] which showed the gratifying fact that the receipts had been \$7,759.19, and the disbursements \$5,587.35, leaving a balance of \$2,171.84 in the Treasury.

Secretary also read the statement of the Chairman of the Auditing Committee that said report of the Treasurer having been compared with the Secretary's accounts and with the vouchers on file, was found to be in all respects correct.

J. W. HOYT, *Secretary*.

ABSTRACT OF RETURNS OF COUNTY AGRICULTURAL SOCIETIES FOR 1864.

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STATE AGRICULTURAL SOCIETY.

COUNTIES.	REPRESENTATIVE OFFICERS.			PLACE & DATE OF FAIR.		FINANCES.			
	PRESIDENTS.	SECRETARIES.	TREASURERS.	PLACE.	DATE.	RECEIPTS.	EXPENDIT'RS.	AM'T PAID PREM'S.	AM'T IN TREASURY
Brown,	Stephen Burdon, .	M. P. Lindsley, .	D. Butler,	Green Bay, . .	Oct. 5-6	\$208 66	179 29	138 00	29 37
Calumet,	A. H. Hart, . . .	O. P. Eldredge, .	J. A. Plumb, . . .	Gravesville, .	Oct. 5-7	202 56	182 79	64 58	19 77
Columbia, . . .	J. O. Eaton, . . .	H. B. Munn, . . .	F. C. Curtis, . . .	Columbus, . . .	Spt. 21-23	667 95	480 37	329 75	187 60
Dodge,	H. C. Crandell, .	Jno. C. Halliger, .	O. F. Jones, . . .	Juneau,	Spt. 21-23	559 55	558 83	310 78	82
Grant,	James Toay, . . .	J. W. Blanding, .	Harrison Reading	Lancaster, . .	Spt. 22-23	1,065 81	600 35	486 75	465 46
Iowa,	Richd. Arundel, .	S. Hoskins, . . .	Dodgville, . . .	Dodgville, . .	Oct. 12-14	649 50	613 64	257 00	25 86
Kenosha, . . .	Dudley Cass, . .	F. Newell,	L. W. Thayer, . .	Fair Ground, .	Spt. 21-22	837 98	358 76	390 00	279 17
La Crosse, . .	E. B. Richardson, jr	J. P. Jackson, . .	P. S. Elwell, . . .	West Salem, .	Oct. . . . 6	600 61	541 58	340 58	59 02
La Fayette, . .	Peter Parkinson, .	Chas. E. Brunner, .	A. Warden,	Fair Ground, .	Spt. 27-29	778 00	778 00	352 00	.....
Monroe,	Eli Waste,	Thos. D. Steele, .	Thos. B. Tyler, . .	Sparta,	Oct. 13-15	745 37	576 59	194 00	168 75
Outagamie, . .	W. H. P. Bogan, .	B. Douglass, . . .	Alvin Foster, . . .	Appleton, . . .	Spt. 21-22	240 26	221 20	168 50	119 06
Ozaukee, . . .	Patrick Roddy, . .	Wm. Vogenitz, . .	B. O. Z. Kussow, .	Cedarburg, . .	Oct. 3-4	420 32	311 44	189 60	108 88
Pierce,	Stephen Collins, .	Wm. Howes, . . .	P. Connors,	Prescott, . . .	Spt. 22-23	206 75	138 70	111 00	68 05
Polk,	C. H. Staples, . .	Isaac Freeland, . .	Wm. Amery,	Osceola, . . .	Spt. 23-29	205 25	143 50	.....	61 75
St. Croix, . . .	Wm Barker, . . .	C. H. Lewis, . . .	Wm. M. Otis, . . .	Hudson,	Oct. 5-6	199 98	199 76	95 00	22
Sheboygan, . .	Nathan Sargent, .	G. S. Graves, . . .	J. B. Richardson, .	Sheb. Falls, . .	Spt. 15-16	447 09	408 75	208 15	38 34
Trempeleau, . .	A. Thompson, . . .	G. Y. Freeman, . .	Jno. Nichols, . . .	Fair Ground, .	Oct. 12-13	344 08	142 60	140 75	75 86
Vernon,	A. Keeler,	Wm. S. Purdy, . .	S. C. Lincoln, . . .	Viroqua,	Oct. 4-6	200 00	178 50	155 00	21 50
Walworth, . .	Wm. Hollinshead, .	E. Elderkin, . . .	J. F. Brett,	Elkhorn, . . .	Oct. 5-8	2,992 11	2,865 07	808 50	74 04
Washington, . .	F. W. Notting, . .	Geo. H. Kleffler, .	A. Semler,	West Bend, . .	Oct. 6-7	208 75	203 53	162 00	5 22
Winnebago, . .	J. H. Hicks, . . .	J. M. Ball,	James H. Janes, . .	Oshkosh, . . .	Spt. 11-22	484 56	332 00	209 00	152 59
						\$12,265 10	\$10,015 25	5,065 94	1,861 33

TRANSACTIONS

OF THE

WISCONSIN STATE AGRICULTURAL SOCIETY

FOR 1865.

OFFICERS OF THE SOCIETY.

1865.

PRESIDENT:

DAVID WILLIAMS, WALWORTH COUNTY.

VICE PRESIDENTS:

First —J. I. CASE, RACINE.

Second—L. B. VILAS, DANE.

Third —KEYES A. DARLING, FOND DU LAC.

SECRETARY:

J. W. HOYT, DANE.

TREASURER:

DAVID ATWOOD, DANE.

ADDITIONAL MEMBERS OF EXECUTIVE COMMITTEE:

CHAS. H. WILLIAMS, SAUK.

C. L. MARTIN, ROCK.

J. H. WARREN, GREEN.

J. O. EATON, COLUMBIA.

ELI STILSON, WINNEBAGO.

G. H. STEWART, DODGE.

E. D. HOLTON, MILWAUKEE.

EX-PRESIDENTS, EX-OFFICIO MEMBERS:

HARVEY DURKEE, KENOSHA.

J. F. WILLARD, JANESVILLE.

B. R. HINKLEY, SUMMIT.

ANNUAL REPORT

FOR THE YEAR 1865.

His Excellency, LUCIUS FAIRCHILD,

Governor of the State of Wisconsin :

SIR: In conformity with the provisions of Chapter 80 of the Revised States, I submit herewith, the Treasurer's Annual Statement of the Fiscal Transactions of the Wisconsin State Agricultural Society for the year ending Dec. 12th, 1865.

It is a source of gratification to the officers of the Society, as well as to all friends of industrial improvement, that the first general Exhibition held by the Society since the close of so protracted a war, should have been the most successful, in every respect, ever held in the State; for it demonstrates two important facts—first, that, so far from having been in any sense exhausted by a four years draft upon our industrial resources and energies, there has been a steady advancement of the State in every department of productive industry; and, secondly, that the people are more than ever alive to the importance of fostering and encouraging every agency whose end is the material and social welfare of the State.

It will appear by the Fiscal Report that the finances of the Society are in a healthy condition. It is the desire of the Society not only to increase the encouragement it offers in certain important departments of industry, but also to undertake, at the earliest day practicable, a series of scientific investigations, which, taken together, shall constitute an agricultural survey of the State; and the Society is therefore confident that at an early day it will be well for the State to restore the appropria-

tion temporarily withdrawn by the Legislature of 1861. Still, in view of other demands that must be made upon the present Legislature in the interest of Agriculture and the Mechanic Arts, the Executive Committee do not feel warranted in asking for such reinstatement of the former appropriation, at present.

The need the Society has for more secure and commodious rooms for its office than those now occupied, or which it is possible for it to procure, together with the fact that the new Capitol is not wholly occupied by the departments, has given rise to the suggestion that rooms therein might be assigned for its use, without detriment to the State and with great advantage to the Society.

It is also highly important that provision be made without further delay for the regular publication of the Society's Transactions. No institution or organization can continue to flourish or make itself largely useful to the State without some proper medium of communication with the public; and but for the war just closed—which, however, does not furnish a sufficient reason—it would be difficult to explain the ground on which the Legislature of this great and growing commonwealth should have neglected, for several successive years, to make provision for the annual publication of the reports of the only institution within its limits devoted exclusively to the important work of advancing the State in material wealth and power. If examples be demanded they are not only presented by all the more enterprising States on every hand, but even by the former more wise and liberal practice of our own State.

The six volumes already issued by this Society compare favorably with the best of those annually sent out by the other State Societies of the country; and besides doing much good at home, they have added to the credit of both State and Society abroad, and secured exchanges with many of the most noted and useful industrial and scientific organizations in both the new and the old world.

It is confidently believed that the Legislature of Wisconsin, when fully aware of the many reasons which support these views of the Society, will inaugurate a more liberal policy in

respect of the matters herein presented. Believing the importance of the subject a sufficient warrant for so doing, the Society would again urge upon the attention of the Executive and of the Legislature the necessity for immediate action in regard to the establishment of the proposed College of Agriculture and the Mechanic Arts. The terms of the grant are such that this College must be in actual operation on the 2d day of July, 1867, else the State will have forfeited its claim to the lands donated by Congress. These lands are worth not less than \$300,000, and, if properly managed, may be made to yield even a larger sum. Is it possible that the State of Wisconsin, endowed with such resources, peopled by nearly a million of enterprising industrious citizens, and needing such an institution as Congress has wisely and beneficently provided for no less than the several states which have already established them without Congressional aid, will voluntarily sacrifice what has been expended in the selection of those lands, and, more than all, sacrifice her credit and the best interests of the great body of her people, by a forfeiture of so valuable a bequest?

Twice, in succession, the Senate has passed bills for the incorporation of an institution under the general provisions of the Congressional act, but each has in turn been defeated by small majorities, in the Assembly—and, we regret to say, by the representatives of that very class of the people for whose special benefit the donation was made.

If it be considered finally settled that the industrial classes will not authorize sufficient appropriations from the general fund of the State for the proper founding of a broad and liberal institution devoted exclusively to their own interests, then it will be well to devise and adopt such plan of consolidation with an existing institution as will insure to the State the great benefits derivable from the national benefaction.

I have the honor to be, on behalf of the Executive Committee,

Respectfully yours,

J. W. HOYT, *Secretary.*

STATE AGRICULTURAL ROOMS,
Madison, Jan., 1866.

TREASURER'S REPORT.

To the Executive Committee of the Wisconsin State Agricultural Society :

The Transactions of the Treasurer of the Society for the last year have been as follows :

RECEIPTS.

Balance on hand, as per last report of Dec. 9, 1864 . . .	\$2,171 84
Received for Life Memberships	240 00
as entry fees	767 00
for rent of grounds	1,022 50
for sale of grain	16 16
for sale of tickets at Fair	7,187 50
Total receipts	<u>\$11,404 90</u>

EXPENDITURES.

Total amount paid on orders from No. 32 to 350, both inclusive, this day returned and cancelled, being payment of premiums and general expenses . . .	\$8,330 52
Balance in treasury	3,074 38
Total	<u>\$11,403 90</u>

All of which is respectfully submitted,

DAVID ATWOOD, *Treasurer.*

MADISON, Dec. 12, 1865.

I hereby certify, that having examined the foregoing Report of the Treasurer, with the accompanying vouchers, and compared the same with the Secretary's accounts, we find the same in all respects just and true, and that bills and vouchers for the several items are on file and open to inspection in the office of the Society.

B. R. HINKLEY,
Chairman of Com. of Examination.

STATE AGRICULTURAL ROOMS, Dec. 12, 1865.

PROCEEDINGS.

EXECUTIVE MEETINGS.

STATE AGRICULTURAL ROOMS,

February 7, 1865.

The Executive Committee met pursuant to requirement of By-Laws.

Present—D. Williams, President, J. I. Case, C. H. Williams, E. D. Holton, J. O. Eaton, Eli Stilson, G. H. Stewart, B. R. Hinkley, J. H. Warren, and J. W. Hoyt.

President Williams in the chair.

Mr. Holton moved that the whole subject of the Premium List be referred to a committee consisting of Messrs. Williams, Hinkley and Case.

Objection being made, the motion was withdrawn.

Mr. Hinkley moved that the rules, regulations and list of premiums, for the next exhibition, be now taken up and considered by the Executive Committee. Carried.

The work of a revision of the list of premiums, &c., of last year, was then taken up and proceeded with until 10 o'clock.

On motion of Mr. Hinkley, it was

Resolved, That the salary of the Secretary be and the same is hereby increased to \$1500 per annum from the 1st day of January last.

On motion, adjourned.

February 8, 8 o'clock A. M

Committee met pursuant to adjournment.

Present—Messrs. David Williams, President, Hinkley, Holton, Darling, Eaton, C. H. Williams, Stewart, Stilson and Hoyt.

President in the chair.

The Secretary announced that the Hon. Jackson Hadley, of Milwaukee, desired to make application for the temporary use of the Society's canvas tents for the Ladies' Wisconsin Soldiers' Home, and moved that he be invited to present his application at that time. Carried.

Mr. Hadley was then introduced to the committee by Mr. Holton, and after stating that the Ladies desired the tents for their use in holding the contemplated Soldiers' Home Fair, supported his application in their behalf with a few pertinent and eloquent remarks; at the conclusion of which,

On motion, it was unanimously

Resolved, 1. That the resolution of the Society, prohibiting the loan of its tents for any purpose whatever, **be and the same** is hereby amended, by adding the words: "except in aid of benevolent or patriotic purposes."

Resolved, 2. That the request of the Ladies' Soldiers' Home Association is hereby granted, and that the Secretary is authorized to furnish the President of said Home with an order for the immediate delivery of the tents and to request the Mil. & P. du C. R. R. Co. to give them free transportation to and from Milwaukee.

Committee then resumed the revision of the List of Premiums, and continued in said work until 12 o'clock M.

On motion, adjourned to 2 o'clock.

2 O'CLOCK, P. M.

Committee met pursuant to adjournment, and proceeded to the appointment of Judges and Superintendents of Departments; which, having been disposed of, it was

Resolved, That the President and Secretary are hereby authorized to make such arrangements for the location of the Fair as shall seem to them expedient.

On motion, adjourned *sine die*.

J. W. HOYT, *Secretary*.

MEMORANDUM.

Executive sessions were held every evening during the Fair; but, as the business related exclusively to the management of the Exhibition, it was not deemed important to make a record of the proceedings thereat for publication in the Transactions.

STATE AGRICULTURAL ROOMS,
MADISON, Dec. 12, 1865.

The Executive Committee met pursuant to requirement of By-Laws.

Present—Messrs. David Williams, President, B. R. Hinkley, L. B. Vilas, J. O. Eaton, David Atwood and J. W. Hoyt.

President Williams in the chair.

The principal business of the meeting being to settle with the Treasurer.

On motion, the Fiscal Report was called up and compared with the accompanying bills and vouchers.

[For Report see page, 232.]

Which Report, being found correct, was unanimously approved and ordered to be placed on file.

The Secretary then offered the following resolutions, which were cordially approved and unanimously adopted:

Resolved, That the warmest thanks of the Wisconsin State Agricultural Society are hereby tendered to Maj. General W. T. Sherman, the pre-emi-

ment soldier, the sterling patriot, and the intelligent and appreciative friend of American Industry, who, by his attendance upon our late Exhibition and his pertinent and eloquent speeches on that occasion, contributed so largely to its unprecedented success.

Resolved, That the cordial thanks of the Society are also hereby tendered to Hon. Alex. W. Randall, Postmaster General, to Hon. Timothy Howe and James R. Doolittle, United States Senators from this State, and to His Excellency James T. Lewis, Governor of Wisconsin, for their attendance upon said Exhibition and their excellent addresses.

Resolved, That the thanks of the Society are likewise due and are hereby tendered to Geo. L. Dunlap, Esq., Gen. Superintendent, Col. Jas. H. Howe, Attorney, and other officers of the Chicago and Northwestern Railway Company, for the marked favor of special trains and other like facilities so generously placed at the command of the Executive Committee, in furtherance of their desires and purposes, to convenience and honor their distinguished guest, Maj. Gen. Sherman.

The bills of members of the Committee for expenses incurred in attending this meeting having been audited and paid,

On motion, Committee adjourned *sine die*.

J. W. HOYT, *Secretary*.

ELECTION OF OFFICERS FOR 1866.

MYERS HOUSE, JANESVILLE,

Sept. 28, 1865—7½ o'clock.

Pursuant to published notice, as required by the Constitution, the Life Members met in the Reception Room of the Myers House, this evening, at 7½ o'clock, for the election of officers of the Society, for the year 1866.

President Williams in the chair.

On call, the Secretary read the list of Life Members; and

On motion of Dr. C. L. Martin, a committee of five members, exclusive of the mover, to be appointed by the President, was authorized to make nominations for the several constitutional offices of the Society.

The chair appointed Anson Rogers, W. R. Taylor, A. Proudfit, J. H. Warren, and Simeon Mills as said committee.

After a brief consultation the committee reported the following nominations:

President.—David Williams, Springfield.

1st Vice President.—C. L. Martin, Janesville.

2d Vice President.—B. R. Hinkley, Summit.

3d Vice President.—L. B. Vilas, Madison.

Secretary.—J. W. Hoyt, Madison.

Treasurer.—D. Atwood, Madison.

Additional Members of Executive Committee.—E. D. Holton, Milwaukee; W. R. Taylor, Cottage Grove; C. H. Williams, Baraboo; J. H. Warren, Albany; E. Stilson, Oshkosh; J. O. Eaton, Lodi; G. H. Stewart, Beaver Dam.

On motion, S. G. Benedict was directed to cast the names reported, as the ballot of all the members present; which, having been done, the above named gentlemen were declared, by the President, to have been duly and unanimously elected the officers of the Society for the ensuing year.

On motion of the Secretary, it was

Resolved, That when this meeting shall adjourn, the Society will proceed, in a body, to the depot, to receive Maj. Gen. W. T. Sherman, who comes as the guest of the Society, and is expected to arrive at Janesville by a special train at 8 o'clock.

Whereupon, on motion, the Society adjourned *sine die*.

J. W. HOYT, *Secretary*.

ANNUAL MEETING.

STATE AGRICULTURAL ROOMS,

MADISON, Dec. 13, 1865.

The Society met at 3 o'clock of this day in these rooms.

Quorum present.

Vice-President Hinkley in the chair, the President having been detained at home by illness.

On call, the Secretary proceeded to read the report of the fiscal affairs of the Society for the year just closed, from which it appeared that the receipts into the treasury for the year 1865 had been \$11,404 90, and the total disbursements \$8,330 52; leaving a balance in the treasury, at this date, of \$3,074 38. [See Treasurer's Report, page 232.]

After congratulations by members of the Society on the highly favorable condition of its finances, in view of all the difficulties under which its officers had labored during the past several years, together with some informal plans for the future,

On motion, the Society adjourned *sine die*.

J. W. HOYT, *Secretary*.

EXHIBITION OF 1865.

[From the Secretary's Record.]

After months of laborious preparation the Twelfth Annual Exhibition of the Wisconsin State Agricultural Society has come, and been numbered among the events of the past.

The Grounds seem to have given universal satisfaction. The first effect of the exhibition proper would have been more impressive had the buildings, tents, and other structures been displayed within the track or on the opposite side of it, for, then, the whole of them would have met the eye of the visitor upon his first entrance within the enclosure. But the track having been already established on the further side of the available grounds, it was impracticable to arrange the exhibition buildings beyond it, while the placing them within the track would have so obstructed the view of the trials of speed as to have rendered this very interesting branch of the Exhibition much less satisfactory. The track itself was beautiful, and gave universal satisfaction.

The entries were twice as numerous as last year, and in some departments more numerous than at any previous exhibition in this State. Number in "Division A," Domestic Animals, 516; in "Division B," Products of the Earth, 326; in "Division C," Machinery, Manufactures and Works of Art, 654; in "Division D," Farm Work and Equestrianism, 13; total, 1,509.

The show in the Department of Horses was only just fair, in those of swine and cattle rather slim, but in all other departments excellent, and in some of them superb.

The Wool Growers were there in full force, according to promise. In fact the show in this department was never equalled in Wisconsin.

In the Poultry Department, the field was pretty much left to that King of stock exhibitors in Wisconsin, Simon Ruble, of Beloit, whose display of chickens of the most approved breeds, pea fowls, rare geese, ducks, &c., was very fine and attractive. Mr. Ruble also had the credit of saving the swine department from being nowhere. His Yorkshires and Suffolks are fine animals, worthy the attention of all farmers swinishly inclined.

Field Products turned out as though a little afraid they might not be quite up to the mark. The committee of judges report that the samples were generally good, many of them excellent. Trempealeau County got in late—

freight delayed on the Mississippi—but was let in, and made a good show of spring wheat, turnips, seed corn, peas, beans, &c., and, to the surprise of the Committee, two samples of cotton, grown in Trempealeau, well matured.

Garden Vegetables were in the same category. Trempealeau County's display is highly commended by the committee.

Butter, Cheese, Flour, Honey, &c., were not present in great quantities but as to quality well sustained the reputation of our Wisconsin producers. The lists of awards will show who were the successful competitors.

The Show of Fruits was splendid—decidedly the best, if we are correctly informed, that has this year been made in any of the Western States. The *Chicago Tribune* says of it: "Floral Hall presents a beautiful picture, filled, as it is, with choice fruit and flowers. I have not seen a show to compare with this one, except the exhibition of the Illinois State Horticultural Society, held at Rockford two years ago. Indeed, the noted 'fruit region' of Egypt never presented a finer show of Apples and grapes. They are large, fair, high colored and of excellent quality." The non-professional cultivators did finely, many of them showing 40, 50, and 60 varieties and that of the very best quality.

Trempealeau County was also handsomely represented in this department, showing beautiful apples, pears, grapes and plums.

Under the management of Mr. J. C. Plumb and wife, the exhibition in Floral Tent was tastefully arranged and admirably filled, reflecting much credit not only upon themselves as Superintendents for the Society, but also on the State Horticultural Society, therein and by them represented.

The Bee Keepers were loudly and stoutly represented by Messrs. R. C. Otis, General Agent for Langstroth's hives, W. F. Flanders, Patentee and vender of the Flanders hive, and James Bullard, Agent for the Kidder hive.

The Manufacturers' Tent was crowded as never before. Sewing machines, looms, spinning wheels, knitting machines, washing machines, &c., occupied the center, and carriages, scales, stoves, willow ware, cases of hats and caps, clothing, cloths, yarns, threads, leather, harnesses, saddles, and a thousand and one other things were stowed away on the tables and around the outer portions of the great tent. Altogether it constituted one of the most interesting departments of the Exhibition and was constantly crowded with delighted visitors.

The sewing machines exhibited were Wheeler & Wilson's, Wilcox & Gibbs, and Grover & Baker's. The machines were all managed admirably and added very much to the interest in this department.

The show of Machinery and Implements occupied several acres of ground and was decidedly the most imposing display of the kind ever made in this State. Reapers and mowers, threshing machines, windmills, pumps, grain drills, cultivators and plows, patent gates, harrows and bog cutters, rollers, hay-loaders, horse-rakes, steam engines, &c., covered the ground, and last, but by no means least, there were the sorghum mills and great sorghum establishments, all, or nearly all in full blast, crushing the cane and manufac-

turing the syrup by the barrel. We regret exceedingly that the burden of official duties rested so heavily upon our shoulders during the entire Fair, that we were utterly unable to give ten minutes to this truly magnificent exhibition.

The Sorghum men, especially, are worthy of all praise, for they contributed immensely to the success and spirit of the Fair. Without stint as to means and effort they put up large buildings, with furnaces, flues and all else necessary, and actually converted the eastern portion of the Fair Grounds into a stirring manufacturing city. The establishments of the Northwestern Sorgho Company, Messrs. Powers & Stevens, and of the Rock River Iron Works, Janesville, Jas. Harris & Co., were particularly deserving of attention. They were really neat and showy structures, and standing, as they did, in the foreground of the manufacturing and mechanical department, with their whitened walls and lofty fronts emblazoned with "Camp Sorghum," and "Free Show," in bold black letters, constituted a spirited feature of the exhibition in that quarter. The exhibitors of Sorghum Mills, apparatus and powers were as follows, named in the order of their record on the Class Book: E. W. Skinner & Co., Madison; Woodbury & Holcomb, Madison; Northwestern Sorghum Machine Co., Madison; J. B. Norton & Co., Madison; James Harris & Co., Janesville; J. I. Case & Co., Racine. We are grateful to them all for their magnificent display, probably the best ever made in the world—and sincerely wish they could all have taken premiums.

The department of Fine Arts was literally packed and crammed with musical instruments, silver ware, paintings, drawings, sun pictures, embroidery, fine needle work, carvings on wood and other materials, rich paper hangings, tapestry, and hundreds of other things rare and beautiful, and crowded constantly with spectators, moreover. Our artists fairly out-did themselves.

The leading events of the fair were exactly as proposed in the Society's advertisements. Even the weather stood by our prophecy like a sterling friend, and steadily refused any interference with the programme.

On Wednesday, at 9½ o'clock A. M., the Opening Address was delivered from the Judges' Stand by the President.

OPENING ADDRESS.

By HON. DAVID WILLIAMS, PRESIDENT.

Gentlemen of the State Agricultural Society and Fellow Citizens :

We ought to be grateful to the Giver of all good that we are permitted, under such favorable circumstances, to assemble in peace at this the annual return of the farmers' festival. I congratulate you also on the condition of the weather. All the elements seem to combine to make it pleasant. While in former years we have been somewhat unfortunate, we are highly favored now. The earth, too, has been bountiful in yielding every product of the soil, and, in addition, we enjoy, to-day, health, peace and prosperity, for all of which let us be devoutly thankful to the Giver of all good. Let us also bear in mind to whom we are indebted, under God, for the peace which we enjoy, and let all hearts be filled with gratitude to the brave boys in blue. To those who have fallen in defense of our rights, let there be a monument in every loyal heart. I welcome you to the opportunity here offered to study all manner of agricultural problems. Do not neglect it, for there is much food for thought and study in the field opened to us. While some object to a part of our programme, let me remind them that there is not a more beautiful sight in all nature than a horse put upon his metal. Why not try his speed or endurance? You try a machine. You must test a horse to know his powers. You try a draft horse, a roadster; why not try a thorough-bred? His motion is quicker, his style is different. We propose to test his speed.

Gentlemen, I ask of you that, during the progress of the Fair, you guard every department as well as your own private pockets; for, unfortunately, we have a thieving gentry among us. Avoid a swell-mob or any unnecessary crowd. Gentlemen, with these remarks, I welcome you to all we have to offer as an exhibition, and I now proclaim the Twelfth Annual Fair of the Wisconsin Agricultural Society open.

The Secretary then called the names of the gentlemen constituting the Awarding Committees, and the working machinery of the Fair was at last under full headway.

The Trials of Speed by trotting, pacing and running horses were spirited and gave great satisfaction to the tens of thousands who witnessed them; and, so far as we have been able to learn, nothing occurred to mar the perfect good order which everywhere prevailed.

The Ladies' Equestrianism was more than usually spirited, there being ten competitors, all of them superior riders.

those two features of our State Exhibitions, though objectionable in the minds of some good friends of the Society, seem, under all the circumstances

to be essential to securing a large attendance and making the Fair a success.

In the evening, at 7½ o'clock P. M. of Thursday, was held the Election of Officers of the Society for the year 1866. [See Page 235.]

ARRIVAL OF GENERAL SHERMAN.

At 8 o'clock, meetings of the Wool Growers' Association and of the State Horticultural Society were held in the Court and Jury rooms, and a 9 o'clock the officers of the Society, a committee of citizens and an immense crowd of people went to the depot to meet Gen. Sherman who, with Colonel Sawyer, of his staff, arrived at the appointed time, in charge of Messrs. E. D. Holton and K. A. Darling, officers of the Society sent out as a committee to meet him, and was escorted to the Myers House, where provision had been made for his entertainment. In a few moments the streets about the hotel were densely crowded with people anxious and clamorous to see the distinguished hero, and so, at last, he stepped out upon the balcony, and, having been introduced by the President of the Society, spoke as follows:

"FELLOW CITIZENS—I appear before you to-night, not that I have anything to tell you, but simply to gratify the curiosity you feel in seeing me. That curiosity is excited chiefly by the fact that many of your sons have served with me during this war. Fellow citizens, I am proud to meet you, and can only say that I shall meet you to-morrow at the Fair Grounds, and that I will then talk to you more fully about what I mean. All I have to say is, that, in any future war we may have, I want you to send me boys as brave as those you sent to me in Tennessee."

This coming of the great General was a fit winding up of the day, and that night not less than thirty thousand people went to sleep feeling that it had been the richest festive day ever known in the Badger State.

During the night, the several trains of cars brought multitudes of people that no man could number, and the thought of the morrow brought to all such as stood in dread of great jams a most uncomfortable sense of half suffocation. With the morning came a sprinkle of rain—just enough to lay the dust—and fleecy clouds, prophetic of a glorious day. Earlier than usual the multitudes swarmed toward the Fair Grounds, so that thousands were there by 8 o'clock. But when, at 9 o'clock, the carriages containing Gen. Sherman, and Col. Sawyer, Governor Lewis, Ex-Gov. Randall, Senators Howe and Doolittle, and the President of the Society, preceded by the Band, moved up Milwaukee street, it seemed as if not only the whole city but at least 20,000 outsiders had been waiting for the signal. Caesar in none of his triumphal entries into the Eternal City ever drew after him a more multitudinous host of admirers. It seemed as though myriads of men, women and children, wagons of every possible description, horses and mules came up out of the very ground.

At a little after 10 o'clock the General and the other speakers appeared upon the stand, amid the acclamations of the people.

ANNUAL ADDRESSES

BY MAJ. GEN. W. T. SHERMAN, AND OTHERS.

General Sherman was first presented by the President and spoke very nearly as follows :

I have come to Wisconsin, not for the purpose of making a speech, or to address the gentlemen who could teach me all about agriculture, for I do not profess to know anything at all about it. It would seem to me preposterous, for a plain, simple, straight-forward soldier, to speak to you at all, in the presence of such men as Gov. Randall and Senator Doolittle, whose fame has extended over the whole world, and I do not want that anything I may say should be construed into a speech, or as an evidence of my feelings and my love for the people of Wisconsin. I could not say anything that would be an adequate expression of the feelings I have for you, and that would fitly represent the gratitude I feel toward you for your acts of devotion to the good of this country. I feel deeply your devotion to our cause, and I am thankful for the expressions of good feeling which you have always given to me, especially at this present time. I therefore wish that you will accept my apology for not making anything like an address which would be calculated to impart information or give instruction to you, the citizens of Wisconsin—men who are able and qualified to teach me on all those subjects that concern agriculture. [Cheers.] I assure you that it gives me pleasure to meet you here ; it is more pleasant to see you with your bonnets than with your bayonets ; but in reflecting upon the past I know that the men who now surround me are they who aided me in the ordeal through which I and they have passed. I know that the old soldiers who have marched with me through the South will turn their labor, which until now has been a labor of destruction, into a labor to build up and make Wisconsin what she is doomed and destined to be, a land noted not only for big and brave men, but for all those graces of life which are included in education, refinement, and luxury, and for everything which makes life desirable. To the old soldiers I need say nothing. I have had the assurance of your Governor that you have come back from the war pure and untainted by the vices which afflict humanity, and that the men of Wisconsin have resumed their labor on the plough and in the workshop as in the days gone by. The old despotisms of Europe will look upon that simple fact as a greater honor to you, and reflecting more credit upon

our country than all the facts, and all the victories of war. [Cheers.] Wisconsin has stood nobly in this war; she has done her full duty; she has supplied not only men and money but intellect and thought. Muscle and bone are nothing; there must be the intellectual activity to direct them. Muscle is an element in power, but intellect is power itself.

¶ In giving credit to your State for what she has done, it is only fair to say, right from the beginning of this war the Second Wisconsin Regiment has served with me, and braver, nobler, better, more intelligent men I have not found. At Bull Run they stood firmly by me, and I appeal to all the soldiers here, and ask if I did not always, whether in prosperity or defeat, give a hearty welcome to a Wisconsin regiment? [Cheers.] I don't want to be understood as detracting from the credit due to any other State—I simply desire to do justice to you. You may be assured that you will find good men everywhere, but some men are more accustomed to order and discipline than others, and pre-eminent among such are the men from this State. And so Wisconsin, rich in her children, rich in the fertility of her soil, rich in all that makes a State great and powerful, is a representative of that strength which makes up the sum of the American Union. [Loud Cheers.] The war has closed—we feel now assured of a peace which shall be as lasting in its quality as it is long in duration; when every man can sit down under the shadow of his own vine and fig tree, and “be not afraid,” without the fear of any draft officer coming to take his cherished son away. [Cheers.]

May such peace be ours forever, and may we take advantage of it to develop this as well as other States. May you do this, and so far succeed in it that Wisconsin shall rear her head as the proudest of all our proud States. [Cheers.]

EX-GOVERNOR RANDALL'S SPEECH.

Ex-Gov. Randall expressed his pleasure in seeing so large a crowd present to welcome the foremost General of the age; the general who fights with his pen as well as with his sword. [Cheers.]

He was not an agriculturist, and could not speak as a man having authority upon such subjects, but he could talk about what he had seen, and recognized the value of the productions of the farmers of the West, especially of Wisconsin. The wealth of the Union came from the soil—to that alone could its origin be traced, from that alone did it spring, and among all of those States, great among the greatest was Wisconsin. There could be no end to her greatness so long as her people did all they could to develop her resources. Prosperity was a natural and inevitable result, and should not be received with any astonishment. Four years ago, or a little more than that, we were plunged into a great rebellion, from which we have eliminated victory. To-day we are at peace, and I desire that we shall make that peace not only glorious to our country but to each State and to each individual. In that case, there will be no fear for the future of this great nation. We have grown more rapidly as a country than the countries of the

old world. Seventy years may be considered the period of our growth, while theirs may be called seven hundred. Why is this? It is because the old nations grew out of barbarism, while our nation has grown out of their civilization. [Applause.] We had their civilization as the basis of our growth. They had barbarism as a point from which to start, and we a high state of civilization, and if we remain true to the fundamental principles of our social and political being, industrious, persevering and just to all others, as well as ourselves, the glory we have already earned is but a promise of what our country shall yet be, and our growth in the future, blessed by liberty and peace, will be more rapid and prosperous than in the past. [Cheers.]

SENATOR DOOLITTLE'S SPEECH.

Four years ago he had met them at the same place. It was in September, 1861, and he had then told them the great issues that were before the country, and which the logic of events had fully and completely justified. At that time our armies had been driven back, and seemed to be on the point of being overwhelmed with disaster. He then read a long quotation from said speech, which was a denunciation of the South for its treason, an acknowledgment of the bravery and virtue of our soldiers, a reflection upon the incompetence of our State authorities, and a claim on behalf of the Southern States to be taken by the hand of love, fellowship and fraternity, and asked to dwell with us again.

Slavery had been the cause of the rebellion, and slavery had now been crushed, and the avenging minister who struck at the vitals of slavery and rebellion at the same time—God bless him for it—was now here. [Amens.] While he was an avenging minister he was also an angel of mercy. [Cheers.]

Paying further compliments to the distinguished guest, and to the art and science of agriculture, the honorable gentleman resumed his seat.

SENATOR HOWE AND GOVERNOR LEWIS.

Senator Howe followed in a few most happy remarks, and the proceedings were closed by a neat and appropriate address from Ex-Gov. Lewis.

Three cheers being called for for Gen. Sherman, they were given with hearty good will, after which the people dispersed and the ordinary Fair programme was resumed.

The great feature of the afternoon was the race of thorough-bred horses, for the Society's premiums of \$200; mile heats, best three in five.

General Sherman returned to the grounds about half after one o'clock P. M., in order to witness this race. There were on the stand at the same time with the General, Gov. Randall, Gov. Lewis, Senator Howe, Col. Sawyer, Gens. Fairchild and Hobart, and a number of other distinguished gentlemen, all apparently very much interested and delighted with the sport. There were six horses entered. Five came to time.

APPEAL ON BEHALF OF THE ORPHANS' HOME.

After a beautiful race that seemed to be enjoyed by everybody on the grounds, [for result, see List of Awards].

Gen. Sherman was again introduced and made the following brief but eloquent appeal on behalf of the asylum about to be established at the Capitol, for the Orphans of patriot soldiers:

LADIES AND GENTLEMEN:—I have been requested by the officers of your Agricultural Society to present to your earnest consideration the cause of the soldiers' orphans, the erection of an asylum, and the purchase of such grounds as shall support your soldiers' orphans—your orphans. They are yours as much as they are the children of the father that begot them. They died for their country and bequeathed to us their children. Let us be sure that they are taken care of. The Government will take care of some, your State will take care of some, and yourselves must take care of the others. I am sure that it needs no loud call from me, or that I should speak of the urgency of the case. I need simply to mention it. There is no man here who will deny his sympathies to the child of the soldier, the brave, the manly soldier who died for his country.

Mrs. Harvey has a tent on the grounds, where subscription will be received. I hope you will respond.

Gov. Lewis then announced that subscriptions would be received then and there, and the Secretary made further appeals to the public in support of the claim presented. As a result of the movement some \$300 was raised on the spot; which, added to sums received by Mrs. Harvey, at her tent, on the grounds, gave an aggregate of about \$1,000.

The day was now so far advanced and so many exhibitors had been obliged to remove their stock, that the cavalcade of premium animals on the Track was omitted, and general orders having been issued for the removal of animals and articles the Great Fair was at an end.

STATE BANQUET TO GEN. SHERMAN.

In the evening at the Hyatt House, and gotten up by prominent citizens of Janesville, there was given a State Banquet to General Sherman: Governor Lewis presiding and making the speech of welcome. Toasts were responded to in lengthy and able speeches by Senators Howe and Doolittle, Mat. H. Carpenter, Gov. Randall, Col. Howe, Gens. L. Fairchild, Hobart and Atwood. The response of Gen. Sherman to Gov. Lewis and the toast to "our distinguished guest," was in about the following words:

GEN. SHERMAN'S SPEECH.

GENTLEMEN: I can hardly express how sensible I am of the kindness manifested by your Governor and by yourselves, since I have reached your town of Janesville, or to a flank movement catching me here. You are always welcome to catch me at a supper party by a flank, or any other movement.

[Applause.] Were it not for the fact that, though a soldier, I am sometimes expected to speak, I would not be unwilling to be outflanked in this city at any time. There is one reason why I object to it, and that is, our words, uttered for the purposes of conviviality, are published to the world. These words are sometimes tortured to mean what was never intended, and, by omissions noted and commissions exaggerated, are rendered very different from what we would wish. I hope you will excuse me, although you could not be drawn into a discussion of any subject in which I have any influence now, for I look upon my task in life as done. I do not expect a war to arise in which I can take a part; and as to politics, on which we all talk so much and know so little [laughter], I would cheerfully leave them to men such as now sit in my presence. It would be as much out of place for me to discuss politics in their presence as it would be to speak of religion in the presence of its priests. But there is one subject on which I will speak a few words to this body, and that is our past history. Rome could not point to such a history. Greece could not boast of it, nor could Italy, nor even England. The beginning of our history was poetic, and as we look back upon such names as Lasalle and Hennepin, we cannot but recognize the fact. So you may trace the history of our country from its discovery until the time that our forefathers formed the Government, with all of which you are more familiar than I am; but I simply point to its beautiful workings. They formed a Union of States, each supposed to be a State within the Union, compact and strongly bound together with bonds of love—silken bonds. But this war has come and taught us these bonds were not strong enough, and we have forged them of steel, and now we have the Union again which our Fathers gave us, in letter, spirit, and purpose, save that the bonds formerly uniting us have been strengthened, not by a new compact, but new sanctions. Our new Union is the same to-day as that of '81, its new sanctions properly acquired, and its character the same; and when Congress gives additional sanctions, I would fight for them just as strongly as I do for the present. [Applause.] Never should a soldier, or a man who claims to be one, set up his opinion in the face of the constituted authorities. I refer to the past history of the predecessor of Gen. Grant and myself to show we loved peace, but we enforced it by law, and all we have asked or ever will ask is, tell us what is the law—what is the Constitution—and we will obey it or die. [Applause.] That is politics enough for me and it is all I ever want to learn, and if politics lead me far from that, I will go to some other country, for I look on this as the Republic of law, and we should reverence and bow down before its majesty as the citizens of other lands do to their sovereign. There is no merit, however, in obeying the law we love, but there is in obeying that we do not love. I obey with the same respect the law I do not love and claim the more respect for it [Applause.] I beg these gentlemen to remember that when the laws of Congress are declared thus and so, I will enforce them by my own physical strength and that of every arm the government places subject to my command. Again thanking you for your kind welcome, I hope many a time to be outflanked by you in any of your towns in Wisconsin. [Applause.]

Altogether the banquet was a very pleasant affair, and a fitting *finale* to the Twelfth Annual Exhibition.

In concluding this hurried and very imperfect account we should not omit to tender

THE GRATEFUL ACKNOWLEDGEMENTS OF THE SOCIETY.

1. To the Giver of all good for the highly favorable circumstances, a full week of the most delightful weather included, under which the Exhibition was held.

2. To the great zeal and enterprise with which farmers, fruit-growers, mechanics, artisans, artists, housewives, and the whole people responded to the call of the Society.

3. To the press of the State, through whose generous and cordial co-operation that call was so universally brought to their notice and made effective.

4. To the great General—foremost of his time and of all times—who, by his coming, so splendidly completed the programme of great attractions, added thousands to the multitude of those who would not otherwise have turned out to the Fair, and gave to the whole occasion an *ecbat* that shall make it a marked and shining era in the history of our State Exhibitions.

5. To our other distinguished speakers, ex-Governor Randall, the able and everywhere popular Assistant Postmaster-General of the United States; our two strong and able United States Senators, Doolittle and Howe; and, finally our present tried, faithful and popular Chief Executive of the State, always ready with voice and official aid to contribute to the growth and industrial progress of the commonwealth.

6. To the Railroad, Steamboat, Express and Telegraph Companies of Wisconsin and the neighboring States, whose faithful observance of liberal contracts for the transportation of persons and property to and from the Exhibition, and the free transmission of messages, contributed so much to render it eminently successful.

7. To the leading citizens, official and private, of the city of Janesville, who, by their friendly co-operation with the Society, did what they could for the comfort and pleasure of the thousands who, throughout the entire week, crowded their city to its utmost capacity.

8. And lastly, to the great public in attendance for the all-abounding grace and good nature which characterized their compliance with the rules and wishes of the Society. Our own duties, as an officer of the Society, made it necessary that we should be nearly everywhere present on the Grounds, thus affording us the best possible opportunity for observing the temper and conduct of the people; and yet in no case, either during the races or at any other time during the Fair, did we hear a word of profane or other rough language, or an offer to bet on the races, or see an intoxicated man. Everybody seemed to enter into the true spirit of the occasion and to feel anxious to make it, as it really was, a triumphant success.

PREMIUMS AWARDED

AT THE FAIR OF 1865.

HORSES, JACKS AND MULES.

CLASS 1—THOROUGH-BRED HORSES.

Simon Ruble, Beloit, stallion "Harry Miller," 4 years old and over, 1st premium.....	\$30 00
Geo. Ruble, Albert Lee, Minn., stallion, "Siroc," 4 years old and upwards, 2d premium.....	20 00
C. Loftus Martin, Janesville, stallion, "Young Princeton," 3 years and under 4, 1st premium.....	15 00
H. Babcock, Christiana, stallion, "Young Princeton," 3 years old and under 4, 2d premium.....	12 00

CLASS 2—ROADSTERS.

E. F. Mabie, Delevan, stallion, 4 years old and over, 1st premium....	\$25 00
Thomas Bowles, Janesville, stallion, 4 years and over, 2nd premium..	15 00
J. M. Chamberlain, Beloit, stallion, 3 years and under 4, 1st premium	10 00
D. B. Rowland, Genesee, stallion, 3 years and under 4, 2nd premium.	7 00
Ezra Fellers, Bradford, brood mare 4 years and over, 1st and 2nd premiums..	25 00

CLASS 3—HORSES FOR GENERAL PURPOSES.

Wm. J. Powers, Black Earth, stallion, 4 years old and over, 1st premium.....	\$20 00
A. Gregory, Elkhorn, stallion, 4 years old and over, 2d premium.....	15 00
R. Farnsworth, Whitewater, stallion, 3 years old and under 4, 1st premium	10 00
Geo. F. Ellis, Dayton, stallion, 3 years old and under 4, 2d premium..	9 00
J. Spalding, Harmony, stallion, 2 years old and under 3, 1st premium	7 00
C. L. Martin, Janesville, stallion, 2 years old and under 3, 2d premium	5 00
Wm. G. Easterley, LaPrairie, stallion, 1 year old and under 2, 1st premium.....	5 00
S. M. Havens, Harmony, stallion, 1 year old and under 2, 2d premium	3 00
Jno. H. Fellers, Bradford, brood mare, 4 years old and over, 1st premium	12 00
Sumner Parker, Janesville, brood mare, 4 years old and over, 2d premium.....	8 00
David McLay, Emerald Grove, brood mare, 3 years old and under 4, 1st premium.....	7 00
J. Fowle, Bradford, brood mare, 3 years old and under 4, 2d premium	5 00
A. G. Potter, Beloit, mare, 2 years old and under 3, 1st premium....	6 00
Andrew Barlass, Emerald Grove, mare, 2 years old and under 3, 2d premium	4 00

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Geo. Gleason, Lima, filly, one year old and under 2, 1st premium.....	\$5 00
Chas. Hanford, Emerald Grove, filly, one year old and under, 2d premium.....	3 00
John N. Fellers, Bradford, sucking mare colt. 1st premium.....	3 00
Thomas Kidd, Judah, sucking mare colt, 2d premium.....	2 00
Geo. Gleason, Lima, sucking stallion colt, 1st premium.....	3 00
Sumner Parker, Janesville, sucking stallion colt, 2d premium.....	2 00

CLASS 4—DRAFT HORSES.

Wm. Clark, Janesville, stallion, 1st premium.....	\$15 00
Wm. J. Powers, Black Earth, stallion, 2d premium.....	10 00
Geo. Gleason, Lima, stallion colt, 1st premium.....	3 00
Geo. Gleason, Lima, brood mare, 4 years and over, 1st premium.....	10 00
Simon Ruble, Beloit, brood mare, 4 years old and over, 2d premium..	7 00
Geo. Gleason, Lima, filly, 1st premium	5 00

CLASS 5—JACKS AND MULES.

E. F. Mabie, Delavan, Jack, (Spanish), 1st premium.....	\$25 00
J. S. Owen, Evansville, Jack, (Spanish), 2 premium.....	10 00
Z. Wilson, Palmyra, Jenny, 1st premium.....	10 00
E. Rankin, Ft. Atkinson, 2d premium.....	5 00
J. G. Carr, Milton, working mules, 1st premium.....	10 00
Giles Burt, Janesville, working mules, 2d premium.....	5 00

CLASS 6—MATCHED HORSES AND MARES.

Peter Rease, Somers, carriage horses, premium.....	\$25 00
J. K. Pumpelly, Fond du Lac, roadsters, premium	25 00
Wm. Herrett, Janesville, farm or draft horses, premium.....	25 00

CLASS 7—GELDINGS AND MARES FOR SINGLE HARNESS OR SADDLE.

J. I. Case, Racine, saddle horse, 4 years old and over, 1st premium..	\$10 00
E. W. Blish, Brodhead, saddle horse, 4 years old and over 2d premium	5 00
Guy Carter, Janesville, gelding or mare, single harness, premium.....	10 00
J. T. Hidden, Lodi, gelding or mare, single harness, premium.....	5 00

CLASS 8—TROTTERS AND PACERS.

E. P. Dickey, Racine, trotting stallion "Black Douglass," trotting 1 mile heat, time 2.37, 1st premium.....	\$50 00
B. F. Annis, Lake Mills, stallion "Black Prince," time 2.48, 2d premium.....	30 00
L. F. Patrick, Chicago, trotting mare, over 5 years, time 2.40, 1st premium.....	30 00
Geo. W. Thustan, Waukesha, trotting mare, over 5 years old, time 2.53, 2d premium.....	20 00
Wm. Stewart, Chicago, trotting gelding, over 5 years, time 2.48, 1st premium	25 00
T. B. Faitout, Beloit, trotting gelding, over 5 years, time 2.49, 2d premium.....	15 00
F. D. McCarty, Fond du Lac, trotting matched span, over 5 years old, time 3:75, 1st premium.....	25 00
E. P. Dickey, Racine, pacing mare, time 3.04, 1st premium.....	25 00

CLASS 9—RUNNING HORSES.

COLTS AND FILLIES.

Gustav Pfeil, * Milwaukee, stallion "Riga," 1st premium.....	100 00
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*The award to Mr Pfeil was made under the protest of competitors on the ground of age, and finally, by him, requested to be paid to Isaiah Lamphere, of Columbia county, next entitled.

STALLIONS AND MARES, MILE HEATS, 3 IN 5.

Gustav Pfeil, of Milwaukee, stallion "Crichton," 1st premium.....	100 00
T. C. Smith, of Columbus, stallion "Legal Tender," 2d premium.....	60 00
Simon Ruble, of Beloit, stallion "Harry Miller," 3d premium.....	40 00
Gustav Pfeil, Milwaukee, special premium for 2 mile dash.....	50 00

CATTLE.

CLASS 10—SHORT HORNS.

Bull, 3 years old and over, 1st premium not awarded, no animal worthy	
S. B. Hazard, Milton, bull, 3 years old and over, 2d premium.....	\$15 00
John Fernly, Adams, bull, 2 years old and under 3 1st premium.....	15 00
Bull, 2 years old and under 3, no premium awarded.	
John P. Roe, Durham Hill, bull, 1 year and under 2, 1st and 2d premiums.....	7 00 and 5 00
John P. Roe, Durham Hill, cow, 3 years old and over, 1st premium...	20 00
Richard Richard, Racine, cow, 3 years and over, 2d premium.....	15 00
Richard Richards, Racine, heifer, 2 years and under 3, 1st premium...	15 00
John P. Roe, Durham Hill, heifer, 2 years and under 3, 2d premium...	9 00
John P. Roe, Durham Hill, heifer calf, 1st and 2d premiums, 7 00 and	5 00
Richard Richard, Racine, bull calf, 1st premium....	9 00
(No 2d premium awarded.)	
John P. Roe, Durham Hill, heifer, 1 year old and under 2, 1st premium	10 00
Richard Richards, Racine, heifer, 1 year old and under 2. 2d premium	8 00

CLASS 11—DEVONS.

Luther Rawson, Oak Creek, best bull, 3 years and over, 1st premium.	\$25 00
David Richardson, Verona, bull, 3 years and over 2d premium.....	15 00
Luther Rawson, Oak Creek, bull, 1 year old and under 2, 1st premium	9 00
A. Richmond, Whitewater, bull, 1 year old and under 2, 2d premium.	5 00
A. Richmond, Whitewater, cow, 3 years and over, 1st premium.....	20 00
Luther Rawson, Oak Creek, cow, 3 years and over 2d premium.....	15 00
Isaac S. Newton, Middleton, heifer, 2 years and under 3, 1st premium.	15 00
Isaac S. Newton, Middleton, heifer, 2 years and under 3, 2d premium.	7 00
Luther Rawson, Oak Creek, heifer calf, 1st premium.....	7 00
Isaac S. Newton, Middleton, heifer calf, 2d premium.....	5 00
Isaac S. Newton, Middleton, bull calf, 1st premium.....	7 00
Luther Rawson, Oak Creek, heifer 1 year old and under 2, 1st premium	10 00

CLASS 12—ALDERNEYS.

Bull, 3 years and over, no entry.

Jas. McCloud, Lodi, bull, 2 years and under 3, [only one entry,] 1st premium.....	\$15 00
J. W. Harvey, Madison, bull, 1 year and under 2, 1st premium.....	7 00
Jas. McCloud, Lodi, bull, 1 year and under 2, 2d premium.....	5 00
Jas. McCloud, Lodi, cow, 3 years and over, [only entry] 1st premium.	20 00

CLASS 13—AYRSHIRES.

No entries.

CLASS 14—HEREFORDS.

No entries.

CLASS 15—GRADE CATTLE AND WORKING OXEN.

J. S. Maaxon, Lima, best cow, 3 years old and over, 1st premium....	\$10 00
Luther Rawson, Oak Creek, best yoke working oxen, 1st premium....	15 00
Thos. Rooney, Harmony, best yoke working oxen, 2d premium.....	10 00
Luther Rawson, Oak Creek, yoke 3 year old steers, 1st premium.....	7 00
Thos. Wolliscroft, Janesville, yoke 3 year old steers, 2d premium....	5 00
John Henry, Johnstown, steer, 1 year old, 1st premium.....	3 00
Luther Rawson, Oak Creek, steer, 1 year old, 2d premium.....	2 00
Luther Rawson, Oak Creek, grade heifer, 1 year old, (not on premium list), 1st premium.....	3 00
Geo. J. Kellogg, heifer, 2 years old and under 3, 2d premium.....	3 00

CLASS 16—MILCH COWS.

J. Fowle, Bradford, milch cow, (only entry, 1st premium.....)	15 00
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CLASS 17—FAT CATTLE.

No entries. |

SHEEP.

CLASS 18—SPANISH MERINOS.

D. C. Brooks, Fond du Lac, buck, 2 years old and over, 1st premium..	\$10 00
Marvin Pratt, Lima, buck, 2 years old and over, 2d premium.....	7 00
H. Hemenway, Whitewater, buck, 1 years old and under 1st premium.	7 00
Knox & Smith, Whitewater, bucks, 1 year old and under 2, 2d premium.....	5 00
Richard Richards, Racine, 3 buck lambs, 1st premium.....	5 00
E. M. Rice, Whitewater, 3 buck lambs, 2d premium.....	3 00
D. C. Brooks, Fond du Lac, 3 ewes, 2 years and over, 1st premium...	10 00
Richard Richards, Racine, 3 ewes, 2 years and over, 2d premium....	7 00
Richard Richards, Racine, 3 ewes, 1 year and under 2, 1st premium..	7 00
D. C. Brooks, Fond du Lac, 3 ewes, 1 year and under 2, 2d premium..	5 00
Richard Richards, Racine, 3 ewe lambs, 1st premium.....	5 00
H. B. & C. M. Clark, Whitewater, 3 ewe lambs, 2d premium.....	3 00

CLASS 19—FRENCH MERINOS.

L. Landon, Waupun, buck, 2 years and over 1st premium.....	\$10 00
W. L. V. Crandall, Milton, buck, 2 years and over, 2d premium.....	7 00
L. Landon, Waupun, buck, 1 year and under 2, 1st premium.....	7 00
C. S. Vincent, Milton, buck, 1 year and under 2, 2d premium.....	5 00
L. Landon, Waupun, 3 buck lambs, 1st premium.....	5 00
3 buck lambs, no 2d premium awarded.	
L. Landon, Waupun, 3 ewes, 2 years and over, 1st premium.....	10 00
3 ewes, 2 years and over, no 2d premium awarded.	
W. L. V. Crandall, Milton, 3 ewes, 1 year and under 2, (no 1st premium awarded), 2d premium.....	5 00
3 ewe lambs, no competition, not worthy premium.	

CLASS 20—SILESIAN SHEEP.

No entries.

CLASS 21—LONG WOOL.

Ira S. Haseltine, Richland Centre, buck, 2 years and over, 1st premium	\$10 00
Jno. Alexander, Milton, buck, 2 years and over, 2d premium	7 00
Ira S. Haseltine, Richland Center, buck, 1 year old, 1st premium	7 00
Jno. Alexander, Milton, 3 buck lambs, 1st premium	5 00
Ira S. Haseltine, Richland Center, 3 ewes, 2 years old and over, 1st premium	10 00
Spurzheim Haseltine, Richland Center, 3 ewes, 2 years old and over, 2d premium	7 00
Ira S. Haseltine, Richland Center, 3 ewes, 1 year old and under 2, 1st premium	7 00
S. Haseltine, Richland Center, 3 ewes, 1 year old and under 2, 2d premium	5 00
Jno. Alexander, Milton, 3 ewe lambs, 1st premium	5 00
S. Haseltine, Richland Center, 3 ewe lambs, 2d premium	3 00

CLASS 22—MIDDLE WOOL.

Matthew Towers, Omro, buck, 2 years and over, 1st premium	\$10 00
Ira S. Haseltine, Richland Center, buck, 2 years and over, 2d premium	7 00
Daniel McGuire, Omro, buck, 1 year and under 2, 1st premium	7 00
John P. Roe, Durham Hill, buck, 1 year and under 2, 2d premium	5 00
John P. Roe, Durham Hill, 3 buck lambs, 1st premium	5 00
Luther Rawson, Oak Creek, 3 buck lambs, 2d premium	3 00
E. D. Cheesbro, La Prairie, 3 ewes, 2 years and over, 1st premium	10 00
John P. Roe, Durham Hill, 3 ewes, 2 years and over, 2d premium	7 00
E. D. Cheesbro, La Prairie, 3 ewes, 1 year and under 2, 1st premium	7 00
John P. Roe, Durham Hill, 3 ewes, 1 year and under 2, 2d premium ..	5 00
E. D. Cheesbro, La Prairie, 3 ewe lambs, 1st premium	5 00
John P. Roe, Durham Hill, 3 ewe lambs, 2d premium	3 00

CLASS 23—FAT SHEEP.

No entries.

Joseph Gould, of Stoughton, entered in class 21 a buck and ewe which the Committee say are very fine and fat. They believe that if these sheep had been entered in the class of Fat Sheep they would have taken the first premium, and they recommend that a discretionary premium be awarded him.

SWINE.

CLASS 24—SMALL BREEDS.

Simon Ruble, Beloit, best Yorkshire boar, 1 yr and under 2, 1st prem. ..	\$7 00
Simon Ruble, Beloit, best breeding sow, 2 years, 1st premium	10 00

POULTRY.

CLASS 25—POULTRY.

Carlton B. Case, Janesville, shanghai fowls, 1st premium.....	\$2 00
Simon Buble, Beloit, turkeys, premium.....	2 00
W. M. Miller, Janesville, Cochín China, premium.....	2 00
A. Chapin, Janesville, spangled Hamburg, premium.....	2 00
Alfred Dewey, Janesville, black Spanish, premium.....	2 00
Simon Ruble, Beloit, greatest variety poultry, owned by exhibitor, premium	5 00
Simon Ruble, Beloit, white swan, discretionary.	
A. Chapin, Janesville, Polands, premium	2 00
Carlton B. Case, Janesville, Bantams, premium	2 00
Simon Ruble, Beloit, ducks, pair, premium.....	2 00
Simon Ruble, Beloit, Pea fowls, premium	2 00
Simon Ruble, Beloit, game fowls, premium.....	2 00
Simon Ruble, Beloit, geese, premium	2 00

PRODUCTS OF THE SOIL.

CLASS 26—FIELD PRODUCTS.

J. J. Denett, Milton, winter wheat, 1st premium	\$3 00
David Walsh, Milton, winter wheat, 2d premium.....	2 00
Wm. Hollinshead, Elkhorn, winter wheat committee recommend Transactions.	
J. C. French, Galesville, spring wheat, 1st and 2d premiums. 3 00 and	2 00
David Walsh, Milton, spring wheat; committee recommend Transac- tions.	
E. Howell, Janesville, rye, 1st premium.....	3 00
J. Fowle, Bradford, rye, 2d premium..	2 00
E. Wilcox, Trempeleau, oats, 1st premium.....	2 00
David Walsh, Milton, 2d premium	Transactions.
George J. Kellogg, Janesville, buckwheat, 1st premium.....	2 00
J. A. Hendrick, La Prairie, buckwheat, 2d premium....	Transactions.
N. Macomber, Emerald Grove, flax seed, 1st premium.....	3 00
David Walsh, Harmony, flax seed, 2d premium	2 00
Wm. Hollinshead, Elkhorn, clover seed, 1st premium.....	2 00
Mrs. S. Coville, West Milton, hops, 1st premium	3 00
N. Macomber, Emerald Grove, timothy seed, 1st premium	3 00
J. Waterman, Milton, timothy seed, 2d premium.....	2 00
J. C. French, Galesville, peas, 1st premium.....	2 00
E. Howell, Janesville, peas, 2d premium	Transactions.
J. C. French, Galesville, 1st premium.....	2 00
George J. Kellogg, Janesville, beans, 2d premium.....	Transactions.
Z. P. Burdick, Janesville, seed corn, 1st premium.....	3 00
J. S. Cleland, seed corn, 2d premium	Transactions.
E. Wilcox, Trempeleau, seed corn, committee recommend Transac- actions.	
E. Howell, Janesville, Mercer potatoes, (only entry) 1st premium.....	2 00
George J. Kellogg, Janesville, pinkeye potatoes, 1st premium.....	2 00
E. Howell, Janesville, pinkeye potatoes, 2d premium....	Transactions.

P. Schmitz, Harmony, early potatoes, 1st premium	\$2 00
W. H. Brundige, Janesville, early potatoes, 2d premium, Transactions.	
P. Schmitz, Harmony, new and excellent varieties, 1st premium.....	5 00
George J. Kellogg, Janesville, new and excellent varieties, 2d prem...	3 00
N. Macomber, Emerald Grove, carrots, 1st premium	2 00
George J. Kellogg, Janesville, 2d premium	Transactions.

CLASS 27.—GARDEN VEGETABLES.

A. W. Maxon, Darien, 12 beets, 1st premium	Trans.
Z. Wilson, Palmyra, 12 sweet potatoes, 1st premium	2 00
J. M. Smith, Janesville, sample of onions, 1st premium	2 00
David Walsh, Harmony, sample of onions, 2d premium	Trans.
G. H. Williston, Janesville, 3 heads cabbage, premium	Trans.
R. M. Wheeler, Janesville, 12 tomatoes, premium	Trans.
G. W. Leek, Harmony, pumpkins, [not on premium list.] premi- um	Trans.
M. J. Plumb, Madison, variety garden products, 1st premium	5 00
Z. Schnell, Janesville, variety of garden products, 2d premium	3 00
J. Heacox, Baraboo, squashes, [not on premium list.] premi- um	Trans.

CLASS 28.—PRODUCTS OF THE DAIRY (AND HOUSEHOLD)

C. C. Fisher, Center, June made butter, 1st premium	7 00
A. A. Keith, Sonnstown, butter made at any time, premium	5 00
Z. Wilson, Palmyra, best 3 cheese, 1st premium	7 00
N. Rechtmeyer, Bristol, 3 cheese, 2d premium	5 00
F. H. Coburn, Whitewater, 3 cheese, 3d premium	3 00
M. S. Twining, Magnolia, best single cheese, 1st premium	2 00
Chauncey Ross, Beloit, 2d best single cheese, 2d premium	Trans.
J. C. Birge, Whitewater, bbl winter wheat flour, 1st premium	5 00
Jacob A. Brooks, Beloit, bbl spring wheat flour, 1st premium	5 00
J. C. Birge, Whitewater, bbl spring wheat flour, 2d premium	3 00
B. S. Hoxie, Cooksville, honey, 1st premium	5 00
D. Strunk, Janesville, honey, 2d premium	3 00

FRUITS AND FLOWERS.

CLASS 29.—FRUITS BY NON-PROFESSIONAL CULTIVATORS.

Wm. Butler, Oakfield, varieties of apples, not less than 3 specimens 40 varieties, 1st premium	Diploma and 7 00
C. M. Fowler, Paris, varieties of apples, not less than 3 specimens, 48 varieties, 2d premium	5 00
Geo. Sherman, La Prairie, varieties of apples, not less than 3 speci- mens, 33 varieties, 3d premium	3 00
B. B. Olds, Clinton, 10 varieties apples adapted to north-west, 1st pre- mium	3 00
Geo. Sherman, La Prairie, 10 varieties apples adapted to north-west, 2d premium	2 00
Francis Westby, Clinton, 10 varieties apples adapted to northwest, 3d premium	Trans.
Francis Westby, Clinton, 5 varieties of apples adapted to north-west, 1st premium	2 00

B. B. Olds, Clinton, 5 varieties apples adapted to north-west, 2d premium.....	Trans.	
Chas. M. Plumb, Lake Mills, autumn apples, 1st premium, Diploma and		\$7 00
H. Floyd, Berlin, autumn apples, 2d premium.....		5 00
Francis Westby, Clinton, autumn apples, 3d premium.....		3 00
H. Floyd, Berlin, winter apples, 1st premium.....	Diploma and	7 00
F. C. Curtis, Rocky Run, winter apples, 2d premium.....		5 00
Chas. M. Plumb, Lake Mills, winter apples, 3d premium.....		3 00
Thomas Howland, Kenosha, pears best and largest, variety not less than 3 specimens, 1st premium.....	Diploma and	5 00
L. Woodworth, Bristol, pears, best and largest, variety not less than 3 specimens, 2d premium.....		3 00
Geo. P. Peffer, Pewaukee, pears, best and largest variety not less than 3 specimens, 3d premium.....	Trans.	
E. Wilcox, Trempealeau, plums, greatest variety not less than 3 specimens, 1st premium.....	Diploma and	3 00
Chas. Hanford, Emerald Arove, grapes, variety not less than 3 clusters each, 1st premium,	Diploma and	5 00
I. C. Sloan, Janesville, grapes, variety not less than 3 clusters each, 2d premium		3 00
Thomas Howland, Cenosha, 2 varieties grapes, adapted to general culture, 1st premium.....		3 00
H. Floyd, Berlin, 2 varieties grapes adapted to general culture, 1st premium.....		2 00
Chas. Hanford, Emerald Grove, grapes grown under glass, 1st premium.....	Diploma.	
E. Ellicott, Lone Rock, water melons, best and largest collection, 1st premium.....		5 00
Z. Wilson, Palmyra, water melons, best and largest collection, 2d premium.....		3 00

CLASS 30—FRUITS BY PROFESSIONAL CULTIVATORS.

Tuttle, Clark & Son, Baraboo, greatest variety apples, not less than three specimens, 1st premium.....	Diploma and	\$7 00
James L. Tubbs, Elkhorn, greatest variety apples, not less than three specimens, 2d premium.....		5 00
F. W. Loudon, Janesville, greatest variety apples, not less than three specimens, 3d premium.....		3 00
Geo. J. Kellogg, Janesville, best ten varieties apples adapted to north-west, 1st premium.....		3 00
F. W. Loudon, Janesville, best ten varieties apples adapted to north-west, 2d premium.....		2 00
Tuttle, Clark & Son, Baraboo, best five varieties apples adapted to northwest, 1st premium.....		2 00
Geo. J. Kellogg, Janesville, best varieties apples adapted to north-west, 2d premium.....	Transactions.	
Tuttle, Clark & Son, Baraboo, autumn apples, 1st premium, ..	Dip. and	7 00
Chas. Hanford, Emerald Grove, autumn apples, 2d premium.....		5 00
Geo. J. Kellogg, Janesville, autumn apples, 3d premium.....		3 00
Tuttle, Clark & Son, Baraboo, winter apples, 1st premium...Dip. and		7 00
Geo. J. Kellogg, Janesville, winter apples, 2d premium.....		5 00
F. W. Loudon, Janesville, winter apples, 3d premium.....		3 00
F. W. Loudon, Janesville, pears, best and largest variety not less than three specimens each, 1st premium.....	Diploma and	5 00
James L. Tubbs, Elkhorn, pears, best and largest variety not less than three specimens each, 2d premium.....		3 00
Geo. J. Kellogg, Janesville, pears, best and largest variety not less than three specimens each, 3d premium.....	Transactions.	
F. W. Loudon, Janesville, best show quinces, 1st premium.....		3 00
F. W. Loudon, Janesville, two or more varieties quinces, 1st premium.....	Transactions.	

F. W. Loudon, Janesville, peaches, best show, 1st premium.....	\$3 00
F. W. Loudon, Janesville, grapes, greatest variety, 1st premium.....	Diploma and 5 00
Isaac Atwood, Lake Mills, grapes, greatest variety, 2d premium.....	3 00
F. W. Loudon, Janesville, grapes, best three varieties adapted to general culture, 1st premium.....	3 00
F. W. Loudon, Janesville, peaches, single variety, premium.....	2 00
J. C. Plumb, Madison, exhibition of apple trees adapted to northwest, premium.....	Diploma.
F. W. Loudon, Janesville, best and greatest variety fruit of all kinds, raised by exhibitor, premium.....	Diploma and 10 00
Geo. J. K-llogg, Janesville, water melons, best and largest collection, 1st premium.....	5 00
J. C. Plumb, Madison, water melons, best and largest collection, 2d premium.....	3 00

CLASS 31—WISCONSIN WINES.

Chas. Hanford, Emerald Grove, best assortment, premium....	Diploma.
Chas. Hanford, Emerald Grove, grape wine, 1st premium.....	5 00
B. B. Olds, Clinton, grape wine, 2d premium.....	3 00
B. B. Olds, Clinton, currant wine, 1st premium.....	3 00
Mrs. Thos. Barlass, Emerald Grove, currant wine, 2d premium.....	2 00
B. B. Olds, Clinton, rhubarb wine, 1st premium.....	3 00
B. M. Wheeler, Janesville, rhubarb wine, 2d premium.....	2 00
Chas. Hanford, Emerald Grove, strawberry wine, premium.....	2 00

CLASS 32—FLOWERS BY NON-PROFESSIONAL CULTIVATORS.

Mrs. F. S. Lawrence, Janesville, floral design, natural flowers, premium.....	Diploma and 3 00
Mrs. F. S. Lawrence, Janesville, quality and variety cut flowers, premium	2 00
Philena McKilleps, Johnstown, house plants, premium, (discretionary.)	
Carrie Plumb, Madison, basket of flowers most tastefully arranged, 1st premium.....	2 00
Josephina Pfeffer, Pewaukee, basket of flowers most tastfully arranged, 2d premium.....	Transactions.
Mrs. F. S. Lawrence, Janesville, quality and variety verbenas, 1st premium.....	2 00
Josephina Pfeffer, Pewaukee, quality and variety verbenas, 2d premium.....	Transactions.
Josephina Pfeffer, Pewaukee, display dahlias, premium.....	2 00
Mrs. Richard Williams, Palmyra, petunias, 1st premium.....	2 00
Josephina Pfeffer, Pewaukee, petunias, 2d premium.....	Transactions.
Martha Smith, Emerald Grove, variety wild flowers, premium.....	2 00
Josephina Pfeffer, Pewaukee, variety asters, premium.....	2 00
M. L. Plumb, Madison, variety pansies, 1st premium.....	2 00
Josephina Pfeffer, Pewaukee, variety pansies, 2d premium,....	Trans.
Martha Smith, Emerald Grove, flat bouquet, premium.....	2 00
Josephina Pfeffer, Pewaukee, variety phloxes, 1st premium.....	2 00
Martha Smith, Emerald Grove, most tastefully arranged bouquet, prem.	2 00
M. L. Plumb, Madison, pyramid bouquet, premium.....	3 00

CLASS 33.—FLOWERS BY PROFESSIONAL CULTIVATORS.

J. C. Plumb, Madison, best ornamental design, premium.....	3 00
J. S. Shearman, Rockford, Ill., greatest variety dahlias, premium,...	3 00
J. S. Shearman, Rockford, Ill., 12 named dahlias, premium.....	2 00
G. W. Twiss, Rockford, Ill., greatest variety verbenas, premium.....	3 00
F. W. Loudon, Janesville, 12 named verbenas, premium.....	2 00
J. S. Shearman, Rockford, Ill., display roses, premium.....	3 00
F. W. Loudon, Janesville, 12 named roses, premium.....	2 00

F. W. Loudon, Janesville, variety green house plants, premium.....	\$3 00
F. W. Loudon, Janesville, 20 varieties green house plants in bloom, premium.....	3 00
F. W. Loudon, Janesville, geraniums, premium.....	2 00
F. W. Loudon, Janesville, fuschias, premium.....	Trans.
G. W. Twiss, Rockford, Ill., collection cut flowers, premium.....	3 00
G. W. Twiss, Rockford, Ill., round bouquet, premium.....	Trans.
G. W. Twiss, Rockford, Ill., variety phloxes, premium.....	Trans.
G. W. Twiss, Rockford, Ill., variety asters, premium.....	Trans.
F. W. Loudon, Janesville, best 6 asters, premium.....	Trans.
G. W. Twiss, Rockford, Ill., variety petunias, premium.....	Trans.
G. W. Twiss, Rockford, Ill., variety pansies, premium.....	Trans.
F. W. Loudon, Janesville, carnations, premium.....	Trans.
Mrs. J. C. Plumb, Madison, variety all sorts of flowers, premium, Diploma and.....	5 00

CLASS 34.—DELICACIES.

Esther Cheesbro, Emerald Grove, best and greatest varieties jellies not less than 8, premium.....	5 00
Martha Smith, Emerald Grove, Apple jelly, premium.....	1 00
Mrs. J. C. Plumb, Madison, pickles, best and greatest variety, premium.....	5 00
R. M. Wheeler, jar pickles, premium.....	1 00
Mrs. J. C. Plumb, Madison, apple pickles, premium.....	1 00
Mrs. J. C. Plumb, Madison, collection sealed fruit, premium.....	5 00
Mrs. J. C. Plumb, Madison, apple butter, premium.....	1 00
Mrs. J. C. Plumb, black current jam, premium.....	1 00

IMPLEMENTS AND MACHINERY.

CLASS 35.—MACHINERY AND IMPLEMENTS FOR AGRICULTURAL PURPOSES.

A. J. Luckey, Bradford, corn and cane harvester, "Massina," premium.....	Dip.
Fowler & Weeks, Upper Sandusky, hay-stacking machine, hay gatherer, Diploma to each.....	
Andrew Proudfit, Madison, self-raking reaper "Wood's,".....	Dip.
A. J. Luckey, Bradford, harvester, "Marsh".....	Dip.
Clow & Guild, Janesville, reaper, "Clow's" 1st.....	Dip.
Thos. Falvey, Racine, reaper and mower.....	Dip.
Thos. Falvey, Racine, mowers, 1st premium.....	Dip.
F. H. Manny, Rockford, mowers, 2d premium.....	Trans.
Chas. Sexton, Janesville, gang plows, premium.....	Dip.
Barber & Hawley, Decatur, Ill., gang and subsoil, premium.....	Dip.
Barr & Cox, Beloit, common plows premium.....	Dip.
J. C. Trainer & Co., Tafton, crossing plow, premium.....	Dip.
Wm. B. Young & Co., Chicago, Ill., 5 plows, best steel standard and best collection, premium.....	Dip.
Furst & Bradley, Chicago, Ill., sod plow, stiff soil, premium.....	Dip.
J. I. Case & Co., Racine, threshing machines, climax power, 1st premium, diploma and.....	25 00
F. G. Welch, Chicago, Ill., threshing machine, 8 horse Massillon, 2d premium.....	10 00

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S. N. Taylor, Horicon, threshing machine knuckle, premium.....	Dip.
J. Nash, Janesville, fanning mills, premium.....	Dip.
J. M. May, Janesville, wind mills, 1st premium,	Diploma and \$15 00
Mills Bros., Chicago, wind mill, 2d premium.....	10 00
Sherman & Broughton, Milwaukee, farm and garden gate, [automatic] premium.....	Dip.
Sratton & Alworth, Winnebago, Ill., seeder and cultivator attachment, premium.....	Dip.
A. B. Williams, Madison, grain screen, premium.	Dip.
A. J. Blood, Janesville, farm and garden gates, 2d premium.....	Trans.
Chas. H. Dresslin, Chicago, Ill., grain fork, premium.....	Dip.
Henry Russel, Beloit, farm gate, 2d premium.....	Trans.
M. L. Lewis, Iowa City, hay loader, wagon brake, sheep-shearing stool.....	Diploma to each.
Nelson Bacon, Deansville, corn planter, "Ohio," premium.....	Dip.
J. M. May, Janesville, farm gate, 1st premium.....	Dip.
S. L. Sheldon & Bro., Madison, grain drill, "Buckeye," 1st premium, Dip.	
Guy Carter, Janesville, grain drill, 2d premium.....	Trans.
J. C. Trainer & Co., Tafton, Cultivators, 1st premium.....	3 00
Furst & Bradley, Chicago, cultivator, 2d premium.....	2 00
H. H. Bailey, Racine, horse rake, 1st premium.....	Dip.
Galt, Tracy & Co., Sterling, Ill., horse rake 2d premium.....	2 00
North Star washing machine Co., Horicon, washer and wringer combined, 1st premium.....	Dip.
J. Large, Oakfield, washer and wringer combined, 2d premium,	Trans.
Joseph Adams, Janesville, washing machine, 1st premium.....	Dip.
Doty Bros., Janesville, washing machine, 2d premium.....	Trans.
J. M. Cook, Tiffin, Ohio, churns, 1st premium.....	Dip.
R. A. Davis, Janesville, corn planter, premium.....	Dip.
Thos. Crane, Ft. Atkinson, stump machine.....	Dip.
T. G. & M. W. Palmer, Chicago, horse pitch fork.....	Dip.
F. G. Welch, Chicago, most numerous collection of agricultural implements.....	Dip.

CLASS 36—MACHINERY FOR MANUFACTURING PURPOSES.

L. Cornell, & Co., Chicago, family sewing machine, "Wilcox & Gibbs," 1st premium,	Diploma and \$5 00
Grover & Baker sewing machine Co., family sewing machine, "Grover & Baker," 2d premium.....	5 00
Mrs. S. M. Coe & Co., Janesville, family sewing machine, "Wheeler & Wilson," discretionary premium.	
Grover & Baker sewing machine Co., Milwaukee, manufacturing sewing machine, "Grover & Baker," 1st premium, diploma and.....	5 00
S. Branson, Chicago, knitting machine, 1st premium, diploma and...	5 00
Mrs. M. L. Ransom, Janesville, knitting machine, 2d premium.....	5 00
J. B. Wait & Co., Watertown, hand loom, premium.....	Dip.
J. B. Wait & Co., Watertown, spinning wheel, premium.....	Dip.

CLASS 37—MACHINERY FOR THE MANUFACTURE OF SORGHUM SYRUP AND SUGAR.

E. W. Skinner & Co., Madison, apparatus complete, 1st premium, Silver medal and.....	\$20 00
James Harris & Co., Janesville, apparatus complete, recommended for a 2d premium	
E. W. Skinner & Co., Madison, geared sugar mill, 1st premium.	Dip.
E. W. Skinner & Co., Madison, sweep sugar mill, 1st premium.....	Dip.
Northwestern sorgho machine Co., Madison, sweep sugar mill, 2d premium.....	5 00
E. W. Skinner & Co., Madison, "Plantation" mill, 1st premium.....	Dip.
James Harris & Co., Janesville, sugar evaporator, 1st premium.....	Trans.

E. W. Skinner & Co., Madison, sugar evaporator, 2d premium.....	Dip.
B. L. Briar, Baraboo, sample of sugar, 1st premium.....	\$10 00
James Harris & Co., Janesville, sample syrups, 1st premium.....	5 00
E. W. Skinner & Co., Madison, sample syrups, 2d premium.....	4 00
J. I. Case & Co., Racine, power, 1st premium.....	Dip.
Northwestern Sorgho Co., Madison, power, 2d premium.....	Trans.
Northwestern Sorgho Co., Madison, saccharometer, 1st premium.....	Dip.

MANUFACTURES.

CLASS 38—CARRIAGES, STORES AND HARNESS.

Smith & Nichols, Janesville, double carriage, 1st premium, dip. or.	\$10 00
Smith & Nichols, Janesville, single top buggy, 1st premium, Diploma or	7 00
Hodge & Buckholz, Janesville, single top buggy, 2d premium.....	4 00
Smith & Nichols, Janesville, single riding buggy, 1st premium, Dip. or	5 00
Hodge & Buckholz, Janesville, single riding buggy, 2d premium.....	3 00
Smith & Nichols, Janesville, display of carriages, 1st premium....	Dip.
J. M. Ricker, Janesville, carriage harness, 1st premium.....	5 00
Kothman & Winckler, Janesville, carriage harness, 2d premium.....	3 00
Kothman & Winckler, Janesville, single harness, only entry, premium.	5 00
W. J. Doolittle, Janesville, cooking stove for wood, 1st premium, diploma and.....	3 00
E. S. Barrows, Janesville, cooking stove for wood, 2d premium,.....	Trans.
E. S. Barrows, Janesville, cooking stove for coal, 1st premium, Diploma and.....	3 00
W. S. Doolittle, Janesville, cooking stove for coal, 2d premium.....	Trans.
W. J. Doolittle, Janesville, ornamental parlor stove, 1st premium....	Dip.
E. S. Barrows, Janesville, ornamental parlor stove, 2d premium.....	Trans.
W. J. Doolittle, Janesville, hollow ware, premium.....	Dip.
E. Mapes, Ripon, brooms, 1st premium.....	Dip.
O. W. Kellogg, Ripon, brooms. 2d premium.....	Trans.
W. J. Doolittle, Janesville, 12 milk pans, premium.....	Dip.

CLASS 39.—BEE HIVES AND BEE MANAGEMENT.

For management of Bees, &c.. Committee recommended that the premium be divided equally between W. A. Flanders, of Shelby, Ohio, James Bullard of Evansville, and R. C. Otis, of Kenosha.

R. C. Otis, Kenosha, best bee hive for practical bee culture, "Langstroth's hive,".....	Dip.
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CLASS 40.—CABINET WARE, COOPERAGE, WILLOW WARE, LEATHER, BOOTS AND SHOES, INDIA RUBBER GOODS, &c.

A. J. Burbridge, Milwaukee, cabinet ware, what-not and picture frame, premium.....	Trans.
W. H. Sherman, Milwaukee, carved rustic frames,.....	Trans.
Goodwin & Carpenter, Beloit, willow baskets, premium.....	3 00
Goodwin & Carpenter, Beloit, display of willow ware made in State, premium.....	Dip. and
W. A. Reynolds, Janesville, ladies' winter boots, 1st premium.....	3 00
C. Miner, Janesville, ladies' fancy shoes, 1st premium.....	3 00

Putnam & Hurlbut, Berlin, gents winter boots, 1st premium.....	\$3 00
Putnam & Hurlbut, Berlin, gents fancy boots, 1st premium.....	3 00
Putnam & Hurlbut, Berlin, gents gaiters, 1st premium.....	3 00
Putnam & Hurlbut, Berlin, ladies everyday gaiters, 1st premium.....	3 00
C. H. Perkins, Wyoming, New York, calf skins.....	Dip.
C. H. Perkins, Wyoming, New York, 3 robes, calf, coon, and cat skin.....	Dip.
C. H. Perkins, Wyoming, New York, 3 sheep skins.....	Dip.
C. H. Perkins, Wyoming, New York, Terry's tanning process.....	Dip.

CLASS 41.—LIGHTING APPARATUS.

No entries.

CLASS 42.—MUSICAL INSTRUMENTS.

Reed's Temple of Music, Chicago, grand piano, "Chickering's," 1st premium.....	Dip. and 5 00
Reed's Temple of Music, Chicago, boudoir piano, "Chickering's," 1st premium.....	Dip. and 3 00
D. D. Wilson, Janesville, square piano, "Knabe's," 1st premium.....	Dip. and 3 00
Reed's Temple of Music, Chicago, parlor piano, "Emerson's," 1st premium.....	Dip. and 3 00
D. D. Wilson, Janesville, parlor organ, "Mason & Hamlin's," premium.....	Dip. and 3 00
J. R. Eldredge & Co., Janesville, melodeon, "Kineard & Dreher's," Cleveland, Ohio, premium.....	Dip. and 3 00
D. D. Wilson, Janesville, small musical instruments, 1st premium.....	Dip.
J. R. Eldredge & Co., Janesville, church organ, "Jewitt & Goodman's," Cleveland, Ohio, 1st premium.....	Dip.

CLASS 43.—SILVER WARE, CUTLERY, BRITANNIA WARE.

A. P. Burrus, Janesville, dentists materials.....Dip.

No competition in other articles of this class. Committee favorably mention each display. The beautiful silver tea set, table spoons, and card case, purchased by the Society of Jas. A. Webb, of Janesville, for use as prizes on "Equestrianism," were not entered for competition, but received high commendation.

CLASS 44.—PAPER, PRINTING, BOOK-BINDING

W. J. Park & Co., Madison, library binding, 1st premium.....	Dip.
W. J. Park & Co., Madison, book work, (all in all,) 1st premium.....	Dip.
W. J. Park & Co., Madison, fancy binding, 1st premium.....	Dip.
W. J. Park & Co., Madison, blank book binding, premium.....	Dip.

CLASS 45.—TEXTILE FABRICS, CLOTHING & C.

G. H. Stewart, Beaver Dam, doeskin cloth, 1st premium.....	5 00
G. H. Stewart, Beaver dam, kersimere, 1st premium.....	5 00
F. A. Wheeler & Sons, Janesville, kersimere, 2d premium.....	3 00
G. H. Stewart, Beaver Dam, flannel, 1st premium.....	5 00
F. A. Wheeler & Sons, Janesville, flannel, 2d premium.....	3 00
Hildebrand & Co., Janesville, hats and caps, 1st premium diploma or.....	2 00
Echlin & Foote, Janesville, men's clothing, 1st premium diploma or.....	2 00
Echlin & Foote, Janesville, boys clothing, 1st premium.....	Diploma or 2 00
C. H. Perkins, Wyoming, New York, gents gloves, (fur,) premium Diploma or.....	2 00

CLASS 46.—DOMESTIC MANUFACTURES.

Mrs. S. J. Monroe, Fulton, Woolen blankets, premium.....	2 00
Mrs. Ben Chase, Jefferson, linen thread, premium.....	2 00
Mrs. Samuel Carr, Dekora, wool yarn, premium.....	1 00
Mrs. Samuel Carr, Dekora, tow linen thread premium.....	Trans.
Miss L. E. Monroe, Fulton, balmoral skirts, 1st premium.....	Trans.
Mrs. David McCulloch, balmoral skirts, 2d premium.....	1 00
Mrs. Samuel Carr, Dekora, wool mittuns, premium.....	1 00
Mrs. H. J. Graves, Janesville, 15 yards rag carpet premium.....	3 00
Hannah D. Shaler, Fulton, wool stockings, 1st premium.....	1 00
A. Henderson, Beloit, wool stockings, premium.....	1 00
Mrs. S. J. Monroe, Fulton, linen stockings, premium.....	1 00
Mrs. Eliza Newell, Janesville, cotton stockings, premium.....	1 00
George J. Kellogg, Janesville, carpet coverlet, (double,) premium..	3 00
M. L. Stout, Janesville, single coverlet, premium.....	2 00
Mrs. Ben Chase, Jefferson, Ill., linen towelling, (very nice,) pre- mium.....	Diploma and 2 00
Ira Parmely, Center, patch quilts, premium.....	2 00
Mrs. J. M. Barret, Trempealeau pa ch quilts, premium.....	
Mrs. J. C. Jenkins, Janesville, knit counterpane, premium.....	2 00
Mrs. H. Knoff, Janesville, crochet counterpane, Dis. premium,	Trans.
Mrs. David McCulloch, Dekora, gents drawers, premium.....	Trans.
Mrs. I. S. Newton, Middleton, gents' shirts, premium.....	2 00
Mrs. M. H. Murrin, Milwaukee, embroidered handkerchief case.....	Dipl'a.
Mrs. S. J. Monroe, Fulton, linen sheets, premium.....	Trans.
Mrs. J. H. Humphr-y, Albion, linen pillow slips.....	Trans.
Mrs. S. J. Monroe, Fulton, table linen, premium.....	2 00
Mrs. Samuel Carr, Dekora, tow linen, premium.....	2 00

CLASS 47—MILLINERY.

Mrs. Beale, Janesville, bonnet flowers, 1st premium.....	\$3 00
Mrs. E. Danforth, Janesville, bonnet flowers, 2d premium.....	2 00
Mrs. Beale, case of millinery, 1st premium.....	Dipl'a.
No prizes awarded to other articles.	

CLASS 48—ORNAMENTAL NEEDLE WORK.

Julia Newell, Janesville, silk embroidery, 1st premium.....	\$3 00
Julia Newell, Janesville, linen and cotton embroidery, 1st premium..	2 00
David Smith, Lima, embroidery, premium.....	2 00
Emma Brace, Fulton, wrought slippers, premium.....	2 00
Alice J. Hume, Janesville, crocket tidy, 2d premium.....	1 00
Mrs. E. H. Conch, Janesville, knit tidy, 1st premium.....	2 00
Mrs. E. J. Treat, Janesville, embaoidered handkerchief, 1st premium..	2 00
Julia Newell, Janesville, hem-stitched handkerchief, 1st premium...	2 00
Mrs. J. Goodrich, Janesville, hrm-stitched handkerchief 2d premium..	1 00
Mrs. A. McConnell, Oconomowoc, ottoman covers, 2d premium.....	1 00
Mrs. K. A. Darling, Fond du Lac, fancy basket work, 1st premium....	2 00
Mrs. J. M. Barrett, Trempealeau, fancy basket work, 2d premium....	1 00
Mary Carwin, Turtleville, skill and taste in lamp mats, (crochet), premium.....	1 00
Mrs. J. M. Barrett, Trempealeau, skill and taste in lamp mats, (tufted) premium.....	1 00
Miss H. C. Brooks, Beloit, fancy hair work, 2d premium.....	1 00
Mrs. R. C. Kyte, Footville, specimen crochet work.....	Dipl'a.
Mrs. J. M. Barrett, Trempealeau, netted tidy.....	Dipl'a.

PRODUCTS OF FINE ARTS.

CLASS 49.—WORKS OF ART.

J. A. Tice, Janesville, photographs, water color, premium...	Diploma.
J. A. Tice, Janesville, photographs, (oil) premium.....	Diploma.
Mrs. E. K. Baker, Janesville, oil painting, (landscape) 1st premium.....	Diploma.
Mrs. G. A. Slocum, Janesville, oil painting, (landscape) 1st premium.....	Transactions.
Mrs. E. K. Baker, Janesville, oil painting, (flowers) 1st premium	Diploma.
J. A. Tice, Janesville, ambrotyps, 1st premium.....	Diploma.
W. H. Sherman, Milwaukee, photographs, premium.....	Diploma.
J. A. Tice, Janesville, best collection of sun pictures of all kinds, premium.....	Diploma and 5 00
H. Young, Trempeleau, water colored paintings of animals, 1st premium.....	Diploma.
Mrs. E. K. Baker, Janesville, water color paintings of flowers, premium.....	Diploma.
Mrs. E. J. Treat, Janesville, water color paintings, (collection) premium.....	Diploma and 3 00
Miss Emily Quiner, Madison, oil paintings, (portrait) 1st premium.....	Diploma.
Miss Emily Quiner, Madison, oil paintings, (fruit) 1st premium	Diploma.
Miss Emily Quiner, Madison, oil paintings, (flower) 2d premium	Transactions
Mrs. E. W. Child, Janesville, best collection oil paintings, premium.....	Diploma and 5 00
J. R. Porter, Janesville, ambrotypes, 2d premium.....	Transactions.
D. T. Ames, Syracuse, N. Y., ornamental penmanship, premium.....	Diploma.
P. R. & L. P. Spencer, Milwaukee, pen drawing, premium..	Diploma.
B. M. Worthington, Madison, business writing, premium.....	Diploma.
Mrs. E. K. Baker, Janesville, crayon portrait, premium.....	Diploma.
Mrs. G. A. Slocum, Janesville, pastel drawing, premium.....	Diploma.
Mrs. G. L. Knox, Janesville, pencil drawing, premium.....	Diploma.
Eastman Business National College, Chicago, Ill., and Poughkeepsie, N. Y., flourish penmanship, premium.....	Diploma.

CLASS 50—MISCELLANEOUS ARTICLES.

Merriam & Cushing, Waterloo, working model of Merriam & Cushing's patent numerical reciprocating rotary engine	Commendat'n
I. S. Haseltine, Richland Center, 1 pair cashmere goats.....	Commendat'n
Wm. M. Doty, Janesville, tree trimmer and fruit gatherer,	Commendat'n
Wm. E. Buhl, Milwaukee, corset skirt supporter.....	Commendat'n
J. B. Damen, Chillicothe, Ill., grain register, special commendation.....	Diploma.
G. G. Campbell, Janesville, car coupler, special commendation.....	Diploma
Agent Sheet Metal Screw Co., New York, self-sealing fruit jars	Commendat'n
Flower & Weeks, Upper Sandusky, Ohio, elevating horse power,	Commendat'n
W. A. Ingalls, Chicago, Ill., piano stools.....	Commendat'n
O. C. Rogers, Pecatonica, Ill., pump.....	Commendat'n
Wm. Wright, Janesville, cider and wine press.....	Commendat'n
Lawton Bros., Racine, improved animal trap, special commendation.....	Diploma.
A. T. Stewart, Waupun, portable buggy top, special commendation.....	Diploma.
L. Cornell & Co., Chicago, Ill., specimen machine braiding, hemmer, feller and braider.....	Com'ndation.

G. W. Haak, Chicago, Ill., baby charmer and carriage, special commendation.....	Diploma.
Mrs. J. M. White, Beloit, book of sea plants, special commendation.....	Diploma.
Wood & Foster, Lake Mills, horse collar block, rawhide collar, special commendation.....	Diploma.
N. H. Howard, Beloit, improved tug buckle, special commendation.....	Diploma.
S. Waggoner, Monroe, machine for shaving hoops.....	Com'ndation.
Jno. Russell, Beloit, sample graining, sign.....	Com'ndation.
J. C. Crandall, Chicago, Ill., marble polisher.....	Com'ndation.
Agent Wyandotte Rolling Mill, Wyandotte, Mich., "Bessamer" iron, special commendation.....	Diploma.
Elizabeth Lynch, Janesville, agricultural wreath, special commendation.....	Diploma.
Ready Roofing Co., 73 Maiden Lane, New York, specimen roofing material.....	Com'ndation.
E. D. Barnard, Porter, Hale's patent sheep rack.....	Com'ndation.
C. S. Martin, Milwaukee, 4-horse rubber spring wagon, 2-horse rubber spring wagon.....	Com'ndation.
John Hudson, Madison, bag holder.....	Com'ndation.
Wright & Hunt, Janesville, patent expansion boring bitt, special commendation.....	Diploma.
Edwin Allen, Rockford, Ill., patent horse shoe.....	Commendat'n
Booth & Co., Janesville, patent stove damper, special commendation.....	Diploma.
C. A. Lewis, Sun Prairie, rotary clothes frames, special commendation.....	Diploma.
J. Nichols, Trempealeau, 2 cases stuffed birds, special commendation.....	Diploma.
E. G. Chase, Berlin, spring bed.....	Commendat'n
Fairbanks, Greenleaf & Co., Chicago, hopper scales, warehouse scales, 1200 lbs scales with wheels, 600 lbs scales with wheels.....	Diploma.
S. P. Cox, Janesville, clothes reef.....	Commendat'n
W. W. Robinson, Ripon, corn planter special commendation..	Diploma.
Noah Dutton, Janesville, yeast cakes.....	Commendat'n
J. Wagner, Waukesha, excelsior vegetable cutter, Robertson patent.....	Commendat'n
J. L. Wells, & Co., Ames, N. Y., horse hay fork.....	Commendat'n
Charlie Erkton, Madison, Model of State Capitol, special commendation.....	Diploma.

EQUESTRIANISM.

CLASS 52—LADIES' RIDING.

Miss Lottie Tabor, Racine, 1st premium.....	Silver tea sett.
Miss Emma A. Case, Beloit, 2d premium.....	Sett silver table spoons.
Miss L. Furlong, Janesville. 3d premium.....	Sett silver tea spoons.
Miss Louisa Campbell, Evansville, 4th premium.....	Silver card case.

ABSTRACT OF RETURNS OF COUNTY AGRICULTURAL SOCIETIES FOR 1865.

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STATE AGRICULTURAL SOCIETY.

COUNTIES.	REPRESENTATIVE OFFICERS.			PLACE & DATE OF FAIR.		FINANCES.			
	PRESIDENTS.	SECRETARIES.	TREASURERS.	PLACE.	DATE.	RECEIPTS.	EXPENDITURES.	AMOUNT PREMIUMS	AM'T IN TREAS'RY.
Brown.....	Maxwell Stewart.	M. P. Lindsley..	D. Butler.....	Green Bay..	Spt. 27-28	\$312 66	\$238 22	\$168 50	\$74 44
Columbia....	J. O. Eaton.....	C. C. Britt.....	F. C. Curtis.....	Portage,....	Spt. 19-21	875 34	586 48	437 00	288 86
Dodge.....	Roswell S. Gates.	J. C. Halliger...	O. F. Jones.....	Juneau.....	Spt. 20-22	546 65	546 65	265 94	.....
Fond du Lac,	E. S. Hammond.	John C. Bishop..	A. B. Taylor....	Fond du Lac,	Oct. 4-6	1,576 04	1,568 87	359 45	7 15
Grant,.....	.....	J. W. Blanding.	Harrison Reading	Lancaster...	Spt. 21-22	1,536 72	867 99	487 25	658 73
Green Lake,	S. M. Knox.....	M. H. Powers....	M. H. Powers....	Berlin.....	Spt. 20-21	813 64	488 06	300 00	325 56
Iowa,.....	G. W. Standart.	Henry Dunstan..	Sam'l Hoskins...	Dodgeville..	Spt. 29-30	784 53	616 74	320 00	167 79
Jefferson,...	Joseph Linden...	James A. Norris.	A. H. Nichols...	Watertown...	Oct. 4-6	300 11	286 55	210 25	13 56
Kenosha,...	Dudley Cass.....	F. Newell.....	L. W. Thayer...	Fair Grounds	Oct. 11-12	1,096 69	622 90	331 62	473 79
La Crosse,...	John M. Coburn.	J. F. Bryant.....	P. S. Elwell....	West Salem	Oct. 4-6	805 53	798 36	461 50	7 17
La Fayette,...	P. Parkinson, jr.	C. W. Brunners.	Frank Buckmalin.	Fair Grounds	Spt. 14-15	764 87	764 87	373 60	.....
Monroe,....	J. Covey.....	T. D. Steele....	Thos. B. Tyler...	Sparta.....	Oct. 10-12	796 93	517 19	181 50	279 74
Outagamie,...	Lewis Ferrot....	B. Douglas.....	Alvin Foster....	Appleton....	Spt. 12-13	251 56	249 30	200 50	2 26
Ozaukee,....	.....	.....	.....	Cedarburg...	Oct. 2-3	582 56	501 04	216 75	81 52
Polk,.....	Jno. S. Godfrey.	Wm. Amery.....	Sam. S. Fifield..	Osceola.....	Spt. 26-27	225 15	215 70	147 75	9 45
Rock,.....	H. P. Fales.....	Jacob Fowle....	R. S. Pember....	Janesville...	Spt. 12-15	2,675 17	2,588 03	576 50	88 14
Sheboygan,...	Geo. S. Graves...	E. F. Barrows...	W. W. Huson...	SheboyganF's	Spt. 13-15	716 39	571 07	331 82	145 32
St. Croix,...	T. Dwight Hall.	Chas. H. Aldrich	Wm. M. Otis....	Hudson.....	Oct. 10-11	265 22	161 52	78 00	103 70
Trempealeau,	Jas. M. Barrett.	John Nichols...	Chas. E. Perkins	Galesville...	Spt. 19-20	279 98	201 61	77 50	78 37
Vernon,....	E. A. Stark.....	R. C. Bierce....	S. C. Lincoln...	Viroqua.....	Oct. 4-6	398 20	225 87	128 60	82 33
Waukesha,...	Edward Porter...	O. M. Tyler.....	J. L. Smith.....	Waukesha...	Spt. 21-23	609 81	532 65	130 25	77 16
Walworth,...	Geo. W. Wylie..	Hollis Latham...	J. F. Brett.....	Elkhorn.....	Spt. 12-14	1,457 64	1,287 93	362 50	169 71
Washington,	.....	.....	.....	Hartford....	Oct. 4-6	363 22	338 74	277 20	24 48
Winnebago,...	J. H. Hicks.....	J. M. Ball.....	Jas. H. Janes...	Oshkosh.....	Spt. 20-21	787 14	583 16	353 45	203 98
						\$18,532 75	\$15,359 50	\$6,777 44	\$3,368 21

TRANSACTIONS

OF THE

WISCONSIN STATE AGRICULTURAL SOCIETY

FOR 1866.

OFFICERS OF THE SOCIETY.

1866.

PRESIDENT :

DAVID WILLIAMS, SPRINGFIELD.

VICE PRESIDENTS :

First —C. L. MARTIN, JANESVILLE.

Second—B. R. HINKLEY, SUMMIT.

Third —L. B. VILAS, MADISON.

SECRETARY :

J. W. HOYT, MADISON.

TREASURER :

DAVID ATWOOD, MADISON.

ADDITIONAL MEMBERS OF EXECUTIVE COMMITTEE :

E. D. HOLTON, MILWAUKEE.

W. R. TAYLOR, COTTAGE GROVE.

C. H. WILLIAMS, BARABOO.

J. H. WARREN, ALBANY.

E. STILSON, OSHKOSH.

J. O. EATON, LODI.

G. H. STEWART, BEAVER DAM.

EX-PRESIDENTS, EX-OFFICIO MEMBERS :

HARVEY DURKEE, KENOSHA.

J. F. WILLARD, JANESVILLE.

B. R. HINKLEY, SUMMIT.

ANNUAL REPORT

FOR THE YEAR 1866.

His Excellency, LUCIUS FAIRCHILD,

Governor of the State of Wisconsin :

SIR: I have the honor, herewith, to submit the Treasurer's Annual Statement of the financial transactions of the Wisconsin State Agricultural Society, for the year ending Dec. 12, 1866.

Although not remarkable for a bountiful yield of the various agricultural crops produced, the year just closed has, nevertheless, been characterized by a very general prosperity in all departments of industry.

While the agriculture of the State is making a steady progress, as a whole, the manifestly growing disposition of our farmers to adopt a more diversified system than heretofore, is especially worthy of notice. The agriculture of no country can continue to flourish for any considerable number of years, in which the prevailing practice of raising grain for exportation, is indulged in to the great neglect of stock-raising. This is so palpable as not to require comment, and yet the farmers of Wisconsin have long been practically regardless of the natural laws on which this theory is based—cultivating wheat to the exclusion, comparatively speaking, of everything else, and thus robbing soils of their fertility, which, under a judicious system, might be rather increased than diminished in productiveness. Our State is well adapted to every branch of stock-raising, and, for the more profitable branches, is inferior to no State in the Union.] [Wool-growing has made great pro-

gress under the strong stimulus of high prices; so that the product has probably doubled within the past few years. It is hardly probable that the present high prices will long continue, but so long as the demand in the United States is many million pounds greater than the supply, it is clear that, with proper custom regulations, the prices must continue to be highly remunerative. But the present demand is by no means a criterion of what the demand for wool will be in the early future, if measures are taken by the National and State governments to encourage the development of our manufacturing industry.

Although the whole territory of Great Britain is but little larger than that of some of our great western States, her annual wool clip is nearly 300,000,000 pounds. And why so much larger—nearly double—the clip of this entire vast country? Because the English government long ago adopted the policy, and for some centuries kept it up, of fostering manufactures as a leading branch of the national industry. The value of her woolen manufactures is now scarcely less than \$200,000,000 per annum. This fact tells the story of her greater production.

We, too, must foster manufactures—not only as a country, but as individual States. I know of no portion of the world whose natural facilities for carrying on many branches of manufacturing industry are better than ours; and if Wisconsin should not, within the next quarter of a century, stand among the very foremost of the great manufacturing States, it will not be because she is wanting in all the natural advantages.]

In looking over the financial report of this Society you will find reason for congratulating the officers and all friends of industrial progress on the prosperity which now marks its general condition. That it should be instrumental in accomplishing so much good in the State as is already traceable to its influence, and yet be independent of all aid by State appropriations, is a just ground for pride and satisfaction on the part of both Society and State; especially since therein the

Society is believed to be singular among all like societies in the United States.

But, notwithstanding the healthy condition of the Society's finances, it cannot venture to undertake the publication of its Transactions, without **hazarding** its success in the whole field of practical operations. **Nor**, on the other hand, can it accomplish more than a **part of the** good work it has undertaken without the advantage of a **regular** publication of its Transactions. For these reason the officers of the Society feel it their duty to the interests they have in trust to reiterate their oft-repeated petition that the State will re-establish its former excellent rule of creditably **printing** and publishing the said Transactions from **year to year**.

Respectfully submitted,

J. W. HOYT, *Secretary*.

STATE AGR'L ROOMS, Jan., 1864.

TREASURER'S REPORT.

To the Executive Committee of the Wisconsin State Agricultural Society :

The undersigned, Treasurer of the Wisconsin State Agricultural Society, respectfully reports the financial transactions of the Society for the past year, as follows:

RECEIPTS.

Balance on hand as per last report, Dec. 13, 1865.....	\$3,074 38
January. Received for two life members, E. Knight and W. C. Allen.....	20 00
March. For life membership, G. H. Slaughter	10 00
Of Atwood & Rublee, for safe.....	175 00
Sept. 13. For rent on Fair Grounds, per Hoyt, Sec... ..	497 00
For rent on Fair Grounds, per D. Williams, Pres....	1,423 00
Sept. 29. For 210 life memberships during the Fair..	2,100 00
For entries during the Fair.....	685 00
Sept. 25 to 29. For tickets of admission to Fair.....	6,986 71
Total receipts.....	<u>\$14,971 09</u>

EXPENDITURES.

Dec. 12. By orders paid for expenses, premiums and salaries, as per vouchers this day returned and cancelled, from Nos. 351 to 705, both inclusive, disbursed as follows, to-wit:	
Premiums	\$3,343 00
Superintendents, clerks, police &c.....	1,965 70
Labor.....	346 25
Printing and advertising.....	743 13
Incidental expenses of Fair	659 73
Forage for Fair	375 00
Rock County Society	300 00
Damage to stock	40 00
Salary of Secretary.....	1,500 00
Incidental expenses of office.....	363 95
	<u>\$9,636 76</u>
Balance in Treasury, Dec. 12, 1866... ..	5,334 33
	<u>\$14,971 09</u>

All of which is respectfully submitted,

DAVID ATWOOD, *Treasurer.*

MADISON, Dec. 12, 1866.

PROCEEDINGS

EXECUTIVE MEETINGS.

STATE AGRICULTURAL ROOMS,

February 5, 1866—4 o'clock P. M.

Executive Committee met pursuant to requirement of By-Laws.

Present—Messrs. David Williams, President, B. R. Hinkley, L. B. Vilas, W. R. Taylor, E. D. Holton, C. H. Williams, J. H. Warren, Eli Stilson, J. O. Eaton, G. H. Stewart, David Atwood and J. W. Hoyt.

President Williams in the chair.

On motion of Mr. Hinkley, it was unanimously

Resolved, That the President and Secretary are hereby appointed a Committee to make arrangements for the location of the Exhibition for 1866, and to settle the same to the best advantage of the Society.

On motion, Committee, as a whole, proceeded to revise the rules and list of premiums of 1865, for use the current year.

Premiums increased in the Horse, Sheep and Fruit departments.

Moved and carried that the premiums on fruits, flowers, wines and delicacies be paid in silver plate of best quality.

Moved by Mr. Stewart, that the premiums on "Running Horses" be stricken out. **Lost.**

The following superintendents of departments were unanimously chosen :

Chief Marshal—J. H. Warren.

Superintendent of Gates—J. O. Eaton.

Department of Horses—F. D. McCarty.

Cattle—C. H. Williams.

Sheep—Eli Stilson.

Swine and Poultry—C. L. Martin.

Agricultural—W. R. Taylor.

Fruit—J. C. Plumb.

Machinery—K. A. Darling.

Fine Arts—E. D. Holton.

Farm Work—L. B. Vilas.

Ladies' Riding—Dr. E. B. Wolcott.

On motion, adjourned to 7½ o'clock P. M.

February 5, 7½ P. M.

Committee met pursuant to adjournment.

Present, same members as in the afternoon.

President Williams in the chair.

On motion, the appointment of judges for the several classes in the Premium List was made the order of the evening; in which labor the Committee continued until 10 o'clock.

On motion of E. D. Holton, the Secretary was instructed to draw an order for \$25 and forward the same to the Misses Mary and Margaret Davis, of Kane county, Illinois, in addition to the premium awarded them in the Equestrian Department of the State Fair of 1865, as a testimonial, from the Executive Committee, of our appreciation of the admirable horsemanship manifested by them on that occasion. The Secretary was also instructed, on motion of Mr. Holton, to draw an order, in his own favor, for \$10, already presented by him to the father of the said Misses Davis on same account.

On motion adjourned to meet at 9 o'clock A. M. to-morrow.

J. W. HOYT, *Secretary.*

FEB. 6th, 9 o'clock A. M.

Committee met pursuant to adjournment, and resumed the work of selecting Judges; continuing therein until the same was concluded.

On motion of the Secretary, it was unanimously

Resolved, That the objects sought to be accomplished by the Agricultural College Convention, called for this afternoon, and to meet in the Capitol, have the hearty sympathies of this Committee, and that, after adjournment we will attend the same until its business shall have been concluded.

Adjourned *sine die*.

J. W. HOYT, *Secretary.*

MEMORANDUM.

Several meetings of the Executive Committee were held during the week of the Fair and after its close, for the settlement of claims against the Society, but the narrow limits of this volume preclude their publication.

J. W. HOYT, *Secretary.*

STATE AGRICULTURAL ROOMS, MADISON, Dec. 11, 1866.

4 o'clock P. M.

Executive Committee met pursuant to requirement of By-Laws.

Vice President Hinkley in the Chair.

Adjourned to meet at 10 o'clock A. M. of Dec. 12th.

Dec. 12, 10 o'clock A. M.

Executive Committee met pursuant to adjournment.

Present—Messrs. Hinkley, Vilas, Taylor, Eaton, Atwood and Hoyt.

Vice President Hinkley in the Chair; President Williams being detained by illness.

On motion, the Committee proceeded to an examination of the accounts of the Secretary and Treasurer; which were found correct and duly approved.

The following is the Treasurer's Report [See page 269.]

On motion, adjourned to meet at 7½ P. M.

Dec. 12, 7½ o'clock P. M.

Committee met pursuant to adjournment.

Present—same members as before.

The Secretary presented an application from John P. Roe, for damages done to a valuable sheep at the Fair of 1865; which, on motion, was referred to the Secretary for investigation.

Moved and carried, that the following discretionary premiums be awarded and paid:

To the Madison Horticultural Society, for its handsome display of fruit, flowers, &c., at the late State Fair, \$50.

To G. W. Twiss, of Rockford, Illinois, for his attractive exhibition of flowers at same Fair, the Diploma of the Society and two Silver Goblets.

To J. M. Shearman, of Rockford, Illinois, for a like exhibition, Diploma and Silver Goblet.

Moved and carried, that the Secretary be authorized to expend \$200 in the purchase of certain standard works for the Library.

On motion of Mr. Stilson,

Resolved, That the Secretary is hereby authorized to purchase a new lithograph Diploma for the Society's use.

On motion of Mr. Taylor, it was

Resolved, That Secretary Hoyt is hereby granted leave of absence to represent the State and this Society at the Paris Universal Exposition, to be opened on the first day of April next.

On motion of Mr. Vilas,

Resolved, That the President, Secretary and Treasurer are hereby appointed a committee to memorialize the next Legislature in behalf of the regular annual printing and publication of the Society's Transactions.

On motion, the Committee adjourned *sine die*.

J. W. HOYT, *Secretary*.

ELECTION OF OFFICERS.

COURT ROOMS, JANESVILLE, Sept. 27, 1866.

Pursuant to the constitutional provision and a published notice, the Life Members of the Wisconsin State Agricultural Society met, this evening, at the room of the Rock County Court for the election of officers for the ensuing year.

President David Williams in the chair.

Moved by L. B. Vilas, that a committee of five members be appointed to nominate officers of the Society for the year 1867.

Carried.

The President appointed Messrs. L. B. Vilas, A. Rogers, E. D. Holton and ——— said committee.

While the committee on nominations were preparing their report, an animated discussion arose concerning the publication of the Society's transactions; Mr. J. M. Burgess and others complaining that the officers of the Society had been derelict in this matter.

Mr. Burgess offered the following resolution :

Resolved, That a committee, consisting of one person from each Congressional district of the State, be appointed by the Chair to investigate the financial affairs of the Society, and report the results through the *State Journal* at their earliest convenience.

The President and Mr. Hinkley explained that the adoption of this resolution would involve a good deal of expense to the Society, and be of no practical value, since the financial transactions of the Society had been annually reported to the Governor and published in the journals of the Senate and Assembly; and that, at every annual meeting, it was customary to submit the accounts of the Secretary and Treasurer to the inspection of members of the Society not included among the officers, so that, practically, all that was sought to be accomplished by the resolution had been already accomplished. Mr. Hinkley further stated, that for several years the officers had labored to procure the passage of a bill through the Legislature providing for the regular annual publication of the Society's Transactions in book form, for distribution to all the members of the Society and to those societies and persons interested in the progress of industry, but that, owing to the opposition made by the legislative representatives of the mover of this resolution, and the opposition of other representatives equally unappreciative and illiberal, those bills had failed in the popular branch of the Legislature.

On taking the vote, the resolution was lost by a large majority against it.

At this stage of the proceedings, the committee on nominations returned and through their chairman reported the following as the list of officers for the year 1867 :

For President—K. A. Darling, Fond du Lac.

Vice-Presidents—B. R. Hinkley, Summit; C. H. Williams, Baraboo; J. I. Case, Racine.

Secretary—J. W. Hoyt, Madison.

Treasurer—R. J. Richardson.

Additional Members of the Executive Committee—J. B. Dousman, Milwaukee; W. R. Taylor, Cottage Grove; A. Ludlow, Monroe; Eli Stilson, Oshkosh; J. O. Eaton, Lodi; E. F. Mabie, Delavan.

After much discussion as to the method in which the ballot should be taken ballots were finally cast for each officer separately; which resulted in the election of all the gentlemen whose names were reported by the committee, except R. J. Richardson, nominee for Treasurer, for whose name that of David Atwood, present incumbent, was substituted by a majority of the electors.

Subsequent to the election, the following resolutions were adopted :

Offered by Sat. Clark :

Resolved, That the President and Secretary of this Society are hereby directed to memorialize the Legislature, at the next session, for an appropriation sufficient to publish the Transactions of the Society.

By Mr. N. B. Van Slyke :

Resolved, That at each Annual Meeting for the election of officers, and previous to such election, the Executive Committee are required to make a statement of the financial condition of the Society.

By Jas. Ross :

Resolved, That the thanks of the members are hereby tendered to the present officers of this Society for their excellent and acceptable management of

its affairs, and for the uniform courtesy and attention with which they have discharged their difficult duties.

On motion, the Society then adjourned *sine die*.

J. W. HOYT, *Secretary*.

ANNUAL MEETING.

STATE AGRICULTURAL ROOMS,
MADISON, Dec. 12, 1866.

The Society met in their Rooms, pursuant to the constitutional provision and the published notice, at 3 o'clock P. M. of this day.

Vice-President B. R. Hinkley in the chair, President Williams being detained at home by sickness in his family.

The chief object of the meeting being to receive and examine the Treasurer's Report for the fiscal year of 1866, the Secretary presented the same and read it in the hearing of the members present.

On motion, a committee, consisting of B. R. Hinkley, L. B. Vilas, J. O. Eaton and W. R. Taylor, was appointed to examine the records and papers of the Secretary and Treasurer, and to report thereon, at this meeting.

The following is the report of the committee :

To the Wisconsin State Agricultural Society :

The committee charged with the duty of examining into the financial transactions of the Society for the year 1866, having performed the duty assigned them to the best of their ability, ask leave to report, that they have carefully examined the financial statement of the Treasurer, with the accompanying vouchers, that they find the same, in all respects just and true, and that the bills and other vouchers for the items therein named, are on file and open to examination in the office of the Society.

B. R. HINKLEY,
Vice-President and Ch'n Com. of Investigation.

The Treasurer's Report showed receipts amounting to \$14,971 09, disbursements amounting to \$9,626 76, and a balance in the Treasury of \$5,344 33. See page 270.

J. O. Eaton gave notice of an intention to offer, at the next Annual Meeting, an amendment to Article III, of the Constitution, so that when amended it shall read as follows:

"The officers of this Society shall consist of a President, two Vice-Presidents, a Secretary, a Treasurer, an Executive Committee—to consist of the above mentioned and seven additional members, together with the three Presidents whose terms of office last expired—and of a General Committee, to consist of the Presidents of the several County Agricultural Societies organized pursuant to the laws thereof. All members of the Executive Committee shall become Life Members, according to the provisions of Article II, and any ten of the members, including the President or a Vice-President, shall constitute a quorum for the transaction of business."

On motion, the Society adjourned *sine die*.

J. W. HOYT, *Secretary*.

EXHIBITION OF 1866.

[From the Secretary's Record.]

In view of the long protracted rains of this most remarkable autumn, the consequent damage to the grain crops of the country, and the uncertainty that still attached to the weather up to the very date of opening, there was but little warrant for expecting either a fine show of animals and products, or a large attendance of the people. But, after all, the result far exceeded the expectations of even the most sanguine.

The attendance of people was entirely unprecedented. On Thursday, the 27th, there were present, as shown by the receipts, over twenty thousand persons on the grounds at one time, and the spectacle was truly magnificent. The grounds, embracing some 70 acres, with the exception of a portion of the space within the track—and this was filled with vehicles of every description—was literally swarming with people; all of whom seemed remarkably well pleased with themselves and the rest of mankind. Some were disappointed, no doubt, by the non-appearance of the distinguished guests (General Logan and others) whose names had been announced as constituting a part of the attractions of the day, but the time was so well occupied with various entertainments, including ladies' equestrianism, and trials of trotting and running horses, that their disappointment was soon forgotten.

The Exhibition itself, though in some departments quite creditable, was, nevertheless, as a whole, very much less than it ought to have been, even in those best represented; while in some it was a positive reproach to our people.

Instead of 1491 entries in the several departments, there should have been at least twice that number; and there might have been, with but little effort on the part of the farmers, mechanics, manufacturers, artists and others of the State. Multitudes of farmers from Rock and the other counties were there to see, but how small was the number of those who manifested enterprise enough to bring anything with them.

The plain truth is, Agricultural Hall was a positive disgrace to the farmers of Wisconsin; and had it been in our power to do so, we would have "spirited away" the tent itself, and thus abolished the department entirely. The premiums were not large; but in view of the little expense and trouble involved in getting out samples of agricultural products, the premiums on these were relatively as large as in any of the stock departments.

The show of fruits and flowers was highly creditable, as a whole, and would have done honor to any State in the Union. Apples, in great variety and of unsurpassed quality, pears also, and grapes of rare beauty and excellence, and all other fruits that belong to this latitude were there to challenge the admiration of the multitude who thronged Floral Tent during the three days of the Exhibition.

The show made by the Madison Horticultural Society, embracing fruits of every kind, flowers, wines and delicacies, was, of itself, really splendid, and received the highest commendation of the public, as well as a handsome discretionary award from the State Agricultural Society. This Society has done a noble work in Madison in the way of beautifying the city and cultivating a taste for horticultural improvement among its citizens, and its example is eminently worthy of imitation by all the villages and cities of the State.

Who believes, after witnessing our magnificent displays in successive years, that Wisconsin may not yet come to take acknowledged rank among the fruit-growing States?

Of the Department of Field, Garden and Dairy Products, we have already spoken. There was nothing of it. The reproach rests chiefly upon the farmers of Rock, but there is no single county in the State that could not and should not have saved this important department from absolute disgrace.

Horses, Jacks and Mules were not as numerous as in 1860, but made a creditable display. Individual animals of superior blood and reputation were there, and attracted much attention. The award of prizes following this sketch will show the names and performances of such as won the most favor.

The trials of speed in the several classes of Pacing, Trotting and Running Horses were, nevertheless, quite satisfactory to the public at large, though not entirely so to the officers of the Society. If immoral practices are inevitable concomitants of matched trials of speed of horses, then our voice shall be emphatically and forever against such trials at our industrial exhibitions and everywhere else.

The show of Cattle was not so large and varied as it ought to have been; but thanks to the fine herds of John P. Roe, of Durham Hill; Richard Richards, Racine; A. Richmond, Whitewater; Luther Rawson, Oak Creek; Simon Ruble, Beloit, and others, who likewise contributed valuable animals in the different classes, the exhibition in this department was made respectable.

The Sheep Department would have been an honor to any State in the Union. It embraced over 100 pens of as fine sheep as can be found in the world, and would have been worth, to some of our old foggy farmers who never attend fairs and never make any progress in farming, a journey of 500 miles.

The Swine and Poultry of the State were better represented than usual. There were 33 pens of the former—including some very superior animals—and 22 coops of remarkably fine fowls of various species and breeds.

All the departments in Division C—Machinery, Manufactures and Works of Art—were respectably filled; the department of heavy machinery, in-

cluding steam engines, separators, horse-hoes, &c., better than at any previous late exhibition. There was also a fine exhibition of implements proper.

The Manufacturers' Tent was well filled with articles properly shown there and was made additionally lively by the click of numerous sewing machines and the clank and rattle of hand-loom and spinning jennies.

Fine Arts Hall, having been materially relieved from the pressure which characterized it last year by the erection of a separate building for musical instruments, gave more satisfaction than last year. Handsome embroideries, paintings, lithographs, photographs, specimens of penmanship, &c., &c., abounded on every hand, though, with a little crowding, a still larger display might have been made.

Music Hall was handsomely filled with some of the very finest instruments ever put on exhibition.

The election of officers took place, according to announcement, in the Court Room on the evening of the 27th, and was the most spirited affair of the kind of which we have had personal knowledge since our connection with the Society. [See report under head of Proceedings.]

The meetings of the State Horticultural Society and the Wisconsin Wool Growers' Association, held on Tuesday, Wednesday and Thursday evenings of Fair week, were well attended and highly interesting and profitable to all who participated.

PREMIUMS AWARDED

AT THE FAIR OF 1866

HORSES, JACKS AND MULES.

CLASS 1—THOROUGH BRED.

Best Stallion, 4 years old and over, H. W. McCafferty, Columbus.....	\$30 00
Second best Stallion, 4 years old and over, Simon Ruble, Beloit.....	20 00
Best Stallion, 3 years old and over, H. W. McCafferty, Columbus....	15 00
Best sucking Stallion Colt, M. Drake, Beloit,..... Farmers' Rec. & Acct Book.	
Best Brood Mare, 4 years old and over, M. Drake, Beloit.....	20 00
Second best Brood Mare, 4 years old and over, Simon Ruble, Beloit...	12 00
Best Filly, 2 years and over, M. Drake, Beloit.....	8 00

CLASS 2.—ROADSTERS.

Best Stallion, 4 years and over, E. F. Mabie, Delavan.....	25 00
Second best Stallion, 4 years and over, C. C. Thomson, Beloit.....	15 00
Best Stallion, 3 years old and under 4, John N. Fellers, Bradford.....	10 00
Second best Stallion, 3 years old and over, J. C. Owen, Footeville....	7 00
Best Brood Mare, 4 years and over, A. B. Douglass, Janesville.....	15 00
Second best Brood Mare, 4 years and over, M. B. Gibson, Muckwonago	10 00
Best Brood Mare, 3 years and under, David Smith, Harmony.....	12 00

CLASS 3—HORSES FOR GENERAL PURPOSES.

Best Stallion, 4 years old and over, B. J. Williams, Whitewater.....	20 00
Second best Stallion, 4 years old and over, L. Spear, Emerald Grove...	15 00
Best Stallion, 3 years old and under, W. C. Richards, Union.....	10 00
Second best Stallion, 3 years and under 4, H. Campbell, Center.....	7 00
Best Stallion, 2 and under 3 years, Jas. Cummings, Allen's Grove....	7 00
Second best Stallion, 2 and under 3 years, B. Williams, Whitewater.	5 00
Best Stallion, 1 year and under 2, B. J. Williams, Whitewater.....	5 00
Second best Stallion, 1 and under 2 years, Fred Fellows, Centre.....	3 00
Best Sucking Stallion colt, John Fellers, Bradford, Farm Record & Account Book, (3).	
Best Brood Mare, 4 years and over, H. Wilcox, Janesville.....	12 00
Second best Brood Mare, 4 years and over, Peter Parkinson, Fayette.	8 00
Best Filly, 2 years and under 3, C. J. Simmons, Monroe.....	6 00
Second best Filly, 2 years and under 3, A. Thorburn, Center.....	4 00
Best Filly 1 year and under 2, Peter Parkinson, Fayette.....	5 00
Second best Filly, 1 year and under 2, James Little, Janesville.....	3 00
Best Sucking Mare Colt, James Little, Janesville, Farm Rec. & Acct Book (3).	
Second best Sucking Mare Colt, G. Nash, Janesville.....	2 00

CLASS 4—DRAFT HORSES.

Best Stallion, 4 years, Simon Ruble, Beloit.....	\$15 00
2d best do do John A. Fletcher, Johnstown.....	10 00

Best Stallion, 3 yrs old, R. Wilson, Dekora.....	\$10 00
Best Stallion, 2 yrs old, David McClay, Emerald Grove.....	7 00
2d best Stallion, 2 yrs old, E. F. Reynolds, Johnstown.....	5 00
Best sucking Stallion Colt, E. Barrett, Janesville, Farmer's Rec. & Acc't Book (3)	
Best Brood Mare, 4 yrs old, Edward Barrett, Janesville.....	10 00
2d best Brood Mare, 4 yrs old, B. F. Reynolds, Johnstown.....	7 00
Best Brood Mare, 3 yrs old, Andrew Barlass, Emerald Grove.....	8 00
2d best Brood Mare, 3 yrs old, Andrew Barlass, Emerald Grove.....	6 00
Best Filly, 2 yrs old, J. V. Hugonin, Johnstown.....	6 00
2d best Filly, 2 yrs old, Robt. Wilson, Dekorra.....	4 00
Best sucking Colt, E. F. Reynolds, Johnstown, Farm Rec. & Acc't Book (3)	

CLASS 5—JACK AND MULES.

Best Jack, E. F. Mabie, Delavan.....	\$25 00
2d best Jack, Wm. Tolley, Darlington.....	10 00
Best Jenney, Wm. Tolley, Darlington.....	10 00
Best pair working Mules, Chas. N. Miller, Elkhorn.....	10 00
Best single Mule, M. P. Jerdee, Madison.....	5 00
2d best single Mule, M. P. Jerdee, Madison.....	3 00
Best Mule Colt, H. H. Wild, Fort Atkinson.....	2 00
Best Ass Colt, Wm. Tolley, Darlington.....	2 00

CLASS 6—MATCHED HORSES AND MARES.

Best Carriage Horses, Dr. S. S. Judd, Janesville.....	\$25 00
2d best pair Carriage Horses, Allen Holmes, Johnstown Center.....	15 00
Best pair of Roadsters, E. F. Mable, Delavan.....	25 00
2d best pair Roadsters, F. D. McCarty, Fond du Lac.....	15 00
Best pair Farm Horses or Mares, A. A. Taggart, Delavan.....	25 00
2d best pair Farm Horses or Mares, L. L. Fletcher, Bradford.....	15 00

CLASS 7—GELDINGS OR MARES FOR SINGLE HARNESS, SADDLE, &c.

Best Gelding for Harness, 4 yrs old or over, J. L. Ward, Oakland....	10 00
2d best Gelding for Harness, 4 yrs old or over, R. T. Pember, Janesville	5 00
Best Gelding or Mare for Saddle, 4 yrs old or over, J. I. Case, Racine	10 00
2d best Gelding or Mare for Saddle, 4 yrs old or over, J. I. Case & Co., Racine.....	5 00

CLASS 8—TROTTERS AND PACERS.

Best Trotting Stallion, over 5 yrs, Wm. Quivey, Evansville.....	\$50 00
2d best Trotting Stallion, over 5 yrs, C. McComber, Prairie du Chien.	30 00
Best Trotting Mare, over 5 yrs old, F. D. McCarty Fond du Lac.....	30 00
2d Best Trotting Mare, over 5 yrs old, L. Douglass, Janesville.....	20 00
Best Trotting Gelding, over 5 yrs, M. Gilson, Mukwanago.....	25 00
2d best Trotting Gelding, C. McComber, Prairie du Chien.....	15 00
Best Trotting Matched Span over 5 yrs, C. Macomber, Prairie du Chien.....	25 00
2d best Trotting Matched Span, F. D. McCarty, Fond du Lac.....	15 00
Best Pacing Horse or Mare, J. L. Ward, Oakland.....	25 00
2d best Pacing Horse or Mare, Francis Gano, Janesville.....	14 00

CLASS 9—RUNNING HORSES.

Best 2 in 3, Manley Drake, Beloit.....	\$200 00
2d best 2 in 3, A. G. Darwin, Madison.....	100 00
<i>Stallions and Mares, Mile Heats, Best 2 in 5.</i>	
Best 3 in 5, A. B. Douglass, Janesville.....	\$100 00
2d best, H. W. McCafferty, Columbus.....	75 00

Best 2 and 3 year old Colts and Fillies.

H. W. McCafferty, Columbus,.....	\$60 00
2d best, William James, Janesville,.....	40 00

CATTLE.

CLASS 10—SHORT HORNS.

Best Bull 3 years old and over, Richard Richards, Racine,.....	\$25 00
2d best Bull, 3 years old or over, John Fernley, La Grange.....	15 00
Best Bull, 2 years old and under 3, John P. Roe, Durham Hill.....	15 00
2d best Bull, 2 years old and under, Wm. L. Lloyd, Emerald Grove..	10 00
2d best Bull, 1 year old and under 2, Walter Scott, Emerald Grove...	5 00
Best Cow 3 years old and over, John Fernley, La Grange.....	20 00
2d best Cow 3 years old and over, Richard Richards, Racine.....	15 00
Best Heifer 2 years and under 3, Richard Richards, Racine.....	15 00
2d best Heifer 2 years and under 3, John P. Roe, Durham Hill,.....	10 00
Best Heifer, 1 year old and under 3, John P. Roe, Durham Hill, Farm Rec. and Acc. Book. (5)	
Best Heifer Calf, John P. Roe, Durham Hill,.....	7 00
2d best Heifer Calf, Richard Richards, Racine, Farm Rec. and Acc. Book (5)	
Best Bull Calf, John P. Roe, Durham Hill,.....	7 00
2d best Bull Calf, John P. Roe, Durham Hill,.....	Farm Rec. & Ac. Book (5)

CLASS 11—DEVONS.

Best Bull 3 years old and over, L. Rawson, Oak Creek,.....	\$25 00
2d best Bull 3 years old and over, Jacob Fowle, Bradford,.....	15 00
Best Bull, 2 years and under 3, L. Rawson, Oak Creek.....	15 00
2d best Bull 2 years old and under 3, A. Richmond, Whitewater.....	10 00
Best Bull 1 year old and under 2 years, L. Rawson, Oak Creek,.....	7 00
Best Cow 3 years and over, L. Rawson, Oak Creek,	20 00
2d best Cow 3 years and over, David Smith, Harmony.....	15 00
Best Heifer 2 years and under 3, L. Rawson, Oak Creek,.....	7 00
2d best Heifer 2 years old and under 3, L. Rawson, Oak Creek, Farm Rec. & Acc. Book. (5)	
Best Bull Calf, L. Rawson, Oak Creek,.....	7 00

CLASS 12—ALDERNEYS.

Best Bull 3 years and over, Simon Ruble, Beloit,.....	\$25 00
Best Cow 3 years and over, Simon Ruble, Beloit,.....	20 00
Best Heifer Calf, Simon Ruble, Beloit,.....	7 00

CLASS 13—AYRSHIRES.

None exhibited.

CLASS 14—HEREFORDS.

None exhibited.

CLASS 15—GRADE CATTLE BND WORKING OXEN.

Best Grade Cow, 3 years and over, E. Howell, Janesville.....	\$10 00
Second best Grade Cow, 3 years and over, John Fernley, La Grange...	7 00
Best Heifer, 2 years and under 3, Sumner Parker, Janesville.....	7 00
Second best Heifer, 2 years and under 3, A. Richmond, Whitewater..	5 00
Best Heifer, 1 year and under 2, D. Smith, Harmony, Farm Record and Ac- count Book (5).	
Second best Heifer, 1 year and under 2, E. Howell, Janesville, Farm Record and Account Book (3).	
Best yoke Working Oxen, Wis. Hospital for Insane, Madison.....	15 00
Second best yoke Working Oxen, L. Rawson, Oak Creek.....	10 00

CLASS 16—MILCH COWS.

Best Milch Cow, John P. Roe, Durham Hill	15 00
Second best Milch Cow, Richard Richards, Racine.....	10 00
Third best Milch Cow, A. Dewey, Janesville, Farm Record and Account Book (5).	

CLASS 17—FAT CATTLE.

Best Fat Cow, John P. Roe, Durham Hill.....	\$5 00
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SHEEP.

CLASS 18—AMERICAN MERINOES.

Best Buck, 2 years and over, S. D. Smith, Whitewater.....	\$15 00
Second best Buck, 2 years and over, R. T. Graves, Cambria.....	10 00
Best Buck, 1 year and under 2, R. T. Graves, Cambria.....	10 00
Second best Buck, 1 year and under 2, N. P. Nash, Oak Grove.....	7 00
Best 3 Ewes, 2 years and over, Richard Richards, Racine.....	15 00
Second best 3 Ewes, 2 years and over, E. S. Hammond, Fond du Lac..	10 00
Best 3 Ewes, 1 year and under 2, E. S. Hammond, Fond du Lac.....	10 00
Second best 3 Ewes, 1 year and under 2, R. Richards, Racine.....	7 00
Best Buck Lambs, Richard Richards, Racine.....	7 00
Second best Buck Lambs, E. M. Rice, Whitewater.....	5 00
Best 3 Ewe Lambs, Richard Richards, Racine.....	7 00
Second best 3 Ewe Lambs, Morris Pratt, Lima Centre, Farm Record and Ac- count Book (5).	

CLASS 19—SILESIA MERINOES.

None exhibited.

CLASS 20—LONG WOOL.

Best Buck 2 yrs old and over, John Moore, Fox Lake.....	\$15 00
2d best Buck 2 yrs old and over, I. S. Hazletine, Richland Center ...	10 00
Best pen 3 Buck Lambs, I. S. Hazletine, Richland Center.....	7 00
2d best pen 3 Buck Lambs, I. S. Hazletine, Richland Center.....	5 00
Best pen 3 Ewes, 2 yrs old and over, I. S. Hazletine, Richland Center	15 00
2d best pen 3 Ewes, 2 yrs old and over, I. S. Hazletine, Richland Center	10 00
Best 3 Ewes, 1 yr old and under 2, I. S. Hazletine, Richland Center ..	10 00
2d best 3 Ewes, 1 yr old and under 2, Wm. Newett, Janesville.....	7 00
Best pen 3 Ewe Lambs, I. S. Hazletine, Richland Center.....	7 00
2d best pen 3 Ewe Lambs, I. S. Hazletine, Richland Center, Farm Rec. and Acct. Book (5)	

CLASS 21—MIDDLE WOOL.

Best Buck 2 yrs old and over, E. D. Cheesebro, La Prairie.....	\$15 00
2d best Buck 2 yrs old and over, I. S. Hazletine, Richland Center ...	10 00
Best Buck 1 yr old and under 2, E. D. Cheesebro, La Prairie.....	10 00
Best pen 3 Buck Lambs, E. D. Cheesebro, La Prairie.....	7 00
Best pen 3 Ewes, 2 yrs and over, E. D. Cheesebro, La Prairie.....	15 00
Best pen 3 Ewes, 1 yr old and under 2, E. D. Cheesebro, La Prairie..	10 00
Best pen 3 Ewe Lambs, E. D. Cheesebro, La Prairie.....	7 00

CLASS 22—FAT SHEEP.

None exhibited. }

SWINE AND POULTRY.

CLASS 23—SWINE.

Best Boar, small breed, 2 years and over, George J. Kellogg, Janesville.....	\$10 00
Best Breeding Sow, small breed, 2 years and over, David Smith Harmony.....	10 00
2d best Breeding Sow, small breed, 2 yrs old and over, Wis. Hosp. for Insane, Madison.....	7 00
Best Boar Pig, small breed, over 6 months old, Hildreth & Palmer, Beloit.....	5 00
2d best Boar, large breed, 1 year old and under 2, Hildreth & Palmer, Beloit, Farm Rec. & Acct. Book, (5)	
Best Sow Pig over 6 mos. old, small breed, Peter Schmitz, Harmony.....	5 00
2d best Sow Pig, over 6 mos. old, Hildreth & Palmer, Beloit.....	3 00
2d best Sow Pig over 6 mos. old, large breed, R. Richards, Racine.....	3 00
Best Sow Pig over 6 mos. old, large breed, Hildreth & Palmer, Beloit.....	5 00
2d prem. to H. McFinnegan, Beloit.....	3 00
Two Sow Pigs, over 6 mos. old, Wis. Hosp. for Idsane, Committee recommended Premium.	
Best Boar, 2 yrs old and over, large breed, Simon Ruble, Beloit.....	10 00
2d Best Boar, 2 yrs old and over, large breed, D. Smith, Harmony.....	7 00
Best Boar 1 yr old and under 2, Jacob Fowle, Bradford.....	7 00
Best Breeding Sow, over 2 yrs old, Simon Ruble, Beloit.....	10 00
Best Breeding Sow and Pigs, Simon Ruble.....	10 00
2d Best Breeding Sow and Pigs, Thos. Rooney, Janesville.....	5 00
Best Boar Pigs over 6 mos. old, John Jeffers, Darien.....	5 00
Best Boar Pigs 5 mos. old, John Jeffers, Darien, Farm Rec. and Act. Book (3)	

CLASS 24—POULTRY.

Best and greatest variety Fowls, J. B. Pember, Johnstown.....	5 00
Best Shanghai, J. B. Pember, Johnstown.....	2 00
Best Cochins, Geo. S. Tambling, Jr., Beloit.....	2 00
Best Spangled Hamburg Fowls, A. Dewey, Janesville.....	2 00
Best Black Spanish Fowls, A. Dewey, Janesville.....	2 00
Best Bantams, John B. Pember, Johnstown.....	2 00
Best Fame Fowls, Chas. H. Dearborn, Janesville.....	2 00

PRODUCTS OF THE SOIL AND THE DAIRY.

CLASS 25—FIELD PRODUCTS.

Best Winter Wheat, D. M. Aspinwall, Farmington, Farm Rec. & Acc. Book (3)	
2d best Winter Wheat, Perry Bostwick, Beloit.....	\$2 00
Best Spring Wheat, F. Weirhurse, Oshkosh.....	Farm Rec. & Act. Book (3)
2d best Spring Wheat, M. L. Ladd, Millard.....	2 00
Best Rye, Perry Bostwick, Beloit.....	Farm Rec. & Act. Book, (3)
2d best Rye, M. L. Ladd, Millard.....	2 00
Best Oats, M. L. Ladd, Millard.....	1 00
2d best Oats, E. Howell, Janesville.....	1 00
Best Buckwheat, E. Howell, Janesville.....	2 00
2d best Buckwheat, D. M. Aspinwall, Farmington.....	1 00
Best Flax Seed, David Welch, Harmony.....	Farm Rec. & Act. Book, (3)
Best Hops, E. J. Carpenter, Beloit.....	Farm Rec. & Act. Book, (3)
Best Peas, Sumner Parker, Janesville.....	2 00

2d best Peas, E. Howell, Janesville,.....	\$1 00
Best Beans, E. Howell, Janesville,.....	2 00
2d best Beans, Sumner Parker, Janesville,.....	1 00
Best Seed Corn, James Clelland, Centre,.....	Farm Rec. & Act. Book, (3)
2d best Seed Corn, M. E. Williams,.....	1 00
Best Carter Potatoes, Peter Schmidt, Harmony.....	2 00
Best Mercer Potatoes, M. L. Ladd, Millard,.....	2 00
Best Pinkeye Potatoes, G. J. Kellogg, Janesville,.....	2 00
2d best Pinkeye Potatoes, P. Schmidt, Harmony,.....	1 00
Best Early Potatoes, Peter Schmits, Harmony,.....	2 00
2d best Early Potatoes, C. Cook, Janesville,.....	1 00
Early Potatoes, David McNeal, Stoughton, beautiful show of Goodrich Early Potatoes, Committee recommended farmers to give trial.	
Best show extra varieties, J. H. Stewart, Beaver Dam,.....	5 00
2d best show extra varieties, Peter Schmidt, Harmony, Farm Rec. & Acc. Book (3)	
Best Peachblows, M. Beck, Janesville, 1st Premium,.....	2 00
2d best Peachblows, W. L. Cohoe, Beloit, 2d Premium,.....	1 00
Best Noyes Potatoes, W. L. Cohoe, from seedling, good show.	
Best Turnips, Sumner Parker, Janesville,.....	2 00

CLASS 26—GARDEN VEGETABLES.

Best Beets, Wisconsin Hospital for Insane,.....	1 00
Best Onions, Thos. Howland, Kenosha,.....	2 00
Best Cabbage, Peter Schmits, Harmony,.....	1 00
Best Sweet Potatoes, Thos. Howland, Kenosha,.....	2 00

CLASS 27—PRODUCTS OF THE DAIRY (AND HOUSEHOLD)

Best 25 lbs June made Butter, Mrs. J. H. Chase. Fulton.....	7 00
Second best 25 lbs June made Butter, Mrs. Lyman Dearborn, Janesville, Farmers Rec. & Acct Book (3)	
Third best 25 lbs, June made Butter, Wm. Newett, Janesville, Farm Rec. & Acct Book (3).	
Best 25 lbs Butter, made at any time, Mrs. William Paul, Milton.....	5 00
Second best 25 lbs Butter, made at any time, Mrs. Lyman Dearborn, Janesville.....	Farm Rec. & Acct Book
Third best 25 lbs Butter, made at any time, C. C. Fisher, Center.....	2 00
Best 3 Cheeses, Z. Wilson, Palmyra.....	7 00
Second best 3 Cheeses, Wm. Mills, Whitewater.....	5 00
Third best 3 Cheeses, W. H. Parker, Marshall.....	3 00
Best single Cheese, Z. Wilson, Palmyra.....	2 00
Second best single Cheese, D. G. Eldredge, Afton.....	1 00
Best sample Honey, B. F. Hoxie, Cooksville.....	5 00
Second best sample Honey, C. H. Geenenman, Milton.....	3 00
Best sample Maple Sugar, J. Aspinwall.....	Farm Rec. & Acct Book (3).

FRUITS, FLOWERS AND DELICACIES.

CLASS 28.—FRUIT BY NON-PROFESSIONAL CULTIVATORS.

Best variety of Apples, Geo. P. Pepper, Pewaukee, Dip. and Silver Breakfast Castor.	
Second best variety of Apples, B. F. Buckmaster, Fayette, Silver Card Receiver.	
Third best variety of Apples, Eli Stilson, Oshkosh.....	Set Silver Spoons

Best 10 varieties of Apples, adapted to northwest, Eli Stilson, Oshkosh, Dip. and Silver Goblet.

Second best 10 varieties, M. L. Millard.....Set Silver Tea Spoons

Best 5 varieties of Apples, adapted to North-West, Eli Stilson, Oshkosh, Solid Silver Napkin Ring.

Second best 5 varieties, A. B. Smith, La Prairie....Solid Silver Fruit Knife.

Best show of Autumn Apples, Eli Stilson, Oshkosh.....Silver Spoon Holder.

Second best show Autumn Apples, Thos. Howland, Kenosha, Silver Pie Knife.

Third best show Autumn Apples, M. L. Ladd, Millard.....Silver Tea Bell.

Best show Winter Apples, Thos. Howland, Kenosha, Set Silver Table Spoons.

Second best show Winter Apples, G. W. Bemis, Rock, Gold Lined Silver Goblet.

Third best show Winter Apples, Eli Stilson, Oshkosh.....Silver Tea Bell

Best variety of Pears, Geo. P. Pfeffer, Pewaukee.....Silver Pie Knife

Second best variety of Pears, Thomas Howland, Kenosha, Set Silver Tea Spoons.

Third best variety of Pears, I. C. Sloan, Janesville.....Silver Butter Knife.

Best variety Plums, Geo. P. Pfeffer, Pewaukee.....Silver Tea Bell.

Best show of Peaches, Geo. P. Pfeffer, Pewaukee.....Set Silver Tea Spoons.

Best variety of Grapes, Dr. Joseph Hobbins, Madison, Dip. and Silver Fruit Dish.

Second best variety Grapes, I. C. Sloan, Janesville.....Set Silver Forks.

Best variety of Grapes, Ira Kezerton, Oshkosh.....Silver Tea Bell.

Best 3 varieties adapted so general culture, I. C. Sloan, Janesville, Set Silver Tea Spoons.

Second best 3 varieties, Thos. Howland, Kenosha,...Fuller's Grape Culturist

Best variety of fruit of all kinds, Geo. P. Pfeffer, Pewaukee, Dip. and elegant Silver Fruit Dish.

Best Siberian Crabs, Geo. P. Pfeffer, Pewaukee, Farm Rec. and Acct. Book (3).

Best cranberries, Geo. P. Pfeffer, Pewaukee...Grape Culturist.

CLASS 29—FRUIT BY PROFESSIONAL CULTIVATORS.

Best variety of Apples, Tuttle, Son & Clark, Baraboo, Dip. and silver Breakfast Castor

2d best do F. W. Loudon, Janesville.....Silver Card receiver

3d best do Geo. J. Kellogg, Janesville.....Set Silver Tea Spoons

Best 10 varieties of Apples, adapted to Northwest, Tuttle, Son & Clark Baraboo, Dip. & Silver Goblet.

2d best variety of Apples, George F. Kellogg, Janesville, Set Silver Tea Spoons.

Best 5 varieties of Apples, adapted to north-west, Geo. F. Kellogg, Solid Silver Napkin Ring.

2d best variety of Apples, adapted to north-west, Tuttle, Son & Clark, Baraboo, solid Silver Fruit Knife.

Best show Autumn Apples, Tuttle, Son & Clark.....Silver Spoon Holder

2d best Autumn Apples, F. W. Loudon, Janesville.....Silver Pie Knife

3d best Autumn Apples, Geo. J. Kellogg, Janesville.....Silver Tea Bell

Best Show Winter Apples, Tuttle, Son & Clark, Baraboo, Set Silver Table Spoons.

2d best show Winter Apples, Geo. J. Kellogg, Janesville, Gold Lined Silver Goblet.

Best variety of Pears, E. W. Loudon, Janesville, Silver Pie Knife.

2d best variety of Pears, Geo. T. Kellogg.....Set Silver Tea Spoons

3d best variety of Pears, Tuttle, Son & Clark.....Silver Butter Knife

Best variety of Plums, Tuttle, Son & Clark, Baraboo.....Silver Tea Bell

2d best variety of Plums, Geo. J. Kellogg, Janesville.....Silver Fruit Knife

Best show Grapes, F. W. Loudon, Janesville.....Dip. and Silver Fruit Dish

2d best show Grapes, Isaac Atwood, Lake Mills.....Set silver Forks

3d best show of Grapes, J. T. Stephens, Madison.....Tea Bell

Best Grapes, 3 varieties, C. H. Greenman, Milton.....Silver Tea Spoons

Best Grapes, 2 varieties, Geo. T. Kellogg, Janesville, Fuller's Grape Culturist

- Best Show of Grapes grown under glass, J. S. Shearman, Rockford, Ill, Dis' premium
 Best show of Grapes grown under glass in Wisconsin, Charles Hanford, Emerald Grove, Dip. and Silver Tea Bell.
 Best variety of Fruits of all kinds, F. W. Loudon, Janesville, Dip. and Silver Fruit Dish.
 Best show of Watermelons, E. Elliot, Lone Rock.....Set Silver Tea Forks

CLASS 30—SEEDLING FRUITS.

None exhibited.

CLASS 31—FLOWERS BY NON-PROFESSIONAL CULTIVATORS.

- Best display in quality and variety of Cut Flowers, Mrs. S. Baus, Madison, Breck's Book of Flowers.
 Second best display in quality and variety of Cut Flowers, Josephine L. Pfeffer, Pewaukee, Silver Butter Knife.
 Best variety of Wild Flowers, Addie L. Howell, Janesville, Silver Bouquet Holder.
 Second best variety of Wild Flowers, Corda Wheeler, La Prairie, Breck's Book of Flowers.
 Best display of Dahlias, Josephine L. Pfeffer, Pewaukee.....Silver Cup.
 Second best display of Dahlias, C. Bondler, MadisonSilver Butter Knife.
 Best display in quality and variety of Verbenas, Josephine L. Pfeffer, Pewaukee, Breck's Book of Flowers.
 Best variety and quality of Asters, Mrs. R. Williams, Palmyra....Silver Cup.
 Second best variety and quality of Asters, Josephine L. Pfeffer, Pewaukee, Silver Tea Bell.
 Best variety and quality of Phloxes, Josephine L. Pfeffer, Pewaukee, Breck's Book of Flowers.
 Second best variety of Phloxes, Martha A. Smith, Emerald Grove, The Garden.
 Best variety of Petunias, Mrs. R. Williams, Palmyra.....Silver Cup.
 Second best variety of Petunias, Martha A. Smith, Emerald Grove, Silver Butter Knife.
 Best variety of Pansies, Josephine L. Pfeffer, Pewaukee.....Silver Cup.
 Most tastefully arranged Bouquet, Martha A. Smith, Emerald Grove, Silver Cup.
 Best show of Evergreens, nursery grown, in boxes or tubs, M. J. Plumb, Madison, Silver Fruit Dish.
 Second best show of Evergreens, P. Gagan, Janesville.....Silver Tea Forks.
 Best floral design of Natural Flowers, Charles Erkon, Madison, Silver Goblet.

CLASS 32—FLOWERS BY PROFESSIONAL CULTIVATORS.

- Best Ornamental Design, J. T. Stevens, Madison,..... Silver Goblet.
 Best variety Green House Plants, F. W. Loudon, Janesville, ..Set Silver Tea Spoons.
 Best 20 varieties in bloom, J. W. Loudon, Janesville..Set Silver Tea Spoons
 Best 12 Geraniums, F. W. Loudon, Janesville.....Set Silver Spoons
 Best and greatest variety of Dahllas, Miss. M. J. Plumb, Madison, Silver Tea Bell.
 2d best greatest variety of Dahllas, G. W. Twiss, Rockford, Ill, Com. rec. premium.
 Best 12 named sorts of Dahllas, Mrs. J. C. Plumb, Madison, ..Breck's book of flowers.
 Best variety Verbenas, F. W. Loudon, Janesville.....Silver Tea Bell.
 2d best variety Verbenas, G. G. Twiss, Rockford, Ill.....Discretionary.
 Best 12 named sorts of Verbenas, F. W. Loudon, Janesville..Silver Tea Bell.
 Best seedling Verbenas, F. W. Loudon, Janesville,....Silver Napkin Ring.
 Best 6 Fuchias, F. W. Loudon, Janesville.....Silver Tea Bell.
 Best 6 Asters in Pots, F. W. Loudon, Janesville....."The Garden."
 Best 6 named Carnations, F. W. Loudon, Janesville.....Silver Napkin Ring.

- Best display in quality and variety of Roses, F. W. Loudon, Janesville, .. Tea Bell.
 Display of Roses, J. S. Shearman, Rockford, Ill. Dis.
 Best 12 named sorts of Roses, F. W. Loudon, Janesville, Breck's Book of Flowers.
 Most tastefully arranged and largest display of Cut Flowers, Miss M. L. Plumb, Madison. Set Silver Tea Spoons.
 2d best do G. W. Twiss, Rockford, Illinois, committee recommended premium.
 Best pair round boquets, J. T. Stevens, Madison. Silver Tea Bell
 Best pair flat Boquets, J. T. Stevens, Madison. "The Garden."
 Best and greatest var. Phloxes, G. W. Twiss, Rockford, Ill., Com. recommend premium.
 Best and greatest variety of Astors, F. W. Loudon, Janesville, "The Garden."
 Best and greatest variety of Pansies, Miss M. L. Plumb, Madison, "The Garden."
 Best and greatest var. Gladiolus, Miss M. L. Plumb, Madison, Silver Butter Knife.
 Best and greatest variety of all sorts of Flowers, F. W. Loudon, Janesville, Dip. & Set of Silver Spoons.

CLASS 33—WISCONSIN WINES.

- Best assortment of Wines, Chas. Hanford, Emerald Grove, Dip. & Gold-lined Silver Goblet.
 Best sample of Grape Wine, Chas. Hanford, Emerald Grove, Gold-lined Silver Goblet.
 Best sample Currant Wine, Mrs. A. Barlass, Emerald Grove, ... Silver Goblet
 2d best sample Currant Wine, Wm. Newett, Janesville, ... Silver Cup
 Best sample Strawberry Wine, Mrs. M. L. Ladd, Millard, Breck's Book of Flowers.
 Best sample Raspberry Wine, Mrs. M. L. Ladd, Millard, ... Dis.

CLASS 34—DELICACIES.

- Best Apple Preserves, Miss M. L. Plumb, Madison, Solid Silver Mustard Spoon
 Best variety of Delicacies, not less than 10, Miss Plumb, Madison, Set Silver Tea Spoons.
 Best Cherry Preserves, Etta Chesebro, La Prairie, Solid Silver Mustard Spoon
 Best Peach Preserves, J. C. Plumb, Madison, ... Solid Silver Butter Knife
 Best Plum Preserves, Etta Chesebro, La Prairie, ... "The Garden"
 Best Blackberry Preserves, Caroline Clark, Beloit, ... Premium
 Best Grape Preserves, Etta Chesebro, La Prairie, Solid Silver Mustard Spoon
 Best Tomato Preserves, Martha A. Smith, Emerald Grove, ... Silver Tea Bell
 Best Pear Preserves, Miss M. L. Plumb, Madison, ... Silver Tea Bell
 Best collection Sealed Fruits, Mrs. J. C. Plumb, Madison, Gold Lined Silver Goblet.
 Best Catsup Preserves, Martha A. Smith, Emerald Grove, ... "The Garden"
 Best specimen Sealed Fruit, Justina L. Pepper, Pewaukee, Silver Butter Knife
 Best Apple Pickles, Mrs. J. C. Plumb, Madison, ... Silver Butter Knife
 Best Pear Pickle, Mrs. J. C. Plumb, Madison, ... Silver Pickle Fork
 Best Plum Pickle, Mrs. J. C. Plumb, Madison, ... Silver Pickle Fork
 Best Artichoke Pickle, Martha A. Smith, Emerald Grove, Silver Butter Knife
 Best Cucumber Pickles, Justina L. Pepper, Pewaukee, ... Silver Pickle Fork
 Best variety of Pickles, not less than 8, Mrs. J. C. Plumb, Madison, Set Silver Tea Forks.
 Best variety Jellies, not less than 3, Martha Smith, Emerald Grove, Set Silver Tea Spoons.
 Best Apple Jelly, Mrs. J. C. Plumb, Madison, ... Silver Tea Bell
 Best Plum Jelly, Mrs. J. C. Plumb, Madison, ... Silver Napkin Ring
 Best Currant Jelly, Mrs. P. M. Perkins, Burlington, ... Silver Tea Bell
 Best Grape Jelly, Mrs. J. C. Plumb, Madison, ... Silver Mustard Spoon

Best Crab Apple Jelly, Mrs. J. C. Plumb, Madison,.....Silver Napkin Ring
 Best Raspberry Jam, Etta Chesebro, La Prairie,.....Silver Tea Bell
 Best Cherry Jelly, Martha A. Smith, Emerald Grove,....Silver Butter Knife
 Best Black Currant Jam, Mrs. J. C. Plumb, Madison,....Silver Butter Knife

IMPLEMENTS AND MACHINERY.

CLASS 35—MACHINERY AND IMPEMENTS FOR AGRICULTURAL PURPOSES.

Best Threshing Machine with power, J. I. Case & Co., Racine, 1st premium,
 Diploma and \$25 00
 2d best Threshing Machine, Jas. Harris & Co., Janesville..... 15 00
 Best Reaper, Self Raker, Andrew Proudfit, Madison..... Diploma.
 Best Reaper, Hand Raker, Packer & Stone, Beloit..... Diploma.
 Best Mower, Andrew Proudfit, Madison..... Diploma.
 Best Reaper and Mower, Hand Raker, F. H. Manny, Rockford, Ill. Diploma.
 Best Reaper and Mower Self Raker, S. L. Sheldon, Madison..... Diploma.
 Best Sub-Soil Plow, C. H. Patterson, Watertown..... Diploma.
 Best Cauldron and Steamer, N. Allen, Rockford, Ill..... Diploma.
 Best Cider Mill, S. L. Sheldon & Bro., Madison..... Diploma.
 Best Fanning Mill, C. K. Ehli, Green Bush..... Diploma.
 Best Windmill, Mills & Bros., Chicago, Ill.....Diploma and \$15 00
 2d best Windmill, D. Strunk, Janesville..... 10 00
 Best Gang Plow, J. D. Walker, Racine..... Diploma.
 Best Plow, Light Soil, Badger State Agricultural Works, Janesville Diploma.
 Best Steel Crossing Plow, Richards & Vandergreft, Princeton, Ill. Diploma.
 Best Harrow, L. S. Maynard, Wauwatosa..... Diploma.
 Best Bog Cutter, J. Webster, North Prairie..... Diploma.
 Best Grain Drill, Lafayette Stowe, Madison..... Diploma.
 Best Broadcast Sower, Whiting, Wright & Mansfield, Ripon.... Diploma.
 Best Corn Cultivator, E. Starr, Royal Oak, Michigan... Diploma.
 Best Farm Wagon, Seaton & Whiffin, Janesville..... Diploma.
 Best Sulky Corn Cultivator, Mosher & Preston, Monroe..... Diploma.
 Best Horse Rake, L. P. Jerdee, Madison..... Diploma.
 Best Churn, S. N. Carman, Binghamton, N. Y..... Diploma.
 Best Farm Roller, Ed. H. Valentine, Milwaukee..... Diploma.
 Best and most numerous collection of Agricultural Implements, Ed.
 H. Valentine, Milwaukee..... Diploma.
 Best Clothes Washer, Doty, Bros. & Richardson, Janesville..... Diploma.
 Best combined Rubber and Presser Washing Machine, Jo. Adams,
 Janesville..... Diploma.
 Best combined Washing Machine, Adams & Dearborn, Janesville.. Diploma.
 Best Clothes Wringer, Doty, Bros. & Richardson, Janesville..... Diploma.

CLASS 36—MACHINERY FOR MANUFACTURING PURPOSES.

Best Hand-Loom in operation, J. B. Wait, Waitville.....Diploma.
 Best Spinning Jenny, L. J. Bush, Milwaukee.....Diploma.
 Best Portable Steam Engine, Wm. Smyden, Richmond, Ind..... \$30 00
 2d best do., King, Davis & Co., Centreville, Ind..... 20 00

CLASS 37—MACHINERY FOR THE MANUFACTURE OF SORGHUM SYRUP AND SUGAR.

Best sample Syrup, W. S. Follensbee, Janesville..... \$5 00

MANUFACTURERS.

CLASS 38 CARRIAGES, STOVES, HARNESS, &c.

Best Double Carriage, Hodge & Buckholz, Janesville.....	\$10 00
Best Single-Top Buggy, Hodge & Buckholz, Janesville.....	7 00
Best Carriage Harness, C. Hammer, Madison.....	5 00
2d best Carriage Harness, Aug. Kothman, Janesville.....	3 00
Best Wagon Harness, C. Hammer, Madison.....	5 00
Best Single Harness, C. Hammer, Madison.....	5 00
2d best Single Harness, Wm. Hinkley, Janesville.....	3 00
Best dozen Brooms, M. DeWolf, Delavan.....	Diploma.

CLASS 39—BEE HIVES AND BEE MANAGEMENT.

Best Hive adapted to practical Bee culture, J. Bullard, Evansville..	Diploma.
Best demonstration of handling and management of Bees, J. Bullard, Evansville.....	Diploma and \$5 00

CLASS 40—CABINET WARE, COOPERAGE, WILLOW WARE, LEATHER, BOOTS AND SHOES, INDIA RUBBER GOODS, &c.

Best Flour Barrels, W. Morrow, Janesville.....	\$3 00
2d best Flour Barrels, L. S. Hoyt, Janesville.....	1 00
Best Window Sash, James Grey & Co., Beloit.....	Diploma.
Best Gent's Fancy Boots, C. Miner, Janesville.....	3 00
2d best Gent's Gaiters, C. Miner, Janesville.....	3 00
Best Ladies' Winter Boots, W. A. Reynolds, Janesville.....	3 00
2d best do., C. Miner, Janesville.....	1 00

CLASS 41—LIGHTING APPARATUS.

Fine display, awards not made for want of a committee.	
Best Portable Gas Works, G. P. Libby, Milwaukee.....	Diploma.

CLASS 42—MUSIC AND MUSICAL INSTRUMENTS.

CLASS 43—SILVER WARE, CUTLERY AND BRITANIA WARE.

Best Silver Ware display, James A. Webb, Janesville....	Diploma and \$5 00
Best specimen Electro-Plated Ware, James A. Webb, Janesville....	Diploma and 5 00

CLASS 44—PAPER, PRINTING AND BOOK-BINDING.

Best Pamphlet Printing, Thompson & Roberts, Janesville.....	Diploma.
Best Hand-bill Printing, Thompson & Roberts, Janesville.....	Diploma.
Best Circulars and Bill-Heads, Thompson & Roberts, Janesville....	Diploma.
Best Blank Book-Binding, W. J. Park & Co., Madison.....	Diploma.
Best Law Book-Binding, W. J. Park & Co., Madison.....	Diploma.
Best Library Binding, W. J. Park & Co., Madison.....	Diploma.
Best Fancy Binding, W. J. Park & Co., Madison.....	Diploma.

CLASS—TEXTILE FABRICS, CLOTHING, &c.

Best Doeskin, Blake & Co., Racine.....	\$5 00
Best Kersimere, F. A. Wheeler & Son, Janesville.....	5 00
2d best Kersimere, Blake & Co., Racine.....	3 00
Best Blanketing, Blake & Co., Racine.....	5 00
2d best Blanketing, Mrs. W. Foley, Darlington.....	3 00

Best Flannels, Blake & Co., Racine.....	\$5 00
2d best Flannels, F. A. Wheeler & Son, Janesville.....	3 00
Best Men's Clothing, M. Harsh, Janesville.....	Diploma or 2 00
Best 5 lbs Stocking Yarn, Mrs. Wm. Foley, Darlington.....	5 00
Best Men's Hats and Caps, Crampton & Hildebrand, Janesville.....	Diploma or 2 00
Best Children's Hats and Caps, Crampton & Hildebrand, Janesville..	2 00
Best Hat Case, Crampton & Hildebrand, Janesville.....	2 00
Best Ladies' Fur Gloves, Crampton & Hildebrand, Janesville.....	2 00
Best Furs, Crampton & Hildebrand, Janesville.....	2 00
Best Gent's Fur Gloves, Crampton & Hildebrand, Janesville.....	2 00

CLASS 46—DOMESTIC MANUFACTURES.

Best 12 skeins Sewing Silk, Martha A. Smith, Emerald Grove.....	\$2 00
Best Woolen Mittens, Mrs. S. Parker, Janesville.....	1 00
Best Hearth Rug, Mr. H. Baker, Stoughton.....	1 00
Best 15 yards Rag Carpet, Mrs. E. H. Blish, Janesville.....	3 00
Best Wool Stockings, Mrs. R. H. Kimball, Johnstown.....	1 00
2d best Wool Stockings, Mrs. W. Bemis, Rock.....	1 00
Best Carpet Coverlet, Mrs. G. Kellogg, Janesville.....	1 00
Best Knit Counterpane, Mrs. Sarah Nye, Beloit.....	3 00
2d best Knit Counterpane, Mrs. J. O. Jenkins, Janesville.....	1 00
Best Crotchet Shawl, Mrs. E. W. Skinner, Madison.....	2 00
Best Wove Counterpane, Mrs. Wm. Foley, Darlington.....	2 00
Best white Quilt, Mrs. G. P. Reeves, Janesville.....	2 00
Best Flannel Blankets, Mrs. E. S. Monroe, Fulton.....	2 00
2d best Flannel Blankets, Mrs. S. J. Monroe, Fulton.....	1 00
Best lb. Linen Sewing Thread, Mrs. Wm. Foley, Darlington.....	2 00
Best Linen Hose, Mrs. D. R. Stout, Janesville.....	1 00
Best Patchwork Quilt, Miss E. M. Howe, Madison, silk and velvet quilt	2 00
Best Patchwork Quilt, Mrs. J. R. Stewart, Brodhead.....	2 00
Best Patchwork Quilt, juvenile 6 years old, Miss Flora B. Wetmore, Bradford.....	3 00

CLASS 57—MILLINERY.

Best Moss Plush Hat, Misses Thornton and Reynolds, Janesville.....	3 00
Best Lavender Velvet Bonnet, Mrs. A. L. Blake, Janesville.....	2 00
Best Black Velvet Catalini Hat, Mrs. Thornton, Janesville.....	2 00
Best Bonnet Flowers, Mrs. A. L. Blake, Janesville.....	5 00
Best show of Millinery Goods, Mrs. A. L. Blake, Janesville.....	5 00

ORNAMENTAL WORK AND WORKS OF ART.

CLASS 48—ORNAMENTAL NEEDLE WORK.

Best embroidered Shawl, Mrs. J. R. Bennett, Janesville.....	\$3 00
2d best Muslin Embroidery, Miss H. Buckingham, Janesville.....	2 00
Best Plain Needle work, Miss E. Norton, Janesville.....	2 00
Best worsted Embroidery, Mattie Graves, do	2 00
Best Crotchet Lamp Mats, Mrs. E. W. Skinner, Madison.....	1 00
Best Fancy Work Basket, Mattie Graves, Janesville.....	2 00
Best Embroidered Skirt, Mrs. E. W. Skinner, Madison.....	2 00
Best Knit Tidy, Mrs. F. A. Smith, Janesville.....	2 00

2d best do Mrs. C. N. Blish, Janesville.....	1 00
Best Crotchet Tidy, Mrs. Slocum, Janesville.....	2 00
2d best do Mrs. Wm. Hudson, Janesville.....	1 00
Best do (juvenile, 11 yrs) Flora Smith, Janesville.....	2 00
Best Wax Flowers, Miss A. Sikon, Beaver Dam.....	3 00
2d Best do Bettie Wingate, Black Earth.....	2 00
Best Ottoman Cover, L. Dearborn, Janesville.....	2 00
2d best do M. Burman, Edgerton.....	1 00
Best Hair Ottoman Cover, H. Baker, Stoughton.....	2 00
Best Seed Wreath, Mrs. Dr. Howe, Stoughton, premium.....	2 00
Best Crotchet Spread, Mrs. Wm. Paul, Milton, premium.....	2 00
Best Wax Basket, Mrs. Hofford, Milwaukee, premium.....	2 00
Best Knit Shawl, Mrs. L. Fifield, Janesville, premium.....	2 00
Best Crotchet Flowers, Miss M. Fifield, premium.....	2 00
Best Embroidery, Miss Buckingham, premium.....	2 00
Best Tucked Skirt, Mrs. G. P. Reeves, premium.....	2 00
Best Ladies' Underclothes, Mrs. E. W. Skinner, Madison.....	2 00
Best embroidered Cloak, Mrs. E. W. Skinner, Madison, premium.....	2 00
Best crotchet Afghan, Mrs. E. W. Skinner, Madison, premium.....	2 00
Best Needle Work, Mrs. G. R. Curtis, Madison.....	Silver Pie Knife
Best Fancy Hair Work, A. Bigney, Janesville.....	1 00
Best Hair Flowers, N. Pixley, Cold Spring.....	2 00
2d best case Hair Flowers, M. McCall, Monroe.....	1 00
Best Specimen Embroidery, Miss J. R. Bennett, Janesville.....	2 00
2d best embroidered Cushion, Mattie Graves, Janesville.....	1 00
Best Specimen Embroidery, Mrs. E. C. Vedder, Janesville.....	2 00
Best Embroidered Skirt, Mrs. D. Halstead, Beloit.....	2 00
Best Embroidered Collars, Mrs. D. Halstead, Beloit.....	2 00
Best case Silk Embroidery, Mrs. Taylor.....	2 00
Best Afghan do Mrs. G. A. Slocum, Janesville.....	2 00
Best Toilet Cushion, Mrs. E. T. Furlong, do.....	2 00
Best Rug, Mrs. Blish, Janesville.....	2 00
2d best do Mrs. L. Dearborn, do.....	1 00
Best Seed, Wreath, D. T. Carver, Monroe.....	1 00
Best Shuck cap, Mrs. Wm. Folley, Darlington.....	1 00
Best Chair Seat, Mrs. Bowerman, Edgerton.....	1 00
Best Sofa Pillow, Flora A. Smith, Janesville.....	1 00

CLASS 49—WORKS OF ART.

Best collection Oil Paintings, Mrs. Jennie Sherman, Milwaukee.....	Diploma and \$5 00
Best Oil Painting, Mrs. J. Sherman, Milwaukee.....	Diploma.
2d best do., Mrs. G. A. Slocum, Janesville.....	2 00
Best Landscape Painting, S. White, Janesville.....	Diploma.
Best Animal Painting, M. Bowerman, Edgerton.....	Diploma.
2d best do. L. Wait, Edgerton.....	2 00
Best Fruit Painting, Mrs. Jenny Sherman, Milwaukee.....	Diploma.
Best Ambrotype, J. A. Tice, Janesville.....	Diploma.
Best plain Photograph, J. F. Barks Janesville.....	Diploma.
Best Photograph in Water colors, J. A. Tice, Janesville.....	Diploma.
Best Photograph in oil, L. Wait, Janesville.....	Diploma.
Best Photograph in India ink, J. B. Banks, Janesville.....	Diploma.
Best collection Sun Pictures, J. A. Tice, Janesville.....	5 00
Best Pen Drawing, Edmund C. Atkinson, Janesville.....	Diploma.
Best Colored Lithograph, Doty Bros. & Richardson, Janesville.....	Diploma.
Best specimen Engraving on Metal, James A. Webb, Janesville.....	Diploma.
Best Chrome Paintings, Mrs. Julia Ford, Milwaukee.....	Diploma and 2 00
Best Writing Book by pupil, Miss Ella Baker, Summit....	Diploma and 2 00

MISCELLANEOUS.

CLASS 50.—MISCELLANEOUS ARTICLES.

[Articles not provided for in any of the other classes.]

- Z. S. Doty, Madison, Compound Paint Oil.....Honorable mention.
 Peter Gliem, Janesville, Baby Carriage.....Honorable mention.
 H. L. Hubbell, Chicago, Pickering's double-acting, anti-freezing Force Pump,
 Honorable Mention.
 Badger State Agricultural Works, Janesville, Bag Holder and Truck, Diploma
 Worthington, Warner & Co., Madison, Business Penmanship.....Diploma.
 Worthington, Warner & Co., Madison, Flourishing Penmanship....Diploma.
 Worthington, Warner & Co., Madison, Card Writing...Honorable mention
 J. G. Putman, Neosho, Stump Machine.....Honorable mention.
 Dr. Strunk, Janesville, Deep Well Force PumpHonorable mention.
 Doty Bros. & Richardson, Water Gate.....Honorable mention.
 Tiffin Agricultural Works, Tiffin, Ohio, Mill Trucks for Bags, Honorable men-
 tion.
 E. S. Burrows, Janesville, Hyzer's Patent Furnace. ...Honorable mention.
 E. S. Burrows, Janesville, Assortment of Springs, Axles, Spokes, Felloes,
 Shafts and other materials for carriages and wagons.....Diploma.
 Fowler & Hicks, Upper Sandusky, Hay Stacker and Pitcher, Honorable men-
 tion.
 Fowler & Hicks, Upper Sandusky, Hay Gatherer.....Honorable mention.
 W. J. Doolittle, Janesville, Harpoon Horse Fork.....Honorable mention.
 G. W. Williams, Janesville, Patent Evener.....Honorable mention.
 Miss S. D. Wintermete, Janesville, Cone Frame.....Honorable mention.
 T. A. Balch, Hingham, Radiator and Hot Air ConductorDiploma.
 A. W. Smith, Harmony, Patent Plow Wheels.....Honorable mention.
 S. D. Carpenter, Madison, Carriage Clip.....Honorable mention.
 Grover & Baker's Sewing Machine Co., Milwaukee, Sample Sewing Machine
 Embroidery.....Diploma.
 T. H. Arnold, Troy, Penn., Horse Hay Fork.....Diploma.
 Fairbanks, Greenleaf & Co., Chicago, splendid assortment of their superior
 Scales.....Diploma.
 W. Jones, Berlin, Spring Bed Bottom.....Diploma.
 H. Hoskins, Janesville, Patent Wagon Jack.....Honorable mention.
 H. Hoskins, Janesville, Windlass and Water Drawer.....Diploma.
 H. Hoskins, Janesville, Patent Spring for supporting wagon tongue.Diploma.
 Jas. Hopkins, Madison, Patent, Self-Adjusting Sash Supporter and Lock com-
 binedDiploma.
 F. Kimball, Janesville, Farmers' Record and Account Book, Honorable men-
 tion.
 W. H. Smith, Sparta, Bag Holder.....Diploma.
 T. DeCamp, Dowage, Mich., Spring-Bed Bottom.....Honorable Mention.
 J. M. Map, Janesville, Force Pump.....Honorable Mention.
 C. E. Sexton, Janesville, Pair Bob Sleds.....Honorable Mention.
 C. E. Sexton, Janesville, Plow Holder.....Honorable Mention.
 Jas. Hayden, Exeter, Ration Feed Box for animals.....Diploma.
 Miles Johnson, Ripon, Johnson's Double Acting Force Pumps.....Diploma.
 Miles Johnson, improved Whistle-Tree.....Honorable Mention.
 Mrs. F. L. Raynor, Janesville, Knitting Machine.....Diploma.
 W. K. Wyckoff, Ripon, Naiad Water-proof.....Diploma.
 H. C. Cook, Janesville, Water Elevator and Chain Pump.Honorable Mention.
 Deerforth & Paine, Stump Machine.....Diploma.
 J. M. May, Janesville, Farm Gate, with attachment for opening and shutting
 from carriage.....Honorable Mention.
 Mrs. A. M. Carter, Johnstown, Picture Frame.....Honorable Mention.
 Wm. Scurlock, Carbondale, Ills., Model Spoke Machine.....Diploma.
 Wm Snyder, Richmond, Ind., Circular Saw.....Diploma.

- L. W. Coe, Milwaukee, Heat Radiator.....Honorable Mention.
 S. W. Martin, Madison, military Records, &c.....Diploma.
 W. H. Sentell, Oconomowoc, Extension Ladder.....Diploma.
 Dr. Wm Horn, Janesville, Patent Horse-shoe.....Honorable Mention.
 Gordon & Fieldstead, Waupun, improved Wagon Coupling.....Honorable Mention.
 J. B. Wahana, Bensen, Vt., Automatic Folding Gate.....Honorable Mention.
 Henry Vroom, Janesville, pair Leather Horse Nets.....Honorable Mention.
 H. W. Pettibone, Milwaukee, double-bearing Carriage Spring.....
 Honorable Mention.
 G. A. Slocum, Janesville, collection hand-made Worsted Shawls...Diploma.
 A. T. Klien, Janesville.....Honorable Mention.
 W. W. Dexter, Janesville, Patent Baker.....Honorable Mention.
 D. R. Stout, Janesville, Fly-Net.....Diploma.
 F. Farnham, Janesville, Burglar's Alarm Sentinel.....Diploma.
 C. H. Holbrook, Janesville, Clothes Dryer.....Honorable Mention.
 Dixon & King, Munroe, Pirate Bee-Hive.....Honorable Mention.
 C. D. Madison, Rotary Power Pump.....Diploma.
 S. W. Edson, (Edson & Son) Fond du Lac, Scroll Sawing and turned work...
 Diploma.
 . W. Jetliff, Munroe, Machine for Dovetailing.....Diploma.
 J. W. Sherwood, Albany, Portable Fence.....Honorable Mention.
 James Bowers, Lexington, Ind., Animal Traps.....Diploma.
 S. Burpee, Beloit, Invalid Chair.....Honorable Mention.
 W. S. Stevens, Beloit, Spring Bed Bottom.....Honorable Mention.
 Hilford & Taylor, East Randolph, Two Horse Corn Planter.....
 Honorable Mention.
 E. D. Barnard, Porter, patent Sheep Rack.....Honorable Mention.
 E. H. Jones, Fond du Lac, Bloedell's patent Fire Cooler.....Diploma.
 Ready Roofing Co., New York, Roofing Material.....Diploma.
 W. H. Tallman, Janesville, Glass Signs.....Honorable Mention.
 Allen Walkley & Co., Beloit, Spring Bed Bottom.....Honorable Mention.
 Seaton & Whiffin, Janesville, Set Wheels for gearing...Honorable Mention.
 Mrs. E. H. Blish, Janesville, Model Marble Monument.....Diploma.
 Miss Brown, Madison, Case Card Writing.....Honorable Mention.
 O. M. Hofford, Milwaukee, Agricultural Wreath.....Diploma.
 John Russell, Beloit, specimens of Graining, imitation of wood and marble,
 Diploma.
 B. W. Smith, Janesville, Case of Butterflies.....Honorable Mention.
 Emerson & Co., Rockford, Ill., Duoble Row Corn Planter, Honorable Mention.
 Bryant & Stratton, Milwaukee, beautiful specimen of Penmanship.....
 Honorable Mention.
 Frank B. Elderken, Elkhorn, (12 years old) fine specimen of Sugar Cane,
 grown by himself.....Honorable Mention.
 S. G. Saunders, Rockford, Ill., Force Pump.....Honorable Mention.
 L. J. Burt, Milwaukee, Safety Coupling for Threshing Machines,...Diploma.
 Eggleston & Swain, Ripon, Broadcast Sower and Cultivator combined,
 Honorable Mention.
 D. D. Riley, Patch Grove, Corn Planter.....Diploma.
 E. G. Packard, Cambridge, Game Trap.....Honorable Mention.
 Kimball, Grinnell & Billings, Madison, Corn Sheller, hand and horse power,
 Diploma.
 C. Crough, Croughville, model of Floating Dry Dock... Honorable Mention.
 C. Crough, Seed Drill and Broadcast Sower.....Honorable Mention.
 C. Crough, patent Horse Shoe.....Honorable Mention.
 G. G. Campbell, Janesville, Car Coupling.....Diploma.
 C. H. Tryron, Greenwood, Ill., Hay Stacker.....Diploma.
 E. S. Bushnell, Horicon, Patent Adjustable Horse Shoe Sharpener, Honorable
 Mention.
 S. B. Stimson, Gouverneur, Self-cleaning Plow Coulter for stubble, Honora-
 ble Mention.
 Avery Brown, Ripon, Rubber Wagon Seat Spring.....Honorable Mention.
 Chas. Theiss, Madison, ingenious Celestial Globe or Planetarium...Diploma.

- W. H. Loomis, Fond du Lac, Improved Stove Pipe or Heat Radiator, Honorable Mention.
- J. S. Alden, Janesville, Sample Marble WorkDiploma.
- Samuel C. Hall, Whitewater, Machine for Cutting Sickle Sections..Diploma.
- E. H. Jones & Bro., Fond du Lac, Model of Rupert's Hay Press, Honorable Mention.
- Ira S. Hazeltine, Richland Centre, Cashmere Goats and Kids.....Diploma.
- W. H. Allen, Portage, Improved Self-acting Waste and Feed Gate, Honorable Mention.
- C. P. Willard, Fond du Lac, Sea Shell Work, and Moss Pictures, Honorable Mention.
- Barker & Lomax, La Porte, Ind., Combined Seed Sower and Cultivator, Diploma.
- W. Smith, Harden, Iowa, Combined Seeder, Cultivator and Roller, Diploma.
- G. A. Libbey, Milwaukee, Universal Gas MachineDiploma.
- J. J. Carr, Dekora, Patent Self-acting Flood GateHonorable Mention.
- M. S. Althouse, Waupun, patent Pump Cylinder.....Diploma.
- M. S. Barrett, Burnett, Blind Operator.....Diploma.
- E. E. Pratt, Madison, Wilcox & Gibbs' hemmers, fellers, tuckers, markers and corders.....Honorable mention.
- Knowles & Cheney, Janesville, Bed Lounge.....Honorable mention.
- D. Allen, Janesville, hand Corn Planter.....Diploma.
- J. A. Carpenter, Beloit, Portable Fence.....Honorable mention.
- C. D. Leet, Springfield, Model of Peat Mill.....Honorable mention.
- H. A. Maynard, Wauwautosa.....Honorable mention.
- Lewis Keough, Milwaukee, Fire Proof Safe, (cylindrical).....Diploma.
- S. G. Bond, Merton, Potatoe Slicer.....Honorable mention.
- F. H. Harwood, Milwaukee, universal Parallel Motion.....Diploma.
- Craw, Hopkins & Co., Fort Atkinson, Clothes Frame....Honorable mention.
- Craw, Hopkins & Co., Fort Atkinson, Model Stump Puller.Honorable mention.
- Dr. J. J. Brown, Madison, Thill Attachment.....Honorable mention.
- E. Johnson, Joliet, Ill., Eureka Sash Stop and Lock.....Diploma.
- Laxby & Mudd, St. Anthony, Minnesota, Stump Extractor, Honorable mention.

ABSTRACT OF RETURNS OF COUNTY AGRICULTURAL SOCIETIES FOR 1866.

COUNTIES.	REPRESENTATIVE OFFICERS.			PLACE & DATE OF FAIR.		FINANCES.			
	PRESIDENTS.	SECRETARIES.	TREASURERS.	PLACE.	DATE.	RECEIPTS.	EXP'NDT'RS.	PREMI'MS.	AM'T IN TREASURY
Brown.....	J. Briquet,....	M. P. Lindsley,	D. Butler,.....	Green Bay,...	Spt. 26-27	\$450 41	\$242 34	\$138 50	\$208 07
Columbia ...	J. Q. Adams,....	C. O. Britt,.....	J. B. Dwinell,...	Portage,	Spt. 19-21	1,100 09	991 62	643 00	108 47
Dodge	Geo. Baker,....	Charles End,	O. F. Jones, ...	Juneau,	Spt. 19-22	542 40	541 66	297 85	74
Fond du Lac.	E. S. Hammond,	John C. Bishop, ..	A. B. Taylor, ...	Fond du Lac,	Spt. 18-19	1,326 10	1,326 10	503 80	.....
Grant	T. A. Burr,.....	Harrison Reading,	Lancaster, ..	Spt. 20-21	1,619 73	1,239 50	946 00	380 23	
Green Lake..	S. W. Smith,....	M. H. Powers, ..	M. H. Powers, ..	Berlin,	Spt. 18-19	1,067 76	832 99	576 25	234 77
Iowa	John Ellwood,...	Henry Dunstan,...	Sam'l Hoskins,...	Dodgeville, ..	Spt. 25-26	857 89	643 47	398 50	218 92
Jefferson ...	Joseph Lindon, ..	J. N. Bartlett, ..	A. H. Nichols, ..	Watertown, ..	Oct. 3- 5	488 71	453 57	311 17	35 14
Juneau	F. Langworthy, ..	Albert Dennett, ..	Joseph Smith, ..	Mauston,	Oct. 3- 4	636 80	538 14	180 00	98 66
Kenosha	Dudley Cass,....	F. Newell,.....	L. W. Mayer, ...	Kenosha,	Oct. 2- 4	1,590 44	1,205 72	572 76	384 72
La Crosse ...	John M. Coburn, ..	A. J. Phillips, ..	P. S. Elwell, ...	West Salem, ..	Oct. 4-	899 52	806 70	527 35	92 82
La Fayette ...	John K. Williams,	W. W. Birkitt, ..	John H. Martin, ..	Darlington, ..	Oct. 4- 6	1,425 00	1,372 23	310 10	52 77
Monroe	J. Covey,	S. D. Hollister, ..	Thos. B. Tyler, ..	Sparta,	Oct. 10-12	893 99	785 93	329 50	108 00
Outagamie ...	Louis Perrot, ...	W. H. Lamphear, ..	Alvin Foster, ...	Appleton, ...	Spt. 25-26	229 45	188 15	172 25	41 30
Ozaukee	Patrick Roddy, ...	Wm. Vogenitz, ...	B. O. Z. Kussow, ..	Cedarburg, ...	Spt. 26-27	646 52	616 14	189 50	30 38
Pierce	H. B. Bates,	Wm. Howes,	James Green, ...	Prescott, ...	Oct. 12-18	255 19	237 95	141 00	20 67
Rock	H. P. Fales,	Guy Wheeler, ...	R. T. Pember, ...	Janesville, ..	Spt. 12-14	887 45	764 47	480 75	122 98
Sauk	C. H. Williams, ..	J. J. Gattiker, ...	Henry Cowles, ...	Baraboo,	Oct. 10 11	533 98	289 21	127 00	244 77
Sheboygan ...	Wm. Elwell,	John E. Thomas, ..	W. W. Huson, ...	Sheb'n Falls, ..	Spt. 13-14	502 60	370 15	263 75	132 45
Trempealeau.	J. M. Barrett, ..	John Nichols, ...	Isaac Clark,	Galesville, ..	Oct. 10-11	465 02	378 10	261 73	86 92
Vernon	E. A. Stark,	R. C. Bierce,	S. C. Lincoln, ...	Viroqua,	Oct. 3- 5	524 93	414 48	212 99	110 45
Walworth ...	G. W. Wylie,	Hollis Latham, ...	.....	Elkhorn,	Spt. 12-14	1,810 83	1,756 35	552 50	54 48
Washington.	F. W. Notting, ..	G. H. Kleffler, ..	Ludwig Findorff, ..	West Bend, ..	Oct. 2- 4	321 58	281 80	186 65	39 78
Waukesha ...	E. Porter,	E. Enos,	J. L. Smith,	Waukesha, ...	Spt. 19-22	867 52	839 11	348 30	23 41
Winnebago...	J. H. Hicks,	John Hancock, ...	Jas. H. Janes, ...	Oshkosh,	Spt. 20-21	1,015 76	818 15	278 00	197 61
						\$20,959 17	\$17,934 03	9,449 20	3,028 51

TRANSACTIONS
OF THE
WISCONSIN STATE AGRICULTURAL SOCIETY
FOR 1867.

OFFICERS OF THE SOCIETY. 1867.

PRESIDENT :

K. A. DARLING, FOND DU LAC.

VICE PRESIDENTS :

First —B. R. HINKLEY, SUMMIT.

Second—C. H. WILLIAMS, BARABOO.

Third —J. I. CASE, RACINE.

SECRETARY :

J. W. HOYT, MADISON.

TREASURER :

DAVID ATWOOD, MADISON.

ADDITIONAL MEMBERS OF EXECUTIVE COMMITTEE :

J. B. DOUSMAN, MILWAUKEE.

W. R. TAYLOR, COTTAGE GROVE.

A. LUDLOW, MONROE.

ELI STILSON, OSHKOSH.

J. O. EATON, LODI.

E. F. MABIE, DELAVAN.

EX-PRESIDENTS, EX-OFFICIO MEMBERS :

J. F. WILLARD, JANESVILLE.

B. R. HINKLEY, SUMMIT.

DAVID WILLIAMS, SPRINGFIELD.

ANNUAL REPORT

FOR THE YEAR 1867.

His Excellency, LUCIUS FAIRCHILD,

Governor of the State of Wisconsin:

SIR: In accordance with the law, I have the honor, in behalf of the Executive Committee of the Wisconsin State Agricultural Society, herewith to transmit the Treasurer's annual statement of the financial transactions of said Society for the year ending December 11, 1867.

What was said of the industrial progress of the State in our last Report may be, with added reason, re-iterated in this. The crops were generally good, were well secured, and, with exception of the large clips of wool, have found good demand, at very remunerative prices. How far Congress may relieve the wool-growing interest, without detriment to others equally important, seems to be still a question with those upon whom devolves the duty of determining the industrial and financial policy of the country. Owing to the high prices realized in '64 and '65, it is very likely that farmers may be a little extravagant in their demands; and yet nothing is plainer than that they ought not to suffer from such unfair discriminations in favor of imported wools as must lead to discouragement and the final abandonment of this very important branch of husbandry.]

Hop-growing still engages the attention of our farmers. It is manifest, however, that the present high prices cannot long continue to be paid; and in view of the large expense that must be involved before the first crop can be harvested; in view, also, of the large areas now being newly planted; and in consideration of the probability that the insect which preys upon the crop almost invariably after it has been

grown for a few years in succession, and which is said to have appeared in some localities, reasonable caution is strongly recommended.

This Society has been highly prospered during the year just closed; its general exhibition of the industry of the State having been one of the largest and most satisfactory ever held, and its finances being in a sound and satisfactory condition. The Secretary spent some six months of the year in attendance upon the Universal Exposition at Paris, and in making practical observations upon the industrial systems and educational institutions of the Old World, of which some account will be published in due course of time. He also brought with him, on his return several hundred samples of the agricultural products of the various countries represented at the exposition; which are to be made the nucleus of a State Cabinet of economical products—a desideration long had in contemplation by the Secretary, but not realized for want of the requisite time to make the collections.

The Society is also taking measures to increase its Library by the annual purchase of valuable books relating to the various branches of industry. Of works of this class, the reports of kindred societies, in this and in foreign countries, are among the most valuable. These can always be procured by exchange, and in most cases in no other way, as they are not published for sale. At present, however, the Society has nothing to give in return for such works, and, accordingly, a number of the societies, whose publications were most prized, have discontinued their annual donations to our Library. In view of these facts, a bill has again been prepared, for the consideration of the Legislature, which, if passed will insure the future annual publication of the Society's Transactions, together with abstracts of the reports of all other industrial associations of the State. Such provision ought to be made and I trust that the Legislature now in session will so determine.

I am sir, very respectfully,

J. W. HOYT,

Secretary Wis. State Ag. Society.

TREASURER'S REPORT.

To the Executive Committee of the Wisconsin State Agricultural Society :

The financial transactions of the Wisconsin State Agricultural Society, for the past year have been as follows :

RECEIPTS.

Dec. 12, 1866.	Balance on hand as per report of the Treasurer, of Dec. 12, 1866.....	\$5,334 33
Sept. 1867.	Cash from rent of refreshment lots....	2,263 75
	Cash for life membership.....	930 00
	Cash from entry fees.....	648 00
	Cash from sale of tickets.....	6,945 35
	Cash from sale of grain.....	51 10
	Cash from sale of tent to Col. Ag. Soc.	150 00
	Cash from sale of lumber.....	120 00
	Total.....	<u>\$16,542 53</u>

DISBURSEMENTS.

Dec. 11, 1867.	By cash paid on orders from No. 1 to No. 500, inclusive, this day returned and cancelled, covering the following items:	
	Premiums.....	\$4,031 50
	Salaries.....	1,890 00
	Printing and Advertising.....	947 94
	Clerks, superintendents, &c.....	838 45
	Expenses of Ex. Com. meetings.....	506 46
	Refreshments for judges, officers &c ..	217 00
	Forage.....	326 05
	Office expenses.....	196 41
	Diploma plate and diplomas.....	160 09
	Music.....	150 00
	Police.....	383 00
	Labor.....	575 18
	Lumber.....	538 76
	Livery.....	33 50
	Messrs. Smith & Welch defending suit	100 00
	Loss by counterfeit money.....	44 50
	Incidentals.....	123 09
	Loan to Dane Co. Stock & Ag'l Ass'n	2,000 00
	Balance in treasury Dec. 11, 1867.	<u>\$13,061 84</u>
		<u>3,480 69</u>
		<u>\$16,542 53</u>
	Also note of J. B. Dwinnell for tent.	50 00
	Note of Lodi Ag. Soc. for tent.....	200 00
	Security for the loan of.....	2,000 00
		<u>2,250 00</u>

Respectfully submitted,

DAVID ATWOOD,
Treasurer Wis. State Ag. Soc.

PROCEEDINGS.

EXECUTIVE MEETINGS.

STATE AGRICULTURAL ROOMS, Feb. 5, 1867.

2 o'clock P. M.

The Executive Committee met pursuant to requirement of By-Laws.

Present—K. A. Darling, President; B. R. Hinkley, W. R. Taylor, J. O. Eaton, C. K. Stewart, E. F. Mabie and J. W. Hoyt.

President in the Chair.

On motion of Mr. Hinkley, it was

Resolved, That the date of the Annual Fair of 1867 be, as for the past several years, the last week in September.

Moved and carried, that the revision of the Rules and List of Premiums for the next Fair be now taken up and continued until the same shall have been completed.

Moved, by the Treasurer, that paragraph 1st under head of "awards of prizes" be amended by inserting after the words "in the city" the words until 11 o'clock. Carried.

Moved, by Mr. Hinkley, to amend the 3d paragraph under same head, by striking out "within six months after the award," and inserting "before the date of the Annual Meeting of the Society, on the second Wednesday of December." Carried.

After spending a considerable time in discussing various other rules, but without amending them, the Committee adjourned to 7½ o'clock this evening.

7½ o'clock P. M.

Committee met pursuant to adjournment.

Present—Same members as before.

President in the chair.

Adjourned to attend the meeting of the Wool-Growers' Association in the Assembly Hall, and to meet again at 9 A. M. to-morrow.

February 6, 9 o'clock A. M.

Committee met pursuant to adjournment.

Present—Messrs. Darling, Hinkley, David Williams, Mabie, Stilson, Eaton, Stewart, Taylor and Hoyt.

President Darling in the chair.

The Secretary read a letter from Mr. C. H. Williams, satisfactorily explaining his absence from the meeting.

The Secretary presented a communication from the members of the Executive Committee of the State Horticultural Society, covering a proposition for a joint exhibition with the State Agricultural Society at the next State Fair; the substance of said proposition being as follows, to wit: The Horticultural Society to assume the entire responsibility of the Department of Fruits and Flowers, the Agricultural Society providing their members with admission tickets free of charge, and guaranteeing to said Horticultural Society the sum of \$1,000 as a consideration therefor; in failure of which proposition, the committee of the Horticultural Society were instructed to make immediate arrangements for holding a separate exhibition.

On motion of Mr. Eaton, the said proposition was respectfully declined; the vote being unanimous.

Mr. Stilson moved to strike out all premiums heretofore offered on "Silesian" sheep, and to offer in lieu thereof the following extra premiums on American Merinos:

Best pen of 10 ewes, 2 years old and over.....	\$25 00
2d best pen of 10 ewes, 3 years old and over.....	15 00
Best pen of 10 ewes, 1 year old and over.....	25 00
2d best pen of 10 ewes, 1 year old and over.....	15 00
Best pen of 10 ewe lambs.....	20 00
2d best pen of 10 ewe lambs.....	10 00

Carried.

Moved by Mr. Williams to increase the premiums on wheat to \$5 and \$3 for 1st and 2d qualities, and to multiply the varieties of winter wheat and spring, so that the premiums shall include "red" and "white," and the latter, "Club," "Fyfe," "Rio Grande" and "China Tea."

Secretary moved to amend by making the premiums \$10 and \$5 instead of \$5 and \$3. Lost.

Moved by the Secretary, that all premiums on important articles in the class of Field and Garden products be increased in like proportion. Carried.

Moved by the Secretary, that the premiums on butter and cheese be increased 50 per cent, and that separate premiums be offered on farm-made and factory-made cheese, respectively. Carried.

Moved, by Mr. Williams, that the premiums on Fruits and Flowers be increased, at the discretion of the Secretary, by an amount equal in the average to 25 per cent. Carried.

Moved by Mr. Eaton, that the premiums on Sorghum Machinery, and Sewing machines be discontinued, but that a *free exhibition* of such articles be cordially invited. Carried.

Mr. Williams moved to include Musical Instruments in this list offering a free exhibition without premiums. Carried.

On Motion, adjourned to 2 o'clock P. M.

2 o'clock P. M.

Committee met pursuant to adjournment.

President in the Chair.

On motion the subject of appointments was next taken up. Judges having been selected, the following persons were chosen as officers for the fair and Superintendents of Departments:

General Superintendent—The President.
Controller Office of Entry—The Secretary.
Controller of Ticket Office—The Treasurer.
Chief Marshal—Wm. R. Taylor.
Superintendent of Gates—J. O. Eaton.
Department of Horses—C. L. Martin.
Cattle—C. H. Williams.
Sheep—Eli Stilson.
Swine and Poultry—E. F. Mabie.
Agricultural—C. K. Stewart.
Fruit—J. C. Plumb.
Machinery—J. I. Case.
Manufacturers Hall—G. H. Stewart.
Fine Arts Hall—B. M. Worthington.
Equestrian—The Marshal.

On motion, the Committee adjourned to 7½ o'clock P. M.

7½ o'clock, P. M.

Committee met pursuant to adjournment.

President in the Chair.

The Secretary presented an application from the widow of Col. G. F. Hastings, deceased, for an appropriation in payment for a certain gold medal placed on exhibition in the Agricultural Rooms, in the year 1861, by said Hastings, and stolen therefrom in the year 1863.

Moved and carried, that the Secretary be instructed to ascertain, if possible, the cost value of said Medal and report the same at the next meeting of the Committee.

At this stage of proceedings, the Committee were waited upon by a committee of citizens of Madison, with a proposition for the location of the next Annual Fair at Madison.

Judge L. B. Vilas, as Chairman of said committee, reported the action of a meeting of citizens, and expressed a desire for further time to perfect a formal proposition; after which the committee retired.

Moved, by Mr. Taylor, that a sub-committee of five members, consisting of the President, Secretary and Treasurer, and Messrs. Stilson and David Williams, be appointed to locate the Fair of 1867, and make the necessary arrangements therefore.

The Secretary asked to be excused on account of anticipated absence during a part of the season in Europe; whereupon Mr. Atwood nominated W. R. Taylor to act in his stead. Carried.

Moved, by Mr. Hinkley, that the committee on location be authorized to locate the Exhibition for one or two years, at their discretion. Carried.

The Secretary reported on claim of John P. Roe filed at the last meeting.

Mr. Hinkley moved that Mr. Roe be paid \$15 as damages for injury done to stock at Fair of 1865, and that the same be considered a final settlement of his claim. Carried.

Secretary presented an account of \$39 for services of an assistant previous to the Fair. Which, on motion of Mr. Taylor, was allowed.

Mr. Williams stated, that the salary of the Secretary was entirely inadequate compensation for the important and arduous duties performed by him, and closed his remarks by moving that the salary for the present year be fixed at \$2,000.

Which motion, after further remarks by several members of the Committee, was carried unanimously.

The bills of members of the Committee, for expenses in attending this meeting, having been audited and paid,

On motion, the Committee adjourned *sine die*.

J. W. HOYT, *Secretary*.

MEMORANDA.

STATE AGRICULTURAL ROOMS,

March 13, 1866.

Having accepted a commission from the Governor to represent this State at the approaching Paris Universal Exhibition of 1867, to be opened on the 1st day of April next, under leave of absence granted by the Executive Committee of the State Agricultural Society, on December 12, 1866, I shall, this day, start for Europe, in the further discharge of my duties as President of the Wisconsin Commission to said Universal Exposition. Arrangements have been made for prompt attention to the correspondence of the Society during my absence and for the early issue of the List of Premiums for the next State Exhibition, but otherwise the office will be closed until my return.

J. W. HOYT, *Secretary*.

STATE AGRICULTURAL ROOMS,

August 16, 1867.

After an absence of over five months, a portion of which was spent at the Paris Exposition, and the remainder in making an industrial and educational tour through France, Wurtemberg, Bavaria, Switzerland, Italy, Austria, Saxony, the Middle States of Germany, Hanover, Prussia, Denmark, Norway, Sweden, Finland, Russia, Poland, Holland and Belgium, I have this day returned to Wisconsin, and resumed my labors on behalf of the State Agricultural Society.

J. W. HOYT, *Secretary*.

EXECUTIVE MEETING.

STATE AGRICULTURAL ROOMS, Dec. 11, 1867.

Executive Committee met pursuant to requirement of By-Laws, on this day at 7½ o'clock, P. M., President Darling in the chair and adjourned to 9 o'clock A. M., of Wednesday the 11th inst.

Wednesday, Dec. 11, 1867.

9 o'clock, A. M.

Committee met pursuant to adjournment.

Present—Messrs. Darling, Hinkley, Eaton, Taylor, Atwood and Hoyt.

President Darling in the chair.

Pursuant to requirement of By-Laws, the Committee entered upon an examination of the books, papers and vouchers of the Secretary and Treasurer, and continued therein until 1 o'clock P. M.

Adjourned to 2 o'clock P. M.

2 o'clock P. M.

Committee met pursuant to adjournment.

Present—same members as before.

After a careful examination and comparison of the Treasurer's statement with the records and papers in the Secretary's office, said statement was approved and orders No. 1 to 500, both inclusive, were cancelled and filed away.

The following is the Treasurers' Report: [See page 301.]

On motion, it was

Resolved, That the Secretary is hereby authorized to draw an order in favor of the Treasurer to the amount of \$44.50 to re-imburse him for the amount of counterfeit money received by him, as controller of the ticket office, during the past ten years, to Dec. 11, '1867, and this day returned and placed in the office of the Society.

Secretary presented a communication from P. B. Parsons, enclosing an application from representatives of the Congregational Society of Madison, asking re-imbursement, to the amount of \$13.50, amount paid by said Society for water used during the late State Fair; which application, after some discussion, was unanimously rejected.

The Secretary reported, that having become satisfied by the affidavits of parties exhibiting the Lamb Knitting Machine, that the award to the Bridgeport Knitting Machine Co. of a Diploma on machines exhibited by their agent at the late Fair was so awarded by the Judges without having made a proper examination of the Lamb machine and others on exhibition, he (the Secretary) had assumed the responsibility, in behalf of the Executive Committee, of annulling the said award to the Bridgeport Co. He had brought the subject before this meeting, that the Committee might have the opportunity of sanctioning or disapproving his action.

On motion of Col. Hinkley, the action of the Secretary was unanimously approved.

The Committee then adjourned *sine die*.

J. W. HOYT, *Secretary*.

ELECTION OF OFFICERS.

STATE AGRICULTURAL ROOMS, Sep.. 26, 1867.

Pursuant to the constitutional provision, and to a published notice, the Life Members of the Wisconsin State Agricultural Society met this evening in their Rooms for the election of officers for the ensuing year.

President Darling in the Chair.

Attendance large.

Calling of roll of members dispensed with.

Mr. Williams moved that a committee of seven be appointed by the chair to make nominations for officers of the Society for the year 1868. Carried.

The President appointed as such committee, Messrs. David Williams, J. O. Eaton, F. D. McCarty, A. Proudfit, W. R. Taylor, B. R. Hinkley, and A. E. Elmore.

During the absence of Committee, the Secretary read financial reports for the years 1864, 1865, and 1866, and made some remarks concerning the importance of an annual publication of the Society's Transactions, urging all Life Members of the Society to use their influence to that end.

The committee on nominations returned and reported as follows:

For President—K. A. Darling, Fond du Lac.

Vice-Presidents—First Congressional District, B. R. Hinkley, Summit; Second District, W. R. Taylor, Cottage Grove; Third District, C. H. Williams, Baraboo; Fourth District, Sat. Clark, Horicon; Fifth District, Eli Stilson, Oshkosh; Sixth District, C. C. Washburn, La Crosse.

Secretary—J. W. Hoyt, Madison.

Treasurer—David Atwood, Madison.

Additional Members of the Executive Committee—David Williams, Springfield; J. O. Eaton, Lodi; C. L. Martin, Janesville; J. H. Warren, Albany, N. S. Green, Milford; W. W. Field, Boscobel; G. Truesdale, Kenosha.

On motion the report of the committee was accepted.

Moved, by David Williams, that the report be adopted and that L. B. Vilas be authorized to cast the vote of the Society for the persons nominated as the officers thereof for the ensuing year. Carried unanimously.

Adjourned *sine die*.

J. W. HOYT, *Secretary*.

ANNUAL MEETING OF SOCIETY.

STATE AGRICULTURAL ROOMS,

December 11, 1867.

Pursuant to constitutional requirements, and to a published notice, the Society met in these Rooms this day at 3 o'clock to close up the financial accounts for the year, and attend to such other business as might properly come before it.

Quorum present.

President Darling in the chair.

On call, the Secretary read the Treasurer's statement of the financial transactions for the year past; showing the receipts to have been \$16,

542 53, and the disbursements \$13,061 84. [See Report of Treasurer on page 301.]

On motion, the report was accepted, and a committee, consisting of B. R. Hinkley, S. D. Hastings and W. R. Taylor was appointed to examine the accounts of the Treasurer and Secretary, and report thereon at this meeting. The following is the report of said committee:

To the Wisconsin State Agricultural Society:

The Committee charged with the duty of examining into the financial transactions of the Society for the year ending December 11, 1867, having performed the duty assigned them, ask leave to report that, having carefully compared the financial statement of the Treasurer with accompanying vouchers, they find the same correct, and that bills and vouchers for the items therein named are on file and open to inspection in the office of the Society.

[Signed.]

B. R. HINKLEY.
SAM. D. HASTINGS,
W. R. TAYLOR.

State Agr'l Rooms, Dec. 12, 1867.

Which report, On motion of Mr. Eaton, was approved by the unanimous vote of the Society.

The Secretary called attention to the fact that at the last annual meeting, Mr. Eaton gave notice of an intention to offer at this meeting an amendment to Article III of Constitution, by virtue of which the number of Vice Presidents of the Society, after the adoption of said amendment, would be two, instead of six, the number last elected.

By request of Mr. Eaton, the President declared said amendment before the Society.

Mr. Eaton advocated it on the grounds of efficiency and economy and moved its adoption: which motion, after considerable discussion, in which Messrs. Vilas, Hinkley, Eaton, Hastings and Hoyt took part, was adopted by a two-thirds vote.

The Secretary gave notice, that in consideration of several defects in the Constitution not remedied by the amendment just adopted, he had been requested to make a careful revision of the same in all its parts and present the result to this meeting. He then read the Constitution as it would stand when all the proposed amendments were incorporated and placed a copy thereof on file with the view of bringing it before the Society at the next Annual Meeting.

On motion, the Society then adjourned *sine die*.

J. W. HOYT, *Secretary*.

EXHIBITION OF 1867.

[From the Secretary's Record.]

The Exhibition of 1867, just closed, in the main was a great success. In the estimation of many disinterested persons, it exceeded all previous exhibitions of the Society, in the number and variety of the exhibits as well as in the interest manifested by the attendance. The grounds—which, for natural beauty and admirable adaptation, are unsurpassed by any that we have ever seen in any part of the world—were comfortably fitted up and satisfactorily accommodated the several departments. The B shaped mile track for trials of speed was in perfect condition and gave universal satisfaction.

The Department of Field and Garden Products, though not as meagre as last year, was much inferior to what it ought to have been—especially in view of the very considerable increase of premiums. For once, we would like to see Agricultural Hall well crowded with samples of the cereal crops, grasses and other products of this sort, together with a creditable show of the products of the dairy, apiary and household; though we begin to despair of a realization of such hopes. Next year, we must double, or treble the premiums in this whole department and see whether that will effect anything. The farmers of the county where the exhibition is held should feel themselves disgraced by their neglect of it. A few bags of grain, two or three samples of clover and timothy, as many pecks of potatoes, a wheel-barrow load of carrots, turnips, beets and onions, and a half dozen crocks of butter and a shelf of cheeses—may be considered a pretty fair summing up of this department.

The Horticultural Department was a beautiful and very extensive representation of the orchards of the State. We doubt if a better exhibition of fruits plants and flowers was ever made at any state fair in the United States. The large hall, supposed to afford ample room, ran over early on Thursday, and the vacant places in Agricultural Hall, even to the extent of one entire half of its capacity, were made attractive by a supplementary display of as handsome a collection of fruits as ever delighted the eye of Pomona. The fruit growers of Wisconsin are eminently deserving of the thanks of the people for the enthusiasm and persistency of effort with which they have, from year to year, contended with the adversities of climate.

The exhibition of horses was a very valuable and attractive one, presenting for the inspection of lovers of this noblest of the lower animals, many of

the numerous fine specimens that now belong in our State. The encouragement given by the Society to thorough breeding is bearing fruit already, and cannot fail to tell largely, in course of time, upon the improvement of horses in this State.

The stalls set apart for cattle were all filled, many of them with very fine specimens of the several breeds. No premiums were offered on Alderneys, Ayershires and Herefords, which, in our opinion, was a mistake. The two breeds first named are specially worthy of encouragement.

The falling off in the price of wool having had the effect to cool the ardor of the sheepmen, the show in this department was inferior to what it has been for two or three years past. Still the exhibition was not a discredit to the State.

Machinery abounded, covering the slopes upon which it was displayed with a multitude of fine reapers, mowers, seed-drills, plows, harrows, threshers, fanning mills and a thousand and one other articles of great interest and value to the farmer and the public at large.

Manufacturers' Tent was also well crowded with domestic machinery and the products of the mechanic arts; and Fine Arts Hall, besides being pretty well packed with articles appropriate, was made still more interesting by the ceaseless hum and whirr of some twenty to thirty sewing and knitting machines.

The specification of articles is made impossible by the number of such as are equally deserving of mention, as well as by the narrow limits of our space in this volume.

The special daily programme was faithfully carried through and gave very great satisfaction.

The equestrian display by some fourteen ladies, on Thursday, proved an attractive feature, as it always does. And the trials of speed by trotting, pacing and running horses—still an experiment with the Society—appeared to have at least the temporary approval of the entire multitude of twenty to thirty thousand people who witnessed them. It is hoped that these trials may be so managed as to promote the interests of industry without detriment to the more important interests of public morality. If they cannot, every true friend of the Society will vote for their utter abandonment.

Failing to secure speakers from abroad, two or three of whom had been partially engaged, and up to the last day were expected, the Society was fortunate in being able to impress into its service several gentlemen in attendance upon the Fair, whose brief, pertinent and excellent addresses were well received by the people. Of the remarks made by Gov. Fairchild, Gen. Geo. B. Smith and Hon. A. J. Craig, we have not been able to procure a copy for publication. Of a highly appropriate and valuable extemporaneous speech made by Dr. P. A. Chadbourne, President of the State University, the following is a pretty correct report :

ANNUAL ADDRESS.

BY PRESIDENT P. A. CHADBOURNE
OF THE UNIVERSITY OF WISCONSIN.

MR. PRESIDENT, LADIES AND GENTLEMEN:—The good people of the State of Wisconsin have come up here to attend an Agricultural Fair, but all of you who have passed through these grounds can see at a glance that this is something more than a mere Agricultural Fair. It is an exhibition of the civilization of Wisconsin; for you have upon these grounds not only the implements of the garden and field, but you have also here the products of the workshops and of the manufactory. You have brought together the joint products of the field and of the brains of man. This is as it should be. A painter, when asked what he mingled with his colors to produce such beautiful effects, replied that he mixed them with brains; and when any people apply this rule and mix their soil with brains, and guide the hand by the mind, they, too will produce beautiful effects, and those who fail to do this, deteriorate from civilization and go back towards savage life.

Further, we see upon this ground the difference between civilization and savage life. The savage lives upon that which springs spontaneously from the soil, without effort of hand or brain on his part; but the civilized man puts in the seed, and from year to year he prunes and protects and cares for, until at last the fruits and the flowers flourish upon the soil.

And this grand exhibition stands forth as an emblem, and as a sure sign of education and of the great progress in man, of all that distinguishes the civilized man from man in the savage state. And, go where you will, you will find that agriculture is based on civilization. It is impossible for man to progress at all in civilization until he makes agriculture the great staple of his occupation. When civilized men go to those portions of the earth where it is thought to be impossible to produce articles which flourish in their native land, they carry with them all that they possibly can to remind them of the agricultural products of the land from which they have gone. It was once my good fortune, or bad fortune, to find myself among the snows and icebergs of Greenland, at the house of that learned man, Gov. Rink. I saw where he had cleaned the snow and ice from a little spot of ground, a rod square for a green-house, in which he had planted his strawberries, and his currant bushes, his flowers and grapes. There was one apple tree three feet high, having upon it three apples, that were to him more valuable than apples of gold. The

year before, that apple tree produced one solitary apple; and when it was ripe all the Europeans were called together, to the number of twenty, and that apple was divided into twenty equal parts, that each one might say that he had eaten of an apple grown in Greenland. It was to them a sweet reminder of the civilization of their own homes, which they had left for the sterile and ice-bound country which they now inhabit.

And so, go wherever you will, science and agriculture go hand in hand. We see the young men of our state and of this country turning away from their farms to seek for what they consider some other profession, more honorable. Now, it has been repeated from year to year, at these State Fairs, that agriculture is the noblest employment of man, yet we see it abandoned by our youths for other pursuits. Why is this? I can tell you why. It is because there has not been enough of study and thought mingled with the labor of the farm. It is because the richness and productiveness of our soil have been lessened and farming has failed to be attractive, when profit is wanting, because it has demanded or called into action too little brain work. The draft upon our soil has been too great, and it becomes more and more unproductive from year to year. The brain of the agriculturalist should guide the hand. It has been rightly remarked that there is no other employment under Heaven, so well adapted for the development of the whole man, as the pursuit of agriculture when rightly pursued.

The farmer is called upon to tell the growth and structure of every plant, and the names and habits of every bird and animal from the largest to the smallest; and he is called upon to investigate the structure of the soil, and tell its capabilities and properties. And when our farmers are trained to know the condition of the soil, I challenge the world to show a place where mental culture is capable of higher development than in the fields of the State of Wisconsin. And let me say it is impossible to go through with all this study and brain work without filling the agricultural community with intelligent and enlightened men. The fruits and the flowers are an open book before them. They should study what is adapted to the soil and how to supply the elements which are taken from it. When this is done—when the fields are filled with fruits, and blossoming with flowers, and all that is lovely among men, we shall see at our Agricultural Fairs representatives of intelligence—men acquainted with science, and of the highest culture. It must be so. There is no other ground upon which our civilization can rest. The Governor, in his remarks, has been kind enough to allude to the agricultural farm; and let me say to you that there is a vast amount of knowledge upon the subject of agriculture in our community that is not made use of. It is written in our papers and in our books; and I think the first great work of the agriculturist is to learn what has been done, and examine and enquire into all that is known upon the subject, and teach the people the result of his investigations. He should study the improvements in agriculture and horticulture and see that they are practically applied. When he has done this he will be like the sailor upon the prow of the ship, watching to make

new discoveries. It is all folly for men to talk about making experiments and improvements until they have learned what the world has already done; and then they may commence their examinations into new methods, and develop and improve their processes for the benefit of the State. And the gentleman who stands at the head of this farm you will hold to a strict responsibility for his management of it. He will stand as a representative of the knowledge of agriculture and horticulture in the State of Wisconsin. And let me tell you, ladies and gentlemen, that he cannot stand there without being the ablest representative of scientific farming in the State. And I ask you who have farms and gardens, to contribute all you can to the agricultural department of the State University of Wisconsin.

One thing more, ladies and gentlemen, and I speak now especially to the gentlemen, I wish you to understand that the people of the great west are making drafts upon the productiveness of their soil, and making them to a fearful extent. Long trains of cars are constantly going from the West to the East, carrying wheat, and every car that is loaded with it bears precious substances from your soil. If this is continued it will not make your soil better. I say every train of cars that thunders from the West to the East carries from you a portion of your riches. You may some time be quite glad to call them back, but they will not come back. These rich substances once taken away from your fields, cannot be recalled. The sea is whitened with the sails of vessels carrying this richness to the other world. What are you going to do? I will tell you what you must do if these trains of cars continue to bear the products of your soil to the East. You must apply your knowledge of agriculture, and do all you can to keep your soil good and to maintain its fertility.

And I say to you, in closing, that it is one of my proudest boasts that I was a farmer's boy; and I cannot only hold the plow, but I can go into the shop and make a plow; I have made many a one—working in the carpenter's shop in winter and in the field in summer. I declare to you to-day there is no employment under Heaven that is more honorable than the farmer's and it should rank among the skilled pursuits. It is the employment in which varied knowledge and skill can be applied to the greatest extent, and the only one to which the king can come from his throne and feel that he is not coming down, but that he is taking a high and honorable place. Just so long as soil is mixed with brains, just so long will Agriculture continue to be the high and honorable pursuit it is to-day.

PREMIUMS AWARDED

AT THE FAIR OF 1867.

HORSES, JACKS, AND MULES.

CLASS 1—THOROUGH BRED.

Norman Green, Fulton, Stallion, 4 years and over, Hod Gregory.....	\$40 00
Wm. H. James, Beloit, Stallion, 3 years old, Canada, sired by Lexington, 1st premium	20 00
M. Drake, Beloit, Stallion colt, 1 year, sired by Bail, dam Kitty Miles, 1st premium	5 00
S. G. Field, Beloit, Brood Mare, Puss Ferris, 1st premium.....	30 00

CLASS 2—ROADSTERS.

E. S. Hammond, Fond du Lac, Stallion, Live Oak, over 4 years, 1st premium	25 00
A. Gaston, Ithica, Gray Stallion, over 4 years, 2d premium.....	15 00
John Jones, Watertown, Stallion, 3 years old, Young Flying Cloud, Jr., 1st premium	10 00
A. G. Darwin, Madison, Brood Mare, Lady, 1st premium....	20 00
Geo. A. Mason, Madison, Brood Mare, Jenny, 2d premium.....	12 00
A. G. Darwin, Madison, Filly, 3 years and under 4, 1st premium	10 00

CLASS 3—HORSES FOR GENERAL PURPOSES.

A. G. Darwin, Madison, Stallion, Andy Burt, 4 years and over, 1st premium	25 00
Elihu Griffin, Racine, Stallion, Bellfounder, Hambletonian, 2d premium	15 00
H. Draher, Oregon, Stallion, 3 years old, 1st premium.....	10 00
H. Hughes, Watertown, Stallion, 3 years old, 2d premium.....	7 00
W. R. Warren, Madison, Stallion, 2 years old, 1st premium.....	7 00
A. G. Darwin, Madison, Stallion, 2 years old, Glendy Burt, 2d premium	5 00
A. S. Bush, Sun Prairie, Stallion, 1 year old, 1st premium.....	5 00
A. Waterman, Rutland, Stallion, 1 year old, 2d premium.....	3 00
A. G. Darwin, Madison, Sucking Stallion Colt, 1st premium.....	3 00
D. Fitch, Madison, Sucking Stallion Colt, 2d premium	2 00
A. G. Darwin, Madison, Brood Mare, 4 years and over, 1st premium.....	20 00
D. Fitch, Madison, Brood Mare, 4 years and over, 2d premium.....	12 00
A. G. Darwin, Madison, Filly, 3 years and under 4, 1st premium.....	10 00
J. R. Heistand, Madison, Filly, 3 years and under 4, 2d premium.....	7 00
Richard Richards, Racine, Filly, 2 years old, Lady Belle, 1st premium	6 00
M. Anderson, Cross Plains, Filly, 2 years old, 2d premium	4 00
A. G. Darwin, Madison, Sucking Mare Colt, 1st premium.....	3 00
James Jack, Madison, Sucking Mare Colt, 2d premium.....	2 00

CLASS 4—DRAFT HORSES.

Augustus Stone, Omro, Stallion, 4 year and over, 1st premium.....	\$15 00
W. J. Powers, Black Earth, Stallion, 4 years and over, 2d premium....	10 00
David McClay, Johnstown, Stallion, 3 years old 1st premium.....	10 00

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CLASS 5—JACKS AND MULES.

Adam Smith, Burk Centre, Jack, 1st premium.....	\$25 00
E. F. Mabie, Delavan, Jack, Jupiter, 2d premium.....	15 00
Adam Smith, Burke Centre, single Jenny, 1st premium.....	15 00
Wm. Tolly, Darlington, single Jenny, 2d premium.....	10 00
H. H. Benson, Fort Atkinson, pair working Mules, 1st premium....	10 00
W. G. Williams, Lodi, pair working Mules, 2d premium.....	5 00
James McCloud, Lodi, single Mule, 1st premium.....	5 00
Wm. Tolly, Darlington, Mule Colt, 1st premium.....	2 00
A. Cobb, Sun Prairie, Mule Colts.....	Hon. mention.

CLASS 6—MATCHED HORSES AND MARES.

M. K. Kizer, Prairie du Sac, pair carriage Mares, 1st premium.....	\$25 00
James Hayden, Exter, pair carriage Horses, 2d premium.....	15 00
Van Slyke and Mason, Madison, pair Roadsters, 1st premium.....	25 00
A. G. Darwin, Madison, pair of farm Mares, 1st premium.....	25 00
Thos. Hayden, Madison, pair of draft Horses, 3d premium.....	15 00

CLASS 7.—GELDINGS OR MARES FOR SINGLE HARNESS, SADDLE, ETC.

S. R. Jenks, Madison, Gelding for Harness, 1st premium.....	\$10 00
D. Gardner, Milford, Gelding in harness, 2d premium.....	5 00
R. B. Kelly, Beloit, Mare for saddle, 1st premium.....	10 00
A. McDonald, Alloa, Gelding for saddle, 2d premium.....	5 00

CLASS 8—TROTTERS AND PACERS.

Geo. Phelps, Fond du Lac, Stallion, 5 years old, North Hawk, 1st premium, time, 2:45½.....	50 00
Dr. Quivey, Evansville, Stallion Green Mountain Boy, 2d prem., time, 2:46.....	30 00
Wm. Dunn, Madison, Mare Gray Lizzie, 1st prem., time, 2:41.....	30 00
G. W. Thustan, Waukesha, Mare Lady Dobble, 2d prem., time, 2:47.....	25 00
E. Thustan, Waukesha, Gelding Black Petrel, 1st prem., time, 2:54½.....	25 00
Geo. A. Mason, Madison, pair of matched horses, 1st prem., time, 3:16.....	25 00
L. Douglas, Janesville, Pacing Gelding Black Shy, 1st premium, time, 2:47½.....	25 00
J. F. Howdle, Chilton, Pacing Mare, 2d premium.....	15 00

CLASS 9—RUNNING HORSES.

TWO-MILE HEATS, BEST TWO IN THREE.

A. H. Douglas, Brodhead, Stallion Bill Phinney, 1st premium, time, 3:50½ and 3:50.....	200 00
Daniel Harver, Monroe, Mare Prairie Lily, 2d premium.....	100 00

MILE HEATS, BEST THREE IN FIVE.

Wm. W. James, Beloit, Stallion Canada, 1st prem., time, 1:48; 1:47; 2:00.....	100 00
Daniel Harver, Monroe, Mare Prairie Lily, 2d premium.....	75 00

MILE DASH OF COLTS AND FILLIES.

Wm. W. James, Beloit, Stallion Canada, 1st premium, time 1:53.....	60 00
Peter Parkinson, Fayette, Gelding Captain Belcher, 2d premium.....	40 00

CATTLE.

CLASS 10—SHORT HORNS.

Richard Richards, Racine, Bull, Napoleon, over 3 years old, 1st premium	\$25 00
J. P. Roe, Durham Hill, Bull, 3 years old, 2d premium	15 00
J. P. Roe, Durham Hill, Bull, 2 years old, 1st premium	15 00
Sam. H. Tenney, Waukesha, Bull, 2 years old, Royal Duke, 2d premium	10 00
Geo. Murray, Racine, Bull, one year old, Duke of Adria, 1st premium	7 00
Richard Richards, Racine, Bull, 1 year old, Duke of Thorndale, 2d premium	5 00
Richard Richards, Racine, Bull Calf, 1st premium	7 00
J. P. Roe, Durham Hill, Bull Calf, Quartermaster, 2d premium	5 00
Richard Richards, Racine, Cow, 3 years old and over, Red Lady, 1st premium	20 00
J. P. Roe, Durham Hill, Cow, 3 years old and over, 2d premium	15 00
Richard Richards, Racine, Heifer, 2 years old and over, 1st premium	15 00
Geo. Murray, Racine, Heifer 2 years old, Mazurka, 2d premium	10 00
Geo. Murray, Racine, Heifer, 1 year old Mazurka, 1st premium	7 00
Richard Richards, Racine, Heifer, one year old, Glenn of Oxford, 2d premium	5 00
Richard Richards, Racine, Heifer Calf, Lady Maynard, 1st premium	7 00
J. P. Roe, Durham Hill, Heifer Calf, Rowena, 2d premium	5 00

CLASS 11—DEVONS.

L. Rawson, Oak Creek, Bull Prince, 6 years old, 1st premium	25 00
Jacob Fowle, Emerald Grove, Bull, 3 years old, 2d premium	15 00
L. Rawson, Oak Creek, Bull Maloy, 2 years old, 2d premium	15 00
David Richardson, Middleton, bull 2 years old, 2d premium	10 00
Robert Newman, Little Grant, Bull, 1 year old, 1st premium	7 00
Geo. W. Mead, Sun Prairie, Bull, 1 year old, 2d premium	5 00
L. Rawson, Oak Creek, 2 Bull Calves, 1st premium	7 00
Thos. Reynolds, Madison, Bull Calf Tecumseh, 2d premium	5 00
L. Rawson, Oak Creek, Cow, 3 years old, Amber, 1st premium	20 00
L. Rawson, Oak Creek, Cow, 3 years old, Corrinne, 2d premium	15 00
L. Rawson, Oak Creek, Heifer, 2 years old, Red Rose, 2d premium	10 00
L. Rawson, Oak Creek, Heifer, 1 year old, Cherry, 1st premium	7 00
L. Rawson, Oak Creek, heifer, 1 year old, Peony, 2d premium	5 00
L. Rawson, Oak Creek 2 Heifer Calves, 1st and 2d premiums	7&5 00

CLASS 12—GRADE CATTLE AND WORKING OXEN.

D. Fitch, Madison, Cow, 3 years, 1st premium	10 00
E. Grover, Madison, Heifer, 2 years, 2d premium	7 00
A. G. Darwin, Madison, Heifer, 2 years, 1st premium	7 00
David Richardson, Middleton, Heifer, 2 years, 2d premium	5 00
G. Gilbert, Madison, Yearling Heifer, 1st premium	5 00
Hospital for Insane, Madison, Heifer, 1 year 2d premium	3 00
Hospital for Insane, Madison, Yoke Oxen, 4 years, 1st premium	15 00
O. M. Palmer, Oregon, Yoke Working Oxen, 2d premium	10 00
A. B. Devoe, McFarland, Yoke Steers, 1st premium	7 00
G. H. Clute, Madison, Yoke Steers, 3 years, 2d premium	5 00
Jonathan Larkin, Madison, Bull Calf grade, not on list	Honorable mention
Hospital for Insane, Madison, Heifer Calf	Honorable mention
J. R. Christa, Vienna, Grade Bull, 6 years	Honorable mention

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CLASS 13.—MILCH COWS.

Richard Richards, Racine, Milch Cow Isabella, 1st premium..... \$15 00

CLASS 14—FAT CATTLE.

J. P. Roe, Durham Hill, Fat Cow, 1st premium..... 10 00

SHEEP AND GOATS.

CLASS 15—AMERICAN MERINOS.

O. Cook, Whitewater, Buck, 2 years, 1st premium.....\$15 00
 E. F. Johnson, Lamartine, Buck, 2d premium..... 10 00
 O. Cook, Whitewater, buck, 1 year old, 1st premium..... 10 00
 O. Cook, Whitewater, 2 Buck Lambs, 1st Premium..... 7 00
 E. M. Rice, Whitewater, 3 buck lambs, 2d premium..... 5 00
 E. M. Rice, Whitewater, 2 ewes, 2 years and over, 1st premium..... 15 00
 O. Cook, Whitewater, 3 ewes, 2 years and over, 2d premium..... 10 00
 E. M. Rice, Whitewater, 3 Ewes, 1 year, 1st premium..... 11 00
 O. Cook, Whitewater, 3 Ewes, 1 year, 2d premium..... 7 00
 O. Cook, Whitewater, pen 10 Ewe Lambs, 1st premium..... 20 00
 E. M. Rice, Whitewater, pen 3 Ewe Lams, 1st premium..... 7 00
 A. J ones, Leeds Centre, pen 3 Ewe Lambs, 2d premium..... 5 00

CLASS 16.—LONG WOOL SHEEP.

J. Gould Stoughton, Buck, (Cotswold) 2 years and over. 1st premium 15 00
 John Goodwin, West Middleton, Buck, (Leicester) 2 years, 2d premium 10 00
 Robert Henry, McFarland, Buck, 1 year and under 2, 1st premium.... 10 00
 J. H. Gould, Stoughton, Buck, 1 year and under 2, 2d premium 7 00
 John Goodwin, West Middleton, 3 Buck Lambs, 1st premium..... 7 00
 I. S. Hazeltine, Richland Centre, 3 Buck Lambs, 2d premium..... 5 00
 L. K. Hazeltine, Richland Centre, 3 Ewes, 2 years and over, 1st prem. 15 00
 I. S. Hazeltine, Richland Centre, 3 Ewes, 2 years and over, 2d prem. 10 00
 Robert Henry, McFarland, 2 Ewes, 1 year, 1st premium..... 10 00
 I. S. Hazeltine, Richland Centre, 2 Ewe Lambs, 1st premium..... 7 00
 L. K. Hazeltine, Richland Centre, 3 Ewe Lambs, 2d premium..... 5 00

CLASS 17—MIDDLE WOOL.

J. P. Roe, Durham Hill, Buck 2 years and over, 1st prem..... 15 00
 J. B. Stone, Oregon, Buck 2 years old and over, 2d prem..... 10 00
 J. B. Stone, Oregon, Buck 1 year, 1st prem 10 00
 J. P. Roe, Durham Hill, Buck, 1 year, 2d prem..... 7 00
 J. P. Roe, Durham Hill, 3 Buck Lambs, 1st prem..... 5 00
 J. P. Roe, Durham Hill, 3 Buck Lambs, 2d prem..... 5 00
 J. P. Roe, Durham Hill, 3 Ewes, 2 years, 1st prem..... 15 00
 J. P. Roe, Durham Hill, 3 Ewes, 2 years, 2d prem..... 10 00
 J. P. Roe, Durham Hill, 3 Ewes, 1 year, 1st prem..... 10 00
 J. P. Roe, Durham Hill, 3 Ewe Lambs, 1st prem..... 7 00
 J. P. Roe, Durham Hill, 3 Ewe Lambs, 2d prem..... 5 00

GOATS.

N. W. Cashmere Co., of Madison, show of Cashmere Goats....Dip and 10 00

SWINE AND POULTRY.

CLASS 19—SWINE.

SMALL BREEDS.

Wm. Kiser, Madison, Boar 1 year and under 2, 2d prem..... 5 00

LARGE BREEDS.

A. G. Darwin, Madison, Boar, 2 years, 1st prem..... 10 00
 Hildreth & Palmer, Beloit, Boar, 1 year and under 2, 1st prem..... 7 00
 A. G. Darwin, Madison, Boar, 1 year and under 2, 2d prem..... 5 00
 David Richardson, Middleton, Boar, 1 year oldHonorable Mention
 F. Briggs, Madison, Breeding Sow, 1st prem 18 00
 L. Rawson, Oak Creek, Sow and Pigs, Chester, 1st prem..... 10 00
 F. Briggs, Madison, Boar Pig, over 6 months, 1st prem..... 5 00
 Hospital for the Insane, Madison, Chester white Boar Pig.....Hon. Men.
 L. Rawson, Oak Creek, Sow Pig, 8 months, 1st prem..... 5 00
 Hildreth & Palmer, Beloit, exhibition of Berkshire Swine..... 20 02

CLASS 20—POULTRY.

C. D. & P. Moore, Madison, variety poultry, 1st prem.....5 00
 T. D. Plumb, jr., Madison, lot of Brahma fowls, prem.....2 00
 A. G. Darwin, Madison, lot Black Spanish fowls, prem.....2 00
 David McNeal, Stoughton, pair Black Sea Ducks, prem.....2 00

AGRICULTURAL

CLASS 21—FIELD PRODUCTS.

Mrs. Wm. A. Boyd, Oshkosh, Sample Spring Wheat, Club, 1st premium.....\$5 00
 H. H. Cornwell, Verona, Sample Spring Wheat, Club, 2d premium.... 3 00
 F. R. Martin, Rutland, Sample Spring Wheat, Rio Grande, 1st premium..... 5 00
 E. Slingerland, Cottage Grove, Sample Spring Wheat, Rio Grande, 2d premium..... 3 00
 Mrs. Wm. A. Boyd, Oshkosh, Bushel Spring Wheat, Fife, 1st premium, 5 00
 M. A. Sawyer, Sparta, Sample Winter Wheat, Ohio Blue Stem, 1st premium..... 5 00
 W. McDowell, Monroe, Sample Oats, 1st premium 3 00
 M. L. Ladd, Millard, Sample Oats, 2d premium 2 00
 Kibbie & Stewart, Wyoena, Sample Hops, 1st premium 3 00
 H. H. Potter, Baraboo, Sample Hops, 2d premium 2 00
 Jas. McPherson, Spring Dale, Sample Beans, White, 1st premium.... 2 00
 Hospital for Insane, Madison, Sample Beans, 2d premium..... 2 00
 J. R. Heistand, Madison, Sample Dent Corn, 1st premium..... 3 00
 John French, Madison, Sample Dent Corn, 2d premium..... 2 00
 N. W. Dean, Madison, Sample Flint Corn, 1st premium..... 3 00
 J. V. Cairns, Middleton, Sample Flint Corn, 2d premium..... 2 00

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James Terwilliger, Syene, Sample Mercer Potatoes, 1st premium.....	2 00
M. L. Ladd, Millard, Sample Mercer Potatoes, 2d premium.....	1 00
E. Long, Madison, Sample Pinkeye, 1st premium.....	2 00
J. F. Westcott, Farmers' Grove, Sample Early Potatoes, 1st premium,	2 00
W. Whitney, Middleton, Sample Early Potatoes, 2d premium.....	1 00
Hospital for Insane, Show of Known and Excellent Varieties.....	5 00
H. S. Hall & Co., Madison, Sample Carrots, 1st premium.....	2 00
Wm. H. Dumont, Stoughton, Sample Carrots, 2d premium.....	1 00
Eli Stilson, Oshkosh, Timothy Seed, 1st premium....	5 00
Eli Stilson, Oshkosh, Clover Seed, 1st premium.....	3 00

CLASS 22.—GARDEN VEGETABLES.

B. F. Brown, Fitchburg, Sample Celery, 1st premium.....	2 00
Sam'l Marshall, Madison, Sample Celery, 2d premium.....	1 00
Jacob Dingle, Madison, Sample Cauliflower, 1st premium.....	2 00
W. Whitney, Madison, Sample beets, 1st premium.....	2 00
B. A. Atwell, Madison, Sample Beets, 2d premium.....	1 00
W. H. Dumont, Stoughton, Sample Parsnips, 1st premium.....	2 00
Geo. W. Stoner, Madison, Sample Parsnips, 2d premium.....	1 00
W. H. Dumont, Stoughton, Sample Onions, 2d premium.....	1 00
B. A. Atwell, Madison, Sample Onions, 1st premium.....	2 00
B. A. Atwell, Madison, Sample Cabbages, 1st premium.....	2 00
Geo. W. Stoner, Madison, Sample Tomatoes, 1st premium.....	2 00
I. N. DeForest, Windsor, Sample Tomatoes, 2d premium.....	1 00
P. H. Spencer, Madison, Egg Plants, 1st premium.....	2 00
Z. Wilson, Palmyra, Sweet Potatoes, 1st premium.....	2 00
P. H. Spencer, Madison, Sweet Potatoes, 2d premium.....	1 00
W. H. Dumont, Stoughton, Lima Beans, 1st premium.....	2 00
J. P. McPherson, Springdale, Lima Beans,.....	Honorable mention.
Jno. Sacks, Madison, variety Garden Plants, 1st premium.....	10 00
L. A. Hartwell, Fitchburg, variety Garden Plants, 2d premium.....	5 00
E. Long, Madison, Sample Ruta Baga, fine sample.....	Honorable mention.
E. Long, Madison, Sample Hubbard Squash, superior....	Honorable mention.
C. W. & B. Askew, Madison, Cantelope Melon.....	Honorable mention.
Samuel Marshall, Madison, Squash.....	Honorable mention.

CLASS 23—PRODUCTS OF THE DAIRY (AND HOUSEHOLD)

J. B. Stone, Oregon, 25 lbs June butter, 1st premium.....	7 00
Wm. Manwarren, Black Earth, jar June butter, 2d premium.....	5 00
John Porter, Mazomanie, jar June butter, 3d premium.....	3 00
Mrs. R. J. Atwood, Fitchburg, jar butter made at any time, 1st premium.....	7 00
N. W. Dean, Madison, jar butter made at any time, 2d premium....	5 00
J. B. Stone, Oregon, jar butter made at any time, 3d premium.....	3 00
Z. Wilson, Palmyra, three cheeses, 1st premium.....	10 00
Wm. Munson, Salem, three cheeses, 2d premium.....	7 00
M. S. Twining, Brodhead, three cheeses, 3d premium.....	5 00
J. M. Case, Secretary Cold Spring Factory, Whitewater, three cheeses factory make, 1st premium.....	10 00
Geo. D. Curtis, Rosendale, three cheeses, factory made, 2d premium.	7 00
B. F. Flower, Pacific, Sample Honey, 1st premium.....	5 00
C. R. Chipman, Leicester, Sample Honey, 2d premium.....	3 00
F. R. Martin, Rutland, Sorghum, Sugar, 1st premium.....	10 00
Henry Taylor, Middleton, Sorghum Syrup, 1st premium.....	3 00

FRUITS AND FLOWERS.

CLASS 24—FRUIT BY NON-PROFESSIONAL CULTIVATORS.

- Jas. M. Clark, Baraboo, variety of Apples, 1st premium, Diploma and Silver Ice Pitcher.
- Thos. Howland Kenosha, variety of Apples, 2d premium....Silver Fruit Dish
- Geo. P. Pfeffer, Pewaukee, variety of Apples, 3d premium, Set Silver Tea Spoons.
- Eli Stilson, Oshkosh, large collection, detained by railroad until awards were made, recommend premium.
- Jas. M. Clark, Baraboo, 10 varieties of Apples, 1st premium, Diploma and Silver Tea Spoons.
- Geo. P. Pfeffer, Pewaukee, 10 varieties of Apples, 2d premium, Silver Goblet.
- C. M. Plumb, Milford, 10 varieties of Apples, 3d premium, Fuller's Grape Culturist.
- Jas. M. Clark, Baraboo, 5 varieties of Apples, 1st premium....Silver Goblet.
- Geo. P. Pfeffer, Pewaukee, 5 varieties Apples, 2d premium, Silver Fruit Knife.
- L. Woodworth, Kenosha, show of autumn Apples, 1st premium, Set Silver Spoons.
- C. M. Plumb, Milford, show of autumn Apples, 2d premium, Silver Pie Knife.
- M. L. Ladd, Milford, show of autumn Apples, 3d prem.....Silver Cup
- Thos. Howland, Kenosha, show of winter Apples, 1st premium,...Silver Card Receiver.
- C. M. Plumb, Milford, show of winter Apples, 2d premium,...Gold Lined Silver Goblet.
- L. Woodworth, Kenosha, show of winter Apples, 3d prem...Downing's Fruits and Fruit Trees.
- Geo. P. Pfeffer, Pewaukee, variety of Pears, 1st prem.....Silver Goblet
- Thos. Howland, Kenosha, variety of Pears, 2d prem.....Silver Cup
- S. G. Gilbert, Kenosha, variety of pears, 3d prem.....Silver Butter Knife.
- Samuel Hoppin, Breedsville, Mich., peaches, boxes and baskets, without number, and 56 cans choice peaches, making a splendid show, Discretionary premium, two Gold-lined Goblets
- G. P. Pfeffer, Pewaukee, show of Peaches, 1st prem....Set Silver Teaspoons.
- G. P. Pfeffer, Pewaukee, show of single variety of Peaches, 1st prem...Silver Fruit knife.
- Samuel Marshall, Madison, variety of Grapes, 1st prem..Diploma and Silver Cake Basket.
- G. V. Ott, Madison, variety of Grapes, 2d premium.....set Silver Forks.
- [The committee made close examination before being able to decide on this and Mr. Marshall's collection.]
- Geo. P. Pfeffer, Pewaukee, variety of Grapes, 3d premium..Silver Teaspoons.
- Geo. P. Pfeffer, Pewaukee, 3 varieties Grapes, 1st premium, Silver Teaspoons.
- Thos. Howland, Kenosha, 3 varieties Grapes, 2d premium, Silver Napkin Ring.
- Thos. Howland, Kenosha, 2 varieties Grapes, 1st premium.....Silver Cup.
- Wm. Munsan, Salem, 2 varieties Grapes, 2d premium....Silver Fruit Knife.
- Geo. P. Pfeffer, Pewaukee, Fruit of all kinds, 1st premium, Diploma and elegant Silver Ice Pitcher and Gold lined Goblet.
- B. Flower, Pacific, collection of melons, 1st premium.....Silver Tea Forks.
- Wm. H. Dumont, Stoughton, collection of Melons, 2d premium, Silver Tea Spoons.
- G. S. Sharp, Door Creek, Specimen crap apples, very fine specimens of one of the best varieties for N. W., Silver Cup.

CLASS 27—FRUIT BY PROFESSIONAL CULTIVATORS.

- A. G. Tuttle**, Baraboo, varieties of Apples, 1st premium. **Silver Ice Pitcher.**
Geo. Kellogg, Janesville, varieties of Apples, 2d premium. **Silver Fruit Dish.**
J. L. Tubbs, Elkhorn, variety of Apples, 3d premium. **Silver Teaspoons.**
A. G. Tuttle, Baraboo, 10 varieties of Apples, 1st premium, **Diploma and and Silver Tea Spoons.**
Geo. J. Kellogg, Janesville, 10 varieties of Apples, 2d premium, **Silver Goblet.**
J. L. Tubbs, Elkhorn, 10 varieties of Apples, 3d premium, **Fuller's Grape Culturist.**
Geo. J. Kellogg, Janesville, 5 varieties of Apple, 1st premium, **Silver Goblet.**
A. G. Tuttle, Baraboo, 5 varieties of Apples, 2d premium. **Silver Fruit Knife.**
A. G. Tuttle, Baraboo, show autumn Apples, 1st premium. **Silver Spoons.**
Geo. J. Kellogg, Janesville, show autumn Apples, 2d premium, **Silver Pie Knife.**
A. G. Tuttle, Baraboo, show winter Apples, 1st premium, **Silver Card Receiver.**
Geo. J. Kellogg, Janesville, show winter Apples, 2d premium, **Gold Lined Silver Goblet.**
J. L. Tubbs, Elkhorn, variety Pears, 1st premium. **Silver Goblet.**
J. T. Stevens, Madison, variety Pears, 2d premium. **Silver Cup.**
Geo. J. Kellogg, Janesville, variety Pears, 3d premium, **Silver Butter Knife.**
Isaac Atwood, Lake Mills, variety of Grapes, 1st premium, **Diploma and Silver Cake Basket.**
O. H. & J. M. Greenman, Milton, variety of Grapes, 2d premium, **Set Silver Forks.**
J. T. Stevens, Madison, variety of Grapes, 3d premium. **Silver Tea Spoons.**
O. H. & J. M. Greenman, Milton, 3 varieties of Grapes, 1st premium, **Silver Tea Spoons.**
J. L. Tubbs, Elkhorn, 2 varieties of Grapes, 1st premium. **Silver Cup.**
E. Elliott, Lone Rock, show Watermelons, 1st premium. **Silver Tea Forks.**
J. T. Stevens, Madison, show Foreign Grapes, open culture, **Honorable Mention.**
D. S. Dunning, Jefferson Ill., show Cherry Trees, Early Richmond, **Honorable Mention.**
Isaac Atwood, Lake Mills, Grape Roots. **Honorable Mention.**

CLASS 27—FLOWERS BY NON-PROFESSIONAL CULTIVATORS.

- Robert H. Hastie**, Floral design, 2d premium. **Rand's Garden Flowers.**
Mrs. E. S. Carr, Madison, Floral design, 1st premium, **Gold-lined Silver Goblet.**
Mrs. R. Baus, Madison, show Cut Flowers, 1st premium, **Silver Teaspoons and Rand's Garden Flowers.**
Charles Gewecke, Madison, selection Cut Flowers, 2d premium, **Rand's Garden Flowers.**
Miss Kate F. Pepper, Pewaukee, display in quality and variety Cut Flowers, 2d premium, **Silver Goblet.**
Mrs. H. M. Lewis, Madison, arranged Basket Flowers, 1st premium, **Silver Cup.**
Miss Kate F. Pepper, Pyramid Boquet, 1st premium. **Silver Cup.**
Mrs. H. M. Lewis, Madison, arranged Boquet, premium, **Breck's Book of Flowers.**
Miss Kate F. Pepper, Boquet Eternal Flowers. **Silver Cup.**
Mrs. S. G. Benedict, Madison, display Dahlias, 1st premium, set of **Silver Teaspoons and Breck's Book of Flowers.**
Mrs. S. G. Benedict, Madison, 10 named Dahlias, 1st premium, **Silver Pie Knife.**
Mrs. S. G. Benedict, 5 named Dahlias, 1st premium, **Breck's Book of Flowers.**
Miss Kate F. Pepper, Pewaukee, display in quality of Roses, 1st premium, **Silver Tea Bell.**
F. A. Pfaff, Madison, show Verbenas, 1st premium, **Breck's Book of Flowers.**

Miss Kate F. Pepper, Pewaukee, 10 named Verbenas, 1st premium, Breck's Book of Flowers.

F. A. Pfaff, Madison, show Asters, 1st premium.....set Silver Spoons

F. A. Pfaff, show Pinks, 1st premium.....Breck's Book of Flowers

Mrs. H. M. Lewis, Madison, show Pansies, 1st premium, Silver Boquet Holder.

F. A. Pfaff, Madison, show Petunias, 1st premium....solid Silver Fruit Knife

Miss Kate F. Pepper, Pewaukee, show Dianthas, 2d premium....The Garden

Miss Kate F. Pepper, Pewaukee, show Gladiolus, 2d premium, silver Tea Bell

O. S. Willey, Madison, show Greenhouse Plants, 1st premium, Downing's Landscape Gardening.

Mrs. Geo. F. Brown, Blooming Grove, variety Seedling Verbenas, Honorable Mention.

Mrs. R. Baus, Madison, display of Everlasting Flowers...Honorable Mention

Charles Erkton, Madison, design representing the Four Seasons, Silver Castor.

Mrs. Miller, Mazomanie, Flowers arranged as Boquet, and Wreaths of Hair and Fish Scales, Silver Fruit Knife.

Mrs. E. S. Carr, Madison, collection Mosses, very fine, solid Silver Boquet Holder.

CLASS 28—FLOWERS BY PROFESSIONAL CULTIVATORS.

Miss Cornelia Stevens, Madison, Floral Design, 1st premium, Gold-Lined Silver Goblet.

Miss Cornelia Stevens, Madison, tastefully arranged basket Flowers, 1st premium, Silver Cup.

Miss Cornelia Stevens, Madison, Round Boquet, 1st premium....Silver Cup.

Miss Cornelia Stevens, Madison, Flat Boquets, 1st premium....Silver Cup.

Miss Cornelia Stevens, Madison, Boquet Eternal Flowers, premium, Silver Cup.

J. T. Stevens, Madison, Display Dahlias, 1st premium....Silver Tea-spoons.

H. G. Roberts, Janesville, Show of Dahlias, 2d premium, Breck's Book of Flowers.

J. T. Stevens, Madison, Display Verbenas, 1st premium, Breck's Book of Flowers.

J. T. Stevens, Madison, Display Dianthas, 1st premium, Breck's Book of Flowers.

J. T. Stevens, Madison, Display Tuber Roses, 1st premium.....Silver Cup.

J. T. Stevens, Madison, Greenhouse Plants, 1st premium, Downing's Landscape Gardening.

J. T. Stevens, Madison, Show Fuchias, 1st premium.....Silver Cup.

CLASS 29—WISCONSIN WINES.

F. R. Daniels, Prairie du Chien, Assortment Wines, Diploma and Gold-lined Goblet.

M. L. Ladd, Millard, sample Grape Wine, 1st premium, Gold-lined Silver Goblet.

Mrs. Seymour Curtiss, Fitchburg, Currant Wine, 1st premium, Gold-lined Silver Goblet.

F. R. Daniels, Prairie du Chien, 2d premium.....Silver Cup.

Mrs. H. S. Vincent, Windsor, Gooseberry Wine, and Wine from other materials, 1st premium, Silver Pickle Fork.

CLASS 30—DELICACIES.

Mrs. J. C. Plumb, Milton, variety Delicacies, set of.....Silver Tea Forks

Mrs. J. C. Plumb, Milton, Apple Preserves.....Silver Sugar Spoon

Mrs. Eli Stilson, Oshkosh, Peach Preserves.....Silver Butter Knife

Mrs. Wm. A. Boyd, Strawberry Preserves.....Silver Tea Bell

Mrs. Wm. A. Boyd, Oshkosh, Currant Preserves.....Silver Butter Knife.

Mrs. Eli Stilson, Oshkosh, Cherry Preserves.....Silver Salt Spoon.

Mrs. Eli Stilson, Plum Preserves,The Garden.

- Mrs. Wm. A. Boyd, Oshkosh, Tomato preserves.....Silver Tea Bell
 Mrs. Eli Stilson, Oshkosh, Grape Preserves.....Silver Mustard Spoon
 Mrs. Eli Stilson, Oshkosh, Pear Preserves, first premium....Silver Tea Bell
 Mrs. J. C. Plumb, Milton, collection Sealed Fruits, first premium, Silver Tea-spoons.
 Mrs. Eli Stilson, Oshkosh, five sorts Sealed Fruits, first premium, Youman's Household Science.
 Samuel Hoppin, Breedsville, Michigan, collection Canned Peaches diploma.
 Mrs. J. C. Plumb, Milton, variety Jellies, first premium... Silver Teaspoons.
 Mrs. J. C. Plumb, Milton, sample Apple Jelly, first premium, Silver Tea Bell.
 Mrs. J. J. Brown, Madison, sample Cake, first premium Silver Cup.
 Mrs. Eli Stilson, Oshkosh, Peach Jelly, first premium.... Silver Pickle Fork.
 Mrs. Wm. A. Boyd, Plum Jelly, first premium..... Silver Napkin Ring
 Mrs. Eli Stilson, Oshkosh, Grape Jelly, first premium.. Silver Mustard Spoon
 Mrs. Eli Stilson, Oshkosh, Strawberry Jelly, first premium, Silver Butter Knife.
 Mrs. J. L. Tubbs, Elkhorn, Gooseberry Jelly, first premium, Silver Salt spoon.
 Mrs. Eli Stilson, Oshkosh, Prune Preserves.....Honorable Mention.
 Mrs. Eli Stilson, Oshkosh, Cranberry Preserves.....Honorable Mention.
 Mrs. Eli Stilson, Oshkosh, Cherry Jelly, first Premium.. Silver Butter Knife.
 Mrs. J. L. Tubbs, Elkhorn, Currant Jelly, first premium.... Silver Tea Bell.
 Mrs. E. Stilson, Oshkosh, Cranberry Jelly, 1st premium.....The Garden.
 Mrs. J. L. Tubbs, Elkhorn, Crab Apple Jelly, 1st premium, Silver Napkin Ring.
 M. DeWolf, Delavan, Jar Dried Fruit,.....Honorable Mention.
 M. DeWolf, Delavac, Strawberries and Raspberries....Honorable Mention.
 Mrs. E. Stilson, Oshkosh, Peach and Blackberry Pickles, Honorable Mention.
 Mrs. B. F. Brown, Fitchburg, Raspberry Jam, 1st premium,... Silver Tea Bell
 Mrs. J. C. Plumb, Milton, Black Currant Jam, 1st premium, .. Silver Butter Knife.
 Mrs. Eli Stilson, Oshkosh, Tomato Pickles,.....Honorable Mention.
 Mrs. Eli Stilson, Oshkosh, Cucumber Pickles, 1st premium, Silver Pickle Fork.
 Mrs. Eli Stilson, Oshkosh, Apple Pickles, 1st premium.. Silver Butter Knife.
 Mrs. Eli Stilson, Oshkosh, Plum Pickles, 1st premium.... Silver Pickle Fork.
 Mrs. Eli Stilson, Oshkosh, Cherry Pickles, 1st premium..... Silver Tea Bell.
 Mrs. Eli Stilson, Oshkosh, Pear Pickles, 1st premium.... Silver Pickle Fork.

CLASS 31—SOCIETY EXHIBITION.

- German Horticultural Society, Madison, 1st prem..... \$50 00
 Kenosha Co. Agricultural Society, Kenosha, 2d prem..... 30 00

MACHINERY AND IMPLEMENTS.

CLASS 32—MACHINERY AND IMPLEMENTS FOR AGRICULTURAL PURPOSES.

- J. I. Case & Co., Racine, Threshing Machine, 1st premium..Diploma and \$25
 Chas. F. Duval, Milwaukee, Threshing Machine, 2d premium..... 15
 Maybee & Bowers, Clinton, Farm and Carriage Gate.....Diploma.
 J. C. Birdsall, South Bend, Ind., Clover Machine.....Diploma.
 E. P. Dickey, Racine, Fanning Mill.....Diploma.
 A. P. Dickey, Racine, Fanning Mill.....Honorable Mention.
 R. E. Mills, Rockford, Ill., Empire Wind Mill.....Diploma.
 L. H. Wheeler, Beloit, Wind Mill.....Honorable Mention.
 A. C. Lewis, Des Moines, Iowa, Straw Cutter.....Honorable Mention.
 Geo. Bevitt & John G. Ott, Madison, Corn Sheller.....Diploma.

A. T. Bates & Co., Chicago, Ill., Wood Sawing Machine.....	Diploma.
A. T. Bates & Co., Chicago, Ill., Sulky Revolving Rake	Diploma.
A. T. Bates & Co., Chicago, Ill., Eureka Cutting Box.....	Diploma.
J. C. Frazer, Tafton, Cast Steel Crossing Bar	Diploma.
Firmin & Billings, Madison, Steel Crossing Plow.....	Honorable Mention.
E. Children, Lancaster, Badger Cultivator.....	Diploma.
Henry Howe, Oneona, One Horse Cultivator.....	Diploma.
J. E. Frazer, Tafton, Hawkeye Sulky Cultivator.....	Diploma.
C. S. Briggs, Chicago, Model of Patent Harrow.....	Honorable Mention.
N. W. Gordon, Waupun, Model of Lumber Wagon.....	Honorable Mention.
David M. P. Jones, Union, Stump Extractor.....	Diploma.
G. B. Gibson, Baraboo, Patent Feeder	Diploma.
D. P. Leonard, Union City, Mich., Hop Frame.....	Diploma.
Howles & Preston, Orfordville, Rock Co., Water Elevator.....	Diploma.
C. Ostrander, Lodi, Henmauses Farm Gate.....	Diploma.
Wilson & Converse, Beloit, Force Pump.....	Diploma.
Aaron Huyck, Lima, Sheboygan County, Churn.....	Diploma.
Z. S. Doty, Madison, Churn.....	Honorable Mention.
B. Goldenberger, Madison, Cider Mill, (Buckeye).....	Diploma.
Doty Bros., Janesville, Washing Machine.....	Diploma.
A. C. Stannard, Milton, Washing Machine.....	Honorable Mention.
Doty Bros., Janesville, Clothes Wringer.....	Honorable Mention.
John Bush, Whitewater, Esterly's Broad Cast Seed Sower and Cultivator.....	Diploma.
Doty Bros., Janesville, Washer and Wringer combined.....	Diploma.
Jas. H. Hill, Madison, Birdsall's Clover Huller and Thresher.....	Diploma.
J. Bern, Elliott, Ind., Patent Portable Fence, Tillinghast Patent....	Diploma.
Geo. B. Leonard, Madison, Great Western Corn Harvester.....	Diploma.
L. A. Lincoln, Columbus, Sulky Plow.....	Diploma.
M. R. Jones, Fairfield, Subsoil Lifter Attachment.....	Diploma.
M. A. Sawyer, Sparta, Little Giant Grain Screen.....	Diploma.
E. E. Kellogg, Rome, N. Y., Stock Pump.....	Diploma.
Abbott & Hall, Madison, Potato Digger.....	Diploma.
Rose & Coggs, Detroit, Adjustable Hoes, do Vice Clamps.....	Diploma.
Peter Low, Cherry Valley, N. Y., Seeder, Cultivator and Roller....	Diploma.
S. D. Carpenter, Madison, Automatic Grain Binder, special notice. See	

REPORT OF COMMITTEE.

In reference to Carpenter's Automatic Grain Binder, your committee feel that something more than a mere "First Prize" is due. Without doubt, this machine, contrary to adverse opinions, founded on a great number of failures in various parts of the country, is destined to take its rank among the substantial labor-saving machines so long looked for by the agriculturist. The machine is calculated to do all the work, from the cutting of the grain to the binding, by the aid of only a driver. So far as the binding is concerned, the machine seems to work perfectly, binding the bundles neatly, and dropping them gracefully to the ground when bound.

It not only dispenses with five field hands, but by a "false bottom," will save, it is estimated, from five to ten bushels of shelled grain per day, which would otherwise go to the ground as wasted. This feature seems a decided desideratum, and should recommend the Binder to general use, if for no other reason. The whole machinery seems simple, and not liable to get out of repair. The inventor has also a very simple pair of nippers, provided with a spring, that cut the wire and draw it instantly from the bundle, thus dispensing with whatever objection there may be to the wire being in the straw. On the whole, your committee take great pleasure in recommending this Grain Binder to the trial of all interested.

(Signed.)

IRA MILTMORE,
RUFUS CHENEY,
H. G. GOODNOUGH,

Committee.

The foregoing is a correct copy of the official report on file in my office.
J. W. HOYT, Sec. State Agricultural Society.

S. D. Carpenter	Madison, Farm Wagon.....	Diploma
E. W. Skinner & Co.,	Madison, Corn Plow.....	Diploma
E. W. Skinner & Co.,	Madison, Drag Saw.....	Honorable Mention.
E. W. Skinner & Co.,	Madison, 2 or 4 Horse Power.....	Diploma
S. L. Sheldon & Bro.,	Madison, display Agricultural Implements, 1st premium.....	Diploma and \$20 00
E. W. Skinner & Co.,	Madison, display of Agricultural Machinery, 2d premium.....	10 00

CLASS 23.—MACHINERY FOR MANUFACTURING PURPOSES.

Waite, Gallup & Co.,	Watertown, Hand Loom.....	Diploma.
E. W. Skinner & Co.,	Madison, Uneven Surfacers.....	Honorable Mention.
Samuel Sheffer, Jolliet, Ill.,	Brick Machine, Champion of the West,	Diploma
L. P. & M. P. Jerdee,	Madison, Machinists Upright Drill,	Honorable mention.
Dane Co. Peat Co.,	Madison, Mills' Patent Peat Mill.....	Diploma.
Wilcox & Gibbs Sewing Machine Co.,	Hemmer for sewing machines.....	Diploma.
Wilcox & Gibbs Sewing Machine Co.,	Feller for sewing machines.....	Diploma.
Wilcox & Gibbs Sewing Machine Co.,	Corder.....	Diploma.
Wilcox & Gibbs Sewing Machine Co.,	Tucker and Marker.....	Diploma.
Wilcox & Gibbs Sewing Machine Co.,	Quilter.....	Diploma.
Wilcox & Gibbs Sewing Machine Co.,	Device for Setting Needle.....	Diploma.
M. Demison, Spoke and Ax	Handle Machine.....	Diploma.
E. P. Allis & Co.,	Milwaukee, American Turbine Water Wheel.....	Diploma.
J. F. Burwell, Leicester, Ill.,	Newbank & Powell's Scaffolds.....	Diploma.
John Marshall, Fond du Lac,	Brick Machine, for concrete brick.....	Diploma.

SEWING MACHINES.

Very fine exhibitions were made in this department of
 Weed Machines, by Weed Sewing Machine, Milwaukee;
 Florence Machines, by Wm. H. Valentine, Milwaukee;
 Wheeler & Wilson's Machines, Geo. B. Treat, Milwaukee;
 Wilcox & Gibbs Machines, by L. Cornell & Co., Chicago;
 Grover & Baker's Machines, by J. W. Truxel, Milwaukee, and
 Howe's Machines, by F. D. Fuller, Madison; but as the Society had adopted
 the policy of offering no premiums on sewing machines, of course, none were
 awarded.

KNITTING MACHINES.

There were exhibitions of Knitting Machines as follows:
 House's patent, by Bridgeport Knitting machine C., Bridgeport, Conn.;
 The Lamb Machine, by S. Brunson, Chicago; and
 The Roberts Machine, by Geo. B. Leonard, Madison.

MANUFACTURES.

CLASS 34—CARRIAGES, STOVES, HARNESS, ETC.

Bird & Ledwith, Madison,	Double Carriage, 1st premium	Diploma or \$10 00
Bird & Ledwith, Madison,	Double Carriage, 2d prem.....	5 00
Bird & Ledwith, Madison,	Single top Buggy, 1st prem.	Diploma or... 7 00
J. B. Wiser, Madison,	Single top Buggy, 2d prem.	Diploma or..... 4 00
J. B. Wiser, Madison,	Single Riding Buggy, 1st prem.....	5 00
J. B. Wiser, Madison,	Single Riding Buggy, 2d prem.....	3 00
J. B. Wiser, Madison,	Trotting Wagon, 1st prem.	Diploma or..... 5 00
J. B. Wiser, Madison,	Double Sleigh, 1st prem. Dip. or.....	5 00

Bird & Ledwith, Madison, fine display Carriages, all of their own manufacture.....	Silver Medal
Wm. P. Thompson, Madison, Single Harness, 1st prem.....	5 00
C. Hammer, Madison, Single Harness, 2d prem.....	3 00
C. Boehmer, Madison, Gents Saddle, prem.....	3 00
C. Boehmer, Madison, Ladies Saddle, prem.....	3 00
W. Ramsey & Co., Madison, Cooking Stove for wood and coal, 1st premium, Diploma and.....	3 00
Lewis & Allen, Madison, Cook Stove, 2d prem.....	2 00
W. Ramsey & Co., Madison, Ornamental Parlor Stoves, wood and coal, 1st premium.....	Dip.
W. Ramsey & Co., Madison, Ornamental Parlor Stoves, wood or coal, 2d premium.....	2 00
Barr & Cox, Beloit, show Steel Hammers, 1st prem.....	Dip.
Clark Alvord, Westport, Dodge Co., Horse Collar.....	Dip.

CLASS 35—BEE HIVES AND BEE MANAGEMENT.

J. Bullard, Evansville, Demonstration of Handling and Management of Bees.....	Diploma and \$5 00
J. W. Sharp, Door Creek, Langstroth Hive.....	Diploma.

CLASS 36—CABINET WARE, COOPERAGE, WILLOW WARE, BOOTS AND SHOES, ETC.

J. M. Haight, Madison, assortment Cabinet Ware, 1st premium, Diploma and.....	\$5 00
J. M. Haight, Madison, Bureau, 1st premium.....	3 00
J. M. Haight, Madison, Breakfast Table, 1st premium.....	3 00
J. M. Haight, Madison, Extension Table, 1st premium.....	3 00
Fred Wildhazen, Madison, Bookcase, 1st premium.....	3 00
J. M. Haight, Madison, Washstand, first premium.....	2 00
D. S. Redfield, Madison, Display Wooden Ware, 1st premium, Diploma and	5 00
Z. S. Doty, Madison, Sash Door.....	Hon. Mention.
Z. S. Doty, Madison, pair Windows.....	Hon. Mention.
F. D. Fuller, Madison, Gents' Winter Boots, 1st premium.....	3 00
Bond & Atkinson, Appleton, 12 Wood Bottom Chairs.....	Diploma.
F. D. Fuller, Madison, Gents' Fancy Boots, 1st premium.....	3 00
F. D. Fuller, Gents' Gaiters, 1st premium.....	3 00
F. D. Fuller, Madison, Ladies Winter Boots, 1st premium.....	3 00
F. D. Fuller, Madison, Ladies' Every Day Gaiters, 1st premium.....	3 00
F. D. Fuller, Madison, Ladies' Fancy Shoes, 1st premium.....	3 00
E. B. Crawford, Madison, Specimen Trunks.....	2 00
Spencer & Windoes, Ornamental Leather, premium.....	Diploma and 2 00
Spencer & Windoes, Fond du Lac, Specimen Calf Skins.....	Diploma and 2 00
Spencer C Windoes, Fond du Lac, show Leather Gloves, not on premium list, 1st premium.....	Diploma and 2 00

CLASS 37—LIGHTING APPARATUS.

No Entries.

CLASS 38—MUSIC, AND MUSICAL INSTRUMENTS.

In this class Mr. Moseley, of Madison, exhibited several excellent pianos, organs and melodeons. No premiums being offered, none were awarded.

CLASS 39—SILVER WARE, Etc.

No entries.

CLASS 40—PAPER, PRINTING, BOOKBINDING.

W. J. Park & Co., Madison, exhibition Printing and Binding, Diploma and.....	\$10 00
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CLASS 41—TEXTILE FABRICS, CLOTHING.

F. Briggs & Co., Madison, Sample Doeskin, 1st premium.....	\$5 00
F. Briggs & Co., Madison, Sample Kerseymeres, 1st premium.....	5 00
F. Briggs & Co., Madison, Piece Blanketing, 1st premium.....	5 00
F. Briggs & Co., Madison, Piece Flannel, 1st premium.....	5 00
Geneva Manufacturing Co., Geneva, Piece Flannel, 2d premium.....	3 00
E. B. Crawford, Madison, exhibition of Men's Clothing, 1st premium, diploma and \$2.00.	
Geo. B. McGie, Madison, exhibition of Men's Hats and Caps, 1st premium \$2.00.	
Geo. B. McGie, Madison, exhibition of Children's Hats and Caps, 1st premium \$2.00.	
Geo. B. McGie, Madison, exhibition of Furs, 1st premium.....	2 00
Geo. B. McGie, Madison, Gent's Fur Gloves, 1st premium.....	2 00
Geo. B. McGie, Madison, Ladies' Fur Gloves, 1st premium.....	2 00

CLASS 42—DOMESTIC MANUFACTURES.

Mrs. Harriet Rider, Burke, pair Woolen Blankets, 1st premium.....	\$ 2 00
Wm. Tolley, Darlington, pair woolen Blankets	Hon. Mention
Mrs. Harriet Rider, Burke, piece Flannel, 1st premium.....	2 00
Christiana Mckenzie, Dekorra, piece of Flannel.....	Hon. Mention.
Mrs. Harriet Rider, Burke, piece of Wool Cloth, 1st premium.....	3 00
Mrs. Harriet Rider, Burke, Wool Carpet, 1st premium.....	3 00
Mrs. R. J. Atwood, Fitchburg, Rag Carpet, 1st premium.....	3 00
Mrs. G. Bunker Madison, Rag Carpet.....	Hon. Mention
D. F. Salisbury, Fitchburg, Woolen Stockings, 1st premium.....	1 00
Mrs. S. Williamson, Woolen Stockings.....	Hon. Mention.
Mrs. Sophia Holbrook, Madison, Silk Quilt.....	Hon. Mention.
Miss Ada Tolley, Darlington, Woolen Socks.....	Hon. Mention.
Christina McKensie, Dekorra, pound Woolen Yarn, 1st premium....	1 00
Mrs. Sam'l Williamson, Madison, 10 knots Wool Yarn.....	Hon. Mention.
Mrs. Harriet Rider, Burke, piece diaper, 1st premium.....	2 00
Mrs. F. Hauser, Madison, Cotton Stockings, 1st premium.....	1 00
Mrs. J. S. Madison, Silk Patch Quilt, 1st premium.....	2 00
Frank Presenter, Madison, Knit Counterpane	2 00
J. W. Clayton, Milwaukee, Knit Counterpane.....	Hon. Mention.
Mrs. S. P. Vance, Sun Prairie, Stair Capet, 1st premium.....	2 00
Mrs. H. S. Vjncent, Windsor, 2 Rag Mastrasses, 1st premium.....	2 00
Christina McKensie, Dekorra, Balmoral Skirt.....	Hon. Mention.
Mrs. Harriet Rider, Burke, Pound Linen Thread, 1st premium.....	2 00
Mrs. James Craft, Edgerton, Patch Quilt.....	Hon. Mention.
Mrs. F. Hauser, Madison, White Quilt.....	Hon. Mention.
Mrs. M. M. Dorn, Madison, Double Carpet Coverlet, 1st premium....	3 00
Wm. Tolley, Darlington, White Wove Counterpane.....	2 00
Mrs. Kate Willis, Madison, Shell Quilt, 1st premium	2 00
S. Branson, Chicago, specimen Knit Work.....	Hon. Mention.

CLASS 43.—MILLINERY.

Lyon & Bisby, Madison, Case Millinery, 1st premium....	Diploma and 5 00
Mrs. D. A. Oakley, Madison, Case Millinery, 2d premium.....	3 00
W. S. Sullivan, Madison, variety of Millinery Goods....	Honorable Mention.

CLASS 44.—ORNAMENTAL NEEDLE WORK.

Mrs. E. W. Skinner, Madison, Embroidered Shawl, 1st premium.....	3 00
Mrs. Jas. E. Burgess, Madison, Muslin Embroidery, 1st premium.....	2 00
Miss Agnes Stevens, Madison, Muslin Embroidery, 2d premium.....	1 00
Miss Agnes Stevens, Madison, Lace Embroidery, 1st premium.....	2 00
Mrs. G. V. Ott, Madison, Worsted Embroidery, 1st premium.....	2 00
Mrs. E. Grover, Madison, Worsted Embroidery, 2d premium.....	1 00

Mrs. E. Jones, Spring Green, Embroidered Skirt 1st premium.....	2 00
Mrs. James E. Burgess, Madison, Knit Tidy, 1st premium.....	2 00
Mrs. Wiser, Madison, Knit Tidy, 2d premium.....	1 00
Mrs. J. W. Kanouse, Cottage Grove, Crochet Tidy, 1st premium.....	2 00
Miss Ada Petherick, Madison, Crochet Tidy.....	Honorable Mention
Mrs. E. B. Crawford, Madison, Crochet Tidy.....	Honorable Mention
Mrs. M. M. Dorn, Madison, Crochet Tidy.....	Honorable Mention
Mrs. Vauson, Madison, Embroidered Slippers, 1st premium.....	2 50
Mrs. Jerome Ward, Ft. Atkinson, Hair Wreath, 1st premium.....	2 00
Miss Kate Kavanaugh, Fancy Hair Work, 2d premium.....	1 00
Miss Molly Bailey, Sun Prairie, Hair Wreath, 1st premium.....	2 00
Mrs. N. Pixley, Cold Spring, Hair Flowers, 1st premium.....	2 00
Mrs. E. Grovers, Madison, Hair Flowers, 2d premium.....	1 00
Mrs. F. Haney, Black Earth, Wax Fruit, 1st premium.....	5 00
Mary A. Richards, Fox Lake, Wax Flowers, 1st premium.....	3 00
Mrs. Henry Draper, Madison, Wax Flowers, 2d premium.....	2 00
Mrs. N. Pixley, Cold Spring, Wax Flowers.....	Honorable Mention
Mary A. Richards, Fox Lake, Wax Cross, 1st premium.....	2 00
Mrs. E. Jones, Spring Green, Embroidered Night Dress, 1st premium.....	2 00
Mrs. E. Jones, Spring Green, Embroidered Linen Apron, 1st premium.....	2 00
Mrs. Hale, Burke, Wax Fruit, 2d premium.....	3 00
Mrs. F. M. Dorn, Madison, Crochet Under Garment, 1st premium.....	2 00
Mrs. F. M. Dorn, Madison, Baby Dress, 1st premium.....	2 00
Miss Lizzie Ward, Madison, Embroidery on Canvass, Breck's Book of Flowers.	
Miss H. Mochlin, Ornamental Bead Work.....	Silver Cup.
Mrs. F. M. Dorn, Madison, Pin-cushion.....	Honorable Mention.
Miss A. L. Guptil, Madison, Worsted Picture.....	Second premium.
Mrs. F. Kurz, Madison, Crochet Picture Frames, 2d premium.....	2 00
Miss Mollie Bailey, Sun Prairie, Rustic Basket, 2d premium.....	1 00
E. E. Bailey, Madison, Tatting Lace Collar, 1st premium.....	2 00
Mrs. P. L. Carman, Madison, Worsted Embroidery Picture, 1st premium.....	2 00
Mrs. Seymour Curtiss, Fitchburg, Feather Flowers, 1st premium.....	2 00
Miss Cordelia Stevens, Madison, Crochet Wool Shawl, 1st premium.....	2 00
Miss Agness Stevens, Madison, Crochet Infant Set, 1st premium.....	2 00
Mrs. J. W. Kanouse, Cottage Grove, one Cake Tidy Tread, Honorable mention.	
Mrs. H. D. Goodenow, Madison, Embroidered Under Garments, 1st premium.....	2 00
Mrs. J. B. Wiser, Madison, Chemise Yoke and Sleeves, 1st premium.....	2 00
Mrs. J. B. Wiser, Madison, Worsted Daisies for head, 1st premium.....	2 00
Miss Anna Roby, Madison, Infant's Afghan, 1st premium.....	1 00
Miss Anna Roby, Madison, Needle Work Chair Cover, 1st Premium.....	2 00
Miss Kate Kavanaugh, Madison, Painted Portfolio, 1st premium.....	2 00
Mrs. Mary A. Starks, Cottage Grove, pair Bead Card Receivers, 1st premium.....	1 00
Mrs. Mary A. Starks, Cottage Grove, Crochet Chemise Yoke, 1st premium.....	2 00
Ellen J. Burwell, Cottage Grove, Tatting Tidy, 1st premium.....	1 00
D. O. Rockwell, Brooklyn, Rag Rug, 1st premium.....	1 00
Miss Cornelia Stevens, Madison, Embroidered Handkerchief, 1st premium.....	2 00
Mrs. F. Hauser, Madison, Hem-Stitched Handkerchief, 1st premium.....	2 00
Miss A. F. Bridges, Belleville, Ottoman Cover on Cloth, 2d premium.....	1 00
Mrs. F. M. Dorn, Madison, Ottoman on Canvas, 1st premium.....	2 00
Mrs. G. C. Johnson, Madison, Tufted Lamp Mat. 1st premium.....	1 00
A. E. Brooks, Madison, Ornamental Card Basket, 1st premium.....	2 00
Mrs. F. O'Brien, Madison, Ornamental Shell Work, 1st premium.....	2 00
Lena Klauber, Madison, Ornamental Shell Flowers, 2d premium.....	1 00
Victoria Brown, Fitchburg, Worsted Picture Frame Juvenile,.....	Silver Napkin Ring.

FINE ARTS.

CLASS 45—WORKS OF ART.

L. J. Stempen, Madison, Carving in Stone, 1st premium. Diploma and \$ 5 00	
D. Morgan, Madison, Statuary in Plaster, 1st premium., . . .Diploma and 5 00	
J. C. Marine, Madison, Figure in Oil, 1st premium.Diploma and 10 00	
Mrs. Henry Nichols, Beloit, Figure in Oil, 2d premium. 5 00	
H. J. Shaw, Madison, Figure in Oil.Honorable Mention.	
George P. Memhard, Madison, Landscape Painting (oil), 1st premium, Diploma and. 10 00	
Emily C. Quiner, Madison, Landscape Painting (oil), 2d premium,. . 5 00	
Mrs. Helen Nichols, Beloit, Fruit Painting in oil, 1st premium, Diploma and. 10 00	
Emily C. Quiner, Madison, Fruit Painting in oil, 2d premium. 5 00	
N. P. Jones, Madison, Exhibition Sun Pictures, 1st premium. . .Silver Medal.	
T. H. Whiting, Madison, Exhibition Sun Pictures, 2d premium. 5 00	
B. M. Worthington, Madison, Exhibition Penmanship and Pen Drawing, 1st premium.Silver Medal	
National Spencerian and Bryant & Stratton Business College, Milwaukee, Penmanship and Pen Drawing, 2d premium. 5 00	
Ebenezer Plackett, Vienna, Pen Drawing.Honorable Mention.	
H. J. Saw, Madison, Pencil Drawing, 1st premium and.Diploma.	
Mrs. H. M. Lewis, Madison, Pencil Drawing.Diploma.	
H. B. Staines, Madison, Exhibition Water Color Drawings, 1st premium, Diploma and. 5 00	
S. V. Shipman, Madison, Architectural and Heraldic Drawings.Diploma.	

MISCELLANEOUS.

CLASS 46—MISCELLANEOUS ARTICLES.

Mrs. J. P. Colton, Middleton, Agricultural Wreath.Honorable Mention	
E. W. Skinner & Co., Madison, Ornamental Cast Iron Sign, letters bronzed, Diploma.	
S. D. Carpenter, Madison, Buggy Coupling.Diploma	
N. Wightman, Black Earth, Tanning process with Leather, &c., to illustrate, Diploma.	
Delamater & Taylor, Agents, Madison, Hall's Copper Screw Lightning Rod, Diploma.	
American Basket Co., New Britain, Conn., Crates and Baskets.Diploma	
Z. S. Doty, Madison, Patent Paint Oil.Diploma	
P. L. Vance, Sun Prairie, Agricultural Wreath.Diploma	
H. Snyder, Madison, Model Broadcast Sower and Roller combined. . .Diploma	
Neinaber & Shadauer, Madison, sample TobaccoDiploma	
N. S. Howard, Cottage Grove, Artificial Stone.Diploma	
Fleischer & Son, Madison, sample French and Rustic Window Shades, Diploma.	
Fleischer & Son, Madison, Weather Strip.Diploma	
Mrs. Samuel Klauber, Madison, Agricultural WreathDiploma	
Sarah J. Livsey, Madison, Agricultural Wreath.Honorable Mention	
Dr. N. J. Moody, Madison, Case Dentistry.Diploma	
Geo. M. Sawyer, Janesville, Smith's patent Sheepskin, Calfskin-faced Mittens, Diploma.	

W. M. Johnson, Sharon, patent Post Augur.....	Diploma
O. M. Brooks, Janesville, Burglar Alarm.....	Honorable Mention
A. T. Bates & Co., Chicago, Farm and School Composition Bells....	Diploma.
E. Griswold, Chicago, Patent Equalizing Whiffletrees, or Doubletrees and Singletrees combined.....	Diploma.
J. M. Came, Chicago, Sash Supporter and Lock.....	Diploma.
A. J. Foster, Lake Mills, Malleable Iron Hame Fastener.....	Diploma.
Avery Brown, Ripon, Rubber Spring Seat, F. M. Hubbard's patent.....	Diploma.
F. C. Prosser, Detroit, Concrete Brick.....	Diploma.
Rose & Cogswell, Detroit, 1 Vice Clamp.....	Hon. Mention.
Tallman & Collins, Janesville, 2 cases Perfumery.....	Diploma.
Wm. Kroyzer, Prairie du Sac, Bear Skin Furs.....	Diploma.
R. S. Baker, Madison, Trace Buckle.....	Diploma.
Noah Dutton, Janesville, Yeast Cakes, sample.....	Hon. Mention.
Noah Dutton, Janesville, Patent Milk Weight.....	Diploma.
James Hopkins, Madison, Sash Fastener.....	Diploma.
Fairbanks, Greenleaf & Co., Chicago, No. 4 Dormant Warehouse Scale.....	Diploma.
Charles Erkton, Madison, Ornamental Design.....	Diploma.
S. N. Thayer, Aurora, Ill., Die Sinking and general Engraving....	Diploma.
Barber & Co., successors to Greenleaf and Co., Milwaukee, 3 cases Matches.....	Diploma.
Miss Meeker, Madison, Phantom Boquet.....	Diploma.
May McKinzie, Dekora, Cone Picture Frame.....	Hon. Mention.
Hindley & Co., Milwaukee, exhibition Trusses, Club Feet Shoes and Elastic Goods.....	Diploma.
Wisconsin Varnish Co., Appleton, samples Varnish &c.....	Diploma.
Mason & Marston, Appleton, Set Hubs for lumber wagon.....	Diploma.
Gerard Dane, Appleton, Spokes for Farm Wagon.....	Diploma.
L. Rood, Illyria, Ohio, Portable Force Pump.....	Diploma.
J. L. Taft, Whitewater, Barometer.....	Diploma.
Willard Farnham, Janesville, Burglar Alarm, Little Sentinel, Honorable Mention.	
Wightman Brothers, Blach Earth, Arctic Tanning Process.....	Diploma.
Clara Haney, Black Earth, Agricultural Wreath.....	Honorable Mention.
Badger Washboard Co., Milwaukee, Adjustable Wagon Step.....	Diploma.
Chas. Mayer, Oconomowoc Patent Hose.....	Diploma.
A. L. Murray, Chicago, Samples of Wool.....	Honorable Mention.
L. H. Wheeler, Beloit, Cone Work.....	Honorable Mention.
W. T. Smith, Janesville, Davidson's Window Stopper and Lock....	Diploma.
Mrs. Samuel Full, Muscoda, Moss and Bird Collection.....	Diploma.
J. L. Tubbs, Elkhorn, Jar for Preserved Fruits.....	Honorable Mention.
I. O. Iverson, Madison, Specimens Coloring.....	Diploma.
Mrs. F. Lenk, Sauk City, Agricultural Wreath.....	Honorable Mention.
L. Cornell & Co., Chicago, Sample Machine Stitching.....	Diploma.
Miss Aldinge, Beloit, Agricultural Wreath.....	Honorable Mention.
L. Cornell & Co., Chicago, Specimen Sewing Machine Work, Honorable Mention.	

CLASS 47—PLOWING MATCH.

No entries.

EQUESTRIANISM.

CLASS 48.—LADIES' EQUESTRIANISM.

Miss Anna M. Curtiss, Rocky Run, 1st premium.....	Silver Tea Set.
Miss Kate A. True, Fitchburg, 2d premium....	Set Table Spoons, solid silver
Miss Emma Waite, Madison, 3d premium.....	Tea Spoons, solid silver.

Miss Bessie Fowle, Emerald Grove, 4th premium....Card Case, solid silver.

The Judges "recommend that the number of premiums be increased to seven, in view of the number (14) competing for the prizes, and also of the difficulty of doing justice without it," and in accordance with their recommendation, the Executive Committee have made the following additional awards:

Miss Stella Curtis, Burke, 5th premium.....Silver Vase for Flowers.

Mrs. Rachel Thomas, Hampden, 6th premium.....Set Silver Forks,

Miss Jane Salisbury, Fitchburg, 7th premium.....Napkin Ring, solid silver.

ABSTRACT OF RETURNS OF COUNTY AGRICULTURAL SOCIETIES FOR 1867.

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STATE AGRICULTURAL SOCIETY.

COUNTIES.	REPRESENTATIVE OFFICERS.			PLACE & DATE OF FAIR		FINANCES.			
	PRESIDENTS.	SECRETARIES.	TREASURERS.	PLACE.	DATE.	RECEIPTS.	EXPENSES.	PREMIUMS	AM'T IN TREAS.
Brown,.....	P. V. O. Bowman,	M. P. Lindsley,	D. Butler,....	Green Bay, ..	Spt. 25-27	\$583 55	\$580 68	190 00	2 87
Columbia, ...	J. Q. Adams,...	C. C. Britt,.....	J. B. Dwinell,...	Columbus,...	Spt. 18-20	1,085 87	925 97	527 00	159 90
Dodge,.....	H. C. Crandall,...	Eli Hawks,.....	Charles End,....	Juneau,.....	Oct. 8-10	358 50	329 49	199 00	29 01
Fond du Lac,	E. S. Hammond,.	Jno. C. Bishop,...	A. B. Taylor,...	Fond du Lac,	Oct. 1-3	1,757 96	1,770 40	644 05	12 44
Grant,.....	Joel Potter,.....	T. A. Burr,.....	H. Reading,.....	Lancaster,...	Spt. 18-20	1,889 85	2,576 59	977 50	.....
Green Lake, .	S. W. Smith,....	M. H. Powers,...	M. H. Powers,...	Berlin,	Spt. 19-20	884 77	615 11	403 20	269 66
Iowa,.....	John Ellwood,...	Orville Strong,...	Samuel Hoskins,.	Dodgeville, ..	Oct. 2-3	1,518 05	1,518 05	385 50	.....
Jackson,	W. T. Price,.....	Fred. Simpson,...	J. V. Wells,.....	Albion,	Oct. 9-10	584 00	434 00	109 00	150 00
Jefferson,....	H. H. Wilds,....	Geo. J. Clapp,...	Geo. Trucks,...	Jefferson,....	Oct. 9-11	615 95	623 89	300 00	.....
Juneau,.....	F. Langworthy,.	Albert Dennett,.	Joseph Smith,...	Mauston,....	Oct. 2-3	812 21	643 50	212 78	169 31
Kenosha,....	J. D. Fowler,....	H. S. Thorp,.....	L. W. Thayer,...	Fair Grounds	Oct. 9-11	1,492 24	1,249 24	866 74	243 62
La Crosse,...	W. L. Dudley,...	A. J. Phillips,...	V. M. Adams,...	Hamilton,...	Oct. 2-4	1,071 25	783 37	435 50	337 88
La Fayette, ..	Wm. Brownell,...	Wm. W. Birkitt,.	Stephen S. Allen,	Darlington, ..	Oct. 3-5	1,610 57	1,278 89	860 66	331 68
Lodi Union, .	A. King,.....	H. W. Cass,.....	H. M. Ayer,.....	Lodi,	Oct. 2-4	1,093 16	866 28	475 00	226 88
Monroe,.....	A. H. Isham,....	H. E. Kelley,...	Thos B. Tyler,...	Sparta,	Oct. 10-12	592 56	614 00	259 00	.....
Outagamie, ..	Louis Perrot,...	W. H. Lamphear,	W. H. Lamphear,	Appleton, ...	Spt. 17-18	249 38	249 38	187 25	.....
Ozaukee,....	A. M. Alling,...	Wm. Vogenitz,...	B. O. Z. Kussow,.	Cedarburg, ..	Oct. 8-9	551 23	551 23	389 00	.....
Rock,.....	H. P. Fales,....	Guy Wheeler,...	R. T. Pember,...	Janesville, ..	Spt. 10-13	2,202 01	2,142 67	1,550 50	59 14
Sauk,.....	Jno. B. Crawford,	J. J. Gattiker,...	Henry Cowles,...	Baraboo,....	Oct. 10-11	1,088 13	470 42	232 27	617 70
Sheboygan, ..	Hiram Smith,...	Jno. E. Thomas,...	Truman Story,...	Sheb. Falls, ..	Spt. 18-19	500 78	392 37	253 75	108 41
Trempealeau, .	J. M. Barrett,...	Jno. Nichols,...	Isaac Clark,....	Galesville, ..	Oct. 2-3	470 27	386 23	156 00	84 04
Vernon,.....	T. P. Tracy,....	S. P. Lange,.....	S. R. Lincoln,...	Viroqua,....	Oct. 2-4	524 70	368 50	231 40	126 20
Walworth,...	Chas. Wales,....	Hollis Latham,...	L. G. Rockwell,...	Elkhorn,	Oct. 8-10	1,893 00	1,508 27	883 88	384 73
Washington, .	W. Notting,....	Chas. H. Miller,...	Ludwig Findorff,	West Bend, ..	Oct. 2-4	1,868 46	1,797 95	1,119 38	70 51
Waukesha,...	E. Porter,.....	E. Enos,.....	J. L. Smith,....	Waukesha, ..	Oct. 2-4	1,051 64	910 04	307 50	141 60
Winnebago,...	J. H. Hicks,....	John Hancock, ..	Jas. H. Janes,...	Oshkosk,....	Oct. 9-10	903 34	850 60	459 00	52 74
						\$27,274 04	\$24,417 32	11614 86	3,578 32

OBITUARY NOTICES.

JOSIAH F. WILLARD,

Late Member of the Executive Committee of the Society.

PREPARED BY DR. J. H. WARREN, ALBANY.

Among the many zealous and enlightened friends of agriculture in the State of Wisconsin, none have been more devoted and constant than the distinguished and lamented citizen to whose memory this brief and imperfect notice is dedicated.

Mr. Willard was born in Vermont, in 1805. His parents removed to the State of New York when he was ten years old and settled in Monroe county, near Rochester. In that vicinity he grew to manhood, devoting himself chiefly, after sixteen years of age, first to teaching and then to mercantile pursuits. In the autumn of 1841, several years after his marriage, he removed with his family to Oberlin, Ohio, where, for five years, he devoted himself assiduously to study, with the manly purpose of supplying as far as possible, the deficiencies of early education. Ill health obliged him to relinquish his plan of completing his college course after he had entered the junior year, and he removed to Wisconsin, where he lived fourteen years, carrying on a large farm near Janesville, besides holding several important civil offices at various times, and being prominently connected with the horticultural and agricultural interests of the State.

Mr. Willard came to Wisconsin in 1846 and located some two miles below Janesville, on the east side of Rock River, where he purchased three hundred and forty acres of wild land, upon which he made practical demonstrations of his theories of agriculture. As early as 1850, though the country was yet quite new, he succeeded, by unwearied and continued efforts, in organizing the Rock County "Agricultural Society and Mechanic's Institute,"—of which he was elected President—and by liberal contributions of both time and money he succeeded, beyond the expectations of its most sanguine friends, in

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placing the society on a permanent basis. Before this Society in 1853, he—as its President—delivered an able address, which was published in the volume of Transactions of the Wisconsin Agricultural Society for that year.

His success and the ability and zeal he manifested in the interests of agriculture soon pointed him out as a fit person to take a prominent position in the management of the affairs of the State Agricultural Society, and in the year 1857 he was elected its President, which position he filled with much credit to himself, and to the entire satisfaction of the Society and the people of the State. His efforts for the promotion of the welfare and usefulness of the Society were most earnest and devoted, and must be ever gratefully remembered by all true friends of agriculture throughout the State.

In 1859 he changed his residence to Evanston, Illinois, on account of the superior advantages it offered for the education of his children, and of its proximity to Chicago, where he contemplated entering into business. “I shall never live elsewhere,” he said, soon after locating there, “no place ever suited me so well as this.”

In the autumn of 1865 he withdrew from the banking-house of Preston, Willard & Kean, (with which he had been for several years connected), his health, which had always been delicate, no longer permitting him to engage in business. But his interest in the village, and especially in the Methodist Church, was more manifest than before, now that he was released from absorbing occupations of a personal character.

From the date of his leaving Wisconsin, the relations of the writer with him were necessarily less intimate; and he is, therefore, glad of an opportunity to copy the reference to the last days of Mr. Willard from a published account given by his bereaved daughter. In speaking of his last, protracted illness, she says:

“But for one year he has been missed from his accustomed place in the church and in the social meetings, which no one filled more regularly than he, when it is possible. For one year his feeble frame has endured untold pain, by chill and fever, night-sweat, cough, and all the dreadful symptoms of that most terrible disease, consumption. It crept up slowly—allowing him a daily respite at the first—attacking him with great violence in the early months of summer, pursuing him when he left his home on the lake shore as the chilly winds of autumn began to blow, and went to his friends at the East in the old, familiar places, hoping much from change of air and scene—confining him constantly to his bed for four months—wasting him to a mere skeleton—and, finally, in untold suffering, wresting away his last faint breath—the earthly side. Not so, stands the record, thank God! upon the heavenly side. Almost from the first, he thought this would be his last illness, and quietly, diligently, and wisely proceeded to arrange his earthly affairs. No item, however minute, seemed to escape him. Whatever was of the least importance to his family; whatever friendship, or acquaintance, or any of his relations in life demanded or even suggested, ever so faintly, was done by him.

“He did not need newly to attune his mind to harmony with the will of

God—no matter where it might lead him—through what depths soever of pain and abnegation. But in those months of suffering he enjoyed a consciousness of the presence of his Saviour; consolations from the Holy Spirit; views of the glory soon to be revealed, such as no pen may describe, no gratitude of ours may equal.

“Much that he said has been preserved, and dimly shadows the delightful visions by which his sick room was made sacred.”

The death of Mr. Willard occurred in the autumn of the present year, (1867), and, though for some time anticipated by those who knew his condition, nevertheless, to a large number of the multitude of his personal friends in this State, came as a sudden shock.

As a citizen and neighbor, Mr. Willard was a noble specimen of a Christian gentleman. He was honored for his unwavering adhesion to principle and duty, and for his zeal and liberality in the promotion of all worthy objects while the graces of his personal character, and his amiable disposition won for him the love of his fellow citizens.

Socially at home, in his “Forest Cottage,” his virtues and personal gifts shone with a beautiful and benign lustre.

The social attentions, it was his pleasure always to extend to those who visited him there were but the generous expressions of his characteristic hospitality. His conversation was ever of an exalted character, pure and enriched with useful and varied information derived alike from books, from men, and from experience and observation, marked also by originality of thought, yet with an absence of self-assertion or thoughtless or unkind words that might inflict a wound.

Though his career was characterized by no remarkable achievement, his life was, nevertheless, remarkable for its purity and for its consecration to the best interests of his family and of his fellow men.

EDMUND F. MABIE,

Late Member of the Executive Committee of the Society.

PREPARED BY N. M. HARRINGTON, DELAVAN.

Mr. Edmund Foster Mabie, a Life Member of this Society, died at his residence in Delavan October 26th, 1867, aged 57 years. Mr. Mabie has so long held a prominent position as an enterprising farmer in this State, that a brief notice of his life will be proper.

He was born in Patterson, Putnam County, New York, and came to Wisconsin in the autumn of 1847. Here he became the proprietor of an extensive and valuable farm in one of the choicest locations of a region celebrated for its natural beauty and fertility.

He possessed a natural aptitude for business, and enjoyed giving a personal attention to the innumerable details of the varied transactions in which he was engaged. He was a practical farmer, and did much for the introduction of improved stock on his own farms and in the neighborhood in which he lived. For this department of agriculture he had a special fondness, and if he is a benefactor of his race, who causes two blades of grass to grow where one grew before, surely, none the less so is he who produces two pounds of flesh where but one was produced, or who gives us the blood-horse in place of the common.

The unanimous testimony of the community in which Mr. Mabie lived is, that he was an honest man. There was nothing unfair or mean in his dealings. He felt a deep interest in the prosperity of the place in which he had made his home, and was ever ready to contribute of his means for the improvement of the place, the good of society and all patriotic measures. Thus his prosperity was a common blessing.

He was a man of sensitive spirit and tender heart, though his external manner was not as polished as that of many.

From early youth, all through life, he had been the subject of strong religious convictions, which, like so many others, he long resisted; but in the latter part of his life he made a public profession of religion in connection with the Congregational Church. A calm trust in the Redeemer characterized his last moments.

THROUGH CONTINENTAL EUROPE.

To the Executive Committee of the Wisconsin State Agricultural Society :

GENTLEMEN :—Having been a second time favored by you with leave of absence to represent Wisconsin interests in foreign lands, it seems proper that I should again furnish you with, at least, a brief outline of the course of my travels and some reference to the objects for which they were undertaken.

It will be remembered, perhaps, that in 1862, when I visited the London International Exhibition, as the Delegate of this Society and Commissioner of the State, I devoted what time I could spare from my duties to hurried industrial and educational tours of observation in Western Europe, of which some account was given on my return home. You are also aware that having then formed the purpose at an early day to extend and complete the observations and investigations then begun, I had fixed upon the present year as being favorable to the execution of these plans, sometime in advance of my commission from the Governor to represent this State at the then approaching Paris Universal Exposition of 1867, so that it was with unaffected reluctance that I finally accepted that appointment and consented to become the responsible head of the Wisconsin Commission.

In view of the duties thus assumed, an earlier departure than would otherwise have been agreeable became necessary, and I accordingly sailed from New York on the 16th of March, in one of the most fearful snow storms I ever encountered. After thirteen days, the faithful ship, *William Penn*, safely landed us in the great harbor at Brest; and thus after a lapse of five years, I stood once more on the soil of France.

My stay at the interesting old town of Brest was as fortunate as brief, for, by a happy fortuity, almost at the instant of landing, I fell into the hands of the polite and accomplished Mayor, who took me in his carriage and gave me a most interesting survey of the upper and lower town, the prison for galley slaves, the naval school, the harbor and the fortifications.

The railway to Paris—distance 370 miles—passing through the ancient province of Brittany, afforded me an opportunity to view this most curious and interesting portion of the French Empire. Its origin, as an independent kingdom, dates back to the third century, though the heaviest immigration of Britons occurred two centuries later, when their ancient home was invaded by the Anglo-Saxons. It is a wild and rough country, with rugged hills,

crowned here and there with grim old castles, now dismantled, with deep, narrow valleys dotted with stirring villages and cities, with extensive barren heaths and immense forests of gnarled and perverse-looking timber,—just such a country as the rude, barbarian Briton might have been expected to covet and defend. And here, almost shut in by the sea, living their own life and developing in their own way, their rude descendants have fought and lived through all the past sixteen hundred years. On the 30th of March, just before dawn—in time to catch a glimpse of the river Seine, with its ten thousand glittering lights on bridges and quays, revealing, in dim outline, the miles of stately palaces that line that noble river on either side—I awoke in Paris. It was Sunday morning, and the great Exposition was to open on Monday. Just in time.

Of the Palace of Exposition, the opening and the Exposition itself, I shall say but little in this place, as I am to make an official report thereon to the Governor—barely this: that the building was admirably adapted to its use; that the formal opening, on the 1st of April, by the Emperor and Empress, was without the anticipated pomp of state ceremonial, owing to the fact that exhibitors and commissioners were generally some weeks behind with their work; and that, finally, when complete, the Exposition of 1867 far exceeded all its predecessors in systematic order of arrangement, in the number of exhibits, in general brilliancy and magnificence, and in the almost universal attendance of the royal representatives of foreign powers.

Having spent a full month in looking up, unpacking and arranging our Wisconsin products, in aiding the U. S. Commissioner General to bring order out of chaos in the American Department, and in making visits to the leading educational institutions of Paris and vicinity, I set out upon my long-contemplated tour of the Continent.

As the season was unusually backward, it seemed better to travel in Southern Europe first, and to leave the middle and northern countries to the summer months. In pursuance of this plan, and with the view of economizing travel and time as much as possible, I first entered the Grand Duchy of Baden—not, this time, for the purpose of inspecting its industry, among the most backward of the most backward German States, but rather, and almost solely, to visit the noted polytechnic school at Karlsruhe, one of the best in Europe.

Thence I made my way into the prosperous little Kingdom of Wurtemberg, stopping first at Stuttgart, the capital, to examine the royal polytechnic school and school of art and many other institutions and objects of interest; then going by rail to Kirchheim, in company with a Wisconsin friend residing there; thence on foot to Hohenheim, the location of the first and also the most distinguished agricultural school in the world; thence by stage across the rich and beautifully undulating country to ———, in the valley of the Neckar, shut in by magnificent vine-clad and castle-crowned hills, to Tubingen, seat of the renowned University of Wurtemberg (where I was most cordially received and kindly entertained by Dr. Schaffle, the able jurist, professor and author); thence back again by rail to Plochingen and from thence to Ulm, on the banks of the Danube.

Wurtemberg, with its magnificent scenery, its prosperous industry, its many excellent institutions of learning and its nearly two millions of intelligent and industrious people, interested me much and would have detained me longer had the extent of my plans and my limit of time permitted.

Crossing the Danube, I entered Bavaria; stopping first at the ancient and once-renowned city of Augsburg to visit its industrial school, then made my way to Munich, the capital; to which now distinguished centre of art, literature and science I was attracted chiefly by the great university and the polytechnic school, as well as by the agricultural school of Weihenstephan, near Freising, some twenty miles to the northward. Here I spent nearly a week, and but for the necessity to push on, might have been there still; for, take it all in all—its institutions of learning, its vast royal library, its world-famed galleries of pictures and sculpture, its multitude of workshops, and its natural surroundings—Munich is so charming a place that one needs some unyielding necessity to draw him from the midst of its enchantments. Nor are these all; the great men who dwell here have a mighty holding power upon one devoted to a mission like mine. Baron Liebig resides here, being a professor in the university, director of the laboratory and the head of the academy of sciences. This is also the home of the great German master, Kaulbach, whose fame as an artist is already world-wide, as well as of very many other men equally distinguished in the various departments of learning and art.

The agriculture of Bavaria is backward, reminding me of that of Baden, as shown by the crops, the rude implements in use, and the habits of the peasant population. Cows are frequently seen doing the work of oxen and horses on the road and in the field, and in one instance I saw a stalwart man holding an antiquated plow drawn by the joint efforts of a cow and a woman!

The religion of Bavaria is intensely Catholic, though Protestants, and even Jews, enjoy some degree of toleration. In the market places, on the street corners, and even in the bar-rooms, one meets with effigies of Christ and the Holy Virgin and numbers of bended worshippers.

From Munich I made a rapid dash westward and south-westward into Switzerland, crossing the Bodensee, (Lake Constance) at Lindau and directing my way through the rich and blooming cantons of Thurgau and Zurich, to the beautiful city of Zurich. Having devoted two or three days to the federal polytechnic school, the most magnificent and complete in its equipments and appointments, material and educational, of any of the great schools of this class in the world, and made the acquaintance of many of the more than thirty professors, who are devoted to the progress of scientific and technical education, I went, by steamer down Lake Zurich to Rapperswil; thence by rail up the valleys of the Linth and the upper Rhine to Chur, in the midst of the Rhetian Alps, and thence on foot and alone some 70 miles across the Alps by the way of the Splügen Pass and the awful Via Mala, to Chiavenna, in Italy. The scenery along this way is the most savagely grand and sublime to be found in the Alps, transcending anything of which I had

conceived, although somewhat familiar with Alpine scenery. Awful gorges, more than a thousand feet deep, with roaring torrents thundering and foaming over their rocky beds, rock-ribbed mountains, spotted here and there with stunted evergreens, and lifting their icy peaks above the clouds, the narrow road winding now upward, then downward along the very edge of yawning chasms that seemed bottomless,—this will convey a faint impression of what it is impossible for any pen to describe. Just before reaching the very crest of the mountains, I was overtaken by a heavy snow storm, which not only filled my path, but so blinded my sight that but for the cut wall of snow and ice on one or the other side, by which my steps were guided up the zigzag way, I should have been literally “snowed in,” and forced to burrow out on the coming of the Alpine spring. At Chiavenna I took the stage for Colico, from which point I sailed down the beautiful Lake Como to Como, and thence, by rail, went to Milan, drawn thither by its several institutions of learning, its art collections, and its great cathedral. A grand and beautiful city.

From Milan I journeyed to Pavia, on a visit to the ancient university, one of the best in Italy, to Alessandria through the intervening Piedmontese country, beautiful with smiling fields of grass, Indian corn, wheat, rye, and and flax, with budding vineyards and orchards of mulberry, to Asti, capital of the ancient republic, and finally, to the beautiful city of Turin, late capital of Italy and home of Victor Emanuel; where some days were very satisfactorily spent in the old university, the academy of sciences, the military academy and the veterinary school.

My next point was Genoa, that magnificent old city of palaces, more ancient than Rome, long the seat of one of the most opulent and powerful republics of the middle ages, birth place of the discoverer of the new world, and still a flourishing town of over half a million inhabitants, and among the most wealthy, prosperous and progressive of all the Italian cities. No city of Europe interested me more. It is built upon a series of hills so very steep that the narrow, winding streets, with their numberless ups and downs can be only traversed on foot, and even thus only with a severe test of the legs. Many of them are actual flights of stone steps. Here and there one finds a scraggy, tough-looking little donkey, waiting at some door to be relieved of his monstrous burden of hard and gnarly wood, but otherwise, except on the level street along the quay, or following the course of some of the narrow valleys, where strong-wheeled vehicles may be seen, one meets with no means of locomotion other than such as constitute his own understanding.

The day of my arrival was spent in taking a general survey, walking the ramparts that surround the city, especially on the side of the sea, where they command a magnificent view of the city, the harbor and the Mediterranean itself, and introducing myself at the university. The second and third were devoted to the university, with such interruptions as pleasantly came of a grand municipal reception given by the city to delegations from their ancient rival and enemy, the city of Venice. It so happened that the

U. S. Consul then at Genoa also president of a Western state university, was a college classmate of other years and found pleasure in making my stay at once happy and profitable.

From Genoa, by steamer, along the coast of the Mediterranean to Spezia, where I took rail for Pisa,—also a rural republic during the middle ages, now chiefly interesting for its magnificent cathedral, frescoed by Michael Angelo and other great masters, for its leaning tower, which, as a campanile, stands near by the cathedral, and as being the principal centre of artistic work in alabaster,—and thence up the rich and beautiful valley of the Arno, clothed with luxuriant crops of grass and grain, its fields divided by rows of fruit and timber trees connected by graceful festoons of the vine just in blossom, and made yet more sensibly foreign by occasional orchards of the fig and by more distant olive groves on the slopes of the mountains, to peerless Florence, home of the fine arts and present capital of the new kingdom of Italy. “And did you pass Rome?” you naturally ask. Yes. A short ride from Pisa would have brought me to the gates of the Eternal City; but my mission was industrial and educational, not of pleasure, and there was nothing at Rome, in that line, to call me there. The Tiber, the antiquities of the no longer imperial city, its glorious works of art, its matchless St. Peter’s, and the Pope, must wait until the next time.

At Florence an American gentleman finds himself at once among friends. Certainly this was my experience; for here I was privileged to make the acquaintance of half a score of American artists, some of them foremost in the world, including Hiram Powers, Hart, Jackson and Meade; gentlemen also of high repute in the dental and medical professions; numerous American families sojourning there; our distinguished, able and popular minister at the Italian Court, Hon. Geo. P. Marsh; Professor and Senator Matteucci, late Minister of Public Instruction for Italy, and one of the most learned, able and liberal of Italian statesmen (to whom I am greatly indebted not only for much valuable information concerning the educational movements in Italy, and for valuable documents, but likewise for many unexpected personal attentions); and last of all, but by no means least of all, to see the great Garibaldi, though on his sick bed at Signa, and to make the acquaintance and enjoy the hospitality of his heroic son, General Menotti Garibaldi. The limits of this hurried outline of my tour will not admit of more than a bare mention of the score of incidents that tended to make my five days’ stay at Florence as delightful to me as it was memorable, nor of my repeated visits to the great art galleries, and the studios of our own distinguished sculptors, my visits to the respective homes of Gallileo, Dante and Michael Angelo, to Casa Guidi, where died the gifted Mrs. Browning, my early morning pilgrimage to her grave and that of our own Theodore Parker, nor of the memorable circumstances attending my special visit to the neighboring town of Signa to look upon the face of the hero of Italian liberty, unity and independence.

Though her political affairs are yet in a serious ferment, owing to the fact

that the government has stopped short of the demands of the Radical party, and, indeed, of its own desire, the case of Italy is, nevertheless, full of encouragement to all who patiently wait for the complete unification of the Italian States and their final subordination to one grand liberal government. Menotti Garibaldi said to me, in confidence, not long in advance of the recent outward demonstrations, "There can be no permanent peace yet awhile. Rome is the natural capital of Italy. Florence was only accepted as the half-way-house. Victor Emanuel feels this almost as strongly as we do, and multitudes of the more intelligent, thinking people, though they may not all have the courage to join us, are decidedly of this opinion." And he spoke truly. Victor Emanuel had no idea of establishing the permanent throne of Italy short of the old imperial capital. Whether he has the statesmanship to accomplish this result without violence remains to be seen. Though a brave and heroic soldier, he is regarded by his most intelligent subjects as wanting in some of those high qualities essential to a great ruler. His tastes and inclinations are for active military service in time of need, and for the sports of the field and wood in time of peace, rather than for the sometimes more difficult work of diplomacy and that profound study of political philosophy so essential to the highest success of a sovereign situated as he is. He is said by those who know him most intimately at Florence, to be strongly averse to the exacting demands of royal life, and to be never so happy as when in hunter's dress or other free and easy garb, he forgets that he is King Victor Emanuel and gives himself up to the rude and simple enjoyments of the million. Not given to study when a youth, he has hardly improved in that particular during the years of his manhood, and still more on this account seeks to avoid occasions that would test his intellectual culture and attainments.

The man who should have risen to take the place of Cavour has not yet appeared. Still there are many wise and noble men connected with the government, from whom the world may confidently expect much. Senator Matteucci will not have to labor alone in the noble enterprise of reforming the educational system in such manner as to make it the safeguard and glory of the future empire. There are other clear and powerful minds that also appreciate the importance of intelligence on the part of the whole people.

The common schools are to be multiplied in number and improved in character. The scientific and technical schools are to have a wider range. The seventeen government universities—many of them inferiorly equipped and poorly sustained—are to be reduced to about seven for the whole kingdom, their funds being consolidated and their faculties sifted. Should this work go on, according to the plan projected, the time will soon no longer be when four-fifths of the whole people—a people who are natural lovers of learning, and from among whom have sprung many of the finest scholars the world has produced—will be found unable to read and write.

The industry of Italy, though in a backward condition, as compared with that of some other countries, owing to the ignorance of the masses and the

long-disturbed condition of their political affairs, is, nevertheless, more advanced than I had supposed. Her agriculture suffers from a sad deficiency in the mechanical department—the agricultural implements and machinery of every sort being still of the most antiquated and imperfect kind—and a general want of that thrift and thoroughness which characterize the better educated and better governed people of Switzerland, Northern Germany, Belgium and some other European States. And yet some of the most beautifully cultivated fields and some of the finest crops I saw in Europe were found in Piedmont, Tuscany and Lombardy.

From Florence my course was northward, via Pistoja, over the Appenine mountains, by one of the most remarkable railways in Europe, to each of the old university cities of Ferrari, Bologna and Padua, stopping in succession one day or so at each, and so making my way through the interesting provinces of Tuscany and Venetia to Venice, that most wonderful city of the middle ages—a city of palaces literally built in the sea; during the days of the republic one of the two great commercial emporiums of the world, and still holding rank among the leading maritime cities of Southern Europe. My entrance up the grand canal (the streets are canals, you know, and the carriages gondolas), happening on the anniversary of a great event in the history of Venice, was as triumphal as was that of Victor Emanuel. Flags floated from every house-top, cornet bands without number discoursed jubilant Italian music, and the balconies and palace windows, along my way to the place of Saint Mark, were filled with multitudes of festive people, who seemed doubly glad that I had selected so golden an afternoon for my entrance.

There was but little, comparatively, in either educational or industrial matters to interest me in Venice, but the wondrous beauty of the city, as seen from the islands by which it is surrounded was enough. Its famous Canal-azzo, and its one hundred and forty-six lesser canals, crossed by its three hundred and sixty bridges, the magnificent marble Rialto chief of them all; its glorious cathedral of Saint Mark; its palace of the Doge, with checkered walls and a still more checkered history; its many magnificent churches, decorated with the paintings of Titian, Palma, Bellini, Salviati and Tintoretto, and the great works of Canova; its other numerous and splendid public buildings, and its marble mansions for private abode; these, with numberless other reminders of the marvellous history of the once brilliant and powerful Republic, *shuttled* by its four thousand dark, steel-prowed gondolas, give to Venice a fascinating power from which it is hard for an enthusiast to break away. Whose is the fault if I lingered?

From Venice to Trieste, by steamer, across the Adriatic, in company with officers of Farragut's fleet, three ships of which were lying in the harbor of that Austrian port. A pleasant sight were these men-of-war, bearing the Stars and Stripes, in the far-off waters of the Adriatic sea. Trieste is the most important seaport town of the Austrian empire, having commerce with all nations. Under the name of Tergeste, it was a city two hundred years before the birth of Christ. The *old* town was built upon the slopes of the

hills, with a citadel on the summit, that it might be more easily defended. Visited the imperial naval school, the natural history collections, the library, rich in Petrarchian works and original manuscripts, the botanical garden, and the ill-fated Maximilian's beautiful villa of *Mira Mare*, standing on the north side of the harbor, on the very water's edge, some six miles from the heart of the city.

From Trieste, I went by the the magnificent mountain railway, over the Caridine Alps to Gratz, where are a fine old unversity and polytechnic school, and thence to the grand and brilliant capital of the Austrian Empire. For the beauty of its plan, the elegance of its private dwellings, merchant shops, public buildings and royal palaces, the magnificence of its public parks and gardens, the richness of its collections in art and in natural history, the number and importance of its institutions of learning, including one of the most numerous attended universities in Germany, an extensive and excellent polytechnic school, an academy of engineers, the Theresianer Academy (for the benefit of the sons of the nobility), a conservatory of music, a school for orientalists, an excellent veterinary school, and many others, and especially for its immense hospitals, all open to the student of medicine and surgery; for all these, Vienna has no rival but Paris. It is needless to say that the several days of my sojourn were delightfully and profitably spent. It was there that for the first time I met our distinguished countryman, John Lothrop Motley, the world-admired historian, who was then our representative at the Austrian Court. The Emperor Joseph I did not see, for he was then at Pesth being crowned King of Hungary.

My next point was the grand old city of Prague, capital of Bohemia, some 152 miles northwest of Vienna. On the way, at one or two points, earthworks and hasty fortifications thrown up by the Austrians to impede the victorious armies of King William in his determined march upon their capital, were pointed out as interesting reminders of the decisive war that raged in all that country but the season before.

Prague is surrounded by a wall twelve miles in circumference and is overlooked by rocky steeps on every side. Its university, the oldest in Germany, having been founded more than 500 years, was among the most numerous attended during the middle ages; the number of students being, at times, no less than 20,000.

Austria has been one of the haughtiest and most despotic of the five great powers and there is reason to believe that the humiliation she has just received at the hands of Prussia and Italy combined may do her good. Industry and education, already more advanced than I had supposed, have both been quickened and energized by the remarkable success of her victorious rival.

Having lost the provinces of Lombardy and Venetia through her avarice and despotism, and long been threatened with the loss of Hungary as well, she is learning a iesson of moderation that may save to her a continued place among the leading governments of Europe.

The year 1867 has been scarcely less eventful in the history of the empire

than the year 1866. That was remarkable for the disasters and destruction it brought; this has been signalized by a new and more liberal policy that may be justly considered as the turning point in her history. Having long tried in vain the policy of centralization with the determined purpose to fuse all the seventeen crown lands into one complete and perfect empire, the government has decided to try the policy of assortment, and a division of the empire into two administrations and two parliaments—the German and Slavic with the parliament at Vienna, and the Hungarian, (embracing Hungary, Transylvania, Croatia and Slavonia,) with the parliament located at Pesth. The affairs of each division are to be managed by the parliament and ministry for that division, while the affairs common to all are to be under a central ministry. The first German Austrian parliament was being convened when I was at Vienna, with a promise of good results. The presidents of both houses have been for years prominent leaders of the Liberal party and are both resolutely determined to establish reforms that shall insure the harmony, prosperity and future glory of the empire. The opening address of the President of the Lower House gave an earnest of better days and rekindled the fires of hope in many a Liberal breast. “The principles of equal rights for all nationalities and all religious, as well as real constitutional government must become actualities, and the compromise with Hungary must be equitably carried out in both portions of the empire.”

On the 22d of May, the Emperor, direct from his coronation as King at the capital of Hungary, at the opening of parliament, declared it to be his urgent care that no portion of the empire should complain of being disproportionately taxed, and entreated both houses to throw a veil of forgetfulness over the immediate past, which had inflicted deep wounds upon the empire, but to lay to heart the important lessons it had left for them. Hope for Austria yet, and, thank God! relief, at last, for long oppressed Hungary!

From Prague, past the famous field of Sadowa, into the wonderful little Kingdom of Saxony—once the proudest of the German powers, and still remarkable for the productiveness of its varied industry, the number and high character of its public and special schools, and its unsurpassed collection of master pieces in art. Dresden, to one who has been there, is synonymous with industry, intelligence and art. Its picture gallery and its vast collections of precious minerals are sufficient, of themselves, to warrant a long journey to visit them. Visited the polytechnic and military academies, the college of surgery, attended divine services at the great Domkirche, where the presence of the King and Queen and the wonderful music by the orchestra of fifty singers and instrumentalists were the principal attractions. Visited the school of forestry at Tharand and the noted mining school at Freiberg in the midst of the silver mines of Saxony, some 25 miles from Dresden, and then made my way to Leipsic, seat of the book trade and one of the most famous ancient universities.

Thence to the old university town of Halle and the new and excellent agricultural school of the university near by, under the directorship of the

able and accomplished Dr. Kuhn; next southwestward into Saxe-Weimar, to the birth place of Goethe, Schiller and Werner, and to the grand old university and the agricultural school at Jena; thence through the beautiful country embraced within the duchies of Saxe-Gotha and Eisenach and the electorate of Hesse Cassel to the city of Cassel, and thence northward to the ancient university of Gottingen and the agricultural school of Weden, in the late kingdom of Hanover, (just this season absorbed into Prussia.) My visits to the agricultural department of the university of Halle and to this Weden agricultural school of the university of Gottingen were both made at the special request of Baron Liebig, on account of their having been planned under his direction, or at least on the basis of his suggestions, and as being especially worthy of my attention.

The city of Hanover, with its noted polytechnic school and many incidental attractions lay next in the path of my intended travel, and thither I went, accordingly, from Gottingen; then to Magdeburg; from thence, across the rather barren country intervening, to Potsdam, summer residence of the King of Prussia, and finally to the great center of German power and the literary centre of the world, the Prussian capital.

It had been my hope, at Berlin, to meet my old-time friend, Ex-Governor Joseph A. Wright of Indiana, late United States Minister at the Prussian Court; but sadly enough that noble friend of American industry and education had just died and been buried the week before. I had also thought of seeing Count Bismarck, King William, and the imperial Alexander of Russia, all of whom were daily looked for from Paris. But the university, with its distinguished Ranke, Ehrenberg, Michelet, Hoffman, and some one hundred other famous professors, the magnificent polytechnic school, the school of architecture, and a dozen or more technical schools, the artillery and engineer school, the veterinary school, and sundry normal and other institutes, the academies of design and of music, the great palace of the king, the departments of state, and the magnificent art galleries and museums were there and gave me about the busiest nine days I ever spent in any European city.

The Prussian people are unmistakably proud of their last year's brilliant successes. It is apparant in all they do and say that they are buoyant with hope and confident, at no distant day, of making reunited Germany under Prussia's direction the strongest power on the continent—a definitely possible consummation, if their government should be wise enough to win the still outstanding states of Southern Germany by such concessions of political as well as "commerical privileges and advantages as it really ought to make. A consolidation of the German States, and their permanent unity are possible, on the basis of liberty and equality, but not otherwise. It is still a question whether so great a boon to this noble, freedom-loving people is to be realized under the ad ministration of King William, or whether they will have to wait a little longer. The final unity is sure to come, and a larger freedom of the whole German people and a consequent progress of which they have as yet hardly dreamed will follow. All in all, their systems of education,

especially the Prussian and the Saxon, as well as their higher institutions of learning are the best in the world; and these constitute a foundation on which her statesman may securely build.

Originally, it was from Berlin that I had rather thought to turn backward toward Paris. But when once so near to their borders, the seductive calls of the usually neglected Scandinavian and other northern states—of Holstein, of Denmark, Norway and Sweden, of Finland, Russia and Poland—were not to be resisted. And so, regardless of imperial programmes, I left the Prussian capital only the day before the certain arrival of the royal heads of the two great eastern powers, and made my way to Hamburg, to Lubeck and Copenhagen; spending parts of three days at the beautiful Danish capital,—in the University, the Thorwaldsen Museum, the Royal Palace, the Exchange and the work shops,—and then pushed on across the waters of the Baltic to Malmo and Lund, in Sweden; stopping at the latter place long enough to examine the different departments of the ancient University; then northward, through a dreary and rather barren looking country to Yonkoping; thence to Falkoping; westward to Gottenburg on the Kategat, (where I found an Americanized Swede, running, what is probably the largest existing establishment for the framing and shipping of wooden buildings to many parts of the Scandinavian world); thence across the Kategat and Skager Rack to Christiania, the handsome and prosperous capital of Norway, seat of the only Norwegian university—a flourishing institution with the usual faculties and nearly a thousand students. I greatly desired to travel from here northward into the interior, but my limit of time forbade, compelling a postponement of that interesting journey to some other day.

My eye now rested on Stockholm, "Venice of the north," the location of the chief polytechnic, nautical and agricultural schools of Sweden, and upon Upsala, a little farther north, seat of the other one of the two royal Swedish universities, and home of the great Linnæus, once a professor there. A Norwegian railway and stage-coach, my own legs, and finally the Swedish railways all proved good servants, and in due time my plans were realized.

I had come to what I had thought of as a bleak and uninviting city; and lo! the charms of Geneva, Genoa and Venice combined were there to enchain me! Like Venice, Stockholm is built upon islands, with so many inlets of the bay on every hand that it, too, seems to have risen out of the sea, though to a greater height, so that the rocky foundations on which the city rests are bold and conspicuous. The palace of the king is an immense quadrangular structure, nearly as conspicuous as the palace of the Doge would be on the high hills of Genoa. Other magnificent public buildings are visible from every point, and the general effect is remarkably fine and picturesque. The desire was there to spend the cool (I may almost say *cold*, for I had constant need of my overcoat), and bracing summer; but the northeastward limit of my travels was yet more than five hundred miles farther on, and ere I had time to remonstrate with the fates, I found myself on board the elegant little steamer Aura, gliding over the dark waters of the Baltic sea, and among its

countless islands, some smiling with verdure and some rocky and sterile, on my way to Finland. The weather was absolutely perfect—the sky beautifully clear and sunny, the air fresh and balmy as the spicey breezes that “blow soft o’er Ceylon’s isle.” Almost ere we were out of sight of Sweden, a most delicious dreaminess, begotten of the strangeness of my surroundings, the happy combination of all the circumstances of the voyage, and the imagined characteristics of the far-off land toward which our prow was set, stole over me and thus completed the enchantment. Even now the remembrance of that voyage comes to me like the visions and experiences of some golden dream.

At Abo I spent some time in the naval school and observatory, and made a trip into the country, to see how the Finns work their farms. My second stopping was at Helsingfors, the capital—a beautiful city, on a beautiful harbor, with suburbs suggestive of Paris. Here there is also an observatory, and a flourishing university, with literary, scientific, law, medical and theological departments, thirty-five professors, a library of 100,000 volumes, an excellent laboratory, fine collections in natural history, and nearly 500 students. At Wiburg there is quite a flourishing town with considerable commerce, but not much else to interest the traveller. A rough country is Finland, interiorly; stony, boggy, and of course barren. Some public improvements making. There is already a railroad from Helsingfors northward some fifty miles. The season past has been so unproductive, in both Finland and the north of Sweden, that thousands of the poor people, remote from the coast, are said to be living on bread made from the bark of trees, with the certain prospect of starvation unless relieved by foreign contributions.

Among my strange experiences in that far off country, washed by the Baltic and Polar seas, none other so impressed me as the absence of anything like what we would call night. At Helsingfors, the sun set at 11½ o’clock and rose again at 2 o’clock, with so strong a twilight between that the architectural peculiarities of public buildings a mile distant were distinctly visible, and I was enabled to write letters in my state-room during the whole interim without the least inconvenience.

From Wiburg, a day’s sail brought me to Cronstadt, maritime out-post of the great capital of the Russian Empire, the grandest city in Europe, the glittering of whose golden spires and crosses gave notice of our approach ere we had come within fifteen miles of the majestic, palace-lined river that flows through its center. Spent nearly a week at St. Petersburg, rejoicing in its palaces, its gorgeous cathedrals, its public gardens, and the distant royal seats of Peterhoff, Zarska, and Pavloska, and in daily visits to the university, the school of mines, the polytechnic and military schools, and the great academies of science and art.

At the date of my visit, our minister, Gen. Cassius M. Clay, to whom I am indebted for many courtesies, was felicitating himself on having just consummated the purchase of Russian America, being firm in the belief that it would prove a valuable acquisition. The Czar also felicitates himself on

having sold it, as he has plans for enlarging his territory by conquests in Asia and can make a better use of \$7,000,000 than to keep it packed down in American ice; and so the satisfaction is mutual.

The Russians are a robust and hardy people, and under the rule of the great Alexander are fast building up a power that eventually shall know no rival in Europe.

The variety and immensity of their resources, distributed over an empire that is washed by the Black Sea on the south and the Arctic on the north, by the Baltic on the west and the Northern Pacific on the east; the native vigor, bravery and resolution of their nearly one hundred millions of people, directed and controlled by a sovereign in whose veins courses the blood of Peter the Great; these circumstances, are of themselves, a prophecy of future greatness. One important condition of success and increased power Russia lacks. Turkey holds the gateway by which alone her ships can reach the Mediterranean. Her maritime possibilities are very limited, therefore. The other great powers appreciate this limitation and strive to perpetuate it. But they contend with Fate and are sure to suffer defeat. The Czar, like a statesman, is willing that his empire should bide its time. But his eye is immovably fixed on that southern sea, and when he knows that the time is come, he will move upon the impediments, whatever they may be, with irresistible might.

From St. Petersburg my course was southward, by a grand sweep across the sparsely settled steppes of Western Russia, into Poland; thence to the university of Königsberg, in the northeast corner of Prussia, on the Baltic; then, with a rapid dash due westward, through the whole length of Prussia, via Berlin and Hanover, into quaint, thrifty, anomalous old Holland, land rescued from the sea and everywhere distinguished for its agricultural and mechanical industry, its commercial enterprise, its educational progress, and the indomitable energy and heroism of its people. *Netherlands* indeed; being lower than the sea, and its rich meadows, animated by grazing herds of fat Dutch cattle, often quite below the inosculating canals that constitute the arteries of trade.

The whole kingdom of Holland is so small and compact that but a few days are necessary to a complete circuit of all its principal cities and towns. From Arnheim to Utrecht, a most charming university town, its streets, canals and suburban promenades beautifully shaded; to the famous old commercial city of Amsterdam; to the interesting town of Leyden, still distinguished as the proudest seat of learning in the Netherlands; to Haarlem, growing up, by the grace of numberless wind mills, on what was but lately the bed of Lake Haarlem; to the capital city of Hague; to the stirring commercial Rotterdam; thence, by steamer on the Rhine, and by sail, to Antwerp, leading maritime city of Belgium, and once the commercial centre of Europe, holding by means of the thousands of ships which then crowded its great harbor, relations with every civilized country on the globe; thence once more to Brussels, for the inspection of its numerous factories, its in-

dustrial schools and universities; and, finally, via Valenciennes and Amiens, back to Paris, the initial point of all my journeyings.

It is needless to say that after so extended a tour, embracing all the countries of the European continent, except little Portugal and decrepit old Spain, covering observations upon their natural resources, and upon their industrial, social, educational and religious life, with special examinations of every one of their most important schools and universities, the months of my absence seemed like as many years; so that I was really surprised, on my return, to find the great Exposition, which I had been thinking of, unconsciously, as an event in the far past, still in progress and now only in the zenith of its glory. A grand tour. But if any one envies me, let him remember the fatigue, the sleepless nights, the severe tax of brain and muscle it cost. Large and valuable stores of information, many new and interesting experiences, and glorious pictures of scenery, people and things ineffaceably daguerreotyped upon the memory are mine, and I thank God for them; but they were earned as but few would be willing to earn them.

After spending nearly a month longer at the Exposition, studying the useful lessons it taught, making collections of such material as the courtesy of foreign commissioners enabled me to secure, and making arrangements for the further care, packing and return of articles sent out by Wisconsin, I bade adieu to the great Exposition, to Paris, and, at Havre, to the Old World, and by the strong and excellent iron steamer "Cella," of the New York and London Line, returned to New York; thence hastening back to my post of duty in Wisconsin.

Very unexpectedly, my return was anticipated by a commission conferring the appointment of Honorary Commissioner for the United States to the Paris Exposition, with the request that I prepare a report to the Government on Education in Europe and America; the acceptance of which appointment with the hope of finding time to prepare such report, together with the narrow limits of this volume and the amount of material that must have place, will account for the absence from this hurried outline of my travels of any attempt whatever to describe any of the educational systems or institutions of the countries through which I passed.

As in 1862, so now in 1867, I have come back to my native land profoundly impressed with the superiority of its natural advantages and of its political institutions, and yet more than ever confirmed in the opinion, that in much that pertains to the industrial arts, especially in the substantial character of their public improvements, as well as in their habits of business thoroughness and honesty, their laws regulating the education of their youth, and in various phases of their social life, the nations of the old world, present much that we may imitate with great present and future permanent advantage to our country.

If you were to ask for a more definite statement of my conclusions concerning these several peculiarities, I would say—

The agriculture of the most advanced European countries is superior to

ours: 1, in the care, labor and expense with which the soil is prepared for the various crops. Their implements of agriculture are, for the most part, greatly inferior to ours; but they make up for this deficiency in the thoroughness and patience with which they use them; while, in the matter of fertilizing their fields, there is no comparison to be made. We are cultivating virgin soils. They are tilling lands that have borne crops for centuries. And yet their yields are greater than ours—in the case of some countries, twice as large. The secret of which lies in the fact that, there scarcely anything is permitted to go to waste that would add to the productiveness of the soil. The farmers convert every available vegetable and animal substance produced on the farm into manure; and, not content with this, the cities are drained and scraped of their offal to add to the supply, and even the country highways, as I have repeatedly noticed in the best portions of England, France, Belgium and Germany, are carefully gleaned of all casual droppings. 2. It is superior in the attention there given to the rotation of crops. A farmer in the better portions of Germany, Switzerland, Belgium, England, or Scotland, who should be guilty of the reckless, haphazard, no-system practiced by us, would be an anomalous character and summarily punished by—starvation. 3. It is pre-eminently superior in the attention given to forestry and the extraordinary pains taken to make the landscape, and especially the highways, beautiful by the planting of useful and ornamental trees. In Germany it is common to find fruit trees—the apple, the cherry and the pear—lining the public thoroughfares for miles; thus affording a pleasant shade by the way, and at the same time delicious fruits for the enjoyment alike of the proprietor and the way-worn traveler. The time is sure to come, it is even now come, when the agriculturists of this country must give both thought and labor to the production of timber for fuel and mechanical uses, and for the improvement of climate and the protection of fruit crops, as well as to the liberal planting of orchards; and the sooner they become impressed with this necessity the better. In the timbered districts there must be a careful saving of a sufficient amount for the future, and in the great prairie districts an early and judicious planting. Let us imitate Germany in this important branch of husbandry. 4. European agriculturists have another advantage over American, in the prohibition of domestic animals from making free ranges of all public highways and such cultivated fields as would otherwise be more or less exposed. On the continent one may travel hundreds of miles without seeing a fence for protection against cattle. Innumerable farms, with a variety of valuable crops, lie side by side, as if so many individual beds in one illimitable garden; all live stock being either housed, or grazed under the care of herdsmen and dogs. To my eye, the effect of such a landscape is incomparably more pleasing, and it is certainly more economical management, where timber is scarce.

The public improvements are built for security and permanency. This is not more remarkably illustrated by the superiority of their public buildings, which—unlike our own state capitol, whose mush-and-milk walls, thinly and

insecurely veneered, for the sake of a better appearance, are a reproach to the parsimonious "economy" of our public men—almost invariably command the most durable and most massive material, than by their bridges, wagon-roads and railways. Of course, in a new country, where the roads require to be made and kept in repair by a few settlers, it were unreasonable to expect the same excellence as in a densely populated country. But scarcely anywhere, even in the oldest and wealthiest portions of this country, do we find highways that compare with those of the old world, which, beautifully built in the first place, with one, and often two rows of shade trees on either side, are ever afterwards kept as smooth as a garden walk or palace floor. I have frequently walked over them a distance of ten or fifteen miles of a summer evening without once thinking of fatigue. And as for the railways of Europe, I never think of them but with enthusiasm. Solidly built, of the very best material, usually with a double track, always in the best repair and carefully guarded and watched at all points, one enjoys a sense of security in passing over them to which he is an utter stranger in this country. During last winter, previous to my departure for Europe, I experienced one collision of trains, two break-downs of engines and three runnings off the track, at great peril of life, and all simply in journeying from Madison to Jefferson City, Mo., and back, and from Madison to New York city, on my way to Paris. Whereas, during all my journeyings of thousands of miles in western Europe in 1862, and during my still more extensive travels above recounted, I never once met with an accident or lost a moment of time because of any imperfection of railways, or railway carriages, or locomotives, or from any failure of trains to make perfect connections. And, as if to make the difference still more marked, on my return to New York, the very first train I went aboard ran off the track on the way to Buffalo and was the occasion of my being delayed over Sunday on my way home to Wisconsin. Our railroading in America is a disgrace to even a new country.

In their social life most European people are also able to teach us, first, the lesson of general politeness in ordinary and every kind of intercourse, and secondly, the greater wisdom of simple living and more frequent recreation and social intercourse. We are emphatically a nation of workers, and, practically, recreation has no place in our vocabulary. That we are serious losers, physiologically, intellectually and socially, by this system of never-ceasing toil, no one who reflects will dare question.

On the credit side I shall make no account. For the present it is sufficient that we realize our faults and learn to correct them. When that is done, we may indulge in a few gratuitous lessons to our neighbors of the Old World.

Respectfully your obedient servant,

J. W. HOYT.

STATE AGRICULTURAL ROOMS, Dec., 1867.

REPORT
ON THE
UNIVERSAL EXPOSITION OF 1867.
BY THE
PRESIDENT OF THE COMMISSION
FOR WISCONSIN.

23 AG. TRANS.

WISCONSIN COMMISSION.

DR. J. W. HOYT, PRESIDENT,
COL. EDWARD DANIELS,
HON. W. H. DOE,
HON. B. F. HOPKINS,
DR. E. B. WOLCOTT,
HON. C. C. SHOLES,
HENRY BERTHELET, ESQ.,
DANIEL NEWHALL, ESQ.,
COL. E. L. BUTTRICK,
HON. CICERO COMSTOCK,
J. M. DURAND, ESQ.,
ERNEST DEDOLPH, ESQ.,
GEORGE END, ESQ.,

HON. WM. PITT LYNDE,
REV. M. M. MARCO,
H. S. MACK, ESQ.,
M. H. McKEY, ESQ.,
DR. L. J. ROSS,
RICHARD MERTZ, ESQ.,
HON. EDWARD SOLOMON,
EDWIN A. PHILLIPS, ESQ.,
HON. JOSEPH PHILLIPS,
E. R. PERSONS, ESQ.,
W. H. RODWAY, ESQ.,
H. S. WEIL, ESQ.,
HON. WM. E. YOUNG.

DR. I. A. LAPHAM,

UNIVERSAL EXPOSITION OF 1867.

REPORT.

HIS Excellency, LUCIUS FAIRCHILD,

Governor of Wisconsin:

SIR—To all Americans who feel a just pride in their country and nationality, it is an occasion of regret that in none of the great industrial movements, which, during the past and the present decade, have aroused the attention and commanded the energies of all the other enlightened, and of many semi-civilized, nations of the world, has the American Republic taken a part at all proportionate either to the vastness of its resources or the importance of the interests it has had at stake.

In 1851, the idea of a universal exhibition was new, and London seemed far away; and so the government was but very partially represented. The Exposition of 1855, at Paris, gave less promise of attractiveness and success than its brilliant predecessor, and on this account received from both government and people of this country even less attention than the first; and the magnificent Exhibition of 1862, though projected under the most favorable auspices and carried through with triumphant success, came in the midnight of our four years' struggle. But the Universal Exposition of 1867 fell upon more propitious times. The war had been brought to a successful issue; our natural resources had enjoyed a re-

markable development since 1862; our manufacturing industry had made unprecedented strides; our finances were settling down upon a fixed and healthy basis; the broad areas of the Southern States were open, for the first time in our history, to the free labor and free institutions which had always made the Northern States so attractive to the overcrowded populations of the old world; and from all parts of our great country there came a loud and urgent demand for an amount of labor and capital we could not of ourselves supply.

And then there were other and higher reasons why America should have been prompt to place herself in the van of this grand industrial movement. Its conception was eminently in harmony with the spirit of our republican institutions. It was destined to liberalize the nations and mightily contribute to the democratization of all peoples throughout the world. Nor was it to be less potent as an agency for the diffusion of knowledge and the blessings of civilization in the dark places of the earth.

The Emperor Napoleon III issued his decree as early as 1864, in order that the remotest and the slowest nations might have ample time for preparation. The governments of many countries caught up the welcome edict and made prompt response by legal enactments looking to a worthy national representation thereat. Not so the United States. With a tardiness which is in danger of becoming characteristic, nothing of importance was done until 1866; and ere the government agency was actually in communication with all parts of the country by means of preliminary documents, the time had come when goods intended for the Exposition should have been actually on their way to New York.

Action in the individual states was correspondingly tardy.

To this general torpor Wisconsin was no honorable exception. Agents in number sufficient to represent an empire were appointed by legislative enactment, during the winter of 1866, but apparently without the remotest idea of anything more than a personal representation. At all events no provision of any sort was made by the State, for an illustration at

Paris of the natural resources and industrial and social progress of our State. As a consequence, the summer and autumn of 1866, every moment of which should have been actively employed by some competent and zealous agent in the field, passed without anything being done. Late in November, at the request of the Board of Trade of Milwaukee, Your Excellency appointed several additional commissioners,—the undersigned being among the number,—and on the second of December, a meeting was held of such of the commissioners as could be called together, at Milwaukee. At this meeting, Hon. C. C. Sholes being in the chair, and Dr. A. M. Helmer acting as Secretary, a permanent organization of the Wisconsin Commission was effected by the choice of the undersigned as President, with full authority and instructions :

1. To take such steps and adopt such measures as to him should seem necessary to insure a representation of this State, by its products, at the Paris Exposition of 1867.
2. To superintend the exhibition of such products at Paris, and be responsible for their final disposition.
3. To make to the State such report as he should deem proper of his transactions in behalf of the Commission, and on the Exposition itself.

Assured by the Commission of the hearty co-operation and support of all the members thereof, and encouraged by Your Excellency and the official action of the Chamber of Commerce of Milwaukee, to believe that pecuniary means requisite to meet all legitimate expenses of the contemplated exhibition would, in some manner, be furnished to the Commission, I accepted the appointment, with the responsibilities imposed, and immediately commenced my labors by addressing the following printed appeal to prominent citizens, and by procuring its publication in most of the leading papers of the State :

OFFICE OF THE WISCONSIN COMMISSION TO THE PARIS EXPOSITION,
MADISON, December 5, 1866.

To the People of Wisconsin :

The Great Exhibition of the Industry of all Nations, to be held at Paris in the year 1867, is to be a competitive showing of the resources, progress and present industrial and social condition of all the nations of the earth. Although this will be the fourth in the grand series since the inauguration of the scheme at London in 1851, America has yet to make her first creditable appearance. And yet nothing is plainer than that, by taking her legitimate place as the peer of the strongest and most enlightened nations of the world in these great gatherings of the thinkers, workers and products of all lands, she would not only more worthily do her part in the diffusion of the blessings of civilization and the uniting all peoples more firmly in the bonds of mutual interest and friendly association, but also derive a direct and incalculable advantage to her future growth in wealth and power by the demonstration thus made before the world of the variety of her resources and the inducements she is able to offer the industrious but cramped and dissatisfied populations of the Old World for settlement in the New.

But it is now patent everywhere that America is a competitor for the honors to be conferred by the juries of all nations at Paris next year. And though slow in moving, and hardly just to herself in her preliminary arrangements and appropriations of money, now that she has entered the lists, and is certain either to be crowned with laurel or dismissed in disgrace, every American citizen should feel it his duty as such to do everything in his power to assure the glory of the Great Republic.

The General Government has provided free transportation for all approved articles that may be sent, as well as for faithful and valuable reports by a National Commission composed of eminent practical and scientific men, and has urgently asked each of the States to acquit itself honorably.

Throughout the East and all about us in the West, state governments and people have for months been spiritedly at work, and are now very sure to do themselves credit by the varied and extensive display they will make of the products of nature and of the industry and genius of their people.

What then of Wisconsin? As yet nothing. She has numerous commissioners, with the privilege of representing the State at their own expense; but thus far she has made provision for showing little else! We have in our barns, mills and warehouses, samples of wheat, corn, rye, barley, sorghum, flax and flax seed, linseed oil, flour, cheese, maple sugar and syrups, tobacco, wool, &c., equal to any in the country. We have cider, wines, whiskeys, brandies and malt liquors of our own manufacture. In the department of natural history we could make a fine show of building and ornamental stones, brick and fire clays and brick, lime, sand for glass, kaolin, peats, marls; of metallic ores, especially of lead, iron, copper and zinc; of every valuable variety of timber growing in the temperate latitudes; of indigenous plants; and a most interesting display of mounted specimens of game and fur-bearing quadrupeds, with specimens of the fishes of our lakes and streams.

In the way of machinery, manufactures, &c., we cannot expect to compete with the older and more exclusively manufacturing States. But we do possess the requisite material and the finest water-powers in the world, and should spare no pains to prove our natural advantages, and thus attract the capital, which is all that we lack to make us equal to Massachusetts or Connecticut. Besides, we are able to-day to send to Paris superior threshing machines, reapers and mowers, sorghum mills, rotary diggers, plows, harrows, cultivators, bog-cutters, wrought iron, steel, zinc and copper, white lead and zinc paint; fanning mills, washing-machines, wringers, wagons, hubs, spokes and felloes; furniture, buckets, bowls, barrels, spinning wheels, shoe-lasts, boots and shoes, harness, leather; doeskins and cassimeres, flannels, knit hoisery, and a thousand other things too numerous to mention, but all of them made in this State, and many of them indebted to the inventive genius of Wisconsin men.

And then we have many worthy examples of architecture. These cannot be sent, but photographic views of them can, and, by all means, should be

sent. Our harbors, elevators, ware-houses, flouring and saw mills, breweries, tanneries, machine shops, railroad depots, State and other public buildings, college and public school edifices, farm-houses, city homes—representations of all these are essential to a proper understanding of our industrial and social progress, and, with detailed descriptions of dimensions, structure, &c., should have a place.

The condition and prospects of our people would be further fitly represented by catalogues of all public libraries, specimens of our school books, furniture and apparatus; by copies of our State reports, published histories, newspapers, maps, &c.; by some of our best works of art; and finally by a volume of thorough statistical information on every point of prominent interest connected with the past, present and future of the State.

Such a showing as this—especially of the leading and distinguishing products of our mines, fields, forests and manufactories—would at once reflect great honor upon our State, and by means of the influx of capital and immigration that must result from it, prove a great and lasting material benefit. To fail would be a shame and reproach to our people.

If but one earnest, influential man in every neighborhood will determine that such a representation from this state shall be made, and will set himself at work without a moment's delay, it can yet be done.

By a recent decision of the Board of Commissioners for this State, consisting of Col. E. Daniels, Hon. W. H. Doe, Hon. C. C. Sholes, Hon. B. F. Hopkins, Surgeon General E. B. Wolcott, Henry Berthelet, Esq., Daniel Newhall, Esq., J. M. Durand, Esq., and J. W. Hoyt, it devolves on the undersigned to visit as many localities as possible, with the view of arousing the public to the urgent demands of the enterprise they have at so late an hour been placed in a position efficiently to represent. It is because omnipresence is not possible to the Commission that this appeal is published. Remember, whatever is done at all, must be done this month!

Send your articles, well packed and carefully marked, "For the Paris Exhibition," to A. M. Helmer, Esq., Milwaukee, at which place they will be inspected by the Commission, and, if approved, forwarded, all together, to New York. If rejected they will at once be carefully returned to the contributor. The railroad and steamboat lines of the State will carry everything, transportation free. The American and U. S. Express companies also accord free transportation to articles of moderate bulk.

Grains, grass and garden seeds, and other articles of that class, should be put up in quantities of one quart to one gallon each; specimens of corn in the ear, in trusses of a half dozen ears or more; wheat, barley, oats, &c., of remarkable growth, in bundles of an inch or two in diameter, boxed; samples of timber, either in cross sections of the trunk a foot in length or in longer sections; boards or plank wrought on one side, to show the possible finish; metallic ores in as large and fine masses as practicable; building stones in blocks six inches cubic. In all cases the contributions should be accompanied by the name and residence of the contributor, circumstances of occurrence, growth, or manufacture, yield, amount of manufacture per annum, &c., &c.

Send in your contributions and let the Wisconsin Division of the American Department of the Great Exhibition be second to none other.

J. W. HOYT.

President Wis. Board of Commissioners.

This first step was immediately followed by the writing of hundreds of letters to prominent farmers, manufacturers and business men in all portions of the State, and by personal visits to most of the leading towns and cities of Wisconsin, from Green Bay, on the north, to Mineral Point, in the south-west.

To difficulty was experienced in awakening a deep interest

in the movement, but the shortness of the time allowed for preparation stood seriously in the way of success and could not be overcome. Hundreds of ingenious mechanics, and many heavy manufacturers, miners and others, who would have cheerfully placed their products and inventions at the disposal of the Commission, were debarred from so doing by the impossibility of getting them ready before the first of January, at which time it was imperative that every thing should be in New York.

Still another circumstance brought embarrassment: the limit of time for making application for space in the Palace of Exposition had been long since passed, and not a foot of space would now be granted by the Imperial Commission. Fortunately, however, acting in the name of the State Agricultural Society, I had secured a liberal amount of room for such contributions as at least *ought* to be sent to Paris, and the Government was kind enough to allow an assignment of this space to the State Commission, and thus that obstacle was removed. This application for space had been such as to induce the belief that there could be no possibility, within so short a time, of securing contributions enough to crowd it, and accordingly several articles of considerable bulk, such as plows, harrows, grain seeders, sorghum mills, shingle machines, wagons, iron safes, sash and doors, and threshing machines were engaged of manufacturers who could forward them on short notice and were anxious to do so; but then, at the last moment, orders came from the United States Agent, at New York, to accept nothing of much bulk, as the American Department was likely to be overcrowded; and thus many valuable contributions were reluctantly ruled out.

Scarcely less trying than these was the fact that neither the Board of Trade nor yet the Legislature, upon which the duty properly devolved, had made any provision whatever for meeting the necessary expenses of handling, transportation, cartage, &c., to New York and thence to Paris, in case any of them—as many of them were likely to—should arrive at the seaboard too late for the government vessel assigned to that

duty, or for the proper installation of the articles at Paris, or their safe return to Wisconsin; so that exhibitors were without security that their contributions would ever find their way to the Exhibition, much less that they would be attractively shown and safely returned. The alternative was therefore presented, either wholly to abandon the enterprise, or to become personally responsible for the articles committed to my care, trusting to the intelligence and justice of the Legislature to endorse my action by making early and adequate provision for carrying out the plans of the Commission. The enterprise had already gone too far to warrant its abandonment, and I accordingly accepted the latter alternative, assuming the responsibility and making the necessary advances from my own funds.

Proceeding thus, with the generous co-operation of Commissioner Joseph Phillipps and Henry Berthelet, who assisted as solicitors at Milwaukee, and of Dr. A. M. Helmer, who kindly acted as receiving and shipping agent, we succeeded at length in forwarding to New York for shipment to Paris, 36 cases of goods, numbered and invoiced as follows, to wit:

ARTICLES SHIPPED AND PARTIES BY WHOM CONTRIBUTED.

- Box No. 1.—Specimens of zinc and lead ores, contributed by Mineral Point Mining Company.
- 2.—Massive specimens of lead ore and lead, from "the Oakland Mine," by Hon. Jas. H. Earnest, Shullsburg.
- 3.—Iron ores, pig iron and iron castings, by J. Smith, Esq., Iron-ton, Sauk county, and iron ores from Lake Superior.
- 4.—Milwaukee and Edgerton brick.
- 5.—Iron ores, pig iron, cast iron and steel, by N. W. Iron Co., Mayville; also, iron ores and steel manufactured therefrom, from the Penokee Iron Range, by J. B. D. Coggsell and others, Milwaukee.
- 6.—Indian curiosities, by Hon. Henry S. Baird, Green Bay.
- 7.—Photographic views of the State buildings of Wisconsin, by the Governor.
- 8.—Several hides of leather (upper and sole), by Messrs. G. Pfister & Co., Milwaukee, and Messrs. J. J. Pierron & Gieskin, Beloit.
- 9.—Samples of sorghum and imphee (canes and seed,) by E. W. Skinner & Co., Madison.
- 10.—Samples of sorghum syrup and sugar, by E. W. Skinner & Co.
- 11.—Collection of the game birds (stuffed) of Wisconsin, purchased of Mr. Halder, Milwaukee.
- 12.—Samples of the various woods of Wisconsin, used in the arts, some by P. Brick, Milwaukee, J. M. Haight & Co., Madison, and numerous parties at Fond du Lac, Oshkosh, Baraboo and Appleton, and others prepared by the Commission.

- Box No. 13.—Dressed and undressed skins of most species of the fur-bearing animals of Wisconsin, by Messrs. G. F. Wright and O. Dowd, of Oshkosh, and Messrs. A. H. Gardner, F. Gunther, and Booth & Salsman, of Milwaukee.
- 14.—Dressed blocks of the building stone of Wisconsin, contributed by Messrs. Andrew Proudfit and W. T. Fish, of Madison, and N. Merrill, of Milwaukee.
- 15.—Samples of Indian corn, and prairie and “opening” soils, by Eli Stilson, Esq., Oshkosh; also specimens of broom corn, nuts from the forests of Wisconsin, and basket willow, together with fleeces of wool, by Richard Richards, of Racine, and ———, of Milwaukee county.
- 16.—Maps of Wisconsin, purchased by the Commission; lithographic views of Milwaukee, by Louis Lipman; photographic views of Janesville, by J. Bark, artist.
- 17.—Thirty samples of the cereal and other grains and seeds grown in Wisconsin, all in glass sample-jars, purchased by Commission.
- 18.—Thirty samples of the cereal and other grains and seeds grown in Wisconsin, all in glass sample cases, purchased by Commission.
- 19.—Samples of building stone, by Hon. Henry Cordier, State Prison Commissioner.
- 20.—Antlers of the elk, by A. H. Gardner, Esq., Milwaukee
- 21.—Milwaukee brick, contributed by Geo. Burnham.
- 22.—Reports of the State Departments and of all the State Institutions of Wisconsin (neatly bound), contributed by the Governor; also sets of the reports of the State Historical and State Agricultural Societies (handsomely bound), contributed by said societies respectively
- 23.—Dressed blocks of building stone from Fond du Lac, together with a massive specimen of “float copper,” by K. A. Darling, Fond du Lac.
- 24.—Rape seed and oil, from Fond du Lac; also hops, contributed by V. Blatz, Milwaukee; wild turkey (stuffed), by Dr. P. R. Hoy, Racine; case of prepared glue, by Christian Wahl, Milwaukee.
- 25.—Specimens of iron ore, from Black River Falls; kaolin, from Grand Rapids, by Dr. I. A. Lapham; a case of steel hammers, by Messrs. Barr & Cox, manufacturers, Beloit, and a case of improved augur bits, by A. C. Kassen, patentee, Milwaukee.
- 26.—Bunch of shingles (half thousand) from Fond du Lac.
- 27.—Cask of white winter wheat flour, by Messrs. Bertschy & Kean, manufacturers, Milwaukee.
- 28.—Cask of spring wheat flour, by Messrs. Bertschy & Kean, Milwaukee.
- 29.—Cask winter wheat flour, by Fred. Bertschy, Esq., manufacturer, Milwaukee.
- 30.—Cask of spring wheat flour, by Fred. Bertschy, Esq., Milwaukee.
- 31.—Massive specimen of native copper of Wisconsin, contributed by Hon. Joseph Harris, Sturgeon Bay.
- 32, 33.—Six boxes (of walnut, beautifully finished and gilt-lettered, each containing a half bushel of grain) of cereal products—wheat, rye, oats, barley, and Indian corn, by the Milwaukee Chamber of Commerce.
- 34.—Cask of lager beer from Milwaukee.
- 35.—Cask of lager beer from Milwaukee.
- 36.—Large and elegant case of perfumery, by Messrs. Tallman & Collins, manufacturers, Janesville.

Touching the action of the Legislature in making suitable provision for the expenses of the exhibition from Wisconsin, I regret to say that even the moderate expectations of the Commission were disappointed. For, although an appropriation was finally made, it was so long delayed that, in order to keep faith with exhibitors for whose goods I had become responsible, I was obliged to leave for Paris without assurance that anything at all would be done by the State, and, when arrived, to manage the installation of our exhibits at my own personal cost.

On the 20th of March, 1867, some days after my departure, the following provisions became a law, to wit:

[Copy.]

Section 1. For the purpose of paying such unavoidable and necessary expense of the exhibition of the products of Wisconsin at the Paris universal exposition, to be held this present year, there is hereby placed at the disposal of the governor, to be used at his discretion, the sum of two thousand dollars, or so much thereof as he may deem necessary, and this amount of two thousand dollars is hereby appropriated from the general fund of the state, out of any money belonging to said fund not otherwise appropriated: *provided*, that no portion of the amount hereby appropriated shall be used or applied to pay the personal expenses of or any salary to any commissioner to said exposition.

Section 2. This act shall take effect and be in force from and after its passage.

And, in the month of June, Your Excellency's communication, dated April 12th, and covering a draft on Paris for 5,000 francs, was received. In view of these circumstances of delay on the part of the State, and of consequent doubt as to whether any aid might be expected therefrom at all, I have great pleasure in acknowledging the very cordial and generous manner in which the Commissioner General of the United States, Hon. N. M. Beckwith, provided, at the expense of the national fund, much, in the way of both labor and material, that was justly chargeable to the State, and thus enabled me, at length, not only to make a creditable exhibit of Wisconsin products, but even to leave in your hands a small balance of the appropriation originally so small that otherwise the whole amount would have proved insufficient for the unavoidable expenses of the exhibition.

The foregoing, somewhat lengthy record of the preliminary transactions of the Commission is made in no spirit of censo-

riousness, but rather with reluctance, and far more in the hope that a full knowledge of the facts may have some influence in preventing like errors on the part of the State, in the future, than as an act of justice to the Commission, to which, under the circumstances, that higher degree of success for which it labored was thus rendered impossible.

THE EXPOSITION—CONDITION AT DATE OF OPENING.

Arriving at Paris on the 31st day of March—the day previous to the great day of inauguration—I proceeded at once to the scene of preparation on the Champ de Mars.

Was it an augury of the final end of war and the early coming of the reign of peace, this gathering of the products of the industrial arts, and this proposed intermingling of the representatives of all lands on the field of Mars? and was it so designed by the imperial Napoleon? The hope of the philanthropist should not be over sanguine. The first national industrial exhibition ever held in the world was held on this same field, dedicated to the God of War. It was in the year 1798. France had but just emerged from one of the bloodiest revolutions recorded in history. The enthusiastic people of the new Republic had seen the star of liberty descend and rest upon the brow of Napoleon, who was to lead them to a destiny the glory of which they had but dimly conceived. And so, to them, it seemed fitting that in the opening dawn of the national prosperity, this field should be planted with flowers. But who does not know that after that, and very soon thereafter, all Europe resounded with the roar of artillery, and was rocked by the heavy tread of millions of armed men—that Marengo, Austerlitz, Jena, Eylau, Wagram and Waterloo followed, like reverberations of one continuous roll of thunder, and that, since the “permanent peace” then established, nay, since the inauguration of the universal exhibitions of industry, the continent has been revolutionized and re-mapped over and over again!

Still, it is well that mankind should cherish the hope of the better day to come, “when the nations shall learn war no

more;" and well knowing the beneficent tendencies of **national rivalry** in promoting the arts of peace, we may **safely accept** even this simple circumstance as an omen for good.

Only he who had seen the Champ de Mars when it was a wide, sandy waste on the outskirts of Paris, with (except on the side of L'Ecole Militaire) its surrounding of the habitations of the poor and of **unoccupied lands**, could realize how vast the work that had been done within the past few months. The hundred-acre field had, indeed, vanished, and was nowhere to be found. Where for centuries the armies of France had been mustered, now rose in bewildering association, and in the midst of gardens of marvelous beauty and magnificence, countless palaces, villas, workshops, farm establishments, school houses, churches, representative of every nation under heaven; while, in the centre of all, stood the mighty **Palace of Industry**, covering the products of the genius and skill of all the peoples on the globe. Mars had been expelled and Minerva reigned supreme.

Nor had the potent influence of the magician's wand been limited to the boundary of the Champ de Mars. The hovels of the poor, the score of stenchy soap factories and those hideous blocks of bald, bleak and ugly stuccoed houses, which, altogether, once made this precinct as execrable as Paris in the main is beautiful, had given place to **numerous handsome shops**, dwellings and cafes, and was now also **Parisian**.

Some idea of the Exposition building and its immediate surroundings may be gained from the accompanying illustration. Hundreds of hypercritical newspaper scribblers were prompt to pronounce the plan a pitiful failure, in advance of execution; and these same were only more emphatic in the expression of that opinion after the building was once erected. Judging from a purely æsthetic stand-point, it certainly was obnoxious to criticism. It possessed none of the magnificence of that architectural wonder of the world, the Crystal Palace of 1851, nor did it afford those far-reaching and grand vistas which must dwell forever in the memory of one who ever once stood in the grand nave of the palace of 1851, 1855 or of 1862. But then it was vastly better adapted to the end proposed

then either. For besides affording every desirable facility for the exhibition of every class of objects, in which the Crystal Palace of 1851 was somewhat deficient, it admitted of the best conceivable classification of objects by groups and by countries, in which particular all previous exhibitions had been exceedingly faulty. Indeed it so admirably fulfilled every condition required of it that it may well be considered a model for all like buildings in the future.

The form of the Palace was oval, like that of the ancient Coliseum, with an open garden in the centre. The longest diameter was 522 yards, the shortest 400. The length of the central garden was 180, width 60 yards; the great disparity having come of the desire to make the distance from all points on the circumference of this garden to opposite points on the circumference of the Palace exactly the same in all cases.

In the palaces of 1851, 1855 and 1862, a portion of the articles shown were in galleries proper, that is, on a second floor, a circumstance which added very much to the inconvenience and fatigue of a general survey. But in the Palace of 1867, everything exhibited had a place on the ground floor, so that every court might be traversed without changing the level so much as a single inch. In all former exhibition buildings, the exhibits were necessarily so distributed that the articles of any given class were sometimes half a mile apart, thus making a fair and satisfactory comparison difficult, if not impracticable; while some of the countries, whose collections were large, were so bounded by simple and direct dividing alleys as to make it impracticable for the majority of the visitors to know when they had completed an examination of its products without a very careful study of the plan, with the diagram before them. In this Palace that embarrassment was entirely removed by the following arrangement, at once original and beautiful:

In the first place, every country making exhibition was required to display its products in a right line between the centre and circumference of the Palace, the breadth of the sector thus formed varying with the amount of material to be shown by it; so that if the visitor should pass up and down this

line of national display, from one extremity to the other, he would be enabled to examine everything without inconvenience or distraction. To render such passage easy, numerous alleys were opened in right line from the central garden to the circumference. One of these avenues—the one leading from the grand port, at bridge Jena, the imperial entrance—was 65 feet in width; the United Kingdom of Great Britain lying to the right of it, and the vast area occupied by France on the left. Its continuation on the other side of the palace in the direction of L'Ecole Militaire, and also the two corresponding avenues, whose line of direction crossed the said imperial vestibule, were each 46 feet wide, and the remaining twelve alleys were 16 feet. In some cases the products of a single country were found lying between two of these avenues, and filling the entire space between them. In others, two countries might be found lying side by side, and both included between them. While in the case of countries like France, whose products occupied large areas, they were traversed by several of these streets.

But the careful student of the world's industries would also naturally desire to see all the products of a given kind from the various countries in the world placed in juxtaposition, that he might the more easily compare them. This desideratum was met by making a series of circular avenues parallel to the circumference of the Palace, and crossing the transverse avenues at right angles; the number corresponding to the number of general divisions in the classification of products. In this simple manner, a thorough and systematic study of the whole Exhibition was made not only possible, but most interesting and agreeable.

GENERAL ARRANGEMENT OF GROUPS OF EXHIBITS.

The entire exhibition was divided into ten groups, as follows:

- I. Works of art (nearest the centre).
- II. Materials and their applications in the liberal arts.
- III. Furniture and other objects used in dwellings.
- IV. Garments, tissues for clothing, and other articles of wearing apparel.

- V. Products, wrought and unwrought, of extractive industries (mining industry, forests, &c.)
- VI. Instruments and processes used in the common arts.
- VII. Food, fresh or preserved, in various stages of preparation.
- VIII. Animals and specimens of agricultural establishments.
- IX. Live products and specimens of horticultural establishments.
- X. Objects exhibited with a special view to the amelioration of the moral and physical condition of the population.

The first seven of these groups were fully represented in the Palace. Groups VIII and IX were stationed in the Park and on the island of Billancourt (six miles down the Seine); and the objects embraced in Group X were partly included in the Palace and partly in the Park. Starting from the centre, then, and proceeding outward, there was, first, an inner open portico 6 yards wide and 6 yards high; then a concentric enclosed court for the display of articles illustrative of the history of labor, 6 yards wide and 9 1-5 yards high; then an enclosed concentric, 16½ yards wide and 12½ yards high, for works of art; then a court open on the outer side, 6½ yards wide and 9 1-5 yards high for Group II; then an avenue 5½ yards wide; next, an open court, 27 yards wide and 9 1-5 yards high for Group III; then another avenue of the same width as the previous one; then another open court, 27 yards in diameter, for Group IV; then another avenue; then another court of like diameter (in some departments divided longitudinally by a wall) for Group V; then a brick wall, with many openings and rising to the height of 27 yards; next the grand nave, 38 yards across and 81 feet high, for Group VI; then the great outer wall of the palace, with high arches opening into broad alcoves, occupied by Group VII; then the great tier of restaurants, two stories high, and with crystal fronts; and last of all, the grand covered promenade, more than a mile in length (roof supported by ornamental brackets, and floor of asphaltum), underneath which thousands of visitors were perpetually making the circuit of the Palace, while thousands more, at the little tables there set, quaffed their refreshing draughts of water, ale, or wine, while gazing in dreamy wonder on the marvelous creations in the picturesque gardens without.

The grand annular nave presented some remarkable features, and is worthy of further description. One hundred and

fourteen feet wide, more than eighty feet high, and nearly a mile in circumference, it afforded opportunity for the grandest display of massive machinery ever witnessed by man. The walls were of brick and iron, the outer wall chiefly of the latter material, much of the space being occupied by windows, and the structure depending largely for its strength upon 176 equidistant pillars of iron, each 85 feet high and weighing 24,000 pounds—the flags of all nations being displayed from their projecting tops. The over-arching roof was of wrought iron, skilfully framed, and covered with undulating plates of the same material. In the centre of the nave, and running throughout its course, except at the intersection of the grand radiating avenues, was an iron platform, ten feet wide and fourteen feet above the ground floor, with railing on either side, and surmounted at frequent intervals by the pavilions and trophies of the different nations, designed as a grand promenade for such as wished to traverse the nave with the advantage of looking down upon its machinery and the processes going on there, from above.

The roof of the Palace within the nave, being mostly of glass, furnished an abundance of light in every part, which, indeed, in many of the courts had to be tempered by awnings of light muslin. The supports, independent of walls, were pillars of iron and of wood.

The floors of the avenues and of many of the uncarpeted courts were of a hard and smoothly laid cement.

Thus much of what was visible. A word now of the invisible:

The water was furnished from the Seine; being first raised by five powerful stationary engines and the engine of a French frigate to the heights of Trocadero, on the other side, where, at an elevation of 75 feet, was prepared a reservoir with an area of 39,000 square feet. From this reservoir it was distributed through 13,000 yards of iron pipe to all places in the Park and Palace where required. Connections were also made with the great water supplies of the city, so that in case of fire, the amount should be unlimited.

Gas for the Park and the exterior of the Palace (which being closed at 6 o'clock did not require gas in the interior) was supplied from two huge gasometers, through 6,500 yards of iron pipe 19 inches in diameter, and 6,000 yards of smaller branch pipes, to the 600 lamp-post burners in the Park, the 300 burners with glass globes suspended from the rim of the Palace awning, the 252 three-branched chandeliers that supplied the restaurants, and the multitude of burners for private use in the structures within the Park.

Steam was furnished to the ponderous motors within the nave for driving the machinery there stationed, through unseen pipes, by nine powerful generators stationed at regular intervals in the Park; thus obviating the necessity for a spark of fire within the Palace.

But the question of pure air for the hundreds of thousands of visitors who would throng the Palace was certainly not less important than a supply of water, gas and steam power. To make sure of this, the following extensive and very complete subterranean works were established, to wit: Underneath the 16 radial avenues and the 3 annular avenues there were made, by excavation, subterranean galleries $13\frac{1}{2}$ feet deep and around the whole of the exterior of the Palace an annular subterranean gallery 33 feet wide and $13\frac{1}{2}$ feet deep, divided by rows of pillars into three galleries, each about 9 feet 10 inches wide, the outer one being completely separated from the other two by a wall. The two inner ones were cellars for the use of the restaurants, the outer one alone being a part of the system of ventilation. This outer gallery communicated with the external air by means of 16 shafts, each 9 feet 10 inches in diameter, disposed symmetrically about the building and having their openings about 4 rods from the outer edge of the external annular promenade.

In each radial subterranean gallery under the external wall of the building, was a jet or nozzle to be supplied with compressed air and having a flat end, with sector-shaped openings symmetrically arranged around the center. These 16 jets were so connected as to form four groups, each group

communicating by pipes 1 ft. to 2 ft. in diameter, with four air-compressing machines having a total power of 105 horses nominal. The arrangements being thus complete, each machine, at the will of the operator, could be made to supply to its group of jets air at a pressure equal to $29\frac{1}{2}$ to $31\frac{1}{2}$ inches of water; which being directed along the radial shafts and the annular shafts communicating therewith and admitted through registers in the floors, would at the same time expel the vitiated air through ventilators in the roof and draw after it, by induction, pure air from the outer world. The cost of ventilation by this means was calculated to be a little less than two cents for every 353,165 cubic feet supplied.

With the foregoing facts and figures before us, and the remembrance of the stormy character of the season, which seriously retarded the work, we are able to get some faint conception of the vast amount of labor and money required to transform the sandy waste of the Champ de Mars into the wonderful microcosm it became in so short a time.

THE ARRIVAL OF CONTRIBUTIONS.

Napoleon and the Commission of his appointment had done their work thoroughly and well. Not so the contributing nations. The northern countries—Russia and the Scandinavian States—were ready in good time and magnificently installed ere the end of March, but all the rest were sadly chaotic. Facilities never heard of before were furnished them. At London all goods had to be hauled on immense *vans* and other wagons from the various docks and railways. While here, through the intervention of the circular railway that surrounds Paris and communicates with all the radial roads and depots, goods consigned to the Exposition were not only brought to the very entrance to the Champ de Mars, but, upon tracks laid all through the Park and around, and even in, the exhibition building, heavy machines and massive contributions were discharged almost on the very spot where they were to remain. Nevertheless, on the day before the Opening there was a confusion with which the historic disturbance around

the tower of Babel was not worthy to be compared. For that was only a confusion of tongues, while this was a confusion of everything else added to a confusion of numberless tongues the Babelites knew nothing about. Ponderous machines, fresh from Cyclopean workshops had just arrived on the cars and must have the power of a thousand men to move them. Locomotives, dragging long lines of unloaded freight cars, sharply screamed their "get out of my way." Hundreds of great wagons, piled mountain high and skilfully engineered by shouting teamsters, crossed their track every moment and demanded, all at once, the attention of somebody and everybody for their relief. Long-armed, giant cranes creaked their slow music in the ears of impatient workmen. Ten thousand hammers crashed and thundered in every quarter of the Park and grand nave. Huge piles of boxes in the interior were being pulled down and knocked open by thousands of exhibitors, agents and commissioners, for the treasures they contained; while hurried carpenters, glaziers, painters, gilders and upholsterers by the thousand, each plied their handiwork in the thirty or more national courts of the Palace and on the annexes and pavilions without. Marvelous chimes of bells were going into place, and roof-touching cathedral organs being attuned for the grand worship of the coming months. While countless numbers of the men of every nation were running to and fro and, with anxious faces, asking loud questions that nobody could understand and nobody answer.

As usual, (on such occasions, I mean, nowhere else,) America was even more backward than most of the other leading powers, and the half chaotic, half vacant court of the Great Republic presented the sorry spectacle of box-encumbered floors, empty counters and groups of long-faced Yankees, venting their disappointment and chagrin in imprecations, more emphatic than either elegant or deserved, upon the devoted head of the Commissioner General, who, up to this time was no more responsible for the shameful condition of the American court than was the Bey of Tunis. The causes of delay were not to be found at Paris, but at home. The National and

State governments and individual exhibitors were the responsible parties. Scarcely anything, or anybody reported in time. The engine that was to operate our machinery in the nave was behind, and a French engine had to be contracted for. Car-loads, I may properly say ship-loads, of goods that should have been at Paris by the first of March did not arrive until the middle of April. And not a few exhibitors who were persistent and unyielding in their demands for large amounts of space, which was reserved for them accordingly, sent nothing at all.

THE OPENING OF THE EXHIBITION.

All too soon, the first day of April had come, but with it had come a degree of preparation that could not have been anticipated twenty-four hours before. Monsieur Alphand and his thousands of workmen had not labored in vain. Something like order had come out of chaos; and although it would require a full month more to put the Palace and Park in perfect order, the condition was such as to make it better to open the exhibition according to programme than to postpone it as some advised. The Emperor was ready, and the day to which the whole world had looked forward for three years had come. If the nations were not ready let the reproach be upon their own heads. During the day previous and the night that followed, there had been erected a royal entrance and a grand covering for the Imperial approach from the Bridge Jena to the Palace, by the erection of handsome bronzed posts, some seventy feet in height, with gilded points, and a broad rich vellum of green cloth sprinkled with the Napoleonic bees of gold. The posts were decorated at the summit with gay streamers, and beneath the vellum, (which had a breadth of about 50 feet and a height of 40 feet,) with beautiful representations of the imperial standard. The inimitable crystal pavilion outside the Palace, as a resting place for the imperial family on occasion of their visits, had put on a superlative beauty and gayety, and the numerous trophies and pavilions in the nave and elsewhere within the Palace, had commanded the skill of the best masters for

their appropriate decoration. The morning brought the sunshine, soft air and freshness appropriate to the opening of the spring-time—welcome auguries of the future of the Great Exhibition of the Industry of all Nations, this time to be inaugurated simply by the visit of the Emperor and Empress, with the French Ministers of State and other dignitaries, amid the booming of cannon and the shouts of the hundred thousand or more people who cheered the royal cortege and joined in the celebration of the great event.

There was less glitter and pomp than in 1862—the imperial party appearing in plain citizen's dress, and no set speeches being made—but really more of a certain quiet dignity that did honor to the Arts of Peace, and, in view of all the circumstances, eminently befitted the occasion.

THE EXPOSITION ITSELF.

By a regulation which seems to me to have been seriously faulty, the Juries were required to complete their work of inspection by the 14th of April, only two weeks after the date of formal Opening. Under any circumstances, so brief a time would be too limited for so extensive and difficult a work; and in the present case it was totally impracticable for them to conclude their work before the 1st of May. Even then many articles, detained on the way to Paris, or, for a time, after arrival, lost in the mountains of boxes that filled the annexes, or by mistake of the distributor, delivered at the wrong court, were either never seen by the Juries at all, or if seen, not until after their decisions had been made and were irrecoverably in the hands of the Imperial Commission. Accordingly, passing over the month of continued confusion and severe labor that intervened between the opening and the 1st of May, when the work of preparation may be said to have been at last finished—a period which few who shared in its vexations will voluntarily recall—I propose to enter at once upon the practical study and discussion of the Exposition, in such of its several departments as promise to be of most value to the industry of our own country. It is hardly necessary to premise by calling

attention to the fact that within the compass of a few pages of a report, which, if full and complete upon all the classes, would necessarily fill a dozen volumes, I can only present a single sheaf or two, gleaned from the immense harvest there ripened for the nations.

THE NATIONAL REPRESENTATION.

Quite a correct idea may be formed of the representation of the several countries by reference to the ground plan of the Palace in another place, on which the space occupied by each is presented to the eye. But the figures representing the area of each national department may still further impress it upon the mind. It may be stated, therefore, with accuracy, naming the countries in the order of occurrence to one commencing with the French Empire and passing entirely around the Palace, that:

	*Sq. Metres.
France occupied	61,314
Holland,	1,897
Belgium,	6,881
Prussia,	7,880
Southern Germany,	7,879
Austria,	7,880
Switzerland,	2,691
Spain,	1,664
Portugal,	713
Greece,	713
Denmark,	751
Sweden and Norway,	1,823
Russia,	2,853
Italy,	3,249
Rome,	554
United Principalities,	554
Turkey,	1,426
Egypt,	396
China, Japan and Siam,	792
Persia,	713
Morocco and Tunis,	1,030
United States,	2,867
South America Republics, }	1,808
Brazil,	
Great Britain and Colonies,	21,653
Total square metres,	<u>140,184</u>

THE TEN GROUPS AND THEIR SUBDIVISIONS.

Reference has been made already to the admirable method of classification adopted by M. Le Play, head of the Imperial

* A French *metre* is equal to 39 inches English.

Commission, by which the whole Exhibition was embraced in 10 grand divisions designated as groups. These, in turn, were subdivided into classes more or less numerous according to the natural divisibility of each; the whole number of classes being 95. Practically the classification was perfect, although, independent of its adaptation to the Palace it would have been more philosophical, perhaps, to have commenced with agricultural and horticultural establishments, and raw materials, and so advanced step by step to works of art, as group IX, concluding with M. Le Play's group X, as embracing whatever might be presented with a special view to the physical and moral improvement of society. Indeed, if one had commenced his examination outside of the Palace, and proceeded inward, group by group, toward the centre, this more natural order would have been found to accord with the actual position of groups and articles exhibited. For the sake of convenience of reference, however, as well as for the purpose of conveying a proper idea of the comprehensiveness of the Exposition, it is better that my report should observe the method in actual use and that it should present the general scheme as a whole, which was as follows:

First Group.—Works of Art..

- CLASS 1.—Paintings in oil.
 2.—Various paintings and designs.
 3.—Sculptures and engravings on medals.
 4.—Designs and models of architecture.
 5.—Engravings and lithographs.

Second Group.—Materials and their Applications in the Liberal Arts.

- CLASS 6.—Specimens of printing and publishing.
 7.—Specimens of stationery, bookbinding and of materials used in painting and designing.
 8.—Specimens of design and plastic moulding applied in the ordinary arts.
 9.—Proofs and apparatus of photography.
 10.—Instruments of music.
 11.—Apparatus and instruments of the medical art.
 12.—Instruments of precision and apparatus for instruction in science.
 13.—Geography, cosmography, apparatus, maps, charts, &c.

Third Group.—Furniture and other Objects used in Dwellings.

- CLASS 14.—Rich furnishings of every sort.
 15.—Upholstery and decoration work.
 16.—Crystals, rich glass ware and glazing.
 17.—Porcelain, all kinds of glazed earthenware and other potteries.

- CLASS 18.**—Carpets, hangings, and other furniture tissues.
 19.—Painted and printed papers.
 20.—Cutlery of every sort.
 21.—Gold work, whether for religious service or domestic use.
 22.—Bronzes, various artistic castings, and works in metals generally.
 23.—Clocks and clock work, and chronometers of every kind.
 24.—Apparatus and methods of warming and lighting.
 25.—Perfumery.
 26.—Fancy articles, toys, basket work, &c.

Fourth Group.—Garments, Tissues for Clothing and other articles of Wearing Apparel.

- CLASS 27.**—Yarn and tissues of cotton.
 28.—Yarn and tissues of linen, hemp, &c.
 29.—Yarn and tissues of combed wool.
 30.—Yarn and tissues of carded wool.
 31.—Silk and tissues of silk.
 32.—Shawls, of whatever material.
 33.—Laces, embroideries, and trimmings for clothing, military clothing, furniture, carriages, harness, &c.
 34.—Hosiery, linen, and other articles of clothing and personal use.
 35.—Clothing for men, women and children.
 36.—Jewelry and precious ornaments.
 37.—Portable armor, offensive and defensive.
 38.—Articles for traveling and for encampment.
 39.—Toys and gewgaws.

Fifth Group.—Products, both wrought and unwrought, of Extractive Industries.

- CLASS 40.**—Products of mines and metallurgy.
 41.—Products of the forest.
 42.—Products of hunting and fisheries, and collections of natural growth.
 43.—Agricultural products (not used for food) of easy preservation.
 44.—Chemical and pharmaceutical products.
 45.—Specimens of the chemical methods of bleaching and dyeing, of stamping and various preparations.
 46.—Leather and skins.

Sixth Group.—Instruments and Processes of Common Arts.

- CLASS 47.**—Apparatus and methods of mining and metallurgy.
 47.—Implements and processes of rural and forest work.
 49.—Apparatus for hunting, fishing, and for collecting natural products.
 50.—Materials and methods of agricultural works and alimentary industry.
 51.—Chemical, pharmaceutic, and tanning apparatus.
 52.—Meters, generators, and mechanical apparatus, especially adapted to the uses of the Exhibition.
 53.—Machines and mechanical apparatus in general.
 54.—Machine tools.
 55.—Apparatus and methods of spinning, rope-making.
 56.—Apparatus and methods of weaving.
 57.—Apparatus and methods of sewing and making clothes.
 58.—Apparatus and methods of making furniture and household objects.
 59.—Apparatus and methods of paper-making, coloring and stamping g.
 60.—Machinery, instruments, and methods used in various works (such as stamping money, making, pins, envelopes, &c.)
 61.—Vehicles of every sort, carriage and cart work.
 62.—Harness work and saddlery.

CLASS 68.—Railway engines, cars, and every sort of construction and material for railways.

64.—Apparatus and methods of telegraphy.

65.—Materials and methods adapted to civil engineering, public works and architecture.

66.—Navigation and salvage (including models of ships, docks, floats, sub-marine boats, diving-bells, life boats, &c.)

Seventh Group.—Food, fresh or preserved, in various stages of preparation.

CLASS 67.—Cereals and other farinaceous edibles, with their derivatives.

68.—Baking and pastry cooking.

69.—Fat alimentary substances, milk, eggs.

70.—Meat and fish and their methods of preparation and preservation.

71.—Vegetables and fruits, fresh and cured.

72.—Condiments and sweetmeats, sugars and specimens of confectionery.

73.—Fermented drinks of every description.

Eighth Group.—Live Animals and specimens of Agricultural Establishments.

CLASS 74.—Specimens of rural work, and of agricultural establishments, (including besides types of rural buildings, and of agricultural manufactories, distilleries, sugar mills, refineries, breweries, silk-worm nurseries, &c., and all kinds of agricultural machinery.)

75.—Horses, donkeys, mules, &c. Animals presented as characteristic of the art of breeding in all countries.

76.—Oxen, buffaloes, camels, &c.

77.—Sheep and goats.

78.—Swine, rabbits, &c.

79.—Poultry.

80.—Hunter's, watch and shepherd's dogs.

81.—Useful insects, such as bees, silk-worms, cochineal, &c.

82.—Fish, crustacea, mollusca, and other useful aquatic animals.

Ninth Group.—Live Products, and Specimens of Horticultural Establishments.

CLASS 83.—Hothouses and their accessories, and horticultural material.

84.—Flowers and ornamental plants.

85.—Kitchen and garden plants.

86.—Fruit trees, including species of plants and specimens of orchards in all countries.

87.—Seeds and useful fruit plants. Species of plants and specimens of culture, indicating the methods of re-planting forests in different countries.

88.—Hothouse plants. Specimens of culture of various countries, with the view to utility and ornament.

Tenth Group.—Objects exhibited with a special view to the Amelioration of the Moral and Physical Condition of the Population.

CLASS 89.—Materials and methods for teaching children.

90.—Libraries and materials for education of adults and families, the workshop, the commercial and the corporation school.

91.—Furniture, clothing and food, of all origins, distinguished for useful qualities, united with cheapness.

92.—Specimens of popular costumes of different countries.

93.—Specimens of habitations, characterized by cheapness, uniting sanitary conditions and comfort.

CLASS 94.—Products of all sorts made by master workmen, (products distinguished for their own qualities, novelty, perfection of the method of work, or by the useful influence this kind of work may exercise on the moral and physical condition of the people.)

95 —Instruments and methods of work peculiar to master workmen, (manual works which, from various causes, have most successfully resisted the competition of machines, &c. &c.)

MULTITUDE OF THE EXHIBITS.

In 1798, when the first national industrial exhibition of which we have record, was held in the Champ de Mars, but one hundred and ten exhibitors responded to the call of the French government. And even when, in 1851, Great Britain cordially invited all the nations of the world to place their products in friendly competition in the Crystal Palace, but 13,947 entries were made. Five years later, the number at Paris was 23,954. In 1862, it rose to 28,653. A vast number of exhibitors truly—all the greater, too, when it is remembered that not unfrequently one single exhibitor exhibits very many distinct articles. What then shall we say of the Exposition of 1867, at which the number of exhibitors was no less than 50,226—almost twice as large as the largest number ever represented before!

In view of these figures and of the great variety in the articles, as shown by the preceding system of classification, the impracticability of considering them in general, much less in detail, within proper limits, must be at once apparent. I shall make no apology, therefore, for confining my report to such general illustrations of industrial and national progress as were most forcibly presented by the Exposition.

THE EXTRACTIVE INDUSTRIES.

In no department of industry do we find more marked evidences of progress than in that which deals with nature at first hand, with the view of deriving the utmost and most immediate advantage from the cheap production of the raw material of the best quality.

The Art of Mining has made yet further advances, not only through the more general application of geological science

but also and pre-eminently through the application of recognized principles of physical science and by means of marked improvements in mining-engineering.

Discoveries of new deposits of the useful and precious ores have been made in both the old and new world, and mines long worked have been rendered more valuable by improvements in the art of mining. Man is no longer, as formerly, limited to superficial operations, but safely and with rich returns, pierces the solid crust of the globe to great depths, boldly demanding the place and commanding the possession of her hidden treasures. Scarcely anything now baffles him. Do immense strata of flinty rock lie between him and the sources of wealth and power, with tools yet harder, driven by powerful engines backed by his own irresistible will, he drives his way through them. Are deep and seemingly inexhaustible supplies of water encountered, he marshals his mighty engines in number and capacity sufficient to conquer the floods. Is the coveted mineral at last found in the midst of noxious gases that no human lungs may inhale, he brings to bear his command of the material forces and at once supplies them with the pure atmosphere of heaven, so that the opened mine becomes the chosen habitation of thousands who work them. And so, at last, by the aid of steam and engineering, he brings to the light of day vast stores of the best material gifts of God.

In 1862, Sir William Armstrong calculated that the mining of coal could never be carried on at a depth exceeding four-fifths of a mile. But, with the facts of the last decade before him, no man may safely calculate the limit, unless it be made co-extensive with the limit of supply. Economy everywhere and in every way characterizes the works of the Creator, and no deposits of mineral designed for the use of man are beyond his reach.

In Metallurgy, the progress of the past five years has been still more remarkable. This is especially true in reference to the manufacture of steel. By the old process of *cementation* much time was required and great expense involved. The

product consequently bore a very high price and was limited to cutlery and a few other articles essentially requiring a hardness, tenacity, or elasticity not possessed by iron. To increase the production and reduce the cost of so valuable a form of iron, men of genius had long labored with but partial success up to a very late period; so that quite recently even at Sheffield, which has long led all the cities of the world in the manufacture of steel, it sold at \$250 to \$500 per ton, according to quality.

The puddling process at length came, and was a great improvement on that of cementation. But something better still was demanded; and a little more than five years since Mr. Bessemer of England came to the rescue with the important process which bears his name, and by means of which steel is now sold at a comparatively moderate price, in both Europe and America. The Bessemer process consists in oxidizing out of the cast iron, from which the steel is manufactured, its excess of carbon by forcing through the molten mass currents of atmospheric air by means of a powerful bellows. The work is rapidly done and the excellent product was selling last year in Paris at \$60 to \$66 per ton, while the price of iron was only one third less.

Bessemer steel was first presented to an incredulous public at the International Exhibition of 1862. For a moment the world was satisfied. But one prominent difficulty yet stood in the way of cheap steel. Its manufacture, even by the Bessemer process, required a good quality of coal. The advance from charcoal to mineral coal was a great step. But the supply of this was wearing away even in the coal-producing countries, while in many non-producing localities it could only be had at high prices. The genius of another inventive Englishman was therefore laid under contribution, and thus at the next great exhibition, in 1867, a new and even greater wonder was produced.

The Siemens Furnace, having been thoroughly tested meantime in several countries, came to Paris to receive the "Grand Prize," and to be pronounced the most important metallurgic

invention of the day. This furnace embodies two distinct principles—the application of *gaseous* fuel and the “regeneration” of heat by means of piles of brick, alternately passed over by the waste gases and by the gases entering the furnace before combustion. By means of it not only is it possible to produce a better quality of steel and just the quality desired, and with less waste of iron, but also to use any sort of coal, and even lignite and peat. It has been wonderfully successful wherever introduced and must rapidly make its way into all countries.

There were also at the Exhibition, shown by M. Berard and others, samples of steel made with the aid of the Siemens Furnace directly from pig iron. The process used by M. Berard is at once beautifully simple and effective.

Apparently, we lack but one more step to insure the introduction of steel into much wider use, and its almost universal substitution for iron, to-wit, its direct manufacture from iron ore, without the intermediate agency of blast furnaces or any other agency or process. This also is furnished us. Even now, Mr. Siemens, availing himself of his furnace, offers to the world a method by which, in his opinion, this great desideratum is to be attained. A model of the furnace used by him in his experiments and a piece of steel manufactured directly from the ore were on exhibition at Paris.

Whether it has been given to Mr. Siemens to take the last grand step or not, there is now no doubt that it will soon be taken. And when it comes, every department of industry will realize its immense value, for there will be scarcely any limit to the applications of steel. Navigation, railways, engineering, agriculture, architecture in every branch, and the whole world of operative machinery will receive such an impetus as they have not had since the invention of the steam engine. Even now, there is but little doubt that railway companies, could they afford the immediate outlay, would gain largely by the substitution of steel for iron rails as fast as they require renewal. For, although the first cost would be considerably more, the steel rail would make a better road and last more than ten times, (General Morin, of France, says twenty-four times) as

long. English and French **railway** companies are already laying steel tracks, not only in the vicinity of great cities, where the wear is greater, but throughout the whole length of extensive lines. While the writer was abroad, the Paris, Lyons & Mediterranean Railroad Co., had already ordered 137,000 tons of Bessemer steel rail for their road, and were vigorously at work putting them down the whole length of their line, over 500 miles.

The popular notion that the best of steel can only come from Swedish iron is believed not to be well founded. When they are better known, the magnetic ores of Wisconsin and Michigan will be recognized as scarcely less valuable for such uses.

The manufacture of glass and pottery ware, terra cotta and brick has also derived great advantage from numerous applications of the principles embodied in the Siemens furnace, as the process may not only be carried on continuously, but with less consumption of fuel, and less expense generally. I found, at Vienna, a single brick manufacturer who was employing nineteen of these furnaces and 4,500 men, with an annual product of 198,000,000 brick.

The coal mines and forests of the world were well represented at the Exposition; massive specimens of coal, weighing several tons, nobly declaring the supremacy of America—not in the amount produced, for England leads the world in that, but in the extent of the supply—and suggesting to the reflecting mind greater economy than is now practiced in the use of fuel of every kind.

A short time since, Sir William Armstrong, as President of the British Association for the Advancement of Science, raised the alarm on the coal question, declaring that at the present rate of production, with a reasonable increase, the coal deposits of Great Britain would be consumed within two hundred years. The thought of prospective exhaustion is also being awakened in the minds of the statesmen of other countries, and inventive genius has been of late turned in the direction of improved methods of consumption. At present, scarcely less than one-third of all the fuel consumed, whether

wood or coal, is wasted—worse than wasted, because the combustible material lost in the smoke of furnaces, locomotive funnels, and the chimneys of factories and dwellings, besides being a waste, is a positive nuisance.

The remedy should be two-fold—first, the construction of furnaces, flues, &c., on scientific principles; and, secondly, the utilization of combustible material now rejected. The first method has already been made available to a good degree by the economical furnaces above referred to. But furnaces such as the Siemens, Berard, and others, are comparatively few in number. Science must devise some sure and convenient way of saving on a grander scale by a proper construction of steam-engines, stationary, locomotive, and marine. The time should speedily come when the black cloud that follows the railway train, or mantles the coal-burning city like a pall, shall be seen no more. Already there are valuable improvements before the world, covering a part of this ground, but they are tardily adopted in our country on account of the abundance of fuel.

The second method of economy, the utilization of refuse and now unused material, is also attracting much attention. In Austria coal-dust is being used by being first converted into an *agglomeration* by means of a cement consisting of $2\frac{1}{2}$ parts of coal tar, one part of gluten and one half part of starch. About two per cent. of this is mixed with the dust by the aid of machinery, and it is then thrown into a hopper and comes out handsome *bricks* of some 10x5x5 inches in size. Samples of this coal are now on exhibition at Paris, and I have placed a specimen brick in the State Agricultural Rooms. Machinery and furnaces are also in use in various countries for the consumption of peat and lignite, instead of coal.

The varied specimens of timber—some of them immense logs and huge blocks, brought from Canada and other more remote colonies of Great Britain, from many portions of France, Germany, Scandinavia and Russia—nobly represented the forests of the world, and yet mutely appealed to the thoughtful economist for the initiation of measures in all countries for their more sparing use and timely reproduction. Forestry is

treated by many of the governments of Europe, even now, as both an art and science, and schools of forestry, well endowed and officered by men of ability and distinction, are found in all the leading, and even in many of the smaller countries and principalities of the continent. The time is coming, and now is, when the attention of our state and national governments must be turned to this important subject.

Agriculture.—Progress in this department of extractive industry has been manifold and important. The *cotton famine* that prevailed during the American war, gave rise to numerous experiments in various other parts of the world, especially in India, Egypt, Brazil, the Levant and the Antilles.

Before the war, Europe derived 1,432 millions of pounds, or almost five-eighths of its entire supply, from the United States. Now, much the larger proportion is derived from the other sources named. During the interval, India has increased her product from 180 millions pounds to 506 millions. Quite successful experiments have also been made in Algeria, Australia, Cochin China, Queensland, the West Indies, Peru and even in Italy and Southern France. In none of these countries is the quality of cotton equal to the best American, and yet much of it will be employed in domestic manufactures and the best find its way into the great manufacturing countries in competition with ours.

Sheep-husbandry has also extended itself in a remarkable manner, and has been characterized by a generally improved quality of the fibre—the result of a better diffusion of a knowledge of the principles of breeding and the management of flocks. This is true as applied to the older and more advanced nations generally. But the most noticable feature of this subject is the extraordinary development of the business of producing wool in many far-off and semi-civilized portions of the world. The growth of this branch of husbandry in Australia, South Africa, and in that vast region of country, constituting the valley of the La Plata and its tributaries, has been without parallel. In the first-named country it was

only at the beginning of this century that the first flock of eight sheep was introduced. Now they number fifty millions. The climate has been particularly favorable; the wool is fine, strong, ductile and of easy torsion, serving well and chiefly for combing, as you will see by the samples I have placed on exhibition in the State Agricultural Rooms. On the LaPlata, the development of sheep-husbandry has been even more marked than in Australia.

According to recent German estimates, the present annual product in the wool-producing countries is as follows:

	Pounds.	Pounds.
Great Britain.....	260,000,000	
German States.....	200,000,000	
European Russia.....	125,000,000	
France.....	123,000,000	
Spain, Italy and Portugal.....	179,000,000	
Total European product.....		827,000,000
Australia, South Africa and South America.....		157,000,000
Northern Africa.....		49,000,000
United States.....		95,000,000
British American Provinces.....		12,000,000
Asiatic countries.....		470,000,000
Total in the entire world.....		<u>1,610,000,000</u>

The exhibitions of wool made by France, Prussia, Saxony, Austria and Australia were especially worthy of notice—the display made by Saxony, for completeness, uniformly fine quality of samples, and the exceeding neatness with which they were put up for exhibition, surpassing all the other countries.

Silk culture has suffered of late very seriously from certain diseases affecting the worm and destroying them by millions. At present Japan appears to be the only country that has escaped. Seed worms are accordingly imported from there at high prices, into the silk-producing countries of Europe. Efforts are also being made to procure valuable silk-worms of other kinds that do not feed upon the mulberry—with what result remains to be seen.

The value of raw silk annually produced by the different countries and continental divisions of the world is about as follows:

Chinese Empire.....	\$81,200,000	
Japanese Empire.....	17,000,000	
India.....	24,000,000	
Persia.....	5,000,000	
Island of Asia Minor.....	5,200,000	
Syria.....	1,800,000	
Turkistan (in China).....	400,000	
Turkistan (independent, in Asia).....	400,000	
Corean Archipelago.....	100,000	
Total value of product in Asia.....		\$135,100,000
France.....	\$25,000,000	
Italy.....	39,200,000	
Turkey in Europe.....	7,000,000	
Spain and Portugal.....	3,200,000	
Pontifical States.....	1,300,000	
Greece, Ionian Islands.....	840,000	
Basin of the Danube, Austria, Bavaria, Servia, Hungary.....	1,280,000	
Total value of product in Europe.....		\$77,820,000
Mediterranean coast of Africa.....		300,000
America.....		80,000
Oceanica.....		120,000
Total value of raw silk produced in the world.....		<u>\$213,420,000</u>

The favorable climatic conditions offered for the production of silk by many portions of this country warrant the belief that the day is not far distant when the culture of the silk-worm will constitute an important branch of American husbandry. Indeed, nearly all the experiments made in this country, especially in the Southern States, were entirely successful; and but for the *morus multicaulis* mania, which, immediately upon the discovery of the adaptability of the business to nearly every section of the United States, spread like an epidemic everywhere, and brought a fatal reaction, the production of silk would have been an established branch of our industry long since.

Quite recently, much attention has been given to this matter in California, whose warm and dry climate seems particularly adapted to the culture of the worm, and the production of a good quality of silk. Already a considerable capital has been invested in the enterprise of planting the trees and erecting suitable establishments for working up the raw material. But last year, certain parties at Santa Barbara, possessed of ten thousand mulberry trees in a flourishing condition, produced three hundred thousand cocoons of excellent quality; while, at San Jose, a large factory provided with all requisite

machinery, and designed to include forty looms, for the manufacture of taffetas of superior quality, was being erected.

It seems to have been pretty well established that the business of producing silk may be advantageously prosecuted wherever the mulberry will flourish, and that the mulberry may be successfully cultivated wherever the grape succeeds; but that stormy and moist climates are not favorable to the culture of the worm or the production of the best quality of silk.

The silks on exhibition were such, in both quantity and quality, as to raise no suspicion that anything was wrong in this important branch of husbandry, but the price of silks the world over tells the story in a way sure to be appreciated by all but the most wealthy consumers.

The production of the sugar beet, and beet sugar manufacture are acquiring such colossal proportions in Europe as to challenge the attention of the American agriculturist. In France, Belgium, Germany and Austria, and also in portions of Russia, this sugar is largely superseding all others. In the Zollverein States of Germany alone, there are nearly 500 great establishments for its manufacture, and the product is said to be but little short of 200,000,000 pounds per annum.

The beet grown is the white Silesian variety. It is easily grown, and yields ten to fourteen tons to the acre. Growing best above latitude 45, in Europe, and being adapted to a light soil and dry atmosphere, I am inclined to think there are many portions of Wisconsin where it could be made an important crop.

The beet keeps fresh for a considerable time without injury, and is susceptible of being cut into pieces—as is much done in Germany—dried, and, in this form, either stored for an indefinite period, or transported to any distance for manufacture.

The illustrations of different species and breeds of domestic animals at the Exposition were exceedingly interesting. Foreign cattle were prohibited owing to the prevalence of certain con-

tagious diseases which have proved so destructive in portions of Europe during the past few years; but horses, sheep, goats, camels, swine, and other species, had place on the island of Billancourt, and together made an interesting exhibition. Several fine blooded horses from St. Petersburg, sent by the Emperor, and during the Exhibition kept right royally in the Russian quarter of the Park, attracted great attention and received appropriate awards. Several camels from Egypt added grotesqueness to the already singular looking *Quartier d'Egypte*.

Of the implements of agriculture—also chiefly shown on Billancourt—space would fail to make adequate notice. But few new ones were there, however, and none of those of striking importance. McCormick's Reaper and Wood's Mower sustained the American supremacy in their department, and each received a gold medal, while their worthy inventors were decorated by grace of His Majesty the Emperor, with the Gold Cross of the Legion of Honor. Comstock's Rotary Spader was also there, and made two or three quite successful trials in the field, winning a Silver Medal.

PROGRESS OF THE CHEMICAL ARTS.

The Chemical Art seems to have been no less active during the past than during the previous five years. To the great number of beautiful dyes derived from coal—mauve, magenta and others—that delighted the curious at the Exhibition of 1862, and added new value to so many beautiful tissues, there have been added others scarcely less wonderful and precious. Not only so, means have been invented for using some of them as pigments, as which they are said to be no less beautiful and unfading than as dyes.

Improved processes for the extraction of metals from their ores, as well as of a number of new and valuable substances from petroleum and a multitude of salts, dyes and pigments from mineral and vegetable sources afford other equally remarkable illustrations of the truth of the general remark above made.

But the most remarkable chemical discovery of recent years is one that was made public in Paris during the progress of the Exposition of 1867, and for which the discoverer was awarded a grand gold medal by the International Jury. I refer to the process of Prof. Dr. Louis Brunetti, of the University of Padua, for the preservation of the form and appearance of animal bodies. Some such process has long been deemed a great desideratum of surgical science, and has long been labored for with unwearying patience by distinguished chemists in all countries. At first, the method of Prof. Brunetti was kept a secret from all the world, except a commission composed of Baron Liebig, and Professors Tardieu and Milne Edwards, to whom the full details were communicated in the month of May. Having been carefully tested and cordially approved by these distinguished savans, on the 22d of August, the discovery, with precise details of the process, was presented by Dr. Brunetti, in the amphitheatre of the Faculty, at Paris, before the International Medical Congress there convened, and consisting of over six hundred French and foreign physicians of eminence. Its importance was deemed so great, and the cordial and generous manner of its presentation to the world so marked and commendable, that its communication was received by the Congress with three cheers and other demonstrations of great enthusiasm.

The process, though four-fold, consisting of washing, scouring, tanning and drying, is perfectly intelligible to any one having only a partial knowledge of chemical agents; and since I have seen no notice of it in this country up to the date of this writing, I think proper to give it entire :

The washing is effected by causing a current of water to pass through the blood vessels and excretory ducts, which expels all the liquids—blood, lymph, etc.,—and which, in turn, is itself driven out by injecting alcohol. The scouring (*degraisage*) is accomplished by replacing the alcohol with sulphuric ether, which enters and passes through the natural vessels and ducts, and by penetrating the tissues dissolves out all fatty matters. This part of the operation requires several hours,

during which time the anatomical piece is preserved by being saturated with the ether until ready for the next step, which consists in driving out the ether by injecting a concentrated solution of tannin in boiling water, having first expelled the ether by an injection of distilled water. Dessication, the only remaining process, is ingeniously effected by placing the body or portion to be preserved in a vessel with a double bottom, the space between the two walls being filled with boiling water by means of a system of tubes with cocks. Finally, hot air, compressed to two atmospheres, and forced through a vessel containing chloride of lime, to deprive it of all moisture, is driven through all the vessels and excretory ducts, to the expulsion of whatever they contain, and the whole process is finished.

The specimen of anatomy thus treated retains its original volume, with the normal relation of all its parts—the liquids alone not being present—and has, moreover, a lightness, flexibility and naturalness of appearance unapproached by any of the imitations that art has yet produced. Indeed, except that it has these qualities of natural softness and of more than natural lightness, it is precisely as if it had been suddenly congealed.

The collection of Dr. Brunetti, comprised sixty distinct pieces, representing various portions of the human body, some normal and some pathological, and constituted not only one of the most interesting features of the Italian department, but one of the most intensely interesting exhibits in the Palace of Exposition.

PROGRESS OF THE MECHANIC ARTS.*

This title opens a boundless field, and one of the very first importance, since every other department of industry looks to the mechanical inventor for the means of its own advancement. But for the steam-engine, the cotton-gin, the spinning-jenny, the power-loom and the power press, the most enlightened nations of the earth would have been still in the twilight of a semi-civilization. It is here that a single happy thought,

* The term *Mechanic Arts* is here used in its restricted sense.

taking the form of some simple contrivance, is able to give birth to new industries and revolutionize society.

The position and the value of this department were fitly illustrated in the Great Exposition. If one could conceive of some Titanic power, placed underneath the central portion of the Palace, and capable of gradually lifting it until the whole grand collection in the several groups had assumed the form of a cone, he would then have a beautiful presentation to the eye of the relations of the several departments of industry to each other and to the progress of mankind. First Agriculture upon the plain and encompassing this mountain of glory, with its simple foods, the primary necessities for the animal life of man, and the raw materials out of which his genius and growing intelligence were to form the countless articles of a higher and more refined existence; then that grand circle of machinery, as comprehensive in the scope of its uses as the material of the world and the needs of man; and so upward to the apex, where Art sat enthroned among the glories of her genius.

No portion of the Palace of Exposition so fascinated and held me as this grand annular "nave." The "galleries," stored with beautiful instruments and utensils, delicate tissues, infinite in variety and pattern, and with the products of artistic genius, were attractive and wonderful. But they were not, and could not, be so daguerreotyped upon the memory as that more marvelous gallery of nearly a mile in circuit, within whose crystal walls and underneath whose vaulted roof were embraced ten thousands curious machines, each moving and fulfilling its office as if it were possessed of intelligence, here and there overshadowed by majestic engines of incredible proportions and more than Cyclopean power, and awed as it were into reverence and harmony of music by the grand anthems of heavenward-reaching cathedral organs that united their sweet and solemn voices with the indistinguishable hum and whirr and rattle and roar of that most remarkable demonstration of man's inventive genius the world ever saw.

No previous exhibition has so shown the wonderful extent of

the innovation of the mechanic arts upon the domain of every other art. The mechanical inventor seems to be argus-eyed. No field of enterprise, and no possibility of the physical forces entirely escapes him. If he does not succeed at once in all—and how, without omniscience, could he?—yet is he early on the way to success and never done trying until he attains it.

One of the most attractive features of Group VI was the exceedingly interesting demonstration of various processes of manufacture by operators skilled in the different branches of mechanical industry, using the most approved machinery of which the directing nations had knowledge. The making of boots by machinery, the manufacture of felt and straw hats, laces, embroideries, artificial flowers, shell combs, gilded buttons, meerschaum pipes, carved ornaments in wood, engraving on wood, copper and steel, the making and mounting of opera-glasses, the printing and binding of books, the dressing of diamonds, the weaving of ribbons, and a thousand other operations were carried on under the eye of the throng of visitors who crowded the grand nave from morning till evening, never weary and ever intensely delighted with the wonderful precision of machinery, and the only less marvelous skill of the workmen.

While the activity of the past five years has produced no new mechanical invention, the gift of which to the world is sure to produce a grand and universal influence upon industry, like that which has followed the few leading inventions of the past half century, still it has been exceedingly fruitful in the way of improving and perfecting such as were already in use, and perhaps, also, in leading the way to the use of new motive powers, such as compressed air, water under pressure, ammoniacal gas and hot air, which may yet prove of incalculable value.

In the way of new applications, and the extension of motive powers already in common use, a very remarkable invention was offered by Mr Hern, of Logelbach, by means of which he not only proposes to, but actually does communicate the force supplied by water-powers to considerable distances, with but little expense and with trifling loss of power.

It often happens that streams capable of supplying an immense power, are so hemmed in by rocky shores as to afford little or no room for the planting of mills and factories where it is necessary to put them, in order to make that power available. So also, where the banks are low and the contiguous lands level and otherwise valuable they can not be occupied as mill or factory sites without great sacrifice. And, again, when neither of these difficulties lies in the way, it may be impracticable to procure sites that will give proper security against destructive freshets. Mr. Hern proposes, therefore, first to make his hydraulic machine sure in the place where he wants it, and then to plant his manufacturing village where security, convenience of access, amplitude of area and cheapness of territory may direct his choice. In a village of factories now operated on the Rhine, through the intermediate agency of his invention, the motive power is transmitted to considerable distances with a loss of less than 20 per cent., and he feels confident of his ability to operate factories at a distance from the source of power of over twelve miles! Applications of the principles embodied in his invention have also been made at other places on the continent, and there seems to be a general belief that it will prove a certain success. As an American, I naturally thought of Niagara and of the mighty city and the thousands of thundering work shops that might be eventually built up in the vicinity of that gigantic water-power!

Munitions of War.—At no former exhibition has there been so extensive and attractive a display of engines for the destruction of hostile armies and navies. Through all the wide range of weapons, from the unequalled Colt's revolver to the great Russian cannon weighing 640,000 pounds, the warring nations were represented. It was the opinion, I believe of those competent to judge in such matters, that, in small arms and heavy ordnance, as well as in the construction of iron-clad ships of war, America ranks before all other nations; while, in the matter of light ordnance, the English Whitworth gun is entitled to the palm.

Machine tools.—In this class England and America still lead the world; those by American inventors, so far as represented, being entitled to the highest rank. It is only by the means of precision made possible by the aid of such tools, that machinery itself as well as the countless products of the machine arts have attained to their present high degree of perfection.

Great Public Works.—This is an age of gigantic undertakings. Improvements are projected on a colossal scale and executed with a corresponding energy and skill.

Several of the great works now in progress, or recently completed, to wit: the Suez Canal, the Mt. Cenis Tunnel and Railway, the Chicago Tunnel, and the Pacific Railway, were illustrated by models and charts, with statistics and estimates. No needed improvement seems at this day beyond either the conception or the achievement of man. The bridging of mighty rivers, the sending of railway trains through or over vast mountain ranges, the opening of navigation between great seas separated by the rocky limbs or loins of continents, the supply of thirsty cities with pure water from remote distances and through vast subterranean and submarine channels, the supplying the body of the globe with electric nerves for international communication, and the improviseing of vast navies of iron ships with armaments such as Neptune and Vulcan never dreamed of in their day, are but as gymnastic sports for the mechanical athletes of our wonderful times.

The application of steam, and the improved metallurgic processes, to which I have already referred, and which are eventually to make the steel of the future cheaper than the cast iron of to-day, lie back of all these vast achievements and in their further development are destined to render yet greater ones possible.

Manufactures.—Here the field is too wide for even a glance in this report, at the numberless branches whose advancement would require notice. It may be remarked of manufactures, generally, however, that, in nearly all classes, in which form is an

element of value, there has been almost universal improvement since the exhibition of 1862. Through the influence of schools of design and the revival of art, that love of the beautiful which made the memory and the works of Greece and the homes of mediæval art immortal, has had a greater diffusion in both the old and new world ; so that traces of its yet partial influence are distinctly perceptible in very many of the collections of crystal, porcelain, gold and silver and pottery wares, tissues, prints, ornaments for personal and household use, furniture, utensils, and nearly all else to be seen at the Exposition. If all manufactures have not cheapened during the period in question, it has not been the fault of either the scientist, the inventor or even the manufacturer. In the normal condition of society the necessary effect of the introduction of improved means of production is to both diminish the price and increase the demand.

THE DEPARTMENT OF SOCIAL SCIENCE.

Had it been superior to its predecessors in no other respect, the Exposition of 1867 has won for itself a shining place in history, and for its far-seeing imperial projector immortal honors, by the incorporation, in the plan of its organization, of a separate group (X), having for its direct object the encouragement of all agencies and instrumentalities specially designed, "for the amelioration of the moral and physical condition of the population."

It was not enough that the nations met to compare the fruits of their genius and labor, each learning from and teaching the others; it also needed to be put into their thoughts and into their hearts that the great object of this gathering of the peoples and products of all lands was the social advancement of the whole human race. This noble end was doubtless before the mind of the good and philanthropic Prince Albert, when he sent abroad the first invitation to the nations; but it was left to the great ruler of the French Empire to embody that idea in definite form, and to become, himself, the first competitor for the honors to be conferred upon those who should most wisely

plan and execute measures for improving the condition of the laboring classes of the people.

Better and cheaper food, clothing and shelter, greater intelligence, higher virtue and nobleness of life—these are the primary and essential needs of the laborer in all countries, and it was to help him somewhat in his struggle for these that Group X was instituted.

The objects embraced were numerous, and attracted great attention. In classes 89 and 90—thanks to the patriotism, enterprise, and energy of prominent citizens of Illinois, of whom U. S. Commissioner James H. Bowen, of Chicago, was chief—America was very creditably represented; first, by a neat, well finished, and handsomely furnished village, or cross-roads school-house, sufficient in size to accommodate some thirty to forty pupils; and, secondly, by a pleasant-appearing, well constructed, and commodious “Western Farmers’ Home.” These buildings were framed in Chicago, shipped to Paris with everything, except plaster, requisite to completion, and set up in the Park, where they were visited and intelligently examined by thousands and tens of thousands of the people of the Old World. Other nations were also represented in like manner; so that without travel beyond the confines of the Exposition Park, the student of political economies and of social conditions would be able to make fair comparisons.

In the general comfort and independence found among the people of the United States, without regard to class, we are able to teach the nations; but in matters of education, notwithstanding our noted conceit on that point, we have very much more to learn than to teach. This is especially true in the great and important department of technical education, embracing schools for instruction in the applications of science to the practical arts. This country is the most natural home of schools of that class, and yet in respect of them we are far behind Prussia and all the German states, Switzerland, France, and even Austria; in all of which countries they have exerted, and are exerting, a powerful influence for good.

The social condition of the whole world has made more

rapid improvement within the present decade than in any entire century of time before. Ideas of equality, of natural rights and of justice are far more prevalent than at any other time.

Just ideas of the brotherhood that should be established among all peoples are now widely diffused and must eventually bear fruit. As a harbinger of the good time coming, the collection of the current coins of all countries displayed in the pavilion that appropriately stood in the centre of the Central Garden embraced by the Palace of Exposition, as also, the International Congress of monies weights and measures, held at Paris during the period of the Exhibition, were highly significant facts. Not less so was the presence, in the Exposition, on terms of social and commercial equality, of the great nations of the East, which up to this time, since the beginning of history have stood aloof from the more progressive and christian nations of the Occident. Wars there may continue to be, while man is man, but when all people become neighbors, with daily interchange of products, thoughts, sentiments and kindly courtesies, and with at last, a community of institutions and of language, the world will certainly be much nearer the reign of Universal Peace.

THE GRAND FETE OF THE DISTRIBUTION OF PRIZES.

If any who hoped to witness a more brilliant and imposing pageant at the opening of the Exposition on the 1st of April, were a little disapointed, they were a thousand times compensated by the unprecedented pomp and magnificence of the Grand Fete of the Distribution of Recompenses on the 1st of July, whose place on one of the brightest pages of history was not better assured by the presence of a more brilliant throng of the royal representatives of the nations of the world than were ever assembled under the same roof before, than by the occasion of their coming and the extraordinary nature and circumstances of some of the honors conferred.

The place chosen for the fete was the grand nave of the Palais de l' Industrie, the main portion of which great edifice

permanently remains in the Champs Elysees, as a memorial of the Universal Exhibition of 1855. This veritable as well as nominal Palace, dedicated to Industry for all time to come, has a capacity on the floor of the nave, when unincumbered, sufficient to contain scarcely less than 160,000 persons. But on occasion of the fete of July the longitudinal centre was occupied by ten immense "trophies" of the products of industry corresponding to the ten groups of the Exposition, and presenting chosen samples of the world's best in each, through all that vast range, from a block of coal or an ear of corn up to the noblest works of human genius. On either side, and encompassing this long line of trophies, were broad, open, crimson-carpeted avenues, forming, by the junction of their extremities, one grand compressed ellipse, like the arena of the great Coliseum. From the outer edge of this circular avenue to the walls, except at one end that was occupied by the grand *escalier* of ingress and egress, were tiers of seats for the twenty-two thousand entitled guests. In the centre of the north side, upon an extensive *estrade* or platform, and at a height sufficient for its occupants to command an uninterrupted view of the entire palace and its throng of spectators, was the throne, with chairs of royal and imperial estate, for Napoleon and the Empress and the Sultan of Turkey, flanked by ranges of magnificent fauteuils for other royal guests of lesser rank—the whole surmounted by an alcove, baldequin and canopy, with the Imperial crown and backed by the escoccheon of His Majesty in crimson velvet and gold, forty feet high. Confronting the throne, on the opposite side of the arena, were sumptuous seats reserved for members of the different diplomatic corps, foreign members of the International Jury and Subscribers to the Exposition Fund. The decorations consisted of an incredible profusion of flowers, distributed throughout the entire Palace, of municipal and other banners, stationed where were the places of local and national delegations and commissioners, and of a perfect forest of the gay-colored flags of all nations, displayed from the pillars and pilasters on every side, and

from the girders that supported the over-arching roof of crystal.

Such, simply described, was the place destined to become the scene of a royal pageant and ceremonial, whose brilliancy has had no parallel in history.

The day was beautiful, and the people, multitudes of whom thronged the great avenue to witness the coming and going of the Emperor and his royal guests, were equally in harmony with the occasion. At 2 o'clock, the twenty-two thousand fortunate holders of tickets having long been in their places and looking with anxious expectancy for the moment of their coming, the royal and imperial company, heralded by the thunder of cannon, the clangor of bells, a flourish of trumpets, and the shouts of more than a hundred thousand voices, entered the vestibule of the Palace, where they were received by the Imperial Commissioners, and in due time ushered into the midst of the grand arena, greeted by the spontaneous uprising of the vast throng within, and by universally enthusiastic shouts of "Vive l'Empereur!" Their Imperial and Royal Highnesses being seated beneath the golden and crimson canopy, and the Inaugural Hymn of Peace—the words by Pacini, the music by the illustrious Rossini—having been performed by the grand orchestra of 1200 musicians, Mr. Rouher, Minister of State and Acting President of the Imperial Commission, delivered on its behalf the formal address to the Emperor, reviewing the labors of those who had been officially connected with the Exposition, and presenting in general terms the results of the examinations made by the International Juries, with a rapid survey of the advantages that must flow from the Exposition, as a whole.

The length of the address precludes its incorporation entire in this report, and I have accordingly limited my translation to the following instructive and highly interesting passages :

ADDRESS OF MINISTER ROUHER TO THE EMPEROR.

* * * "The surface occupied by the Palace and the dependences in 1855 was 37 acres ; in 1862 34 acres ; in 1867, it is more than 108 acres, of which the Palace covers more than 32 acres.

"the exhibitors, of whom the number was 22,000 in 1855, and 28,000 in 1862, have to-day reached the number of 00,000.

"The weight of objects exhibited can not be less than 56,000 tons. The communication established between the Palace and the continent have barely been able to provide the means for carrying and delivering with care and necessary despatch this enormous amount of material, arrived for the most part during the last days of the month of March.

"The motive power intasalled for putting in motion the machinery represents more than a thousand nominal horse power. The hydraulic service is established upon the basis of a distribution of water sufficient to meet abundantly the wants of a city of a hundred thousand souls.

"Notwithstanding the gigantic labors which such necessities have required, the work was found ready at the appointed time. But success, has it not crowned the enterprise? and those united efforts, have they not merited the two-fold and precious rewards that have been accorded them—the approbation of Your Majesty, and the cordal approval of public opinion. Judgement is to-day pronounced. The whole world has been struck with the conception of the general plan and facilities it offers for comparison and study. Every one approves that law of unity which brings together, in the Champ de Mars, the works of art, of industry, of agriculture and horticulture, heretofore presented in different places, but which here present in the same enclosure all the manifestations of human activity. * * *

"Thanks to an activity that has overcome all fatigues and embarrassments, the decisions requir d of the Jury by the 1st of July have all been rendered and the result can be proclaimed to-day before Your Majesty.

"The Jury has awarded to exhibitors:

54 Grand Prizes,
883 Gold Medals,
3,653 Silver Medals,
6,565 Bronze Medals,
5,801 Honorable Mentions.

"Notwithstanding the great number of recompenses, the Jury has been compelled to limit its choice, and to leave without mention, even, many interesting exhibitions, distinguished deserts, and industrial efforts worthy of the most serious encouragement.

"The Jury of the New Order of Recompenses have performed their duty none the less worthily, complicated as that duty has been, since it was not required of them to examine industrial products, but to analyze and compare social facts. It has accorded twelve prizes, twenty honorable mentions, and four citations

"This solemnity finds its climax in certain higher recompenses still. Your Majesty has deigned to confer on the most eminent competitors in this pacific contest, his Order Imperial of the Legion of Honor. The Imperial Commission lay at the feet of the Throne its most humble thanks for such evidences of an august sympathy. * * *

"Thus the Universal Exposition reveals new industrial results and inventions which, without it, would have remained impotent or unknown; places before the world the law of the division of labor as fruitful among nations as among individuals; gives a shining consecration to those principles of commercial freedom fearlessly inaugurated in France by Your Majesty; multiplies economical relations among the people and marks for a date near at hand the fruitful solution of the problem of the unification of weights and measures and of monies.

"The International Exposition produces fruits yet more important: it dissipates inveterate prejudices, overturns long-established enmities and causes sentiments of reciprocal esteem to spring up in their stead. The people, drawn hither by this extraordinary spectacle in this splendid capital, vainly seek the traces of past revolutions and find everywhere that grandeur and that prosperity which produce the security of the present and just confidence in the future. Princes and sovereigns, attracted by a noble hospitality, come, one after another, to exchange in this temple of civilization their friendly words which open calm horizons to all human activities and establish the peace of the world.

"In all these ways, Sire, the Universal Exposition of 1867 will furnish a brilliant page to the history of Your Majesty's reign and of the grandeur of the 19th century."

After the reading of this address, the Emperor pronounced the following words:

REPLY OF THE EMPEROR.

[Translation.]

GENTLEMEN:—After an interval of twelve years, I come again, for the second time, to distribute the rewards to such as are the most distinguished in those labors which enrich the nations, embellish life, and refine manners. The poets of antiquity celebrated with eclat the solemn games wherein the different colonies of Greece came to contend for the prize of the course. What would they say to-day, could they assist at these Olympian games of the entire world, where all peoples in a contest intellectual, seem to dart forward at once in the career of infinite progress towards an ideal, which they approach without ceasing, yet without the power ever to attain it?

From all places on the earth, the representatives of science, of the arts and of industry have joined in the contest; while peoples and kings are come to honor the efforts of labor, and by their presence to crown them with an idea of conciliation and peace. In fact in these grand reunions, which may appear to have nothing for their object but material interests, there is always a moral thought disengaged by the concourse of intelligent minds—the thought of concord and of civilization. The nations, in coming together, learn to know and respect each other; enmities are extinguished, and truth is established more and more as the prosperity of each country contributes to the prosperity of all.

"The Exposition of 1867 may be justly called *universal*, because it reunites all the riches of the globe; by the side of the latest improvements of modern art appear the products of the most remote ages, in a manner that represents at once the genius of all nations. It is universal, because by the side of luxuries for the individual, it is mainly occupied with what will meet the necessities of the greatest number. Never have the interests of the laboring classes awakened a more lively solicitude. Their moral and material needs, education, the necessities of existence at a fair price, combinations the most fruitful of associations have been the object of patient researches, and of serious study. Thus all improvements advance. If science, in subduing matter, enfranchises labor, the culture of the soul, in conquering vices, prejudices, and vulgar passion, enfranchises humanity.

"Let us congratulate ourselves, gentlemen, on having received most of the sovereigns and princes of Europe and so many eager visitors. Let us be proud that we have been able to show them France as she is, great, prosperous, and free. It is necessary to be wanting altogether in patriotic faith not to see her greatness; to close the eyes to all evidence, to deny her prosperity; to misunderstand her institutions, which sometimes tolerate even to the verge of licentiousness, not to see, here, liberty.

"Foreign people have been able to appreciate this France, lately so disturbed and casting off her inquietudes beyond her frontiers, to-day industrious and calm, ever fruitful in generous ideas, devoting her genius to marvels the most varied, and never permitting herself to be enervated by material enjoyments.

"Attentive minds will readily discover that notwithstanding the development of wealth, notwithstanding the resistless advance towards well-being, the national heart is here always ready to vibrate at the touch of whatever affects honor and country; but this noble susceptibility should not be a ground of anxiety for the repose of the world.

"Let those who have dwelt among us for a little time, bear to their homes a just opinion of our country; let them be persuaded of the sentiments of

esteem and of sympathy that we cherish for foreign nations, and our sincere desire to live among them in peace.

"I thank the Imperial Commission, the members of the Jury and of the different committees for the intelligent zeal they have displayed in the performance of their duties. I thank them also in the name of the Prince Imperial, whom I have been happy to associate, notwithstanding his youthful age, in this great enterprise, of which he will cherish the remembrance.

"The Exposition of 1867 will mark, I hope, a new era of harmony and progress. Assured that Providence will bless the efforts of all those who, like ourselves, desire the good, I believe in the definitive triumph of those grand principles of morality and of justice, which, in satisfying all legitimate aspirations, can alone consolidate thrones, elevate the people and ennoble humanity."

The address being concluded, M. Rouher, Minister of State and Vice President of the Imperial Commission, proclaimed the names of the persons, establishments and localities to whom had been decreed the recompenses of the "New Order" (of social harmony and the well-being of populations,) and afterwards the names of persons who had obtained grand prizes in the groups of Fine Arts, of Agriculture and of "Industry." The nominees for rewards in the New Order, preceeded by their banner, then advanced to the place of the imperial estrade, and ascending the steps to the front of the throne, received, in turn, as their names were again pronounced, their respective prizes from the hands of the Emperor; His Majesty, however, receiving the prize designed for himself from the hand of the youthful Prince Imperial, nominal President of the Commission.

Each of the groups of exhibitors, in order of number, now left its place about its particular trophy in the centre of the arena, and, preceded by its banner, conducted by the President of its Jury, in like manner approached the throne, and having received the prizes delivered to each entitled member thereof, again defiled in procession to its former place of rendezvous. When the distribution had concluded, the imperial cortege of illustrious personages, in a measured and stately manner, descended from the estrade of the throne, and in grand and solemn procession made the entire circuit of the annular avenue between the trophies on the one hand and the arcades occupied by the representatives of the different nations on the other, being received as they arrived at each national tribune by enthusiastic cheers and music from the orchestra in the fa-

vorite air of that particular country, and immediately thereafter retired from the Palace, amid the clapping of hands and huzzas of the entire throng of spectators of what was doubtless the grandest and most imposing scene ever witnessed by man.

THE AWARDS.

Mention of the number of prizes of each kind awarded by the juries is found in the extracts from the address of M. Rouher reported above, by which it will appear that the total number of grand prizes, of gold, silver and bronze medals and honorable mentions was 16,766. But even this immense number does not include all the recompenses, for in addition to and above all these, the Emperor graciously, on the nomination of his Ministers of State, of Agriculture &c., and of the House of the Emperor and of Fine Arts, decreed a very considerable number of appointments and promotions in the Legion of Honor, for distinguished contributions either to the progress of the arts or to the eminent success of the Exposition, to-wit: 3 French and 16 foreign appointments to the rank of "Grand Officer" of the Legion of Honor; 6 French and 9 foreign to the rank of "Commander;" 21 French and 42 foreign to the rank of "Officer;" 59 French and 118 foreign appointments to the rank of "Chevalier."

The names of all the exhibitors to whom were awarded prizes and mentions fill a large imperial octavo volume. Of American names alone the number is 296—not large, certainly, in comparison either with the awards to many other nations or with *possible* results, had the government and people of the United States been more prompt and spirited in their action, yet larger, in proportion to the number of exhibitors, than that of any other country, and larger, moreover, than can be conveniently included here, without exceeding the limits I had prescribed for myself in this report. Nevertheless, presuming that it may be as interesting to others as it is to me, I venture to incorporate the official catalogue in full.

AWARDS TO AMERICAN COMMISSIONERS, JURORS, AND EXHIBITORS.

CROSS OF OFFICER OF THE LEGION OF HONOR.

Beckwith, N. M. Commissioner General and President of the American Commission.

CROSS OF CHEVALIER OF THE LEGION OF HONOR.

- 1 McCormick, C. H., Chicago, Ill. See Nos. 11 and 18.
- 2 Wood, Walter A., Hoosick Falls, N. Y. See Nos. 12 and 29.
- 3 Chickering & Son, New York. See No. 13.
- 4 Howe, Elias, Jr., ———— See No. 17.

NEW ORDER OF RECOMPENSES,

For persons, establishments, or localities, which, by organizations or special institutions, have developed harmony among co-operators, and produced, in an eminent degree, the material, moral, and intellectual well being of the workmen.

- 5 Chapin, William, Lawrence, Mass; grand prize, a gold medal of the value of 1,000 francs, and 9,000 francs in gold.
- 6 Agricultural Society of Vineland, New Jersey; an Honorable Mention, unaccompanied by a medal.

FINE ARTS.

- 7 Church, F. E., New York city; the artist's medal, with 500 francs in gold. Landscape painting in oil.

GRAND PRIZES.

- 8 Field, Cyrus W.; an Anglo-American Transatlantic Telegraph Company; transatlantic cable.
- 9 United States Sanitary Commission; ambulances, materials, instruments, &c., for the relief of the wounded, used in the late war. See, also, Hon. Mention.
- 10 Hughes, ———, New York; printing telegraph.
- 11 McCormick, C. H., Chicago, Ill.: reaping machines. To this grand prize, gained in the field trials of agricultural machines, was added, by the Emperor, the Cross of Chevalier of the Legion of Honor. See also Nos 1 and 18.

GOLD MEDAL WITH WORK OF ART.

- 12 Wood, Walter A., Hoosick Falls, New York; mowing machines. To this prize, gained in the field trials of agricultural machines, was added, by the Emperor, the Cross of Chevalier of the Legion of Honor. See Nos. 2 and 29.

GOLD MEDAL.

- 13 Chickering & Son, New York and Boston; pianos. To this gold medal was added, by the Emperor, the Cross of Chevalier of the Legion of Honor. See No. 3.
- 14 Corliss Steam Engine Company, Providence, Rhode Island; the Corliss engine.
- 15 Fire-arm Manufacturing Industry of the United States; fire-arms. See, also, Nos. 96 and 123.
- 16 Grant Locomotive Works, Patterson, New Jersey; locomotive and tender.
- 17 Howe, Elias, Jr., "promoter of the sewing machine." To this gold medal was added, by the Emperor, the Cross of Chevalier of the Legion of Honor. See No. 4.
- 18 McCormick, C. H., Chicago, Illinois; reaping and mowing machines. According to the rule of the Imperial Commission this medal is absorbed in No. 11. See, also, No. 1.

- 19 Meyer, Victor, Parish of Concordia, Louisiana; short staple cotton.
- 20 Rodgers, C. B. & Co., Norwich, Connecticut; wood-working machines.
- 21 Sellers, William, & Co., Philadelphia; machine tools.
- 22 Steinway & Son, New York city; pianos.
- 23 Trager, L., Blackhawk Point, Louisiana; short staple cotton.
- 24 Walbridge, Wells D., New York city; gold and silver ores from Idaho.
- 25 Welch, Patrick, New York city; type-dressing machine.
- 26 Wheeler & Wilson, New York city; sewing and button-hole machines.
- 27 White, S. S., Philadelphia; artificial teeth and dentists' instruments and furniture.
- 28 Whitney, J. P., Boston, Massachusetts; silver ores from Colorado.
- 29 Wood, Walter A., Hoosick Falls, New York; reaping and mowing machines. See, also, Nos. 2 and 12.

SILVER MEDALS.

- 30 Alabama, State of; short staple cotton. See Hon. Mention.
- 31 American Button-hole Company, Philadelphia; sewing and button-hole machines.
- 32 Baker, W. & Co., Dorchester, Massachusetts; chocolates.
- 33 Barnes, Surgeon General J. K., United States army, Washington; surgical instruments, hospital apparatus, &c.
- 34 Bement & Dougherty, Philadelphia; machine tools.
- 35 Bergner, Theodore, Philadelphia; co-operator—engineer of Messrs. Sellers & Co.
- 36 Bidwell, J. C., Pittsburg, Pennsylvania; Comstock's rotary spader.
- 37 Bigelow, H., Boston, Massachusetts; copper and minerals from Lake Superior.
- 38 Blake, William P., San Francisco, California; California minerals.
- 39 Bond, William & Son, Boston, Massachusetts; astronomical clock and chronograph.
- 40 Browne, J. R., & Sharpe, Providence, Rhode Island; screw cutting and milling machines.
- 41 Burt, E. C., New York city; machine-sewed boots and shoes.
- 42 California, State of; cereals.
- 43 Cape, Culver & Co., New York city; hams.
- 44 Chapin & Wells, Chicago, Illinois; model of a swing bridge.
- 45 Chicago Board of Public Works, Chicago, Illinois; design of the lake tunnel.
- 46 Clark Thread Company, Newark, New Jersey; cotton yarns.
- 47 Collins & Co., New York city; steel ploughs.
- 48 Cool, Ferguson & Co., Glen's Falls, New York; barrel machines.
- 49 Colt's Patent Fire-arms Manufacturing Company, Hartford, Connecticut; fire-arms.
- 50 Crompton, G., Worcester, Massachusetts; loom for cloths.
- 51 Culbertson, Blair & Co., Chicago, Illinois; salted meats.
- 52 Daboll, C. L., New London, Connecticut; fog-signal.
- 53 D'Aligna, H. F. Q., co-operator in the organization of the United States section.
- 54 Darling, Browne & Sharpe, Bangor, Maine; steel measures.
- 55 Delpit, A., & Co., New Orleans, Louisiana; snuff.
- 56 Dixon, J., & Co., Jersey City, New Jersey; plumbago crucibles.
- 57 Douglas Axe Manufacturing Company, Boston, Massachusetts; edge tools.
- 58 Duffield, Charles, Chicago, Illinois; hams.
- 59 Fairbanks, E. & T., & Co., St. Johnsbury, Vermont; scales. See also No. 127.
- 60 Florence Sewing Machine Company, New York city; sewing machines.
- 61 Fournier, S., New Orleans, Louisiana; electric clocks.
- 62 Glen Cove Starch Manufacturing Company, New York city; "maizena" and starch.
- 63 Gotthiel, Edward, New Orleans, Louisiana; co-operator, services rendered to agriculture in Louisiana.

- 64 Greeg, Isaac, Philadelphia; Brick-making machine. See, also, No. 133.
 65 Gunther, G. G., & Son, New York city; furs.
 66 Hall, J., & Son, Boston, Massachusetts; buggy.
 67 Howe Machine Company, New York city; sewing machines.
 68 Howe, Dr. S. G., Boston, Massachusetts; works for the blind.
 69 Illinois Central Railroad Company, Chicago, Illinois; agricultural products.
 70 Illinois, State of; collection of minerals. }
 71 Illinois, State of; farmer's house } See, also, No. 148.
 72 Illinois, State of; school-house. }
 73 Jackson, Dr., co-operator; discovery of emery.
 74 Lamb, J. W., Rochester, New York; knitting machine.
 75 Lawrence, E., Louisiana; sugars.
 76 Mason & Hamlin, New York city; cabinet organs.
 77 Nevada, State of; silver and copper ores.
 78 New York Mill, New York; muslins.
 79 Oppen, Morris, New York; loom for corsets.
 80 Park Brothers & Co., Pittsburg, Pennsylvania; cast steel and edge tools.
 81 Partridge Fork Works, Leominster, Massachusetts; steel hay-forks, rakes, &c. See, also, No. 167.
 82 Pease, F. S., Buffalo, New York; petroleum oils. See, also, Honorable Mentions.
 83 Perry, J. G., Kingston, Rhode Island; mowing machine. This prize was gained in the field trials of agricultural machines. See, also, No. 169.
 84 Pigne, J. B., San Francisco, California; minerals.
 85 Providence Tool Company, Providence, Rhode Island; Peabody's patent fire-arms.
 86 Remington, E., and Son, Ilion, New York; fire-arms.
 87 Rutherford, L. M., New York city; astronomical photographs.
 88 Schultz & Walker, New York city; mineral water apparatus.
 89 Schuttler, Peter, Chicago, Illinois; wagon.
 90 Smith & Wesson, Springfield, Massachusetts; fire-arms and cartridges.
 91 Spencer Repeating Rifle Company, Boston, Massachusetts; Spencer rifles.
 92 Taft, J. B., Chester, Massachusetts; emery.
 93 Tieman, G., Philadelphia; surgical instruments.
 94 Tolles, R. F., Canastota, New York; microscopes.
 95 Tucker, H., & Co., New York city; iron ornaments, imitation of bronze.
 96 United States Government; specimens of frame houses for settlers. See, also, Nos. 15 and 123.
 97 Wales, William, Fort Lee, New Jersey; optical instruments.
 98 Wardwell, G. I., New York city; stone-quarrying machine.
 99 Washington Mills, Boston, Massachusetts; woolen fabrics. See, also, Honorable Mentions.
 100 Webster Woolen Mills, Webster, Massachusetts; woolen fabrics.
 101 Weed Sewing Machine Company, New York city; sewing machines.
 102 Whitney, B. D., Winchendon, Massachusetts; wood-working machines.
 103 Windsor Manufacturing Company, Windsor, Vermont; Ball's patent fire-arms.
 104 Wood Brothers, New York city; phaeton.
 105 Yale & Winn Manufacturing Company, Shelburne Falls, Massachusetts; Yale locks.

BRONZE MEDALS.

- 106 Abbey, C., & Sons, Philadelphia, dentists' gold foil.
 107 American Lead Pencil Company, New York city; lead pencils.
 108 Appleton, D., & Co., New York city; books.
 109 Babcock, J. F., Boston, Massachusetts; rosin oil.
 110 Baltimore and Cuba Smelting and Mining Company, Baltimore, Maryland; copper.
 111 Barlow, Milton, Lexington, Kentucky; planetarium.

- 112 Bartram & Fanton Manufacturing Company, Danbury, Connecticut ; sewing and button-hole machines.
- 113 Beer, Sigismund, New York city ; stereoscopic views.
- 114 Belmont Oil Company, Philadelphia ; oils.
- 115 Brigham, E. D., treasurer Portage Lake Smelting Works, Boston, Massachusetts ; Lake Superior copper.
- 116 Brown & Level, New York city ; disengaging tackle for boats.
- 117 Carpenter, W. S., New York city ; collection of corn.
- 118 Carroll, J. W., Lynchburg, Virginia ; smoking tobacco.
- 119 Cummings, W., & Son, Jersey City, New Jersey ; model of a hospital car.
- 120 Day, A. G., Seymour, Connecticut ; indelible pencils and lead pencils in India-rubber cases. See, also, Honorable Mentions.
- 121 Deere & Co., Moline, Illinois ; steel ploughs.
- 122 Degener & Weiler, New York city ; printing presses.
- 123 Department of Agriculture, Washington ; collection of cereals. See, also, Nos. 15 and 96.
- 124 Diss Debar, J. H., commissioner of West Virginia, Parkersburg, West Virginia ; petroleum oils.
- 125 Douglass Manufacturing Company, New York city ; edge tools.
- 126 Douglass, W. & B., Middletown, Connecticut ; pumps.
- 127 Fairbanks, E. & T., & Co., St. Johnsbury, Vermont ; railroad scale. See, also, No. 59.
- 128 Fairchild, L. W., New York city ; gold pens and cases.
- 129 Germunder, George, New York city ; stringed instruments.
- 130 Goddard, C. L., New York city ; mestizo burring picker.
- 131 Goodenough Horseshoe Company, New York city ; horseshoes. See, also, Honorable Mention.
- 132 Goodell, D. H., Antrim, New Hampshire ; apple parer.
- 133 Gregg, Isaac, Philadelphia ; model of a brick machine. See, also, No. 64.
- 134 Hadley Company, Holyoke, Massachusetts ; sewing cotton.
- 135 Harris, D. L., Springfield, Massachusetts ; engine lathe.
- 136 Haupt, Herman, Philadelphia ; tunnelling machine.
- 137 Herring, Farral & Sherman, New York city ; fire and burglar proof safes.
- 138 Hoglin & Gafflin, Ohio ; tobacco-cutting machine.
- 139 Hotchkiss, H. G., Lyon, New York ; oils of peppermint, &c.
- 140 Hotchkiss, L. B., Phelps, New York ; oils of peppermint, &c.
- 141 Houghton, H. O., & Co., Cambridge, Massachusetts ; books.
- 142 House, Henry A., New York city ; co-operator, in the establishment of Wheeler & Wilson.
- 143 House, James A., New York city ; co-operator, establishment of Wheeler & Wilson.
- 144 Howe, A. B., New York city ; sewing machines.
- 145 Howe Scale Company, Brandon, Vermont ; scales.
- 146 Hudson, E. D., New York city ; artificial limbs.
- 147 Humphreys, J. C., parish of Rapides, Louisiana ; short staple cotton.
- 148 Illinois, State of ; cereals and flours. See Nos. 70, 71, 72.
- 149 Jessup & Moore, Philadelphia ; papers.
- 150 Johnson A. J., New York city ; Johnson's Family Atlas.
- 151 Johnson, B., Louisiana ; sugars.
- 152 Johnson & Lund, Philadelphia ; artificial teeth.
- 153 Justice, P. S., Philadelphia ; power hammer.
- 154 Kansas, State of ; collection of cereals.
- 155 Lilienthal, C. H., New York city ; snuff and tobacco.
- 156 Lilienthal, Ch., New Orleans, Louisiana ; photographic views.
- 157 Louisiana, State of ; portable cottage.
- 158 Lyon, J. B. & Co., Pittsburg, Pennsylvania ; pressed glassware.
- 159 Merriam, G. & C., Springfield, Massachusetts ; Webster's Illustrated Dictionary.
- 160 Mission Woolen Mills, San Francisco, California ; woolen fabrics.
- 161 Moody, S. N., New Orleans, Louisiana ; shirts.

- 162 Morris, Tasker & Co., Philadelphia; wringing machine.
- 162 Mumford, Foster & Co., Detroit, Michigan; boot-trees, lasts, &c.
- 164 Murphy's W. F., Sons, Philadelphia; blank books.
- 165 Ohio, State of; collection of cereals.
- 166 Olmstead, L. H., Stamford, Connecticut; friction clutch pulley. See, also, Honorable Mentions.
- 167 Partridge Fork Works, Leominster, Massachusetts; agricultural hand tools. See, also, No. 81.
- 168 Pennsylvania, State of; anthracite coal.
- 169 Perry, J. G., Kingston, Rhode Island; mowing machine. See, also, No. 83.
- 170 Pickering & Davis, New York city, engine governors.
- 171 Pratt & Wentworth, Boston, Massachusetts; heating apparatus.
- 172 Randall, S. H., New York city; mica.
- 173 Reidel, G. A., Philadelphia; automatic boiler feeder.
- 173 Richards, Richard, Racine, Wisconsin; wool.
- 175 Roots, J. B., New York city; steam engine.
- 176 Roots, P. H. & F. M., Connersville, Indiana; rotary blower.
- 177 Sachse, F., & Sons, Philadelphia; shirts.
- 178 Sarrazin, J. R., Orleans, Louisiana; tobacco.
- 179 Schedler, Joseph, Hudson City, New Jersey; terrestrial globes.
- 180 Schediber, Louis, New York city; brass instruments.
- 181 Secome Manufacturing Company, New York city; ribbon hand stamps.
- 182 Shaw, C. A., Biddeford, Maine; knitting machine.
- 183 Shaw, Philander, Boston, Massachusetts; hot-air engine.
- 184 Slater, S., & Son, Webster, Massachusetts; cotton fabrics.
- 175 Smith, McPherson & Donald, New York city; ales and porter.
- 186 Southern Cotton-gin Company, Bridgewater, Massachusetts; cotton-gin.
- 187 Squire, J. J., New London, Connecticut; preserved fruits and vegetables.
- 188 Stursberg, H., New York city; beaver cloths.
- 189 Sweet, J. E., Syracuse, New York; composing machine.
- 190 Tamboury, A., Parish of St. James, Louisiana, tobacco.
- 191 Tiffany & Co., New York city; silverware.
- 192 Townsend, W. H., New York city; oil-cloths.
- 193 Union Button-hole and Embroidery Company, Boston, Massachusetts; button-hole machine.
- 194 Van Deusen, J. B., New York city; model of the yacht Fleetwing.
- 195 Warner, G. F., & Co., New Haven, Connecticut; malleable iron castings.
- 196 Watkins, C. E., San Francisco, California; photographs—landscapes.
- 197 Wickersham Nail Company, Boston, Massachusetts; nail-cutting machine.
- 198 Williams, T. C., & Co., Danville, Virginia; chewing and smoking tobaccos.
- 199 Wisconsin State Agricultural Society; Agricultural products.
- 200 Wisconsin, State of; collection of minerals.
- 201 Wisconsin, State of; collection of cereals and flours.
- 202 Wright, R. & G. A., Philadelphia; perfumery.

HONORABLE MENTIONS.

- Alabama short staple cotton. See No. 80.
- Allen, J. & Son, New York city; artificial teeth.
- American Steam Gauge Company, Boston, Massachusetts; steam gauges.
- American Wine Company, St. Louis, Missouri; sparkling wines.
- Andrews, W. D., & Brother, New York city; oscillating steam engine.
- Avery D. D., Petite Anse, Louisiana; rock salt.
- Bacon, S. T., Boston, Massachusetts; cracker company.
- Baker, G. R., St. Louis, Missouri; dough-kneading machine.
- Bates R., Philadelphia; instruments to cure stammering.
- Bell Factory, Huntsville, Alabama; cotton fabrics.
- Buena Vista Vinicultural Society, San Francisco, California; sparkling Sonoma wine.

- Borden, Gail, New York city; extract of beef.
 Bottler, Charles, Cincinnati, Ohio; sparkling Catawba wine.
 Broughton & Moore, New York city; oilers, cocks, &c.
 Bourgeois, E., New Orleans, Louisiana; tobacco.
 Brandon Kaolin and Paint Company, Brandon, Vermont; specimens of paints.
 Bray & Hays, Boston, Massachusetts; preserved lobster.
 Brown, D. J., Roxbury, Massachusetts; enameled leather.
 Chipman G. W. & Co., Boston, Massachusetts; carpet lining.
 Clark Steam and Fire Regulator Company, New York city; steam and fire regulator.
 Cohn, M., New York city; crinoline.
 Cozzens, F. S., New York city; cigars.
 Dart H. C. & Co., New York city; rotary steam engine.
 Davidson G., Washington; sextant.
 Davidson, J., St. Bernard Parish, Louisiana; sugars.
 Day, A. G., Seymour, Connecticut; artificial India rubber. See, also, No. 120.
 Duffy, L., Patterson, New Jersey; designs for improvements in iron-clad vessels.
 Dwight, G., Jr., & Co., Springfield, Massachusetts; hygrodeik.
 Elsborg, Dr. Louis, New York city; specimens of peat fuel.
 Empire Sewing Machine Company, New York city; sewing machines.
 Fries, Alexander, Cincinnati, Ohio; flavoring extracts.
 Glass, Peter Barton, Wisconsin; mosaic tables.
 Goodenough Horseshoe Company, New York city; horse shoes. See, also, No. 131.
 Gould, I. D., Boston, Massachusetts; mica.
 Herring, S. C., New York city; Bullard's hay tender.
 Hicks Engine Company, New York city; steam engine.
 Hirsch, J., Chicago, Illinois; albumen, glycerine, &c.
 Holliday, T. & C., New York city; aniline colors.
 Howard D. B., New York city; ambulance, &c.
 Howell & Brother, Philadelphia; wall papers.
 Iowa, State of; collection of cereals.
 Jackson, J. H., New York city; minerals and fossils.
 Kalderburg & Son, New York city; meerscham pipes.
 Korn C., New York city; calf-skin leather.
 Lalanc & Grosjean, New York city; house furnishing hardware.
 Linthicum, W. O., New York city; cloth clothing.
 Longworth, Cincinnati, Ohio; sparkling wines.
 McCormick, J. J., Meriden, Connecticut; skates.
 Marietta and Gale's Fork Petroleum Company, Marietta, Ohio; petroleum oil.
 Metropolitan Washing Machine Company, New York city; clothes wringers.
 Metropolitan Washing Machine Company, New York city; washing machines.
 Minnesota, State of; collection of cereals.
 Moehring, H. G., agent of the Volcanic Oil Company of West Virginia, Philadelphia; volcanic lubricating oil.
 Montague & Carlos, New Orleans, Louisiana; black moss for upholsterers.
 Morris, Tasker & Co., Philadelphia; pipe-cutting machine.
 New Haven Clock Company, New Haven, Connecticut; clocks.
 Olmstead, L. H., Stamford, Connecticut; machine tools. See, also, No. 166.
 Oneida Community, Oneida, New York; preserved fruits.
 Page, E. W., New York city; oars.
 Paul, J. F. & Co., Boston; specimens of wood.
 Pease, F. S., Buffalo, New York; pneumatic pump. See, also, No. 82.
 Perrot, T. Morris, Philadelphia; medicine wagon.
 Pleasant Valley Wine Company, Hammondsport, New York; wines and brandy.
 Portland Packing Company, Portland, Maine; preserved lobster and vegetables.
 Prentice, J., New York city; cigar machine.
 Purrington, G., Jr., New York city; carpet sweeper.
 Robinson, J. A., New York city; Ericsson hot-air engine.
 Sabatier, G., Plaquemines parish, Louisiana; sugars.
 Selpho, W. & Son, New York city; artificial limbs.

Sheldon, Joseph, New Haven, Connecticut ; water-pressure regulator.
 Smith, R. M., Baltimore, Maryland ; petroleum oils.
 Steam Siphon Company, New York city ; steam siphon pump.
 Stephenson, J., New York city ; street railway carriage.
 Stockton, Samuel, Philadelphia ; artificial teeth.
 Tallman & Collins, Janesville, Wisconsin ; perfumery.
 Taylor, C. F., New York city : therapeutic apparatus.
 Tilden, Howard, Boston ; sifter, tobacco cutter and egg-beater.
 Townsend Brothers, New York city ; preserved fruits and oysters.
 United States Sanitary Commission ; camp material. See, also, No. 9.
 Waltmeyer, Jacob, Baltimore, Maryland ; preserved fruits.
 Ward, J., & Co., New York city ; clothes wringers.
 Ward, J., & Co., New York city ; washing machines.
 Washington Mills, Boston ; shawls. See, also, No. 99.
 Wellman, C., New York city ; saddles.
 Werk, M., & Son, Cincinnati, Ohio ; sparkling wines.
 Wharton, Joseph, Philadelphia ; nickel, cobalt and zinc.
 Willard & Co., New York city ; photographic camera tube and lenses.
 Williams, C. C., New York city ; fruits preserved in syrup.
 Williams Silk Manufacturing Company, New York city ; silk twist for sewing machines.
 Winslow, J. B., New York city ; wood-moulding machine.
 Young, Isaac, commissioner for Kansas, Leavenworth, Kansas ; specimens of wood.
 Zallee, J. C., St. Louis, Missouri ; clothing.

THE AMERICAN DEPARTMENT AFTER THE AWARDS.

When the official list of awards was issued, immediately after the 1st of July, there was a general expression of surprise, among the commissioners and people of other countries, that the United States, whose exhibition made comparatively so little display, had been awarded so large a proportion of important prizes ; and from that time forward the grave looking, unpretentious American Department was enquiringly and respectfully visited by thousands, who, having at first passed it indifferently, were directed by the report of the International Jury to a relatively large number of exceedingly useful and important inventions.

WISCONSIN PRODUCTS.

The small number of awards to Wisconsin products may be easily accounted for by mere reference to the facts incidentally mentioned in the early pages of this report—the fact that, with all the effort made, but little, comparatively, was sent from Wisconsin, owing to the lateness of the day when active measures were taken, the fact that, in order to secure attention to our State at all, it became necessary to group together many small contributions and treat them as a State collection, thus

placing it out of our power to draw more than one prize on the whole, the fact that some of our most valuable and attractive specimens of mineral products never reached Paris, or could not be found, and the fact that such contributions as did arrive reached there at so late a day that it was impossible to bring them to the notice of jurors until after they had concluded their work and delivered their reports to the Imperial Commission. For the prizes and notices actually awarded us, we are indebted, first of course, to the excellent character of the products exhibited, but secondly and largely to the generous courtesy of the members of the International Jury, who, for the sake of doing our exhibits the justice the State itself had failed to do, kindly consented, in a few instances, to procure the amendment of their awards in our behalf.

FINAL DISPOSITION OF WISCONSIN PRODUCTS.

The date fixed by imperial decree for the final close of the Exposition was Nov. 1st. To remain until so late a day was neither in accordance with my own plans and expectations, nor, under the circumstances, was it practicable for me to do so. And, accordingly, after devoting much additional time and labor to the study of the exposition by countries and groups, as well as to the collection of samples of the products of foreign lands, and arranging with American gentlemen intending to remain until the close of the Exposition, for the sale of certain articles as per order of contributors, and for the packing of others, I returned to America, reaching Wisconsin in the month of August.

ARRIVAL HOME AND DISTRIBUTION OF ARTICLES SENT TO PARIS.

Late in the winter and during the spring and summer, and more recent months, the articles sent to Paris returned. As the government of the United States was in no way responsible for the return of contributions, and as the Wisconsin Commission had originally become responsible, not only for their return to Wisconsin, but for their safe delivery, without charges, to their respective owners, I directed the parties to whom the cases were consigned at new York to ship all such articles as

were in separate cases to their owners direct, and all other packages to me at Madison.

Notwithstanding their long exposure at Paris and the rough handling to which all our goods were necessarily exposed, I am happy to state that they arrived safely and are believed to have all reached their final destinations in a condition satisfactory to contributors from whose hands they had been received in trust more than a year before.

The articles sold at Paris were casks of premium flour, contributed by the Messrs. Bertschey, of Milwaukee; leather contributed by G. Pfister & Co., Milwaukee, and Messrs. J. J. Pierron & Co., of Beloit; and the case of steel hammers contributed by Messrs. Barr & Cox, of Beloit.

The six elegant gilt-lettered sample boxes for grain, filled with good specimens of Wisconsin wheat, rye, barley, oats and Indian corn, which were contributed by the Milwaukee Chamber of Commerce, with instructions for their presentation to the Chamber of Commerce, of Paris, at the close of the Exhibition, were so presented through the kind intervention of Mr. Jas. D. Butler, State Commissioner from Missouri, and also Honorary Member of the U. S. Commission, who remained in Paris.

The following are copies of the communication to the President of the Paris Chamber of Commerce, tendering the sample boxes referred to, and the reply on behalf of that body:

LETTER OF PRESENTATION.

(Copy.)

PARIS, January 18, 1868.

MR. HENRY DAVILLIER, *Pres. of the Chamber of Commerce of the City of Paris*:

DEAR SIR:—I am directed by United States Commissioner, J. W. Hoyt, who is also State Commissioner for Wisconsin, U. S. A., to the "Paris Exposition of 1867," (and who has returned to America), to present to your honorable body for acceptance six cases, or drawers of grain, exhibited at the "Paris Universal Exposition of 1867;" and donated by the Board of Trade of Milwaukee, U. S. A. I take great pleasure in being the medium for transmission of this offering, and trust its presence in your Chamber may prove acceptable and instructive to your members. They represent one source of wealth in that great State, which only a few years ago was a wilderness and home of the wild Indian; now its vast acres are cultivated and yield to the husbandman large returns for his industry. Please receive the assurance of my high regard for your institution and believe me,

Very respectfully your obedient servant,

JAMES L. BUTLER.

Member of U. S. Commission and Commissioner for State of Wisconsin to Paris U. Ex. 1867.

RESPONSE OF THE CHAMBER OF COMMERCE OF PARIS.

(Translation.)

CHAMBER OF COMMERCE, PARIS, January 27, 1868.

Mr. JAMES L. BUTLER, *Commissioner of the United States for the State of Missouri :*

SIR:—You have kindly wished to present to us, in the name of the Commissioner representing the State of Wisconsin, six cases containing specimens of grain, sent by that State to the Paris Universal Exposition

We pray you, sir, to be the bearer of our thanks to Mr. J. W. Hoyt, and to pray him to transmit to the Chamber of Commerce of Milwaukee the expression of our lively gratitude.

Be pleased to accept, sir, the assurance of our most distinguished regard.

HENRY DAVILLIER,

*President of the Chamber.*A. DE YOUETTE, *Secretary.*

FINANCIAL STATEMENT.

The following account of the financial transactions of the Commission is submitted in the belief that the small amount received from the State has been managed with the utmost care and economy :

RECEIPTS.

March 13, 1867.	Cash from the Governor.....	\$200 00
June 29, 1867.	.....do.....(by draft on Paris)	1,438 60
Dec. 30, 1868.	.....do.....to balance acct...	142 35
Total receipts.....		<u>\$1,780 95</u>

DISBURSEMENTS.

For printing, advertising, postage, stationery and clerical service.....	\$195 50
For articles purchased for Exposition.....	81 25
collecting and forwarding contributions.....	440 86
collection and installation of goods at Paris	245 09
care of Wisconsin goods and interests during absence of President of Commission and after his return to Wisconsin.....	166 00
final disposition of goods at Paris, repacking and re-shipping goods.....	134 00
transportation of goods to and from Paris.....	221 36
catalogues of foreign countries.....	37 00
articles lost.....	13 50
exchange and premium on gold.....	246 48
Total disbursements	<u>\$1,780 95</u>

SUGGESTIONS FOR THE FUTURE.

Having thus, after the expiration of two years, fully completed the work undertaken in behalf of the State,—first, in collecting and forwarding contributions to Paris; secondly, in securing the best practicable presentation of them at the Exposition, thereby aiding in the national representation of the whole country, and at the same time calling attention to the resources of this State; thirdly, in studying the Exposition in all its divisions with reference to Wisconsin interests; fourthly, in mak-

ing final disposition of Wisconsin products pursuant to engagements with contributors, and last of all, concisely presenting in the body of my report such information and suggestions as have appeared to be of most practical value, or as would serve to give some general idea of the great Exposition, its origin, progress, utilities and glories,—I may be pardoned for assuming that the experience thus acquired should also be made practically valuable by a clear, unreserved statement of such errors as, having prevented the entire success of this enterprise, should be carefully avoided in the future.

In the first place, then, as the General Government had already been too slow in taking measures for a national representation at Paris in response to the call of the Emperor of France, the State should have been all the more prompt in responding to the national call when it came.

Secondly, such response should have been spirited, practical and thorough—not by the bare honorary appointment of a score of gentlemen, many of whom neither desired such appointment nor had the remotest expectation of attending the Exposition, and none of whom, had they all so intended could have any recognition at Paris whatever, but rather by direct, business-like legislative provision for a full, ample and exhaustive representation of the varied and superior products of our mines, quarries and forests, our agriculture and manufactories, and every other branch of our industry. Had such action been taken in the winter of 1866 instead of waiting until within two weeks of the opening of the Exhibition, leaving to individual enterprise what only either could or ought to be done by the State, there might have been sent to Paris such a representation of our resources and industry as would have secured to Wisconsin most honorable and advantageous recognition from the entire civilized world.

Thirdly, our State made a serious mistake in not providing its commissioners with some statistical document, setting forth in attractive form and especially in the concise and potent language of figures, the natural resources, industrial condition and social status of our State. A few thousand copies of such a pamphlet, printed in the English, French, German and Scandi-

navian languages, by their judicious distribution among the representatives of various countries and the visitors therefrom, would have met a want seriously felt by the Commission and proved of immense material advantage to the State.

Fourthly, I must not be deterred by a false delicacy from suggesting, that it ill comports with the honor and dignity of a great State to require of those whose zeal for the common good and common honor may lead them to sacrifices in its behalf, that not only time and service shall be freely given but that even expenditures of money necessary to a successful issue of their labors shall be a drain upon their own private resources.

CONCLUSION.

The foregoing prominent errors in the policy of the past have doubtless grown out of a lack of just appreciation of the importance of these vast international enterprises, which, while they incidentally involve marked advantage to individuals, localities, and communities, nevertheless were instituted and are carried forward with the noble purpose of establishing peace, harmony and friendly intercourse among all nations, as a means of advancing civilization everywhere, and so lifting up the whole human race.

When the monarchs and despots of the old world have risen to the sublime height of recognizing the dignity of labor and the just claims of the working classes of the people to the amelioration of their material and social condition, by education and the manifold applications of science; when they lead, moreover, in the grand work of diffusing knowledge and liberal ideas and sentiments throughout the world and among all men, is it not time that the free, intelligent and liberty-loving rulers and people of republican America awake to a sense of the duty of joining heartily with them in this glorious march of mankind?

I am, Sir, very respectfully,

Your obedient servant,

J. W. HOYT,

Prest. Wisconsin Com. to Paris Exposition.

TRANSACTIONS
OF THE
WISCONSIN STATE AGRICULTURAL SOCIETY
FOR 1868.

27 AG. TRANS.

OFFICERS OF THE SOCIETY.

1868.

PRESIDENT:

K. A. DARLING, FOND DU LAC.

VICE PRESIDENTS:

B. R. HINKLEY, SUMMIT.
W. R. TAYLOR, COTTAGE GROVE.
C. H. WILLIAMS, BARABOO.
SATTERLEE CLARK, HORICON.
ELI STILSON, OSHKOSH.
C. C. WASHBURN, LA CROSSE.

SECRETARY:

J. W. HOYT, MADISON.

TREASURER:

DAVID ATWOOD, MADISON.

ADDITIONAL MEMBERS OF EXECUTIVE COMMITTEE:

DAVID WILLIAMS, SPRINGFIELD.
C. L. MARTIN, JANESVILLE.
N. S. GREEN, MILFORD.
J. O. EATON, LODI.
J. H. WARREN, ALBANY.
W. W. FIELD, BOSCOBEL.
G. TRUESDALE, KENOSHA.

EX-PRESIDENTS, EX-OFFICIO MEMBERS:

B. R. HINKLEY, SUMMIT.
DAVID WILLIAMS, SPRINGFIELD.

ANNUAL REPORT

FOR THE YEAR 1868.

His Excellency, LUCIUS FAIRCHILD,

Governor of the State of Wisconsin:

SIR:—The industry of Wisconsin, during the year past, has made more than wonted progress in nearly every department.

Notwithstanding the increased attention given to stock-breeding, and the very remarkable growth of the hop business in many sections of the State, the area devoted to the staple cereal crops has also greatly increased. And although the season was in some respects especially unfavorable, the yield has been rather above than below the average of ordinary years.

Corn, alone of the grain crops, appears to have suffered very materially from the drouth.

The potatoe crop suffered from two causes—the potatoe bug, which proved a serious scourge in some localities, and the severe and protracted drouth of summer and early autumn. On the other hand, the season has been marked by the introduction of new varieties of this indispensable esculent that promise to be of great value.

The grass crop also suffered from the drouth and was consequently lighter than the average.

But, of all the crops grown, the hop has been the most unfortunate. We gave the note of warning in our last report, in the hope that some farmers who were likely to engage in the business at too late a day to make it profitable, might be induced to turn their energies into some other channel, but we

were, ourselves, hardly prepared for so sudden and fatal a collapse as has already befallen this business in many portions of our State. As might have been anticipated, the suffering has been greatest in those districts where the enterprise had its origin. In Sauk county the ruin effected by the hop-louse has been equal to, if not greater, than the notable prosperity by which it was preceded. For, whereas, previous to the hop mania the agriculture of that section was as prosperous as in any part of the State, and the farmers were gradually acquiring an independence, and even wealth, now, by reason of the neglect of other branches of husbandry, and the investment of large amounts in new hop fields and curing establishments, very many have not only sunk their fabulous profits of the three or four years' previous business, but have even come out of the speculation very much worse off than when they engaged in it. The price, too, as was predicted, has declined to less than half what it was in 1867, and that not only in the districts infected by the destructive insects referred to, where the crop was damaged, but throughout the entire country; so that the great hop speculation may be supposed to have come to an end for the present.

The improvement in manufacturing industry is yearly more manifest. Establishments for working up our metallic ores, factories for converting the timber of our forests into the numberless articles of farm and household use, woolen mills for working up our increasing amounts of wool, tanneries for the manufacture of leather, and a multitude of other kindred establishments are growing up on every hand, to the great encouragement of all citizens of Wisconsin who realize the importance of a diversified industry, wherever nature has indicated such a policy by supplying the requisite facilities.

Whether a judicious political economy would dictate the encouragement of this important branch of industry by granting to capital to be invested therein a limited immunity from taxation, as has been, at times suggested, or not, it is unquestionably competent for the State, and eminently its duty, to do everything in its power to further the interests, not only of

this, but of all other branches of Wisconsin industry, by striving to secure, at the earliest day practicable, such public internal improvements as will open up our resources to the world by an increase of means of the transportation of both raw and manufactured material.

The State Agricultural Society has enjoyed another year of prosperity, and has been enabled to adopt measures for increasing its usefulness by large additions to the prizes offered in some of the more important departments of industry, as well as by the publication of the 7th volume of Transactions, of which this report and the proceedings of this year are designed to constitute a part. The Secretary has also carried into partial execution certain plans, long cherished, for creating, in the Agricultural Rooms, a cabinet of economical materials, both native and foreign, that shall illustrate the resources of our own State and their relations to those of other countries.

The Exhibition of 1868 was one of the best hitherto held by the Society, and the attendance quite as large, although the receipts were considerably less, owing to circumstances independent of the Exhibition itself. Nevertheless, the finances are in a healthy condition, as will appear by the Treasurer's Report, herewith submitted, and the officers of the Society are more than ever hopeful of opening to it a new career of prosperity more satisfactory than that hitherto enjoyed.

Respectfully,

J. W. HOYT, *Secretary.*

State Agricultural Rooms, Jan. 1, 1869.

[For Treasurer's Report see last page of Transactions for 1868.]

PROCEEDINGS.

EXECUTIVE MEETINGS.

STATE AGRICULTURAL ROOMS, February 4, 1868.

Executive Committee met, pursuant to requirement of the by-laws, this evening, at 7½ o'clock.

Present—Vice Presidents, B. R. Hinkley, Wm. R. Taylor, C. H. Williams and Sat. Clark; and Messrs. J. O. Eaton, J. H. Warren, W. W. Field, David Atwood and J. W. Hoyt.

Vice President Hinkley in the chair.

On motion, adjourned to 9 o'clock A. M., of Wednesday, the 5th.

9 o'clock, A. M., Feb. 5.

Committee met pursuant to adjournment. Present—Same members as before.

Vice President Hinkley in the chair.

On motion, it was

Resolved, That, in pursuance of a long established usage, the Annual Exhibition for 1868 shall commence with **Monday of the last week** in September, and continue during the week.

On motion, Committee then took up the Premium List, Regulations, etc., of 1867, for revision. During their labors, a committee of the State Horticultural Society, consisting of Dr. Joseph Hobbins, President, and Messrs. Willey and Lawrence, Secretaries, waited upon the Committee and offered a proposition for holding a joint exhibition with the State Agricultural Society, this year, as heretofore.

On motion of Mr. Hoyt, the proposition of the State Horticultural Society was received for consideration; action thereon being postponed until after the decision of the Committee on the preliminary question of location.

Revision of Premium List resumed and continued until 12½ o'clock.

Adjourned to meet at 2 o'clock.

FEBRUARY 5—2 o'clock P. M.

Committee met pursuant to adjournment.

Present—Same members as before.

Vice President Hinkley in the chair.

Secretary read communications from President Darling and Vice President Stilson explaining their absence from the meeting.

Revision of Premium List resumed.

Mr. Meacham, of Beloit, waited upon the Committee, asking permission to exhibit a new process for the refining of sorghum syrup and sugar, and, on motion, was invited to proceed with his experiments in the presence of the Committee.

At this stage of proceedings, a committee of the Dane County Stock and Agricultural Association, consisting of Judge L. B. Vilas, President, O. S. Willey, E. B. Crawford and Sam. Klauber, Directors, waited upon the Board with a proposition in relation to the location of the next State Fair.

Voted that the said committee be heard at once.

Whereupon, Judge Vilas proceeded to state that it was the wish of the said Association that the Fair be located at Madison for the years 1868 and 1869, and that to this end they were willing to make the required improvements within any reasonable limit.

On motion, the proposition tendered was received and laid upon the table for action at a more convenient time.

Revision of Regulations and Premium List resumed and continued until 6 o'clock P. M.

At 5 o'clock President Keyes A. Darling arrived and took the chair.

At 6 o'clock Committee adjourned to meet at 9 o'clock A. M. of the 6th inst.

February 6, 9 o'clock, a. m.

Committee met pursuant to adjournment.

Present, same members as before.

President Darling in the chair.

On motion of Mr. Field, voted, that the Annual Exhibition of this Society for the years 1868 and 1869, be and they are hereby located at Madison: *provided* the Dane Co., Stock and Agricultural Association will comply with such terms as shall be approved by this Board.

Moved by Mr Field that the President and Secretary be instructed to prepare written conditions, compliance with which, on the part of the Dane Co., Stock and Agricultural Association shall secure to Madison the location of the State Fair for the years 1868 and 1869.

Mr. Eaton moved to amend by adding to said committee Messrs. Hinkley, Taylor and C. H. Williams, and that the committee thus constituted be authorized and instructed not only to prepare conditions, as provided in the motion pending, but also to settle the whole question of location. Carried.

The motion so amended was then carried unanimously.

After some deliberation, the committee on location, preferring to submit the conditions agreed upon by them to the Board, while in session, for its approval or amendment, presented the said conditions embodied in the following resolution, to wit:

Resolved, That the Annual Exhibitions of the Wisconsin State Agricultural Society, for the years 1868 and 1869, shall be located on the grounds of the Dane County Stock and Agricultural Association at Madison; *provided*, the said Association will furnish satisfactory guarantees for the fulfilment of the following conditions, to-wit:

1. The payment, within thirty days from this date, February 6th, of the amount due from said Association to this Society.
2. The construction of a suitable building for the Agricultural Department, of dimensions not less than 34x60 feet; a building for the Department of Manufactures, not less than 40x80 feet; at least 50 additional box stalls and the required stalls and pens for cattle, sheep and swine; a floor in the Hall of Fine Arts; wells in sufficient number and in perfect working order.
3. The proper seeding of the grounds to grass.
4. The making of such additional improvements as the Committee of this Society shall deem necessary to the successful holding of the said Exhibition, and the completion of such improvements to the satisfaction of said Committee at least 20 days before the date of the opening of the Exhibition, and the delivery of the grounds to said Committee ten days before said date of opening.
5. The repair and complete improvement of the said grounds to the entire satisfaction of the Committee of this Society for the Exhibition of 1869 and the completion and delivery thereof on the terms above recited.
6. The free use of the Grand Stand, except during the trials of speed and the Exquestrian Displays of both exhibitions.
7. A satisfactory guaranty that the hotels and boarding houses of Madison shall not charge more than their usual rates.
8. The limitation by a city ordinance of hack and omnibus fares to 25 cents for a single trip between the city and fair grounds, as also between the hotels and the railroad depot.
9. The delivery to the Secretary of this Society, of the guarantees above required within 30 days from this date.

Which resolution, on motion, was unanimously adopted.

The Secretary presented conditions on which, in his judgment, the Society should receive the application of the State Horticultural Society for a joint Exhibition in 1868; the said conditions being in substance as follows:

The State Agricultural to give to State Horticultural Society the arranging of the premium list in the Horticultural Department: provided that the aggregate of premiums in said department shall not be materially less than in 1867; also the appointment of a Superintendent and an assistant, and the necessary Judges for said department, and to set apart for the said Horticultural premiums the sum of \$600, payable after the Fair, on the order of the officers of the Horticultural Society. Preparations for the exhibition in the Horticultural Department, within reasonable limits, to be made by the Agricultural Society in like manner as heretofore, and the list of premiums in Horticultural Department to be published, as heretofore, in the list of the Agricultural Society, of which it is an essential part.

On motion, the said conditions were approved, and the Secretary was instructed to present them in person to the State Horticultural Society, then in session in the Capitol.

In response to this proposition of the Executive Committee, the following communication was promptly received:

Resolved, That the thanks of this Society be, and they are hereby, tendered to the Executive Committee of the State Agricultural Society for the very cordial manner and liberal spirit manifested by them in accepting our proposition for a union of the two societies, for the fall Exhibition; also, that the members of said Committee are hereby invited to attend our meeting and examine the fruits now on the table, for exhibition, at their pleasure.

The Secretary offered the following resolution :

Resolved, by the Executive Committee of the State Agricultural Society of Wisconsin, That the able and efficient manner in which the commissioners appointed under "an act for the preservation of fruit trees," meets our hearty approval, and that, in our opinion, the same ought to be extensively circulated and read by our people, as a work calculated to promote the prosperity of this State.

Which was adopted.

On motion the committee adjourned to meet at 2 o'clock, P. M.

2 o'clock, P. M.

Committee met pursuant to adjournment.

Present—same members as before.

Having made numerous changes in the Regulations and List of Prizes, and authorized the Secretary to perfect the same at his discretion,

On motion, the subject of appointments was next taken up.

Voted that the Officers of the Exhibition be the same as in 1867, to-wit :

General Superintendent—The President.

Controller Office of Entry—The Secretary.

Controller Ticket Office—The Treasurer.

Marshal—W. R. Taylor.

And that the President and Secretary be authorized to appoint a Ticket Accountant.

The following gentlemen were chosen to superintend the several Departments of the Exhibition :

Department of Horses—N. S. Green.

Cattle—C. H. Williams.

Sheep—Eli Stilson.

Swine and Poultry—G. Truesdale.

Agricultural—W. W. Field.

Machinery—Rufus Cheney.

Manufacturers' Hall—Sat. Clark.

Fine Arts Hall—J. H. Warren.

Equestrianism—The Marshal.

Judges for the several classes were also appointed, after much time in attempting to select persons believed to be both competent and willing to serve the Society in such capacity.

The Secretary urged the great importance to the Society of the annual publication of its Transactions, and read a copy of a bill prepared by him with a view to secure that end, and which was about to be introduced in the Senate. He believed that, although a similar bill had failed to pass the Assembly at two previous sessions, it was only because the officers and friends of the Society had not more generally given the measure their active support.

On motion, it was unanimously resolved that each member of the Board would take pains to urge upon their representatives, and upon the members of the legislature generally, the passage of the said bill now pending.

On motion of the Secretary, it was unanimously

Resolved, that the thanks of this Society are due, and are hereby tendered, to F. W. Woodward, Esq., of New York, publisher of agricultural, horticultural

tural and kindred works, for valuable donations to the Society's Library, including several works new editions of which have just been issued in a style eminently creditable to his enterprise as well as to his known interest in the progress of industrial literature.

On motion, the Committee adjourned *sine die*.

J. W. HOYT, *Secretary*.

MEETINGS OF THE EXECUTIVE COMMITTEE were held every evening during the Fair, and a session was also held subsequent to the Exhibition; but since the business transacted related exclusively to matters of temporary interest, such as numerous details of the Exhibition, including the revision of the reports of awarding committees, etc., it is not deemed important to publish the proceedings thereof.

FOR PROCEEDINGS OF DECEMBER MEETING OF EXECUTIVE COMMITTEE, see report immediately following the List of Premiums Awarded at the Exhibition of 1868.

ELECTION OF OFFICERS FOR 1869.

STATE AGRICULTURAL ROOMS, October 1, 1868.

Pursuant to constitutional provisions and published notice, the Life Members of the Society met this evening at 7 o'clock, in the State Agricultural Rooms for the election of officers for the ensuing year.

The meeting was called to order by Acting President Hinkley.

A large number of members were present.

L. B. Vilas moved that the Society do now proceed to the election of officers, and that a committee of five be appointed to nominate the same. Carried.

The chair appointed Messrs. L. B. Vilas, R. F. Pember, J. H. Hicks, A. A. Bennett, G. H. Stewart.

The Secretary made a financial statement for the year 1867, as per printed report in forthcoming volume of Transactions.

He also called attention to the fact that the 7th volume of Transactions of the Society, for the publication of which by the State he had so long labored, was now pretty well through the press, and that, provision had generously been made for the future regular publication of a volume of the Society's reports from year to year. He furthermore stated that he was now engaged in the work of forming a cabinet of economical materials, including metallic ores and their products, building materials, agricultural products, models of implements, etc., etc., and that all friends of the Society were earnestly solicited to contribute thereto.

A call was made for the reading of the Constitution to be submitted at the next Annual Meeting; which was read by the Secretary.

The committee on nominations returned, and made the following report:

President—B. R. Hinkley, Summit.

Vice Presidents—Wm. R. Taylor, Cottage Grove; C. H. Williams, Baraboo; Sat. Clark, Horicon; Eli Stilson, Oshkosh; C. C. Washburn, La Crosse; Rufus Cheney, Whitewater.

Secretary—J. W. Hoyt, Madison.

Treasurer—David Atwood, Madison.

Additional Members—C. L. Martin, Janesville; N. S. Green, Milford; J. O. Eaton, Lodi; J. H. Warren, Albany; W. W. Field, Boscobel; J. I. Case, Racine; Nelson Dewey, Lancaster.

On motion, adjourned *sine die*.

J. W. HOYT, *Secretary*.

For proceedings of the ANNUAL MEETING of the Society for 1868, see report thereof on the pages immediately following the list of Premiums Awarded at the Exhibition of 1868.

EXHIBITION OF 1868.

[From the Secretary's Record.]

The Fifteenth Annual Exhibition of the Wisconsin State Agricultural Society was held at Madison, commencing Sept. 28th and closing Oct. 2d. The grounds were furnished with better improvements than ever before ; some 50 box stalls, for horses, having been added, and two neat and spacious halls—one for the Agricultural and the other for the Manufacturers' Department, substituted for the unsatisfactory canvas tents so long used by the Society. Machinery Hall was supplied with 100 feet of new line shafting, with a dozen 30 inch pulleys, and furnished with a 20-horse power engine for driving machinery.

The Exhibition itself was one of the most successful ever held by the Society. The entries embraced fewer unimportant articles than usual, and a proportionally larger number of superior animals in the different departments, and of valuable implements and machines. The list of premiums awarded will illustrate these facts better than they can be established otherwise.

The presence of metallic ores and their products—especially of lead ores and lead ; iron ores with iron and steel ; zinc ores, with spelter and zinc oxide—constituted a new and interesting feature, which we have long been anxious to introduce. The objects of the Society extend to every branch of industry, mining and manufactures, no less than agriculture, and we would be glad always to have every department represented at our exhibitions.

The samples of Bessemer steel in the form of a massive ingot, and numerous sections of steel rail for railways, from the Milwaukee Iron Works and the Wyandotte Works at Detroit, shown by Hon. E. B. Ward, chief proprietor of both establishments, were extremely interesting, as affording evidence of our ability to manufacture the best of steel for these uses. The ores used are those of lake Superior and Dodge county mixed.

The samples of zinc oxide from the Bellvue Zinc Works, located near Mineral Point on the Mineral Point Railroad, were also of excellent quality, and besides were interesting and important as showing not what *can* be done in that line in Wisconsin, for as much can be done here as elsewhere, but rather showing what is already being done to develop the mining interests of the State.

The Mineral Point Mining Company prepared for a magnificent exhibition of the lead and zinc products of their mines, together with a handsome suite of samples showing the several stages of the manufacturing process, but the boxes in which they were packed were unfortunately overlooked among the multitude of packages at the depot, and did not reach the grounds in time for the exhibition. But inasmuch as they were generously designed by the exhibitors for the Society's Cabinet, they have been awarded the Grand Silver Medal by the Executive Committee, and placed on exhibition in the Agricultural Rooms.

The attendance was very large after Wednesday, which was rather dark and rainy; the number present on Thursday being estimated at from 20,000 to 30,000 people.

The special Daily programme proved highly satisfactory to the public. The addresses on Wednesday and Thursday evenings, in the Senate Chamber—the first by X. A. Willard, Esq., Agricultural Editor of the Utica Herald, on "The Dairy: its Products, Methods and Profits," and the second by Hon. E. B. Ward, of Detroit, on "The Farmer and the Manufacturer,"—were largely attended by the thinking, practical men of the State, and gave great satisfaction to the Society and to all who heard them. These addresses alone, if properly heeded by the people of Wisconsin would be worth vastly more than the cost of the whole Exhibition and of the volume of Transactions, in which they appear.

On Friday, the "Annual Addresses" were delivered on the grounds, from the judges' stand, by Hon. Timothy O. Howe, U. S. Senator, and Gen. Geo. B. Smith, of Madison, both of whom in brief speeches, eminently appropriate [as will appear by reports of them published in this volume,] delighted and instructed their multitude of auditors.

The Election of Officers for 1869 passed off very pleasantly, resulting in but few changes in the Board. [See page 427.]

All in all, the Exhibition was creditable to both Society and State, though we have had occasion to note several particulars in which the Fair of 1869 ought to surpass it.

THE DAIRY : ITS PRODUCTS, METHODS AND PROFITS.

An Address Delivered at the Wisconsin State Fair, Madison, September 30, 1868.

BY X. A. WILLARD, M. A., OF NEW YORK.

Members of the Wisconsin State Agricultural Society, Ladies and Gentlemen :—It is very gratifying for me to be present at this great Exhibition of Western industry and to have the opportunity of addressing a Western audience.

Your Secretary, Dr. Hoyt, when inviting me to speak on this occasion, made special request for a practical address upon the DAIRY.

A practical talk upon any branch of agriculture hardly admits of any attempt at oratorical display. Good taste would seem to dictate that questions upon practical farming should be treated in a plain common sense way. I do not wish to convey the impression that there is no poetry, no romance, no beauty or pleasure in farm life; for I hold that quite as much of all this may be found in the farmer's calling as in other walks of life; but when we come down to business and money-making, I am told the people of the Northwest prefer to look at things from that stand point.

I do not know what may be expected of me upon this occasion, but I have assumed that earnest practical men are better satisfied with that which is useful and applicable to their business, although stated in plain language, than with speculative theories, elaborated into rounded periods and eloquent diction.

If I have made a false assumption I cannot expect to hold your attention, since I have counted entirely upon your interest in the questions to be discussed.

There are large tracts of land in Wisconsin adapted to the dairy, and it is a matter which concerns the prosperity of the State, whether this branch of farming promises to be remunerative and enduring. The true dairy lands of America are somewhat limited in extent, and it is believed by many that the time is rapidly approaching, when the demand for dairy products will be largely in excess of production. Last year (1867), though the make both in

Europe and America was the largest ever known, it was not beyond a healthy consumptive demand, while the product both of butter and cheese this year—on account of the severe drouth in Great Britain, it is thought, will be much less than what is really needed.

The history of Eastern farming goes to show that no character of farm lands has increased in value in the ratio of that in the dairy districts. I am not prepared to say whether this rule holds good at the West, but the time will come, I apprehend, when the dairy lands of Wisconsin—location and other things being equal—will command the most money.

(In making this comparison, farming lands, in the ordinary acceptation of the term, are meant.

Lands covered with hop plantations, with vineyards or orchards, or in the vicinity of cities, when market gardening is in successful operation, owe much of their value to their improvements, and cannot, therefore, be counted in the comparison.)

It is alleged that the true grazing dairy lands are more valuable than grain lands, because: 1st. They are of more limited extent. 2d. The grasses have fewer enemies to contend with, and give the most reliable results for any series of years. 3d. That dairy farms can be carried on at less expense; that they are constantly increasing in fertility; that the products of the dairy are earlier and more readily turned into cash; that the product of the farm is concentrated into a small compass, and hence the cost of transportation is reduced to the minimum; and, lastly, that an increased and permanent foreign demand renders prices stable, so that the dairy farmer can nearly always count upon the income from his farm. fvel

(The Herkimer County, N. Y., farmers claim that there has not been a failure in the grass crop of the county for thirty years—that is, that during that time, there has been no necessity for turning off the herds for want of pasturage, nor the importation of hay or fodder for their winter keep.

For the last twenty years I have had personal observation of the cheese crop of the county, and in no year has it failed, though of course some seasons have been marked as giving below the average yield, but none so markedly poor as to be called a failure.

I have referred to the claim that the labor expense on a dairy farm is less than that for grain. I have known of many instances when one man and one woman have done all the work on a farm carrying 30 cows, except the employment of an additional hand for a couple of months in haying and harvesting.

The more usual course among those who rent farms carrying from 30 to 40 cows, is to hire a man for six or eight months, perhaps a girl for the same time in the house, if the wife is not strong, and cheese making is to be conducted on the farm. I cannot say that this is always the best course, or that more profits might not be secured by a judicious outlay of more manual labor. I only mention the fact to show that an hundred acres in pasture and fifty acres in meadow are managed with less labor than if the same were devoted to other crops than grass.

The average annual receipts on good dairy farms at the East, at present prices of dairy products, are from twenty to twenty-five dollars per acre.

Before proceeding to give in detail, some of the methods found to be successful in dairy practice, it may be well to review in brief the present condition of the cheese interest in this country and Europe. From the figures which I shall present, the farmers of Wisconsin will, I trust, be able to see more clearly what inducements are offered, in turning their attention to this branch of farming.)

It is only quite recently that the dairy has become an important branch of national industry. During the past eight years it has been rapidly spreading over new fields. It is engaging the attention of farmers in the Eastern, Western, North-western and Middle States, wherever lands are adapted to grazing, and there are springs and streams of living water.

The history of American dairying has never been written. Perhaps a glance at its rise and progress as a speciality, will not be out of place. → p. 433
(Herkimer, New York, is the oldest dairy district in America. I knew the man in his old age who first began cheese dairying in Herkimer. He came into the country on foot from New England more than seventy years ago. He was rich in health and strength. He had eight silver shillings in his pocket, an axe upon his shoulder, and two stout arms to swing it.

Nearly the whole country was then a dense forest. Brant and his Mohawks had been gone several years, but traces of their pillage and murders were fresh among the early settlers in the valley and along the river.

The old Dutch heroine, Mrs. Shell was then living in the country. She was a noted character during the Revolution. She is represented as having been very comely, with a magnificent figure and proportion like that depicted in Grecian statues. She had soft brown eyes, and was withal as tender hearted as she was courageous. Her husband being at the wars, she took her infant to the field, and helped her eldest son, a lad, to hoe the corn, with a musket strapped to her shoulders.

The savages, in more than one encounter, had learned to fear and respect Mrs. Shell. Her aim was steady and her bullets death.

When the Indians besieged her log house she fought side by side with her husband, all day and all night, battering the guns with an axe as they thrust them through the logs, and firing at the assailants, until help came from the Fort. The house stood on the great black slate hills, rising near the Mohawk, to the north, overlooking a long line of charming scenery. Beyond was a valley, and a still higher elevation. Here the sturdy young New Englander picked his land. His strong arms felled the timber over many acres. He built his log house and established his herd upon the soil. Then he took to wife a Cheshire girl, who made the first cheese dairy in the State. This man's name was Arnold. He accumulated large wealth, was of the strictest integrity, and went to his rest honored and respected.

From such beginnings sprang the mighty giant, that is now stalking over the continent, dotting the land with countless herds. Perhaps the strength of this interest can best be given in figures:

American dairying now represents a capital of more than \$700,000,000. The cheese product last year, (1867,) sold for \$25,000,000, and the butter product of New York alone, was nearly 85,000,000 of pounds, and the quantity of cheese made 72,000,000 of pounds. The value of these products, at a very moderate estimate, was then 50,000,000 of dollars.

The wheat crop of New York in 1864, was 6,000,000 of bushels; oats, 19,000,000; rye, 2,000,000; and corn, 17,000,000. The product of New York dairies therefore sold for more than the entire grain crop of the State.

The wool clip of the State that year was not quite 16,000,000 pounds, which at a dollar per pound would amount to no more than one-fourth that from the dairy. There has been a large increase of dairy farming in New York since 1864.

(Looking carefully over the census, I fail to find any other agricultural interest in the state that can begin to measure arms with the dairy, for if we add the value of pork made from whey, the calves raised and the beef and milk sold, we can hardly get the annual product from the dairy farms of New York below an hundred millions of dollars. Am I wrong then in supposing the dairy farmers of New York to be the most powerful body of agriculturists, devoted to a specialty, in that State.)

It is remarkable how rapidly this interest has been developed. In 1840, the value of the dairy products of New York, butter cheese and milk, was estimated by the U. S. census at only \$10,496,000, and in all the States at about \$34,000,000. In 1850, the product of butter in the United States and Territories was 313,345,306 pounds, and the cheese 105,535,893 pounds. In 1860 the butter product had reached 469,681,372 pounds and the cheese 103,663,927 pounds. The value of their products that year could not have been less than 200,000,000 of dollars. The total industrial product arising from agriculture within the United States, in 1860, was estimated at about eighteen hundred millions of dollars.

The products of the dairy, then, were one-ninth of the total agricultural products of the whole country.

(The cotton crop of 1859 was 4,850,000 bales, worth \$242,500,000—not very much more, it will be seen, than the value of the products from the dairy.

It requires nearly all our agricultural labor in the Northern States to feed our mouths. In 1855 we exported only 8,000,000 bushels of corn out of nearly 800,000,000 bushels raised, and the same proportion of wheat and all our other agricultural products. We cultivate now about 31,000,000 acres of corn and 11,000,000 acres of wheat.)

The transport of wheat and corn from the Northwest to the sea-board, and the freight across the Atlantic, renders it difficult to compete with European grain-growers in their own markets.

Hence turning the corn into butter, cheese, beef and bacon, or any system of agriculture by which you can condense a bulky product, and reduce freight, must be advantageous to the Western farmer. But the great West, so rich in soil and in almost every agricultural product, is as yet unable to supply itself with the products of the dairy.

If you can afford to purchase cheese from New York dairy farms which are selling from one hundred to two hundred dollars per acre, paying for the transport of the article West, it would seem at least that you have plenty of money, (which of course we are willing to take) though, to tell the truth we think it rather extravagant on your part.

From the best information we can get, the cheese product of 1867, from the whole dairy district of the United States, amounted to 200,000,000 of pounds. Nearly half of this product was made in the State of New York.

Between 1840 and 1850 American cheese began to be shipped abroad, the first shipment having been inaugurated by Herkimer county dealers.

In 1848-49 the exports of American cheese to Great Britain, were a little over 15,000,000 of pounds. Much of the cheese manufactured that year was poor in quality and British shippers claimed to have sustained heavy losses. There was a more moderate demand the following year, and prices fell off a penny a pound, varying for fair to strictly prime from 6 cts. to 6½ per pound.

The exports of 1849-50 were 12,000,000, pounds and continued to vary without important increase for several years.

In 1860 the exports had reached 23,000,000 pounds, and were increased the following year to 40,000,000 pounds. About this time the associated dairy system began to attract attention. Several factories were in operation in Oneida County, N. Y., and were turning out a superior article of cheese. The system had first been inaugurated by Jesse Williams, a farmer living near Rome, in that county, and was suggested from mere accidental circumstances. Mr. Williams was an experienced and skillful cheese-maker, and at a time when the bulk of American cheese was poor. His dairy, therefore, enjoyed a high reputation and was eagerly sought for by dealers. In the spring of 1861, one of his sons having married, entered upon farming on his own account, and the father contracted the cheese made upon both farms at seven cents a pound, a figure considerably higher than was being offered for other dairies in that vicinity. When the contract was made known to the son, he expressed great doubt as to whether he should be able to manufacture the character of cheese that would be accepted under the contract. He had never taken charge of the manufacture of cheese while at home, and never having given the subject that close attention which it necessarily required, he felt that his success in coming up to the required standard would be a mere matter of chance. His father, therefore, proposed coming daily upon the farm and giving the cheese-making a portion of his immediate supervision. But this would be very inconvenient, and while devising means to meet the difficulties and secure the benefit of the contract, which was more than ordinarily good, the idea was suggested that the son should deliver the milk from his herd daily at the father's milk house. From this thought sprang the idea of uniting the milk from several dairies, and manufacturing it at one place. Buildings were erected and fitted up with apparatus, which, proving a success, thus gave birth to the associated system of dairying, now widely extended throughout the Northern States.

This system, during the last eight years, has been carried into the New En-

gland states and into the Canadas. It is largely adopted in Ohio, and has obtained a foothold in Wisconsin, Illinois, Iowa, Kansas and other states. It is known abroad as the "American system of dairying," and its peculiarities are so well adapted to the genius of our people, as to give it a distinctive character of nationality.

At the commencement of 1860, there were but seventeen factories in the state of New York. They were increased during the next six years to 500, and it has been estimated that there are now about 800 in the state. In Wisconsin there are less than a dozen factories, and the whole gross product of your dairies, if in New York city at once, would scarcely supply the shippers with one week's shipment.

Last year I, with many other New York dairymen, feared that the cheese interest was being overdone. Prices were quite unsatisfactory. The cost of cows ranged from \$70 to \$100. Labor was high and we had to pay for Wisconsin flour from \$15 to \$17 per barrel. We had been accustomed to exchange at our doors 40 pounds of cheese for a barrel of your flour.

The speculators made a hue and cry that the country was full of cheese, that the whole West had suddenly sprung into the dairy business, and that you were prepared to ship immense quantities to the seaboard, flooding all the markets of the world, and so our dairymen yielded to low prices, and England was in ecstasies. When the year's operations were summed up, we found there had been no over production and instead of Western cheese coming East, considerable quantities of New York cheese had been shipped West.

THE EXPORTS.

We have given the exports of cheese in 1861 at 40,000,000 pounds; in 1862 the exports were, in round numbers, cheese 39,000,000 of pounds, and butter 29,000,000; in 1863, cheese 41,000,000, and butter 23,000,000; in 1864 cheese 46,000,000, and butter 14,000,000; in 1865, cheese 46,000,000, and butter 22,000,000; in 1866, cheese 45,000,000, and butter 5,000,000. For the past year, 1867, the exports of cheese were about 55,000,000 of pounds.

ENGLISH PRODUCTION AND IMPORTS FROM HOLLAND.

According to the estimate of the English shipper, Mr. Webb, the product of cheese made in Great Britain the past year, 1867, has been 179,00,000 of pounds. We have no estimate of the quantity of cheese made in Holland.

In 1866 I was in Europe, and obtained for the American Dairymen's Association the quantity of Dutch cheese sent to England that year; it was 80,000,000 of pounds. An approximate estimate of the annual consumption of cheese in Great Britain may be gathered from the following figures:

English home make.....	179,000,000
Import from Holland.....	80,000,000
From the U. S.....	50,000,000

Making the total English consumption..... 309,000,000
of pounds per year.

CHEESE CONSUMPTION, &c.

I have said that fears had been entertained that we had reached the limit of over-production. Time must, of course, decide this question, but in the meanwhile a knowledge of the ordinary consumption of cheese in the United States and Great Britain, may be a help on which to base future operations.

From careful estimates it appears that the consumption of cheese in the United States and Canada is annually about 160,000,000 of pounds. This makes 469,000,000 of pounds, as the consumption demand in Great Britain and America.

Against this we have the product of cheese made in Great	
Britain.....	179,000,000
Product of the United States.....	200,000,000
Product of Canada.....	15,000,000
Total.....	<u>394,000,000</u>

Quantity lacking to supply two nations beyond the home make, 75,000,000 of pounds.

Mr. Webb informs us that France has become a competitor with England for Dutch cheese, and that hereafter the imports into Great Britain from this source must decrease. On the other hand Sweden is entering the field as a dairy district, and will compete hereafter with the United States in the English markets.

Already the Swedes are turning their attention to the factory system, and during the past season occasional samples have out-sold, it is said, the finest grades of American in the English market.

Some of the leading men at the South are proposing to try the dairy in various locations. A cheese factory is already in operation in Kentucky, Missouri, North Carolina, Virginia and Tennessee; but many question whether the dairy can be successfully carried into warm climates.

In regard to the quantity needed abroad, Mr. Downes, Secretary of the London Board of Trade, writes me in a recent letter, that Americans should bear in mind this fact—the population of Great Britain doubles every forty years, and that the consumptive demand for cheese is in proportion to the increase of population. On the assumption that Great Britain doubles her population in forty years, the ratio of her increased cheese consumption would be 10,000,000 of pounds annually. Then, if the United States doubles its population in twenty years, the ratio of increased consumption would be 8,000,000 of pounds per year, making 18,000,000 of pounds as the annual increase of consumption for the two nations.

It may well be doubted whether the production of cheese will keep pace with this demand, since the increased demand for and consumption of butter goes on in the same rapid proportion. I think it may be safely estimated, therefore, that this branch of farming promises to be enduring and remunerative, if the people continue their efforts to improve the quality of both butter and cheese.

NUTRITIOUS QUALITIES OF BUTTER AND CHEESE.

There is another question in regard to the products of the dairy, upon which people generally have very loose notions. The common impression among consumers is, that butter is more nutritive than cheese—that cheese is an article of mere luxury, and therefore cannot be classed among the economical articles of food. This is a great mistake, which the English laborer obliged to economize in his food, has long since discovered. The English laborer often lives months without any other animal food than cheese. He will endure the most exhaustive labor on bread, cheese and ale.

Americans generally have very little conception of the vast consumption of cheese in Great Britain by all classes, the rich as well as the poor. And this assumption is founded upon correct principles of health, nutrition and economy. Recent writers affirm that nitrogenized foods are alone capable of conversion into blood and of forming organized tissues—that, in fact, they are the foods properly so called. The non-nitrogenized foods, of which butter or fat is one, are pronounced incapable of transformation into blood, and are, therefore, unfitted for forming original or living tissues. They are, nevertheless, essential to health, and Liebig asserts that their function is to support the process of respiration, (by yielding carbon and hydrogen, the oxygenation of which is attended with the development of heat), and some of them, he states, contributed to the formation of fat. These non-nitrogenized foods he calls elements of respiration. They consist of fat, starch, gum, cane-sugar, grape-sugar, sugar of milk, pectine, bassorine, wine, beer, and spirits. The nitrogenized foods, or plastic elements of nutrition, are vegetable fibrin, albumen, casein, animal flesh and blood. It has been found by experiment in animals, that gum, sugar, starch or butter, cannot alone preserve the health or life of animals. Magendie found that dogs fed exclusively on sugar and water died in from thirty-one to thirty-four days, and similar results were obtained with butter and gum. Tiedemann and Gmelin have confirmed Magendie's statement.

In the report of the Gelatine Commission of the French Academy of Sciences, it is stated that a dog fed on french butter only, continued to eat it irregularly sixty-eight days. He died subsequently of inanition, though in a remarkable state of *embonpoint*. During the whole experiment he exhaled a strong odor of butyric acid, his hair felt greasy, and his skin felt unctuous and was covered with a fatty layer. At the autopsy all the tissues and organs were found infiltrated with fat. The liver was in a state called in pathological anatomy, *fatty*. By analysis, a very large quantity of stearin (margarine) but little or no olein, was found in it. Into this organ therefore there had been a kind of infiltration of fat. Non-nitrogenized foods support the process of respiration by yielding carbon, and in some cases hydrogen to be burnt in the lungs, and thereby to keep up the animal temperature. This is the reason why fatty foods are relished, and are even necessary in cold climates, and also why they are repulsive to persons living in the torrid zone, when heat is supplied to excess by climate.

It will be seen therefore that casein (the leading constituent in cheese) is the chief nitrogenized constituent in milk. It is highly nutritious, and it is from this source that the development of the tissues is effected in young animals which feed upon it. "The young animal," says Liebig, "receives in the form of casein (which is distinguished from fibrin and albumen by its great solubility, and by not coagulating when heated) the chief constituents of the mother's blood. To convert casein into blood no foreign substance is required, and in the converting of the mother's blood into casein, no elements of the constituents of the blood have been separated. When chemically examined, casein is found to contain a much larger proportion of the earth of bones than blood, and that in a very soluble form, capable of reaching every part of the body.

Thus even in the earliest period of its life the development of the organs in which vitality reside, is in the carnivorous animals, dependent upon the supply of a substance identified in organic composition with the chief constituents of its blood."

These facts have been alluded to because there is a misapprehension generally in the minds of people in regard to the nutritive properties of cheese. It is considered to a great extent as a mere luxury, when the facts show that there is no article of food in common use that is so nutritious.

Professor Johnson states that a pound of cheese is more nutritive than two pounds of beef, and as it contains no bones and scarcely any waste, and is readily substituted for meat, always ready for the table, requiring no cooking, easily transported, and preserved for long periods, a luxury as well as a healthful and useful article of food, it deserves to enter very largely into the consumption of a people.

When the Americans begin rightly to understand that a pound of fine cheese instead of being a mere luxury, is at the same time twice as nutritious as an equal weight of steak for which we at the East are paying from 18c to 25c per pound, they will understand as the English do, that its use is economical, and demand the utmost production that the country can give.

DAIRYING AS A SPECIALTY.

But suppose we have resolved to enter upon this branch of farming, will it be best to make it the sole business of the farm to the exclusion of other branches? This question has been fully discussed and pretty effectually tested in practice, through the old dairy districts of New York.

A few years ago, the dairymen of Herkimer insisted that the dairy alone was more remunerative than other kinds of farming, and hence it was not worth while to devote attention to other branches. The area of pastures and meadows was spread to their utmost limit. They were plowed only when necessity compelled, and then speedily returned to grass. Even the breeding and raising of stock were neglected, and the herds largely made up by importing cattle from non-dairying districts. So strongly did this single speciality system impress the mind, that butter manufacture was abandoned, so

far as it could be, and every effort made to work up all the cream into the cheese. The best manufacturers in the country, the English shippers, and the great army of cheese dealers, insisted that fine cheese demanded the largest amount of cream, and that the richer the milk the better the cheese. I was the first to assail this principle and show it to be fallacious. I showed from actual experiment—from chemical analysis—from the whey vats of factories covered with cream almost thick enough to bear a man, that fine cheese did not depend altogether upon the amount of butter in its composition. So prejudiced are people who have been long engaged in a specialty, and educated up to a certain notion, that I doubt whether the dairymen of New York could have been induced to entertain the least respect for such teaching, had not the said process in cheese-making, which I had some years before introduced, proved correct and became generally adopted, saving to the country millions of dollars.

Perhaps a word of explanation should be given in regard to this so-called acid process. Up to 1854, the cheese of America was manufactured by processes having no fixed principles. The thermometer for testing the heat in the various manipulations was only in occasional use. The impression universally prevailed that the milk, the curds, and the whey, during the whole process of manipulation and manufacture, should be kept perfectly sweet. Any perceptible acidity developed by accident during the process was regarded by cheese makers as a calamity entailing losses. As a consequence the great bulk of American cheese was soft, spongy, extremely liable to get out of flavor, quick of decay, and of no character in the English market, except as poor, bad, and indifferent. Immense losses were from time to time made by the dealers handling it, and although some prime dairies were made by those who had had a life-long experience, they were not able to explain the principles by which their success was attained. I had been experimenting in milk, with a view of fixing upon some different stand-point as a guide in cheese making. Instead of guessing at temperature by introducing the hand into the vat, the range of heat securing the best results was marked by the mercury. From this point the changes in the process became a study, and the fact soon made itself apparent that cheese making was purely a chemical process; that it was better to develop further chemical change in the vats, while the curds could be under immediate observation and control, than to trust the necessary changes and transformation, to be perfected after they were put to press, or carried to the cheese-room. I found that by the use of acid (sharp sour whey) in the milk, or by allowing the curds and whey to stand until acidity was developed to a certain point, the watery portions of the milk were more easily expelled, and the curds assumed a more solid texture, while flavor, mellowness, and flakiness could be more easily secured.

It took much writing and much talking to introduce this system among American cheese manufacturers, and perhaps it never would have been introduced, had not the cheese made by a few experimentors, trying this process, been sought after and commanded extraordinary prices. It was not until

the factories began to understand and practice this principle, that American cheese took character in the European markets; and the wonderful development of the dairy interest, has been due not wholly to the factory system, but to the fine character of goods which they manufacture. The English Cheddar process is similar in principle. I shall refer to it further on.

But to return to the question. I think our dairy farmers made a mistake in their exclusive devotion to one single branch, and that a mixed agriculture, making the dairy the leading branch, would have given better results. The English dairymen in the great dairy districts in the west of England devote but little land to meadows. They grow wheat, barley and other grains. They produce wool, mutton and beef. The herds in winter are fed upon chopped straw, with the addition of oil cake, bran and coarse grains. Large profits are thus realized and the land kept in a high state of fertility. Some of the Herkimer county farmers are beginning to adopt this system with success. Our soil is tenacious and more difficult to be worked than yours but it yields large crops of wheat, barley, oats and corn. Some carry a few acres of hops but this is not generally to be recommended, as hops are an uncertain crop, variable in price and rob the farmer of the manures. Fruit culture when it can be successfully conducted is better. One of my neighbors in an adjoining town has 5,000 pear trees just coming into bearing and the profits from this source must soon be large, as the fruit sells readily at from \$5 to \$8 per barrel.

To you, in Wisconsin, where grain can be raised with more facility than with us, the system of mixed husbandry in connection with the dairy, it would seem, must result in the most profit. Then if you abandon the use of the "scrub native cow," and adopt the English system of selecting animals that will readily fatten, and turn them as they do into beef before they become old and worn out; your coarse grains, your bran and ship stuffs, it seems to me, if fed up and converted into milk, beef and bacon, must bring more money than to ship them to eastern markets.

BREEDING STOCK FOR THE DAIRY.

A great many writers urge upon dairymen the breeding of a race of cattle for *milk alone*. Mr. Fish, of Herkimer, experimented in that way. He improved his herd so that it averaged a yield of between 800 and 900 pounds of cheese per cow, but the constitution of the animals became so impaired and weakened, that it did not prove profitable. Cows that will yield 590 to 600 pounds of cheese and then can be easily made ready for the butcher, are all that we should ask. Milch cows are liable to many accidents; some prove inferior for the dairy, lose a portion of the udder, fail in milk easily or run farrow. Such animals, if of a breed that will fatten readily, can be cheaply turned into beef, and if they have not proved profitable for the dairy are made to pay a profit for the shambles.

ENGLISH CHEESE-MAKING.

I went out to Europe in 1866, for the American Dairymen's Association, examined the different methods of cheese-making in England.

English shippers were constantly boasting of the superiority of English cheese, and could not afford, they said, to pay for American the same price.

No practical works on English cheese making could be had, and none has been written that is considered of any value by English dairymen. It has happened that the good writers are not cheese makers, and the cheese makers are not good writers. Besides, the English dairymen are opposed to having all the secrets of this art printed. But again, there is not a cheese maker living that can explain on paper all the mysteries of his art, nor is there one that can always handle milk so as to avoid difficulties and an occasional inferior product.

The most celebrated chemists are unable to explain correctly the nature of rennet,—the coagulating principle used in cheese manufacture. The cheese maker must not therefore rely wholly on a mere set of rules, he must understand principles. I found various processes in operation in the various shires or counties. In all these, *excepting the Cheddar process*, I was greatly disappointed. The Cheshire, the Wiltshire, the Double and Single Gloucester and other methods are defective and extremely laborious. The implements are outlandish, and belong to a past age of the world. The dairy people in the different districts, are tenacious of their practice, and adhere to it with a dogged pertinacity, notwithstanding the Cheddar dairymen, under their improved system, are beating them in the markets from 10s to 30s sterling the hundred weight. Much of their cheese is manufactured by guess, and varies in character according to the skill and experience of the dairymaid. There is scarcely a thing in any of these processes (the Cheddar excepted) that would be of any service to us, and if introduced here, would be a positive damage. American cheese is richer and better made, and is acknowledged by the best judges in Great Britain to surpass in every respect these styles as they are commonly made. The Cheddar, however, is a very high character of English cheese, and commands a very high price. Its good qualities have not been overrated. Their best samples have rarely been equalled and *never surpassed in American dairies*. The quantity made is comparatively small. It takes its name from a small village at the foot of the Mendip hills in Somerset county, its manufacture there having been commenced more than a hundred years ago.

Various improvements have been made in the process, until it has been reduced to a system, which is at once simple and philosophical. It may be said to be a chemical process, requiring skill and judgment in the management of acids, until the curd has passed through its different stages, and is properly developed for the press. Its leading principles are similar to those now practiced by our best cheese makers, and it is due to them that American cheese has been able to obtain such a firm foothold in the English market. The early expulsion of the whey in the English process, together with the exposure, of the curd a longer time to the atmosphere, the pressing, grinding and saltings are doubtless improvements upon our practice. I need not go into detail upon these points; they have been fully explained in my re-

cent address before the AMERICAN DAIRYMEN'S ASSOCIATION, but I allude to them here that proper credit may be given to English Dairymen. I must say this also, in their favor: nothing while abroad struck me with more force, and admiration, than the perfect neatness and cleanliness of the dairy. The milk rooms are located beyond the reach of bad odors likely to taint the milk. They have stone floors, the joints nicely cemented together, so that no slops or putrid matter can find an entrance. The floors, the utensils and everything connected with the establishment are as bright, clean and sweet as the table and crockery of the most fastidious. Many of the farmers will not allow the milkers to come into the milk room, but have conductors by which the milk is conveyed to the tubs from the outside.

It is this perfect cleanliness of the dairy together with the favorable condition of the climate and a more uniform temperature of curing rooms, that enables them to secure that mild pure flavor, which is characteristic of some of the nice grades of cheese.

The best American cheese, has more butter in its composition, and is better manufactured as a whole than the English.

The great defect in much of our cheese is its flavor. We have a hot bad climate to contend with; we are too careless in milking and in handling the milk, when taints can be absorbed. We put the warm milk in cans confining it with a close fitting cover, and haul it a long distance in a blazing sun to the factory and it is often in a putrid condition before going to the vats. What wonder, then, that much of our cheese rich in butter and splendidly manufactured is out of flavor and vast sums in consequence are lost.

American dairyman have been trying for years to discover wherein this defect of flavor can be remedied. A great deal of time has been spent in the investigation of the subject, and a great many theories suggested, but it has all amounted to nothing. From my observations both, at home and abroad, I am convinced that first principles have been overlooked; that factories have been trying to make a finely flavored cheese from imperfect milk, a condition which manufacturers never have been and never will be able to accomplish. A reformation must be had in securing clean and perfectly pure milk together with better curing rooms; and then under our improved system, american cheese will stand, where our nice grades already do, as the richest and finest that the world produces.

I went up to see the Royal Dairy at Windsor, and if every dairyman in America could go there, he would come back with greatly improved views in regard to the importance of cleanliness in dairy practice.

PRINCE ALBERT'S MODEL FARM AND THE ROYAL DAIRY.

The model farm and dairy is but a short drive from the royal palace. and is exceedingly interesting to one who has a taste for farming. The cluster of farm buildings, including that for the steam engine, stand together and are brick. The whole yard as well as the alleys are paved with stone. Under one of the long sheds were arranged the various machines for preparing the

ground for the crops, and in another building the machines for harvesting crops. The stalls for horses and cattle are arranged quite differently from ours in New York. The buildings are rather sheds than barns, being one story and divided into compartments, each having an open arch-way leading into an inclosure of the yard. One or two horses occupy each compartment, where they have liberty to be either under cover or in the little division of the yard adjoining the stall or box, which is fenced with iron railings. The cattle stalls are arranged in the same way. Each stall has feeding boxes and a tank of water in the same range, and in front of which there is a broad alley on a level with the feed box, where persons in charge can deliver the food, or pass down and see that all is right. Every part of the yards and buildings has stone pavements and floors, with gutters for conducting off the liquid manures, so that there shall be no waste. Straw is used exclusively for bedding, or to be tramped up for manure. In one of the stalls were some fine specimens of cattle from India.

THE ROYAL DAIRY.

The dairy buildings stand apart, and are at some distance from the farm buildings. The dairy house is a beautiful structure of brick, with cupola and pointed roof; its outward appearance having a pleasing effect. The interior, however, is beyond question all that is neat and tasteful in dairy decorations. The floor, the walks, and the ceiling are of biscuit tile, fashioned after the most graceful designs. The pans for holding the milk are of white porcelain, with a heavy line of gilt around the edge. They are elliptical in shape, with a nose or scallop at one end for emptying the milk. They stand upon broad, white marble slabs highly polished. The windows are of stained glass, and on each side of the room are fountains of china, arranged with unique figures and graceful devices. Tiny jets of water spin up from these and fall into the china basins with a musical ripple. The ceiling has open spaces arranged to represent mosaic work, and there are three compartments between the ceiling and the roof so as to secure perfect ventilation. All about the sides of the room are medallion heads of the Royal family elegantly pictured in china, and the whole reminds one of the charming descriptions of fairy life which he read in childhood.

BUTTER MAKING AND IMPLEMENTS AT THE ROYAL DAIRY.

It was three o'clock and the milkers were bringing in the milk, which is strained in an adjoining room. It is then placed upon the marble slabs, and the cream is taken off when the milk has stood twenty-four hours. In twelve hours after it is skimmed again.

The cream is churned when forty-eight hours old, the churning being performed in an adjoining room. The churn is of tin, barrel-shaped, and revolving. It has compartments at each end for hot or cold water, so that the temperature can be regulated without mingling water with the cream. The

butter is washed in an oval tub, unpainted, and after being washed is worked upon two thin wooden paddles.

The cream and milk for the royal tables are put in small tin cans with covers, and these again are placed in a larger tin receptacle with cover, when they are sent away to the Palace, either to London or the Castle, as the case may be, where the Queen is staying. The butter and milk had a purity and sweetness of flavor that could not be surpassed.

CLEANLINESS. TIN PAILS FOR MILKING.

In new sections where the dairy is being established, it is important to start with correct principles. The old districts have much to unlearn, and unless they speedily change some of their practices, they will be outdone by the new districts which are making greater exertions for success. The old wooden pail as a milk pail is a nuisance, and its use entails thousands of dollars loss to the dairy interest. I urged the use of tin pails for milking at our Convention, more than three years ago, and suggested how they should be made. They should have concave bottoms with no sharp corners where milk can lodge and be difficult to cleanse. They should have a narrow rim upon the top turning over so as to slip down nicely, fitting into a wooden pail, which should encase it for protection. Every factory should urge upon its patrons, the use of the tin dairy pails. It is just now beginning to be adopted in the old districts, and must come into general use, because it is so difficult to keep wooden pails clean, that even the most scrupulously neat often fail to do so. It is wonderful what a small quantity of ferment, will taint a large quantity of milk. The accumulation of old and decomposed particles about the sides and corners of a wooden pail, communicates its poison to the good milk and sets it into a ferment, which the cheese maker is often unable to control. Painted pails are objectionable because the paint imparts its taint and poison to the cheese.

I have alluded to cleanliness in milking and about the dairy, as an important element in securing good flavor in cheese, and it cannot be urged too strongly upon your attention. The feeding of swine at factories, unless far removed from the buildings, cannot be recommended. Some of our new factories in Oneida have entirely banished them from the premises, and the whey is taken home by patrons. I have seen some of these factories, where everything is kept sweet and clean, both at the factory and among patrons, and the cheese made is becoming noted for its delicate flavor. These questions are just beginning to be understood and appreciated by dairymen, and you will do well to profit by that which we have been so long in learning.

RECENT IMPROVEMENTS IN FACTORY BUILDINGS, &C.

In the arrangement and fitting up of factories, some important improvements are now being introduced. Substitutes for steam engine and boiler are being tested. One of the devices recently brought out, is an arrangement of gas pipe set in a furnace, upon which the fire comes in direct contact,

heating the water by this means. Another device just put in operation, is a nest of hollow cast iron boxes, connected by pipes and set in a brick furnace, the fire applied underneath. Mr. Sears, of Madison county, who owns two factories, has taken out his steam engine and has tested this contrivance. He says they are the most perfect heaters that have yet been invented, and that he would not use an engine if furnished without cost. This new heater only costs \$750 for a large factory; it is simple, substantial, and gives perfect control of temperature. In a test at his factory, of the wood consumed, he finds that three fourths of a cord of three foot wood, will manufacture 12,000 pounds of cheese. The placing of the sinks below the vats, by which the whole mass of whey and curds may run out of the vats through a shute at one end, is another labor-saving appliance. There are machines for cooling the milk in the vats at night, and preventing the cream from rising, operated by clock work, and by waste water from the vats. The application of wind for raising water to supply factories has been found to work satisfactorily.

Then there are two processes for extracting butter from whey, which are claimed to make good, marketable butter, adding largely to the receipts of the factory. The curd mill, though long in use in England, is now just beginning to be introduced in America, and with the best results. Its use is not only a saving of labor, but it improves the texture of cheese, rendering it more compact or less porous. In the Cheddar process, the curds are put in the hoops and pressed ten minutes, then taken out, ground in the curd mill, and then salted. This is, I think, an improvement upon our process, and should at once be adopted. By it you get a more uniform distribution of the salt, and know precisely what is being done, because the curd is uniformly drier, and the salt is not carried out in the whey, as in our process. It is claimed, too, that by salting before pressure, and while the curd is not sufficiently cool, the salt has the effect of forming a shining, tough pellicle about the particles of curd, not only enclosing whey or moisture, but on account of which the union is less perfect, and the cheese in consequence less compact. Again, the Cheddar dairymen, as soon as they can begin to distinguish an acid condition of the whey, immediately commence drawing it from the vat and allow the acid to further develop itself in the curd spread out, or heaped up in the vat or sink. This, I think, is another important improvement, which should be adopted at the factories. It is very difficult to regulate the final conditions of the curd, under all circumstances in the whey. The acid is often pushed forward upon the curd too rapidly, especially in hot and sultry weather. Then if there be taints in the milk, the longer the curd is steeped in the whey, the more distinct and marked will they be in the cheese; but if you get rid of it early, there is more hope of preserving clear flavor, since every moment the whey stands under the influence of heat and decomposition, the stronger becomes its odor and taint as every practical cheese maker has observed. It is to be doubted whether an uniform fine flavor can be maintained under all the variable conditions of milk, unless this principle is recognized. At any rate under this process, there is less difficulty in obtaining desirable results,

There is another suggestion in regard to rennet and annotto which is not understood, even by our oldest and best cheese makers. At many of the factories great complaints are made that the rennets are weak, and extraordinary large quantities are used at heavy expense. It is true there is great difference in the strength of rennets, and the quantities of milk they will coagulate, but the trouble is often aggravated by not properly understanding the strength of the materials employed. The annotto commonly used is cut by potash, a powerful alkali. Rennet is an acid, or at least its action is similar, and is directly opposite that of an alkali. The one neutralizes the other. Now, if annotto is cut with very strong lye, or a strong solution of potash when it is added to the milk, it neutralizes or destroys the effect of a large quantity of rennet. Hence the annotto should always be cut with as weak a solution of potash or lye as is possible to dissolve it.

UTILIZING WHEY.

The utilizing of whey from factories has received considerable attention, and various suggestions have been made as to its value and most profitable employment. Its analysis shows that it is too valuable to be thrown away. Some contend that it can be turned to the most profit when fed to cows, while others stoutly affirm that more can be realized from it as food for hogs.

While in England I was told by the dairy farmers, (and it was confirmed by the provision dealers in London), that a very superior quality of pork was made by feeding whey mingled with barley meal; that, in fact, no bacon was equal to it in delicacy of flavor, and that it sold for most money in the market.

Of the solid constituents of whey, the sugar of milk is in the largest proportion, being very much in the same ratio that it is in the milk. Some effort, it would seem, ought to be made with a view of extracting this material for commerce. The milk sugar that we find at the shops is imported from Switzerland, and is retailed at one dollar per pound. An estimate has been made of the annual yield of sugar from thirty factories, averaging 400 cows each, and it amounts to the enormous quantity of two millions of pounds, or 10,000 barrels; but, suppose the price is only ten cents per pound, then a factory of a thousand cows, on the above estimate, would yield 800 pounds of sugar per day, which would amount to \$80, or \$2,400 per month.

When in London, I had some conversation with Prof. Voelcker, the great chemist of the Royal Agricultural Society, on this subject, and he was surprised that no effort had been made by the American factories to turn this constituent of the whey to account, since the large quantities of milk received at one point made it more feasible than where the milk was scattered over the country and worked up in family dairies. Good milk contains from 8 to 9 per cent of butter and casein, and 5 per cent of milk sugar. The analysis of whey shows that it yields $4\frac{1}{2}$ per cent. of milk sugar, or half as much weight as the butter and casein of the milk combined.

In Switzerland, milk sugar is made by allowing the whey to trickle down

the sides of the mountains in wooden gutters or troughs. Threads are placed in the gutters, upon which the sugar adheres, as the watery portions pass off in evaporation.

It must be evident that the source of income from the dairy would be very much increased could some practical and inexpensive method be invented to take this article from the whey. Whether evaporating pans could be constructed, and heat used profitably in securing this object is a question for investigation; and it seems to me that agricultural societies might profitably employ some chemist to make the proper experiments. If every factory would contribute fifty cents each, good talent could be secured for such an investigation, and a report upon it, even if it amounted to nothing practical, would in many ways be valuable to science.

SOME OF THE PRINCIPLES TO BE OBSERVED IN CHEESE MAKING.

In summing up the question of cheese manufacture, I have only time to notice some of the leading principles that are essential to success. And the first is good clean milk from healthy cows, well fed and well cared for. 2d. Studying the condition of the milk, and understanding that condition before operations commence. 3d. Setting the milk to coagulate at a temperature from 72° to 82° . 4th. In subsequent operations increasing temperature slowly and on no account raising it above 98° to 100° . 5th. Drawing the whey early at the commencement of any perceptible acidity. 6th. Exposing the curd to the atmosphere, and allowing it to fully perfect its acidity after the whey is drawn. 7th. Putting to press before salting, at a temperature of 60° to 65° . 8th. Grinding in a curd mill, and then salting.

BUTTER MAKING.

I fear I have detained you too long, but my address would seem incomplete without a brief reference to butter making. It has always seemed extraordinary to me that there are so few good butter makers in the country, when the article enters into such large and universal consumption, and when there is such a great desire on the part of consumers to obtain that which is good.

Butter making is not so difficult as cheese making. Any one can make good butter that is neat and cleanly, by understanding and practicing a few principles. The greatest mystery about it is, to know how to set the milk and get up the cream properly. Cream that rises in uneven temperatures, in bad atmospheres, where it can absorb the gases from decaying vegetable or the many intolerable stenches often in the neighborhood of the milk room cannot be expected to make good butter, though *churned and packed by an angel*. We make a great deal of poor butter in New York; it is sold under the name of grease. I suppose there may be occasionally a *little* poor butter made in Wisconsin. At the Belvidere Convention, last winter, they told me some bad butter was made in Illinois; I have tasted a vast deal of it wherever I have traveled—at hotels and upon tables of all classes of people. Good butter is a luxury, poor butter an unmitigated nuisance.

In my tour through Great Britain, I took some pains to examine this subject and compare butter making abroad, with the recent American system inaugurated in Orange county, New York.

The butter product of Orange, has long held high reputation, but the new system was first inaugurated there only a few years ago. I went down to Orange Co., to study this system on its first introduction in the country. I was induced to make the examination by noticing in the market reports, Orange county pails at 70 cents per pound, while our best grades in Central New York, were selling at scarcely above half that price.

On my return an elaborate report was made, explaining the system to the dairy public. Subsequently the New York State Agricultural Society employed me to embody my observations in a pamphlet, which was published by the State, and illustrated with numerous plans and drawings. The system has attracted attention in this country and in Europe. It has proved a great success and is being introduced throughout the dairy region. There is no doubt but that it is a decided advance over all previous systems and this opinion is the result of considerable observation over the butter districts of Europe and America. What really distinguishes the American system is in setting the milk so as to secure an even temperature and in applying to butter making the principles of association so that the highest skill in manufacturing may be obtained, in other words the inauguration of

BUTTER FACTORIES.

In the butter factories the milk room is constructed so that good ventilation is secured. It is provided with tanks for holding water. These should be sunk in the earth in order to secure a more uniform temperature of water, as well as for convenience in handling the milk. The vats should be about six feet wide and from twelve to twenty feet long, arranged for a depth of eighteen inches of water. There should be a constant flow of water in and out of the vats, so as to secure a uniform temperature of the milk, after it has been divested of its animal heat. The milk is set in tin pails, eight inches in diameter, by twenty inches long, each holding about fifteen quarts of milk. As fast as the milk is delivered, the pails are filled to the depth of seventeen inches and plunged in the water, care being taken that the water comes up even with, or a little above the milk in the pails. The temperature of the water should be 48 degrees to 56 degrees. A vat holding 2,000 quarts of milk, should have a sufficient flow of water to divest the milk of its animal heat in less than an hour. Milk that is cooled in this way throws up its cream rapidly, and the even uniform temperature in rising the cream, operates favorably when it goes to the churn, the butter coming solid and of good color. Good pure milk when put in the vat in this way will keep sweet for thirty-six hours, even in the hottest weather. The cream should be taken off before the milk sours, and it will nearly all come up in twenty-four hours. The old notion that cream cannot rise through a depth of milk greater than seven inches is an egregious error. The Orange county dairymen get as much cream when milk is set in this way as in shallow pans.

One of the troubles in butter making after the old system is, in regulating the temperature of the milk-room, and in knowing when to skim. In our variable climate it is almost impossible to keep the milk at an uniform temperature when set in pans in the ordinary way. By the new system we always have an uniform temperature without trouble, and, therefore, have perfect control of the milk. Again, under the new system the shells of casein enclosing the butter globules are not so liable to be decomposed and injure the flavor of the butter, for it is this caseinous matter that spoils the butter, and even under the best management it cannot all be taken out.

The Orange County butter makers have tried a great many patent churns, and they find none they like so well as the old fashioned barrel dash churn. They use the barrel and half-size dasher, and in churning put in about fifty quarts of cream. This is diluted with water by adding cold water in summer and warm in winter at the rate of sixteen to thirty quarts in each churning.

The temperature of the cream in summer when the churns are started is about sixty degrees, and in cold weather about sixty-eight degrees. It requires, and it is preferred, that from forty-five to sixty minutes be employed in churning, when the butter should come solid and of a rich yellow color. It is then taken from the churn and thoroughly washed in cold spring water, and salted at the rate of eighteen ounces of salt and twenty-two pounds of butter, and for winter-kept butter a little more salt. After having been salted and worked over it is allowed to stand till evening, when it is worked a second time and packed. Great care is taken with the packages; they are of oak, strongly hooped, and perfectly tight, so as not to allow the least leakage. After being filled with butter, they are headed and strong brine poured in at the top to fill all the intervening spaces.

Dr. Jennings, of Dunkirk, N. Y., has recently invented a pan for farm dairies, which embodies to a considerable degree, the Orange Co., system of cooling the milk, and regulating temperature while the cream is rising. It is a shallow pan three to four inches deep, setting within a pan with space between the two on the sides and bottom for the reception of water.

They are made in sizes large enough to hold the milking of an entire dairy. The milk as it comes from the cow, is strained into the upper pan, until it fills it to the depth of 2 or $2\frac{1}{2}$ inches. Then the space between the pans is filled with spring or well water, and the temperature of the milk reduced to 58 degrees. If the weather is cold, and there is probability that the temperature of the milk will fall much below this point, it can be obviated by drawing off some of the cold water and using warm water. I have tested this pan, and can say that for private dairies it works admirably, making a superior quality of butter. Expense is a mere trifle, and could it be at once introduced, and this principle of temperature understood, the butter product of the country would be vastly improved.

The essentials, then, for a prime quality of butter, may be very briefly summed up, and are as follows: Securing rich, clean, healthy milk—milk obtained, if possible, on rich old pastures, free from weeds. Setting the milk

in an untainted, well ventilated atmosphere and keeping it at an even temperature while the cream is rising; proper management in churning; washing out or otherwise thoroughly expelling the buttermilk; and working so as not to injure the grain of the butter; thorough and even incorporation of prime salt and packing in oaken tubs, tight, clean and well made.

CONCLUSION.

Farmers of Wisconsin! You who have cows upon your farms, whether it be five or a hundred, let me impress upon you, as I have done in my addresses to farmers in New York, in Ohio, in Illinois and in Canada, let me earnestly impress upon you that fine cheese and fine butter come only from clean healthy milk. I do not care how great may be the knowledge of your manufacturers, nor what superhuman efforts they make to suit the markets, they cannot cleanse filthy milk, and out of it put upon the shelves and in the tubs, clean flavored and high priced butter and cheese.

The great demand now, both at home and abroad, is for sweet, nutty, new milk flavored goods. It depends upon you, farmers, whether your dairies and factories shall become noted as the best in the land, and their goods be sought after and contended for by shippers and consumers. There must be cleanliness in milking, there must be no dogging or racing of the herds to the stables, overheating the milk, inducing ferments and decomposition, no kicking and banging of cows, no commingling of diseased milk with the good. If you have cows that are sick or have diseased udders, throw their milk to the pigs. Do not poison your own and your neighbors' products by turning it into butter and cheese.

I do not come here to allure Wisconsin farmers, or intimate that they practice any of these things, because I know nothing of your history, but I know that such things have been common in New York and other states, where I have been, and I have raised my voice against it, that we may be able to bring the character of American dairy products where they shall have no rival in the markets of the world. It would be base in me to stand here and tell you that fine goods could be manufactured from bad, unclean milk, and you must not blame me for pointing out to you the true road to success. It may not be known to you, that fear or any nervous agitation of the cow, influences the quality of her milk. Fear acts powerfully upon the nervous system, destroying muscular fibre, deranging the secretions, and poisoning the blood. I have known colic and bowel complaint induced by taking the milk of a badly frightened cow.

Prof. Horsford has given an account of the changes produced in muscular fibre, by nervous agitation in animals slaughtered for beef. He has shown that in the frightened animal there was not only a disintegration of the fibre, but also a chemical decomposition of the substance of which the fibre is composed, causing it to lose its nutritiousness, and accordingly impairing its value as an article of food. He cites many instances, showing how the strength and healthfulness of muscle are diminished by pain, fear or fright,

experienced by animals immediately previous to death, in a softening of the muscular tissues and in producing something such a change in their composition, as well as in the composition of the juices that are in conjunction with them, as is affected by fermentation. The chemical substances may all remain, but they have arranged themselves in new forms of combination which are less fitted for the purpose of ministering to the wants of man.

"At the burial of the dead, at Fair Oaks, it was observed that the bodies of the soldiers who were exposed to the most dangerous part of the field, and were consequently the subjects of extreme mental disquietude, were lacking in strength of muscle to such an extent that their arms drew out of their sockets, whenever it was attempted to remove the corpses by taking hold of the hand."

It appears that intense nervous agitation suffered by animals, results in a softening of the muscular tissues, and in producing something such a change in their composition, as well as in the composition of the juices that are in conjunction with them, as is effected by fermentation. The chemical substances may all remain, but they have arranged themselves in new forms of combination which are less fitted for the purpose of ministering to the wants of man.

I suspect many of the troubles in manufacturing milk, which cannot be accounted for, are the direct result of harsh and brutal treatment of cows by cruel men employed in their care. I wish you would think of these things, and be convinced that there is nothing pays better than kindness to milk stock. No man has a right to abuse his stock and keep them in a constant tremor of fear and nervous excitement, and then *poison consumers* with the milk and beef of such animals. Remember that the best milk comes from upland or well drained pastures, and in the division of your lands, let the low or wetter portions, so far as possible, be devoted to meadows. Do not fall into the error of laying down pastures with one kind of grass; stock require variety in herbage. Seed with a variety of seeds; timothy, the clovers, blue grass, red-top, fine meadow grass, (*poa-seratina*), meadow fescue, (*festuca-pratensis*), wire grass, (*poa-compressa*), sweet scented vernal and orchard grass, and with those native to your soil and climate. These will make the best pastures for your milk and beef.

Remember that many varieties of grasses growing together will produce more food, and make a more enduring turf.

Provide corn fodder at the rate of an acre for every eight cows, so that when pastures begin to fail in July and August you will always have an abundant store of succulent food at your command to keep up the flow of good milk. In this way you will turn your cattle to account and get from your lands remunerative results.

I thank you for your attention, and ask pardon for detaining you so long.

THE FARMER AND THE MANUFACTURER.

An Address delivered at the Wisconsin State Fair, Madison, October 1, 1868.

BY HON. E. B. WARD, OF DETROIT, MICHIGAN.

Gentlemen of the State Agricultural Society, and Men and Women of Wisconsin: This State Fair is the result of hard labor of the pioneers, who leveled the forests, grubbed the stumps and broke up the prairies, and washed and baked, working hard, early and late, out of doors and in, living simply, amidst rude surroundings. These products of the farm and the mill, so abundant and wonderful, could not be here unless they had struck the first blows, and gone through these heavy toils. Let us give them due honor.

Amidst better conditions you are following in their steps, and, indeed, many of you have been of their number and shared their privations, and are already seeing this young and vigorous State pass by the pioneer stage.

We are a working people, and when we see that labor has done so much in making the wilderness blossom and the waste places glad with civilized life, we should appreciate the privilege and duty of useful work.

Each and all should do something for their own and for the common good. We have small room for drones, or dignified genteel idlers.

For my own part I want to be busy in some decent and useful way, and when the time comes in which I can work no longer with hand or brain, I pray that my life on earth may cease.

At this festival of workers, it is fit to see how labor can be best employed, and skill wisely guided, to effect highest results. The pioneer's first effort was to struggle for bread, his first occupation tilling the soil, which gave rich returns. Next he sold a little surplus to any market, far or near, and that surplus has now grown great, and its transportation to markets far away costs a large part of its price. England takes little of your wheat, but she governs the price, and it takes two men to carry to Liverpool the corn one man can raise in Wisconsin. Cheaper modes of transit can and should be had, in time, which will remedy this in some small degree, but the more thorough remedy I will speak of soon. As the surplus grows large, capital accumulates, and means are at hand to undertake new enterprises, but the people make the mistake of supposing that farming and the exporting of pro-

duce, inevitably the great work of the pioneer, can be still pursued almost exclusively, with lasting profit and benefit. This is a grave mistake indeed, and it is folly and blindness for us to listen to the flattery of our British cousins over the ocean, about our being "the granary of the world." Of course, with this breadth of rich soil, farming will always be important, but we must have home manufactures, and a great home market, if we would make farming pay, and have a surplus also to send abroad.

Agriculture alone never made a country rich or civilized. Ireland has a rich soil, but England has cruelly crushed her manufactures, and she is poor. Portugal and Spain, deluded by England into "free trade," and, of course, with limited manufactures, are poor. France, with the same Celtic race, but a more protective policy, and larger manufactures, has more wealth and far better farms. So it is the world over.

It is folly for one class to try to stand alone, or to look upon others with jealousy. We depend on each other. Farms or factories only thrive best when they are near each other, so that they can help each other easier. They are natural allies. Diversified industry is the "manifest destiny" of the Northwest, and thus the farmers will partake of the common prosperity. England has no room for farmers, as we have, and while her manufacturing puts great wealth in a few hands, her landless people are poor. Here there is room for homes and farms for an independent people. Here are metals, fuel, food, and raw materials for textile fabrics in abundance. Here is skill and energy, capital increasing, and labor accessible. No country in the world has such natural capacity for great and varied manufacturing and farming as the Northwest.

There are now at work in Europe at least 1,250,000 people, whose products are brought to this country for sale. These people you support by sending them your grain, at an enormous expense for freight, and buying their handiwork. If the 4,000 factories now employed in Europe on American fabrics and commodities were transported to the Western States, with half the operatives to work them (you could easily furnish the other half), it would have the immediate effect to increase the value of your farms four or five fold.

Suppose on the other hand that all the people of the Northwest, with all the new emigrants, continue to confine themselves to the production of agricultural staples, and that everybody who works at all is driven into that employment, what will be the certain result? Over production, low prices, poor, idle, and as an inevitable result in the end, uneducated and vicious people.

Your land is rich to-day but will be poor to-morrow if this exporting process goes on. Its exhaustion is only a question of time. The best farming is where the best manufacturing stimulates skill. The soil of England is thinner than yours, but her average wheat crop is twenty-eight bushels per acre, and that average gains, while in this country we have reduced our yield more than half, to an average of only twelve bushels an acre.

In England you find roots and other crops in rotation, covering half the arable soil, and the small wheat fields, kept rich by this skillful management, yield heavily. With us no such variety of crops, and less wheat on two acres than on one over the ocean. In New England we find excellent farming, and poor land growing richer, because the market is near and excellent.

J. H. Klippart, Secretary of the Ohio State Board of Agriculture, said in 1860: "Several years ago I became aware of the fact that wheat—the staple of Ohio—was annually diminishing its yield; that in less than fifty years the average product was reduced from thirty to less than fifteen bushels per acre. I also learned that in Great Britain the yield, in the same time, had increased from sixteen to thirty-six bushels per acre. Portions of New York that formerly produced thirty bushels, now seldom average over eight; and Ohio, with her virgin soil, is reduced to thirteen. Unless our farmers soon turn their attention to renovation, even Ohio will *soon be among the non-producing wheat lands.*"

Wisconsin will follow the same dismal path, unless there be a change, and only the building up of manufactures can avert this calamity.

Mr. Klippart says of the former wheat lands of New York, Maryland, Virginia and Delaware:

"EXHAUSTION is written all over them in language too plain to be misunderstood."

Facts may be given in regard to the yield of cotton corn and tobacco, all with the same pitiful result. The reason is simple enough.

Constant exportation of wheat, or any product, exhausts the soil of the constituents necessary for the growth of that product, with no device by which they are returned to the soil. In a paper read before the Geographical Society of New York, by Mr. Waring, he says:

"In my opinion it would be improper to estimate the total annual wastes of the country at less than equal to the mineral constituents of *fifteen hundred million bushels of corn*. To suppose this can continue, and we can remain prosperous, is simply ridiculous. As yet we have much virgin soil, and it will be long ere we reap the full fruits of our improvidence, but it is merely a question of time. With our earth-butcher and prodigality we are each year losing the intrinsic essence of our vitality."

These are grave truths, and, "forewarned, forearmed," is a good motto for us, before our yet new soil is exhausted. You may truly say that better farming would lessen this waste, but you look in vain for this better farming, save where the factory and farm are neighbors. Diversified industry is the remedy. Much attention has been paid to cheaper transportation to the seaboard, and I have read with interest the proceedings of farmers' meetings for that purpose in Illinois and this State. All proper and important, and worthy of just success, but I have greatly wished that the increasing of the home market had claimed equally intelligent thought and discussion, for the one but alleviates a chronic complaint, the other cures the disorder.

Wisconsin has a special interest in this matter. You raise wheat largely, but the great corn crops and cattle herds of Illinois you hardly rival. The exportation of a single leading staple is exhausting and hazardous, and should lead to the development of other resources.

Your wool crop is large, it is true, but what folly to send away a pound of it. The lumber from your pine forests will be exhausted, the large export of wheat, with small home consumption will impoverish your soil, your farming will not improve if you keep up the old habits; but turn to the exhaustless stores of iron and coal and peat, so easily accessible in and near your borders; bind the swift streams to your service to turn your water-wheels; build factories and shops and iron mills; weave your own clothes; shape your own tools; make your own iron and steel; feed the workmen from your farms, and thus diversify their products, and the day of your redemption is at hand. In the great exposition of wool and woolens in Chicago, in August, I shared the pleasure and surprise of all there, at the quantity and quality of the products of Western skill exhibited. I saw woolens from your State, not only serviceable but beautiful—good enough for any man to wear anywhere. You have already some eighty woolen mills, making excellent and honest cloths, with no shoddy in them. But you sell wool to go eastward, pay freights, commissions and profits, both ways, and get back imported woolens nicely finished, but shoddy-mixed—and shoddy and shabby are the same after a little wear. You have iron ores of the finest quality, and send to England to buy rails, so poor that no other market in the world will take them, and lay them down over the very mines where lies your own iron waiting to be wrought by the hands of decently paid and hopeful American workmen.

Capital likes good investments and quick returns, yet it can live, and wait, and take advantage of poverty. Labor wants constantly and decently paid occupation. Diversified industry is desirable to the capitalist, but far more so, and more necessary to the workman. If I had a million dollars it would need no great wit to go into a region where cash was scarce, because the people were far from market, loan money to farmers, and swallow up their farms, according to law, if not according to gospel, by relentless foreclosure of mortgages. But suppose I invested the money in woolen, or cotton, or iron mills, bought the products of those farms for the workmen, and employed the surplus laborers; there need be no mortgages, but the lands will rise five or ten fold in value.

I should not be acting as a philanthropist, but simply as a business man, helping others to prosper that I might share in that prosperity. A factory with a capital of \$500,000 will spend about that sum yearly for materials and labor, and the larger part circulates among the people.

Let the blood stagnate or move too slow in the veins and a man is sick—the strong and ready pulsation is health. So with business; it is rapid and easy circulation of money, quick returns, nearness of producer and consumer, demand for labor of all kinds, and sale and interchange of its products, that make health and bring wealth.

An able French journal says :

"That which, above all, agriculture claims, is the multiplication of markets, its greatest need being that of a non-agricultural population. What is it that presents itself to view in our poorest provinces? A people thinly scattered and almost entirely rural; not working within reach of a market; consuming on the spot their own local productions; with few or no towns, no industry, and no commerce beyond that which is strictly necessary for satisfying the limited wants of their inhabitants. There, the poor proprietor divides the produce with miserable tenants, the inevitable result of agriculture without a market. Our manufacturing departments, on the other hand, are by far the best cultivated, and for that reason the most productive. There, our agriculture has proved her ability to realize by other means, but in an equal degree, the wonders of English husbandry. *Whenever a large center of consumption is formed, the neighboring farmers are the first to profit by it. This law is infallible, and allows of no exception.*"

At the Fair of the New England Agricultural Society, in Brattleboro, Vt., in 1866, HON. JOHN A. ANDREW eloquently said :

"I desire to attract the observation of this body of intelligent agriculturists to the subject of diversification of industry in its relation to the prosperity of the American farmer. I can do little more than remind you that while population has grown beyond a precedent, wealth has advanced beyond population; that in proportion as our industry has become diversified, our capacity to purchase and enjoy the fruits of the earth has been more than correspondingly enlarged; and that the union of the people in a common purpose to develop all their powers, by whatever means, whether intellectual or mechanical, is the secret of their own growth, and the amelioration of the estate of man.

"Better fed, with more fullness and variety; better clad, in more garments, and those more pleasing to the sense of beauty; better sheltered, by houses more commodious, and in styles of more tasteful architecture, and more enduring quality; with more books and newspapers, and larger public libraries; enjoying incomparably more avenues and better means for traveling and for transportation of goods; with ampler crops and better prices than ever before—this very Commonwealth does, in its own history, afford the proof of the advantages of our American aim at the largest conquest over all the domains of industry."

Words well worthy of the heart and the head of a noble and lamented son of New England, who once illustrated the genuineness of his Democracy by saying to a large audience: "Whatever other sins may be laid to my charge, and doubtless there are many, I thank God I was never mean enough to despise a man because he was poor, or ignorant or black." Let it be our effort to hasten the day when what he says of these aspects of New England life, which are the results of her diversified industry, may be as true of Wisconsin as of the "Old Bay State."

With a variety of occupations, all find something to do; with few kinds of labor, much power is wasted in idleness. In Wisconsin there are some 40,000 women and children of suitable age for light labor, able and willing to work. In New England they would all find employment. Suppose they could earn, with you, fifty cents a day in manufacturing establishments; that would be \$3.00 a week, each, or \$120,000 for all, and \$6,240,000 a year, or \$62,400,000 in ten years, in addition to the present wealth of your State. Savings banks are mostly places of deposit for the surplus earnings of working people. In 1866, notwithstanding that large sums were invested by the same class in government bonds, there was deposited in the savings banks of Massachusetts \$67,000,000.

Statistics of the wealth and yearly income of England, carefully prepared by Mr. McQUEEN, sum up this conclusion: "Capital usefully employed in manufactures by an agricultural nation, in time increases the value of the soil ten fold."

The special advantage of the Northwest is that we have ample room for farming as well as manufacturing, and thus the conditions which not only create wealth but distribute it among the intelligent land owners and artisans.

It would be of great interest to enlarge on what must be passed by with a simple statement—varied industry helps to civilization and wealth of soul and life, as well as of purse. While it enlarges the capacity to enjoy the fruits of labor, and multiplies and distributes their enjoyment, it stimulates art, science, and all higher moral and mental powers.

Some of your new towns which have sprung up and driven so rapidly have reached their growth, and others will soon do so. Nobody with us enjoys living in a town "all finished, painted and fenced in," as the saying is. Let such towns build up manufactories, and thus help themselves to a new life, and add to the value and enjoyment of the country around.

Not the least benefit of diversified industry is to build up many thriving towns, instead of the few great centres of trade, which absorb all around them in an agricultural community, taking much and giving back little.

The West has made rapid advances in manufacturing, for we find by the census returns of 1860 that the value of manufactures of all kinds for that year in the eleven Western States was \$390,411,942, giving employ to 222,325 persons, but the twelve New England and Middle States turned out \$1,298,207,058 worth, and employed 1,025,000 persons. Your own State, being new, hardly did its proportion in this work with Ohio and Indiana, but we find that the woolen mills of Wisconsin had increased from fifteen, with a yearly product of \$115,000, in 1860, to sixty or eighty, yielding \$562,000 worth of cloths, while the 560 mills of the seven States of Ohio, Indiana, Illinois, Michigan, Wisconsin, Iowa and Minnesota turned out about \$4,200,000 worth. A good beginning, but we must keep on and overtake Massachusetts with her great mills turning out \$40,000,000 worth yearly, and the wool growers of Wisconsin, learning the kinds of wool, long or short, for combing or card-

ing, that your manufacturers want, should take care that their home-market is fully supplied, even if it takes millions of sheep to do it.

Let me put it fairly to you, farmers of Wisconsin. Do you want to banish these woollen manufacturers? Would you think it a benefit to be compelled to sell all your wool in the distance and buy a half million dollars worth of shoddy-clothes from over the ocean in place of the honest goods they make for you? Would you not be glad to have scores of woollen mills to each one now running?

Iron ore is valueless in the ground, and labor gives it value. It costs about eighty dollars, paid to workmen, to make a ton of iron.

Which is best for you—to send your wheat to Liverpool and take it back in poor English iron, with heavy freight and commissions deducted, and your rich land made poor by the export of its crops; or to feed the iron-makers at your doors, save expenses, get better iron, quick returns, better prices, and keep your land in good heart?

The West produced, in 1867, 500,000 tons of pig iron, and 200,000 tons of bars, and plates, and rails, and our total product of iron and steel was worth over \$45,000,000.

Would you send that sum to England to swell her yearly iron and steel exports of \$75,000,000, and increase your debt? or would you increase this business, which is labor creating value from coarse raw material, and reach to the point of exporting the products of your mines, the richest in the world? Iron ships, built on the Clyde, navigate the ocean. You may remember iron blockade runners—armed to scourge our commerce also—coming from the same locality, and built to order for certain Britons of the baser sort. (Thank Heaven, the Brights, and Thompsons, and the cotton spinners in English mills, poor in purse, but rich in soul and in loyalty to free labor the world over, had no fellowship in such greedy meanness.) Iron ships built at our own yards, by our own workmen, from our own iron, should navigate our lakes, and rivers, and the ocean.

Shall the hum of the spindle, the roar of the waterfall, the puff of the engine, and the clang of the trip-hammer cease in your borders, that England may find market for her wares, while you keep on being "the world's granary" until your land is too poor to raise wheat?

You will answer these questions for yourselves and your children. Fail to diversify your industry and your path leads down to decay of purse, and soil, and soul; give your labor and skill many ways to act, and that path leads up to wealth of soil and of soul.

Agriculture and manufactures are the creators of useful materials and finished products. Commerce only transports and exchanges what they bring into being. Neither can thrive without the other, and neither can gain by overreaching the other.

Lessen our manufactures, and, for a time, a few importing traders might gain, but the power of the country to buy from abroad would soon decrease, and the home trade would languish. Let our manufactures thrive, and our

agriculture with them, and our power to buy abroad such articles as can best be produced in other lands increases, our importations are healthy, and our internal trade—far greater and more important than the foreign—keeps active and strong.

Protection to home industry is the business of a good government, and its advocacy the duty of the intelligent and enlightened citizen. Not monopoly for the benefit of any one class, but protection to the degree needed to encourage manufactures and benefit farmers, and keep our balance of trade healthy. You do not need a tariff on wheat to prevent its import from Europe, for the freight is a tariff, but a roll of English or German cloth is a car load of cheap foreign corn, packed in small compass, and if you buy it you help to keep down the price of your grain to its level. Better make it here, and have your home market govern a price that shall rule higher than in Liverpool or Hamburg.

How can a farmer raise wool and pay his laborer decent wages for a civilized man, and compete with half-naked herdsmen in Australia or South America? Is it easy even for a cotton-grower, paying his laborer \$20 per month, to compete with Egypt and India at \$5 or even \$3 a month wages? In 1864, by the accurate report of the Revenue Commission, it appears the wages of an English iron puddler were \$1.80 per ton, or 90 cents per day, those of an American \$6.54 per ton, or \$3.27 per day—much more here than there, allowing for higher cost of living. Can we so shape affairs that American workers, in the field and mill, shall be decently paid for doing our own work? Or must we come to the pauper wages of the old world?

The elevation of labor is called "the sentiment which created civilization," Sometimes we find a frank statement of the effect of "free trade," as in a late New York journal.

"I am for unqualified free trade. I would sell out the custom houses, discharge the leeches there, and allow people to sell and buy wherever they chose. This will bring us to a true and normal relation.

"Commercial disturbance would result. We should be on a new foundation. The first effect would be to stop manufacturing here, and fill the country with foreign goods many of which Europe would never see her money for. A commercial revolution would follow, laborers would be out of employment, and the price of labor would come down, down, until it reached the European standard, and then success is secured."

Success, possibly, for the few, but hard work at pauper pay for the many!

If a farmer half tills his land, and buys silks, gewgaws, cloths, etc., more than he pays for, year by year, no matter how large or rich his farm, he comes to trouble at last. So with a nation. Our trouble is the great and growing tendency to idleness and extravagance. Our boys complain of work, and want to be clerks or government officials. Our girls waste their time on frivolity and dress, and mechanics and laborers want large pay for little work, and we see as the result high prices for all the products of industry, large importations of foreign commodities to supply the deficiencies caused

by our idleness, a steadily increasing foreign debt, and gold at a high and increasing premium.

A great number of healthy men are seeking or holding public offices as a means of easy support, while the number and cost of such offices ought to be largely reduced. Young men, if you would have your manhood dwindle and fade away, and be a genteel and subservient pauper, be a seeker for Government office. If you would be manly and independent, keep to your farms and trades.

People talk about specie payments, and bonds, and debt. Overtrading with Europe, and underwork at home, and want of development of our great resources, cause these financial troubles. Remove these causes, and we can resume specie payment in two years without distress or revulsion.

At the close of a great war, when we ought to have been prudent, if ever, our reckless importations reached \$437,000,000, or, deducting \$9,000,000 specie imported, \$428 000,000. But the Secretary of the Treasury says that the undervaluations at the Custom House are some 20 per cent., which is a low estimate, and we must add that amount, or \$85,720,000, and make a total of \$514,320,000, for a single year's imports in 1867. Of this vast sum there was

Cotton manufactures.....	\$30,844,391
Iron and Steel.....	24,000,000
Wool and its manufactures.....	66,800,000
	<hr/>
	\$121,644,391

All this the Northwest alone should have produced or manufactured, but we have gone on and allowed our imports to far exceed our exports or ability to pay, until our debt in Europe, mostly in England and Germany, is some \$1,500,000,000, including National, State, railroad and municipal bonds and stocks; and our National obligations in the shape of bonds are tossed about by foreign bankers at a shameful and ruinous discount. The yearly interest of this great debt is \$90,000,000, in gold, or more than all our mines produce.

From January 1st to August 1st, seven months, the exports of specie to Europe were \$60,000,000, while our receipts from California were but \$25,000,000, and at last the "*New York Shipping and Commercial List*," uttering the views of great bankers and importers, says on the 8th of August: "Various theories have been adduced (in regard to the rise of gold), but it would not be difficult to show that the real cause is mainly the result of an uneven foreign trade movement, that is, the undue preponderance of imports over exports, thus leaving a large balance against the country, which is necessarily draining us of a vast amount of treasure, since bonds are no longer available, in adequate quantities, for that purpose." I am glad to see in such a journal such clear statement of our danger and its main cause. Repeatedly, for years back, I have made the same statement, which was passed by almost unheeded, but is at last seen in all its dangerous magnitude. More work and less extravagance, more production and less importation,

more development of our natural resources, more diversified industry to make our labor pay better, and the debt decreases, specie payment results, and the vexed question of greenbacks and bonds gets settled.

For this increased production we must have more manufactures, for mingled agriculture and manufactures, such as you can have here, are the great sources of wealth and prosperity.

That well-known philanthropist, PETER COOPER, of New York, has carefully prepared a table, from the *Treasury Reports* of 1856 and '57, showing the production, for each man, woman and child, white or black, in the States, which shows the great advantage of the manufacturing States. I give a part of it to illustrate:

Massachusetts.....	\$166 60
Wisconsin.....	68 41
Rhode Island.....	164 61
Indiana ...	99 12
Connecticut.....	156 05
California (gold included).....	<u>149 96</u>

Move on in Wisconsin and you can overtop Massachusetts, but you must move in that path. Being "the world's granary" and importing your goods from Europe never will carry you there. You see the "wooden nutmegs" of Connecticut are worth more than the gold nuggets of California, and may learn that the iron mines and fleeces in your midst can be made of more value than richest gold beds.

I have nothing to say about motives or intentions, but, in fact, the man who advocates and supports what is called "free trade" is an enemy to our country's good, and especially to the good of the Northwest. The free trade cry comes from England, a country that now levies duties on imports to the amount of about \$100,000,000 yearly, and puts a tariff of 300 per cent. on the tobacco we send them. In 1859 the duty on American tobacco imposed by the British government was \$18,724,420.

A witty Frenchman, Baron Dupin, well said in 1852:

"When the British Parliament applaud the enfranchisement of the world's commerce, they clap their hands, and those hands are covered by English gloves, protected against foreign gloves by a duty of twenty-five per cent."

England has always taken care of her manufactures until they could stand strong, no matter how long it took. In the fourteenth century Edward III. forbade the exportation of rams, and levied heavy taxes on imported woollens, calling a Parliament almost wholly to legislate on the matter. In 1772 there were 311 laws on wool and woollens, aiming at the building up of this great industry. In the days of Queen Elizabeth, Lord Bacon said to her Ministers: "Let us turn the wools of our land into cloths of our own growth. It would set many thousands at work, and multiply the materials five, ten or twenty times in value." Thus, for over four hundred years, England constantly took care of her woollen interest.

In 1610 the protective duty on foreign bar iron was \$12.50 per ton; in 1782,

\$14.00; in 1803, \$21.00; in 1806, \$27.00; in 1819, \$32.50; in 1836 it was reduced to \$7.50. Why? *Because through an unwavering policy of protection for a century and a half her iron had obtained the mastery over all competition.* Then it was time to cry "Hurrah for free trade in woollens and iron the world over!"

As has been well said by Hon. D. J. Morrell, of Pennsylvania:

"During the last century an institution was founded in England, under the style of 'The Society for Propagating the Gospel in Foreign Parts,' whose munificent and practical benevolence is attested by many churches still standing in this country, erected by funds which it supplied. The great missionary enterprise to which England of to-day is devoted is the propagation in 'foreign parts' of the doctrines of a political religion—the gospel of free trade. Its tracts are essays of British economists, its colporteurs, her commercial traders, its foreign missionaries, the representatives of the press of our leading commercial city, and its churches, our bonded warehouses. No influence which can contribute to the spread of this religion is despised; no accessible organ which can affect opinion abroad remains unsubsidized."

The solicitude of the English for our adoption of their "free trade" *professions* as our *practice* can hardly arise from philanthropy, as they are not vastly better or worse than other people.

In 1846, when our tariff was reduced, firms in Manchester and Glasgow paid some \$60,000 to that end, and over \$1,000,000 of British money was spent in Washington. Samples of foreign goods were shown in a basement room of the Capitol, used for that purpose, and to-day there is no lack of money from interested foreign parties to propagate the same "political gospel."

But even John Stuart Mill, an able advocate of free trade, says in his Political Economy:

"The superiority of one country over another in a branch of production often arises only from having begun it sooner. There may be no inherent advantage on one part, or disadvantage on the other, but only a present superiority of skill and experience. A country which has this skill and experience yet to acquire may, in other respects, be better adapted to the production than those which were earlier in the field; and, beside, it is a just remark, that nothing has a greater tendency to produce improvement in any branch of production than its trial under a new set of conditions. *But it cannot be expected that individuals should, at their own cost, introduce a new manufacture, and bear the burdens of carrying it on until the producers have been educated up to the line of those with whom the processes have become traditional.* A PROTECTIVE duty, continued for a reasonable time, will sometimes be the least inconvenient mode in which a country can tax itself for the support of such an experiment."

This covers the whole ground of *protection as a principle*, and his only error is in considering as a tax that which is a help and benefit.

In 1825 heavy cottons were sold in New England for $23\frac{1}{2}$ cents per yard, in 1840 for 12 cents, in 1859 for $9\frac{1}{2}$ cents. Cotton hosiery went down from 25 cents in 1860, to $12\frac{1}{2}$ cents a pair to-day. Lawns were imported from England in 1846, at 28 to 30 cents, then we undersold them. Delaines, of which we consume two yards to each of our population, we imported at 28 to 30 cents; a better home-made article now sells at 20 cents. Carpets have been reduced 25 per cent. by economies and processes introduced here. Our shoe industry excels the world in quality and beauty, and only needs a tariff to guard against fluctuations abroad. Ten years our cast steel was imported from England at a duty of but 12 per cent., and its average price was 18 cents per pound. In 1860 its manufacture commenced in Pittsburgh, and in 1861 the duty was doubled, but the foreign article went down to 18 cents, and ours a trifle lower. Gold premium and war prices carried English steel up to 45 cents, but ours was sold, of equal quality, at 32 cents, and our government and people thus saved millions in the war, and were saved from pitiful dependence on a foreign power not especially friendly to us in the days of our peril.

These reduced prices, all under protection, are no great tax, surely.

John Quincy Adams, in a report from the Committee on Manufactures to Congress, in 1832, said:

"The first act of the first Congress was an act levying duties on importations, and this act, by an exception to the general rule, was preceded by a preamble, as follows:

'WHEREAS, it is necessary, for the support of the Government, for the discharge of the debt of the United States, and the encouragement and *protection* of manufactures, that duties be levied on goods, ware and merchandise imported.'

And that able patriot argued that this was a part of their duty "to provide for the common defence," saying, "This common defence must be provided for as much against commercial rivalry as warlike invasion, for the spirit of traffic, armed with power, as the experience of mankind has proved it more insatiate and grasping than all the Alexanders and Cæsars that ambition has inflicted on men."

The sagacious Franklin, writing from London in 1771 to Humphrey Marshall, said:

"Every manufacture encouraged in our country makes part of a *market* for provisions within ourselves, and saves so much money to the country as must otherwise be exported to pay for the manufactures he supplies. Here in England it is well known and understood that wherever a *manufactory* is established which employs a large number of hands it raises the value of land in the neighboring country all around it. It seems, therefore, the interest of our farmers and owners of land to encourage young manufacturers in preference to foreign ones."

Thomas Jefferson said to Benjamin Austin, in 1816:

"You tell me I am quoted by those who wish to continue our dependence on England for manufactures. There was a time when I might have been so quoted with more candor. * * * We have since experienced what we did not then believe—that there exists both profligacy and power enough to exclude us from the field of interchange with other nations; that to be independent for the comforts of life we must fabricate them ourselves. We must now place the manufacturer by the side of the agriculturist."

Andrew Jackson, in 1826, wrote to Dr. Coleman:

"In short, sir, we have been too long subject to the policy of British merchants. It is time that we should become a little more *Americanized*, and instead of feeding the paupers and laborers of England, feed our own, or else in a short time, by continuing our present policy, we shall be rendered paupers ourselves.

Henry Clay, speaking of the balance of trade against this country, uttered words worthy of heed to-day:

"In the mean time there will be an export of the precious metals, to the deep injury of internal trade, and export of public securities, a resort to credit, debt, mortgages. All of these conditions are believed now to be indicated by our country in its commercial relations. What have we received for the bonds sent to England? Goods. But these bonds must be paid."

In 1846, Daniel Webster, looking into the future of this Northwest, sagaciously said:

"The Northwestern States are destined to be manufacturing States. They have iron and coal. They have a people of laborious habits. They have already capital enough to begin works such as belong to new States and new communities; and when the time comes—and it cannot but come soon—they will see their true interest to be to feed the Northern and Eastern manufacturers, as far as they may require it, and in the meantime begin to vary their occupations by having classes of men among them who are not of the now universal agricultural population. The sooner they begin this work the better; and begin it they will, because they are an intelligent and active people, and cannot fail to see in what direction their true interest lies."

These are the opinions of great Americans. Similar opinions of great Europeans might be given.

Our distinguished political economist, Henry C. Carey, well known on both Continents, and whose masterly writings should be in every home library and in every school, well says:

"Steadiness and regularity in the returns to agricultural labor grow with increase in the variety of commodities produced in the land. Disease tends to disappear as population increases and a near market is created. The poor Irishman sees his potatoes rot, consequent on the increasing exhaustion of the soil; the Portuguese witnesses his hopes destroyed by the vine disease;

the American farmer is visited by blight, resulting from taking from the soil the material for the ever-recurring wheat crop. The man who has a market at his door finds blight and insects vanish, and is able to make his crops more certain.

This plot for keeping back diversified industry in the Northwest is of Southern origin, and you have been kept raising cheap food by the craft of the same class of men who rebelled against our free institutions, and slaughtered your sons in the struggle.

A book was published at Augusta, Ga., sold only by subscription, and thus kept away from the North while it was a sort of political gospel on the tables of leading slaveholders. A copy was brought away from some rebel's library by one of the "boys in blue," from which I make extracts.

The title of this large volume is "Cotton is King, and Pro-Slavery Arguments, comprising the writings of Hammond, Harper, Christie, Stringfellow, Hodge, Bledsoe and Cartwright on this important subject, by E. N. Elliott, D. D., President of Planter's College, Mississippi, with an Essay on Slavery in the light of International Law, by the Editor."

It is the plots and plans of the slave power, got up for their own study and use, and a part of the base scheme was to form an alliance with British cotton spinners, raise the delusive cry of "free trade," to give them a market for their cotton goods, and to keep down manufacturing in the North and West, that you might raise cheap food for their negroes!

A writer on the "Economic Relations of Slavery," thus states the case:

"But they could not monopolize the market for cotton unless they could obtain a cheap supply of food and clothing for their negroes, and raise their cotton cheaper than their rivals. *A manufacturing population, with its mechanical coadjutors amidst the provision growers, on a scale such as the protective policy proposed, would create a permanent market (at home) for their products, and enhance the price, whereas, if this manufacturing could be prevented, and a system of free trade adopted, the South would be the chief provision market and the fertile lands North supply the cheap food for our slaves.* * * *

"If they could establish free trade it would insure the American market to foreign manufactures, secure the foreign market for their cotton, repress home manufactures, force a large number of northern men into agriculture, multiply the growth and diminish the price of provisions, and feed and clothe their slaves at lower rates."

The writer goes on to show how the West "had its attention turned South for a market," and fully reveals their scheme for making you pioneers of the West work cheap, and keep factories away, for their benefit, under a "free trade" delusion, to strengthen which "the southern planter and the English manufacturer become united." Comment is needless. Farmers of Wisconsin, how do you like the plot?

I present these facts because no class of men in this country should have more interest in, or would reap equal benefit from, the building up of varied

industry in this region than the farmers, and it is important they should have clear views of the best means and wisest policy to that end.

We greatly overrate the importance of the English grain market.

When the British corn laws were repealed, the inducement was held out by the English, and the hope entertained by our grain growers, that a large market would open there for our products.

But, in twelve years *after the repeal of the corn laws*, from 1848 to 1860, our exports of breadstuffs to England had *decreased*, in proportion to our population, *almost thirty per cent.*, even by English estimate twenty-seven and a half per cent.

During the same years the British imports of grain from this country were *only one-fifth their imports from other countries.*

Milwaukee and Chicago often send off in ten days more grain and flour than England has taken from us each year on the average, for twenty years past.

The eleven Northwestern States in 1860, produced \$900,000,000 worth of grain and provisions for consumption and export, of which only \$25,000,000 went to foreign countries, and less than half of that to great Britain, while our Eastern States and the South took \$190,248,655 worth or more than seven and a half times as much as all foreign countries. New England is a larger market for us than Old England. The annual average of our exports to Great Britain, from 1846 to 1860 inclusive, computed at only \$6,048,645.

Your farming needs great improvement. With change of crops, root culture, deep ploughing, under-draining, plaster and manure, I doubt not your products per acre will vastly increase, and that fruits and other products you now find it hard to raise will yield abundantly. You need to plant orchards and to have groves of trees growing to shield exposed lands on the prairies from the blast of the winter winds.

All the labor and money spent in this way will be repaid a hundred fold; and it would be timely wisdom if township and county agricultural societies would combine on some broad plan for the planting of trees, and perhaps laws might be passed for that purpose. But all these improvements, so greatly needed, I have little expectation of seeing until you diversify your industry and increase your home market.

Let me warn you of another great change that is coming. The South will not only raise their own grain, but compete with you on the seaboard and in Europe. That region has so long been looked at as fit only to produce cotton and rice, and sugar, that we forgot its capacity for grain growing. From Virginia through to Alabama and Louisiana are great tracts of the finest wheat region, capable of producing that grain of the choicest quality, and putting it in market in New York or Boston a month earlier than you can, and at no more cost. This is beginning already, and it is *sure to come*, and it is well for you to foresee and prepare for it.

Its approach should stimulate you anew in your good work of putting farm and factory side by side, and should lead you also to look about, and find, if possible, some new product, fitted for your soil and climate, that may help to keep all right.

Such a product is in your reach in the sugar beet, the culture of which, and the manufacture of sugar, should grow up in the Northwest, in ten years time, to an extent sufficient to stop importations, and keep at home \$40,000,000 we send abroad yearly for sugar.

In France this great industry, starting into new life under the efforts of the great Napoleon—who resolved to counteract the British blockade, which had raised the price of sugar to a dollar a pound, and offered premiums and imposed heavy tariffs on imported sugar—had no marked or rapid progress until 1818, but now can compete with cane sugar, and instead of wanting a tariff pays a large sum in government taxes.

From a report of the active and able Commissioner of Agriculture, in Washington, Hon. Horace Capron, who is gaining much valuable information on this important subject, I learn that:

“At the first of January, 1868, 3,173 refineries of beet root sugar were reported as in operation in Europe.

“The total product in 1828, is stated to have been 7,000 tons; in 1851, 180,000 tons; and in 1867 the enormous quantity of 663,000 tons, or 1,486,120,000 pounds, worth \$100,000,000, or about seven cents per pound.”

“Sixteen years ago, France was able to manufacture half of her total consumption of sugar, or 60,000 tons; and Belgium, consuming 14,000 tons, imported, in 1851, but 4,000 tons. Germany, at the same date, produced 43,000 tons; Austria 15,000, and Russia 35,000 tons, the latter country also importing, at that time, 50,000 tons of sugar in addition to the home products. *The total manufacture of Europe, as stated above, has been almost quadrupled since that date, and cane sugar in several of those states is now scarcely known.*

* * * * *

“The products of beets per acre is from fourteen to fifteen tons in France and Belgium. Enormous crops have occasionally been reported, 110 tons per acre in one instance.

“A ton of beets yield about 100 pounds of raw sugar. At first the proportion of sugar obtained was but three per cent; it was increased to six, and even to seven and a half per cent.

“The beet cake for feeding purposes, the molasses, alcohol and other products obtained, greatly increase the aggregate which makes the total value of this branch of industry. Beet sugar districts become so enriched that far greater amounts of the cereals and other products of agriculture are obtained than before beet factories were known.

“The growing of the beet requires rotation, as well as thorough culture and careful weeding. It would therefore be a boon of untold value to our wheat-producing districts of the West, which are decreasing year by year in returns for labor expended from these causes, and the additional neglect of stock growing.

“A promising beginning in beet sugar making has been commenced in Chatsworth, Illinois, and fine samples of its sugar may be seen in the museum of this department. A history of this enterprise will hereafter be given.

"Another feature of the business is worthy of attention. The production of the sugar beet by farmers, for sale in a dried state to manufacturers of sugar, may be made to yield an immense revenue to rural industry. The beets are cut in small pieces, after washing, and dried by artificial heat, by which process from eighty to eighty-four per cent. of their weight is expelled, leaving a residue containing fifty-five per cent. or more of sugar, which is extracted by infusion, often after months of delay and transportation to distant factories. A specimen of this dried beet can be seen in this department, made by Thomas Gennert, of Chatsworth, Ill., who claims about eighty per cent. of sugar in it. As an illustration of the extent of such a business, a record may be cited of an establishment for obtaining sugar by infusion of dried beet, at Waghausel, near Carlsruhe, in the grand duchy of Baden, in which 3,000 people were employed, a capital of eighty millions of francs (or sixteen million dollars) used, and twelve acres of land covered with buildings."

In Germany, the beet sugar paid last year \$12,678,000 in tax to the government, and could defy competition; and in France 120,000 tons were made in three months in 1867.

What they have done we can do surely. Let that crop be a means of improvement and wealth among you, and, if it be necessary, the National Government should take measures for the encouragement of this important industry.

It is a privilege to meet the working men and women of Wisconsin on an occasion like this.

I have offered these views and presented these facts not as new or original with me, but because I feel they are of vital importance to us, and to that Future we would make great and truly noble.

I have dwelt on the importance of building up diversified industry because it is of great importance to farmers, and to all. In the fit words of another:

"We cannot have the best farming until we have the best manufacturing, in varied forms and materials, each an indispensable help to the growth and perfectness of the other.

"Give us both, and the blending of these varied experiences and vocations, the meeting and mingling of these many nature's forces and materials, is full of benefit. It is civilization, culture, wealth of soul as well as of purse. To the farmer it is increase of the product of his acres, economy of exchange, work of hand or brain, for whatever gift of power or character his children may possess, instant and constant call for a variety of labor, and all the while the thrill of inventive genius pulsing through the serene quiet of his life in the fields, saving it from all narrowness or stagnation, that he may the more enjoy nature's beauty, and the better make her forces serve him."

I do not feel like a stranger among you. Coming to this Western country, forty years ago, in my boyhood and youth I shared the toils and privations of our pioneer life. I have rolled and burnt logs, and ploughed and planted,

and hoed and harvested, amidst stumps and gridled trees, with the forests all around the litte clearings.

I have sailed along the wild shores of your then new territory, landing at Milwaukee, when a few rude cabins were the pitiful beginnings of what is now a large and beautiful city. I landed flour in a small boat, lying off the mouth of Chicago river, when there were only a few houses, a ruinous warehouse, an old fort, and a miserable so-called hotel on the open prairie where now rises another great city, and have always been glad of these my toils and trials, since they earned me the privilege of somewhat appreciating the laborious life of the pioneer.

My efforts have been, with yours, in this broad western field. Much has been done, and more is yet to be done.

Let us go on with faith, courage and unyielding effort, to build up in your own State, and for our common country, a future in which labor shall be free and honored, genius and skill find ample scope in widely varied occupations, and farmer and manufacturer work out, in fraternal spirit and with a common purpose, the great problem of industrial independence.

OPENING ADDRESS.

Delivered on the State Fair Grounds, Wednesday, Sept. 30, 1883.

BY ACTING PRESIDENT B. R. HINKLEY.

[Owing to an unfortunate error in making up the preceding form for the press, the following address was omitted from its proper place, and therefore appears here.]

Gentlemen of the Wisconsin State Agricultural Society :

FELLOW CITIZENS :—The duties of President of this organization having been unexpectedly devolved upon me, I have naturally assumed them with some reluctance, knowing from past experience how responsible they are, and how difficult of performance to the satisfaction of all parties interested. Still, where so much of what ordinarily devolves upon a President is regularly done, and so well done, by our indefatigable and most efficient Secretary, the burden is so greatly lightened that, with the further co-operation of other officers, and of the superintendents and awarding committees, I may hope for reasonable success in the discharge of my official duties.

After the lapse of another year, we, the members of the State Agricultural Society and the friends of industrial improvement generally are again assembled upon these beautiful grounds to compare our relative success as farmers, gardeners, mechanics and artists, and to measure the progress of all the industrial arts during the past twelve months.

In former times, societies like ours and exhibitions like these were unknown ; and, after being once instituted, the exhibitions were only occasionally held—once in several years.

But, at the present day, the progress in scientific discovery and in the invention and improvement of labor-saving implements and machinery is so rapid that the public find it hardly convenient to meet and compare results as often as these interests really require. The utility of, I will say the necessity for, such organizations and exhibitions, especially under a Government like ours, where so large a proportion of those who labor in the industrial pursuits are producers on their own account, is just now remarkably demonstrated and enforced by the condition of things in the Southern States, and by the earnest appeals made by their wisest statesman for the immediate organization and liberal support of agricultural and mechanical associations, and the

regular and frequent holding of industrial exhibitions. Formerly, when the whole section was divided up into large estates, each owned and managed by wealthy planters, who owned their labor and were severally independent of each other, and who, content with an easy support, did not feel a pressing necessity for the improved means and methods of this progressive age, gatherings like these were less numerous and frequent, and when they did occur were oftener occasions for social enjoyment than for an earnest and laborious inquiry into the progress of industry. But after years of war and internal violence, under the new order of things the people of those States have learned to appreciate as never before, not only how far they have been behind the Northern States in making and adopting the improvements of the age, but also how, under institutions really democratic, where all are competitors with equal advantage, it is a matter of first importance that each should avail himself, at the earliest moment, of the best means known to any for making his industry effective. And to-day the most intelligent men of those States are foremost in organizing and building up industrial organizations as most important and necessary agencies in the great work of establishing therein conditions that shall insure a prosperity and progress co-equal with our own; in which I am sure we, of the North, bid them a most hearty God-speed.

If we who enjoy the benefits of industrial societies and exhibitions, not only in every State, but also in almost every county and town, do not feel their necessity, it is because, like the air and sunshine, they have been unfailing and therefore unrecognized sources of growth and strength.

The past year, all things considered, has been characterized by success in every department of our State industry. The protracted drouth of Summer affected the yield of our cereal crops less than was feared, and the aggregate products of our husbandry are scarcely less, if, indeed, they should not prove to have been greater than in the most highly favored season. Thus far our cattle have escaped those destructive diseases from which so much has been suffered in some of the other states, and, except in the horticultural department, in which the adversities of climate are a sore trial of the faith and resolution of fruit growers, and in the department of sheep husbandry, somewhat depressed by the low prices paid for wool, we have been as an entire State, eminently prospered.

Our Society is known as the State *Agricultural* Society, and yet it is its declared and real purpose to promote advancement in every department of industry, on the theory that the interests of all are harmonious and mutually dependent; and, accordingly, you will find not only our farms, stock-yards, orchards and gardens represented here, but likewise our workshops, our factories, our mines, and even the household and fine arts. Whatever will add to the development of our noble young State in all the arts of civilization, that it is the business of this Society, and the imperative duty of the State to encourage. To us, who are responsible for the success of this Exhibition, no less than to those who, whether as exhibitors or spectators, have come here to

enjoy its opportunities, it is a just ground for congratulation that after persistent effort and the expenditure of much money, we are at last in possession of grounds more suitably prepared for our use. For these superior accommodations we are largely indebted to the liberality and public spirit of the officers and members of the Dane County Stock and Agricultural Association, and of the citizens at large of Madison and vicinity.

It is a matter of regret that the weather has been such, for the past several days, as materially to lessen the number of exhibitors and visitors who would otherwise have attended the Exhibition. For this we are not responsible. No pains have been spared to insure the pre-eminent success of the Fair in every respect; and so far from feeling disheartened by untoward circumstances, every officer, member and employee of the Society must feel it incumbent upon him to make an extraordinary effort to meet the exigencies of the occasion and so insure its measurable success in spite of all opposing difficulties.

Upon the superintendents of the departments and upon the judges who are to examine the articles on exhibition, I would especially and earnestly enforce the importance of a patient, faithful and impartial discharge of the duties to be performed by them. Vain is all that we have done in preparing for the Exhibition and getting together the products of industry, unless those who are to systematize and watch over the several departments do their part thoroughly and justly. Let each and every one of us do our work to the very best of our ability, and, so far as it bears on the material interests of the State the Fifteenth Annual Exhibition of the industry of Wisconsin may be made one of the most useful of the whole series.

It now but remains for me, on behalf of the Society, to declare the Exhibition open, and to urge upon all the best use of the opportunities it affords.

ANNUAL ADDRESSES.

Delivered on the Grounds, at the Wisconsin State Fair, October 2, 1868.

BY HON. TIM. O. HOWE AND GEN. GEO. B. SMITH.

[Of the several distinguished gentlemen invited to address the people of Wisconsin on the last day of the Exhibition of 1868, Senator Howe and Gen. Geo. B. Smith, of Madison, alone were present. Both of the speeches of these gentlemen, as printed from stenographic reports by Frank E. Nevins, of Madison, are found in the following pages:

SPEECH OF SENATOR HOWE.

Mr. Chairman, Ladies and Gentlemen :—If one of these farmers were known to have caught a couple of zebras, and to have hitched them to one of your reapers, you would have thought that rather an irrational proceeding; but I think that would be reasonable, compared with catching a couple of wild politicians and expecting them to talk to an assemblage of farmers and mechanics. However, I should not have complained of that, if they had not lighted upon me as one of the politicians. [Laughter.] I would be willing to have any other pair of politicians I ever knew of talk. And yet, my embarrassment does not arise from any want of interest in this great occupation of yours, and of the State, and of the country; for it is my deliberate belief that agriculture is the one great interest of the United States. I do not say so—I profess I do not say so—because I am talking to an assemblage of farmers. I said this when I was talking to politicians, pure and simple—if there are any politicians, pure as well as simple. [Laughter.] I said this when I was talking to manufacturers, and I believe it. It is an idea which I wish both farmers and manufacturers would realize and act upon, as steadily and constantly as I do. I think agriculture is the one great interest, the one great business of this country. This country was made to feed not only the people who live in it, but to contribute largely to the support of the world. [Cheers.] The great question then, I suppose, is, how you can the most and best contribute to the material support of the world. Of course it is not difficult to understand that you can best do so by reducing the most acres to a state of cultivation that you can make yield the largest profit.

I believe farmers are coming to the conclusion that it is better to cultivate one acre well than to cultivate two acres poorly. They may be right about that. I think they are. I am only clear upon one point, and that is, that it is better to cultivate two acres well than it is to cultivate one acre well. To cultivate two acres well, requires more labor than to cultivate one acre in the same way, and therefore it is my ambition for the country to do this thing. What I think you want, and we all want, to develop the country, is muscle. I don't object to having a little more mind—and the more you have of it the better—but we want more muscle also. So I want to see the doors of the republic stand wide open for the admission of help, let it come from what quarter of the earth it will. Take it cooked, if you can get it; take it raw, if you cannot get it cooked. Educated help, I am satisfied, is better than uneducated help, and uneducated help is better than none at all. Take the material in the best form you can get it, and mould it to the American fashion after you get it here. It is not a difficult thing to educate a man; I know it is an easier thing to educate a boy and therefore I like to see the business of education commenced young; but it is never too late to commence it. And so firmly do I believe that you are suffering here for want of muscle in your agricultural and mechanical interests, and every other interest, that I am anxious to see it come to our country from whatever quarter of the earth it may come, or in whatever shape it may come.

Fellow citizens, to-day I wished to be excused from occupying your attention any length of time; I plead with your Secretary not to bring me up here at all, but he was remorseless, relentless, pitiless. If he trains you farmers as he does me, my advice to you is that you dispense with his services as soon as possible. [Laughter.] I would have dispensed with his services at ten o'clock this morning if I could, but he would not be *dispensed* at all. [Laughter.] I consented finally to appear before you, because I thought if I did not consent to appear at all, that you would think I did not take any interest in this business of farming. I appeared trembling because I am young, and because I am modest; but that was not the great reason;—because by profession I am just now a politician; because, I confess to you, I am chuck full of politics; because I was afraid I could not talk to you at all for fifteen minutes, without great danger of breaking into an invocation for you to go for Grant and Colfax or for Seymour and Blair, I don't know exactly which, and I wanted to avoid that danger. And yet I was anxious to show you that I did feel an interest on this great subject, and for that reason I finally concluded to come up here. And let me tell you honestly and truly, I do not lack interest, but I gladly give way to the only man I ever saw more modest than myself, who will now address you, Hon. George B. Smith of Madison. [Laughter and cheers.]

SPEECH OF GEN. GEO. B. SMITH.

On being introduced Gen. Smith spoke as follows:

Mr. President, Ladies and Gentlemen:—I really don't know whether this matter of speaking at a public Fair is as much of a bore to you who listen as it is to those who speak, or not. But this I do know, that while I am perfectly ready, and just now a little willing to speak upon public affairs, yet I am a little *indisposed to speak* about these small matters of agriculture and machines, when momentous questions of national policy might be talked of. There is another difficulty about speaking on an occasion like this; you must say nothing to please those of one political party or to displease those of another. Now, if I were not restrained by these considerations which I have alluded to, I believe I could stir up this crowd to some sort of feeling and enthusiasm, more than would be experienced in the consideration of mere machinery and trotting horses. But, as it is, my fellow citizens, we have to speak of other considerations—under ordinary circumstances these are great enough, and important enough, I am ready to acknowledge. But what I complain of, is that the consideration of these matters comes in at just exactly the wrong time; because I think blooded horses and premium machines are out of order when a president of the United States is to be made.

My friend, the Senator, would like to let himself loose, I know, and he says he does not exactly know whether he should go in for Grant and Colfax or for Seymour and Blair, and alludes to the fact of your Secretary having picked up a couple of wild politicians to address the multitude. I thank him for the remark but disclaim the wildness on my part. [Cheers and laughter.] There is nothing wild about me, and I am sure there is nothing very dangerously wild about the Senator. [Laughter.] But, my fellow citizens, seriously, the State Agricultural Society do their best every year to present to you some gentleman from abroad who is skilled on the subject of agriculture and kindred subjects, which should interest you on these occasions—who could speak to you learnedly and practically upon the subject of machinery, and the best method of farming and of raising stock, and upon all matters likely to interest you at the State Fair. Two distinguished gentlemen were brought here and both, I supposed, were to speak to the people here from this stand, but neither of them are here. Both have made their speeches in another place, and both speeches will be published. One of those speeches I was greatly interested in. I wish all the people of this State could have heard it and shared the pleasure with me. It was on the subject of making butter and cheese. And, oh, you ought to have heard him describe the way to make butter! I am more interested in butter than in cheese, for cheese I do not care so much about; but butter I cannot get along very well without. And I wish you, the farmers' wives about Madison, could have heard it, for they do make such fearful butter, as I understand it. [Laughter.] At all events, it becomes so, when it gets into the hands of our grocers, from whom

I am compelled to buy. I want you, ladies, to make it so good that it cannot be spoiled even in their destructive hands. [Laughter.] It was an able address, for he was thoroughly conversant with the subject, having been experimenting and investigating with reference to the art of making butter and cheese. It must have been intensely interesting to those who are engaged in the manufacture of butter, as it was to me.

The other address likewise had many good things in it. It was upon the subject of diversified labor, and recommended that you put not all your strength of muscle on one single article of manufacture or of agriculture, like the building of a specific machine, or the raising, exclusively, of wheat; but he thought variety in all these things was best. In this way, he said, and I have no doubt it is true, that it would be more profitable in the end, and more philosophical in the pursuit of wealth. He thought that our people should give some attention to manufactures as well as raising produce and grain. His idea was that you should stand side by side in farming and manufacturing; and in this way both branches would be benefitted, and there was great force in what he said, and you should pay attention to it.

As the Senator has said, the agricultural interests of the State of Wisconsin are very great. Those interests are far above any other interests in the country; and yet it is very strange, my fellow citizens and farmers, that you who are so deeply interested in this matter do not, yourselves, take more interest in matters which so nearly concern you. You call upon men—it is true you cannot devote the time to it that these men do, who do nothing else but study the subject in all its aspects—but you call upon these men and obtain your information from them. I have always found that if you wanted to obtain a correct opinion upon an important subject you go to some man who makes that subject his especial study. If you are in trouble, and want to get out of it, you consult a lawyer. You go to him because he makes it his primary business to know more about your business than he does about his own business. [Laughter.] If you want medical advice you go to a doctor who is learned in his profession, and who knows more about your wants than you know yourself. But you who know any thing about farming are just as likely to go to your next neighbor who don't know as much as you do about the best method of working your farm, as to do any other way.

Now then, upon the subject of this Fair. This is a magnificent scene, and would fill the heart of any one with delight who feels an interest in these indications of our country's wealth and progress. Here is a grand display of agricultural and mechanical implements. Here the people come from all parts of the State to take notes and to see what there is to be found new and useful. Here, to-day and yesterday, these grounds were filled with people—men and women, who have come up here to look, each at the particular objects which most especially interest them. And they must be dull indeed, who, after having carefully observed all the numerous objects spread before them here to examine, and to study, who do not go home wiser than when they came. You will have less money but more knowledge, who have come

up here to the Capital City of the State, to witness such a Fair as this. You need not be at all astonished; you need not be at all surprised, my fellow-citizens, if you do go away with a good deal less money, for this is a magnificent place to spend money in. [Laughter.] There are a good many people here who have a great faculty for spending money, and a small talent for getting it. That is my case. [Laughter.]

Twenty five years ago, I came to the State of Wisconsin a mere boy. There were then only about half as many people in the whole state as you saw upon these grounds yesterday. Then but few cultivated fields were to be seen, and a few rude houses were constructed, where now you see evidences of wealth and civilization. Then our women wore calico dresses; and yesterday, together with Ex-Governor Farwell, I stopped upon yonder hill, so thickly covered with people, for half an hour, and tried to find a calico dress but could not find one. [Laughter.] The ladies now are better dressed, but I don't know as they look any better than they used to in those primitive times to which I have referred. The men and boys are also better dressed. The women always behaved well, but the men behave vastly better now than they used to. And that is because, my fellow citizens, you have come together from year to year, to compare notes with each other, and to learn from each other. There is nothing like men coming together and consulting and counseling together for improvement. This is why lawyers know more of their profession; and this is why doctors know more of theirs; and this is why statesmen know more of public affairs than we do, because they are at the capital of the nation, together and organized and working for the public welfare in a body. [Cheers.]

Now, as with them so it is with you. The farmer comes here and examines the various machines which are adapted to farm purposes. Some are interested in one department and some in another. One brings his horses; another his cattle; another his potatoes. One man, who has a fine orchard, and who has spent a great deal of time in the selection and growing of his fruit, when he leaves home, thinks he has got the biggest apple that ever grew. When he gets up here he finds that some seven-by-nine chap, who hasn't got more than three trees, has got a better apple than he has. It is well for him to find it out. We may find out that we do not know all that is to be known in our own line. So thus we become more wise and better informed upon the material branches of industry. So a man may think he has the best horse. He brings him up here; it is his opinion that his is the best animal in the State. He puts him on this track here, and in a little while he is away behind. He feels exceedingly cheap to think he has been beaten. Now, it is worth a great deal to that man to find out that he does not know quite so much as he supposed.

So it is about machinery; you see something here vastly better than any thing you have used. As you go about seeking for information, you meet with exhibitors who show you their machinery, and point out its advantages and show you the best points, and after seeing them all, it is for you to deter-

mine which of the machines are the best, without reference to whom it will suit or whom it wont suit.

And these, my fellow citizens, are some of the benefits that arise by means of our State Fair. It brings together here once a year a class of men who are likely to be benefitted and improved by what they see. You can come here and mingle together and compare notes, and take advantage of late improvements, and learn new modes of farming, and talk about all these matters and perhaps get a little politics mixed up occasionally with the rest, and that don't do you any hurt, and then you depart thinking of all the new ideas you have gathered. It improves the mind and cultivates the intellect; it induces pride in competition, and infuses new energy into all branches of industry.

So also with the women. They come here and they go to the Temple of Fine Arts. They will go through and perhaps see the handy needle work of some young girl whose life has been devoted to it; and there they will see what they did not know before, and how much better it is than it could be done by them. You learn here by contact, by rubbing against each other. You learn a vast deal not only about your especial profession or occupation, but about everything else. It is true, my fellow citizens, that every man and woman who comes here for the purpose of learning something new or useful, will not go away disappointed. These are the benefits of an institution like this. Here is the Secretary of this Society, whose life is devoted to the interests of agriculture in this State. His whole time is spent in it; he is laboring with heart and brain for the good of this cause. His zeal is only limited by his strength. He tells you how to work your farms on scientific principles, producing large results from comparatively little labor. And I might suggest here, that I know of no one more enthusiastically in favor of producing large results from little labor, than myself. [Laughter.] I tell you there is some philosophy in it. There is no sort of use for the men and women of this country to drudge from early morning to late at night, all the year round. Most of us would have just as much wealth and a great deal more enjoyment if we were to devote a little more of our time to study and reflection.

Now then I want to give some of you a little advice. In going through the country you will come to many of your fine farms, which bear evidences of prosperity and thrift, and some of you know something and some do not—at least that is the way I find it. I find lots of people that don't know enough to enjoy the right of suffrage, and they are not black either. [Laughter.] They work, and drudge, and live the lives of slaves, and neglect the higher and nobler duties of existence. There is no happiness, there is no comfort in this wide wide world equal to that to be found at a home, if rightly appreciated and understood. Go to Washington, and my friend will tell you there is no happiness there, There is labor, there is study, there is strife there. Go you to the farm, or the bar, go you into all the walks of the world, and there is toil and struggling for the mastery of life's problems everywhere.

The only place where man enjoys himself in the highest sense of which he is capable, is at his own fireside, at his own home; where all is peace and all is quiet and tranquility. Where his wife and children look up to him, if he proves himself, as he should, a father and a protector.

Now, my fellow citizens, go through this farming country as I have done, for I have traveled through it to some extent. I find many, very many farmers, living, cooking and sleeping in the same room. Before fall passes away, and before winter comes with its chill breath, many of you, I may say most, if not all of you, can, if you will, add another little room to your houses, even if it is but an humble house made out of logs. You can avail yourselves of another small room and be happier and much more decent and comfortable. Live in comfortable frame houses if you can afford it, and enjoy yourselves while you can. Don't confine yourselves entirely to the democratic papers, but take a republican paper once in a while just to find out what is going on in the republican world. Buy good books and read them, and let your children read them too! Talk over these things among yourselves, and profit by what you observe and hear. Fill your minds with useful knowledge. Read a good story once in a while that will stir you clear up from the lowest depths of your soul, and make you feel good. I don't object to that; that is all right. Oh, but say some of these honest farmers, we are too tired for reading after being employed on the farm, doing a full day's work. That is because you work too much. It is all idle to tell about people not working enough. They work too much. I have never known a farmer who has read and kept up with the times, and who was honest, frugal and industrious, who did not turn out to be beforehand enough at the end to own a comfortable farm with a good homestead upon it.

Perhaps you think you have the severest time of it, and that the labor of professional men is less irksome or exhausting than yours. You may suppose, perhaps, that lawyers, and doctors, and State Fair presidents, and secretaries, play and kick up their heels half of their time; but I tell you they do not have half as much time for play and recreation as farmers and mechanics, if they work upon the same system that physicians, and lawyers, and men of business work upon. And there is the difficulty with you. It is want of system; that is the matter; it is a want of organization. The reason why you farmers can not control the price of wheat is because you cannot control yourselves. In Milwaukee, perhaps, wheat will command a price from 25 to 50 cents in advance of what can be obtained for it here. There is organization which you have not got. If you did not work so much and sat still a little more, and directed all your efforts systematically and understandingly, you would soon find that there would come up from the agricultural and mechanical populace a powerful influence that would control the whole industrial interests of this country. The whole industrial interests, I say, my fellow-citizens, because you must remember that it is from the labor of the hands alone that wealth is produced.

Go into the city of New York and visit its magnificent stores. There you

see the shelves covered with every variety of fabrics—shawls that cost from \$15 to \$15,000 each. All things are wrought out by the labor of hands. Go you to New England and to Old England and see the millions and millions of manufactured dry goods piled up, and all wrought out by the labor of hands. Agricultural and mechanical industry helps to produce wealth; and you should enjoy the products of your industry, and it is your fault if you do not. But the way labor is now managed, the farmer, and mechanic, and laboring man, with their wives and children, are toiling to contribute to the rich man's coffer. This is your fault, not the fault of any body else. Take care of yourselves, and organize, and study, and think, and the great important end will be accomplished. Look after your own interests and let every body else's go to the d—— dogs, and you will do well. [Laughter and cheers.]

At the conclusion of Gen. Smith's Speech, Secretary Hoyt, in rising to move a vote of thanks to the speakers, said :

MR. PRESIDENT : I have no intention of making a speech; for although I have done some talking on occasions like this, in times past, my province here is to work and not to talk. Still, since both of the distinguished gentlemen to whom we have have just listened with so much pleasure have complained, in no measured terms, of the absurdity of my selecting them to address this multitude of farmers and artizans, and of the remorseless manner in which I have compelled them to a performance of that function, I dont know but I am in duty bound to apologize for having invited them. [Laughter.]

I thought I knew, before they made a public declaration of it, that they knew but little of agriculture and the mechanic arts, and that was why I took pains to engage the attendance here of the practical gentlemen who so acceptably addressed us on Wednesday and Thursday evenings, in the Senate Chamber. But it seemed well to have somebody to do the ornamental part, also, and it was chiefly for this reason that the Senator and the General were brought up here and sacrificed to the people. [Laughter.] That they have realized our expectations in this respect and beautifully performed the part assigned them, you Sir, and these thousands of delighted listeners, will bear me witness. But they have done more. To the entertainment afforded they have added words of practical wisdom; thereby demonstrating, what I had long understood, that they are not the *politicians* they assume to be, but real *statesmen*, desiring and laboring for the best interests, material and social, of the people of this country. [Applause.] Mere politicians are a curse to any country; while statesmen are its salvation and glory. [Cheers.] For myself Sir, I heartily thank the gentlemen for their excellent speeches, and now propose three cheers for the Orators of the Day. [Universal and prolonged cheering.]

PREMIUMS AWARDED

AT THE FAIR OF 1868.

HORSES, JACKS, AND MULES.

CLASS 1—THOROUGH BRED.

Best Stallion, 4 years old and over, "Bail," Geo. E. Bryant, Madison.	\$40 00
Second best Stallion, 4 years old and over, Norman Green, Monroe.	20 00
Best Brood Mare, 4 years old and over, Wm. James, Monroe.	30 00
Best Filly, 1 year old and under two, A. G. Darwin, Madison.	5 00

CLASS 2—ROADSTERS.

Best Stallion, 4 years old and over, B. J. Williams, Lima.	40 00
Second best Stallion, 4 years old and over, G. S. Phelps, Fond du Lac.	20 00
Best Stallion 3 years old and under 4, B. J. Williams, Lima, Wallace's Am. Stud Book and.	10 00
Second best Stallion, 3 years old and under 4, J. N. Owens, Oregon.	12 00
Best Brood Mare, 4 years old and over, E. D. Stanley, Lodi.	30 00
Second best Brood Mare, 4 years old and over, A. G. Darwin, Madison.	15 00

CLASS 3—HORSES FOR GENERAL PURPOSES.

Best Stallion, 4 years old and over, Ira Isham, Blue Mounds.	\$25 00
Second best, George M. Beardmore, Oshkosh.	15 00
Best Stallion, 3 years old and under four, W. R. Warren, Madison, Wallace's American Stud Book.	
Second best, 3 years old and under 4, Thomas Jones, Milton.	7 00
Best Stallion, 2 years old and under 3, A. L. Bush, Sun Prairie.	7 00
Second best, 2 years old and under 4, M. H. Harriman, Madison.	5 00
Best Stallion, 1 year old and under 2, A. G. Darwin, Madison.	5 00
Second best, 1 year old and under 2, S. Doubleday, Burke.	3 00
Best Sucking Stallion Colt, I. S. Newton, Middleton.	3 00
Second best Sucking Stallion Colt, A. G. Darwin, Madison.	3 00
Best Brood Mare, 4 years old and over, A. G. Darwin, Madison.	20 00
Second best Brood Mare, 4 years old and over, Andrew Proudfit, Madison.	12 00
Best Filly, 3 years old and under 4, S. Doubleday, Burke, Wallace's American Stud Book.	
Best Filly, 2 years old and under 3, Dr. J. B. Bowen, Madison.	\$ 6 00
Second best Filly, 2 years old and under 3, A. G. Darwin, Madison.	3 00
Best Filly, 1 year old and under 2, A. G. Darwin, Madison.	5 00
Best Sucking Mare Colt, A. G. Darwin, Madison.	3 00
Second best Sucking Mare colt, I. S. Newton, Middleton.	2 00

CLASS 4.—DRAFT HORSES.

Best Stallion, 4 years old and over, D. Vernon, Middleton.	\$15 00
Second best Stallion, 4 years old and over, Wm. L. Wells, Lodi.	10 00
Best Stallion, 3 years old and under 4, D. Donahue, Fitchburg, Wallace's American Stud Book.	
Second best Stallion, 3 years old and under 4, John Milner, Beetown.	7 00

CLASS 5—JACKS AND MULES.

Best Jack, Adam Smith, Burke.....	\$25 00
Second best Jack, Wm. L. Wells, Lodi.....	15 00
Best Jenny, Wm. Tolley, Darlington.....	15 00
Second best Jenny, Adam Smith, Burke.....	10 00
Best pair Working Mules, J. S. Owen, Footville, Wallace's American Stud Book.	
Second best pair Working Mules, Wm. Wallace, Baraboo.....	5 00
Best single Mule, Jas. McCloud, Lodi.....	5 00
Second best single Mule, J. S. Owen, Footville.....	3 00
Best Mule colt, R. Boyce, Oregon.....	2 00

CLASS 6—MATCAED HORSES AND MARES.

Best Pair Carriage Horses, A. Van Norstrand, Madison, Wallaces American Stud Book and.....	\$15 00
Second best, James Hayden, Exeter.....	15 00
Best pair of Roadsters, D. G. Sheldon, Madison, Wallace's American Stud Book and.....	15 00
Second best, G. W. Prescott, Monroe.....	15 00
Best pair Farm or Draft Horses, August Schultz, Lake Mills, Wallace American Stud Book and.....	15 00
Second best, Thos. Heyden, Madison.....	15 00
Pair Stallion Roadsters, Albert Barnhart, Janesville, (discretionary) Silver Medal.	

CLASS 7.—GELDINGS OR MARES FOR SINGLE HARNESS, SADDLE, ETC.

Best Horse for Single Harness, A. G. Darwin, Madison, Wallace's American Stud Book.	
Second best Horse for Single Harness, David Gardner, Milford.....	5 00

CLASS 8—TROTTERS AND PACERS.

Best and fastest Trotting Stallion, over 5 years old, J. V. Swetting, Berlin.....	\$100 00
Second best and fastest Trotting Stallion, over 5 years old, G. S. Phelps, Fond du Lac.....	50 00
Best and fastest Trotting Mare, over 4 years old, A. B. Douglass, Broadhead.....	60 00
Second best and fastest Trotting Mare, over 5 years old, C. G. Simons, Monroe.....	40 00
Best and fastest Trotting Gelding, over 5 years old, L. Douglass, Whitewater.....	25 00
Second best and fastest Trotting Gelding, over 5 years old, O. N. Bugbee, Lodi.....	15 00
Best and fastest Pacing Horse, E. B. Bennett, Milwaukee.....	25 00
Second best and fastest Pacing Horse, M. M. Dorn, Madison.....	15 00
Best Trotting Horse for special premium, A. B. Douglass, Broadhead..	50 00
Second best Trotting Horse for special premium, John T. Hidden, Lodi.....	25 00

CLASS 9—RUNNING HORSES.

Best Running Horse, two mile heats, "Twenty Cents," F. Bradley, Fall River.....	\$200 00
Second best Running Horse, "Prairie Lily," Wm. James Monroe...	100 00
Best Running Horse, mile heats, "Grey Weasel," best 3 in 5, Wm. James, Monroe.....	100 00
Second best Running Horse, mile heats, best 3 in 5, N. Green, Monroe	75 00

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Best Running 2 or 3 year old Colt, "Grey Weasel," S. F. Sandon, Windsor.....	20 00
Second best Running 2 or 3 year old Colt, "Alma," A. B. Douglass, Brodhead	10 00

CLASS 10—SWEEPSTAKES ON HORSES.

Best Stallion and five of his Colts, "Andy Burt," A. G. Darwin, Madison, Grand Silver Medal and.....	\$100 00
Best Brood Mare, with Foal by side, A. G. Darwin, Madison, Grand Silver Medal and.....	50 00

CATTLE.

CLASS 10—SHORT HORNS.

Best Bull, 3 years old and over, J. P. Roe, Durham Hill	\$30 00
Second best Bull, 3 years old and over, O. Marshall, Ripon	15 00
Best Bull, 2 years and under 3, Edw. P. Brockway, Ripon.....	20 00
Best Bull Calf, Edw. P. Brockway, Ripon.....	7 00
Second best Bull Calf, Edw. P. Brockway, Ripon.....	5 00
Best Cow, 3 years old and over, Edw. P. Brockway, Ripon.....	25 00
Second best Cow, 3 years and over, Edw. P. Brockway, Ripon.....	15 00
Best Heifer, 2 years and under 3, Edw. P. Brockway, Ripon.....	20 00
Second best Heifer, 2 years and under 3, Sam'l A. Tenney, Durham Hill.....	10 00
Best Heifer Calf, Geo. E. Bryant, Madison.....	5 00

CLASS 11—DEVONS.

Best Bull, 3 years old and over, Randolph Fox, Heart Prairie.....	25 00
Second best Bull, 3 years old over, L Rawson, Oak Creek.....	15 00
Best Bull 1 year old and under 2, Thos. Reynolds, Madison	7 00
Second best Bull, 1 year old and under 2, I. S. Newton, Middleton ..	5 00
Best Bull Calf, L. Rawson, Oak Creek.....	5 00
Second best Bull Calf, L. Rawson, Oak Creek.....	3 00
Best Cow, 3 years old and over, Edw. P. Brockway, Ripon.	20 00
Second best Cow, 3 years old and over, L. Rawson, Oak Creek.....	15 00
Best Heifer, 2 years old and under 3, L. Rawson, Oak Creek	15 00
Second best Heifer, 2 years old and under 3, L. Rawson, Oak Creek ..	10 00
Best Heifer, 1 year old and under 2, L. Rawson, Oak Creek.....	7 00
Second best Heifer, 1 year old and under 2, L. Rawson, Oak Creek...	5 00
Best Heifer Calf, L. Rawson Oak Creek.....	5 00
Second best Heifer Calf, L. Rawson, Oak Creek.....	3 00

CLASS 15—GRADE CATTLE AND WORKING OXEN.

Best grade Cow, 3 years old and over E. Grover, Madison.....	\$10 00
Second best grade Cow, 3 years old and over, Samuel A. Tenney, Durham Hill	7 00
Best Heifer, 2 years old and under 3, Samuel A. Tenney, Durham Hill ..	7 00
Best yearling Heifer, D. Richardson, Middleton.....	5 00
Second best yearling Heifer, A. Richmond, Whitewater.....	3 00
Best yoke Working Oxen, Hiram H. Bowers, Cottage Grove.....	15 00
Second best yoke Working Oxen, I. S. Newton, Middleton.....	10 00
Second best 2 year old Steers, D. D. Bryant, Madison.....	3 00
Best grade Bull Calf, A. Richmond, Whitewater.....	Honorable Mention.

CLASS 16—MILCH COWS.

Best Milch Cow, N. W. Dean, Madison..... Silver Medal and \$20 00

CLASS 18—HERDS.

Best bull and four or more Cows and Heifers, 1 year old and upward, Edward P. Brockway, Ripon, Grand Silver Medal and \$50 00.

SHEEP.

CLASS 19—AMERICAN MERINOS.

Best Buck, 2 years old and over, John H. Paul, Genesee.....\$15 00
 Second best Buck, 2 years old and over, John H. Paul, Genesee..... 10 00
 Best Buck, 1 year old and under 2, H. H. Cobb, Whitewater..... 10 00
 Second best Buck, 1 year old and under 2, O. Cook, Whitewater..... 7 00
 Best pen, 3 Buck Lambs, John H. Paul, Genesee..... 7 00
 Second best pen, 3 Buck Lambs, Cook, Whitewater..... 5 00
 Best pen, 10 Ewes, 2 years old and over, J. H. Paul, Genesee..... 25 00
 Second best pen, 10 Ewes, 2 years old and over, O. Cook, Whitewater. 15 00
 Best pen, 3 Ewes, 2 years old and over, A. Richmond, Whitewater... 15 00
 Second best pen, 3 Ewes, 2 years old and over, J. W. Park, Vernon... 10 00
 Best pen, 10 Ewes, 1 year old and under 2, O. Cook, Whitewater.... 25 00
 Second best pen, 10 Ewes, 1 year old and under 2, A. Richmond, Whitewater..... 15 00
 Best pen, 3 Ewes, 1 year old and under 2, O. Cook, Whitewater..... 10 00
 Second best pen, 3 Ewes, 1 year old and under 2, John H. Paul, Genesee..... 7 00
 Best pen, 10 Ewe Lambs, O. Cook, Whitewater..... 20 00
 Second best pen, 10 Ewe Lambs, John H. Paul, Genesee..... 12 00
 Best pen, 3 Ewe Lambs, O. Cook, Whitewater..... 7 00
 Second best pen, 3 Ewe Lambs, A. E. Perkins, Mukwanago..... 5 00

CLASS 20.—LONG WOOL SHEEP.

Best Buck, 2 years old and over, Robert Henry, McFarland.....\$15 00
 Second best Buck 2 years old and over, L. F. Munsell, Belleville..... 10 00
 Best Buck, 1 year old and under 2, John Goodwin, West Middleton... 10 00
 Second best Buck, 1 year old and under 2, G. H. Lamberton, Lamberton..... 7 00
 Best pen 3 Buck Lambs, Robert Henry, McFarland..... 7 00
 Best single Buck Lamb, G. H. Lamberton, Lamberton... Honorable Mention
 Best pen 3 Ewes, 2 years old and over, Robert Henry, McFarland.... 15 00
 Second best pen 3 Ewes, 2 years old and over, Robert Henry, McFarland..... 10 00
 Best pen 3 Ewes, 1 year old and under 2, John Goodwin, West Middleton..... 10 00
 Best pen 3 Ewe Lambs, Robert Henry, McFarland..... 7 00
 Second best pen 3 Ewe Lambs, G. H. Lamberton, Lamberton..... 5 00
 Best pen Cashmere Goats, A. G. Darwin, Madison..... Silver Medal.

CLASS 21—MIDDLE WOOL.

Best Buck, 2 years old and over, D. W. C. Gates, Madison.....\$15 00
 Second best Buck, 2 years and over, G. H. Lamberton, Lamberton.... 10 00
 Best Buck, 1 year old and under 2, John P. Roe, Durham Hill..... 10 00

Second best Buck, 1 year and under 2, J. B. Stone, Oregon.....	7 00
Best Pen 3 Buck Lambs, Geo. E. Bryant, Madison.....	7 00
Best single Buck Lamb, John P. Roe, Durham Hill.....	Transactions.
Second best single Buck Lamb, D. W. C. Gates, Madison, Honorable Mention.	
Best Pen 3 Ewes, 2 years old and over, John P. Roe, Durham Hill....	15 00
Second best 3 Ewes, 2 years old and over, J. B. Stone, Oregon.....	10 00
Best Pen 3 Ewes, 1 year old and under 2, John P. Roe, Durham Hill..	10 00
Second best Pen 3 Ewes, 1 year and under 2, J. P. Roe, Durham Hill..	7 00
Best Pen 3 Ewe Lambs, J. B. Stone, Oregon.....	7 00
Second best Pen 3 Ewe Lambs, Robert Henry, McFarland.....	5 00
Best 2 Ewes, 2 years old and over, D. W. C. Gates, Madison, 2 volumes Transactions.	

SWINE.

CLASS 23—LARGE BREEDS.

Best Boar, 2 years old and over, A. G. Darwin, Madison.....	\$10 00
Second best Boar, 2 years old and over, W. R. Warren, Madison.....	7 00
Best Boar, 1 year old and under 2, W. Whitney, Middleton.....	7 00
Second best Boar, 1 year old and under 2, A. G. Darwin, Madison....	5 00
Best Breeding Sow, 2 years old and over, G. H. Lamberton, Lamberton	10 00
Second best Breeding Sow, 2 years old and over, W. R. Warren, Madison	7 00
Best Breeding Sow with litter of Pigs, David McNeil, Stoughton.....	10 00
Second best Breeding Sow with litter of Pigs, Henry West, Madison..	5 00
Best Boar Pig, 6 months old and over, A. G. Darwin, Madison.....	5 00
Second best Boar Pig, 6 months old and over, Henry West, Madison..	3 00
Best Sow Pig, 6 months old and over, W. R. Warren, Madison.....	5 00
Second best Sow Pig, 6 months old and over, Henry West, Madison...	3 00

POULTRY.

CLASS 20—POULTRY.

Best Trio Brahma Pootras, L. C. Smith, Whitewater.....	\$ 2 00
Best Trio Shanghais, S. W. Martin, Madison.....	2 00
Best Trio Black Spanish, A. G. Darwin, Madison.....	2 00
Best Trio Game Bantams, Geo. J. Skinner, Madison.....	2 00
Best Turkeys, J. R. Heistand, Madison.....	2 00
Best pair Geese, Wm. L. Wells, Lodi.....	2 00
Best pair Rouen Ducks, David McNeil, Stoughton.....	2 00
Best pair Pea Fowls, David McNeil, Stoughton.....	2 00
Best pair Game Fowls, Benj. Reed, Madison.....	Honorable Mention.
Best and greatest variety of Poultry, L. C. Smith, Whitewater, Silver Medal.	

PRODUCTS OF THE SOIL AND DAIRY.

CLASS 25—FIELD PRODUCTS.

Best Spring Wheat, F. R. Martin, Rutland.....	\$15 00
Second best Spring Wheat, D. M. Aspinwall, Farmington.....	10 00
Third best Spring Wheat, "Club," Francis Weyerhorst, Black Wolf..	5 00
Best Winter Wheat, Geo. P. Pfeffer, Pewaukee.....	15 00
Second best Winter Wheat, (Tappahannock), Albert Lovering, West Point, Lodi P. O	10 00
Third best Winter Wheat, D. M. Aspinwall, Farmington.....	5 00
Best Rye, W. R. Warren, Madison.....	5 00
Second best Rye, W. H. True, Fitchburg.....	3 00
Best Oats, "New Brunswick," G. H. Stewart, Beaver Dam.....	5 00
Second best Oats, "Poland," M. L. Ladd, Millard.....	3 00
Best Buckwheat, M. L. Ladd, Millard.....	5 00
Second best Buckwheat, R. Boyce, Oregon.....	3 00
Best Hops, Kibby & Stewart, Wyocena	5 00
Second best Hops, W. W. Drake, Columbus.....	3 00
Best Flax Seed, David Walsh, Milton.....	5 00
Second best Flax Seed, David McNeil, Stoughton.....	3 00
Best Timothy Seed, Eli Stilson, Oshkosh.....	5 00
Second best Timothy Seed, E. Barrett, Oregon.....	3 00
Best Clover Seed, D. M. Aspinwall, Farmington.....	5 00
Second best Clover Seed, N. W. Dean, Madison.....	3 00
Best Peas, "Champion of England," B. A. Atwell, Madison.....	5 00
Second best Peas, "Champion of England," Elias Long, Madison....	3 00
Best Beans, S. H. Hall, Madison	5 00
Second best Beans, W. Whitney, Middleton.....	3 00
Best Dent Corn, F. R. Martin, Rutland.....	5 00
Second best Dent Corn, J. R. Heistand, Madison.....	3 00
Best Flint Corn, F. R. Martin, Rutland.....	5 00
Second best Flint Corn, N. W. Dean, Madison.....	3 00
Best Early potatoes, "Early Rose," G. H. Stewart, Beaver Dam.....	5 00
Second best Early potatoes, "Early Rose," P. Putnum, Dodge's Corners	3 00
Third best Early Potatoes, "Early Goodrich," G. H. Stewart, Beaver Dam.....	2 00
Pest Late Potatoes, J. C. Plumb, Milton.....	5 00
Second best Late Potatoes, G. H. Stewart, Beaver Dam.....	2 00
Best Carrots, D. D. Bryant, Madison.....	3 00
Second best Carrots, W. H. True, Eitchburg.....	2 00
Best Turnips, D. D. Bryant, Madison	3 00
Second best "Flat" Turnips, John Y. Palmer, Fitchburg.....	2 00
Best Onions, D. D. Bryant, Madison.....	5 00
Second best Onions, W. Whitney, Middleton.....	3 00
Third best Onions, D. M. Aspinwall, Farmington.....	2 00
Show of Pumpkins, G. W. Stoner, Madison.....	Transactions.
Show of Pumpkins, S. H. Hall, Madison	Transactions.

CLASS 26—GARDEN VEGETABLES.

Best 12 Beets, W. Whitney, Middleton.....	\$2 00
Best 12 Parsnips, D. W. C. Gates, Madison.....	2 00
Best 3 Heads Cabbage, C. Hallener, Madison.....	2 00
Best 12 Tomatoes, Elias Long, Madison.....	2 00
Best 12 Purple Egg Plants, Sam'l Marshall, Madison.....	2 00
Best 12 Winter Radishes, Mrs. G. Slotthower, Madison.....	2 00
Best Kale, C. Hallener, Madison.....	Volume of Transactions.
Best Squashes, 13 varieties, Geo. W. Stoner, Madison, highly commended by Committee.....	Two Volumes Transactions

(CLASS 27—PRODUCTS OF THE DAIRY AND APIARY)

- Best 25 pounds June made Butter, John Porter, Mazomanie... Silver Medal.
 Second best 25 pounds June made Butter, N. W. Dean, Madison, Silver Butter Dish, revolving cover.
 Third best 25 pounds June made Butter, Mrs. Samuel Hunt, Rutland, Twelve Silver Tea Spoons.
 Best 25 pounds Butter made any time, Mrs. M. McCaughn, Lodi, Silver Medal.
 Second best 25 pounds Butter made any time, John Porter, Mazomanie, Silver Breakfast Castor.
 Third best 25 pounds Butter made any time, Mrs. I. S. Newton, Six Silver Table Spoons.
 Best 3 Cheeses, farm made, H. C. Drake, Lake Mills..... Silver Cake Basket.
 Best 3 Cheeses, factory made, Cold Spring Factory, Whitewater, Silver Medal.
 Best Honey, E. W. Daniels, Auroraville..... Silver Syrup Cup.
 Second best Honey, Richard Lander, Mazomanie..... Silver Goblet.
 Best Maple Sugar, D. M. Aspinwall, Farmington..... Silver Syrup Cup.
 Second best Maple Sugar, D. M. Aspinwall, Farmington, Set Silver Tea Spoons.
 Best Maple Syrup, D. M. Aspinwall, Farmington..... Silver Goblet.
 Best Sorghum Syrup, N. Haight, Madison..... Silver Medal.
 Second best Sorghum Syrup, Lyman Meecham, Beloit..... Bronze Medal.
 Best Sorghum Sugar, N. Haight, Madison..... Transactions.
 Sample Cider Sugar, G. W. Stoner, Madison..... Honorable Mention.
 Two samples Sorghum Syrup, Henry Taylor, Middleton..... Transactions.
 One gallon Mush Sorghum Sugar, N. Haight, Madison... Honorable Mention.

CLASS 28—HOUSEHOLD PRODUCTS.

- Best two loaves Graham Bread, Mrs. Sam'l Hunt, Rutland, set Silver Tea Spoons.
 Best two loaves White Bread, Mrs. J. B. Stone, Oregon.... Silver Call Bell.
 Best single loaf White Bread, Mrs. M. A. Glosser, Madison... Transactions.
 Best two loaves Indian Bread, Mrs. Sam'l Hunt, Rutland, Pair Silver Napkin Rings.
 Best Sponge Cake, Mrs. Sam'l Hunt, Rutland..... Silver Cup.
 Best Pound Cake, Miss J. L. Pepper, Pewaukee..... Set Silver Tea Spoons.
 Best Jelly Cake, Mrs. J. J. Brown, Madison..... Silver Salt.
 Best Gold or Silver Cake, Mrs. J. J. Brown, Madison... Silver Cream Ladle.
 Best Exhibition Bread and Cake, Mrs. Sam'l Hunt, Rutland, Silver Cake, Basket.
 Handsome display of Cake and other Household Products, Mrs. H. T. Vincent, discretionary..... Gold-lined Silver Goblet.
 Large and beautiful Exhibition of Bread and Cake, D. Dryden & Co., Madison..... Diploma.
 Best Exhibition of Preserved Fruit, Mrs. H. S. Vincent, Windsor, Silver Preserve Dish.
 Second best Exhibition of Preserved Fruit, Mrs. Eli Stilson, Oshkosh, Set Silver Tea Spoons.
 Best Grape Preserves, Mrs. L. L. Fairchild, Rolling Prairie... Transactions.
 Best collection Sealed Fruits, Mrs. Eli Stilson, Oshkosh, Set Silver Dessert Spoons.
 Second best collection Sealed Fruits, Mrs. Sam'l Hunt, Rutland, Silver Cup.
 Best and greatest variety Jellies, Mrs. Sam'l Hunt, Rutland, Silver Dessert Spoons.
 Second best and greatest variety Jellies, Mrs. J. Bemis, Footville, Silver Tea Spoons.
 Best and greatest variety Pickles, Mrs. J. J. Brown, Madison, Silver Breakfast Castor.
 Second best and greatest variety Pickles, Mrs. Eli Stilson, Oshkosh, Pickle Fork, Mustard Spoon and Butter Knife.

FRUITS, FLOWERS AND DELICACIES.

CLASS 24—FRUIT BY NON-PROFESSIONAL CULTIVATORS.

- Best and greatest variety of Apples, Geo. J. Kellogg, Janesville, Silver Medal.
 Best and greatest variety Grapes, A. G. Tuttle, Baraboo.....Silver Medal.
 Second best and greatest variety Grapes, C. H. and J. M. Greenman, Milton, Bronze Medal.

CLASS 30—FRUIT BY NON-PROFESSIONAL CULTIVATORS.

- Best and greatest variety Apples, Eli Stilson, Oshkosh....Silver Ice Pitcher.
 Second best and greatest variety Apples, E. W. Daniels, Auroraville, Fruit Dish.
 Best ten named varieties recommended by Horticultural Society, George P. Pfeffer, Pewaukee.....Silver Tea Pot.
 Second best 10 varieties recommended by Horticultural Society, George J. Kellogg, Janesville.....Gold-lined Goblet.
 Best 5 named varieties recommended by Horticultural Society, C. H. Jacobs, Wauwatosa.....Silver Card Receiver.
 Second best 5 named varieties recommended by Horticultural society, George P. Pfeffer, Pewaukee.....Pie Knife.
 Best 10 named of any variety, A. G. Tuttle, Baraboo.....Silver Tea Pot.
 Second best ten named of any variety, Eli Stilson, Oshkosh, Silver Pie Knife.
 Best and greatest variety of Pears, George P. Feffer, Pewaukee, Silver Basket.
 Second best and greatest variety of Pears, Eli Stilson, Oshkosh, Silver Goblet.
 Best 3 varieties Pears, C. H. Jacobs, Wauwatosa.....Silver Fruit Knife.
 Best and greatest variety of Plums, George P. Pfeffer, Pewaukee, Warder's Pomology and Fruit Knife.
 Best and greatest variety of Grapes, Joseph Hobbins, Madison, Coffee Urn.
 Second best and greatest variety of Grapes, Samuel Marshall, Madison, Elegant Ice Pitcher.
 Best 5 varieties Grapes adapted to general culture, George P. Pfeffer, Pewaukee.....Silver Castor.
 Best 3 varieties Grapes adapted to general culture, A. G. Tuttle, Baraboo, Silver and Glass Celery Dish.
 Best exhibition of Evergreens, J. C. Plumb, Milton.....Books.
 Watermelons, "Mountain Sweet," E. W. Elliott, Lone Rock....Transactions
 Peaches, E. W. Daniels, Auroraville.....Transactions
 Transcendent Crabs, J. W. Sharp, Door Creek.....Transactions

CLASS 31—SEEDLINGS.

- Best Seedling Apples, 3 or more specimens, M. S. Twining, Brodhead.\$20 00
 Best 3 varieties Seedling Apples, Geo. P. Pfeffer, Pewaukee.....30 00
 Best Seedling Plum, 3 or more varieties, Geo. P. Pfeffer, Pewaukee, Silver Pitcher, engraved.
 Best Seedling Grape, C. H. & J. M. Greenman, Milton, Silver Pitcher, engraved.

CLASS 32—FLOWERS BY PROFESSIONAL CULTIVATORS.

- Best display of Roses, in variety, (14 pots), J. T. Stevens, Madison, Silver Fruit Dish.
 Best show of Green House Plants, J. T. Stevens, Madison, Solid Silver Spoons.

Best 20 varieties Green House Plants, J. T. Stevens, Madison, Solid Silver Dessert Spoons.

Best show of Foliaged Plants, (11 varieties), J. T. Stevens, Madison, Solid Silver Spoons.

CLASS 33.—FLOWERS BY NON-PROFESSIONAL CULTIVATORS.

Best Floral Design of Natural Leaves or Flowers, Mrs. S. Hastie, Madison, Gold Lined Silver Goblet and Rand's Garden Flowers.

Second best Floral Design of Natural Leaves or Flowers, J. T. Stevens, Madison, Rand's Garden Flowers and Tea Bell.

Best and most tastefully arranged and largest collection of Cut Flowers, Charles Erkton, Madison, Silver Tea Spoons and Rand's Garden Flowers.

Second best and most tastefully arranged and largest collection of Cut Flowers, M. F. Kurz, Madison, Rand's Garden Flowers and Tea Bell.
Though the Flowers of Mr. Peffer are in bad condition, owing to rough handling on the cars, yet we think he should take a discretionary premium of Rand's Garden Flowers.—*Awarding Committee.*

Best basket of Cut Flowers, J. T. Stevens, Madison, Silver Cup and Tea Bell.
Second best Basket of Cut Flowers, H. G. Roberts, Janesville, Rand's Garden Flowers.

Best pair Round Bouquets, Mrs. F. Kurz, Madison, (discretionary) Silver Tea Bell.

Best Bouquet of Eternal Flowers, J. T. Stevens, Madison....Transactions.
Best and greatest variety of Preserved Flowers, Mrs. M. L. Bailey, Sun Prairie, (discretionary), Silver Cup.

Best basket of Eternal Flowers, Mrs. G. F. Brown, Madison, (discretionary), Silver Cup.

Best bouquet of Everlasting Flowers, H. G. Roberts, Janesville, (discretionary), Parkman's Book of Roses.

Best display of Dahlias, H. G. Roberts, Janesville...Set Silver Tea Spoons.
Best and greatest variety of Verbenas, J. T. Stevens, Madison, Beeck's book of Flowers and Silver cup.

Second best and greatest variety of Verbenas, H. G. Roberts, Janesville, Rand's Garden Flowers.

Best seedling Verbenas, Mrs. G. F. Brown, Madison, (discretionary), Silver Cup.

Best ten named varieties Verbenas, O. S. Willey, Madison, Rand's Garden Flowers.

Best show of Asters, in quality and variety, John Gripper, Madison, Silver Pie knife.

Second best show of Asters, in quality and variety, F. W. Case, Madison, Silver Napkin Ring.

Best show of Phlox, H. G. Roberts, Janesville.....Silver Napkin Ring.

Second best show of Phlox, Mrs. G. F. Brown, Madison....."The Garden."

Best show of Pansies, H. G. Roberts, Janesville.....Silver Boquet Holder.

Second best show of Pansies, Mrs. Richard Williams, Palmyra, Silver Butter Knife.

Best show of Petunias, Mrs. Richard Williams, Palmyra....Silver Pie Knife.

Second best show of Petunias, J. T. Stevens, Madison....."Small Fruits."

Best show of Pinks, O. S. Willey, Madison.....Silver Boquet Holder.

Second best show of Pinks, H. G. Roberts, Janesville.....Tea Bell.

Best show of Gladiolus, H. G. Roberts, Janesville.....Silver Sugar Sifter.

Best show of Japan Lilies, John Gripper, Madison, two solid Silver Dessert Spoons.

Second best show of Japan Lilies, H. G. Roberts, Janesville, Rand's Garden Flowers.

Best show of Green House Plants, John Gripper, Madison, Solid Silver Spoons.

Second best show of Green-House Plants, Mrs. D. J. Powers, Madison, Silver Dessert Spoons.

Best collection of Geraniums, J. T. Stephens, Madison, Solid Silver Dessert Spoons.

- Best collection of Fuschias, J. T. Stevens, Madison.....Silver Sardine Box.
 Best Wardian Case with Plants, R. Hastie, Madison, Silver Ice Pitcher and Goblet.
 Second best Wardian Case with Plants, O. S. Willey, Madison, (discretionary,) Silver Tea Pot.
 Best Garden or Rustic Design, O. S. Willey, MadisonSilver Tea Spoons.

CLASS 34—WINES.

- Best sample Grape Wine, Geo. P. Pfeffer, Pewaukee, Solid Silver Tea Spoons.
 Second best sample Grape Wine, Mrs. H. S. Vincent, Windsor, Gold-lined Silver Goblet.
 Best sample Currant Wine, Mrs. A. L. Mann, Madison, Solid Silver Spoons.
 Second best sample Currant Wine, J. W. Baker, Summit.....Silver Cup.
 Samples of Wine, Mrs. H. S. Vincent, WindsorTransactions.

IMPLEMENTS AND MACHINERY.

CLASS 32—IMPLEMENTS AND MACHINERY FOR AGRICULTURAL PURPOSES.

- Best Threshing Machine and Power, J. I. Case, Racine.....Silver Medal.
 Best Grain Binder (Automatic), S. D. Carpenter, Madison.....Silver Medal.
 [This machine was not moved by team, but, as it stands, seems to be easily drawn, the cutting, carrying and binding the grain, all done by machinery, appear to be easily performed, and the bundles are firmly bound and dropped freely. A grain receptacle received all the shelled grain and loose heads that usually waste on the ground. In short, we cheerfully recommend this machine to the attention of the farmer and agriculturist.—Com. of Judges.]
 Best Fanning Mill, A. P. Dickey's Farm Mill, S. L. Sheldon & Bro., Madison, Diploma.
 Best Feed Cutter, J. Parmley, Centre.....Diploma.
 Best Vegetable Cutter, W. F. Whitney, Milwaukee.....Diploma.
 Best Grain Drill, "Buckeye," S. L. Sheldon & Bro., Madison, Silver Medal.
 Best Corn Plauter, horse power, Wright's Patent, W. S. Shears, Prairie du Sac, Diploma.
 Best Portable Hay Press, A. B. Sprout, Picture Rock, Penn., Honorable Mention.
 Best Corn Sheller, Galt & Tracy, Sterling, Ill.Diploma.
 Best Wind Mill and Pump combined, L. H. Wheeler, Beloit....Silver Medal.
 Best Stump Extractor, C. E. Galliger, Oregon.....Diploma.
 Best Clothes Washer, "Home Washer," N. W. Manufacturing Co...Diploma.
 Best Clothes Wringer, A. C. Stannard, Milton.....Diploma.
 Best Washer and Wringer combined, A. C. Stannard, Milton.....Diploma.
 Best Mop Wringer, W. M. Colton, Janesville.....Diploma.
 Best Hay Derrick, L. F. Munsell, Belleville.....Transactions.
 Best Grub Extractor, Benj. Francisco, Evansville.....Diploma.
 Best Slaughtering Machine, Almond & Gray, Roscoe, Ill.Hon. Mention.
 Best Hop Press, Henry Taylor, Middleton.....Diploma.
 Best Wood Sawing Machine, E. W. Skinner & Co., Madison...Silver Medal.

The committee on this Class desire to mention in their department, the "Uncle Sam" Threshing Machine, exhibited by W. F. Whitney, of Milwaukee. This machine has an entirely new method of separating the grain from the straw, by which *all wastage* is avoided. The separator has but three belts and six pulleys, and from its extreme simplicity, is operated with much less power than other machines. It being so lately introduced in this State, and

its reputation so little established, the committee could not well award it the premium in competition with the machines present, but agree in the fact, that in many points of excellence, it commends itself to manufacturers and operators.

W. D. BACON,
S. G. COLLEY,
Committee.

CLASS 37—IMPLEMENTS FOR AGRICULTURAL PURPOSES.

- Best Sod Plow for Stiff Soils, Geo. Dodge, Kalamazoo, Mich.,.....Diploma.
 Best Sod Plow for Light Soils, Powers, Milne & Co., Fort Atkinson,.....Diploma.
 Best Steel Crossing Plow, Firmin & Billings, Madison.....Diploma.
 Best Stubble Plow, wood beam, L. P. & M. P. Jerdee, Madison.....Diploma.
 Best Gang Plow, Skinner's Patent, S. L. Sheldon & Bro., Madison.....Diploma.
 Second best Gang Plow, H. L. Perry, East Hamburg, N. Y., Honorable Mention.
 Best display of Plows, Firmin & Billings, Madison.....Silver medal.
 Best Harrow, "Adjustable," J. Colwell, Brodhead.....Diploma.
 Best Sulky Cultivator, L. P. & M. P. Jerdee, Madison.....Diploma.
 Best Corn Cultivator, Bertrand & Sames, Rockford, Ill.....Diploma.
 Best Horse Hoe, "Hyde & Wright's," S. L. Sheldon & Brother, Madison, Diploma.
 Best Sulky Hay Rake, Galt & Tracy, Sterling, Ill.....Diploma.
 Tiffins' Revolving Wooden Horse Rake, L. J. Bush & Co., Milwaukee, Honorable mention.
 Best Horse Hay Fork, O. Storll, North Cape.....Diploma.
 Best Hay Fork and Knife combined, A. B. Sprout, Picture Rock, Penn., Diploma.
 Best Potato Digger, J. W. Shepard, Hennepin, Ill.....Diploma.
 Best Steam Cooking Apparatus, V. D. Anderson, Milton.....Diploma.
 Best Portable Fence, "folding," Belas Calkins, Varneysburg, N. Y., Diploma.
 Best Farm Gate, O. Ostrander, Lodi.....Diploma.
 Best Carriage Gate, (Automatic) S. S. Davis, Edgerton.....Diploma.
 Best Churn, "Propeller," Z. S. Doty, Madison.....Diploma.
 Best Adjustable Rolling Plow Coulter, "Skinner's," S. L. Sheldon & Bro., Madison.....Honorable Mention.
 Best Bob Sled, Oviatt's Patent, S. G. Abbott & Son, Oregon.....Diploma.
 Best Three Horse Clevis, Geo. Dodge, Kalamazoo Mich.....Diploma.
 Best Iron Beam Double Shovel, W. F. Whitney, Milwaukee.....Diploma.
 Best Grinder for Sharpening Mower and Reaper Knives, Farmers' Manufacturing Co., Auburn, N. Y.,.....Diploma.
 Best Wagon Jack, H. H. Hinkley, Janesville.....Diploma.
 Best Self Grain Measurer for Threshing Machines, L. P. & M. P. Jerdee, Madison.....Diploma.
 Best Excavator, Dr. E. B. Woolecott, Milwaukee.....Diploma.
 Garden City Crossing Plow, S. L. Sheldon & Bro., Madison, Honorable Mention.
 Best Hay Derrick, A. B. Sprout, Picture Rock, Pennsylvania.....Diploma.
 Lot of Superior Steel Hay and Manure Forks and Hand Hoes, Fairbank, Greenleaf & Co., Chicago.....Silver Medal.
 Best Display of Agricultural and Horticultural Implements, S. L. Sheldon & Bro., Madison.....Silver Medal.

CLASS 38—MACHINERY FOR MANUFACTURING PURPOSES.

- Best Portable Engine and Boiler, Ames Iron Works, Oswego, N. Y., Silver Medal.
 Best Iron Frame Moulding Machine, O. L. Packard, Milwaukee.....Diploma.
 Best Hand Loom, Wait, Gallup & Co., Watertown.....Silver Medal.
 Best Knitting Machine, (Roberts), Geo. B. Leonard, Madison.....Silver Medal.
 Machine for Surfacing only, O. L. Packard, Milwaukee.....Diploma.
 The Leffel Waterwheel, E. P. Allis & Co., Milwaukee, .. Silver Medal.

MANUFACTURES.

CLASS 39—CARRIAGES, HARNESES, &c.

- Best Double Carriage, Two-Seated, Extension Top, Bird & Ledwith, Madison, Silver Medal.
 Best Single Top Buggy, Ogden, Webster & Co., Milwaukee....Silver Medal.
 Best Single Riding Buggy, Bird & Ledwith, Madison..... \$7 00.
 Best display Carriages, Sleighs, &c., Ogden, Webster & Co., Milwaukee, Silver Medal.
 Best Single Harness, Chas. Hammer, Madison.....Silver Medal.

CLASS 40—STOVES, FURNACES, HOLLOW WARE, &c.

- Best Cooking Stove for Wood, Copp Bros., Madison.....Diploma.
 Best Cooking Stove for Coal, Copp Bros., Madison.....Diploma.
 Best Cooking Stove for Coal and Wood, Copp Bros., Madison.....Diploma.
 Best Ornamental Parlor Stove for Wood, Copp Bros., Madison.....Diploma.
 Best Ornamental Parlor Stove for Coal, J. F. Tait, & Co., Milwaukee, Diploma.
 Best Display of Stoves in variety, John Lewis, Madison.....Silver Medal.
 Best Horse Shoes in variety, J. L. W. Newton, Madison.....Diploma.
 Best Scales, Fairbanks, Greenleaf & Co., Chicago.....Diploma.
 Best Iron Fencing and Gate, C. P. Huntington, Milwaukee.....Diploma.
 Best Foot Stoves, Bruce & George, Chicago.....Diploma.
 Best Horse Shoe Nails, Bruce & George.....Diploma.

CLASS 41—BEE HIVES AND BEE MANAGEMENT.

- Best Hive adapted to practical Bee culture, James Bullard, Evansville Diploma.
 Second best Hive, adapted to practical Bee culture, George Leffingwell, ColumbusHonorable Mention.
 Best demonstration of handling and management of Bees, James Bullard, Evansville.....Silver Medal.

CLASS 42—CABINET WARE, WAGON WORK, COOPERAGE AND WILLOW WARE.

- Best display of Cabinet Ware, Fisher & Reynolds, MadisonSilver Medal.
 Best Extension Table, Osgood's patent, Matthews Bros., Milwaukee, Diploma.
 Best display of Chairs, J. F. Atkinson, Appleton.....Diploma.
 Best display Hubs, Spokes, Felloes and other Wagon Work, Mason & Marston, Appleton,Silver Medal.
 Best Tubs and Pails, Menasha Tub and Pail Co., MenashaDiploma.
 Best Butter Firkins, Oak, Menasha Tub and Pail Co., Menasha.....Diploma.
 Best display of Cooperage and Wooden Ware, Menasha Tub and Pail Co., Menasha, Silver Medal.
 Best display of Willow Baskets, Adolph Meinecke, Milwaukee .. Diploma.
 Best display of Willow Ware, Adolph Meinecke, Milwaukee ...Silver Medal.

CLASS 43—LEATHER AND LEATHER MANUFACTURES.

- Best display of Leather, W. Windoes, Fond du Lac.....Silver Medal.
 Best display Kip Boots, Copeland, Ryder & Co., Jefferson.....Diploma.
 Best display Calf Skins, W. Windoes, Fond du Lac.....Diploma.

CLASS 44.—STONE CUTTERS' WORK, BRICK AND OTHER BUILDING MATERIALS.

- Best Specimens Stone Cutting, Geo. Reed, Madison.....Diploma.
 Best Display of Stone Cutter's Work, Geo. Reed, Madison....Silver Medal.
 Best half thousand Shingles, W. & J. Whorton, Appleton.....Diploma.

- Best Roofing Material, other than Shingles, Saturated Roof Boards, Rock River Paper Co., Beloit.....Diploma.
 Model illustrating Ruttan's system of Ventilation, E. P. Allis & Co., Milwaukee.....Silver Medal.

CLASS 45.—SURGICAL AND DENTAL INSTRUMENTS AND APPRATUS.

- Best Air Pump with Appliances, Dr. J. J. Brown.....Diploma.
 Best Exhibition Dental Work, Dr. N. J. Moody, Madison.....Silver Medal.
 Artificial Soft Palate, Dr. J. B. Chess, Chicago.....Silver Medal.

CLASS 46—VARIOUS METALLIC AND CHEMICAL MANUFACTURES.

- Exhibition Iron Ore and Pig Iron, J. Smith, Ironton,.....Silver Medal.
 Exhibition Iron Ores and Pig Iron, N. W. Iron Co., Mayville ..Silver Medal.
 Fine exhibition Zinc Ores, Spelter, and Superior Oxide of Zinc, with samples, illustrating the various stages in process of manufacture, Bellevue Zinc Co., Mineral Point.....Grand Silver Medal.
 Fine exhibition Lead and Zinc Ores, and Pig Lead, with numerous samples, illustrating the various stages in the process of manufacture, Mineral Point Mining Co., Mineral Point.....Grand Silver Medal.
 Fine exhibition Iron and Bessemer Steel, and specimens Bessemer Steel Rail for Railways, Milwaukee Iron Co.....Grand Silver Medal.

CLASS 47—SILVER AND BRITANNIA WARE.

- Best display American Watches, National Watch Co., Elgin, Ill., Silver Medal.

CLASS 48—PAPER PRINTING, BOOK BINDING.

- Best exhibition Plain and Fancy Binding, W. J. Park & Co., Madison, Silver Medal.

CLASS 49—TEXTILE FABRICS, CLOTHING.

- Best Piece Flannel, Blake & Co., Racine.....Silver Medal.
 Best Ladies' Blanket Shawls, Blake & Co., Racine.....Silver Medal.
 Best 7 pieces Scotch Winceys, Blake & Co., Racine.....Diploma.
 Best Broad Miltons, Blake & Co., Racine.....Diploma.
 Best Broad Beaver, Blake & Co., Racine.....Diploma.
 Best Afghan Blankets, John Dean, Baraboo.....Diploma.
 Best exhibition Men's Clothing, E. B. Crawford, Madison.....Silver Medal.

CLASS 50—DOMESTIC MANUFACTURES.

- Best pair Woolen Kersey Blankets, Mrs. Geo. W. Stoner, Madison, Set Silver Tea Spoons.
 Best 10 yards Flannel, Miss J. L. Pfeffer, Pewaukee, Set Silver Tea Spoons.
 Best 10 yards Woolen Cloth, Wait, Gallup & Co., Watertown, Set Silver Tea Spoons.
 Best 15 yards Wool Carpet, Mrs. M. McCaughn, LodiSet Dessert Spoons.
 Best Rag Hearth Rug, Elizabeth H. Daily, Cottage Grove....Silver Tea Bell.
 Best pair Woolen Stockings, Mrs. Geo. W. Stoner, Madison, Silver Butter Knife.
 Best pair Woolen Mittens, Miss E. Strangeway, LodiSilver Tea Bell.
 Best two pounds Woolen Yarn, Mrs. H. S. Vincent, Token Creek, Silver Cup.
 Best pair Cotton Stockings, Mrs. D. F. Salisbury, Fitchburg, Silver Butter Knife.
 Best Double Carpet Coverlet, Mrs. E. Squires, Madison....Silver Pie Knife.
 Best White Quilt, Mrs. G. V. Ott, Madison.....Silver Goblet.
 Best Woven Counterpane, Mrs. Wm. Folley, Darlington.....Silver Goblet.
 Best Crochet Counterpane, Mrs. Sam'l Klauber, Madison.....Silver Cup.
 Best Crochet Wool Shawl, Mrs. H. M. Lewis, Madison.....Silver Cup.
 Best Rag Carpet, Mrs. Sam'l A. Tenney, Durham Hill..Set Silver Tea Spoons.
 Best Exhibition Cutting and Making Boys' Clothing, Mary L. Harris, Madison, Set Silver Tea Spoons.

Best Gents' Shirts, Mrs. A. L. Mann.....Solid Silver Napkin Ring.
 Best Straw Hats, Freeman R. Martin, Rutland.....Set Silver Tea Spoons.
 Best Knit Tidy, Miss M. L. Baily, Sun Prairie.....Silver Cup.
 Best Crotchet Tidy, Mrs. C. Colby, Madison.....Silver Bell.
 Exhibition Crochet Work, Mrs. R. Hall, Beloit.....Transactions.
 Best Balmoral, Mrs. Wm. Tolley, Darlington.....Transactions.
 Best Blanket Shawl, F. R. Martin, Rutland.....Transactions.

JUVENILE.

Best Pair Woolen Socks, by girl five years old, R. Boyce, Oregon, Silver Cup.
 Second best Pair Woolen Socks, Miss A. F. Tolley, Darlington, Silver Napkin Ring.
 Best 6 skeins Woolen Yarn, Miss A. F. Tolley, Darlington.....Silver Cup.
 Best Patch Work Quilt, Dora L. Park, Vernon.....Silver Cup.
 Best Specimen Darning, Dora L. Park, Vernon.....Silver Napkin Ring.

CLASS 51—MILLINERY.

Best Silk Bonnet, Mrs. E. D. Lyon, Madison.....Diploma or \$3 00
 Best Bonnet Flowers, Mrs. E. D. Lyon, Madison.....Diploma or 3 00
 Best variety Millinery Articles, Mrs. E. D. Lyon, Madison.....Silver Medal.
 Best Lady's Sack, (embroidered,) Mrs. C. E. Morgan, Madison, Diploma or \$3 00.

ORNAMENTAL WORK AND WORKS OF ART.

CLASS 52—ORNAMENTAL, NEEDLE, HAIR AND WAX WORK.

Best Embroidered Shawls, Mrs. O. C. Johnson, Madison, Set Silver Tea Spoons.
 Second best Embroidered Shawls, Mrs. M. A. Goodrich, Janesville, Honorable Mention.
 Best Embroidered Scarf, Mrs. O. G. Johnson, Madison..Silver Flower Vase.
 Best Muslin Embroidery, Mrs. O. C. Johnson, Madison, Solid Silver Napkin Ring.
 Second best Muslin Embroidery, Mrs. B. F. Brown, Madison, Honorable Mention.
 Best Lace Embroidery, W. J. Sullivan, Madison.....Silver Goblet.
 Best Worsted Embroidery, W. J. Sullivan, Madison.....Silver Cake Cutter.
 Best specimen Plain Needle Work, Mrs. A. L. Mann, Madison, Silver Call Bell.
 Best Embroidered Skirt, Mrs. O. C. Johnson, Madison, Set Silver Tea Spoons.
 Best Wrought Slippers, Mrs. O. C. Johnson, Madison, Solid Silver Fruit Knife.
 Best Embroidered Handkerchief, Mrs. O. C. Johnson, Madison..Silver Cup.
 Best Hem-stitched Handkerchief, Mrs. O. C. Johnson, Madison, Set Silver Spoons.
 Best Fringed Lamp Mat, Miss Agnes Stevens, Madison, Silver Sewing Bird.
 Best Fancy Work Basket, Mrs. O. C. Johnson, Madison, Silver Boquet Holder.
 Best Fancy Card Basket, Mrs. O. C. Johnson, Madison, Set Silver Tea Spoons.
 Best Ornamental Shell Work, Mrs. F. O'Brien, Madison.....Silver Goblet.
 Best Hair Work, Miss Nettie Loomis, Lodi.....Silver Cup.
 The following also received honorable mention: Mrs. G. W. Stoner, Madison: Mrs. Mary E. Taylor, Cottage Grove; Miss Kate Kavernaugh, Madison; Miss Kate Kessler, Arena; Miss Mary L. Evans, Rutland; Miss Melissa Evans, McFarland.

- Best Embroidered Reticule, Mrs. O. C. Johnson, Madison, Silver Napkin Ring.
- Best Wax Flowers, Miss M. A. Richards, Fox Lake, . . . Silver Boquet Holder
- Wax Work, by Mrs. O. C. Johnson, Madison, and Angeline Harrington, Honorable Mention.
- Best Exhibition Ornamental Work, Mrs. O. C. Johnson, Madison, Silver Pitcher.
- Best Fancy Apron, Miss M. A. Richards, Fox Lake, . . . Honorable Mention.
- Best Embroidered Linſen Chemise, Mrs. G. W. Stoner, Madison, Honorable Mention.
- Best Worsted Wreath, Mrs N. B. Crampton, Madison, . . . Honorable Mention.
- Best Paper Flowers, Mrs. R. Hall, Beloit, . . . Honorable Mention.
- Best Canvass Work, Miss Kate Kavernaugh, Madison, . . . Honorable Mention.
- Best Sofa Pillow, Miss Kate Kavernaugh, Madison, . . . Honorable Mention.
- Best Embroidered Night Dress, Mrs. A. Hutchinson, Black Earth, Honorable Mention.
- Best Bead Work, Mrs. G. V. Ott, Madison, . . . Honorable Mention.
- Best Embroidered Table Spread, Mrs. H. S. Vincent, Token Creek, Honorable mention.
- Best Feather Flowers, Miss C. Curtiss, Fitchburg, . . . Honorable Mention.
- Best Specimens Night Dress, Chemise, Insertion, and Ruffing, Miss Emily Perkins, Burlington, . . . Honorable Mention.
- Best Chenile Work and Silk Embroidery, M. A. Goodrich, Janesville, Honorable Mention.

JUVENILE.

- Best Crotchet Work, Annie Roby, Madison, . . . Solid Silver Fruit Knife.
- Best Plain Meedle Work, Dora L. Park, Vernon, . . . Silver Vase for Flowers.
- Best Ornamental Needle Work, Annie Roby, Madison, Gold Lined Silver Cup

CLASS 53—MUSIC AND MUSICAL INSTRUMENTS.

- Display of Chickering Pianos, Reed's Temple of Music, Chicago, . Silver Medal.

CLASS 54—WORKS OF ART.

- Best Artistic Monumental Work in Marble, N. Merrill, Milwaukee, Silver Medal.
- Best Mosaic Centre Table, composed of twenty-six thousand pieces, and displaying extraordinary skill, Peter Glass, Beechwood, Washington Co., Silver Medal.
- Best Painting in Oil, H. J. Saw, Madison, . . . Silver Medal.
- Second best Painting in Oil, Miss Mary Newnham, Summit, . . . Bronze Medal.
- Best Painting in Water Colors, H. B. Staines, Madison, . . . Silver Medal.
- Second best Painting in Water Colors, Miss Mary Newnham, Summit, Bronze Medal.
- Best show of Paintings by Old Masters, Francis Weyerhorst, Black Wolf, Silver Medal.
- Best Show of Paintings by Modern Masters, H. J. Saw, Madison, Silver Medal.
- Best Exhibition of Pencil or Crayon Drawings, H. J. Saw, Madison, Silver Medal.
- Second best Exhibition of Pencil or Crayon Drawings, Mrs. C. Burton, Black Earth, Bronze Medal.
- Best Exhibition of Lithographs, W. J. Park & Co., Madison, Honorable Mention.
- Second best Exhibition of Lithographs, M. A. Goodrich, Janesville, Honorable Mention.
- Best exhibition Penmanship and Pen Drawing, "Lincoln and his Generals," B. M. Worthington, Madison, . . . Silver Medal.
- Second best exhibition Penmanship and Pen Drawing, Bryant & Stratton's Business College, Milwaukee, . . . Bronze Medal.
- Pencil Drawing, Miss M. L. Walsh, Columbus, (Discretionary), Silver Sewing Bird.

MISCELLANEOUS.

CLASS 55—MISCELLANEOUS ARTICLES.

Case Stuffed Birds, H. B. Staines, Madison.....	Diploma.
Spring Bed Bottom, (Howe's patent), Howe & Roberts, Madison....	Diploma.
Variagated Eureka Window Shades, K. J. Fleischer & Son, Madison.....	Diploma.
Combination Mail and R. R. Lock, Bean & Sprague, Madison.....	Diploma.
Combination and Bracelet Lock, Bean & Sprague, Madison.....	Diploma.
Yankee Clothes Line Holder, Bean & Sprague, Madison, Honorable Mention.	
Show of Butterflies, Mrs. K. J. Fleischer, Madison.....	Diploma.
Spring Bed Bottom, (Gibb's patent), O. W. Gibbs, Richland Centre, Diploma.	
Sash Fastener, O. E. Woodbury, Madison.....	Diploma.
Cast Malleable Wagon Stake, W. C. Cook, Appleton.....	Diploma.
Heater for Garden and Conservatory, C. H. & J. H. Greenman, Milton, Diploma.	
Spring Bed Bottom, D. D. Starks, Columbus.....	Diploma.
Window Tightners and Supporters, Dickinson & Co., Racine.....	Diploma.
Combined Punch and Shears and Iron Upsetting Machine, D. C. Burdick, Milton.....	Diploma.
Improved Gas Machine, J. A. Leland, Brooklyn, N. Y.....	Diploma.
Patent Harness Buckle, Thornton & Crosby, Clinton Junction.....	Diploma.
Adjustable Collar Hames, J. G. Smith, Baraboo.....	Diploma.
Stillwell's Heater and Lime Catcher, Webster's Patent Wrenches, Morris' Triple Ratchet Wrench, Beeche's Lathe Tool, Drill Chuck, Twist Drill, &c, O. L. Packard, Milwaukee, each a.....	Diploma.
Gardner's Governor, Gardner & Robertson, Quincy, Ill.....	Diploma.
Specimen Sewing Machine Work and Embroidery, Grover & Baker Machine Works, Milwaukee.....	Honorable Mention.
Sponge Mattresses & Cushions, Western Elastic Sponge Co., Chicago, Diploma.	
Artificial Legs and Arms, J. Gardner, Chicago.....	Silver Medal.
Republican Maps and Charts, W. R. Lisle.....	Diploma.
Foreign Scenery, shown in Horticultural Hall, Charles Erkton, Madison, Silver Medal and \$50.	

CLASS 56—EXHIBITION BY COUNTIES.

No entries.

CLASS 57—LADIES' RIDING

First Premium, Miss Emma Waite, Madison, Silver Tea Set, (extra plate, six pieces.)	
Second premium, Miss Maggie Henry, Lowville, Silver Tea Set, (Tete-a-Tete, five pieces.)	
Third premium, Mrs. D. F. Salisbury, Fitchburg, Silver Tea Set, (Tete-a-Tete, three pieces)	
Fourth premium, Miss Polly Heath, Burke.....	Silver Cake Dish.
Fifth premium, Miss Elizabeth Miller, Madison.....	Silver Card Receiver.
DISCRETIONARY PRIZES.	
Sixth premium, Miss Jennie McChristal, Cottage Grove, Silver Vase for Flowers.	
Seventh premium, Miss Mary Smith, Burke.....	Silver Vase for Flowers.
Eighth premium, Miss Kate A. True, Fitchburg.....	Silver Vase for Flowers.

CLASS 58—BOYS RIDING.

First premium, [Freddy Wallace, Baraboo (10 years), Forester's "Am. Horses."	
Second premium, Asa B. Hill, Burke, (sixteen years old,) Silver Ice Pitcher.	
Third premium, Berley Barney, (nineteen years old,) Gold Lined Silver Cup.	

CLASS 59.—TRIAL OF SPEED BY MEN.

Single Dash of one Mile, L. D. Stevens, Hadley, Mich.....	\$25
Single Dash of one half Mile, M. S. Fickes, Beloit.....	15

CLASS 60.—BASE BALL.

First Premium, Capital City Club, Madison, Silver Pitcher, Waiter and two Goblets.	
Second Premium, Baraboo Club, Baraboo.....	Silver Pitcher.

PROCEEDINGS.

EXECUTIVE MEETING.

STATE AGRICULTURAL ROOMS,

MADISON, Dec. 9, 1868—9 o'clock, A. M.

The Executive Committee met pursuant to requirement of the by-laws:

Present—Messrs. Wm. R. Taylor, W. W. Field, David Atwood and J. W. Hoyt.

Vice-President, Wm. R. Taylor in the chair.

The Secretary presented sundry unaudited claims, which were duly examined and allowed.

The Treasurer presented his annual statement of the fiscal officers of the Society for the year 1868 ; which, on motion of Mr. Field, was taken up and carefully examined by a comparison of the same with the vouchers and the records in the office of the Secretary, continuing in that work until 1 o'clock.

Committee then took a recess until 2 o'clock.

Met pursuant to adjournment, same members present as before.

The work of examining the report of the Treasurer was resumed and continued until 3 o'clock, when, on motion of Mr. Field, the same was unanimously approved.

On behalf of the Dane County Agricultural and Stock Association, Judge Vilas presented a bill of \$104.82 for lumber, which on motion was allowed.

The committee then adjourned, *sine die*.

J. W. HOYT, *Secretary*.

ANNUAL MEETING.

STATE AGRICULTURAL ROOMS,

MADISON, Wis., Dec. 9, 1868.

The Society met pursuant to constitutional requirements in their rooms at 3 o'clock p. m. of this day.

Quorum present.

Vice President Wm. R. Taylor in the chair.

The Secretary stated, for the information of members, that the principal business of the meeting was (1.) the settlement of the Society's accounts for the fiscal year just closed, and (2) the adoption, rejection or amendment of of the new Constitution proposed by him, with the concurrence of a large number of members, at the last Annual Meeting, as a substitute for the Constitution now in force.

498 STATE AGRICULTURAL SOCIETY.

On call, the Treasurer then presented the following financial report of the Society's transactions for the year 1868:

REPORT OF THE TREASURER.

To the Executive Committee of the Wisconsin State Agricultural Society :

The financial transactions of the Wisconsin State Agricultural Society for the past year have been as follows :

RECEIPTS.

1867.			
Dec.	11.	Balance in treasury as per last report.....	\$3,480 69
1868.			
Feb.	7.	To cash of W. W. Field (life membership).. cash on note of Lodi Union Society....	10 00 100 00
May.		cash on note of Columbia County Agricultural Society	50 00
Sept.		cash, gate receipts, Fair 1868..... cash for life membership..... cash from rents..... cash for entries	6,552 50 460 00 1,331 00 667 50
		cash for oats..... cash for hay.....	81 65 15 00
Oct.		balance of Lodi Society's note..... cash, being interest on do.....	100 00 9 30
			<hr/> \$12,857 64

DISBURSEMENTS.

1868.			
Dec.	9.	By orders paid, and this day returned and cancelled, marked from 1 to 359, both inclusive, except Nos. 87, 349 and 346, and including Nos. 208, 414, 465 and 467, of 1867, said orders paid covering the following items as per record of Secretary :	
		For premiums.....	\$5,412 38
		salary of Secretary.....	2,000 00
		expenses of executive meetings.....	473 80
		printing and advertising.....	929 75
		Super'ts of Departments and Clerks...	875 00
		forage.....	476 75
		labor.....	977 31
		police.....	376 50
		refreshments for Officers and Judges...	301 00
		music.....	100 00
		addresses.....	133 50
		office expenses.....	288 34
		miscellaneous expenses of Fair	153 26
			<hr/> \$12,500 54
		Balance in treasury, Dec. 9, 1868	<hr/> \$357 10

There is also in the Treasury a note of the Madison Driving Park Association, due on demand, for \$2,500.

All of which is respectfully submitted,

DAVID ATWOOD, *Treasurer.*

Madison, Dec. 7, 1868.

Mr. Craig moved that the report be accepted.

In answer to inquiry, the President stated that the Executive Committee had carefully examined the report presented by the Treasurer, comparing it with the accounts of the Secretary and the vouchers on file in the office, and were satisfied that the same was in all respects just and true.

Whereupon, on motion of Judge L. B. Vilas, said report was unanimously approved by the Society.

The Secretary then moved that the Society proceed to a consideration of the proposed substitute for the Constitution now in force. Carried.

The Secretary read the substitute; which, on motion of W. W. Field, was then considered, amended, and adopted, section by section, and finally, as a whole, without a dissenting voice. The following is a copy of the Constitution so adopted. [See page 12.]

On motion, the Society then adjourned *sine die*.

J. W. HOYT, *Secretary*.

WISCONSIN WOOL-GROWERS' ASSOCIATION.

DR. J. W. HORT,

Secretary Wisconsin State Agricultural Society:

SIR—In compliance with your request for a concise report on the origin and transactions of the Wisconsin State Wool Growers' Association, I would respectfully submit the following brief historic account:

[This Association was organized at Janesville, September, 1864, at the time of the holding of the State Fair, and a constitution was adopted and officers were chosen for the ensuing year. The object of the Association as set forth in the second article of its constitution, "shall be the encouragement and protection of the sheep-breeding and wool-growing interest of the state." The Association held a sheep-shearing at Whitewater, May 9th, 1865, and much interest was taken in the shearing, and the exchange of opinion on the management of sheep. The next annual meeting was held at Janesville, September 26th, 1865, and officers were elected and the following revised constitution was adopted:]

(REVISED CONSTITUTION OF THE WISCONSIN STATE WOOL GROWERS' ASSOCIATION.

Article 1. This organization shall be entitled and known as the Wisconsin State Wool Growers' Association.

Article 3. Its officers shall consist of a President, two Vice-Presidents, Secretary, Treasurer and five additional members of the executive committee.

Article 4. The duties of the officers shall be those ordinarily performed by officers of similar organizations.

Article 5. Any person may become a member of this Association on payment of an annual membership fee of one dollar.

Article 6. The officers of this Association shall be elected at each annual meeting, to be held at such time and place as the State Fair may be held. There shall also be held a semi-annual meeting in the month of February, at such time and place as the President and Secretary may direct, also such other special meetings as the executive committee may determine.)

In February, 1866, a semi-annual meeting of the association was held at Fond du Lac, and much interest taken in the discussions on the questions of tariff on wool and woolens, what further legislation was necessary to protect the flocks from the depredations of dogs, the treatment of the diseases of sheep, and the general management of sheep.

The Annual Meeting in September, 1866 was again held at Janesville, and, officers elected and discussions held on various topics pertaining to the interests of the wool-grower.

The semi-annual meeting of that year was held at Madison, Feb. 5th, 1867, and the interests of the wool-grower were discussed and resolutions were adopted indorsing the tariff bill then pending in Congress, so far as it related to wool and woolens.

A sheep-shearing Festival and Fair were held at Ripon, May 8th and 9th, 1867. The show of sheep was good, although the weather was severely cold and but few sheep were shorn.

The Annual Meeting in September, 1867, was held at Madison, and officers elected. Much interest was taken in questions pertaining to wool-growing, although this branch of our national industry was suffering under great depression, caused by over-importations of wool and woolens. The prospects of wool-growing are slowly but surely improving, and the farmer, whether as wool-grower, dairyman or stock-grower, who has steadily pursued mixed farming and thus preserved the fertility of his farm, will be more successful than the farmer who has devoted his means and energies to wheat-growing alone.

The exhibition of sheep at the State Fair, in Madison, September 1868 was large; showing that many farmers were determined to preserve their flocks and improve them.

The following officers were elected at the Annual Meeting in 1868:

President—Eli Stilson, Oshkosh.

Vice-Presidents—I. S. Hazelton, Richland Centre; E. M. Rice, Whitewater.

Treasurer—C. K. Stewart, Danville.

Executive Committee—R. Richards, Racine; W. B. Kingsbury, Ripon; J. G. Potter, Beloit; E. S. Hammond, Fond du Lac.

Deeply convinced of the great importance of wool-growing as a branch of Wisconsin husbandry, and no less confident of its steady growth and development, in spite of both deficient and adverse legislation, or other causes of temporary discouragement.

I have the honor to be, respectfully yours,

ELI STILSON,

Pres. Wis. Wool-Growers' Association.

OSHKOSH, Dec. 7, 1868.

REPORT
OF THE
WISCONSIN
STATE HORTICULTURAL SOCIETY
FOR THE YEARS 1864-5-6-7-8.

STATE HORTICULTURAL SOCIETY

OF WISCONSIN.

HISTORIC ACCOUNT.

The Legislature having provided for the publication of the Report of the State Horticultural Society, in connection with the Transactions of the State Agricultural Society, since the date of the last publication, it seems a fitting time to give a brief historic account of this Society since its origin. The materials for this work are already fast disappearing. Even now a small pamphlet of Transactions published in 1855, by the "Wisconsin Fruit Growers' Association," cannot be found, and the written records may be considered as lost.

THE WISCONSIN FRUIT GROWERS' ASSOCIATION was organized in November 1853, at Whitewater, and Hans Crocker, Esq., of Milwaukee, seems to have been elected President, Mark Miller, of Janesville, Recording Secretary, D. J. Powers, Corresponding Secretary, R. M. Parker, Treasurer, and Chas. Gifford Chairman of the Executive Committee.

The first Fair of the Association was held in the city of Milwaukee on the 5th and 6th of October, 1854, in Young's Hall, during the time of the Fair of the State Agricultural Society in the same city. In the November number of the *Wisconsin Farmer* it is stated:

"This exhibition of the fruits of Wisconsin exceeded the expectations of every one who looked in to see it. It is no exaggeration to say that the show of apples, as a whole, taking into account the number of varieties, size, fairness and perfectness of maturity, could not be beaten, by any other State. A visitor remarked that he had attended like exhibitions in New York, but that this show of apples far surpassed any he had ever seen before. Over 100 varieties were on the tables. The show of pears and grapes was excellent, and could not be beaten in quality. There were also some good specimens of peaches and quinces."

There were thirty-three entries by different persons of apples, varying from one to fifty-four. Sixteen entries of pears,

four of peaches, seven of plums, three of quinces and fourteen of grapes. The premiums, twenty-five in number, amounted to \$103. But though the fair was a success for the Association, yet being held at the same time as the fair of the Agricultural Society, it operated injuriously to the latter by removing nearly all fruit from its tables.

The second annual exhibition was held at Milwaukee on the 18th, 19th and 20th of September, 1855, in connection with the Milwaukee Horticultural Society; and a premium list prepared for apples, pears, plums, peaches, grapes and quinces, was published in the *Farmer* of that year. The exhibition was said to be a success, and to fully confirm the anticipations of the preceding year. There is no record of any meetings of the society, published, and the officers were probably the same as for the preceding year.

The annual meeting of 1855 was held at Janesville on the 27th of November, at which H. J. Starin of Whitewater was elected president, C. Hawley of Milwaukee, D. Worthington of Delafield, and T. Drake of Racine County, vice-Presidents, Mark Miller of Janesville, Recording Secretary, Chas. Gifford, of Wauwatosa, Corresponding Secretary, R. W. Parker of Milwaukee, Treasurer, and J. C. Brayton of Aztalan, A. L. Castleman, and A. G. Hanford of Waukesha County, Executive Committee for the ensuing year. The time of the meeting was mostly occupied in discussing the quality and adaptability of the various fruits to the climate and soil of this state. This meeting was attended by E. W. Edgerton, President of the State Agricultural Society, who made a proposition, that the next fair of the Association be held in connection with the Agricultural Society; and Messrs. Castleman, Miller and Gifford were appointed a committee to make the arrangements. No arrangements were however made.

In the *Wisconsin Farmer* for October, 1856, is a notice signed by the Executive Committee, stating that "a meeting and exhibition of fruits of this Association will be held at Whitewater, on Wednesday and Thursday, the 24th and 25th of September, 1856." The Farmers and Mechanics' Club held

their Fair at the same time and place. This exhibition was very limited, and confined to apples shown mostly by Messrs. Hanford, Starin and a few others, with "grapes grown on the bank of the Geneva Lake," by Mr. Russel. The show of Fruits made the same year at the fair of the Agricultural Society held at Milwaukee, on the 8th, 9th and 10th of October, mostly by members of the Association was very fine, their premiums amounting to \$124.

The officers elected in 1856 were Chas. Gifford, President; C. Hawley, A. Slocum, and H. T. Woodward, Vice-Presidents; Andrew Child, Recording Secretary; Chas. Colby, Corresponding Secretary; R. W. Parker, Treasurer, and J. C. Brayton, H. J. Starin and A. G. Hanford, Executive Committee. It does not appear that any meetings for discussion were held this year. But it would seem that during the year it was decided to accept the proposition made by the Agricultural Society, and on the 29th and 30th of September and the 1st and 2d of October, the Association held their fair in connection with the State Agricultural Fair, at Janesville; and then fitted up and filled over 300 feet of tables with Apples, Pears, Grapes and Plums. This Fair seems from the report made by Mr. Brayton to the Agricultural Society, and found in the *Transactions of the State Agricultural Society*, page 499, of that year, to have been a complete success.

[There seems to be no record of 1857.]

The annual meeting of the Association for 1858, was held at Milwaukee Feb. 9. The following is the list of officers:

President—A. G. Hanford, of Waukesha.

Vice Presidents—Hans Crocker, Milwaukee; D. J. Powers, Madison; D. Mathews, Burlington.

Secretary—Charles Gifford, Milwaukee.

Treasurer—C. C. Olin, Waukesha.

Executive Committee—H. J. Starin, Whitewater; J. C. Brayton, Aztalan; Thomas P. Turner, Waukesha.

Messrs. Powers and Gifford were appointed a committee to procure the passage of a law similar to that of Massachusetts, for the protection of fruit trees, and trees planted for shade or ornament, and Messrs. Olin, Starin and Crocker were ap-

pointed a committee to ask for an appropriation from the State to promote the objects of the Association.

In the *Wisconsin Farmer* for October of that year, page 388, is an editorial stating that:

"The Wisconsin Fruit Grower's Association will exhibit in connection with the State Agricultural Society, the same this year as last, at the State Fair. By an arrangement between the parties, members of the Fruit Growers' Association can exchange tickets of membership for those of Agricultural Society, on application at the office of the Secretary of the latter Society, either before or during the Fair."

The reports of the judges on fruits at the Agricultural Fair, show that the expectations of the Association were fully met. The premiums then awarded amounted to \$77.00 for apples, \$22.00 for pears, \$10.00 for grapes, \$8.00 for plums, \$8.00 for peaches, \$63.00 for flowers and \$30.00 for preserves, jellies and pickles. The committee on fruit say:

"The exhibition was very large and beautiful, completely covering the tables which had been provided around one of the tents, and large spaces left in the center. This tent, if we are to judge by the immense crowd constantly filling it, seemed to be one of the great centers of attraction, and indeed, it is no wonder that it should have been so. In quality and beauty, as well as in quantity of fruit, the exhibition was far superior to what your committee had dared to anticipate; showing conclusively, that in spite of repeated failures, we need not despair of seeing plenty of good fruit in our noble state."

The winter previous had destroyed the quince trees, and consequently, there were none on exhibition that year.

In the November number of the *Wisconsin Farmer*, page 440, is a notice for a meeting of the Association at Milwaukee, on the 16th of November, for discussion. This meeting took place, but appears to have been very thinly attended, partly owing to there being some exciting political meetings then in session in Milwaukee. The Secretary, as appears by a note in the January number of the *Farmer*, promised to write out the proceedings of that meeting, and have it printed in the *Agricultural Transactions* of that year, but for some cause he did not do so, nor is any notice taken of the meeting by the city papers.

No minutes have been published of the annual meeting of the Association in 1859, and the original records are not with the Secretary of the Horticultural Society.

In 1859 the Association held its fair in connection with the Agricultural Society at Milwaukee; and in January, 1860, the annual meeting was held at Whitewater, and the discussions there had are printed in the Transactions of the Agricultural Society for 1859, at the end of the volume. This seems to have been the last meeting held by the Association. The exhibition of that year was held in connection with the Agricultural society, at Madison.

The following is the list of officers for that year:

President—J. C. Brayton, Aztalon.

Vice-Presidents—F. W. Loudon, Janesville; J. L. Judd, Waupun.

Rec. Secretary—O. S. Willey, Janesville.

Cor. Secretary—A. G. Hanford, Waukesha.

Treasurer—O. P. Dow, Palmyra; J. C. Plumb, Madison.

Executive Committee—H. A. Congar, Whitewater; James Ozane, Jr., Sumner.

WISCONSIN STATE HORTICULTURAL SOCIETY.—The breaking out of the rebellion, which for the time being put a stop to nearly all meetings of agriculturists, and especially in Wisconsin, not only closed the meetings and exhibitions of the Fruit Growers' Association, but also led to its disorganization. Thus matters stood until the meeting and exhibition of the Wisconsin State Agricultural Society at Janesville, which was held September 25 and 29, of 1865; when the fruit growers again rallied in force, and made a greater show than had ever been made before in Wisconsin, carrying off in premiums \$165 for apples, pears, grapes, plums and quinces, \$20 for wine, \$20 for delicacies, \$55 for flowers and \$16 for water-melons, besides large premiums for other products of the garden. There were also awarded as premiums, 18 volumes of the Transactions of the Wisconsin State Agricultural Society. During that fair a meeting was held of which F. C. Curtis of Columbia County, was Chairman, and O. S. Willey, Madison, Secretary.

On motion a Committee was appointed to devise measures to re-organize the Association; and the meeting adjourned to the evening of the 29th of September to hear and act upon the report of the Committee.

The adjourned Horticultural meeting met at the Court Room, in Janesville, Thursday evening, Sept. 29, F. C. Curtis in the chair, and George J. Kellogg acting as Secretary *pro tem*.

The Committee appointed at a former meeting on the organization of the Association, made the following report :

"The committee on re-organization of the Fruit-growers Association, after such consultations as our limited time would allow, respectfully submit the following: That we cannot without further consultation present a well prepared constitution and by-laws for the government of the Association, but we suggest that the organization be now so far effected as to adopt a title for the Association, and elect the officers, viz., a President, one Vice-President from each County in the State, a Secretary and Treasurer, and an Executive Committee, to consist of the President, Secretary, Treasurer and such two Vice-Presidents as may be elected for that purpose; and we propose for a name, 'The Wisconsin State Horticultural Society;' and nominate the following officers, viz.: President, Hon. B. F. Hopkins; Vice-Presidents, one in each County named; Secretary, J. C. Plumb, Madison; Treasurer, F. C. Curtis, Columbia; Executive Committee, Geo. J. Kellogg, Rock, and L. P. Chandler, Dane."

The report was adopted, and the persons named elected.

Considerable discussion on various subjects took place at these meetings, of which no minutes have been preserved.

Appropriate resolutions were also adopted concerning the death of Mr. A. G. Hanford, formerly President of the Association and widely known as one of the leading horticulturists of the North-west; who died in Columbus, Ohio, September 3, 1864. But unfortunately the record of those resolutions cannot be found in time for their publication here. During the many years of his residence in Wisconsin, which continued until 1861, (when he became proprietor of extensive nurseries in Columbus, Ohio, and removed to that State,) his chief attention was given to the cultivation of fruits, to the introduction of approved varieties, among the people of the north-west, and to the dissemination of a knowledge of the established principles of his possession.

In the language of the Editor of the *Wisconsin Farmer*, "No horticulturist of the West has ever been more successful in actual practice, none has established a better reputation for correctness of knowledge and integrity in all business transactions, and none has made his pen more useful in the diffusion of valuable information derived from laborious and carefully conducted experiments."

PROCEEDINGS.

ANNUAL MEETING—1866.

MADISON, February 6, 1866.

2:30 P. M.

The Annual Meeting of the Society convened in the parlor of the Wisconsin Mutual Insurance Company, at Madison, Feb. 6, 1866, Vice-President L. P. Chandler in the chair. Short but excellent congratulatory speeches were made by Messrs. Plumb, Kellogg and Judd.

It was unanimously resolved to invite the members of the Horticultural Societies of the city of Madison, to attend the meetings of this Society, and to participate in its proceedings in the character of honorary members.

Strawberries.—The discussion upon Strawberries, being first in order under the programme previously announced, Dr. Hobbins moved that the *Wilson* be recommended for general culture. Upon this, considerable discussion took place, principally on a comparison of the *Wilson* with the *Agriculturist*, which had just then been introduced, and of which the plants had proved weak, and but few had grown.

Dr. Hobbins grew the *Wilson* in hills, on clayey land, which he had trenched two feet deep and filled with composted manure; and from 450 square yards he had procured 250 quarts of berries.

Burr's New Pine, Boston and Brighton Pines, were recommended for amateur culture; and the Russell, Monitor, Rives, Eliza, Victoria and *Agriculturist* were recommended for further trial by amateurs.

For field culture, it was recommended to plow the ground into two feet beds, and alternate them so that one-half shall be in new plants each year. All agreed as to thorough manuring of the soil, and especially deep trenching; though Mr. Kellogg said he had procured good crops of *Wilson* from gravel knolls, where it was supposed only white beans would grow. He was growing them on all kinds of ground. On ordinary soil he had picked 240 bushels from the acre without special manure.

Clean culture in summer, with good mulchings with clean straw and coarse litter, or cornstalks, for winter was recommended.

Gooseberries.—The Houghton and American only were recommended for general cultivation.

Raspberries—Mr. Kellogg moved that the Society recommend the Doolittle Black Cap, as the best and a hardy variety without protection, for general culture, which was agreed to.

For amateur culture and further trial, the Purple Cane, Yellow Cap, Ohio Everbearing, Catawissa, Brinckle's Orange, Cincinnati, Red Antwerp and Fastolf were recommended, most of which required protection.

The planting of raspberries in orchards was suggested and met with much approbation.

Blackberries—Mr. Pepper would give the Lawton berry a further trial; but all agreed that the culture of this fruit was nearly a failure.

Grapes—The Concord was placed first on the list, Delaware second, Hartford third, Diana fourth and Isabella fifth.

Dr. Hobbins had fruited last year seventeen varieties of grapes, and was ready to pronounce them all a success. He, however, considered the Concord best for everybody. It was hardy, free from diseases, fruited well, had most vinous flavor and ripens early. It should take the same rank among grapes that the Wilson does among strawberries.

Mr. Greenman agreed with the Doctor in the high rank he gives to it. The Concord should be placed first on the list.

Mr. Kellogg moved to place the Delaware second on the list. It had made with him, under good culture, a growth of twelve feet on a vine of the second year out.

Mr. Greenman thought the Delaware should be closely pruned to induce full bearing. He had seen no mildew or other disease on the Delaware on his grounds.

Mr. Judd always cut back his Delawares to get fruit, and had no mildew, in Wisconsin.

Before the question was taken the meeting adjourned.

MORNING SESSION.

February 7th, 1866.

The Society met pursuant to adjournment, Vice President Chandler in the chair; the question being on the motion to place the Delaware second on the list of grapes.

Mr. Atwood was conscious that the opinion existed that the Concord, was preferable as a grape for all purposes, but he considered the Delaware a finer grape than the Concord.

After further remarks by others, the motion prevailed.

Mr. Greenman moved to place the Hartford third on the list, and said he preferred this to the Delaware.

The motion prevailed without dissent.

Mr. Stevens moved to place the Diana as fourth on the list. It was satisfactory with him, even preferable to the Hartford. It ripens early, and was good as soon as it turns. The motion was adopted.

The Isabella was named as No. 5 ; but with many dissenting voices.

For amateur culture, Allen's Hybrid, Rogers' Nos. 15, 4 and 9, Creveling and Union Village, were recommended.

The soil and culture were briefly discussed, and it was concluded that grapes were adapted to more soils and locations than any other fruit, growing in sand, gravel and stiff clays.

Judge Knapp being present, and called upon, gave a brief account of the grapes and grape culture on the Rio Grande. The soil was sand and river mud, largely charged with salts, formed by the wash from the mountains. The vineyards were planted almost on a level with the river, and watered by irrigation every ten days during the periods of the growth of the grapes. The vines were hilled up, not laid down, for winter protection, and cut back to within eighteen inches of the ground, and had no stakes or trellis. Their yield was enormous, and the grapes far superior to any grown in the Eastern States.

He showed a specimen of the grapes, preserved in sugar, grown at Mesilla and wine from El Paso, Mexico, which were pronounced superior to anything presented before.

The Society then took up, considered and adopted the constitution for the Society, which had been prepared by a committee appointed at the Janesville meeting ; and then proceeded to the election of officers for the ensuing year, which resulted as follows :

President—Dr. Joseph Hobbins, Madison.

Vice President—L. P. Chandler, Madison.

Secretary—J. C. Plumb, Madison.

Treasurer—F. C. Curtis, Rocky Run.

The county Vice Presidents were authorized to be filled by appointments by the officers already elected.

SPECIES AND VARIETIES OF FRUIT.

Apples.—The Society, after discussion, agreed upon the following varieties as worthy of general cultivation, and as hardy in this climate, viz.: Red Astrachan, Fall Stripe, Duchesse of Oldenburg, St. Lawrence, Fameuse, Cider, Sweetwine, Golden Russet, Tallman's Sweet, Red Romanite, Rawle's Janet, Willow Twig, Fall Queen, Perry Russet, and Northern Spy.

In discussing the hardy varieties, the following were especially considered :

Early Sweet.—Mr. Peffer said he considered this a good early apple, tree hardy, and abundant bearer.

Mr. Chandler objects to its being placed on the list of hardy trees.

Sweet June.—Mr. Kellogg could not recommend this tree, and moved to strike it from the list of hardy trees ; and it prevailed.

Cider, (local name).—Mr. Peffer thinks highly of this apple, and can recommend it. Mr. Kellogg says it answers well as a pie apple, and keeps up to this time. It was retained.

Golden Russet was added to the list.

Perry Busset.—Mr. Pepper objected to this, but would not press his objection. It was retained.

Canada Black.—Mr. Plumb said this was a strong grower, a hardy tree, and a good marketable apple, and hoped it would be added to the list. Mr. Pepper calls it a third rate apple, and would not raise it. It was rejected.

Yellow Belle Fleur and Pomme Grise were rejected as not hardy.

Red Romanite.—Mr. Kellogg said the tree was hardy. It was a good keeping apple, better for growing than for buying. Mr. Pepper considered it a good apple, and hardy productive tree. Mr. Plumb objected to it as unworthy. It was retained.

Rawle's Janet was objected to as being tender; but Mr. Plumb said it had stood well with him, and as it was so good an apple he was in favor of retaining it on the list.

Mr. Kellogg said it would stand in some localities, and he would not press his objection.

Colvert was proposed to be added to the list by Mr. Chandler, but was rejected.

Willow Twig was added on motion of Mr. Kellogg.

Fall Stripe.—Mr. Pepper thinks highly of this apple. Mr. Chandler had no objection to the fruit; but thought the trees would not stand in some localities. Generally they did well, would not press his objection, was in favor of adding it to the list. It was adopted.

Fall Queen. Mr Kellogg said it was perfectly hardy, an early and abundant bearer. It was added.

Perry Russet was proposed by Mr. Kellogg. Mr. Plumb objected, that it was not productive. It was added.

Northern Spy.—Mr. Chandler said he knew trees near Madison more than twenty years old. It stands better in the orchards than in the nursery. The tree is an early and perpetual bearer. Mr. Kellogg objected on account of its tenderness. It was retained.

Plums.—The following list was recommended: Lombard, McLaughlin, Jefferson, Imperial Gage, Green Gage, and Bleeker's Gage.

Cherries.—The following list was recommended: Early Richmond, Donna Maria, Red English, and Early May.

A list of tender Apples was made out, to be experimented upon in favorable locations.

Several communications were received, which will be noted under the proper head.

The exhibition was held that year in connection with the Agricultural Society's, and was of the most creditable kind. The premiums were generally given in silver plate and choice books. 26 were awarded for apples, 12 for grapes, 6 for pears, 3 for plums, 1 for peaches, 1 for cranberries, and 7 for miscellaneous fruits, 44 for flowers and plants, 6 for Wisconsin wines, and 27

for delicacies, making a total of 133 premiums, nearly or quite all of which must have had many competitors. There are no notes of any meeting or discussions at this Exhibition.

ANNUAL MEETING—1867.

JANUARY 22, 1867.

The annual meeting convened in the Agricultural Rooms, in the Capitol, President Hobbins in the chair, who strongly urged on the Society the propriety of assuming the entire control of the subject of Horticulture, in the exhibitions with the Agricultural Society, or of cutting entirely loose from that Society. A goodly number were present and after the usual congratulations the special committees were appointed, viz.:

Nominations—Messrs. Tuttle Kellogg and Lawrence.

Public Exhibitions, &c.—Messrs. Plumb, Benedict and Erkton.

Nomenclature—Messrs. Plumb, Kellogg, Tuttle.

Seedlings—Messrs. Lawrence, Stickney, Curtis.

Essays—Messrs. Knapp, Nichols and Smith.

Fruits—Messrs. Bogan, Adams and Nichols.

Publishing Report and Memorializing Legislature—Messrs. Lawrence, Hobbins, and Nichols.

On motion, the subject of "Protection against swindling Tree Pedlars" was made the order of the hour and experience was called for. Many had grievous stories to tell—and the way was shown by which the people of this city were recently swindled in a most outrageous manner by a desperate man, who purchased without regard to variety, and sold anything the people wanted. The subject was referred to a special committee, consisting of Messrs. Lawrence, J. Y. Smith and Hobbins.

The Society adjourned to 9 o'clock A. M. to-morrow.

WEDNESDAY, Jan. 23, 1867.

The Society met pursuant to adjournment. The President in the chair.

On motion, delegates from local Societies and other States, present, were invited to sit with us, as follows:

Madison Horticultural Society—Messrs. W. T. Leitch and Dr. Wm. Hobbins.

Jonesville Horticultural Society—Messrs. F. S. Lawrence and Geo. J. Kellogg.

Appleton Fruit Growers' Association—Mr. H. P. Bogan.

Northern Iowa—Mr. D. W. Adams.

On motion, Mr. F. S. Lawrence was appointed a committee to examine the records of State, to ascertain the amount and value of fruit returned by the assessors.

In regard to the amount of fruit imported, it was thought very desirable, but almost impossible to obtain any accurate estimate of it.

At 10 A. M., President Hobbins delivered a spirited address, which elicited considerable discussion, especially that portion which referred to the

"Future of the Society"—recommending the total severing of all connection with the State Agricultural Society so far as regards exhibitions.

The address was referred to three several committees, as follows:

"The future of the Society," to Messrs. F. S. Lawrence, J. C. Plumb and O. S. Willey.

"The proposition to use five acres of State land for Horticultural experiments," to Messrs. Geo. T. Kellogg, F. S. Lawrence and W. T. Leitch.

The part "relating to the death of Mr. L. P. Chandler," to Messrs. J. C. Plumb, Wm. Hobbins and J. Y. Smith.

The Society then adjourned to 2 o'clock P. M.

AFTERNOON SESSION.

TREE PLANTING.

On this subject much interesting discussion was had, concerning the causes of failure of late years in fruit bearing, both east and west, and its apparent relation to the growing scarcity of timber.

On motion of Mr. Willey, it was resolved that the Society offer a premium of \$100 for the best 10 acre plantation of timber, and \$50 for the best five acre plantation in the State—all to be planted next spring and awards to be made at the expiration of three years.

Mr. Smith thinks the growing of natural timber should be encouraged. Thinks that Grant county has as much timber as she had twenty years ago. Twenty years' growth from the brush, will now cut twenty-five cords per acre of wood—thinks once in twenty years the time to cut off clean.

Mr. Plumb would suggest that young and growing timber should be thinned out half every year, after it attained sufficient size for hop poles or fire wood, provided there was a good thick growth to start with. The balance left every year would grow enough better, that no loss would result.

The subject of varieties of natural timber trees was fully discussed and the following were recommended as most valuable:

1st. *Deciduous Trees*.—Oak, in variety; Ash, white; Maple, sugar; Maple, Silver leaf; Butternut, Black Walnut, Hickory, Elm, in variety; Cherry, black.

2d. *Evergreens*.—Red Cedar, White Cedar, White Pine, Yellow Pine.

Of foreign trees, the Norway Spruce and European Larch were recommended.

On motion, Judge Knapp was requested to prepare an article upon the subject of timber-growing, for our Report. [Nothing was ever done under this resolution, on account of the result of the next motion.]

On motion, a committee was appointed to confer with others, and present our views to the Legislature, and urge upon that body, the propriety of offering premiums for planting and growing timber in Wisconsin, consisting of Messrs. J. G. Knapp, J. Y. Smith and C. H. Greenman.

LOCATION OF ORCHARDS.

Mr. Tuttle, of Baraboo, wondered why any should think the hill the best place, and stated the case of an orchard situated in the valley, with close protection—where “tender varieties” do well—but admitted the orchard to be well drained by gravel subsoil, and also admits there is a difference of 10 to 15 degrees of heat in favor of the hill, in extreme cold weather, and that the hill soil is generally better for the trees.

Mr. Lawrence thinks that sandy soil will grow trees more hardy, as they will receive more silica.

Mr. Curtis, of Columbia county, thinks it is not the degree of cold, but the unseasonableness of it, and claims that on high ground the temperature is more equal, and not subject to such extremes, and therefore the tree winters better. His orchard is on the north side of a hill, seventy or eighty feet above water, rich soil; trees doing remarkably well, ten to twenty years planted, some varieties called tender, as Greening, are good trees.

Mr. Smith thinks exposure to the sun on the southwest side, the cause of death to trees, also extremes of heat and cold. The extremes are from the southwest. Remedy: protect southwest side of the tree.

Mr. Plumb thinks orchards winter best where grown upon bleak hilltops, and cool aspects, all old theories to the contrary notwithstanding. The facts can be seen by any careful observer, by comparison of the different orchards in his vicinity. The wind is an equalizer of temperature, summer and winter, and renders the tree hardy by its continual blowing. More equal temperature is the real want of our trees. Those who protect from the autumn winds must protect from the winter's sun. Protections from both in winter would be desirable.

REPORTS OF COUNTY VICE-PRESIDENTS.

These reports brought some interesting facts concerning the success of fruits in the several localities.

Rock county has a live horticultural society, organized within the past year, and though not as much good soil for fruit as some other counties, some ten to fifteen varieties of apples are doing finely. Their society had recommended two varieties as succeeding well, which were sometimes rejected: viz: Northern Spy and Yellow Bellflower. West of Rock River it is underlaid with limestone; fruit trees there are very successful.

Dane county has given comparatively little attention to the subject of fruit, growing. But the influence of the horticultural societies had been felt in the great advance in fruit and flower culture during the last two years, especially in the vicinity of Madison, where fruit was eminently successful. The western part of the county, in the vicinity of the Wisconsin river, is becoming famous for its vineyards, the bluffs affording the soil and shelter desirable.

Outagamie county reports great discouragements by the loss of fruit trees planted on their strong, moist clay soil; late growth and tender varieties

seem the rule. Has a Fruit-Grower's Association, which tried to find a remedy, and have found that trees they bought for Astrachan, Golden Russet, &c., as hardy, proved to be spurious, and the trees have died. D. Huntley, of the same county, reports much discouragement, but some varieties all right, as Tallman, Saxton, (or Fall Stripe), Golden Russet, Astrachan, Duchesse, Fameuse. The first four especially fine, smooth, no black limbs, and answer all the conditions of a perfect tree.

Vernon county (report by Charles Waters,) says the first effort was by planting seed in 1848, not one-tenth now in healthy condition, and few of good fruit. Of a lot of choice trees planted in 1860, Illinois trees, but few left. Then Rochester trees came in favor; but now they want *home grown* trees. On the high lands, above the early and late frost line, are the best fruit trees, in fact a success there.

Pierce County—by M. D. Proctor, River Falls.—Many trees set, but few succeed. The Crabs do well, also the Duchesse, Fameuse, Astrachan, St. Lawrence and Sweet Pear. No success with the pear, plum or cherry yet. Two seedling apples standing on the northwest side of a mound have borne well the last two years, seem hardy, fair fall apples, soil sandy loam on white sand. The small fruits do well.

Green Lake County—by M. H. Powers, Dartford.—No large cultivators of fruit, or especial care of trees outside of the villages; but the healthy appearance and large size of our trees is often the subject of remark by visitors from other parts of the State. The grape does remarkably well, and the marsh cranberry is receiving great attention at present.

Mr. G. N. Smith, of Berlin, says the valley of the Fox is probably as well adapted to fruit growing as any portion of the State. Soil generally sandy loam, resting on red clay sub-soil, which seems just right for the different species of fruit. A top-dressing of this clay renders the lightest sand very productive. The list recommended by the Society all do well, and some others. The Flemish Beauty Pear is partially successful.

The grape is very successful. The Concord has been considered the grape for this region, but in the past two years the Delaware has ripened sufficiently to make good wine. It is undoubtedly the best wine grape, and will yield per acre equal with the Concord; yet the latter will hold in public favor, from its vigor and early bearing. I grow good Catawbas by protection from early frosts, and letting them hang on the vines. We count the Iona, Disraeli, and Allens, about ten days later than the Delaware, and rather tender. Latitude about 44. Average temperature for June, July and August, 66° the past year, probably six to ten degrees below the average of seasons.

Mr. E. A. Roby, Burlington, Racine County—Fruit trees have been largely planted and through many discouragements the interest is increasing, and it is found a paying business. In 1865 one man refused \$3,000 for his apple crop, but sold them at an advance on that. Orchards bear as well as in New

York or Massachusetts; cannot too strongly recommend drainage as a preventive of drought, and to equalize the temperature of the soil. Have north-east and south exposure, but don't see much difference in that respect. Soil sandy loam. Best grape is Diana.

From Mr. S. S. Stickney, Milwaukee Co.—Naming the William Favorite (Sops of Wine), Keswick Codlin, Fameuse, Fall Orange, Tallman Sweet and Flushing Spitzenburg, as successful there; suggesting the Barberry for hedging, north of the Osage limit, and the propriety of planting largely of Sugar Maple, Ash and the nut bearing trees for timber on the prairies.

GRAPES, SOIL, ETC. APPLES, PLUMS, CRABS, AND THE SMALL FRUITS.

Grapes.—Mr. Lawrence thinks we have been misled by eastern men into too much manure and digging. If we manure at all it should be by top dressing. His neighbor prepared by simply ridging with the plow, planting on the ridge, and was getting fine crops, while others who dug deep and manured, lost their vines—lost largely by late growth. Would plant upon the surface.

Mr. Adams said his vines did well on common prairie soil—high ground, northern aspect, simply plowed—seem to mature well, and winter well, generally. Thinks nature has done enough for our soils on the prairie. His neighbor thought to do better by trenching and manuring, but lost all his vines last winter.

Mr. Plumb thinks he can ripen the grape here as well as in northern Ohio, where they have trouble to ripen the Catawba, and in wet seasons like the past, to ripen any grape well. They find it absolutely necessary to under-drain these clay lands, while we have any amount of lands fitted by nature with a porous subsoil. Was informed by a prominent grape grower of Sandusky, that in his visit to the vineyards, and at the meetings of the "Grape Growers' Association," the finest grapes he saw were grown on the lake ridges—the drift formation of calcareous gravel and sand. Our summer temperature is the same as their's, and winter only about two degrees less, with less damp, foggy weather, and our warm autumns are very favorable to the ripening of the fruit, provided we can escape the late and early frosts.

Mr. Adams would grow the Delaware on a cool aspect, as it is very sensitive to too much heat. Great complaint in Southern Ohio of too much heat. His own grounds are nearly level, sloping to the northwest. Delaware grows rapidly, and side by side with Concord, bears more pounds of fruit to the vine. Thinks the cool aspect will prevent sun scald.

Mr. Willey suggested "bad drainage" as the cause, which was concurred in by several.

President Hobbins would prefer either southeast or southwest exposure; clay soil, and the nearer to nature, so far as manure is concerned, the best. Would prefer cutting-made plants always.

Mr. Kellogg said his vineyard was deeply plowed; subsoil sand and gravel; all suffered alike except Concord. Would plant Concord first, and next, and next, then Delaware, if he wanted more. Don't see how the northern aspect

is going to cure the sun scald, yet says the worst cases he saw the past season were on vines in a sheltered south-eastern exposure. He offered the following resolution, which was carried, to wit: That we recommend for the grape, a warm exposure, moderately deep preparation of soil, no manure, good underdrainage, protection from south-west winds and winter protection with earth or marsh hay.

Varieties.—Pres. Hobbins said out of 40 varieties he could recommend only about ten; regards Concord as king of grapes for us. It is a free grower, good bearer, fine branches, free from disease, and you cannot get anything better.

Mr. Adams said Concords will stand grief, but the latitude of Missouri requires a different grape from ours. Would not place much confidence in their recommends.

The Iona was discussed freely. Nearly all lost their last year's planting, and would be very cautious how they planted again.

Mr. Greenman suggested that as all varieties of young vines succeed last we could not judge of new varieties by last year's trial.

Pres. Hobbins likes Allen's as well as any grape he grows, wants plenty of room.

Mr. Greenman coincided.

The Society recommended the following list of grapes for general cultivation:

Concord, Delaware, Hartford, Diana.

Amateur List.—Allen's Rogers, Nos. 3, 4, 9, 15, 19; Northern Muscadine; Isabella

For trial.—Creveling, Iona, Union Village, Adirondac.

Apples—It was agreed to recommend a list of five varieties to which no one should object, and they were the Astrachan, Duchesse of Oldenberg, Fameuse, Tallman and Golden Russett. This list was discussed thoroughly, and objections made to some of them, but finally withdrawn.

Mr. Walters said the Tallman had failed badly in Grant County the past year or two.

Mr. Tuttle said he would not plant more than ten Duchesses out of a thousand trees, for it ripened at the season when fruit was plenty. For this reason he could get two dollars per bushel for the Astrachan, when he could get only one dollar for the Duchesse.

Mr. Plumb noticed the fact that the autumn fruits, when plenty, were almost unsalable, even those of high quality. It would be poor policy to plant largely of any variety that is not very early or good for winter. The Fall Stripe had been so plenty as to bring only fifty cents per bushel, but it is a good variety for new countries, being an early and prolific bearer, but not advisable to plant largely of it because it ripened when the wind-falls were plenty; so of Duchesse.

Second list of five recommended: **Fall Stripe**, **St. Lawrence**, **Perry Russett**, **Red Romanite**, **Willow Twig**. The last variety was objected to as proving tender, and of poor quality in this latitude. Third list recommended: **Sweet June**, **Sops of Wine**, **Fall Queen**, **Bailey Sweet**, **Blue Pearmain**, **Autumn Strawberry**, **Early Joe**, **Yellow Bellefleur**, **Northern Spy**.

Plums.—In a rambling discussion on this fruit, all concurred in the opinion that we must often renew our trees, but can get plenty of fruit.

Mr. Adams thought we must rely on some variety of the wild type for a hardy, productive and reliable fruit.

The following varieties were recommended for general cultivation: **Lombard** and **Imperial Gage**.

Concerning the **Miner plum**, opinions expressed show it to be a southern wild plum; late ripening its chief merit.

On motion of **J. C. Plumb** it was

Resolved, That we recommend selecting our finest native plums, and the seeds of the same, and cultivating them with the view of procuring varieties of especial hardiness, productiveness, and of good quality.

Crabs.—The **Transcendent** and **Hislop Crabs** were recommended for general cultivation; **Soulard** and **Sweet Crabs** for trial. Concerning **Crabs** a resolution was offered by **Judge Knapp**, cautioning the people against buying the **Tetofsky Apple** under the name of "**Russian Crab**" at exorbitant prices, which was concurred in.

Cherries.—Recommended the **Early May**, or "**Richmond**," and the large **English Morrello**, for general cultivation.

Pears.—**Flemish Beauty** for general cultivation and the **Early Bergamot**, **White Doyenne**, **Belle Lucrative**, **Winter Nellis** and **Onondaga** for amateurs.

Currants.—The **White Grape**, **Victoria**, **Knapp's Madison**, **Black Naples**, **Red** and **White Dutch**.

Strawberries.—**Wilson** for general cultivation, and **Russells**, **Monitor**, **Brooklyn**, **Burr's New Pine**—**Fillmore** and **Agriculturalist**, for amateurs.

Raspberries.—**Doolittle** and **Purple Cane**, without protection, and **Orange**, **Philadelphia**, **Vice President** and **Franconia**, with protection.

Judge Knapp addressed the meeting on the subject of the wild fruits of the West, and said we might expect choice additions to our list of small fruits which are hardy, from the **Rocky Mountains**.

Blackberries.—It was recommended to mark the choicest wild blackberries, and transplant for cultivation.

ESSAYS, COMMUNICATIONS, AND REPORTS OF COMMITTEES.

Essays were presented by **A. G. Tuttle**, on "**Causes of Disease**, and Protection Necessary to Orchards." **J. C. Plumb**, on "**Adaptation of Fruits and Fruit Soils of the Northwest**." **G. J. Kellogg**, on "**The Grape**." **C. S. Abbott**, on "**Geological Adaptation of Fruits and Soils of the Northwest**." **E.**

R. Heisz, Floyd county, Iowa, on "On Practical Fruit-growing in the Northwest."

Communications, which were referred to the proper committee, were read from P. Barry, Rochester, N. Y., urging the Society to report to the American Pomological Society. From Dr. Geo. W. Miner, Mackinaw, Ill., interesting items of personal experience in grape culture. From Samuel Edwards La Moille, Ill., an instructive paper on his favorite topic, "evergreens," and a note from W. B. Davis, publisher of the *Wisconsin Farmer*, offering the Society the free use of the columns of his paper as our medium of communication, individually and collectively, on horticultural subjects.

The committee on the decease of L. P. Chandler, reported the following:

Resolved, That in the death of L. P. Chandler, in the early part of the past year, we have lost from our ranks an active member and a devoted lover of horticultural pursuits, and the nursery profession, a reliable and upright representative, whose frank, open-hearted manner of dealing is worthy of imitation, and commendable to the brotherhood.

Resolved, That we tender to his family our deepest sympathies in their irreparable loss, and assurance that we shall ever cherish the memory of his virtue in our heart, and his name in our record.

Resolved, That our President is hereby instructed to appoint a committee to prepare a record of so much of the biography of the deceased as may be desirable for our published report.

The exhibition was a pleasant entertainment, in the rooms of the Gymnastic Society, and well attended by citizens of Madison.

The show of fruit was small, but with the display of sealed and preserved fruits, winter boquets, and wreaths of evergreens, all most tastefully arranged, it proved an attractive feature, and it was easy to see that by a general effort on the part of members from abroad to bring in fruits, this new feature in the programme, could be made a most brilliant and paying department.

There were five collections of apples on exhibition.

Report of Committee on Fruit.—The committee on fruit would report that they have carefully examined the several collections submitted, and make awards as follows:

1st premium—"Best ten varieties," to collection No. 2.

3d.—These collections are all that come within the requirement of the premium list.

Collection No. 1, by C. M. Plumb, of Lake Mills, consists of twenty-two varieties, viz: Seeknofurther, Northern Spy, Red Romanite, Perry Russett, Golden Russet, Edgar Russet, Sweet Wine, Dumelows, Yellow Bellflower, Canada Black, Vandevere, Fall Pippins, Pennoc, Jersey Black, Jersey Pippin, Rhode Island Greening, Flushing Spitzenburg, Lake, Black Detroit, Blue Pearmain, Newark Pippin, Dominie.

Collection No. 2, by same, consists of twelve varieties, viz: Northern Spy, Golden Russet, Pennoc, Seeknofurther, Pound Sweet, Winter Golden Sweet, Willow Twig, Black Detroit, Blue Pearmain, Greening, Sweet Wine, Fameuse.

There were offered by Geo. J. Kellogg, of Janesville, several varieties of apples named. Some specimens from J. S. Stickney, of Wauwatosa—a sweet winter called "Weaver," new and promising, and "Southern specimens of the Ben. Davis."

Mr. Tuttle presented specimens of a "Seedling Russet," very like the Golden Russet, of fine quality.

Mr. Libby presented specimens of a new and beautiful seedling early winter apple, called "Lincoln"—too much impaired to judge of its quality.

Mr. Geo. W. Huntley showed a fine collection of Southern apples, which were hardly recognized, from their evident growth upon a soil full of humors or an atmosphere of fogs.

Mrs. J. C. Plumb, exhibited a fine collection of sealed fruits, pickles and jellies.

Mrs. Stevens exhibited an orange tree in fruit, which was a pleasing novelty.

The decorations of "winter boquets," composed of eternal flowers, grasses and evergreen sprigs, were well arranged to give finish to this exhibition.

M. H. P. HOGAN,
D. W. ADAMS,
JOHN NICHOLS,
Committee.

Resolutions on Exhibitions.—It was resolved to hold a summer exhibition at such time and place as may be determined by the executive committee, provided any local society will offer reasonable inducements.

The committee on next fall's exhibition reported follows:

"That the executive committee be instructed to confor with the State Agricultural Society, in regard to holding our annual exhibition in conjunction with them, but that said committee be instructed to make no arrangements with them that will not bring into our treasury at least one thousand dollars; our society making its own premium list, and paying the same out of funds received as above; and in case of failure to make the above arrangements, the committee are to arrange for an independent exhibition.

F. S. LAWRENCE,
O. S. WILLEY.

A minority report was submitted by J. C. Plumb of said committee, which provided for leaving the matter of exhibition in the hands of the executive committee, to arrange on best possible terms for the interest of the society. The majority report was adopted.

University Lands.—The committee on the use of "five acres of state University land," reported by Geo. J. Kellogg, Chairman, "that the application for said land be referred to the executive committee for the ensuing year.

Fraudulent Exhibitors.—A resolution was adopted, "that any member of this Society offering fruits for premiums, except in the name of the grower, the whole collection so offered shall be rejected, and the offense be such as to reject such members from the society."

Honorary Members.—The following gentlemen were elected honorary members, viz: W. B. Davis, of the *Wisconsin Farmer*; Messrs. Emory & Corbet, *Prairie Farmer*; Mark Miller, *Iowa Homestead*; Dr. Wm. Kendrick, author of the *American Orchardist*; and D. W. Adams, of Iowa. Also the editors of all the horticultural, agricultural and local papers that have published liberal notices of our meeting.

Constitutional amendments were made, but as they relate to a constitution now obsolete, we omit them. See present constitution at the end of this volume.

A resolution of thanks was adopted: "In behalf of those from abroad in attendance on this meeting, we would tender our acknowledgements to the Madison Horticultural Society for their noble hospitality and brotherly welcome, and to the citizens and hotel keepers that have so liberally opened their doors for our comfort."

The committee on nominations, reported the following list of officers for 1867:

President—Joseph Hobbins, M. D., Madison.

Vice-President—J. C. Plumb, Madison.

Recording Secretary—O. S. Willey, Madison.

Corresponding Secretary—F. S. Lawrence, Janesville.

Treasurer—Geo. A. Mason, Madison.

All of whom were elected.

And the Society adjourned to meet at the fall Exhibition.

WISCONSIN STATE HORTICULTURAL SOCIETY,

ASSEMBLY HALL, Sept. 26, 1867.

During the fall Exhibition of the State Societies, a meeting was held in the Assembly Hall of the Capitol, for discussion. The President being absent the Secretary called the Meeting to order, and Corresponding Secretary, F. S. Lawrence, was called to the chair.

The discussion turned upon the subject of

Grapes.—The question being whether the Concord should stand first on the list, or should be displaced by the Delaware.

Mr. Adams of Iowa, could raise more pounds on the Delaware than on the Concord; with him it was a strong vine, and often bore the first year after planting. The Concord was more successful with careless handling, and therefore was preferable.

Mr. Lawrence thought the Delaware would yield as much or more than the Concord. It requires very rich soil. The joints of his vines are at least nine inches, while the Delaware are but two or three; though the vines often grow fifteen feet, and mature as well as the Concord.

Mr. Townsend had Delawares three years out, and had cut fifteen pounds of fruit from one-half a vine, while the other half was used for layering. The fruit is better in flavor and in every other respect.

Mr. J. Y. Smith inquired if it was difficult to propagate. He had heard it so stated,

Mr. Lawrence said these were more difficult than some others.

Dr. Hobbins, the President, who had come in a few moments before, agreed that it was more difficult to propagate. But to prove the comparative value of the two plants, he would place at the disposal of gentlemen two plates of each, and appealed to their tastes, as his argument on that point.

(He offered about a dozen sorts, and an informal recess was taken for the benefit of the tasting committee.)

The conclusion seemed to be in favor of propagating the **Delaware** by single eyes in layers. A majority of the voices were in favor of allowing the Concord to stand as first on the list.

The Delaware being called for the second place, Mr. Plumb said he had voted to place this first. It was a grape just as easy to grow as the Concord, even if as a rule one did have to wait a little longer, but when grown, one had a grape worthy the care bestowed upon it. He advised everybody to plant it.

Dr. Hobbins had heard it objected that the birds eat it. That, with him, was a recommendation—birds had good taste.

Mr. Lawrence thought the time was near when the Concord would be left off the lists.

After considerable more discussion, and an attempt to reconsider the vote placing the Concord first, the Delaware was passed as second, and the Diana as third.

Strawberries.—Mr. Kellogg moved that Wilson's Albany be placed first on the list of strawberries for general cultivation.

Mr. Lawrence objected to such action by the Society. There were other strawberries just as productive, and of much better flavor. People are beginning to distinguish between poor and good flavored berries, and it is time, he thinks, that horticultural societies made an effort to keep pace with the progress of the people. He thought that the Agriculturist in all other respects as good as the Wilson's Albany, and in point of flavor, better.

President Hobbins agreed with Mr. Lawrence in theory. He could recommend the Agriculturist first, because it yields well, is of good flavor, and hardy. He would put Russell's Prolific second on the list. It, too, is hardy, prolific, and of superior flavor. Third, he would put Wilson's Albany, which yields well, and is good for preserves, and that it is all it is good for.

Mr. Lawrence thought the Society, if it put Wilson's first on the list, would get ashamed of its action within five years, and members who voted for it would be unwilling to acknowledge the fact. In Boston it was discarded, and scarcely known in the market. In New York, Knox's Jucunda, grown in Pittsburgh, out-sells it three to one.

Mr. Kellogg said if he got ashamed of his vote in five minutes he would then change it; but now it is popular, prolific, and profitable. It sustains much the same relation to other strawberries that the Concord grape does to other grapes. It grows well everywhere almost, while the Agriculturist fails in many localities.

Mr. Manning, of Massachusetts, said he desired to correct the gentleman who said the Wilson was scarcely known in the Boston market. The Wilson was more grown in the vicinity of Boston than any other variety, and he believed he was safe in asserting that more Wilson's Albany strawberries are sold in the Boston market than of all other varieties put together. Planters

who have clung tenaciously to Hovey's Seedling and other varieties, are now planting largely of the Wilson, because of the popularity and profit.

Judge Knapp moved to amend Mr. Kellogg's motion, and substitute the Agriculturist in place of the Wilson. The Agriculturist he called superior to the Wilson in favor, more, at least quite as prolific, bears a second crop the same season, and has strength of plant to take care of it. He regards the Agriculturist as much superior to the Wilson, in point of flavor, as the best Delaware grape is superior to the common frost grape.

Mr. Plumb said he had no doubt that Judge Knapp and others recommend the Agriculturist honestly, but we generally know too little of it to recommend it for general cultivation. We do know the Wilson's Albany, and it hardly requires our indorsement.

Mr. Knapp said everybody is disgusted with the Wilson. Why recommend it all? it is sour and has no flavor. The Agriculturist is as hard and carries as well as the Wilson to the market. We shall never advance in the way of better fruits at this rate of progress. This Society should lead the people.

Mr. Lawrence said that at Janesville the past season, the Wilson had sold at ten cents per quart, when other varieties were selling at fifteen and eighteen cents.

President Hobbins said these varieties had been on exhibition by the local Horticultural Society here, and in the judgment of experienced men the relative merits of these fruits were as named in their respective order; 1st, Agriculturist; 2d, Russell's Prolific; 3d, Wilson's Albany. The Jucunda was devoid of flavor, hollow, and he would not have it in his garden.

Mr. Willey could not consent to place the Agriculturist ahead of the Wilson. It (the Wilson) does well everywhere. More berries were obtained from it on the same ground than from any other strawberry. Agriculturist plants were hard to propagate. He was not prepared to place the Agriculturist at the head of the list. He regarded the Wilson a good flavored berry when ripe. It required a little more sugar than some others but it does not lack strawberry flavor.

Mr. Lawrence did not agree with the last speaker as to the difficulty of propagating the Agriculturist. From a single plant in his possession two or three years ago, he had supplied the whole city of Janesville with plants.

Mr. Willey said he knew the Agriculturist to be a good fruit, but we did not know enough about it to recommend it for general planting for profit throughout the State.

Mr. Kellogg—The Agriculturist is not enough known in this state to warrant us in placing it upon the list.

The amendment putting the Agriculturist in place of Wilson's Albany on the list for general cultivation was lost, and the original motion prevailed.

Raspberries.—Judge Knapp moved to recommend the cultivation of the Fastolf raspberry for general cultivation. By laying down the canes in winter he had found he could grow four times the quantity of berries that he

could get from any strawberry. It is a soft fruit, and will not carry well; but as a family fruit is quite worthy of more extended cultivation.

Mr. Willey said Fastolf was an excellent raspberry, but because of its tenderness it ought not to be placed first upon the list. We must look for a hardy and productive fruit first in every class, and then consider the quality. It will not answer for nurserymen to fill orders for good raspberries with the Fastolf; for if it should happen to get into hands that would not properly care for it, it would destroy his reputation in that neighborhood. The way must be paved with something sure to bring results

Mr. Manning, of Massachusetts, said black raspberries do not sell well in Boston. No raspberry endures the winters there except Philadelphia and Doolittle's black cap, without covering.

Mr. Kellogg moved to place the Doolittle first on the list of black caps, and the Purple Cane first on the list of red raspberries.

Mr. Plumb—The Purple Cane is not a red raspberry. It is a purple cap berry.

Mr. Smith said that the Fastolf was hardy and productive with him. It is an excellent flavored berry. Black caps do not amount to anything with him. The Fastolf will not stand the winter in all localities; and it should be transplanted to new grounds every third year.

Mr. Knapp said the black cap berries might be good in Pennsylvania, where they have five feet of rain, but in Wisconsin they do not do well. He has seen as good black caps in the woods as the Doolittle. In this climate the black cap berries are not pulpy and juicy; they are all seeds; and you cannot get good berries of them unless you water them profusely.

Mr. Plumb said a neighbor of his in Rock county sold the past season, from one-tenth of an acre, \$60 worth of Doolittle's black cap in the Milwaukee market, at 28 cents per quart. Too much could not be said in praise of the Fastolf, if it was properly taken care of; but it requires care and protection. Climate may affect the profit of the culture of the black caps, but there is no question as to their profit in Wisconsin.

Mr. Kellogg had grown the black cap for years. Has no difficulty in getting good fruit. It requires good culture.

Mr. Stickney grows and markets black caps, and finds it profitable to do so. He moved to amend previous motion, and recommend Doolittle's black cap for general planting, because of its hardiness and productiveness; and Fastolf, because of its flavor and productiveness, with protection. The motion was adopted.

A gentleman said he was surprised not to hear the White Antwerp mentioned. It was a most productive and excellent fruit, and has the merit of keeping in the place where you put it—not running, like the Fastolf, all over a ten acre lot in two or three years.

President Hobbins said the calling up of the White Antwerp was timely and proper. He had hoped the Black Cap would not be put front on the list. Hudson's Orange, Philadelphia, and others ought not to be ignored. The

Philadelphia is very productive, but for quality he likes the White Antwerp the best; does not regard Black Caps, as grown in Wisconsin, worth eating.

A gentleman asked if any one knew a hardy red raspberry.

Dr. Hobbins said he did—a seedling which originated in Mr. Carpenter's garden, in this city. It is a very good berry too.

Mr. Stickney had not heard the Hornet named. He had grown it a single year, and found it productive, large and of good flavor.

Mr. Kellogg had had it for four years, and never got any berries from it and did not expect any. He has also the Cincinnati Red, whose crop will pay the second season for all the care and cost of cultivation the two seasons.

The meeting then adjourned the further discussion till the annual meeting in January, 1868.

EXHIBITION OF FRUIT AT THE STATE FAIR.

The show at the Fair was one of unusual attraction, in all respects, and exhibited a steady and determined progress in Horticulture. Nineteen premiums, amounting to \$41 were given for garden vegetables, and four were honorably mentioned where no premiums were offered. For fruits, flowers and delicacies premiums were given in silver plate, of which 55 were as follows, viz: 27 for apples, 6 for pears, 12 for grapes and 8 for other fruits. Thirty-nine pieces of plate were given for flowers, 5 for Wisconsin wines, and 39 pieces for delicacies, &c. The German Horticultural Society of Madison received \$50; the Madison not entering for competition, and the Kenosha Co. Agricultural Society took \$30.

Mr. Samuel Marshall had a very fine collection of grapes, well ripened and bunches very large.

C. H. and J. H. Greenman, of Milton, had a very superior collection of grapes—19 varieties, including "The Janesville," his new seedling.

Mr. Atwood, of Lake Mills, had a good show of grapes, well ripened.

The most remarkable specimen of grapes was some enormous bunches of Black Hamburgs, raised by Mr. J. Stevens, in open ground.

Apples.—The show of apples was very fine, both in respect to variety and quality. Mr. Kellogg, of Janesville, had a fine assortment. He took three premiums.

Mr. A. G. Tuttle of Baraboo, had about sixty varieties, with six varieties of very large beautiful crabs—all seedlings from the small, cherry-Siberian crab. Three premiums were awarded to him.

Judge Clark, of Baraboo, had a very large and fine assortment. He received the first premium.

Mr. Peffer of Pewaukee, had 12 varieties of plums, 23 varieties of pears, and a large assortment of fine apples, several varieties of grapes, among which was the white Muscatine.

Mr. Thomas Howland, of Pleasant Prairie, had a very large variety, 120, made up by different individuals of that town, and which helped to make up the collections of Kenosha county exhibitors.

Mr. L. Woodworth had charge of 150 varieties from the town of Bristol, Kenosha county, 65 of which were of his own raising; and seven varieties of pears.

Among the grapes were fourteen varieties from Fond du Lac, including good specimens of Ionas and Isabellas, showing that grapes can be grown very far north.

ANNUAL MEETING—1868.

FEBRUARY, 4th, 1868.

The Annual Meeting of the State Horticultural Society, convened in the Supreme Court room at 7½ o'clock P. M. The meeting was called to order by the president, Dr. Joseph Hobbins, who delivered his annual address, as follows, viz:

WELCOME.

Gentlemen of the State Horticultural Society :—It is very gratifying to see so many familiar faces at this our Annual Meeting. There is, indeed, at all times a personal and peculiar pleasure in meeting with others of similar tastes, the same sympathies and pursuits. But beyond and above the mere social gratification of such meetings, there is a sort of "higher pleasure," a deeper satisfaction in meeting from time to time men from various parts of the state and from abroad, whose lives are devoted to doing a good work; I mean to the introduction and cultivation of a taste for Horticulture.

You, gentlemen, regarded from a proper stand-point, are not mere nursery-men, fruit-growers or gardeners. You are among the pioneers not only of civilization, but you are *the pioneers* of almost all that makes a new state beautiful and pleasant to live in. The work you have commenced in this, as yet comparative wilderness of the Northwest, seems lowly and humble, but as sure as you now live, the fruits of your labors will follow, and our valley and hills shall laugh with the gladness that you have made them to know.

Besides, gentlemen, your work is not confined to the beautiful alone. Horticulture is something more than a beautiful art. It ranks with those arts the most useful, and not only ranks with them, but is indeed, historically considered, the mother of all other arts. That which God initiated and indicated as the occupation of the first man needs no praise. We cannot exalt it, nor is it in the power of man to abuse it. The day will come, gentlemen, when our heads shall be low beneath that green sod we are now so devoted to, but the earth is full of gratitude to those who know her, and what better or more grateful memento could be wished for than the pleasant places we leave behind us for our country and those we love? What can give us more delightful satisfaction than the consciousness that we have been, in our day, the humble imitators of them who set us the first example and gave us the first lesson in this, our beautiful science and art of horticulture.

Gentlemen, with these few and unstudied expressions concerning our pursuit and ourselves, I would tender you a sincere welcome and express the hope that our meeting will not only be a very pleasant one, but profitable to all who may take part in it.

Having thus performed part of a pleasant duty and finding that our Secretary, Mr. Willey, is prepared to do another part, formally giving you a full report concerning our society doings, its policy and prospects, I have only to acquit myself of the remaining part, by redeeming the promise I made you at the State Fair, to the effect that I would give you my views of and experience in grape growing in Wisconsin, and will now address you on this subject, if agreeable.

GRAPE GROWING IN WISCONSIN.

Gentlemen, you who are acquainted with me know that I have a "hobby," and that my hobby is experimenting in grape growing—with mode of culture, for this state. That I have ridden my hobby pretty well and pretty faithfully needs no other evidence than the position I occupy here to night, as your president, a position unsought and unexpected, and which, though it has given me some labor and occasionally encroached upon my time, has given me also much pleasure.

I allude, gentlemen, to my position and to my hobby only for the purpose of showing to those who are unacquainted with me, or who may, hereafter, feel any interest in what I shall say, that if not to the "manor born," that is, if not a professional vineyardist, I at least know of what I speak, and that you were in some measure, if not justified, at least not blameworthy in asking me to give you this address.

Some nine or ten years ago, after having become tolerably well acquainted with our climate, our soil, its surroundings and indigenous vines, I became firmly impressed with the belief that this could be made a grape-growing and a wine-producing state. I then began to plant a few varieties of vines—or rather the same variety of vines with quite a variety of names—(such were the many modes of doing business in those days), in order to test my opinion. Soon after, I visited Peter Kehl's vineyard of Isabella and Catawbas, at Sauk, (sent him his first Concord) and came back established in the belief that my opinion was correct. From that time to this I have planted in my garden, probably some 129 to 130 of what have been considered the best varieties. Now, I make it a rule never to plant a vine *because it is a vine*, but only after learning something good of it, or receiving it from those, whose sending is a guaranty for its trial. Every fall I continue to throw out a number and to replant with other varieties—retaining none that are not good, good in ripening wood in due season, *good* in fruit and in bearing, and *good* in being free or comparatively free from disease. Under this mode of acting I still have 72 varieties left. Not that I mean that I have tested all these—for some are still undergoing their trial—but a sufficient number for eating and wine-making I have tried, proved, and shall give you some account of presently.

With these preliminary remarks—for it seems to me only proper that he who undertakes to teach others should show (modestly it may be), his qualifications—I will at once address myself to my task.

Climate.—Pick up any treatise you like on grape growing, and you find where spoken of at all, that the climate of this North-west is written down as unfit. And the opinion would no doubt be perfectly correct, if the controverting facts were less stubborn things. The isothermal character of our State, as written, is bad for us grape men, but as proven, is not bad at all. Grapes, at least the best varieties, ought not to grow here according to those who write of our climate in connection with grape-growing. But grow they do, and that too of the best kinds, and to perfection in quality, quantity and size, as you have all seen, particularly at the State Fair of 1867 and 1868.

Our summers, though short, are fierce, and what they lack in length is amply made up in intensity and the warm character of our soil. With the soil of Massachusetts, our grape-growing would be something like theirs—almost a failure. Hence it is that Eastern, and Southern, and Middle State men, judging by our latitude, are fully impressed with the belief that we cannot grow grapes in Wisconsin. Two years ago a party of gentlemen, amateur grape-growers, from St. Louis, visited my garden in the grape season. They came, believing that our grape-growing was a pretension, an absurdity, and after trying with considerable diligence to find out in what way I had tied my bunches to the vine, they went away wondering how the thing was done in such a climate as ours. Even eating of the fruit did not seem to quite convince them that it was genuine and grown in a legitimate manner. Seeing with their eyes, they saw not; yet the grapes were true grapes.

We might, gentlemen, have a better climate, i. e., one that would give us less trouble in protecting our vines in the winter, but we might also have one that would give us—what we know very little of—about as large an amount of disease as our neighbors in the East, in the Middle and Southwestern States complain of. Our State, in respect to grape-growing, is only another illustration of the wonderful and beautiful law of compensation, which we seldom fail to find in nature. What we lack in season is made up to us in soil. Our soil is suited to the character of our climate. I can say, with truth, and without fear of contradiction, that our climate inflicts less injury upon our grape vines than upon anything else that we grow in our gardens or orchards.

Soil.—According to almost every practical grape-grower, who writes upon grape-growing, a stiff clay, with sand enough for disintegration and plenty of lime washings, is the very best soil of any other for the vine; and this is the soil that we have so much of in this State. My own experience is confirmatory of this opinion, which seems to be generally admitted as true. I know that our old friend, Isaac Atwood, (as good authority as any we have in Wisconsin,) says that the vine will grow anywhere and everywhere in the State,

in any soil, in any part, high or low. This may be, and undoubtedly is, true to some extent, of some vines, but the question should rather be, in what soil they can grow to the greatest advantage. The vine would seem to be, in Mr. Atwood's opinion, a moral philosopher, with a taste for poetry, finding "good in everything," but it has, as we know, its favorite habitats, and among these none seem to suit it better, and scarce any so well, as our rich, warm, stimulating and generous lime-washed clay.

Treatment of the soil.—I know of no other proper treatment of such a soil as now spoken of than that of breaking it up thoroughly—pulverizing it to a depth of twenty-two to twenty-four inches. This is exactly what I did with my garden, trenching it two feet deep by measure. The digging of holes, or pits, or conversion of your land into a sort of grave yard, a place for bones and dead animals, or, as some do, into a kind of limestone or rock quarry, for the vine, is mere nonsense. I have tried all these methods of soil preparations, and others too absurd for consideration, and the simplest—the one I have recommended—the only one recommended by practical men, by experience and by science, is the best. I repeat, for where so much importance attaches, repetition is admissible: the *only* preparation the soil requires for grape growing is simple, thorough breaking up to a depth of twenty-two to twenty-four inches. But what of manure? some one may ask, and the answer is, *none in the preparation of the soil.* There are many reasons for being thus apparently dogmatic on this point, but the reasons are as sound and scientific as they are numerous. To discuss them, however, at this time would occupy too much space; otherwise they are as interesting as they are useful to know. As to after-treatment of the soil, after the first or second year, when the vines are thoroughly rooted, if it is thought that the soil requires any enriching, it should be treated with surface manuring very sparingly laid on. I give mine scarcely any, but when the vines are bearing well. I scatter over and around the borders, during the winter, a rather plentiful supply of wood ashes, lightly forking them in when spring comes.

Aspect.—The best aspect for grape growing in our climate is, by reason of the shortness of the summer, that where the vine can get the sun all the day long. The next best, the southeast or southwest. Some vines, like those which are rather late, want the most sunny situations, while others, like those which have but a scant foliage, require a situation more sheltered from the sun. There are, however, a variety of ways of adapting your vine to the situation you plant in. As for instance, if you wish shelter for a tender vine, like the Rebecca, which is planted where it is exposed to the sun all day, supposing your vine in any open space, plant at its back a vine of heavier foliage; or, if like the Catawba or Anna, needing more warmth, plant against a tight fence, facing south or southwest.

Elevation.—The elevation of the ground you plant on, is almost, if not quite immaterial, provided it is sufficiently *drained*, and protected from the

cold moist air and early and late frosts, drifting from still lower and undrained lands. I should, however, prefer an elevated situation, where protection could be had from our strong southwest wind which I find is the worst enemy to grape-growing we have.

Modes of Propagating.—As to the best method of propagating the grape vine, there is every variety of opinion, some arising in uncommon sense and some in very common selfishness. I am not disposed to discuss conflicting opinions just at this time, but shall content myself by saying what I find, and therefore what I know to be the case, that for the *buyer* there is but one kind of propagated vine worth buying and that is the *cutting*; not the poor, half-grown cutting, but the cutting that is *thick* and *strong*, made not only for growing wood but for bearing fruit in abundance and of good quality. The man who buys a poor cutting, a small straw-like thing, is a fool, and he who sells one is no true nurseryman.

I know of no other guaranty that we can have for a good vine, other than a strong cutting. This raising from single eyes is a very paying plan for those nurserymen in the East, who live in glass houses, have plenty of money and an equally plentiful lack of conscience. For them they can afford to ignore nature and apply steam to vegetation that knew no existence during the steamy days of creation. My experience with vines raised from single eyes is just what one might naturally expect. They are weak, and like all other weak organisms, are very subject to disease. Weakness means want of life and also a strong tendency to death. I care not, however, how the vine looks, since I know that it is as impossible in vegetable as in animal life to get good fruit where there is a lack of vitality. So too with propagation by layering, so commonly practiced by our nurserymen in the West, only however for want of capital to build glass houses. It is held and I think with justice, that such a mode of propagation is injurious to the parent vine, and that it is impossible to continue this system with any vine, without weakening its plants. Besides, there is another objection which is said to apply here. I mean the *sporting* of vines. A layer does not always follow the habits of its parent, and therefore is not always to be depended upon. In making these remarks however on layering it is always proper for me to say, that I have had but little experience in the system, nor have I any experience in raising vines from seed. In raising from cuttings, I select none but perfectly ripened wood, of good size, cut them, in the middle of November, to three or four eyes, or if the joints are long, but to two eyes, and a piece of light soil having been prepared for them on the same day, with the garden fork, I run a line the length of the bed and then forcing a spade into the earth about four or six inches, as the cuttings may require, from end to end of the line, opening the earth some ten inches at the top. I have a narrow trench in which I place the cuttings, four inches apart, for the convenience of digging up again, placing them in the trench obliquely. The row being completed, the trench is carefully closed by slowly treading it together, a foot on either side of the row, leaving an inch or so of the cut-

ting with the eye above the ground. So soon as this is done, I cover over with four inches of loose stable litter and it so remains until spring. My cuttings are planted about eighteen inches apart in the rows.

I do not know that this plan has any advantage over that of bringing the cuttings in bundles for the winter and planting in the spring. But as it seems to me it is much more convenient. The soil is in a finer state. There is more spare time than in the spring, and while the cuttings are in your hand it makes but one trouble to plant them. Having always pursued this method I cannot draw any comparison between the success that attends it and that of spring planting. But I have no reason to complain. I know that it is customary in milder latitudes to plant out-cuttings in the spring. For them, where they give no protection, their plan seems best, but for us where we must give protection, I think the fall planting equally good. But a question of some interest may be raised here, whether the cuttings of all varieties can be successfully trusted to this mode of treatment. So far as I know, they can, though there is a different amount of success attending the different varieties of vines. I shall, however, be better able to meet such a query another year, as I have planted just fifty varieties of cuttings last fall. The success seems to me to depend rather upon the character of the soil and protection than upon the vine itself. The great desideratum being a light and sandy soil.

Planting.—I prefer to plant in the fall, and for many reasons I would recommend fall planting in preference to planting in the spring. To those not conversant with vines, I would recommend the purchasing of what are called two-year old vines, and would say to them by way of caution, that if occasionally they find a vine is not doing well the first year—for instance, that it is mildewed to some extent, or does not make a vigorous growth as promised by its habit or by the nursery man—they are not to pluck it out, as I have been accustomed to do, the first year, and throw it away. Vines are subject to accident, and in such a case, if the vine is of a valuable or rare variety, I would say, have patience with it another year, and very generally you will find your patience rewarded with success. It was my rule for several years, on finding that a young vine planted in the fall or spring had not made a pretty good growth and ripened a fair share of wood by the following fall, to throw it out as worthless or too tender for this climate. Such a practice, as experience has taught me, is injudicious and determines nothing. I now invariably give a two years' trial, and have been rewarded by raising some of the finest and best vines in my garden.

The operation of planting, though one of such common practice and apparently so simple in its performance, is, in reality, an art that few possess. Probably one half of the failures in the growing of vines arises from the careless and ignorant manner of planting. How common a thing it is to hear one man declare that almost everything *he* plants fails to grow, while another with equal truth will report that everything *he* plants is sure to grow. Now is there any accident in the matter in either case? It is only a case of ob

servance and non-observance of the great law of compensation, alluded to before, as governing so many of our horticultural operations. *The secret of success lies in this, in giving to the vine just taken up the same condition of things as it possessed before removal.* The same depth, the same direction of its roots, the same kind of fine particles of earth about its rootlets, and protection for a time against drouth and cold.

In planting my vines, I use no spade, I dig no grave, no hole, but the soil just prepared and in good condition, with my hand if the roots are small, or with my trowel if the roots are large, I scoop or gently push on one side, the earth to a depth of from four to five inches; and over a space large enough for the natural spread of the roots. I now put in a stick which is to support the vine in its growth and then the plant. The stock occupies the highest part of the cavity, its neck being nearly on a level with the surface of the ground, and the roots are inclined downwards to a depth of four or five inches, being made, by the careful manipulation of an assistant, to assume their original direction, while the fresh earth is sifted through the hands over them. The earth removed is now pushed in and over this a proper amount of mulch, heavy for the winter and light for the summer; the summer mulch being allowed to remain around the plant for the first two years. With this mode of planting, giving it as near as may be, the same conditions it was before possessed of and conducting the whole operation with a sort of kindly care, I very rarely fail.

The distance at which vines should be planted from each other, is usually governed in a very arbitrary manner. In vineyards of course where the vines of one variety are planted over a given space, one and the same law may with propriety obtain. But in gardens where it is customary to grow several or many varieties, such a system is not proper. I know the books say plant so many feet apart, two or four or more, but when you consider that vines differ in their nature and habits, one being a rampant and the other a shy grower, one having a dense foilage and another scarcely enough, one requiring to be almost constantly thinned out and the other very little thinning, one wanting manure—high living, and another moderate, and still another poor fare, then I doubt not you will agree with me that it is not wise or philosophical to attempt to govern all by one law. There is, gentlemen, as much difference in the nature, character and habits of our vines as among our children or ourselves, and it is only by the careful, the watchful study and knowledge of these peculiarities, that we can or ought to expect to lay down laws for proper government.

Besides, even vines of the same variety will sometimes differ in their habits. Circumstances, not always easy to detect or determine, make it necessary to give to a particular vine a little more latitude, though its fellows of the same variety, may, as a rule, do best with less. And so, with another, that should be a strong grower, you will find some seasons that it has not done so well. That is, that it has not made so much wood, or such large canes, or ripened its wood so early or so thoroughly, or borne so much fruit, or such

large bunches, or has not ripened its fruit so equally or so early as usual. In this case I cut away an adjusting proportion of the arms, in the fall, and giving the vine less to do, it requires less space, while in the other case I give more length of area and more space, and where I find I have not yet given space enough, I allow a safety valve cane or two. It is very important in grape-growing to ascertain how much work your vines will do well and continue to do, in order to avoid the evils and diseases from overbearing and consequent exhaustion, as well as to avoid an insufficient yield.

I plant my vines, for the most part, in accordance with the views just expressed, some of them four feet, some six and some eight or more feet apart, giving myself room to treat each vine according to its own particular requirements. And until the individual character of our manifold varieties can be locally ascertained, and we have as it seems to me very little of such knowledge yet, I think it is absurd to be governed by any other practice.

Training the Vine.—Among all the manners of training the vines, so far as I have tried them, or seen them tried, I prefer, especially for this State, and use the double-arm system. It is convenient for culture and care, being most easily and completely attended to. And as I carry my vines only five feet high, it is not liable to injury from our high winds—keeps the fruit near the ground, where it ripens better; where it is less likely to be injured by those strong frosts which occasionally visit us out of season—and as another recommendation, in gardens it requires but little space. It yields as much if not more and finer fruit than any other method, and as yet I know of no objection to it. It is unnecessary for me to dwell upon the manner of training the vine by this system or to describe the system itself, as it is to be found in every book on grape growing and probably in most of our grape gardens.

Pruning.—Nor do I believe it is necessary for me to say more about pruning than that I prune about the middle of November, believing, as I have found, any other time to be ruinous to the vine.

I know the German prejudice in favor of spring pruning, and I have tried it as well as seen it tried by others. I cut back a good, strong, three year old Northern Muscadine, upon one occasion, in the spring, and the bleeding and shock to it was so great that it did not fruit until the third year afterwards, and I have seen the same consequence to a remarkably fine Catawba or Isabella—I don't just remember which—large enough to cover the front of the house, although treated by its German owner, who advocated spring pruning; and while I would not be understood as asserting that such ruinous consequences always followed spring pruning, I do not hesitate in saying that while no objection, so far as I know, can be urged against fall pruning, very strong objections are raised to pruning the vine in the spring.

The vine, as we know should be covered for a week or ten days after pruning. It ought to be exposed to some cold weather—a sharp frost or two—otherwise it is apt to bleed in the spring.

Laying Down.—In connection with pruning there is a matter I would say a word or two about, for the benefit of beginners in grape growing, and that is on laying down the vine. Begin by laying down in the direction you mean to continue laying down, and you will find after the first year you will have little or no trouble in bringing your vine, however thick it may be in the stock, almost close to the ground. *Lay down in the same direction every year.* This to be done easily and without injury to the vine, or inconvenience to yourself from bad weather, should be done at the time of pruning. At such a time the vine bends more freely. With the stocky and older vines I sometimes use forked sticks, which are driven into the earth, forcing down the vine as near the surface as possible, which practice saves both labor and material in covering. Winter protection is afforded, where there is plenty of space, by earth, and, where things grow pretty close to each other, by loose stable litter. I use the latter, putting it on from three to five inches, according to the exposure, or the more or less hardy character of the vine.

Diseases.—With regard to the diseases to which the vine is subject, I know too little to be able to speak with authority. The little that I do know, however, (for here we have not so much opportunity to learn, as we find so little of the disease that prevails in other states,) I say the little that I do know, has led me to think that rot, and mildew, and yellow leaf are not at all owing to our climate, but simply and certainly to the purchasing of vines propagated from single eyes by steaming and artificial heat, as is the case with nearly all the vines I have received from the East. In them, as I say, mildew, for the first year especially, generally shows itself, and sometimes yellow leaf, even when the vine is old enough to bear or is bearing, I have observed in similar vines in other gardens, but not in my own. The fruit too, I have seen become diseased from neglect at the right time to pinch off the laterals, letting them run until they were a foot or so long, and then stripping them off in a sudden and wholesale manner. After such treatment the grapes sometimes rot, at other times fall off singly or in bunches. These are diseases of debility, and time and care, the proper strengthening of the vine is all that is necessary to remove and prevent them. I have also reason to think that much disease is incited by over-manuring. For, reasoning from analogy, over-feeding should be as bad for vegetable as it is for animal life, and equally productive of disease, as is under-feeding. The only vines which I know that require a little good feeding are the Rebecca, Allen's Hybrid and the Delaware.

Again, disease has seemed to me to occur from over crowding. The heavy foliated vine should be grown where the air can blow well through it, and the laterals in such vines should be kept well pinched off. A mass of foliage which neither wind nor sun can penetrate is sure to become diseased.

Insects which prey upon the Vines.—Of these we have the thrip. I find it every year in abundance upon a Clinton that I grow for shade, but upon no other vine in my garden, and as I do not care for the fruit I let the thrip alone.

The aphid I also meet with, but to a very trifling extent, but as I do not like it, I always pinch off the ends of the canes where I find it, put them under my foot and carefully rub them out of existence. The grape-vine sphynx also visits me occasionally, but is easily detected, picked off and destroyed.

There are many other interesting matters in the treatment of the vine, to which I would like to refer, but find that it is impossible in a single paper to embrace all that should be discussed, and will, therefore, enter upon the consideration of some of the varieties.

From notes made in my garden on September 30, 1867, you will not only see what was growing at that time, but the character of the vines as grown there; after which, and by way of closing, I will make a remark or two about the comparative merits of the vines grown in this vicinity.

NOTES ON VARIETIES.

Clinton—Grown for shade—every year affected with thrip—and what is worthy of observation, the only vine in my garden ever so affected; also every year more or less affected with mildew. It grows in the west part of my garden, in the mellowest kind of material, on the north-west side of the house. Is very large, people being able to sit under it, and has a foliage so dense that the sun does not penetrate through it, of course it does not bear well. The branches are not complete—are small—the berries mildew and drop, and the fruit is worthless. I propose, however, as the young vines planted along side of it, grow up, to restrain to a great degree, its growth, enrich the soil, and have no doubt of making a grape vine of it, as soon as I am ready. I said that it was worthy of observation, that this vine is the only one in my garden affected with the thrip, and it is equally worthy of remark, that it is the only one that is visited regularly from year to year with a general attack of mildew, leaf and fruit, nor is it less worthy of remark, that the aphids and the sphynxes are about exclusively found upon it—more upon this one vine than upon all my other vines put together. I have already pointed out the reason. The example is full of information and suggestion. The Clinton is a vine that does remarkably well in this climate under ordinary circumstances, and is still held by some men who ought to be judges, to be worthy of a place in a garden—in my opinion about as worthy as is a wild crab.

Isabella—Grown on the southwest side of the Clinton, forming part of the shade of the arbor, but neither affected with thrip nor mildew. Treated the same as the Clinton, i. e. allowed to run wild, laterals not touched, as they are wanted for shade at the present—bears well, bunches long and loose and irregular, and fruit good. The freedom of this vine (interlacing as it does with the Clinton), from disease in leaf and fruit, is owing, as it seems to me, to its being a much younger vine; to its not having overgrown itself; to its having a better aspect—more sun and air passing through it—and perhaps to being better drained as it is close to the well. The soil is the same as that of the Clinton. The *Isabella* thrives here.

Catawba.—Fruit not much colored, most of it green; bunches smaller than usual and somewhat loose; the poorest crop I have ever had. The vine seems to have exhausted itself two years ago, when its bearing and size of its bunches astonished all who saw it. We do not sufficiently attend to overbearing. The Catawba is not suited to this vicinity; it ripens too late, or rather, I question if it ever in reality does thoroughly ripen. The only place favorable to its maturing here seems to be on one almost naked limestone bluff.

Creveling.—Planted April, 1864. Raised by myself; has done well, borne well and grown well. I like the Creveling better and better, and place it, for growing, bearing, freedom from disease and quality of fruit, in the *first rank*. Every man who wants a grape for the palate should grow a Creveling.

Delaware.—I have nothing more to say of this than is already known. Has done remarkably well; free from disease in leaf and fruit.

Concord.—The same good grape as usual. Wood well ripened. Fruited well, but not ripened its fruit so early as it generally does, nor are the bunches so large this year, but still very fine. Free from disease.

Allen's Hybrid.—Has borne well and fruited well; branches very large and too many of them, but both the leaf and fruit, for the *first time*, somewhat affected with mildew, and a number of the berries with black rot, the first I have had in my garden. Still, I like this vine and its fruit better and better the older it grows. It is the largest vine I have, excepting the Clinton, grown for shade, and I strongly suspect that I have, in my desire to see what it would do, let it overgrow itself and hence become diseased. In accordance with this view I shall cut back both arms to a liberal extent, and shall give it fewer canes.

Union Village.—Planted May 1864. Bears well for a first bearing. A splendid grower requiring plenty of space. Canes ripe between five and six feet high, leaf and fruit healthy. Would so far strongly recommend this vine for trial.

Iowa.—Planted fall 1866, from Mr. Kellogg. Has made a strong, thick cane, but ripened only a foot high, leaf slightly touched with mildew. I have tried a dozen of these plants before, raised by myself from cuttings, and all died. From all I have seen of its doings here, I have my fears of its success.

Northern Muscadine.—Vine eight years old, has never done so well as this year. Its crop, excellent, has never been surpassed by any other variety. I think more and more of the N. M. every year. I eat more and more of its fruit every year, and I cannot help thinking that this vine is greatly underrated. I know its history; it is a lowly one. I know the opinion concerning it, entertained by men called the best judges. I know also about its proneness to drop—"the ripest fruit first falls"—and its peculiar flavor, but all

this does not prevent me speaking of it as I find it, and I could strongly and confidently recommend the general planting of it, in this State. The Concord was the abused grape, the N. Muscadine is now the abused. I am not afraid nor ashamed to predict their increasing reputation in Wisconsin.

Josephine.—A hardy, strong, vigorous grower, and good bearer of good fruit, berry and bunch fair size, rather Isabella-like in shape and color. This is a seedling, raised by myself, I am propagating it from cuttings, and believe it is a desirable grape. It has been examined by Isaac Atwood, by the late Mr. Chandler, and by other equally good judges, and pronounced a distinct variety. I have compared it again and again with all the varieties I have or could find in this city, and there is none like it. Healthy.

Rogers No. 9.—Has done splendidly in berry and bunch; large crop; long but not over compact bunches, here and there shouldered; a good grower, leaf and fruit healthy.

Rogers No. 11.—Has not done so well as last year. Has not ripened its fruit as well or so regularly, though the bunches are very large. Has made good wood, but suffered from mildew; grows north of an apple tree, is much shaded, and has too much latitude. Shall give more exposure and cut back the arms.

Hartford Prolific—Has done well, borne an excellent crop, ripened a little late on account of season; branches large and most beautiful; healthy in leaf and fruit. When I read the glowing accounts of this vine in eastern reports, I can scarcely believe that I have the vine; for in flavor, it is as far inferior to the Northern Muscadine as is the Clinton to the Delaware. It is, in my opinion, though a hardy, a healthy, handsome and prolific vine—perfectly insipid.

Rebecca.—Has done better than ever before, both in the size and number of its branches, wood ripe and leaves healthy. I ran into it this year, a stronger growing vine, on each side, and another at its back, thus giving it plenty of foliage, and it is, to thus giving it shelter, that I attribute its well doing.

Rogers' No. 15.—No vine could do better than this from year to year. A splendid crop—the largest-sized branches and berries; healthy.

Rogers' No. 3.—Has not done so well as before. Berries and bunches smaller and the latter not well filled—as I think from allowing it too much wood. It is a weaker-growing vine than No. 4 or No. 15, and should have shorter arms.

* * * * *

Having already occupied so much of your time, I will close, though I had intended to discuss to some extent the comparative merits of grapes, by saying that, I think at this early day of our grape-growing history, it would be injudicious to attempt the making of a list of those vines which

will or will not grow to advantage in this State. It seems to me to be a wiser course, to give our individual experience from various parts of the State; to compare notes from year to year, and to wait for some years before we attempt to lay down laws for what shall or shall not be grown. In the meantime we are assured of this—that there is scarcely a good vine known in the Eastern or Middle States, and very few in the South-west, but what we can grow and are growing, as it seems to us, in perfection, a fact as gratifying as it is encouraging for the future. If, in Wisconsin, we may not sit under our own fig tree, we have at least an abundance of vines, luxurious, beautiful and excellent.

REPORTS.

The secretary, Mr. Willey, then read the following report:

Mr. President and Gentlemen of the Society—It becomes my duty as well as pleasure to report to you the progress horticulturally of your Society, and in a degree of the State at large, for the past year.

It may be said with much truth and earnestness that the year 1867, has been one of great progress. Pomology has reigned triumphantly and brought forth bountifully every class of fruits and the fairest products of the earth. So fair that the recipients everywhere called it not only very "good" but the best. Eastern pomologists have viewed the fruits of the west with wonder and satisfaction, and oft times been nonplussed, at such specimens as we out west bring forth, while we assured them it was no prodigy, but only an every day affair. I repeat, Fruit has been abundant, so much so that nearly or quite our home supply was furnished from our own orchards, and for the first time that sage old fellow, the "oldest inhabitant" saw apples brought into the market by the wagon box full and shoveled out like so many potatoes. Such, pomologically, is our progress, and such too, that the faint hearted take courage, are rallying around the strong and more resolute, assisting them in forming societies for more thorough development, and the mutual benefit that may arise by frequent discussions.

Already we have a Society in successful operation in each of the following places, viz: Milwaukee, Janesville, Plattville and two in Madison, and there may be and probably are others of which we are not advised but with which we would be glad to correspond. May we not call these all children of the parent Society, at least greeting their members as heroes and the representatives of progress, intelligent laborers, men who are toiling vigilantly to sustain that which, but a few years since, was well nigh driven from our soil, and almost from the popular opinion, viz.: that fruit-raising was practicable here. This assertion, Mr. President, it is your mission, aided by your colleagues present and the members of local societies every where, to establish, and with a moderate enthusiasm it may be done, till every hill side as well as prairie farm shall bud and blossom, bringing forth fruits of its kind.

Exhibition rooms have been crowded with both fruits and visitors, to gaze upon the ruddy cheek of a Snow, the pale visage of a Talman and the rough coats of the Russets. Of the State Exhibition we may say, it was much the

largest ever held, filling with plants, flowers and fruit a building 32x80, or about 1,500 feet of table room, also occupying about 1,000 feet in addition to the above in the State Society's large tent.

To speak more minutely of the exhibition we would say that on March 22d, 1867, your Executive Committee met with the Executive Committee of the State Agricultural Society and after trying in vain to carry out the letter of your resolution of instructions, did agree upon a basis of uniting or holding a joint exhibition September 23d to the 27th, inclusive. The basis of this agreement is that this Society was to have control of the Horticultural Department, *not*, owing to the lateness of the day, changing in any particular the premiums offered, or committees as published, but *were* to fill all vacancies that might occur. The premiums, as offered, amounting in the aggregate to \$478, were to be paid our Society in money, the premiums to be purchased and distributed by this body. This is, in short, the substance of the understanding as made at the time, and which was carried out as best we could.

Of the future we are hopeful, believing that an amicable arrangement can and will be made with the State Agricultural Society, whereby we will be made the representatives of the Horticultural interest of the Fair, assuming the entire control of the same, making up the premium lists as also the committees, purchasing all premiums, and distributing the same; they to pay to the treasury of our Society a sum equal in amount to the premiums offered by them at the last Fair. This I trust will be satisfactory to the members present, and will be the source of a small income to this Society.

I say *this department belongs to us. The Wisconsin State Horticultural Society should be controlled, in this respect, by our members*, and it ought to be a source of a small income to our Association. During the last session of the legislature there was a bill introduced, known as bill 191, Assembly, relating to the growth of forest trees, which provided that the State Agricultural Society and the Wisconsin Horticultural Society shall each appoint a man, and they two a third man, which shall constitute a commission to report to the legislature upon the growth of forest trees, their effects upon the climate and and health of the State as affected thereby. Hon. I. A. Lapham, of Milwaukee was so appointed by the Agricultural Society, and Judge J. G. Knapp, of Madison, by the Horticultural Society. As the result of their labors we have, in a neat pamphlet form, this little volume of about one hundred pages, very complete in suggestions and descriptions of the forest trees well adapted to our climate and uses. All that it now lacks is to be numerously illustrated, showing the effects of tornadoes or currents of air, and to give a fuller description of the trees themselves, so that the inexperienced can trace the resemblance from the illustration to the forest. There should be an effort made to secure an appropriation for this purpose. Every member present should also make it a point to press upon his representative the necessity of publishing our report. If left for one or two to attend to, it may be lost, but if we unitedly and separately ask for it, there is not much doubt but it will be granted.

Here, Mr. President, digressing for a few moments from the train of thought thus far, I desire to draw your attention to the work and object of this Society, and the obstacles to its success.

The greatest obstacle to our progress is the business itself, viz: the tree trade and how it is done. It is time that every Horticultural body in the State raised a war-cry of extermination upon the reckless manner in which horticultural products are disseminated through the land. Nurserymen and tree peddlers alike are subjects of criticisms. The first are necessary evils, the last *immense hur-bugs*. The first cover up their sins by preying upon the shortcomings and sins of the latter. *Fruit trees, true to name should be the rule*, and the motto hoisted over the entrance of every garden. Too much care cannot be used in properly packing and labeling their trees in the nursery; for, first, it looks well; second, it gives confidence, and, third, *it avoids mistakes*, if done correctly. It is the first thing the writer looks for, and in the absence of these we say to ourselves, and would now say to your customers, Beware!

But what of the peddlers; who are they and from where? So numerous that "legion" hardly tells the tale. Once there might have been an excuse for thus tampering with men's patience, but with fruit-growing so well established and railroads at our doors, we have no farther use of these "guerillas," veritable vegetable ones at that—often not half-grown, or, perchance, over-grown, but not half-ripe. Nursery men will tell you their valuable sorts are all engaged, and if a peddler calls on you, *beware!* it is the nurseryman's trash he is offering you, and if, perchance, you live to ever learn your mistake, he has a cloak, yea, this very vegetable shields him from harm. We are glad to know that in many places this mammoth swindle is being frowned down, and is meeting only with that measure of success to which it is entitled. We would not accuse all of the trade as swindlers; far from it; but there is not sufficient care used by them and their assistants. Of the peddlers, is there one righteous found among them? Then repeat to him the story of poor Tray.

Our objects and labors are not alone to plant, though this should be done till our entire state does bud and blossom as the rose and the nurserymen's labors not prove in vain; but we are all scholars, as yet in the infant class, climbing the ladder, from which many rounds have been broken by frost and bad management. To find with what these rounds may be replaced, is a field for labor and experiment which will yield to the experimenter a vast amount of pleasure and satisfaction. The College Farm now offers us an opportunity for thus starting an experimental garden; to plant, care for and in every way possible encourage the growth of our horticultural products, under varied circumstances and make known the result to the State. We trust that some means may be devised for receiving the five acres tendered for your use, to cultivate and improve, and the time be not far distant when the members of this society may eat of their own fruit, resting from their labors under the vines their hands have planted.

For this and other purposes we need money. It will be a rallying point around

which your members will gather, and from which much good may result if the means are rightly used, and when our bodies have returned to the dust whence they came, and our labors are numbered among the things that were, then will those who come after us, mark the spot and say well done good and faithful servant. And while we may strive to be so over a few things, may we hope that it will be their lot to be faithful over many, and the little ball we may set in motion, in their hands grow larger and larger and become a mighty power.

Mr. J. Y. Smith, of committee appointed one year ago, for awarding a premium on essays, made verbal report, awarding the premium offered by the Society to Mr. A. G. Tuttle, of Baraboo.

Mr. Lawrence, from committee on Revision of Constitution, reported a new constitution and a code of by-laws, which report, on motion, was accepted.

The adoption of the constitution was postponed, and made the first order of business to-morrow morning.

DISCUSSION—GRAPES.

The culture of grapes being taken up; Mr. J. C. Plumb alluding to the President's address, said he feared that false impressions might be conveyed by it. He did not know of a grape grower who raised plants under glass. He knew there were some good plants grown in this city under glass but he did not want them.

Mr. Stickney thought nurserymen had no need to fear from anything said by the President. The public had been deceived long enough with over-fed plants, and they did not want any more of them. They had, by this, learned that 50 per cent. of such plants were sure to fail.

Mr. Atwood had bought and sold the steam-grown plants, but did not approve of them, and should no more deal in them. His preference was in favor of layering the vines. Had layered vines a number of years, and by allowing the mother plant to rest once in a while for a year, he had never perceived any damage to the old plant from the layering. He generally picks off the blossoms when he layers, but did not always do so, and he had had fruit on the layers without damaging them.

Mr. Ott had used both open air plants and glass grown, and can see but little difference. Both were grown in warm rich soil.

Mr. Greenman had grown plants artificially, or with bottom heat to start them, and as soon as started, planted them out in the open air. Thus far they promised well with him.

Mr. Lawrence thought this question of forcing plants one of great importance. He had the best and most satisfactory results from single eye plants, started by artificial heat.

The committee reported for order of business to-morrow: Varieties of fruits, commencing with apples, for discussion.

Communications were read from Samuel Edwards, President, and D. W. Scott, Corresponding Secretary Northern Illinois Horticultural Society, inviting the members to meet with them and participate in their meeting to be held in Freeport, on the 11th to 13th inst.

The invitation was accepted, and Messrs. Plumb, Kellogg and Stickney were appointed the committee on the part of this society.

The President and Secretaries of this Society were authorized to confer with the Executive Committee of the State Agricultural Society and make arrangements for a joint exhibition of the Societies in the fall of 1868.

Mr. Kellogg announced that the fruits for examination and exhibition would be arranged on the tables in this room on Thursday morning.

And then the Society adjourned to 9 A. M. to-morrow.

WEDNESDAY MORNING—9 A. M.

The Society met pursuant to adjournment, the President Dr. J. Hobbins, in the chair.

The first business in order being the adoption of the Constitution and By-laws previously reported by the committee appointed for that purpose. And the questions being put, the Report was accepted, and the Constitution and By-laws were adopted, as reported: [See this constitution at the end of this volume]

DISCUSSIONS—VARIETIES OF APPLES.

The next order of business taken up was the question of "Varieties of Apples."

On motion the Society reaffirmed its decision of last year, recommending the following five varieties as the best adapted for general cultivation, viz: Red Astrachan, Duchess of Oldenburg, Fameuse [Snow], Tallman Sweet and Golden Russet.

Mr. Kellogg moved to add to the foregoing list such varieties, as to which there shall be no more than two objections.

Mr. Plumb moved that the Sops of Wine be added to the list.

Mr. Stickney spoke very highly of the variety, as being hardy and profitable for leading family use and market purposes. This variety has been confounded with the Williams' Favorite.

Mr. Adams also endorsed this variety as being perfectly hardy and strong grown—thinks it ought not to be placed lower upon the list than second. Has raised the two, Sops of Wine and Williams' Favorite, and finds them to be separate and distinct varieties.

Mr. Tuttle's experience is the same with that of Mr. Stickney and Adams; thinks it cannot be excelled as an early apple if left upon the tree till perfectly ripe.

Mr. Greenman stated that this variety also succeeds well at Milton, in Rock County. Mr. Plumb stated that this variety is known in Rock County as the *Washington*, under which name it has been largely disseminated.

On motion of Mr. Plumb, the Sops of Wine was added as the first on the second list.

Mr. Willey moved that the action of the Society adopting the second list of five varieties be reaffirmed.

On motion of Mr. Tuttle, the Blue Pearmain was added to the list.

On motion, the "Cider" (known as "Plumb's Cider" in contradistinction to Smith's Cider of Illinois) was added to the list.

Mr. Tuttle spoke very highly of this variety, which was endorsed by Mr. Willey.

Mr. Willey then moved that hereafter this variety be known as "Plumb's Cider,"—in honor of its disseminator—which motion prevailed.

Mr. Dart recommended that the "Lowell," or "Greasy Pippin," be added to this list. After a discussion as to the merits of this variety, it was finally rejected, as it is not generally enough known throughout the State.

Mr. Stickney moved that the "Fall Orange" be added to the list, and Mr. Kellogg recommended that the "Yellow Bellefleur" be also added.

The list as amended and added to stands as follows: Sops of Wine, Fall Stripe, St. Lawrence, Perry Russett, Red Romanite, Willow Twig, Blue Pearmain, "*Plumb's Cider*," Fall Orange and Yellow Bellefleur.

On motion of Mr. Plumb, a committee was appointed on Fruits, now on exhibition for examination. Messrs. Plumb, Adams and Stickney were appointed as such committee.

On motion of Mr. Kellogg, each member present was requested to present a list of ten of the best paying varieties in their several locations.

Mr. Dart asked for information as to how far apart trees should be planted.

Mr. Plumb would, as a rule, plant twenty feet apart each way. Trees would be likely to grow till they filled the ground, and then, as they became cramped, they would commence to bear. Cramping tended to dwarf the trees and produce fruitfulness. And for this country he attached importance to the protection which the trees gave to each other.

Mr. Tuttle would make no difference in the variety of trees planted. Trees, might be set twenty feet apart, if properly mixed together, the upright and spreading alternate; while if all spreading trees were put together, such as the Tallman, there would be sufficient room for them to grow.

Mr. Dart thought this a most important point. Trees, as all know, are apt to die out, and that tends to thin them out, and unless they are set close at first they become too far apart. To do this they trimmed their trees high, and plowed close, which injured the trees. On the other hand if trees were too close they tended to grow too high. In his opinion twenty feet was the best distance; and he would offer the following resolution, which was adopted:

Resolved, That we recommend planting apple trees twenty feet each way, and devoting the whole ground to the production of trees alone, to the exclusion of any grass or grain that shall rob the trees of their due share of nourishment.

Mr. Stickney offered the following, which were adopted:

Resolved, That we recommend planting trees with heads not over two feet from the ground, and also trees of two and three years' growth, as being better than older ones.

Resolved, That it will greatly add to the success of every planter, to carefully observe the varieties that are the most hardy and productive in his immediate vicinity, or similar localities, and to plant *largely* of those varieties, rather than those recommended by any pomologist or society.

Resolved, That we ask all fruit-growers in the State to make careful records of the relative merits of the fruits grown under their observation, and report the same to the Secretary of this Society, either at the Exhibition next fall or at the next Annual Meeting.

On motion, the Executive Committee were instructed to confer with the President of the University in relation to the use of five acres of land on the experimental farm.

DISCUSSION ON GRAPES RESUMED.

The discussion on grapes was then resumed, and Mr. Plumb moved to place the Delaware first on list, and said if only one kind was wanted, he should say this was that one. It would make more wine than any other, and bear more fruit.

Mr. Stickney was grieved to have it placed second to the Concord, but was in favor of both.

Mr. Kellogg wanted to place them in the order of Concord and Delaware.

Mr. Atwood wanted the Concord first by all means. He had made twenty-five barrels of Concord wine and sent it to Chicago, and had on hand all the orders he could fill, at highly remunerative prices. He would place the Concord in the hands of all farmers. The Delaware was a good grape but it was not worthy to be placed ahead of the Concord. He had marketed many sorts and could always sell four or five boxes of the Concord to one of any other.

Mr. Lawrence said the Delaware with him was much the best. The difference was two to one in its favor.

Mr. Ott said both were good grapes, but he wanted something better than either. Concords will not keep. They soften when they first ripen, and ripen on the outside first, and the pulp is sour.

The Concord and Delaware were retained on the list as last year.

The Creveling was placed as third on the list, as an early grape, though some preferred the Hartford. The Diana was recommended for its long-keeping qualities.

DISCUSSION ON APPLES RESUMED.

In the afternoon the Society again considered the several varieties of apples, when Mr. Willey proposed that the Society make a list of five varieties for trial; and named the Lowell, Fall Queen, Ben Davis, Tetofsky and Carolina Red June.

The Alexander was suggested. Objection being made that it was too tender, Mr. Tuttle said that with him on timber soil, and clay it did well, It was a Russian variety, large and showy, but would not be good for general culture; Still it ought to be tried.

Mr. Dart was opposed to recommending any variety which had not been fully tested, and was well known.

Mr. Finlayson had trees four years planted, that bore good crops last year, It never rotted on the tree.

Mr. Plumb had known it for years, would like a few trees, but the public would not choose it much, the fruit drops badly.

Mr. Kellogg would not have one.

Mr. Adams said that in a large orchard on prairie in his neighborhood, it was found desirable.

The motion to place it on the list failed.

The *Fall Wine* was proposed, and Mr. Greenman said it sold well in Rock county.

Mr. Plumb said that formerly it did well, but of late it had failed entirely. The motion was lost.

The *Ben Davis* was liked by Mr. Kellogg, and he could recommend it, and Mr. Plumb said that in his nursery it did well, and he prized it very highly, both as a nursery and orchard tree. It was adopted.

The *Westfield Seek-no-further* was spoken of, and Mr. Tuttle said that he had been growing it for fifteen years, and had never lost a tree. He considered it as hardy as the Golden Russet.

The list for trial was made up of the Bailey's Sweet, Rawle's Janet, Westfield Seek-no-further, Sweet June, (Carolina Red June,) and Northern Spy.

The Soulard Crab.—Mr. Kellogg offered a specimen of this apple, and inquired as to its quality. (As an apple it was universally condemned.)

Mr. Stickney thought it wouldn't do as a stock for apples, and enquired if any person had made any experiments upon the crab stocks. He had made a few experiments, but not sufficient to satisfy himself. He questioned if the root won't greatly influence the stock.

Mr. Plumb thought undue weight had been given to this supposed influence. He thought it entirely immaterial as to the kind of stock used, as in his opinion the top had more influence on the stock, than the stock on the top.

Mr. Stickney favored testing this point thoroughly, and to do so he would plant seeds of the Siberian crabs, for that purpose.

Strawberries.—Mr. Lawrence moved to place the *Agriculturist* first on the list of strawberries.

Mr. Kellogg was willing to give it the second place, but he must insist on the Wilson being placed first, as it grew well on all kinds of soil, and with good culture, it would bear more than any other variety.

Mr. Lawrence said he had picked the second crop of berries from the *Agriculturist*, and had no doubt but it might be so grown as to produce the second crop at all times.

Burr's New Pine, Austin and Brooklyn Scarlet were recommended for trial, and Wilson, *Agriculturist*, and Russell were placed on the list for general culture.

The question was asked about soil and culture, and it was replied that depth of culture was considered of more account than richness, and that the runners should be kept off, if large and abundant fruit was wanted. The berry grew well on all soils in cultivation.

EXTRACTS FROM DR. PAUL A. CHADBOURNE'S ADDRESS.

In the evening, Dr. Paul A. Chadbourne, President of the University of Wisconsin, delivered an Address, from which the following are extracts:

Mr. President and Gentlemen of the State Horticultural Society:— * * The second point which I wish to make is, that the farmer's home is not always as attractive as he might make it. He does not care enough for beauty. This is a point to which I shall return when enforcing the claims of Horticulture.

But I ask, what man in the world can surround himself with all that is beautiful at so cheap a rate as the farmer, and where will you find the element of beauty so often disregarded as in the farmer's home. Why should not the most beautiful spot on the farm be chosen for the home? Why should not the money spent in building give a tasteful dwelling rather than a huge box with a roof upon it and a hole in its side?

But we will change the picture and look upon the bright side of the farmer's life. We will try to see what there is attractive in farming and how Horticulture can add to that attractiveness, and thus render important aid not only in giving us fruit and flowers, but in so adorning plain farming, that it may have new attractions for the young. * * *

Boys have been disgusted with the farm because they have been overworked and have been taught that such work would be needful all their lives, and also because they have not found on the farm that gratification of the love of the beautiful which God has implanted in every human being. We must invoke the aid of science to make the earth produce more bountifully. * * * We must in every way possible do all we can to add the element of beauty to our farms, that they may in all their surroundings, gratify the love of the beautiful. In no place in the world can this be more readily done than in this western country, than in Wisconsin. The work has been commenced. When I came here for the first time, last year, I was astonished. I knew Wisconsin was a new State, but as I looked out upon the farms of Wisconsin, clear of stumps, bordered with old oaks and young vigorous groves, the fields showing evidence of great fertility, I was reminded at once of old England; and when I returned to Berkshire county in Massachusetts, that looked to me like the new country in comparison with Wisconsin. In such a country as this, I say, where the soil is fertile and where the land is beautiful, even as it came from the Indian owners, there is no excuse for the want of beauty around every farmer's home. He has the means of securing it without the cost of a dollar, and even as a means of profit. *And to do this, he must mingle with plain farming no small element of Horticulture.* And right here, gentlemen,

do I think we find one of the greatest benefits of your Society, one of the greatest works it can accomplish. You think, no doubt, it is a fine thing to raise fruit, to secure a delicious but hardy apple or grape, and so do I. The more of these, the better. It is pleasant to eat such fruit without even seeing it upon the tree or vine. But if you can so favor the raising of fruits and flowers that a goodly number of the young men of Wisconsin may be induced to give themselves to farming, who might otherwise go into overstocked business or professions, you will do a great thing for the State. I do not think it possible for a man to become a good Horticulturist without becoming a true lover of the beautiful for its own sake. And when you have aroused in a man the love of the beautiful, I know not in what productive labor he can engage and that love be more fully gratified than in Horticulture. In a course of Agricultural education I should consider Horticulture and *Æsthetics* as being so closely united that both must be studied together. And I should consider the love of the beautiful and the capacity to appreciate it, quite as essential to a young man, if I wished to make sure of his being a farmer, as I should Geology or Chemistry. The latter may give him greater crops but the former will add more to his enjoyment and enable him with less means to make a more attractive home, and therefore, will be more likely to hold him to the farm—the very thing we wish to do.

The planting of trees and the training of the vine have been the delight of man in all ages of the world. According to the Bible account Adam was started in life as a farmer or rather as a Horticulturist. In that account, which represents man as in the most perfect state, he is put into a garden, not only to enjoy the fruits, but to dress it and keep it. "*And out of the ground made the Lord God to grow every tree that is pleasant to the sight and good for food.*" Utility and beauty were joined in the products, and the enjoyment of man came from the cultivation of fruits and flowers. Whatever may be our opinion as to the origin of the Bible, we cannot fail to see that this account is in exact accordance with the nature of man. He cannot fully enjoy the fruits and flowers of the earth, unless he does his part in producing them, and he cannot fail to be influenced by the element of beauty, if he would. The *beauty* of the fruit is something entirely distinct from its usefulness. We delight in the gold and crimson of the apple, the rich purple of the grape and plum. And beauty of form is never to be overlooked. Many a plant will be cultivated for beauty alone, though it never bear fruit or its fruits be as worthless as the apples of Sodom. We do not lose sight of this principle, even in the arranging of fruit when it is gathered; and in the clustered bouquet the highest skill may be manifested. When your President sent me a dish of fruit last fall, I enjoyed the flavor of the grapes and pears, but I have not half so distinct a recollection of that as I have of the picture of the fruit dish as I first saw it. It was worthy of the pencil of the finest artist, and I have no doubt the giver enjoyed the sight of it and expected to give me as much enjoyment through the sense of sight as through that of taste. Certainly he did, and had it been in my power to change the

clusters to stone and thus preserve their beauty, I should have done so without a moment's hesitation.

I do not believe at all, that men have left the farm because they are educated. They have left it because it has too often been carried on without the refinements of life which naturally belong to it, and which every man naturally desires. They have also left it, because so few men have been fully educated, that their services have been demanded in other pursuits. We want to have more men educated, and we want to see farming carried on as it should be and then we believe there will be no antagonism between education and farming. If any farmer will send his son to the University with the purpose of giving him a thorough education and then to take him back upon the farm again, we will warrant him that his son shall return to him loving the farm as well as when he left it, to say the least. But if he tells him he can go only two or three terms, because he is to be a farmer, then the son will most likely hate the farm, which robs him of the advantages which he sees the sons of other men enjoying. Or, if the farmer sends his son to the University, as is generally done by most farmers, who send their sons to college, having instilled into his mind that farming is a low and hard business, and that he is sent to college that he may make something else his business, so that mother and sisters, and all the neighbors expect that JOHN is to be a minister, or doctor, or lawyer, then it will probably take more than one University, Agricultural College and all, to make a farmer of that boy. And if he should have the good sense to return to the old homestead, do you not think that father, mother, sisters and neighbors would think that JOHN was not very smart after all, and that his college education was thrown away? The fault is not half so much in the college as it is in the farm and in the farmer's home. I should be glad just here to appeal to the Senior Class of the Wisconsin University. I believe not one of that class intends to be a farmer. But I should like to ask them the question if they do not have a higher opinion of farming, as an occupation, than they had a year ago—if they could not now go on to a farm with more comfort and satisfaction than they could then, and if they are not more likely to become farmers than they would have been without the instruction they have received? I believe every one of them would answer, yes. I contend that there is nothing antagonistic to farming, even in the College of Letters.

You can readily see from the view thus expressed what I think Horticulture is to do for Agriculture. It is not only to give us flowers in abundance, apples, peaches, grapes and other fruits; it is to adorn the farm, and give sources of enjoyment not possible from simple Agriculture. And we must join beauty with utility wherever we can. What act can a man perform more wonderful than to change dull clods into the petals and sweet odors of flowers, or into the apple or pear with their net work of cells filled with nectar? As a simple experiment it would be worth the trying, every year. But when we add to this the health and strength, and enjoyment which the fruits give, we have in Horticulture an employment worthy of the best man,

and a study worthy of a State Society. How wonderfully the fruits have been adapted to meet our wants both as physical and intellectual beings. To all our best fruits has been given the power of breaking up into varieties, a matter which we think little of, but one of vast significance. Were there no power in the plant of producing new kinds, we might obtain, perchance, ever kind of apple growing upon the earth and then our work would be done. No improvement would be possible in that direction. But in the seed have been placed unbounded possibilities. You may now have the best apple or pear or the most delicious grape, but next year some experimenting Horticulturist may produce another better,—you in turn may surpass him. The law of improvement is ever saying, *Onward, Upward!* And so it will be forever. In all our fruits, are undeveloped varieties just adapted to all our states, without doubt. There are apples, and grapes, and strawberries and even blackberries, I doubt not, just fitted for the State of Wisconsin. When they will be reached we cannot tell. We must unroll them, so to speak, and when the right form appears, hold it for our use, as we can, and propagate it by bud or graft. This is delightful work in which all lovers of Horticulture can engage. Raise seedlings. We may draw a prize and we shall have the satisfaction of knowing that the prize will not be taken from our neighbor's pocket but will and to his enjoyment and profit as well as our own. It seems to me that the raising of seedlings, of all our prominent fruits, is a work that ought to be undertaken on a large scale and persevered in till valuable results are reached. Certain it is, that the Wisconsin climate is now hard upon fruit trees that flourish at the South or East. It is just as certain that it gives some as fine fruit as can be found in the world. I have never seen finer specimens of apples than I have seen in Wisconsin the past season. They had a perfection of form and beauty of tint that I have never seen equalled in any other place. This means something. It means that the apple-making power is here in its perfection. It will not manifest itself to the best advantage in the varieties most popular at the east, but there is a western and north-western apple somewhere rolled up in the apple species. It needs to be unrolled. Some little brown seed that we crush or destroy may have in it a germ, that, if developed, would change all the apple growing of the North-west.

But if we consider the varieties we now have, questions arise which it will take us a long time to satisfactorily answer. Prof. Agassiz remarked last year, that a scientific man could ask more questions in agriculture in ten minutes than all the agricultural colleges in the country could answer in a century. True undoubtedly. But questions must be asked before they are answered and we must begin to answer them by careful observation and experiment or the world will remain where it is. Two points for illustration now occur to me. One is the several growths of the fruit tree, respecting which much has been said the past year. I venture to predict that thorough mulching, which shall keep the ground moist through the season, will prevent this evil. Experiment may prove that it will make it worse. I shall not be

lieve it till the trial is made. Another thing is the blight which has affected so many trees this fall. This may be a fungus, and it may be the effect of an insect. We must try to settle that next year if possible, if the disease appears. Whatever may be its cause, it would seem to be a difficult thing for us to control, because I notice it attacks the wild apple and so may hold its own in spite of us. The first step in any such case is to learn the cause, we can then judge of the means and prospect of cure.

Now, Gentlemen, I wish to call your attention to the University, for whatever I do for Agriculture or Horticulture in the State, I must do through that. A portion of ground has been set apart by the Regents for the use of this Society. As the Regents have no money to spare and I have made a little by farming in past days, I propose to present the land to you ready for planting. And if you will occupy that piece of ground and tell us what you would like to have done, I promise all the aid in my power in bringing out results that can be relied upon, so that every experiment shall be real progress. The aid of the chemist, in the analysis of soils or manures, shall be at your service. We want as a basis all that you know, and for experiment all that you "guess to be true" if Wisconsin people ever guess. I can fancy a vast benefit to flow from this to the University and to the State. * * *

But we ask you all, gentlemen, to send your sons to us with a love of farming, not despising it because they have been taught by word and deed that it is a hard life and that there is another and a better way for them. * * *

We intend to do all in our power to change all this. We do not purpose to lie to the student in order to change it because lying does not pay well, besides there is a prejudice against it among most people. We do not intend to tell him that a man half educated is as well off as one fully educated. But we do intend to give thorough instruction in Chemistry, Geology and Botany in their relations to Agriculture and Horticulture. * *

Now, gentlemen, having caught you by the button hole here, I have whispered to you, so that all might hear, what I think your mission is in respect to farming. It is to give the element of beauty as well as utility to all agricultural pursuits, and especially to lend a helping hand in promoting Agricultural Education. Although I had no hand in sending out the bills, I trust these topics will not be without interest to the Horticulturists of Wisconsin. Horticulture is to common agricultural pursuits like the blossoms and golden fruit that delight the eye and gratify the taste. While in our fertile soil, the grains and most other farm products give a certain yield and their cultivation is well understood, Horticulture is in that delightful state where much is known, but more is to be learned. To raise the new varieties best fitted for the State, and to learn the best methods for their cultivation will furnish abundant and delightful employment for the Society till its youngest member is venerable with age. And our children will find abundant room for improvement when we have left for them our best instructions. This is a work worthy of man, to labor to beautify the earth, to produce new means of rational enjoyment and leave the world better than he found it. In this noble

work I bid you God speed. But if you would make speed, you must work with system—gathering up all that has been done so that it need not be done over again, year after year, to the loss of time and money. We must, as your President told you last night, work and wait patiently until you know just what to recommend. This is the hardest thing for some men to do. If they hear that a man has set out an orchard, they expect him to sell apples the next day. We must set out healthy plants and watch them, and dress them, and prune them till they bear abundant fruit. If we adopt this sound sense principle the Agricultural Society, Horticultural Society and University together will do a work worthy of the State.

After the delivery of the address, the members again met in the Supreme Court room, and on motion of Mr. Lawrence, the following resolution was adopted, viz:

"WHEREAS, recognizing in President Paul A. Chadbourne, of the Wisconsin State University, a man distinguished in the sciences, and a practical Horticulturist; therefore,

"Resolved, that he is hereby elected an honorary member of the Wisconsin State Horticultural Society, and he is entitled to enjoy all the privileges of said society by its Constitution."

"Resolved, that the thanks of this Society are hereby tendered to President P. A. Chadbourne for his very able address, delivered before this Society, this evening, in the assembly hall, and that the Secretary of this Society be instructed to solicit a copy for publication."

The following communication was received from the State Agricultural Society, by its secretary, Dr. J. W. Hoyt, viz:

STATE AGRICULTURAL ROOMS,

February 6, 1868.

DR. JOSEPH HOBBS, *Pres. State Horticultural Society*:

SIR:—In response to the proposition submitted by the committee of your Society on yesterday, for a joint exhibition of the State Horticultural Society with the State Agricultural Society on occasion of our Annual Exhibition for 1868, I have the honor, on behalf of the Executive Committee of this Society, to submit the accompanying terms and conditions, adopted by the said Executive Committee as a basis for the desired co-exhibition.

Respectfully yours,

J. W. HOYT,

Secretary Wis. State Agr. Society.

RESOLUTION OF THE STATE BOARD OF AGRICULTURE.

Resolved, That, in consideration of the cordial co-operation of the State Horticultural Society, proposed by the officers thereof, we offer the following terms and conditions as a basis for such co-operation:

1. Said Horticultural Society to have authority to revise and properly arrange the premium list in Horticultural Department: *provided*, the aggregate amount of premiums shall be not less than last year; also, authority to appoint the Superintendent of said department, and the requisite number of judges therefor, and to award and deliver all the prizes in said department.

2. Said premium list to be published in the usual manner, and as a necessary part of the general premium list of the Wisconsin State Agricultural Society, and yet as by authority of the State Horticultural Society.

3. This Society to set apart for the premium expenses of said Horticultu-

ral Department, the sum of \$600, payable after the Fair, on the order of the officers of the Horticultural Society.

4. Expenses incurred for the Superintendent and an Assistant Superintendent, and for such incidentals as have been customary when said Horticultural Department was under the management of this Society, to be paid by State Agricultural Society.

The following resolutions were then offered by Mr. Lawrence and were unanimously adopted viz:

Resolved, That this society accepts the propositions made by the Executive Committee of the State Agricultural Society, as a basis of union of the two societies for a joint exhibition during the fall of 1868.

Resolved, that the thanks of the society be and they are hereby tendered to the Executive Committee of the State Agricultural Society, for the very cordial manner and the liberal spirit manifested by them in which they have accepted our proposition for a union of the two societies for the fall exhibition; also,

That the Executive Committee are hereby invited, to attend our meeting and examine the fruit now on the table for exhibition, at their pleasure.

DISCUSSIONS.

Cherries.—The committee on Cherries reported in favor of raising the early Richmond, Kentish and English Morello, ripening in the order named.

Mr. Stiekney reared these on clay loam; but would recommend that they be grown on the Mahaleb stock in the absence of Morello stocks.

Mr. Plumb had begun growing the Heart and Bigarreau sorts, but they were all swept off by the cold winters. He thought the above sorts should be planted, the birds are the only obstacle to raising cherries, and would continue until they are more plentifully supplied.

Mr. Tuttle recommended the sorts named, and with him they gave plenty of fruit, and birds do not get them all. The sweet cherries are all too tender.

Mr. Plumb offered the following resolution, which was adopted, viz:

Whereas, Under the act of the Legislature of 1867, providing for the appointment of one commissioner by our Society, to unite in a Joint Report concerning the supply and wants of timber and wood in the State:

And whereas, The Hon. J. G. Knapp, as our commissioner, has discharged the duties of his appointment in a very able and satisfactory manner, therefor,

Resolved that we do hereby tender our thanks for the services by him rendered.

THURSDAY Morning, 9 o'clock A. M.

The Society met pursuant to adjournment.

President Chadbourne announced that five acres of land would be devoted to the use of this Society, on the University farm; and that as preliminary to such a work he had removed the stones and the land had been plowed. He hoped the society would be represented in the grounds, and also in the University by lectures before the students on subjects connected with horticulture.

The most of the morning was devoted to an examination of the fruits ex-

hibited by the Society, by Members of the Legislature, State Officers and others.

In the afternoon the discussion of raspberries was taken up.

DISCUSSION—FRUITS.

Raspberries.—Mr. Stickney has been successful in the cultivation of Doo-little Improved Black Cap; says there is a great want of a good red raspberry; has fruited the Franconia and thinks that, with Brinckle's Orange, the two best varieties; also speaks favorably of the Catawissa; has had poor success with the Philadelphia—thinks it overrated.

Mr. Adams thinks very highly of Brinckle's Orange, quality of fruit first-rate—prolific—rather tender. Thinks Belle de Fontenay a good berry, but prolific in suckers, and would not advise the planting in small gardens.

Mr. Kellogg thinks poorly of the Belle de Fontenay; does not bear well. Thinks favorably of the Catawissa, if properly pruned and taken care of.

Mr. Stickney offered the following resolution:

Resolved, That we recommend the improved Black Cap raspberry, for quantity and profit; the Brinckle's Orange, Fastolf and Franconia, with protection, for quantity and excellent flavor, and the Catawissa and Ohio Ever-bearing for autumn planting.

The chair appointed as committee on diseases of trees and insects injurious thereto, P. A. Chadbourne, J. S. Stickney and F. S. Lawrence.

With the view of affording protection the following resolutions were adopted:

Resolved, That with a view to modify and ameliorate the severities of our climate, we deem it a matter of great moment to the future well-being of the fruit-growing interest of the Northwest, that a general system of tree planting should be encouraged and insisted upon by those who lead and influence public sentiment; and we invite members of the Legislature and all kindred and local societies to co-operate with us in this work, by every laudable means.

Resolved, That we do hereby continue the premium offered last year to encourage tree planting in our State.

Resolved, That we earnestly recommend the planting of evergreens, largely as a means of ornamenting our homes, and to afford shelter and protection from the severities of the climate. We also recommend that for such planting nursery grown trees, from one to two feet high, which have been frequently transplanted be used; with such trees we find evergreens live as surely as deciduous trees.

The Society adopted the following resolution offered by Mr. Stickney:

Resolved, That we cordially recommend to the Horticultural and Agricultural community the *Wisconsin Farmer*, Madison, and the *Prairie Farmer*, Chicago, Ill., as particularly adapted to our western needs and worthy of support.

After considerable discussion, on motion of Mr. Stickney, the following resolution was adopted:

Resolved, That we recommend the Norway Spruce and White Pine for timber belts and wind-breakers; the Scotch Pine and Austrian Pine, Balsam, Hemlock and Siberian Arbor-vitæ for planting singly; Red Cedar and White Cedar for low ornamental screens; also, Norway Spruce as a single tree, or for a line of trees.

Plums.—Mr. Kellogg recommends the Lombard plum, which the Society confirm.

Mr. Tuttle recommends the Miner for trial.

Mr. Kellogg—Does the curculio affect it?

Mr. Tuttle—It generally escapes; is sometimes affected, but not so much as other varieties.

Mr. Kellogg recommends the Eldridge, a variety of the Green Gage; not very productive, but quite hardy; poor keeper.

Mr. Lawrence finds the Eldridge nearly worthless, being insipid—not recommended.

Mr. Stickney—It was said by some that the Miner Plum could not be propagated by grafting; he had been very successful; recommended grafting on the wild plum, all our choice varieties.

Pears.—The Society recommend for cultivation the following list: Flemish Beauty for general cultivation, and the Early Bergamont, White Doyenne, Belle Lucrative, Winter Nellis and Onondaga for amateurs.

Mr. Stickney reports 70 varieties of pears grown by Hon. H. Crocker, of Milwaukee, only three of which are hardy.

Dishonest Tree Pedlers.—Mr. Stickney thinks the only way to get rid of the vender of poor fruit trees is to raise more at home.

Mr. Kellogg—When we had plenty of trees, purchasers preferred to patronize Eastern nurseries.

Mr. —. The reading public are fast learning to purchase only of well known reliable parties; but some folks seem to love to be swindled.

Currants.—The White Grape and Victoria were recommended by Mr. Adams as valuable, the White and Red Dutch by Mr. Stickney, and also by the Society.

The Society then elected the following officers:

President—Joseph Hobbins, Madison.

Vice-President—J. C. Plumb, Milton.

Recording Secretary—O. S. Willey, Madison.

Corresponding Secretary—F. S. Lawrence, Janesville.

Treasurer—Geo. A. Mason, Madison.

The President then announced the following standing committee, viz:

Nomenclature—Messrs. Plumb, Atwood and Tuttle.

Seedlings—Messrs. Lawrence, Stickney and Kellogg.

Finance—Messrs. Lawrence, Stickney and Leitch.

The following resolution of thanks was offered by Mr. J. C. Plumb:

Resolved, that we do hereby tender our sincere thanks to the officers of the Supreme Court for the use of their commodious room during this session, and also to the citizens of Madison for the generous entertainment our non-resident members have received at their firesides.

Adopted.

A synopsis of the report of the committee on fruits on exhibition shows several fine collections upon the tables, including those of G. J. Kellogg, Jenesville, 17 varieties; Dr. J. Ozanne, Jr., Racine, 20 varieties; J. S. Stickney, Wauwatosa, 10 varieties; A. G. Tuttle, Baraboo, 10 varieties; M. L. Twining, Brodhead, two varieties; A. E. Elmore, Green Bay, one variety; also a fine collection of apples and eleven varieties of grapes, taken from the exhibition tables last fall, packed loosely in boxes and buried in the bottom of the cellar of the Secretary. This fruit was in a fine state of preservation, except its earthy flavor, but it is a hint to those who would preserve autumn fruits. There were also some fine imitation fruits on exhibition from Hovey & Co., Chicago, which were allowed by all to be most wonderful counterfeits, "beyond the pictures," but at prices forbidding "by the bushel for family use."

On motion of J. C. Plumb, the Society adopted the following :

WHEREAS, The fruit growing interest of this state is one of great and growing concern to the health and wealth of our people, and as such demands all possible fostering care and support; and

WHEREAS, This society is accumulating a large amount of valuable horticultural information of general interest, and beyond the power of its funds to publish; therefore,

Resolved, That we, the Wisconsin State Horticultural Society, do most earnestly request the Legislature of this State, to grant aid to enable our publishing committee to issue a volume of transactions.

The Society adjourned, with a general expression of good feeling.

REPORTS OF SPECIAL COMMITTEES.

Swindling Tree-Peddlers.—The committee appointed on the subject of protection against swindling tree-peddlers, made the following report, which was adopted:

Your committee, to whom was referred the matter of itinerent tree-peddlers, would respectfully report, That in view of the fact that there is at the present time a number of persons governed solely by mercenary motives, travelling over the State soliciting orders for the sale of fruit trees, vines and shrubs, and imposing upon the people, by selling them poor and worthless stocks of various kinds, procured from places and at prices, where they can obtain them at the lowest possible rates and selling them at high and fictitious values; and which are not only true to name, but any variety that a person may want, by simply placing upon the article the label with desired name; thereby producing confusion in the nomenclature and causing distrust in the minds of the community, and strengthening the impression that "Fruit cannot be grown in Wisconsin," we would recommend as a partial remedy for this great and growing evil, that the nurserymen of this State, publish a full and complete list of the articles they have for sale, with a price for each appended to the same; and that they employ none as agents to travel or solicit for them, but persons of known integrity and uprightness of character; first furnishing them with a certificate of authority as agents, which certificate must be endorsed by the President or Secretary of this Society; and to guard said officers from imposition each nurseryman is hereby required to furnish said officers with a list of such agents so employed by him.

We recommend, also, that this Society request the several newspapers and periodicals of this State, that they publish this report, in order to guard the people from impositions as set forth.

FRANK S. LAWRENCE,
JOHN Y. SMITH,
DR. WM. HOBBINS,

JANUARY 22, 1867.

Committee.

Statistics of Wisconsin Fruits.—Your committee to whom was referred the procuring of statistics as to the number of bushels of apples raised in the State of Wisconsin and the value thereof would report, that on examination of returns from the several counties as made by the several town assessors in the month of June last, and as compiled by the Secretary of State it appears that there was raised in the state in the year 1865, 272,452 bushels of apples, valued at \$386,363. These returns only include thirty-seven counties, leaving some sixteen counties which made no reports.

It also appears that in the same counties there was 114,001 pounds of grapes raised, valued at \$28,144, also 27,942 gallons of wine made valued at \$48,625.

F. S. LAWRENCE.

January 22d, 1867.

APPLES AND GRAPES, RAISED IN WISCONSIN.

Counties.	APPLES.		GRAPES.	
	Bushels.	Value.	Pounds.	Value.
Brown	767	\$1,127	2,700	\$655
Calumet	1,294	1,656	180	18
Columbia	14,920	20,236	2,054	624
Crawford	748	1,096	3,256	846
Dane	14,701	17,016	60,206	8,270
Dodge	12,751	14,316	3,336	701
Fond du Lac	40,447	36,778	1,933	515
Grant	14,557	17,196	15,160	1,629
Green	9,387	10,889	1,050	289
Green Lake	15,970	15,283	1,367	177
Iowa	4,254	6,577	105	26
Jefferson	25,137	26,289	1,630	291
Juneau	320	629	80	20
Kenosha	47,948	42,024	200	42
La Crosse	11	22	150	37
La Fayette	4,574	6,710	230	54
Manitowoc	138	220	60	15
Marathon	5	12	.....	.....
Marquette	405	630	100	10
Milwaukee	1,150	2,295	.....	.....
Monroe	61	84	256	40
Outagamie	1,195	1,225	241	39
Ozaukee	680	744	2	6
Pierce	13	26	30	305
Portage	4	14	500	1,500
Racine	7,668	7,668	4,000	500
Richland	262	400	1,022	254
Rock	33,932	34,227	1,085	1,121
St. Croix	5	11	2	2
Sauk	2,976	4,990	909	234
Sheboygan	2,359	3,791	604	77
Trempealeau	83	189	590	88
Vernon	544	994	627	70
Walworth	48,556	45,781	1,335	248
Washington	4,140	4,218	154	26
Waukesha	32,653	28,308	1,923	116
Waupaca	496	775	232	80
Waushara	2,383	3,084	1,360	165
Winnebago	24,960	29,293	6,391	829
Total	272,452	\$386,363	114,601	\$18,144

No. of gallons of wine, 27,942; value \$48,652.

ESSAYS.

THE CAUSES OF INJURY AND THE MEANS FOR PROTECTION OF ORCHARDS.

PRIZE ESSAY BY A. G. TUTTLE, OF BARABOO.

Whatever may be true of other portions of our country, in Wisconsin no very tempting fruits grow spontaneously. Well directed, perserving efforts are necessary for their production. Situated beyond the ameliorating influence of the ocean, or lakes, we are exposed to the sub-arctic blasts of winter, and the dry winds of summer as they sweep over the plains, or sparsely wooded regions beyond us. To form some estimate of the modifying influence of large bodies of water lying in the direction from whence comes our greatest cold, we need only to turn our attention to that portion of Michigan, lying opposite, and even farther north than Green Bay, where the pear, plum and peach flourish in great perfection. It is not strange, that, exposed to severe and long protracted cold unlike that of any portion of the country lying east of us in the same latitude, our progress in fruit growing should have been slow, as our eastern experiences were of little avail to us.

The selection of varieties of the apple made by the first planters was, with a few exceptions, most unfortunate. Those well known kinds deservedly popular at the east, were found unsuited to our climate, and the result of this first trial, seemed to have left the very general impression that we could not succeed in growing the apple here.

The enthusiastic, intelligent cultivator however, satisfied that extreme cold was the principal cause of injury, now turned his attention to those varieties which had their origin in high northern latitudes. The result was satisfactory. Then commenced our first real progress. Many varieties were introduced admirably adapted to our climate, and the orchardist can now plant with as much certainty of success as in those regions more favorable to the cultivation of fruits.

It is said that in the interior of Russia where the climate is similar to ours—in the region extending from the lakes to the Rocky Mountains—apples, pears, plums and cherries are grown in great abundance, even as far north as the fifty-seventh parallel. In view of the perfect adaptation to our climate of the Russian fruits, already introduced, would it not be well to

take means for the introduction of a greater variety of apples, and also of pears, plums, and cherries? In some appropriate way, may not the attention of the Commissioner of Agriculture at Washington be called to the necessities of the great North-west, that while collecting seeds and cuttings from Europe, he may place within our reach, some of those Russian fruits?

We have already quite a variety of apples, well adapted to our climate, and the fact of there being scattered throughout our State fine, healthy orchards, annually producing their returns of the fairest and finest of fruit, demonstrates beyond all doubt, that apples can be grown here, and in great abundance. True, many do not succeed. Some from peculiarities of soil, or location, but far more from gross neglect, and want of proper cultivation.

It is estimated that seventy-five per cent. of all trees planted in portions of our country, favorable to fruit-growing, are destroyed by improper management, or neglect. The truth is, a very large class of those who plant, look upon their work as done, when they have made an excavation in the soil, into which the roots can be crowded, and have thrown sufficient earth about them to hold the trees in an upright position. They expect it to thrive, and vie with the oak in hardiness, while at the same time more exposed to depredations from cattle, and injuries from other causes. Such will continue to divide their maledictions between the climate and the nurseryman, all unconscious of any fault on their part, while it is very evident that they would not have succeeded even in the Garden of Eden, for it seems to have been the employment of that first distinguished fruit-grower, to dress and keep the garden. As a successful cultivation of fruit is more difficult, and the adverse influences, against which we have to contend, are increased, there is reason for closer observation into the causes of failure, that we may be enabled to use such means as lie within our reach to prevent injury, and save from disaster.

It has been well said, that "Horticulture is not altogether an art;" it is a progressive science. The wisest of us have to be continually unlearning things in which we once implicitly believed, and learning new facts, as the science develops itself. This is eminently true of us here; all along our pathway lie the scattered remains of favorite theories. Theories so plausible as to receive, for the time, the sanction of the most intelligent cultivators, which unsupported by subsequently developed facts, have been swept away, or materially changed. After the first trial of grafted sorts had resulted so disastrously, it was thought that by planting the seed we might obtain a class of seedlings, of fair quality, and of a degree of hardiness, sufficient to withstand our climate. The trial was made, over, and over again, with no better results than the early trial of grafted sorts.

Various have been the causes assigned for the injury and destruction of our orchards, prominent among them that of late growth. It was maintained that the sure road to success was to choose those varieties which finished their growth early. Perfect maturity of wood is always desirable, and to insure the safety of some varieties, absolutely necessary. Still there are others

that make very late growth—rarely, if ever, while young, showing perfect maturity—that are among our hardiest varieties, such are the Fameuse and Fall Wine Sap; while some of the most tender, finish their growth, and show well ripened wood. Among them are the Porter and Early Harvest. The pear and plum finish their growth earlier than the apple, and yet are much more liable to injury.

While, to a certain extent, this theory of injury to our trees in consequence of late growth still holds true, it cannot be universally applied to all varieties, and probably not to any in all stages of their growth; for while some of our best, and hardiest varieties will injure from this cause while in the nursery, or for the first few years after planted, others that show well matured growth, and seldom improve while young, are perfectly worthless when they come to the bearing age. Trees that improve from this cause are much more liable to be destroyed while young, than after coming into bearing. Seldom, if ever, are bearing trees injured from having made a late growth, for the production of mere wood growth, and the production of fruit, are antagonistical processes.

Whence, then, comes the injury to bearing orchards? I answer, mainly from severe and long protracted cold. Extreme heat and extreme cold act in a similar manner upon plants; and exhaustive evaporation is equally injurious, whether produced by one or the other of these extremes. An examination of the branch of a tree while the mercury ranges from 20° to 30° below zero, shows the wood to be reduced to the smallest compass possible, not less than it would be, if severed from the tree and exposed to a week of summer heat. This condition, long continued, especially if the cold be accompanied by rapidly moving currents of air, effectually drives all moisture from the tree, and so compacts the wood, that the tree is wholly, or partially destroyed. That injury does not result to all trees alike, is very evident. While one may be constitutionally fitted to endure severe freezing, another is destroyed by comparatively slight cold. One from its peculiar cellular structure resumes its functions when the adverse influences cease to act upon it; while the other loses all power of recovery, is rendered unsightly, by disease, or dies outright. That extreme cold is a principal cause of injury must be apparent from the fact, that the greatest injuries to our orchards, have always been produced by a winter of severest cold.

Another injury resulting from severe freezing, is the opening of the fissures through the body of a tree, extending frequently its entire length. When the cold is most severe, the opening is large enough to admit one's finger, thereby, exposing the heart of the trees to that drying process of freezing. Fissures are also made between the branch and body, where the union between trunk and branch is imperfect. This bursting of the body is not confined to fruit trees alone; the oak, and many other forest trees are ruptured in the same manner and from the same cause. It seems to result in no permanent injury to them, neither does it to most of our hardy apple trees; while those more tender are badly injured, and not unfrequently de-

stroyed by it. Why one tree is hardy, and another not, has never been satisfactorily explained, for while the wood of the oak and the orange are of similar texture, one stands unharmed by the severest cold, and the other is destroyed by slight freezing.

Without going into an examination of the minor causes of injury to our orchards, I present these two, viz. : immature growth, and excessive, long continued cold, as the principal causes of failure. What, then, are the remedies to counteract, in a measure, these fatal influences? For the first, timely and judicious cultivation. Entire neglect of culture would be a certain preventive of late growth; but we thereby render our orchards more liable to be destroyed by severe freezing; for a tree must have a certain amount of vitality and vigor to withstand the severe cold of our winters. No doubt, many of our young orchards have been injured by too much cultivation, extending throughout the entire season; while on the other hand, want of care and cultivation has ruined many more. Orchards, especially while young, should be cultivated, but that cultivation should be given early in the season, not extending into the period of second growth. By this means the trees are kept healthy and vigorous, and excessive stimulation is avoided. Retarding the growth by pinching is also beneficial.

For the second—excessive cold—I answer *protection*. I am well aware that in advocating shelter and protection for orchards, I am opposing the often expressed opinions of some, that we should plant where they are exposed to the winds from the cold quarter.

The necessity for protection, has been recognized and repeatedly urged as an important auxilliary, in the protection of fruit, not only in this country, but throughout Europe, where the climate is milder and less subject to extremes of heat and cold. Never before have the advantages and the necessity of protection ever been called in question. In the Middle and Eastern States, it is said to be much more difficult to grow fruit now than formerly, and the chief reason assigned for this change is, the destruction of forests, which once gave protection to their orchards.

It is very singular that here where the necessity for protection is far greater than at the East, from the fact that we are subject to greater extremes of heat and cold, and an almost unlimited sweep of the winds; a practice so entirely at variance with all former experience should have found advocates. Unless we deny that the dry winds of summer, or the cutting blasts of winter result in injury, it is difficult to see how such theory could find supporters. If a certain degree of cold will produce injury, or health to a tree, its liability to injury will be increased if the cold is accompanied by a strong wind. The object of shelter is to arrest the drying currents, and modify the debilitating effects of injurious evaporation whether produced by heat or cold. If it is true that protection is unnecessary, then our large open prairies are just the place for fruit growing, and the heavily timbered portions of our state are unfit for that purpose. Does not all experience teach us to the contrary? We need shelter from the hot, drying winds of

summer, frequently, while the trees are in bloom, or at the time the fruit is setting. A strong wind, dry and hot, from the south-west sweeps over them, causing excessive evaporation at a time when the tree is heavily taxed, to support its blooming and the forth-coming foliage. The result is, a partial or total destruction of the crops. The injury to the crop from this cause is much more frequent, than from late spring frosts.

Protection on the north-west, and west, against the severe cold, and on the south-west to shield from the drying winds of spring and summer is absolutely necessary.

GRAPE CULTURE—HINTS AND DIRECTIONS.

BY GEO. B. KELLOGG, OF JANESVILLE.

Location.—1st, Southeast exposure at an angle of 25°. 2d, Southern at the same angle. 3d, South side high board fence upon level ground. 4th, Southwestern exposure. Lastly, we would recommend planting, if no better position than a northern slope could be obtained, in which case a board fence might be *necessary* to mature the fruit some seasons.

Soil.—1st, Limestone. 2d, Calcareous clay, underlined. 3d, Prairie loam, with clay subsoil. 4th, Prairie loam with sand or gravel subsoil. 5th, Any soil capable of producing good corn.

Preparation of soil.—1st, Trenching with the spade two feet deep, without inverting, that is leaving the subsoil at the bottom. 2d, Preparation by the plow twenty inches deep, using the double Michigan plow—usually four horses are sufficient. 3d, By repeatedly plowing with two horses, throwing the ground into lands in the direction of the rows up and down the slope, of sufficient width for two rows only; then by twice inverting the same by back-set, leaving it in ridges of sufficient width to allow two rows without setting near to or in the dead furrow.

This ground needs no manure except as mulch. Good corn land is good for grapes, with an annual top dressing.

Selection of Varieties.—For general cultivation: 1st, Concord. 2d, Delaware. 3d, Hartford Prolific. 4th, Diana. 5th, Allen's Hybrid. 6th, Rogers No. 4. 7th, Isabella. 8th, Rogers No. 19, and other varieties, *ad infinitum*. The Concord, Delaware and Hartford Prolific will succeed wherever a good corn crop will mature, with the necessary preparation of the soil as before noticed. Distance of planting, six by eight feet.

Selection of Vines.—1st, Strong 1 year old layers of previous year's bearing wood. 2d, Well grown cuttings of such varieties as readily propagate by cutting. 3d, One-eye plants from well ripened wood.

Planting.—Root prune, leaving the roots some twelve to eighteen inches in length—place in their natural position at seven inches below the surface, in tenacious or clayish soils, and ten inches in light or sandy soil—cover with earth three or four inches, then fill the excavation with straw manure as a mulch; but do not use strong manure as it will often injure newly planted vines. During the latter part of summer the soil should be worked up to the vines, filling the excavations without removing the mulch.

Cultivation.—Work with a horse with a fine tooth cultivator, or with a hoe or potatoe hook, keeping the ground clean until about the tenth of August.

Training.—Keep the vines upright allowing but one cane the first season, pinching in all laterals and allowing the main vine to grow unobstructed until frost.

Pruning.—For winter, prune about four weeks after the falling of the leaf, to their buds, the first season, allowing but two to grow the second season. The second fall, prune to three eyes on small canes and six on large ones, which will probably be capable of producing twelve branches,—which is all a vine at this age ought to bear; all surplus growth should go to bearing wood and to elaboration of mature root. The one arm system may be adopted in part, by allowing one arm and establishing the fruiting spurs on that as the season and strength of the vine indicate. Two arms may not be grown on account of the necessity of winter protection.

Trellis.—The first year, anything giving support to the vine, set at the time of planting, is sufficient for keeping the vine in an upright position. The second year, stakes set between the vines by the use of an iron pointed crowbar, similar to those used in setting hop-poles, will not injure the roots. The stakes setting between the vines will give nearer and horizontal position, which is quite beneficial to the bearing vine. The fourth season a trellis may be made or the stakes increased to accommodate the additional wood. A simple and efficient trellis may be made by setting Red Cedar or Bur Oak posts, charred and tops down, driving them by the use of the bar and sledge. After setting the posts, narrow slats, two or three inches in width, may be nailed to the post, eighteen inches apart, or common wire for fencing may be used; and by sawing off the posts at a uniform height and putting in a rail or piece of round iron, of sufficient length to receive two thicknesses of the slats, a brace running lengthwise and crosswise of the rows will materially add to uniformity of the vineyard, and the training of the extra growth of the vines, always leaving every third space open for the passage of the wagon with mulch and fertilizers.

Winter Protection.—In the month of September, after the first and second years' planting, let there be earth sufficient thrown around the base of the vines to protect the lower buds, and at the time of pruning or soon thereafter let there be a slight covering of the soil of not more than two inches and if possible, put it on during a dry time; after which, during the first freezing of the ground, let there be a generous mulch of straw manure—and if

that manure contain marsh hay, so much the better—applied as far as the roots probably extend. When the vines are large and marsh hay can be procured it may be used at the time of pruning for covering the vine three or four inches deep and putting enough earth around the base to hold the hay in position.

Spring Treatment.—Do not disturb the vines from their winter bed before the 15th of May; then remove carefully the covering and return two-thirds of the mulch of straw and hay leaving it on until about the first of June, always removing it in a cloudy day or late in the afternoon.

Protection should always be given by timber or evergreens, from the southwest winds which prevail in early summer.

EXTRACTS FROM CORRESPONDENCE.

THE CULTURE OF SMALL FRUITS.

BY A. M. PURDY, SOUTH BEND, IND.

To those who have enjoyed the luxury of "small fruits," for even a single season, it seems unaccountably strange that more do not plant of these delicious and healthy fruits. First in the season, and long before any other fruits come in, we have the luscious and melting strawberry, either fresh from the vines or "smothered" in sugar and cream. Next, follows the sprightly raspberry, with its many beautiful colors and flavors; after which, come the magnificent and glossy blackberries, hanging like so many sparkling jets on the overloaded bushes; also the grapes, rich in their many favorite localities. These with the currant and gooseberry mixed in at their proper season, make a paradise of one's home, and add to it an interest which attracts the love and attachment of the children, who may be growing up around the dear old hearth-stone, with an ardor too strong to be broken.

* * * I find, in my observations, the almost universal objection to growing these luxuries is, that "it is too much labor; too much attention is required," &c. Such complaints are generally raised by those who have never had success in growing them; and the reason is that they were neglected from the hour they were set out. If a small share of the useless avocations are devoted to giving the proper and simple care required to grow these luxuries, a bountiful harvest would repay them for it and they would not fail ever afterwards to keep them in good order; thereby insuring a certain crop *every* season.

Again, many are deterred from setting them out after reading a long and elaborate work, from some theorizing author, giving directions that would puzzle any common brain, and deter most people from setting such fruit. For instance, one writer will take strong ground, that a certain amount of a certain kind of fertilizers must be put on the ground at a certain season; and it must be "trenched" in to a certain depth. A certain variety must be planted, and must be set in "hills," and not a runner allowed to grow. They must be mulched *just so*, in the fall, and with *just such* kind of litter. In fact, if the directions of some of these writers on grape culture and other

fruits were fully carried out by the new beginners, they would not only become discouraged themselves, but would naturally discourage others from going into it.

After over fifteen years' experience in growing fruits, I can say to all persons, that it is no more trouble to grow grapes, strawberries, raspberries, blackberries, &c., than Indian corn and cabbage. For most of fruits, there is more danger of high manuring than too little. This is especially the case with grapes. An amateur neighbor of mine, who has as fine an assortment of grapes as any need desire, has been in the habit of high manuring and has never succeeded in getting as fine crops of fruit, as since his change to high manuring; and what is more noticeable, since his change in this respect he has *no mildew* on his fruit. I have observed that grapes grown on ordinary soil, are less liable to rot and mildew, than those which are forced into an unnatural growth, by high stimulating fertilizers. The best flavored Concord or Isabellas I ever saw, and which were free from mildew or rot, were grown on an inferior, light, sandy soil. My advice is, to get the ground in about the condition required to grow good crops of corn, and my word for it no disappointment will follow.

In setting strawberries for garden culture, set the plants one foot apart; keep clean and as they commence to throw out runners, train them along the rows. By fall they will form thick matted rows, about one foot in width. Mulch these lightly with any barnyard litter, or saw dust or tan bark. The next spring, work among them with a fork-hoe, and prick out all weeds. Immediately after they are through fruiting, spade the ground between the rows, spading under all the vines except a strip three or four inches wide. Scatter among these a liberal supply of rotted manure after making the ground loose among them with the fork-hoe and picking out all weeds. Keep clean and take the same care as during the previous year. Many growers recommend the "hill" system. My objections to it, are that they are apt to be killed out by "cut worms," and in many cases, with our most popular sort, (the Wilson's Albany,) the vines exhaust themselves in bearing, that they are apt to be thrown out, or "heave" through the winter, on account of not forming new roots enough to sustain them, and when a plant is thus destroyed a vacancy is left; while, if they were allowed to form thick matted rows, they would be better protected from being thrown out, and if a few were destroyed it does not leave an *entire* vacancy in the row; while at the same time *new* plants fill up the rows *every* year, and these from such strong fibrous roots, that they are sure proof against our changeable winters, and certain to bear, as the new roots give more nourishment than an old exhausted plant. Some growers allow the vines to cover the ground. My objection to this method is, that they cannot be properly cultivated and consequently suffer from the least drought. I have found after practical experience that when vines are thoroughly cultivated in the spring and well worked with the fork-hoe, they do not suffer in comparison from the drought, with those which are not so cultivated, while those which were allowed to

run broadcast over the ground, and consequently could not be worked among, proved almost an entire failure. Another great objection to allowing them to grow in this way, is, that it is impossible to go among them to pick the crops, without destroying a large share of the vines and fruit. To grow them for market, we set the plants, one foot apart in the row, and rows four feet apart; keep clean with the cultivator and fork-hoe; train the runners along as before described; mulch in the fall with plenty of rotted manure or straw and work among them thoroughly in the spring. After they are through fruiting, plow the ground *deep* between the rows, plowing the rows down to a narrow strip from four to six inches in width, manuring them well and train the runners and take the same care as the year previous.

Set blackberries and raspberries from two to three feet apart in the row, and rows of raspberries six feet, and blackberries eight feet apart; keep clean, and in August and September cut back the top and long side branches, so that blackberries shall stand about five feet high, and raspberries four feet, mulch *heavily* in the fall with tan bark, saw dust, old straw, manure, or chip dirt. This not only acts as a mulch, causing the crop to be double, but keeps the weeds down, thereby saving a great amount of labor.

As to grapes there are numerous ways and instructions for the setting. My advice is to set them in a warm sunny place, where the ground is naturally warm and dry. Cut back two or three eyes, the first year, allowing two or three branches to grow. In the fall, cut these back about four feet in length, and lay them down, covering them slightly with dirt or litter of any kind. By the way, there is a great amount of discussion as to which is the most hardy and will stand the most severe winters. I believe there is no good variety in cultivation that will pass through our severe and changeable winters unprotected without being injured somewhat; and so long as it is so little trouble to lay them down and take them up in the spring, I think it useless discussion. A man that is too lazy to spare the little time and labor required to do this is unworthy to have this luxury. Each year I should cut out the wood, and have two or three branches of the new growth. Cut those back to six or eight feet; cutting off all side branches to within two or three eyes of the main branch. Set the roots eight feet apart in the row and and rows twelve to sixteen feet. Use either trellis or stakes to train the vines on.

By observing these simple instructions these luxuries may be enjoyed the year round. * * *

I think most of our societies are apt to spend too *much* of their discussions on some new varieties, and leave in the back ground the old, well proved successful sorts. It should be remembered that the great mass of people have not the means to spare for these high priced sorts; while older varieties will give better satisfaction, and prove more successful in the end. My advice to the common people is, to wait until your wealthy neighbor has tried these new mushroom roots, and if they prove a success try accordingly. I would not have it understood that I discountenance or discourage the

growing of new sorts, but my advice is, to those who cannot afford it, "don't get bit." I have passed through the mill and can speak from bitter experience.

To sum up, friends, let me advise all to plant fruits. Set out an orchard of hardy apples. * * * Yes, plant them out, and by so doing leave a living monument to your children and children's children; and your satisfaction will be, that, as they grow up, they will enjoy the fruits of your labor and teach their children to call you blessed.

FEBRUARY 3d, 1866.

FRUITS, &c., IN TREMPPEALEAU COUNTY.

BX E. WILCOX, TREMPPEALEAU, WIS.

* * * This county extends from township 18 to 24 north, and a few miles back from the Mississippi river. The south part of the county is thought to be well adapted to many kinds of fruit. Here the wild plum, crab apple, grapes, raspberries, &c., grow. The people, not satisfied with these, have, with commendable zeal undertaken to raise nearly all kinds of cultivated fruits, thought to be adapted to this latitude. Here can be found fruited the apple, plum, cherry, pear, grape and small fruits. The soil varies near the village. To the north is a sand prairie, while east and back from the river a mile or more, on the second table, is a strip from one-half to a mile in width of good soil, with a subsoil of gravel. This is thought to be one of the best fruit localities in our county or in the northwest part of our state. Here the grape, the pear, the plum, the apple, &c., are being cultivated to some extent, and with good prospects of success. The grapes were mostly killed to the ground last winter; this was thought to be occasioned rather by a hard frost in the fall on the immature vines than by the cold of winter, extreme as it was. The most careful cultivators mulch their trees, and throw earth about them in the fall, and cultivate the land in some hoed crop. It is difficult to report the kinds of apples and other fruits which promise best as the names are lost, and until they are in bearing it is not known what we have got. * * * Back of the before mentioned section, much of the country is rough and broken, with rich and fertile valleys. At Galesville, the county seat, and eight miles from the river, the soil is good. Here also much is being done in fruit growing, and the trees in the gardens look very promising.

Whortleberries.—A few miles north of this place, you come to the "huckleberry" region. And right here let me say that some who are not posted may be disposed to doubt what I may say; nevertheless, I will try to keep in the bounds of truth. In the northern part of this county, Jackson, &c.,

hundreds of bushels are, and thousands may be, gathered annually. The crop too is a sure one, as they grow mostly on the ridges, they are not subject to frosts, which in the valleys would be destructive to them as well as the fruits. Here is a useful lesson from nature. Here it is, that from the tenth of July until the last of August, the settler's family large and small may be found on the ridges, with baskets, pails, tubs, &c.; and when the male members, who accompanied them in the moorning on their way to some adjacent slough to cut hay, return with the team, the women and children, baskets, pails, &c., filled with bushels of berries are taken home. After two or three days of such work the man starts with perhaps ten, fifteen or twenty bushels of his own and enough for some neighbors to make perhaps thirty bushels, for some market, perhaps fifty or sixty miles off, where they are sold for from \$1.25 to \$1.50 per bushel. When he gets back some other one in the neighborhood takes his team with a load. In the mean time the picking at home goes on, and hundreds of bushels are dried for family use, and for sale.

I tell you this "huckleberry" business, is a great thing. They are good in milk, in sugar and cream—good for pies, short cakes, pudding. Well, here is a reason why small fruits are not much sought after in this section. Every family can, or do have plenty of this kind of fruit the year round. It takes but very little sugar, in fact, will do very well without any.

JANUARY 12, 1865.

FRUITS IN RICHLAND COUNTY.

BY ALBERT S. NEFF, OF WOODSTOCK.

* * I will try to give you what information I can in regard to the fruits of Richland county and our experience.

First. It is unfavorable so far as I can ascertain. There is scarcely anything in the shape of cultivated fruit grown in this county. I know of but little and what is growing is close to the Wisconsin river. Back from the river the trees seem so live for a year or two, and then commence to die. The tops commence first, and about the next year after that they are dead. I know of some orchards that have been set out four or five years. They were set out say seventy-five trees in the first place, and now there is not one single healthy looking tree in the orchard; but there are some trees that do live.

Second. The orchards are all differently located. On a soil of clay and loam, timber lands, they are productive, and make a heavy growth of wood each year. I put out an orchard two years ago last spring, nearly all lived until this present year, and seemed to be living thirftily this spring; but I washed them rather early with too strong ley, and it hurt a good many of them; but

the largest of them lived and are doing well yet. Those trees were from the Janesville nursery. The varieties are not known.

Third. The leaves commence to curl and twist during the hot weather, and have lots of large and small ants on them during the summer months.

Fourth. The trees turn black, with white spots on the bodies, and finally die.

But this county is very productive of the best of wild fruit; the woods are full of wild plums, grapes, cherries and crab apples, all the finest of the kind I ever saw; and it seems strange that tame fruits do no better than they do. Thousands of dollars have been paid out to get fruits into this county, mostly to nurseries out of this state. Apple tree peddlers have canvassed every part of the county, and trees have been set out and died.

FRUITS IN PIERCE COUNTY.

BY M. D. PROCTOR, FALL RIVER.

* * * Agreeably to request, I give a statement of my experiment in fruit raising. In the spring of 1863, I bought of O. Salisbury fifty standard apple trees, three years old, set them the first of May in a wheat field, twenty-five feet apart; the soil, a sandy loam, rolling enough to carry off the surface water. I dug the holes about three feet square and one and a half deep, and set them as near as they stood in the nursery as I could. I then mulched them with straw and corn-fodder from the barnyard, and kept the weeds and wheat hoed up for three feet around them. Although the season was very dry they all lived with one exception, and made a fair growth, and were not watered at all. I set fifty more last May, which are doing well; and now have twenty-seven varieties.

The location is midway between the valley and hill top, with a northern and western exposure, where the north-west and south winds had a fair sweep on the east there; was a mound that broke the force of the east wind somewhat, but no timber. The land was prairie, broken in 1857, and had been cropped with oats, corn and wheat, and bore good crops.

I set the following varieties: Perry Russet, Winter Wine Sap, Jefferson County, Sweet June, Bailey's Sweet, Astrachan, Washington, Duchess of Oldenburg, Seek-no-further, Snow, Yellow Bellefleur, Rawle's Janett, St. Lawrence, Sweet Pear, and Tallman's Sweeting. They had no protection in the winter, except the mulch that was applied at planting; and came out all right, with the exception of the Washington, Bellefleur and St. Lawrence. They were injured in the limbs some, but have made a fair growth. The rest

came through, to all appearance as well as my crabs, by their side, and have done well through the summer. I cannot see but what the bark looks as bright as it does on the crabs. This year I plowed as near as I could, then forked around the trees and mulched again with old straw from the barn-yard, and planted the ground to potatoes. I have given them no protection this winter. Our climate here is different from what it is farther east. The winters are cold and dry with but little snow or rain. The summers are very warm. The thermometer ranges from 40 ° below to 100 ° above, with a very dry atmosphere.

There are no apples raised here of any consequence. The most of the trees set in this vicinity came from New York, and have died out, until people have despaired, and given up in disgust; still, when they see trees bidding fair, they take courage, but they take hold carefully. Crab apples do finely, so do small fruits; and wild plums are in abundance.

SEPTEMBER 7, 2865.

FRUITS IN WAUSHARA COUNTY.

BY HENRY FLOYD.

* * * I came to my farm on the north-bank of the Fox River, in the south-east corner of this county, fifteen years ago. I have on forty acres, eight or ten different kinds of soil, varying from a very light sand, with a clay subsoil, five feet below the surface, to stiff clay at the surface. I have a sandy loam, with clay subsoil from six to eighteen inches below the surface; also a rich marl quite sticky, with a subsoil of the same, from one to three feet deep, except being filled with gravel stones, this resting on a bed of pure gravel, and being the highest ground I have. The aspect is south-east and south-west. I have fruit trees on all the above varieties of soil, and find the English Golden Russett better adapted to light sandy soil than any other variety tried. I have but few varieties hardy enough to stand our coldest or hardest winters, without injury.

The following lists are hardy enough to live, and have proved profitable with me. I name them in the order of their hardiness—all root grafted: Duchess of Oldenburg, Perry Russett, Red Astrachan, Snow, Talman's Sweet, Pomme Gris, Fall Orange, Lowell, St. Lawrence, Autumn Strawberry and Sops of Wine. The following are worked on the tops of hardy stocks: Westfield Seek-no-further, Yellow Bellflower, Calville Russet, Vandevere Pippin, Keswick Codling, Red Astrachan, Golden Sweet, Peck's Pleasant, Summer Queen, Colvert, Mother, Ramsdell's Sweet, Dominic, Primate, White Winter Pearman, Canada, Beauty of Kent and Baldwin.

My time of planting is the early spring. I set two rods each way and a tree in the centre of each square thus formed; keep the land in hoed crops from five to seven years, then cultivate with a large cultivator, keeping the ground clean in the fore part of the season, and letting the weeds grow in the latter part; for winter protection I have also found it a good plan to mulch late in the fall and early winter with coarse manure, remembering always to keep plenty of hungry cats—a perfect and practical remedy for the mice.

A thorough application of kerosene oil is a sure remedy for the bark louse, and can be easily and rapidly applied to trees from three to seven years old, with a paint brush. The oil will clean the tree of lice, dead bark, moss, &c., without injury to the tree. I have known trees crusted with the bark lice and stunted and dwarfed by them, cleared of their monster scabs and make a fine growth the first year after the application of this oil.

On the high land, and red marl soil, previously spoken of, I have planted the Flemish Beauty and other pears. With my limited experience with that fruit, the Flemish Beauty is almost the only variety *worthy* of cultivation in this latitude. Last winter, 1864, injured this variety, as will all very hard winters, depending on the ripeness of the growth. [Mr. F. here enumerates 12 other varieties, with which he has experimented, and lost them both as standards and dwarfs, and proceeds.] I think my experience in pear culture appears rather mournful, but, I assure you it is no less so, than my neighbors, I have not a doubt, but that some of them, have bought, set and lost the Vicar of Wakefield, Swan's Orange and Louis Bonne de Jersey, from three to five times, in the last ten years. The people rely upon the recommendations of tree pedlers, and give their orders for what they recommend; while he recommends all he has to sell, which is a general stock. I should like to know how many hundred thousand dollars have been paid to eastern nurserymen for tender pears and apples, or even the famous King of Tompkins County. I think all that have tried the dwarf pear culture, in this section of country, will agree with me in calling it a perfect failure.

Plums are grown to some extent in this locality. Duane's Purple is much the best variety for this latitude; it is not only the most hardy, but most productive. The Imperial Gage stands next in popularity. All should be grown on the wild plum stock. * * *

I am growing some grapes, have the Delaware, Concord, Diana and Isabella. The last is too late for this latitude, except in favorable seasons. I cover all vines in winter.

February 4, 1865.

FRUITS IN SHEBOYGAN COUNTY.

BY J. B. RICHARDSON, SHEBOYGAN FALLS.

* * * I have been engaged in the nursery business in this county since the year 1855. In the spring of 1855, I planted a stock of some seven acres, mostly eastern varieties, brought here from eastern New York. You undoubtedly know the result. I have found that eastern nurserymen's experience is of but little value here, except the system of propagation. We now have an entire new list of varieties, with a few exceptions. The eastern tree trade is about played out in this locality. The agents they send here have very poor instructions, in regard to varieties, and we have been imposed upon in that particular. Not that alone, but they deliver their trees too late in autumn, and too late in spring. Another of their impositions has been in sending such varieties as are not adapted to this soil and climate; and many of them worthless. They generally send us their surplus kinds, such as do not sell readily in the eastern market.

In every orchard that I have visited, this and other seasons, I find some few varieties of the eastern trees, that are doing well, that is they look healthy, but do not fruit early. I find the Golden Russet, Northern Spy, Tallman's Sweet, Rawles' Janet and Red Astrachan. These varieties are land-marks in most of the faded out orchards, whether cultivated or not. They stand, saying to their owner, "if you will use us well, we will produce fruit." But the worst feature is, the farmer does not know what they are. Not one in fifty has a record of his planting, so he cannot profit by his experience. They seem to think, or do not know but that all varieties are equally good, if they are procured and planted in good order. Most of the farmers when they come to us for trees, will say, "we want good sized healthy trees;" but do not mention a word as to what varieties they want; hence the failure in a great degree has been through the agents selling them the kinds that they most wished to get rid of, and paying no regard to varieties suited to this country. They are both to blame, for not knowing or doing better. Still these same farmers, who have been duped for the eleventh time, say "we are to spend our days in Wisconsin, and we must raise fruit, and think we can, if we get at it right; and we are willing to try again, if you will furnish us good trees raised at home, but will not spend another dollar for that eastern trash." Then he will say, "I have paid out \$70 or \$100 for them, and now see what I have left. There are only three or four trees."

If one should go to these men and ascertain the names of the kinds that

have withstood this fiery trial, behold there is a Russet, there a Spy and there a Tallman Sweet. If you go into the garden, you will find a strong cherry, perhaps, if he has planted a dozen kinds; but the only variety that has any promise is the Kentish, or some other of the Morello class. All others have failed because they are out of their latitude.

Plums—we have very little trouble with, when grafted on the wild stock. The Lombard and Yellow Egg seem to stand the best, but the Imperial and Bleeker's gapes and the Orange do well. Pears seem very fickle. * * *

I find a great error exists in choosing proper sites for orchards. Most of our German people plant on too low and wet land, at the foot of a hill or rise of land. They do so because they did so in Germany, and have not learned as yet the differences in climate. They say the hill is too poor, consequently their trees freeze out. Our Yankees take the other extreme, being quicker to learn the causes of trees failing on low land, but do not as yet learn that our hills are too bleak, without some protection. And just how much protection is needed is hard to determine. I find, too, by close observations of our native trees, that the hardy varieties of grafts, are much harder than seedlings growing in the same grounds, as a general rule. I also find by months' travel and daily observation of trees, that those with very short stems, and low spreading tops are much the healthiest and bearing the most fruit. This shows that if we want to assist nature we must not clip her wings. Never trim *up*. Rather trim *down*. We find that with draining or subsoiling our clay lands, and with good culture, together with home raised trees no difficulty exists in raising a good orchard.

FRUITS IN MINNESOTA.

BY A. S. STEWART. LA SCEUR.

* * * I have made the raising of fruit and fruit trees, my business in Minnesota for the last nine years. I find the small fruits, such as currants, gooseberries and strawberries, do well on almost all kinds of good soil. The early varieties of the grapes do well here if planted on good soil, where it is free from early and late frosts. Among the best are the Delaware and Clinton. The hardy varieties of the apple have done well on the right soil and situation. Among the best are the Red Astrachan and Tallman's sweet. There are several other very choice varieties in bearing, but I have not been able to learn their names. I have several varieties from seeds that promise well. The orchards that are doing the best stand on soil composed of a good share of clay, and where they are not exposed to late and early frosts.

We want more light on the subject of fruit growing in the north-west; and I am pleased to learn that Wisconsin has started the wheel in the right direction to gather information. Let us have the experience of every fruit grower in the North-west, and it will be the means of saving thousands of dollars by enabling us to purchase trees of the right kind, so that we will be able to enjoy the luxury of fruit of our own growing.

SEPTEMBER 11, 1865.

FRUITS IN NORTHERN IOWA.

BY E. R. HEISS, ROCK GROVE, FLOYD COUNTY.

* * * I would say that the soil of our orchard is a sandy loam, but not very sandy; subsoil is clay. The face gradually slopes to the south the south end being almost level. I would prefer a northern or western slope. It is partially sheltered on the west by a grove. Our trees are generally root grafted (I prefer that mode to any other, where the variety is known to be hardy) and were planted eleven years ago. The general causes of failure here have been in planting tender varieties; in planting on low wet soil; in using stimulating manures before the trees have borne three or four crops; in heavy pruning in the spring, when the sap is in full flow, also in severe pruning after the beginning of the second growth, which gives the tree a check in growth, followed by an over vigorous and late growth, and unfits it to stand our hard winters. As I have said trees are sometimes killed by pruning, so they sometimes perish for want of pruning. During the growing season our prevailing winds are from the south-west. This causes the tree to grow to the north-east, and the north-east branches take the lead, and rob the south-west ones of their due proportion of sap. This not only enfeebles the branches, but the trunk on the south-west side of the tree. Then it does not take much sun or freezing to kill the side of a tree which is about dead by starvation. The remedy is to cut back the north-east side branches to an inside bud, until a proper vigor and growth is forced on the other side. Something can be done in setting the tree, by setting so that it shall lean to the south-west, or toward the sun at one o'clock p. m.

SEPTEMBER 7, 1865.

[Mr. F. gives a list of fruits as hardy, about the same as the Society have recommended.]

BY D. W. ADAMS, WAUKON, ALAMAKEE COUNTY.

* * * I send some items of my experience in fruit growing in this northeastern county of Iowa. My grounds are dry rolling prairie, fully exposed to all winds and situated eighteen miles from and 650 feet above the Mississippi river, in latitude $43^{\circ} 20'$. The soil is a friable black loam, about twenty inches deep, resting on a well drained yellow, sandy, dry sub-soil, underlaid with limestone. I have had most experience with apples, and my collection embraces one hundred varieties. (Here Mr. Adams gives his list, divided into five classes, among his list of hardy are those of this Society.)

My plan of setting is on top of the ground, twenty-two feet apart, and ridge the land until the roots are covered four inches deeper than in the nursery, then cultivate with corn. I have 1400 trees growing under this treatment and they leave me nothing more to ask in the way of health, beauty and vigor. All are branched about twelve or sixteen inches high, and have been planted five years. They commenced bearing last year. With pears, my experience has been disastrous. Forty varieties have had their day on my premises. A few arrived at bearing size, and gave some fruit, and then they succumbed to the rigors of our winters. I have not now a single healthy pear tree. I have never been troubled with blight. The Great Dispenser of events did not find it necessary to add that to winter desolations in order to thoroughly accomplish the destruction of my pear trees.

With grapes my success is all that I can ask. I have the following varieties, and esteem them in the following order: Delaware, Concord, Diana, Rogers No. 3, Creveling, Hartford, Clinton, Catawba, Rogers No. 19, Connecticut, Tokalon, Northern Muscadine, Union Village, Rebecca and Isabella. Small fruits succeed well. Of strawberries, Wilson's I rely on for a main crop, though I cultivate others. Houghton is the only *sure* gooseberry. The Cherry, Victoria, and White Grape are by far the best three currants, being thrifty, productive and large.

January 15, 1866.

LOCAL HORTICULTURAL SOCIETIES

OF WISCONSIN.

MADISON HORTICULTURAL SOCIETY.

The Madison Horticultural Society was organized July 7, 1858, under the name of "Madison Horticultural Association," with the following officers:

President—A. L. Collins.
Vice President—J. G. Knapp.
Treasurer—D. J. Powers.
Secretary—D. S. Curtis.

The first exhibition was held on Saturday, August 12, 1858. Since then, J. G. Knapp, W. T. Leitch and Wm. H. Watson, have successively filled the office of President; and J. T. Clark, Geo. Capron and Joseph Hobbins, the office of Recording Secretary.

The Society was granted a charter by the Legislature, on March 29, 1861, with its present name, with the usual privileges of such corporations.

The thirty-second exhibition was held September 24, 1868. Three or four exhibitions are held each year, and monthly meetings about half the year. Exhibitions prove very successful, financially, there being at this date about \$500 in the treasury and their influence is very apparent in the increased interest given to the culture of plants in this city.

The officers, for 1869, are as follows:

President—W. T. Leitch.
First Vice President—D. Worthington.
Second Vice President—Timothy Brown.
Directors—Dr. Joseph Hobbins, J. T. Stevens, Dr. N. J. Moody, John Gripper and H. M. Lewis.
Treasurer—George A. Mason.
Corresponding Secretary—Dr. Joseph Hobbins.
Recording Secretary—T. D. Plumb.
Committee on Fruits—Caspar Meyers, O. S. Willey and N. J. Moody.
Committee on Flowers—John Gripper, Edward Thompson and Mrs. O. C. Johnson.
Committee on Vegetables—G. A. Mason, N. F. Lund and J. T. Stevens.
Committee on Finance—Timothy Brown, Wm. Hobbins and H. M. Lewis.

T. D. PLUMB,
Recording Secretary.

MADISON, December, 1868.

GERMAN HORTICULTURAL SOCIETY.

MADISON, WIS., December 11th, 1868.

The German Horticultural Society of this city was organized June 28th, 1865, consisting of thirty members:

President—John F. Hauser.
Secretary—F. A. Pfaff.
Treasurer—Samuel Klauber.

The first Exhibition was held at Turners' Hall, July 18th, 1865, and was in every respect a success. The second Exhibition, in 1865, was held at the same place, September 19th, 1865.

In 1866, the Society held its Spring Exhibition, June 26th; Summer Exhibition, July 24th; and Fall Exhibition, September 18th, at the City Hall.

The officers for 1866, were:

President—R. Baus.
Secretary—F. A. Pfaff.
Treasurer—F. B. Huchting.

The pecuniary success of 1866 was very satisfactory to the Society.

The Exhibition for 1867 opened with the following officers:

President—Bruno Schneider.
Secretary—F. A. Pfaff.
Treasurer—Charles Gewecke.

The Spring Exhibition, June 2d; Summer, August 13th. The Fall Exhibition was dropped and the Society competed at the Wisconsin State Fair, held in the latter part of September, and was awarded the first premium—\$50 cash.

For 1868, the officers were:

President—F. A. Pfaff.
Secretary—Wm. Helm.
Treasurer—Charles Gewecke.

The Spring Exhibition, June 24th, 1868. No Summer Exhibition was found practical on account of scarcity of flowers, &c. The Fall Exhibition was held at Turners' Hall, September 23d.

The Society counts at present forty five members, and is in a flourishing condition. The members are classed in two classes—Active and Passive. The Active members are obliged to help at Exhibitions, &c., and are the workers in the Horticultural line; the Passive are members paying \$3 per annum dues, and are exempt from any labor for the Society.

Very respectfully, &c.,

WILLIAM HELM,
 Sec'y German Hort. Society.

JANESVILLE HORTICULTURAL SOCIETY.

This Society was organized October 8th, 1866, by the adoption of a constitution and by-laws, and the election of the following officers:

President—Hon. I. C. Sloan.
Vice-President—S. G. Williams, Esq.
Secretary—F. S. Lawrence.
Treasurer—S. W. Smith.

The object of the Society, as embraced in its Constitution is, "to promote a more thorough knowledge of Horticulture, in its various branches, among its members, and be a medium of disseminating information among the people generally; also, to induce the citizens of this city to beautify and adorn their homes and the streets surrounding the same, by setting out and protecting the growth of ornamental and useful shade trees and shrubbery."

The meetings of the Society held for discussing the many topics connected with horticultural matters, have been generally well attended, and have elicited much valuable information, of which the public have eagerly availed themselves, as witnessed in the more urgent call for further information pertaining to the same, and the numerous trees, vines, shrubs and flowers that have been planted around their homes, since the date of its organization.

During the year 1867 two fairs were held and proved successful. The show of fruit, both small and large, and of flowers also, were magnificent and elicited the commendation of all who had the good fortune to witness the display. The past year, owing to causes beyond the control of this society, only one fair—and that a free one—was held. The display of small fruits and flowers, however, was very good.

One great obstacle under which this Society has labored, in holding its exhibitions, has been the want of a room of sufficient capacity to make a good display, so that each variety of fruit and flowers could be placed without crowding. This obstacle we are in hopes to have removed before the time of holding another fair.

This Society now numbers about forty members, most of whom are life members. So far from being discouraged by the failures of the last year, the most of them are determined to enter upon the campaign for another year with renewed zeal and courage, avoiding the rocks and shoals of the past and make our Society one of the institutions of the land.

The present officers are:

President—Dr. J. B. Whiting.
Vice-President—S. G. Williams.
Secretary—F. S. Lawrence.
Treasurer—S. W. Smith.

F. S. LAWRENCE,

Secretary.

JANESVILLE, 1868.

GRANT COUNTY HORTICULTURAL SOCIETY.

The Grant County Horticultural Society, of Platteville, was organized December 16, 1867. Its officers are:

President—J. H. Rountree.
Vice President—Jacob Wernli.
Secretary—Chas. H. Allen.
Treasurer—L. L. Goodell.

These officers constitute the Executive Committee.

The objects of the Society, as expressed in the constitution, are as follows:

“The advancement of the science of Horticulture in this vicinity, and the collection, comparison and preservation of the culture of fruits, flowers and garden vegetables in this and adjoining counties.”

But one exhibition was held, which was held in June, and was eminently successful. It is the purpose to hold two exhibitions each year.

The resources of the Society are: Membership, \$2; dues, \$1; Receipts from exhibitions. All premiums awarded to members of the Society at the first exhibition were donated, and the Society is now in funds.

The results of the labors so far have been to awaken an interest in the culture of flowers and fruits, and to introduce into our place a large number of educational books and periodicals. As a necessary result of this, grapes and small fruits are being planted in abundance, and in a few years our locality may be proud of what it can do in this direction.

CHAS. H. ALLEN.

Secretary.

THE KENOSHA HORTICULTURAL SOCIETY.

The organization of the “Kenosha Horticultural Society” was the offspring of a settled conviction on the part of leading amateurs and cultivators in the city of Kenosha and vicinity that a high standard of excellence in cultivation and improvement in raising fruits and flowers especially, could not be attained through the agency of the County Agricultural Society to which most of them belonged. Not that the latter did not offer sufficient premiums or inducements, but that from the nature of the case, the cultivation of grain, the raising of stock and the manufacture of butter and cheese must receive its chief attention. Added to which was the further consideration that the soil of the neighbourhood of Kenosha—a sandy loam—was peculiarly adapted to the growth of the smaller fruits, vegetables and flowers, and a relatively large number of persons had embarked, or were about to embark in their cultivation in order to supply to some extent the market in

Chicago and other places. These persons would, from time, to time express their desire for the establishment of a permanent society in furtherance of the design to increase the general stock of knowledge upon the subject; to compare views, and furnish opportunity to relate individual experiences; to interchange products—seeds as well as fruits—to awaken in the general public an interest in the subject of floral ornamentation and arboriculture; in the preservation and propagation of forest trees and shrubs, and the growth of fruits suited to this climate.

The meeting organized by the appointment of Thomas Howland, a well known pomologist, as chairman and S. Y. Brande secretary. A committee was appointed to draft a constitution and by-laws.

In accordance therewith the following officers were elected :

President.—H. P. Hinsdale.

Vice-President.—Stephen Galt.

Secretary.—H. T. O'Farrel.

Treasurer.—S. Y. Brande.

Executive committee, S. T. Rice, A. Z. Zettstrom with the President Vice President and Secretary *ex-officio*.

The Society voted to hold monthly meetings on the third Monday of each month at 2 o'clock in the afternoon of the months of October, November, December, January, February and March, and at 7½ P. M. of the remaining months of the year.

She society held its first or spring exhibition on the 30th day of June 1868, in "Horticultural Hall." Considering the lateness of the season, the show of strawberries was decidedly superior. Samples of all the leading varieties in cultivation were on exhibition together with a goodly show of early vegetables.

The attendance and patronage though not all the Society desired or expected was encouraging, and served to further the determination to make the fall exhibition surpass it in excellence.

The second, a fall exhibition was held on the 25th and 26th days of September, 1868. The show of vegetables was truly magnificent. The display grapes, apples &c. very fine, though owing to the general failure of the apple crop the number of specimens was not so great as would undoubtedly have been on exhibition. Kenosha county, in proportion to its size, is producing the largest quantity of this fruit in ordinary seasons of any county in the state. The flowers on exhibition were greatly admired, and specimens of pampas grass, eight feet in height, with a large drooping flowery head, attracted universal attention. The interest manifested was encouraging and the second fair was unanimously voted "a success"

As a Society we have no endowment, or fund; the expenses are wholly met by voluntary contribution, including an annual membership fee of one dollar. We have no experimental garden, and only the nucleus of a library, but we hope in time to be supplied with the means to create the latter.

The present officers are the same as at the organization of the Society.

Our expectation is, that the Society will continue to be "a necessity", otherwise we should, knowing the fickle character of many hundred enterprises,

predict its early abandonment. We feel that it has already done good in improving the character of our gardens and garden products, and in stimulating the desire to produce more and better things, and we hope to furnish the State Society with other contributions in future, which shall be alike creditable to us and to the commonwealth of which we form a part.

S. Y. BRANDE,
Treasurer.

OSHKOSH HORTICULTURAL SOCIETY.

OFFICE OF OSHKOSH HORTICULTURAL SOCIETY,
OSHKOSH, November 3, 1868.

O. S. WILLEY, Esq.,
Secretary of State Horticultural Society:

DEAR SIR:—Your favor of the 31st received. The "Oshkosh Horticultural Society" was organized on the 16th of April, 1868, and the past season has given two successful Exhibitions. The Society, yet in its infancy, was an experiment, and I hardly feel yet privileged to speak of its ultimate success, yet its importance may be estimated by the taste and attention it has stimulated among the more refined and appreciative portion of our people. All matters relating to Horticulture, in a general and systematic sense, had been neglected, if not ignored, and the few yards and grounds showing taste, here and there and far between along our streets, serve to make the neglect more apparent. The first labor of our Society was to encourage the setting of shade trees; in this, it was very successful. Probably more trees are set along our streets last spring, than ever before. We next gave notice of *free* public Exhibition, and urged our citizens to prepare for it, publishing a series of Horticultural articles, stating what to plant in the way of shrubbery, and when to plant it. When our Exhibition finally took place, it was well attended, exciting both wonder and admiration, and was by all considered a success. It was given as a *free* Exhibition, that its objects might be the better known. The second Exhibition presented a good show of flowers and fruits, the evening was very unfavorable, yet the attendance was such as to show an interest in, and an appreciation of the objects of the Society.

Since then the labors of the Society have been directed to general objects, connected with Horticulture, discussion of vines, fruit trees, &c., and during the winter, weekly meetings will be held for the purpose of considering matters that will be most likely to engage attention next season, and best promote the interests of Horticulture.

I have no doubt of the success of the Society nor do I doubt that good results will follow its labors. Horticulture enlists the attention of every in-

telligent and refined mind, and we have only to develope it, to make the taste and practice popular. We number about forty members, and will increase it to one hundred during the next season.

The present officers are :

President—Geo. Hyer.

Vice-President—O. H. Harris.

Corresponding Secretary—I. J. Hoile.

Recording Secretary—Jacob Fowler.

Treasurer—B. Harkell.

Another year will enable our Society, I hope, to report more favorably.

Very respectfully,

GEO. HYER.

APPENDIX.

CONSTITUTION AND BY-LAWS OF THE WISCONSIN STATE HORTICULTURAL SOCIETY

ADOPTED AT THE ANNUAL MEETING IN FEBRUARY, 1868.

CONSTITUTION.

ARTICLE I.—This Society shall be known as the Wisconsin State Horticultural Society.

ARTICLE II.—Its object shall be the advancement of the science of Pomology and of the art of Horticulture.

ARTICLE III.—Its members shall consist of *Annual* members, paying an annual fee of One Dollar, of *Life* members paying a fee of Ten Dollars at one time, and of *Honorary* members, who shall only be members of distinguished merit in Horticultural or kindred sciences, or who shall confer any particular benefit upon the Society, who may by vote be invited to participate in the proceedings of the Society.

ARTICLE IV.—Its officers shall consist of a President, Vice-President, Recording Secretary, Corresponding Secretary, Treasurer and an Executive Board, consisting of the foregoing officers and the ex-President, and *three* members to be elected annually; five of whom shall constitute a quorum at any of its meetings.

In addition to the foregoing officers, the President, and Secretaries of all local Societies shall be deemed *ex-officio* members of the Executive Board.

All officers shall be elected by *ballot* and shall hold their office for *one* year thereafter, and until their successors are elected.

ARTICLE V.—The society shall hold *annual* meetings commencing on the first *Tuesday* of February, for the election of officers, for discussions, and for the exhibition of *fruits*; also, one meeting during the fall, for exhibition of

fruits, and for discussions, at such time and place as the Executive Board shall designate.

ARTICLE VI.—This Constitution may be amended at any regular meeting by a two-thirds vote of the members present.

BY-LAWS.

I The President shall preside at meetings, and with the advice of the Secretary call all meetings of the Society, and have a general superintendence of the affairs of the Society, and shall deliver an Annual Address, upon some subject connected with Horticulture.

II. The Vice President shall act in the absence or disability of the President, and shall perform the duties of the chief officer.

III. The Secretaries of local Societies shall by correspondence and personal intercourse with Horticulturists of their respective districts obtain accurate information of the condition and progress of horticulture and report to this Society.

IV. The Corresponding Secretary shall attend to all the correspondence of the Society.

V. The recording Secretary shall record the proceedings of the Society, preserve all papers belonging to the same, and superintend the publication of its reports.

VI. The Treasurer shall receive and keep an account of all moneys belonging to the Society, and disburse the same on the written order of the President countersigned by the Secretary, and shall make an annual report of receipts and disbursements.

VII. The Executive Board may, subject to the approval of the Society, manage all its affairs, and fill all vacancies in the board of officers; three of their number, as designated by the President shall constitute a finance committee.

VIII. It shall be the duty of the Finance committee to settle with the Treasurer, and to examine and report upon all bills or claims against the Society, which may have been presented and referred to them.

LAWS

RELATING TO THE PLANTING AND PRESERVATION OF

FRUIT AND FOREST TREES.

Chapter 165—R. S.

SECTION 49. Every person who shall wilfully and maliciously, or wantonly and without cause, cut down and destroy, or by girdling, lopping, or otherwise, shall injure, any fruit tree or any other trees, not his own, standing or growing for shade, ornament, or other useful purposes, or shall maliciously or wantonly break the glass or any other part of it in any building not his own, or shall maliciously break down any fence belonging to or enclosing land not his own, or shall maliciously throw down or open any bars, gate, or fence, and leave the same down or open, or shall maliciously or injuriously sever from the freehold of another any produce thereof or anything attached thereto, shall be punished by imprisonment in the county jail, not more than one year nor less than three months, or by fine, not exceeding two hundred dollars.

SECTION 51. Every person who shall wilfully commit any trespass by entering upon the garden, orchard, or other improved land of another, without permission of the owner thereof, and with intent to cut, take, carry away, destroy, or injure the trees, grain, grass, hay, fruit, or vegetables there growing or being, shall be punished by fine, not exceeding fifteen dollars nor less than three dollars.

SECTION 52. Every justice of the peace shall have concurrent jurisdiction in his own county with the circuit court, of all the offenses mentioned in the three preceding sections of this chapter, when the value of the trees, fruit, grain, or other property injured, destroyed, taken, or carried away, or the injury occasioned by the trespass, shall not be alleged to exceed the sum of one hundred dollars; and in any such case the punishment shall be by fine, not exceeding fifty dollars nor less than five dollars.

SECTION 53. Any person who shall willfully cut down or destroy, or by girdling or otherwise shall injure, any tree growing or standing upon any lands set apart for university and school purposes, or either, and belonging to this state, or upon any other lands belonging to this state, or upon any other lands belonging to this state, or who shall wilfully cut or take, carry or haul away, from any such lands, any timber or wood previously cut or sever-

ed from said lands, or shall dig or carry away any mineral earth or stone in or upon any of said lands, shall be held guilty of a misdemeanor, and upon conviction of any of said offenses, shall be punished by imprisonment in the county jail of the proper county, not more than one year nor less than three months, or by fine, not exceeding five hundred dollars.

SECTION 54. Any justice of the peace shall have concurrent jurisdiction in his own county with the circuit court, of any offense mentioned in the preceding section, where the value of the trees, wood, timber, mineral, earth, or stone shall be alleged not to exceed the sum of one hundred dollars, and in such case the punishment shall be by fine, not exceeding one hundred dollars nor less than ten dollars.

SECTION 55. It is hereby made the special duty of the superintendent of schools in each town, who may have knowledge of or who may receive information of any offense mentioned in the next preceding sections of this chapter, to forthwith inform the district attorney of the county in which he shall reside, of the trespass committed, of the name of the trespasser or trespassers, and of the name of the witness or witnesses in the case; and the district attorney shall immediately proceed to bring such trespasser or trespassers before the proper tribunal for trial, and he shall prosecute them in the name of the state.

SECTION 56. Any person who shall wilfully and without authority cut down or destroy, or shall injure by girdling or otherwise, any growing or standing timber or tree upon the private property of any individual, or upon any property held in trust, or shall cut any timber or wood upon any such property, or take, or carry, or haul away therefrom any timber or wood previously cut or severed from such freehold or land, or who shall willfully and without authority dig or carry away any mineral earth or stone from any such freehold or land, shall be deemed guilty of a misdemeanor.

SECTION 57. Any person who shall be convicted of having committed any such offense in the day time, shall be punished by imprisonment in the common jail of the county, not less than ten days nor more than one year, or by fine, not less than ten dollars nor more than five hundred dollars, together with the costs of suit; any person who shall be convicted of having committed any such offense in the night time, shall be punished by imprisonment in the county jail, not less than twenty days nor more than two years, or by fine, not less than twenty dollars nor more than one thousand dollars, together with costs of suit; any person who shall be convicted of having committed, in the day time, a second offense, shall be punished by imprisonment in the county jail, not less than twenty days nor more than two years, or by fine, not less than twenty dollars nor more than one thousand dollars, together with costs of suit; and if the first conviction be for any such offense committed in the day time, and such second conviction shall be for an offense committed in the night time, or if the first conviction be for an offense committed in the night time, and the second conviction be for an offense committed in the day time, such person, upon such second conviction, shall be punished by imprisonment in the county jail, not less than thirty days nor

more than two years, or by fine, not less than thirty dollars nor more than one thousand dollars, together with the costs of suit; and if such second conviction be for an offense committed in the night time, such person shall be punished by imprisonment in the county jail, not less than forty days nor more than two years, or by fine, not less than fifty dollars nor more than one thousand dollars, together with the costs of suit; upon all subsequent convictions of such offenses, such offender shall be punished by both such fine, costs, and imprisonment, as last aforesaid.

SECTION 58. If any person, upon conviction of any offense mentioned in the last two sections of this chapter, shall be adjudged to pay a fine, such person shall stand committed to the county jail until such fine and costs shall be paid, or until he shall be discharged therefrom by due course of law.

SECTION 59. If any person shall willfully or maliciously set on fire, or cause to be set on fire, any woods, or prairie, or other grounds other than his own, or shall intentionally, or by neglect, permit the fire to pass his own prairie or grounds to the injury of any other person or persons, every person so offending shall, on conviction thereof for every such offense, be fined a sum not exceeding five hundred dollars nor less than ten dollars.

Chapter 279—General Laws 1860.

AN ACT for the protection of orchards and fruit trees.

SECTION 1. Section fifty-one, of chapter one hundred and sixty-five, of the revised statutes, is hereby amended by adding thereto the following, to-wit: "or by imprisonment in the county jail not more than thirty days, nor less than five days."

SECTION 2. Section fifty-two, of said chapter, is amended by adding thereto the following: "or by imprisonment in the county jail, not more than three months, nor less than ten days."

. Approved March 31, 1860.

Chapter 102—General Laws 1868.

AN ACT to encourage the planting and growth of trees and for the protection thereof.

SECTION 1. Every land owner or possessor of five acres of land or more, who shall reserve from the natural growth, or shall successfully grow by planting not to exceed one-fifth part thereof in forest trees, in the form of tree-belts, as hereinafter described, shall be entitled to have the land on which such trees grow exempted from taxation from the time the said trees commence to grow, if planted by the owner, until the trees shall reach the height of twelve feet. Whenever the trees shall have attained the height of twelve feet, he shall be entitled to receive an annual bounty of two dollars per acre for each acre so planted or grown as a tree-belt, which bounty shall be allowed him as hereinafter provided; and the certificate therefor shall be

received by the collector of taxes assessed on the entire land of which the tree-belt forms a part, as so much cash.

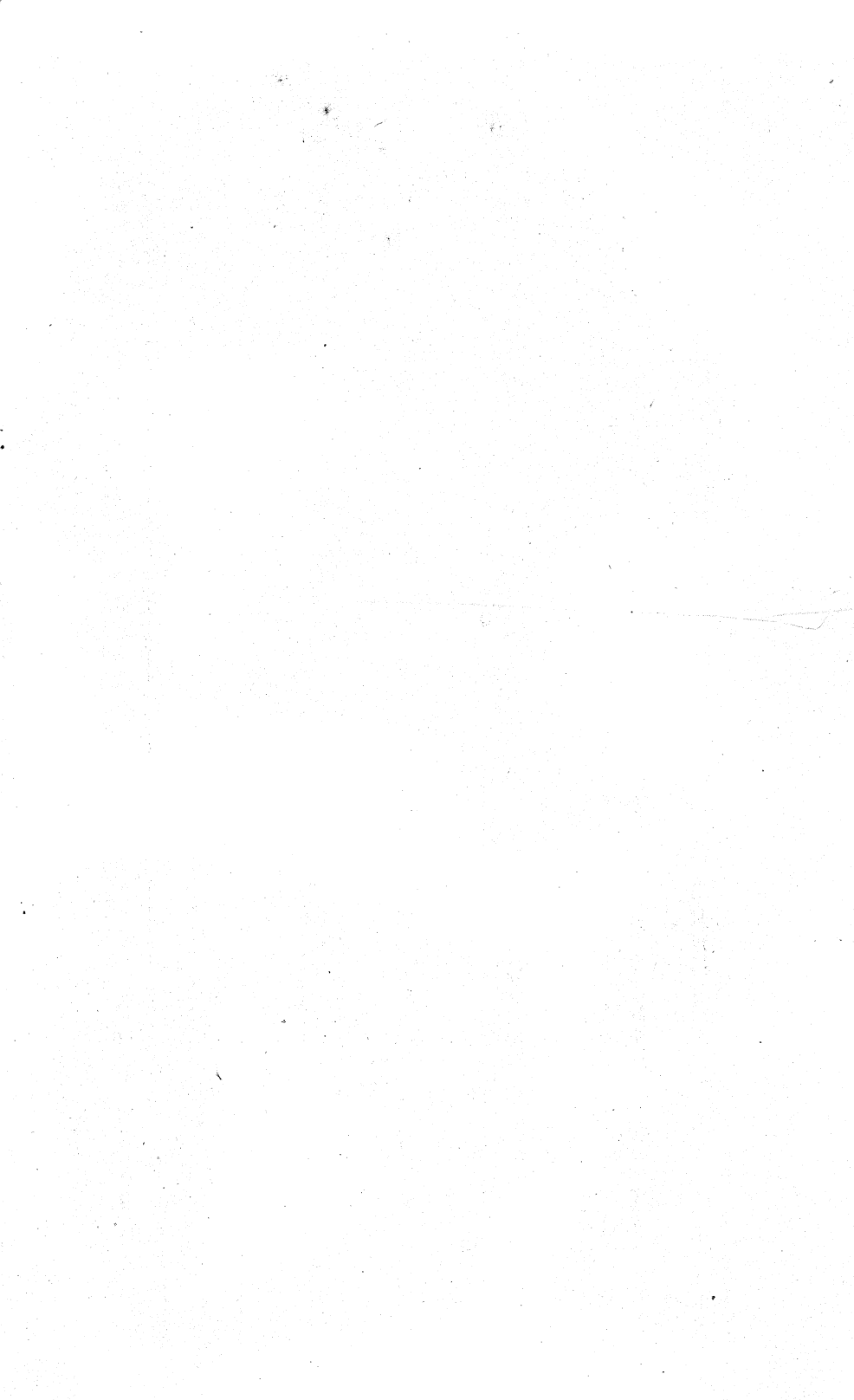
SECTION 2. Tree-belts to be entitled to the benefit of this act, shall be reserved or planted on the west or south sides of each tract of land, and shall be not less than thirty feet wide; but no tree-belt shall exceed one-fifth part of the entire tract of land on which the same is planted: *provided*, that if the east and north sides of any tract of land, or either of them be bounded by a public highway or street, then a tree-belt one rod wide may be planted next to said highway or street, and the same shall be entitled to all the benefits of this act, although such last mentioned tree-belt shall with the other tree-belts on the west and south sides exceed the one-fifth part of the whole of said tract of land. The tree-belts may be composed of any or all of the following kinds of trees, or such species thereof as will grow to the height of fifty feet or more, viz: arbor vitæ, ash, balsam fir, basswood, beech, birch, butternut, cedar, black cherry, chestnut, coffee tree, cucumber tree, elm, hackberry, hemlock, hickory, larch, locust, maple, oak, pine, spruce, tulip tree and walnut. All belts shall be of equal width throughout their entire length, and contain not less than eight trees standing nearly equal distances from each other, on each square rod of land.

SECTION 3. Tree-belts to be entitled to the benefits of this act, for each five acres of land must be at least thirty feet wide; for each ten acres of land at least sixty feet wide, and for forty square acres at least one hundred feet wide, and must be on two sides of each square tract of land; and all tree-belts owned by the same land owner must be planted to not exceed one-fourth of a mile apart, or on the west and south sides of every forty square acres of land; and the tree-belts may be divided and planted on any other lines within each forty square acres, by the permission of the assessor.

SECTION 4. Whenever any person, after having applied for and obtained a bounty certificate for a tree-belt, shall allow such tree-belt to die out by want of culture or otherwise, or shall cut down the same, or shall pasture the same lands with his cattle or animals, or shall so thin out the tree-belts that, in the opinion of the assessor, it shall no longer be entitled to receive the annual bounty hereby offered, or to have the land exempted from taxation, he shall lose all benefit of this act until it shall again be accepted and certified to by the assessor.

SECTION 5. It shall be the duty of the assessor upon application of the owner each year, at the time of assessing the personal property in his district, to ascertain by personal examination of all tree-belts for which exemption from taxes or bounties is claimed, and by inquiries whether the belts have been reserved or planted, and are thriftily growing as required by this act; and if he shall be satisfied that they are not so growing, or that the owner has allowed his cattle and animal access to the tree-belts, or that he has cut down or thinned out the same so as to destroy their capacity as a wind-break, he shall assess the land for taxes, and shall refuse to grant any certificate showing that the owner is entitled to a bounty thereon.

Approved March 4, 1868.









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