

Governor's message and accompanying documents. Volume II 1879

Madison, Wisconsin: David Atwood, 1879

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STATE OF WISCONSIN.

GOVERNOR'S MESSAGE

AND

ACCOMPANYING DOCUMENTS.

1878.

VOLUME II.

MADISON, WIS.: DAVID ATWOOD, STATE PRINTER. 1879.

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EIGHTH

ANNUAL REPORT

OF THE

STATE BOARD

OF

CHARITIES AND REFORM

OF THE

STATE OF WISCONSIN.

PRESENTED TO THE GOVERNOR DECEMBER, 1878.

MADISON, WIS.: DAVID ATWOOD, STATE PRINTER. 1879.

STATE BOARD OF CHARITIES AND REFORM.

HEZIKIAH C. TILTON, HIRAM H. GILES, CHARLES H. HASKINS, WILLIAM W. REED, ANDREW E. ELMORE,

JANESVILLE, MADISON. MILWAUKEE, JEFFERSON.

Term expires April 1st, 1879. Term expires April 1st, 1880. Term expires April 1st, 1881. Term expires April 1st, 1882. FORT HOWARD, Term expires April 1st, 1883.

OFFICERS OF THE BOARD.

ANDREW E. ELMORE, PRESIDENT.

WILLIAM W. REED, VICE PRESIDENT.

THEODORE D. KANOUSE, SECRETARY.

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Office of the State Board of Charities and Reform, Madison, December, 1878.

To the Hon. William E. Smith,

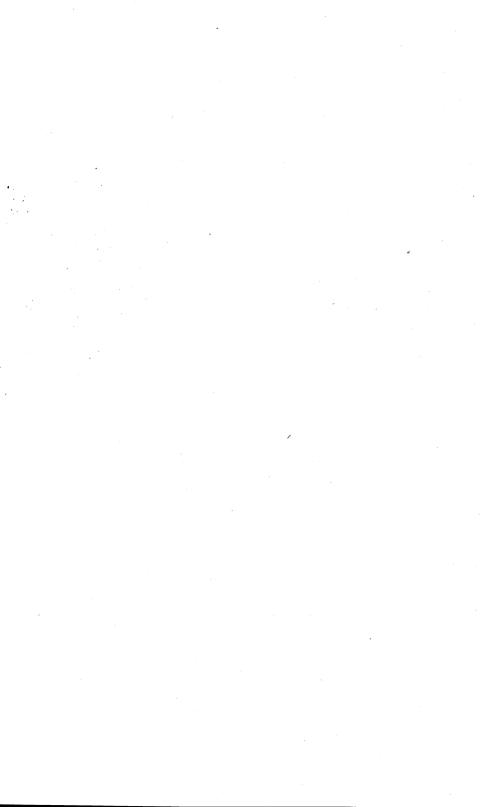
Governor of Wisconsin:

We have the honor of submitting to your excellency, as required by law, our eighth annual report.

H. H. GILES,

C. H. HASKINS, W. W. REED, A. E. ELMORE.

THEODORE D. KANOUSE, Secretarg.



I.

MEETINGS OF THE BOARD.

Since the date of the last annual report of the State Board of Charities and Reform (Dec. 13, 1877), meetings have been held:

December 27th, at the office in Madison.

January 15th, at the office in Madison.

February 18th, 19th, 20th and 21st, at the office in Madison.

April 10th 15th and 16th, at the office in Madison.

April 22d, at the office in Madison.

April 23d, at the office in Madison.

April 24th, at the Deaf and Dumb Institute, Delavan.

May 6th, at Rev. H. C. Tilton's, Janesville.

June 27th and 29th, at Rev. H. C. Tilton's, Janesville.

July 8th, 22d and 26th, at Newhall House, Milwaukee.

July 31st, at the office in Madison.

October 7th, at the court house in Milwaukee.

November 6th, at Institution for Blind, Janesville.

November 7th, at Institution for Deaf and Dumb, Delavan.

November 18th, at the Northern Hospital for the Insane.

November 20th, at the State Prison at Waupun.

November 22d, at the Industrial School for Boys.

November 26th, at the Wisconsin State Hospital for the Insane.

November 27th, at the office in Madison.

December 26th, 27th and 28th, at the office in Madison.

PROCEEDINGS OF THE BOARD.

At the meeting December 27, 1877, the secretary was ordered to have a sufficient number of copies of that part of the annual report of the board which relates to the care of the chronic insane, printed at once, and sent to the members-elect of the legislature.

At the quarterly meeting, January 15, 1878, no special business was done.

The meeting of February 18th, was held on call of the president. The board then first took official notice of certain charges made by C. L. Williams against the management of the Deaf and Dumb Institute at Delavan, and instructed its secretary to take the deposition of Miss Mary Stillwell of Mazomanie, as touching the matters referred to in a statement made by herself, and February 19th received the affidavit above referred to, and provided for a further prosecution of inquiries into the truthfulness or otherwise of the charges made by the said Williams. February 21st, the condition of affairs relating to the Deaf and Dumb Institute at Delavan was further considered, and the secretary directed to prosecute the inquiries previously referred to.

At the regular annual meeting April 9th, a recess was taken until the following day, when a further recess was taken until the 15th, to convene at the Newhall House in Milwaukee. April 15th the board met at Milwaukee as provided, and proceeded to consider the law "To further provide for the care of the insane."

A delegation from the board of supervisers of Sheboygan county was present, and inquired as to the probability of permission being obtained for the organization of a county insane asylum in that county under the provisions of the act.

By unanimous consent, the delegation was assurred by the president of the board that the proper certificate would be filed with the secretary of state, when proper action should be taken by the board of supervisors of that county. A like assurance was given to a committee of the Milwaukee county board of supervisors in relation to a proposed asylum for that county.

The Delvavan matter was further considered, and the president of the board was directed to visit Chicago and interview C. L. Williams, and ascertain just what was charged by him against the principal of the institute, as well as the names of witnesses by whom he proposed to substantiate his statements.

It was further resolved that the President and such members as desire to go, be and they are hereby authorized to attend the Conference of Charities at Cincinnati.

The Board met at the Newhall House, April 16th, when the President laid before it the resignation of T. W. Haight, as Secretary, to take effect as soon as his successor was elected and qualified. Accepted to take effect may 1st, 1878. The Board proceeded to the election of officers, and elected as

> President - Andrew E. Elmore, of Fort Howard. Vice President - W. W. REED, of Jefferson. Secretary - Theo. D. Kanouse, of Watertown.

At the meeting of April 22d, the President made verbal report of his interview with Mr. Williams in Chicago who had furnished him the names of witnesses to prove his charges against the Superintendent, and further stated that he had apprised the Trustees of the Deaf and Dumb Institute at Delavan that a meeting of this Board would be held at Delavan on Wednesday evening, April 24, at which he had invited the Trustees of the Institute to be present.

The Governor, Hon. Wm. E. Smith, being present, it was decided that under the act "To further provide for the care of the insane," separate action from that of this Board was called for on the part of the Governor.

A communication was received from the board of supervisors of Milwaukee county, stating the determination of the board to organize a county asylum, under chapter 298, general laws of 1878. It was ordered by the board, that the preliminary certificate, setting forth the necessity of such asylum, should be filed in the office of the secretary of state. April 23d, the following certificate was approved by the board, and ordered to be filed with the Secretary of State:

STATE OF WISCONSIN-SS.

Whereas, the county clerk of the county of Milwaukee, in said state, has filed with the Governor and State Board of Charities and Reform of said state, a certified copy of the proceedings of the board of supervisors of said county, providing for a site and the erection of buildings thereon for an insane asylum, as provided in chapter 298 of the laws of 1878.

Now, therefore, the Governor and the State Board of Charities and Reform of said state do hereby certify that a necessity exists for such asylum, and that for want of room there is insufficient provision for the proper care of the total number of insane in the hospitals now existing under the laws of this state and the asylums erected or proposed to be erected under the provisions of chapter 298 aforesaid.

Dated at Madison, this 23d day of April, 1878.

[Signed]

WM. E. SMITH,

Governor.

ANDREW E. ELMORE, H. H. GILES, W. W. REED,

Of the State Board of Charities and Reform.

The meeting at Delavan, April 24th, was for the purpose of laying before the board of trustees of the Institute, certain complaints in the nature of charges made by C. L. Williams, a former teacher in the Institute, against certain officers of the institution.

The board of trustees had been previously notified of the meeting, and were represented by a full board, consisting of its president, A. L. Chapin, LL. D., and Messrs. Holton, Cheever, La Bar and Latham.

After an informal discussion of the whole matter, an adjournment was had until the next day, the 25th, when, after consultation, it was decided to leave the whole matter in the hands of the board of trustees of the Institute.

The meeting at Janesville, May 6th, was for the purpose of considering the order of His Excellency, the Governor, directing the

State Board of Charities and Reform to make an investigation into the past and present management of the Institute for the Education of the Deaf and Dumb at Delavan.

The following resolution was adopted:

That this board, in making the investigation as directed by the order of His Excellency the Governor, desire to avail themselves of chapter 25 of the general laws of 1868, entitled "an act to provide for taking the depositions of witnesses in certain cases," and the secretary is hereby directed to make application to such court commissioners, justices of the peace, or other officers authorized by the laws of this state to take depositions to be used and read in the circuit courts of this state.

It was further resolved that Vice Pres. Reed and H. H. Giles be a committee to conduct the investigation, and that the same commence at the city of Madison at such time as may be thought best by them.

It was further decided as the sense of the board, that the inves-

tigation be not a public one.

At the meeting in Janesville, June 27th, Messrs. Reed and Giles, the committee to take the testimony in the Delavan investigation, submitted their report. The 27th, 28th, and 29th of June were occupied in reading and the consideration of the testimony taken, and hearing the argument of Mr. Valentine, attorney for Messrs. De Motte and Woodbury.

July 8th, the board met in Janesville to consider the report prepared for submission to His Excellency, the Governor, together with the testimony taken, in the investigation into the management of the Deaf and Dumb Institute at Delavan, and agreed upon the report and ordered its transmission to the governor. The meeting of July 22d, was called by the president for the purpose of considering the plans, drawings and specifications for an insane asylum for the county of Milwaukee, to be submitted by the supervisors of said county, agreeable to statute. The board met the next morning at the court house of Milwaukee county, and made examination of the plans, drawings and specifications submitted by a committee of the county board, for an insane asylum, and without

reaching a conclusion, adjourned until the 26th of July, at 2 o'clock P. M., at the same place.

July 26th, the board met at the court house in Milwaukee, with His Excellency, the Governor, and after a critical examination of the plan submitted, they were, on motion, approved. July 31st, the board held a meeting at the office in Madison, and instructed the secretary to inquire into the causes of pauperism in the counties of Grant, Rock, Walworth, Dane and Jefferson, by a thorough examination of the paupers in the poor houses of those counties in accord with questions prepared by previous action of this board.

The meeting of the board at Milwaukee, October 7th, was for the purpose of examining the plans submitted by the county board of supervisors for an insane asylum for Milwaukee county. (The plans previously approved having been rejected by the board of supervisors.)

After examination of the plans, the following resolution was adopted.

"Resolved, That the plans, drawings and specifications for a county insane asylum for Milwaukee county, submitted to this board by the county board of supervisors of Milwaukee county for its approval, under chapter 298, Laws of 1878, being the plans, drawings and specifications prepared by H. H. Koch, are hereby approved in respect to the number and sanitary care of the inmates to be provided for."

The meeting at Janesville Nov. 6th was for the purpose of examining the estimates made by the board of trustees of the Blind Asylum for appropriations to ask of the legislature. The trustees of the institute having been notified of our meeting, were all present. The buildings, shops, grounds, schools and matters generally pertaining to the institution were inspected on that and the following day.

Nov. 7th. The board met the trustees of the Deaf and Dumb Institute at Delavan, and made a full examination of the affairs of the institution, and after revision of the estimates submitted, agreed upon a report to the legislature.

Nov. 18th. The board met at the Northern Hospital for the Insane, and made a full examination of the condition of the institu-

tion. A majority of the board of trustees were also present, and the wants of the hospital were considered and agreed upon.

Nov. 20th. The State Prison was visited and examined by the board. Col. Burchard, one of the prison directors, was also present.

Nov. 22d. Met at the Industrial School at Waukesha, and made a critical inspection of all its departments, in company with the board of managers.

Nov. 26th. Visited the State Hospital at Madison, in company with Gen. Atwood, president of the board of trustees.

Nov. 27th. Met at the office of the board in Madison, and agreed upon recommendations for the State Hospital.

Dec. 26th, 27th and 28th. Met at the office in Madison, for the purpose of listening to the reading of the annual report prepared by the secretary. The full report was read at length, and after amendment, was adopted and ordered presented to the Governor.

Expenses.

STATEMENT OF EXPENSES OF THE BOARD.

H. H. Giles, member of the board, expenses W. W. Reed, member of the board, expenses H. C. Tilton, member of the board, expenses C. H. Haskins, member of the board, expenses A. E. Elmore, member of the board, expenses A. E. Elmore, expenses to Saratoga conference A. E. Elmore, expenses visiting institution for feeble minded T. W. Haight, Secretary, salary	178 83 71 245 92 47	23 95 00 40 00 56
T. W. Haight, Secretary, expenses		
T. D. Kanouse, Secretary, salary	500	00
T. D. Kanouse, Secretary, expenses	40	70
	\$2,810	42

Investigation of the Institute for Deaf and Dumb.

H. H. Giles, per diem	\$207 50
H H. Giles, expenses	70 57
W. W. Reed, per diem	175 00
W. W. Reed, expenses	108 79
H. C. Tilton, per diem.	25 00
T. D. Kanouse, expenses	91 41
S. S. Woodward, notary fees	6 00
Rufus B. Smith, commissioner's fees	31 94
George W. Matteson, sheriff's fees	3 50
H A Deka aubnomaina witnesses	16 70
H. A. Dyke, subprenaing witnesses	5 80
Emil Hartwig, sheriff's fees	20 00
Louis Jenkins, interpreter's fees	$\frac{20}{2} \frac{56}{56}$
Hiram Bishop, witness fees	$\begin{array}{c} 2 & 50 \\ 1 & 56 \end{array}$
Emilee Eberledo	1 56
Gust Eberledo	
E. F. Gardnerdo	9 00
C. Minertdo	3 54
Frances Minertdo	3 54
Dora Minertdo	3 54
J. H. Miner, court commissioner	5 97
C. L. Williams, witness fees	4 88
Prebe Smithdo	2 70
A. W. Smithdo	2 70
Helen L. Tenneydo	81
Mary Sillwelldo	3 44
Abbie Tenneydo	81
T. K. Studleydo	11 35

\$820 17

LAW GOVERNING THE BOARD.

Chapter 29 — Revised Statutes, 1878.

OF THE STATE BOARD OF CHARITIES AND REFORM.

Section 561. To secure the just, humane and economical administration of public charity and correction, there is constituted a state board of charities and reform, composed of five members. Their term of office, beginning with the first day of April in the year of appointment, shall be for five years and until their respective successors are appointed, and they shall continue as at present arranged, so that the term of office of one member shall expire each year. The governor shall fill all vacancies by appointment, but in case of a vacancy before the expiration of a term, the appointment shall be for the residue of such term only. All such appointments shall be confirmed by the senate.

Section 562. The board shall meet annually in April on or before the fifteenth day, and in January, on or before the tenth day, and at such other times and at such places as may be fixed by their by-laws, or otherwise appointed by them.

Section 563. The board shall appoint a qualified elector as secretary, whose term of office shall be three years, and until his successor is appointed and qualified, unless sooner discharged by the board. A certificate of appointment or discharge of any person as secretary shall be immediately filed by the board with the secretary of state. The duty of the secretary shall be to record all the transactions of the board and the proceedings of their meeting; to keep their books and papers, make such visits and perform such other duties as the board may prescribe. The board may appoint a president and other officers to serve without compensation, and fix their terms of office and prescribe their duties.

SECTION 564. Each member and their secretary shall have refunded to him all expenses actually and necessarily made in the discharge of his official duty, and when the board shall have been specially directed in writing by the governor, to make any investi-

gation, each member shall receive five dollars for each day actually devoted to such duty. The amount of each account for such compensation or expenses, stated in detail and verified by affidavit, the secretary's to be also approved by the president of the board, shall be audited by the secretary of state and paid out of the treasury. All stationery, blanks, printing, postage stamps, stamped envelopes and the like, necessary for the official use of the board or their secretary, shall be supplied to them in the same manner as to state officials. No other compensation whatever shall be paid any member of said board.

Section 565. It shall be the duty of the board:

- 1. To investigate and supervise all the charitable and correctional institutions supported or aided at all by the state, and all industrial schools, hospitals and asylums, which shall be organized or existing under chapter eighty-six of these statutes, and to familiarize themselves with all the circumstances affecting their management and usefulness.
- 2. To thoroughly investigate from time to time the poor houses in the state, ascertaining how many persons of each sex, how many insane, idiotic, deaf and dumb, or blind, and how many poor children are supported in each, at what cost, and under what circumstances affecting their health, comfort and morals, and what provision is made for the care and education of such children; to collect statistics of the number and cost of support of, and other important facts concerning, the poor who are maintained or relieved at public expense outside of poor houses; to inquire to what extent the provisions of law in regard to binding out poor children are complied with, and in general, collect such information as may throw light on the adequacy and efficiency of existing laws for the support and relief of the poor, and the causes operating to increase or diminish pauperism in the state, or to place the burden of relieving it where it does not properly belong.
- 3. To thoroughly investigate from time to time the jails, city prisons, houses of correction and all places in which persons convicted or suspected of crime, or insane persons are confined; to collect important statistics concerning the inmates; to ascertain their sanitary condition their arrangement for the separation of the

hardened criminals from juvenile offenders, and from persons suspected of crime or detained as witnesses; whether useful employment is furnished prisoners; how the insane are treated, and what efforts are made for the reformation of criminals; and generally to collect information of all important facts or considerations, affecting the proper treatment of criminals and the diminution of crime.

- 4. To thoroughly inquire into and examine the condition of each of the institutions and establishments hereinbefore referred to, their methods of treatment, instruction, government and management of their inmates, the official conduct of all trustees, managers, directors, superintendents and other officers and employes of the same, the condition of the buildings, grounds, and all other property connected with or pertaining to the same, and into all other matters and things pertaining to their usefulness and good management, and to recommend to such officers and employes such changes and additional provisions as they deem proper.
- 5. To cause visits to be made annually, or as may be necessary, to each such institution or establishment, either by the members personally or their secretary.
- 6. To make, whenever directed by the governor, special investigation into the past or present management, or anything connected therewith, of any such institution or establishment, comply with his directions therein, advise him of their progress from time to time, and upon completion thereof to report to him the testimony taken, the facts found by them and their conclusions thereon.
- 7. To prepare, and as may be necessary to amend, from time to time, subject to the approval of the governor, a system or plan for keeping the books and accounts of the state charitable and correctional institutions, to be as nearly uniform as can be adapted to their different wants and necessities, and to see that such plans are adopted and followed by each such institution, and to prescribe the form in which institutions shall, in their annual reports, set forth a detailed statement of their receipts and expenditures for the year.
- 8. To make such by-laws, rules and regulation, not incompatible with law, as shall be necessary for the convenient and proper performance of their duties.
 - 9. To make and present to the governor on or before the fif-

teenth day of December in each year their annual report, in which they shall concisely state the condition of each charitable and correctional institution, supported or aided by the state, and their opinion of the appropriation proper to be made for each for the following year; the results of all their visits and investigations during the year in respect to each of the several matters herein charged upon them, and all important statistical information collected by them, properly tabulated, and such recommendations or suggestions as they may see fit to present respecting the subjects under their supervision; and their proceedings during the year, and a detailed statement of all expenditures made from the treasury by or on behalf of the board.

To enable the performance of the duties herein Section 566. imposed, all trustees, managers, directors, superintendents and other officers or employes of the institutions and establishments aforesaid shall at all times afford to every member of said board and their secretary, unrestrained facility for inspection of and free access to all parts of the buildings and grounds, and to all books and papers of such institutions and establishments, and shall give either verbally or in writing such information as the board may require, and if any such person shall offend against this requirement, he shall forfeit not less than ten nor more than one hundred dollars. member and the secretary is authorized to administer oaths and take the deposition of any person as a witness in any investigation, and the board may by vote authorize their secretary to cause testimony to be taken by any judge, justice of the peace, or court commissioner, in the manner provided in the chapter on evidence. Upon an account thereof verified by the affidavit of the secretary or president of the board, all expenses of such investigations, including fees of officers and witnesses shall be audited by the secretary of state and paid out of the state treasury.

Section 567. Whenever it shall be brought to the notice of the State Board of Charities and Reform that any insane person in either of the Wisconsin hospitals for the insane, or elsewhere, is legally entitled to receive care and support in the national hospital for insane soldiers, they shall take such measures as may be necessary to establish the fact, and when so established, they shall cause such insane person to be transported to said hospital for insane soldiers.

Pauperism — Causes.

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PAUPERISM.

CAUSES OF PAUPERISM.

One of the causes of destitution is the improvident use of means acquired. To live without forethought, and regardless of the future, and as if the means of subsistence would always be within reach, is the prominent characteristic of a large class of men and women. There is, too, such a lack of economy in the management of resources, and lavish expenditure of means, that even temporary lack of employment, or sickness, or some casualty, brings to want.

Perhaps indolence is not a prominent trait of character in the class of persons now under consideration. They possess energy, if not "push," but seem to want the faculty of providing for the future, and by their acts say "let the morrow take care of itself."

Others pick up a precarious living from day to day, merely sufficient for their simplest wants; will beg rather than work; will sooner walk ten miles for a peck of corn than to earn it by honest work in one-half the time it would take to go after it.

There are also defects of character that are more a misfortune than a fault, and should excite our pity rather than our indignation.

Laziness is a cultivated disease, and with many it is constitutional, and is a prolific cause of pauperism. The most fruitful source of dependence and suffering, and the one that seems to attract the smallest amount of attention, is drunkenness. It is common to all classes of our population; is allied to crime, and throws its dark pall over every interest that concerns the welfare of the state, and casts into the shade all other causes of wretchedness.

Pauperism — Causes.

We can trace its footprints by the ravages of desolation with which it curses every one of its victims.

On every side, from every quarter of the land, with ten thousand voices speaking to us, comes the united and concurrent testimony that "strong drink is raging," and that it engulphs in its fiery deluge, the best interests of tens of thousands of our people. While it calls so loudly for the labors of the benevolent, it neutralizes their efforts by its peculiar virulence. Facts and figures, when presented in appalling numbers, seem only to paralyze the public conscience, already benumbed.

Intemperance is the most fruitful source of pauperism. Investigation into the causes of pauperism made in all the poor-houses of the state of New York prove that out of over ten thousand paupers quite four thousand men and over two thousand women were of intemperate habits, making $62\frac{1}{2}$ per cent. of the whole. The same line of inquiry extended to the parents of the twelve thousand paupers in these alms-houses showed that more than four thousand of their fathers and mothers had been intemperate.

It is presumed that the proportion found in the state of New York will hold good in other states. The average estimate in Massachusetts is 67 per cent., or a little over two-thirds.

We do not say that intemperance is the sole cause, but idleness and dissipation, each aggravates the other, and in tracing cause and effect, it is often difficult to separate the one from the other.

Indolence, improvidence and licentiousness go together, and each contributes its share, and all are aggravated by intemperance, and the latter is far the most fruitful in results. Another, and primary source of pauperism is found in the operation of the law of inherited descent of faculties.

PAUPERISM RUNS IN FAMILIES.

The cases where paupers come from sound, healthy stock and trained in well-ordered families, are rare, but they are oftener the product of a low physical, mental and moral organization.

"Human nature is a growth, and not a manufactured article. Facts, characteristics, passions, idiosyncracies and peccadilloes are all somewhat substantial facts that cannot be ignored." They come

in the line of descent, and follow a natural law. This law we have come to recognize in the brute animal kingdom, while ignoring it almost entirely in the human race.

The most thorough inquiry into pauperism ever made in this country, was the one before referred to, in the state of New York. Near the close of the report made by the state board of charities of that state, we find the following:

"The examination has made it clear that by far the greater number of paupers have reached that condition by idleness, improvidence, drunkenness or some form of vicious indulgence.

It is equally clear that these vices and weaknesses are very frequently, if not universally, the result of tendencies which are to a greater or less degree hereditary.

The element of heredity enters so largely into the problem of pauperism that it should receive special attention. Few persons who have not given detailed attention to the subject realize how much of vice and pauperism, idiocy and insanity, is hereditary. It is a subject to which little attention has hitherto been given, at least outside of treatises on physiology; but the time is rapidly approaching when its importance will compel the attention of the moralist as well as the law maker."

PAUPERISM IN POOR HOUSES.

Nearly all the county alms houses have been revisited. The illness of the secretary of the board has rendered it impossible to get around to all of them.

Under the system of supervision and close personal inspection that has been practiced, improvement was to be expected, and we are gratified in being able to say that their management and general condition has been improved from year to year until they will compare favorably with similar institutions in other states.

Many of the counties are yet without poor houses, and several have but poorly arranged ones and suffer much inconvenience from inadequate accommodations and badly planned buildings, which seriously interfere with the efficient care of the inmates.

Thirty-one (31) counties of the state have poor-houses. Some few others have adopted the county system of pauper support, and purchased land and sites, but by reason of sparse population have not yet erected buildings.

Some (but not many) of the county boards continue to agitate the question of returning to the town system of poor support, but we shall expect soon to see all the counties adopt the county system.

Improvements are being made in most of the county poor-houses, but some are not doing what they ought and should do, to render the paupers more comfortable. Too many county authorities show by their acts that they are anxious to save even a few dollars at the expense of the comfort of their indigent population. There is a growing public sentiment that pauperism is best diminished by keeping the dependent class out of the county poorhouses so long as there is a prospect that they will become self-sustaining. To this end outside relief is becoming more common. In many of the counties no one is sent to the poorhouse so long as he or she can earn a partial support. The fact is becoming recognized and being acted upon that "once in the poor house there is a loss of self respect to such an extent, that all ambition to earn a livelihood and gain a position in society is lost."

As a rule children between the ages of 5 and 16 years are kept out of the poor-houses in compliance with the provisions of law. For the information of those interested we republish section 1527 of chapter 63 of the revised statutes.

"No child over five and under sixteen years of age shall be sent as a poor person to any county poor house for support and care, unless such child be an unteachable idiot, an epileptic or a paralytic, or otherwise diseased or deformed, so as to render it unfit for family care; but the county superintendent or other officers having the care of the poor shall provide for the care and support of such children in families, orphan asylums or other appropriate institutions. The county board, or the agents whom they may appoint may bind out all minors who are supported at the expense of the county, in the same manner and with like effect as town boards are authorized to do by section fifteen hundred and eleven."

This law, passed on the recommendation of this board several

years ago, has worked well and been generally observed in the different counties. The children found in the poor houses during the last year, except in the county of Rock, are kept temporarily and only until homes can be found for them. The people, and especially the authorities, of all the counties should understand that to diminish pauperism, children must not be suffered to remain in poor houses, since statistics prove that those brought up there finally graduate into them again. Rock county ought not to violate this law.

BROWN COUNTY POOR-HOUSE.

Visited Oct. 17th.

We think this the best appointed poor-house in the state. In its general plan, good sense and architectural skill have succeeded in providing for a complete separation of the sexes, good ventilation and ample room for the inmates. It consists of a central building, the front of which is used for administrative purposes, and two wings, one on each side. The structure is imposing in outside appearance, and with pleasant surroundings. The purchase by the county of a small tract of land partially in front, and planting the front yard with shade trees would add much to the land-scape in approaching it from the city of Green Bay. In excavating for the basement a large spring was struck, which affords plenty of pure, cold water for domestic purposes, as well as keeps the sewer clean.

With registers in every room, there was an entire absence of the usual "poor-house smell."

To those counties intending the erection of poor-houses, we would recommend that of Brown county as a model. Walworth county, however, has one very nearly its equal in quite all respects.

At the time of our visit it contained 54 inmates, 28 of them males, 26 females and 4 children. These children were aged respectively 3 weeks, $2\frac{1}{2}$, 5 and 6 years.

Eight of the whole number were insane, four males and four females, two of them confined all the time, and all of them nights. The insane are kept in a separate building outside. It is an old affair and hardly suitable for the purpose, and we would suggest

that their is danger from fire. Every one is bathed on admission, and all inmates use the bath weekly. There are no able-bodied men, although seven or eight of them labor more or less on the farm.

There were three able-bodied women who assist in the work of the household. There was a family of five, the husband 58, the wife 32 years old, and three children, that have been there since March, 1876. Mr. John Cryan is overseer, and his wife is matron, and their salary is \$500 per year. Everything was in good order. All the rooms and corridors are cleaned twice each week, as well as the basement.

Hon. Dominic Hunt, of Fort Howard, is the resident supervisor, and exercises an intelligent supervision over the affairs of the institution and is deserving of credit for keeping everything in order.

COLUMBIA COUNTY POOR-HOUSE.

Visited September 8th.

A careful yet hurried inspection of this institution maintains the favorable impression we have always received from our annual visits.

An addition, at a cost of \$1,250, 30 by 45 feet, has been built during the last year. The whole building will now comfortably accommodate 100 inmates. The new part is wholly occupied by females.

The apartments for paupers were all found in excellent order, and everything about the institution was in a thrifty condition.

At the time of our visit there were 28 male paupers and 16 female, of which 8 males and 5 females were insane, none of whom were restrained except temporarily.

Mr. Geo. Muggleton continues to act as steward at a salary for himself and wife of \$540 per year.

DANE COUNTY POOR HOUSE.

Visited December 7th.

The average number of paupers in the house during the year has seen 68. The total cost, including washing, hired help on the

farm, has been \$5,111.11, showing an average per capita of \$1.45 per week. The general management of the farm and house is excellent. The paupers are well fed, and appear contented. There are few able bodied men or women among them. The policy of "outside relief," practiced in Dane and other counties, tends to diminish pauperism. The sum of \$6,357.05 has been allowed for temporary relief to indigent persons throughout the county, and \$596.50 for wood from the court house, making a total of \$6,953.55.

Mr. E. E. Titus and wife continue in charge of the poor house, and discharge their unpleasant trust in a commendable manner.

DODGE COUNTY POOR HOUSE.

Visited October 18.

This poor-house is always found in good condition and conducted in a way to entitle it to favorable notice. The different classes are kiddly cared for and humanely treated. Proper buildings have been provided for all except the insane. Since our last visit the old granary has been removed to a place near the "crazy house" and appropriated to the use of the insane males. We think this was a mistake, and that a new building should have been erected, more ample in its dimensions, so that all the insane could have been profor and the prospective wants of the county met. We found 26 insane and 16 of the number confined. There are more of the demented class here than in any county in the state.

We were told that the sewerage of the insane department had become defective. If so it should be remedied before another warm season of the year. The day of our visit was cold and windy and we did not notice anything wrong.

The institution contained 60 pauper inmates. In the general household, care of the insane, the health and comfort of the inmates, the bedding, cooking, etc., it is not surpassed in the state. The cellars are whitewashed, cellar floors cemented, and throughout the entire building there is a pervading air of freshness, neatness and orderly industry that speaks in praise of the management. Mr. and Mrs. Perry continue in charge, on a salary of \$800 per year, with two hired men and 4 hired women paid by the county. The excellent

farm of 140 acres is well managed. The building will accommodate about 118 of the pauper class comfortably. The provision for the insane is not what it should be, and we wish the county would continue to do well and nobly, by the erection of an asylum for its unfortunate crazy ones, in keeping with its liberal treatment of the other paupers.

FOND DU LAC COUNTY POOR HOUSE.

Visited September 27th.

Number of paupers at time of visit, 38 — males 30, females 8. Insane 10 — males 6, females 4; one child, a boy 6 years of age. There is a fine farm of 174 acres owned by the county, 146 acres of which are improved. Everything about the rooms occupied by the paupers was found in a clean condition, and considering the character of the buildings, the institution is well kept.

A new building for the insane has been erected during the past year, at an expense of \$5,200, and an additional cost of about \$1,500 for heating and furnishing. It is built of brick, 70 by 30 feet, and is two stories high. It contains 16 rooms on each floor and an attendant's room. It is warmed by a furnace in the basement. Each story has a hall or corridor running through the center, and 8 rooms on either side; also a bath room, with zinc tub, on each floor. Iron bedsteads that could be fastened to the floor were being put in at the time of our visit.

This is really the finest and best building for the purpose erected by any county in the state, and does honor to the county of Fond du Lac. One serious mistake has been made, however, in putting heavy iron bars across the windows on their inside. They do not protect the glass, but do give the room the appearance of a prison. But few of the chronic insane need any such arrangement, and the less the appearance of restraint the more quiet and manageable are those restrained. If protection to the windows was desired, a strong wire screen fastened to the casings of the windows on the inside would have served the purpose. We would advise the removal of the iron bars from the inside of all the windows, and the substitution of wire screens, where necessary, and suitable guards

of a light but strong pattern be placed on the outside of all the windows, to prevent patients from getting out.

The building was to be ready for the reception of the insane the first week in October, when the sixteen insane people will be removed from the jail to a permanent home in their clean and comfortable quarters.

GRANT COUNTY POOR HOUSE.

Visited June 28th.

The house and everything about it was found in a cleanly condition. The cellar has been drained since our last visit, and is now dry and wholesome. The fence leading from the dwelling to the privy has been built, as suggested in our last report.

In the improvements made, and general care of the dependents, Grant county is doing well and will soon take rank with the best in the state. R. V. Showalter continues in charge.

IOWA COTNTY POOR HOUSE.

The services of Mr. M. F. Rewey have been continued as overseer. We learn from the reported proceedings of the board of supervisors of the county, that a new building for the insane (much needed) has been built during the year; that it has been well built, and a credit to the county.

The total expense of the poor and insane during the year has been \$3.624.70.

The poor of Iowa county have a comfortable home, and are well and humanely cared for.

JEFFERSON COUNTY POUR-HOUSE.

Visited September 24th.

Number of paupers at time of visit, 56 — males 26, females 30. Insane, 28 — males 14, females 14. Minors — 1 boy (a cripple), 17 years old. Idiots, 4 males — 1 boy 6 years old, 2 boys 7 years old and one 11.

We found the rooms occupied by the paupers clean, also the beds

and bedding. Indeed, everything about the house is in good order; even the privies, as a rule out of order, were quite odorless.

The large number of insane are well cared for; have ample yardroom for pleasant weather, and the yards have a grassy turf and shade trees.

This institution is now one of the best kept in the state, and the county continues to exercise a liberal policy in the care of its dependent classes.

A milk cellar, separate from the vegetable cellar, should be constructed.

All the paupers are required to bathe, and there are good conveniences for that purpose.

Mr. George Turck continues in charge as overseer, assisted by his wife as matron, at a salary of \$750, and the county pays for the services of one hired man and one girl in house.

LA CROSSE CITY POOR HOUSE.

Visited October 24, also December 10th.

Frank Metz, is overseer; pays \$100 per year for rent of the 80 acres of land owned by the city, and receives \$2.50 per week for board of paupers. The farm is worked by himself and two sons, and one woman is hired to help in the work of the household. Mr. Metz has kept the home five and a half years. It was found clean and in good order. The paupers, being all either old and infirm or insane, do little if any work. The land is sandy and poor, and raises "not much," the bluff portion furnishing the firewood. The city of La Crosse furnishes the paupers' clothing and also bedding.

The house is old and dilapidated; while it may be quite comfortable in the warm season of the year, it must be very cold during parts of the winter months.

It contained, the day of our visit, thirteen paupers: eight males, and five females. Four of the males were insane, and two of the fem ales.

The location, we think, is good, very near the city, and dry and healthy; but a new and more commodious house should be built.

At the later visit, December/10th, the house was found cleanly

and in good order, but cold, and a new house for the accommodation of the poor is a greater necessity than a new jail.

MILWAUKEE COUNTY POOR-HOUSE

Visited September 16th.

The whole number of paupers were 130; males 72, females 58. Of the whole number, 23 males and 39 females were insane, 62 in all.

A careful inspection of all the rooms, impressed us favorably with the management of the institution. The wards for the insane, the bath-room, store-rooms and apartments occupied by the paupers, were found in complete order, and the beds were clean. But little restraint is practiced upon the insane, they have the freedom of the yards and corridors during the day. True there are a number of insane of so low a type as not to admit of a very high standard of cleanliness. This clsss is found in all our hospitals as well as poorhouses, and must not be permitted to have much weight in forming a judgment of the merits of a management.

The condition of the privies connected with the airing yards was bad. This is the most common foult with our county poor-houses, and one to which we have often called attention. If vaults were entirely dispensed with, and moveable boxes substituted and the boxes daily supplied with dry earth, and removed and emptied quite often, the comfort and health of all would be promoted.

A drain or sewer should be laid, leading away from the building, to conduct off the wash-water and slops that are now thrown upon the ground to evaporate.

The overseer is W. Brinkinezyer, who receives a salary of \$500 for the services of himself and wife. They took charge the first day of last June. The county pays for the services of two hired men on the farm, and two women in the house. The county farm includes 160 acres of land.

MILWAUKEE CITY POOR.

We have made inquiry into the system of out-door relief practiced in the city of Milwaukee, and are of the opinion that a part

at least of the large amount annually collected for the relief of the poor and destitute is unworthily bestowed, and that dependence is encouraged rather than diminished under it.

Two tax-payers certify to the ward supervisors that the party applying for relief is needy and deserving, and the supervisor directs the county agent to give an order on the contractor or to furnish supplies from the stores kept by himself.

The loose manner in which the business is done was illustrated in October last when the meat contract was taken from one party and given to another, when orders for meat given on the old contractor, several weeks old, were taken back to exchange for orders on the new contractor. One woman returned three orders that she had held three weeks. We were told of one case in which the order had been held five months.

It is possible that this matter may be run in the interest of politicians. We can readily see how an ambitious, and at the same time a not over-conscientious man can buy influence at the expense of the tax payers. We recommend that those directly interested examine further into the matter. Money raised for the support of the poor and destitute should be sacredly devoted to its purpose, and economically expended. It could be most effectively guarded by the appointment of a committee of large tax payers in each ward to examine into each application for relief, and act in unison with the county authorities. In some such way frauds could be exposed, and at the same time all worthy persons and their families aided.

MONROE COUNTY POOR-HOUSE.

Visited September 12th.

We can say little of a favorable character of this institution as a home for the dependent and afflicted classes. The original farm buildings are yet used, and they were none of the best when purchased by the county.

The house is not kept in the most perfect order.

Number of paupers 12, of whom 4 were males and 8 females. Two insane; one of each; the woman was confined in a room. One boy 4 years old, and one girl 3 years.

No 13.]

Pauperism in Poor-Houses.

A main building for the insane has been erected during the last year at an expense of \$608. It is 22 by 32 feet in size, has an alley through the middle and 4 cells on each side. The cells are about 6 by 7 feet, with a narrow window near the top and an orifice in the doors for ventilation.

We are of the opinion that the county has not received the value of the money expended, the building being unfit for the purpose for which it was erected. The insane need not gloom and darkness, but sunlight and fresh air and pleasant surroundings. Last year we called the attention of the county authorities to the want of a yard for the insane, and were assured it would be provided at an early date. But it has not been. The county of Monroe ought to commence at once the erection of buildings for its dependent class, modeled after the best in the state.

Mr. L. Busby is overseer, at a salary of \$425 for the services of himself, wife and daughter. The county pays for the services of one hired man for eight months.

PORTAGE COUNTY POOR HOUSE.

Visited October 15th.

The forty acres of land and buildings occupied, are owned by the city of Stevens Point, and rented to the county. Mrs. Glidden contracts to "board, wash and mend" for \$3.00 per week. At the time of our visit the institution contained six paupers, one of whom was insane, yet quiet.

An addition of a wing 30x16, and two stories high, since our last visit, allows of a separation of the sexes, as well as provides for a good kitchen.

The house contains six paupers, four males and two females. They seem kindly cared for, and well fed. The premises were found cleanly and orderly. Mr. A. McLean, of Stevens Point, is the local superintendent, and exercises an intelligent supervision over its affairs. None but the helpless poor are sent to the poor house, but temporary aid is rendered to such as can earn a partial support. In this way pauperism is diminished by encouraging industry, and in giving aid only in cases of real want and necessity.

Pauperism in Poor-Houses.

ROCK COUNTY POOR HOUSE.

Visited September 16th.

· Number of paupers, 52. Males, 35; females, 17; children, 9.

There are seven children over four years of age. All over six years attend district school. All except two have mothers in the poor house. These children are kept in the poor house by the consent, if not tacit approval, of the board of supervisors, in violation of the law of the state, and the almost inevitable moral ruin of the children will follow, and merits the severest censure.

There were 12 insane. Males, 9; females, 3. The females are harmless. The men are confined in their rooms nights.

Since October, 1872, there have been 255 admissions to this poor house, including those in the house at that date.

Of the total admissions to this poorhouse, there were born in Wisconsin, 63; New York, 64; Ireland, 45; Germany, 14; England, 12; Norway, 6; in poor house, 5; Connecticut, 6; other states and countries, 40.

The farm contains 199 acres, 120 under cultivation. It is productive, and aids in reducing the cost to a per capita of \$1.58 per week, exclusive of interest on the cost of the county property. Mr. Hill is still in charge as overseer, and his wife as matron, and the premises were found in good condition. We would advise that seats, sheltered from the sun by covering, be placed in the yards used by the insane as well as those used by other paupers.

The salary of the overseer and matron is \$600. The county pays for the services of two men and two girls.

RACINE COUNTY POOR HOUSE.

Visited September 17th.

Public attention was drawn to this institution in 1876, in consequence of a report of a visit made by two members of the board, and published in one of the newspapers of the county, and an investigation ordered by Governor Ludington into its management. At our recent visit, it is proper to say that general cleanliness and order were observed.

No. 13.7

Pauperism in Poor-Houses.

There are no suitable arrangements for bathing. The county authorities should furnish a bathing tub, and devote one of the basement rooms to the purpose of a bath room. The privies were found in a good condition. The old building put up for the insane, and not occupied at previous visits, has been removed to the rear of the main building, and is now occupied. It is as poorly adapted for its purpose as we can well imagine. It has four cells, two on each side of a corridor, occupied by two insane men on one side and two insane women on the other. The fronts of the cells are simple bars of iron, so that the occupants on each side are at all times in full view of those opposite.

The number of paupers was 22, of whom 15 were males and 7 females. Insane, 7 males and five females, two of each sex confined in the building alluded to. Mr. John Deidrich, overseer. Salary, \$425 per year. The county pays one hired man \$14.50 per month, and one hired girl \$2 per week.

We called the attention of Mr. Geo. West, the superintendent in charge, by letter, to the condition of the poor-honse, and made such suggestions as we thought would improve it, and received a courte-ous reply, stating that he would endeavor to have the alterations made and our views carried out.

RICHLAND COUNTY POOR-HOUSE.

During the last year this county has occupied a farm purchased in the town of Bloom, about fifteen miles from Richland Center. It has not been convenient for us to visit it, but we learn from the report of the committee of the board of supervisors "that the house, barn and all the buildings thereon are good and substantial, and well adpted to the purpose of a county poor farm; that the farm is well located, well watered and of good soil." The inmates of the house are well cared for by the overseer on the place, Mr. Albert McKay.

SHEBOYGAN COUNTY INSANE ASYLUM.

Visited October 8th.

This institution is in charge of Mrs. G. S. Jewett, the widow of the former contractor.

Paupertsm in Poor-Houses.

The building formerly used and built by Mr. Jewett, was burned February 19th 1878, and four insane perished in the fire. It is much to be regretted that in rebuilding, some regard was not had to what an Insane Asylum should be. The large majority of the incurables do not require bars and bolts enough to restrain a tiger, but enjoy sunlight, pleasant surroundings and good cheer.

The new building is 20 by 40 and two stories high. The lower story contains 12 cells besides the attendants rooms and bath room. The upper story contains 7 rooms on one side together with bath rooms, the intention being to partition the rooms on the opposite side when needed. The rooms or cells are all provided with a small window at top of ceiling, affording very insufficient light; the cells are dark and gloomy. It cost about \$1,500, and we think without material addition to the expense, it might have been greatly improved. At the time of our visit, it contained 16 inmates besides the infant child of an insane German girl, the child was born after the mother's reception into the building. But one inmate is kept in confinment or restrained of freedom. Mrs. Jewett receives from the county \$4.00 per week for their care and board, the county furnishes their clothing. Every thing was found clean about the premises and Mrs. Jewett evidently is kind, and treats the poor dependents under her charge humanely.

SHEBOYGAN CITY POOR-HOUSE.

Visited October 9th.

This institution is located two miles west of the city, upon a tract of 30 acres of good land, owned by the city, and is under the charge of Mr. Herman Leonard as overseer. It contains 6 paupers, five males and one female, who seem to be well and kindly cared for.

The overseer receives \$2.00 per week for board of the paupers.

A new building for a dwelling has been erected and will soon be occupied. It is built of white brick, 34 by 48 feet, two stories high, and to cost on contract, \$1,650, built in a substantial manner, and will afford a pleasant home for the paupers. We congratulate the city on what it has done, and wish that many others and more pretentious cities would imitate its good example.

Pauperism in Poor-Houses.

SAUK COUNTY POOR HOUSE.

Visited September 12.

The number of paupers at the time of our visit was 33; males 21, females 12. Number of insane, 14; males 6, females 8; 1 child two years old. Of the insane, 7 were confined in the building used specially for the insane.

The buildings are large and roomy, and kept clean and orderly. In this regard we found nothing to criticise unfavorably, but much to commend.

There is a deficiency of closets for clothing, and sleeping rooms contain most of the garments not in use.

The buildings have a capacity for about 60 paupers. The sexes are kept entirely separate. There is a hospital building separate from the others. The cellar bottom should be grouted or coated with cement, and a sewer constructed to carry away the slops and dirty water. Yards should be made for the insane.

There are good bathing facilities. The paupers looked contented and healthy, and the condition of things generally was in a high degree satisfactory. Sauk county has a right to be proud of its liberal care of its dependents. Mr. A. H. Perry is overseer, and is assisted by his wife as matron. In our opinion, they discharge their duties well. The salary of the overseer and wife is \$700.

The county pays for the services of one man on the farm, and two girls in the house.

The cost of the paupers' support is about \$1.40 per week, besides interest on investment.

VERNON COUNTY POOR-HOUSE.

Visited by proxy, Hon. J. M. Rusk, October 3.

The number of inmates was 29, and the average number during the year has been $28\frac{1}{2}$.

The buildings are of wood, in good condition, the interior cleanly kept, and the inmates well cared for. There have been two deaths during the year, one of consumption and one of old age. The sexes are not kept entirely separate. There is one child in the poorhouse, but a home is provided, and it will soon be removed.

Pauperism in Poor-Houses.

The disciplinary regulations seem to be excellent. Mr. Decker, in charge, seems to have entire control of the inmates. The facilities for personal cleanliness are very good. The inmates are substantially and cleanly clad. The superintendent in charge, Mr. Barnard, who has occupied his position for 6 years, manages to the entire approval of the county, the per capita expense being \$1.30 per week. There is one insane male and one insane female.

One man is employed, who has charge of the farm.

WINNEBAGO COUNTY POOR-HOUSE.

Visited September 26.

An addition, or rather, new building has been erected during the last season, to accommodate the insane. It contains seven rooms, with grated windows and transoms over the doors. The common mistake has been made in giving the rooms as much of a prison-like appearance as possible, regarding any place good enough for crazy people, if only built strong.

Number of paupers, 35 — males 17, females 18. Insane, 11 — males 3, females 8. Idiotic — 2 females, 1 male.

The beds were found clean and the rooms in good order. There was noticable quite an improvement in the general appearance of the institution, compared with last year.

Each town in the county sends such of its paupers to the house as it chooses, paying for their support \$1.25 per week. Temporary aid is rendered by the towns, and without expense to the county.

Mr. J. M. Emmons is overseer, and his wife matron. They receive \$600 per year, and the county pays for the services of one man and one woman. There were four children of the ages of 14 and 10, and two of 5 years respectively. The child of 14 is idiotic, and the two of five years are with their mother.s

There is one privy near the house, and connected with it by a corridor, that should be removed or improved so that the contents of the vault can be removed daily. It is a bad thing as it is. The vault might be cleaned out and filled up, and a movable box substituted, and the nuisance abated.

Paupcrism in Poor-Houses.

WALWORTH COUNTY POOR HOUSE.

Visited September 17th,

In company with Mr. Hollis Latham, one of the superintendents. Number of paupers, 48: males, 24; females, 24. Insane, males, 10; females, 13; total, 23; children, 2.

Everything was found in the usual good condition. Tidiness is the rule here. We did, however, find one thing to criticise; one of the privy vaults was in bad order. The land aroud the buildings is too level to admit of sewerage or good drainage, and we would advise extending the covered sewer to a greater distance; from the dwelling, and also the grouting or cementing of the cellar bottoms.

Mr. Hill, as overseer. and Mrs. Hill, as matron, still have charge, at a salary of \$1000 a year.

4-C. & R.

Poor Statistics.

III.

POOR STATISTICS.

Efforts have been made to gather the fullest statistics possible, of pauperism and its attendent expense, with very imperfect results.

The following tables from "I" to "IV" inclusive are prepared from overseers' returns of poor-houses to this board, and exhibit the classes of population under their charge.

As a rule, the gentlemen in charge of county poor-houses are well qualified to manage their trust. Indeed we can recall no exception. Many of them have had several years experience and all give their best efforts to render the dependants under their charge comfortable.

The greatly improved condition of things now existing affords us very little to criticize, and the overseers are entitled to our thanks for their nniform promptness in forwarding their reports.

Tables numbered "V" to "VII" inclusive, give total cost of pauperism in certain counties since 1865. But 18 county clerks answered our circular out of the 60 in the state. The returns for 1878 are incomplete from the counties reporting for the reason that the county boards had not met when answers were returned.

Thirteen county clerks made an effort to answer our circular and collected statistics of the cost of pauperism in towns. Soveral of these officials could find no law that required us (them) to report the information sought by us. Our thanks are due, and are hereby tendered to those who obliged us.

The information we obtained, is contained in table number VIII.

Statistics of Pauperism.

TABLE No. I.

STATISTICS OF PAUPERISM,

as returned by overseers of poor-houses, November 1, 1878.

Counties.	Whole number of paupers in poor-houses, November 1, 1878.	Number of Males.	Number of females.	Number of native-born males.	Number of native born females.	Number of foreign-born males.	Number of foreign-born females.
Adams. Brown Chippewa Columbia Dane. Dodge Fond du Lae Grant. Green Iowa. Jefferson La Fayette. Marathon. Milwaukee Monroe Ozaukee Pierce. Polk! Portage Racine Richland Rock St. Croixa Sauk Vernon Walworth Washington Waukesha Waupaca Winnebago	19 *56 14 49 59 56 54 39 37 40 56 37 3 149 13 .11 8 3 6 22 12 55 8 86 26 49 41 51 41 41 41 41 41 41 41 41 41 41 41 41 41	11 81 80 36 30 36 30 36 24 20 26 27 30 6 6 8 1 4 15 4 20 21 21 22 23 24 25 27 20 20 21 21 21 22 23 24 25 26 27 27 28 29 20 20 20 20 20 20 20 20 20 20	8 25 6 19 23 26 18 15 17 14 29 7 5 5 2 2 7 8 19 1 16 12 26 11 18 20 13	9 5 1 15 13 10 9 18 13 8 14 7 10 5 1 1 9 12 7 8 16 6	8 4 1 6 9 3 1 9 12 5 9 6 1 1 1 5 15 6 6 8 4	2 24 7 15 23 20 27 6 7 18 13 23 20 1 6 11 5 11 23 25 4 17	0 20 5 13 14 23 17 6 5 9 20 4 1 1 6 3 4 1 1 4 4 1 1 5 13 10 9
Total	1,087	647	441	228 .	167	400	264

Statistics of Pauperism

Table No. II.

Statistics of pauperism — continued.

Counties.	Number of children under 10 years of age-	Number of child'n over 10 years of age.	Number of insane persons in poer-house.	Number of males insane in poor-house.	Number of females insanc in poor-house.	No. insane under 20 yrs. of age in poor house.	No. insane between 20 and 30 years of age in poor-house.	No. insane between 30 and 40 years of age in poor-house.	No. insane bet. 40 and 50 yrs. of age in P. H.
Adams	$\begin{smallmatrix}*1\\4\\2\\6\end{smallmatrix}$	*2	$\begin{array}{c} 3 \\ 9 \\ \dots \\ 15 \end{array}$	1 5 5	$egin{array}{c} 2 \\ 4 \\ \cdots \\ 10 \end{array}$		$egin{array}{c} \ddots & \ddots & \ddots \\ \ddots & \ddots & \ddots & \ddots \\ 2 & \ddots & \ddots & \ddots \\ \end{array}$	4	1 2
Dane	*2 2 *1 1 2 4	1 21 *1 4	22 25 23 4 8 13 28	12 12 10 8 6 7 4 8	10 13 13 6 2 6 17		$egin{array}{cccccccccccccccccccccccccccccccccccc$	*18 5 7 1 4 7 1	10 7 4 1 5 7 1
Milwaukee Monroe Ozaukee Pierce Polk Portage Racine	2	1	75 2 6 1 2 1 6	30	45 2 3 1 2 1 3	2	9	15	27 4
Richland	9	*1 2 *1	2 13 *11 14 16 2	1 11 2 6 10 1	$\begin{bmatrix} 1 \\ 2 \\ \\ 8 \\ 6 \\ 1 \end{bmatrix}$		1 2	6 2 5 1 6	1 5 1 3 2
Walworth Washington Waukesha Waupaca Winnebago	2 5 4 5 2	3 1 *1	20 6 18 7 12	6 4 10 5 5	14 2 8 2 7	1	1	3 3 6	3 3
	$\frac{5}{2}$ $\frac{5}{59}$	*1	12 383	5 5 182	$\begin{array}{ c c }\hline & 2\\ \hline & 7\\ \hline & 192\\ \hline \end{array}$	1 3	33	104	{

No. 13.]

Statistics of Pauperism.

Table No. III.

Statistics of Pauperism — continued.

Counties.	No. insane bet. 50 and 60 y'rs of age in P. H.	No. insane over 60 yr's of age in P. H.	No. which bave been insane over 4 years, in P. H.	Number in P. H. which have been in insane hospital.	Entire number of pau- pers since October 31, 1878, ir P. H.	Average number in P. H. during the year.	Remarks.
Adams Brown	1	2	3 9	3 8	19 115	19 64	*Idiotic. *3 whose nationality is unknown.
Chippewa	3 3 1 2 4	2 6 4 3 2 6	14 22 25 3 14 8	8 10 17 9 4 7	36 105 112 80 81 50 46 46 100	19 56 68 72 66.5 40 35 39.5	*Between 30 and 60. *Cripples; 2 idiotic. *Idiotic.
La Fayette Marathon Milwaukee	 17	 5	56	$\begin{bmatrix} & 6 \\ \dots & 28 \end{bmatrix}$	$\begin{matrix} 50\\7\\1,614\end{matrix}$	33 5 *145	*Officers and help in- cluded.
Monroe Ozaukee Polk Portage Racine Richland Rock St. Croix Sauk Sheboygan Vernon Walworth Washington Waukesha Waupaca Winnebago	5 3 5 7 2 2 7 1 2	2 1 1 4 4 6 1 5 1	2 6 2 6 2 13 2 20 6 18 6 10	2 1 11 4 1 11 11 8 *16 2 8 5 10 4 10	32 15 5 33 13 80 61 22 41 66 43 60 71 64	$\begin{array}{c} 13\\ \dots\\ 24\\ \dots\\ 52\\ \dots\\ 52\\ \dots\\ 39\\ 15\\ 28.5\\ 50\frac{1}{3}\\ 40\frac{7}{2}\\ 48\\ 40\\ 40\\ \end{array}$	*Cripple. *Evidently a mistake. *Co. insane hospital. *Idiotic.
Total	93	57	300	193	2,997	1,008	· ·

TABLE No. IV. SHOWING COST OF PAUPERISM BY COUNTIES.

Including average cost of subsistence per capita during the year; not including interest on investment; salary of superintendent; salary of help employed; value of buildings; acres of land; value of land; value of personal property; total value of county property; total expense for the year.

4	COST FOR THE YEAR ENDING NOVEMBER 1, 1878.									
Counties.	Of sul sistance, per capita, per weck.	Salary of Su- perintendent.	Femsle help pr. week.	Male help per week.	Value of build.	No, of acres of land.	Value of land.	Value of personal property.	Total expense for the year.	
Adams Chidpewa Columbia Dane Dodge Fond du Lac Grant. Green La Fayette Maratnon Mil waukee Monroe Dzaukee ¹	1 15 1 63 1 60 ‡ 90 	500 00 *1 60 400 00 			4, 175 00 24,000 00 7, 753 03 11,700 00 11,873 00 4,009 00 6,000 00 10,000 00 1,500 00 120,000 00	80 44 313 140 175 220 320 180 100 177 80 156	\$2,260 00 1,600 00 500 00 3,825 00 7,000 00 13,125 00 10,000 00 12,000 00 3,500 00 4,000 00 5,500 00 234,000 00 \$6,000 00	620 00 1,100 00 5,000 00 6,099 40 5,358 04 	\$3,686 10 1,800 00 4,033 23 5,111 11 6,431 46 	

Pauperism

by

Counties.

REFORM.

$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

^{*}Per week for each inmate. || Contract \$2.65 paupers, \$3.65 Insane. |¹ Kept on contract.

†Four ma e and four female per year total. §January 1, 1877 to January 1, 1878. ²Kept on contract. Extra payfor sick and children.

‡Includes both farm and buildings.
¶And proceeds of farm.

P. N. is private property. Insane Asylum.

Cost of Pauperism by Counties per Year.

Table No. V.

SHOWIG COST OF PAUPERISM BY COUNTIES, PER YEAR,
As reported by county clerks, from 1865 to 1878.

COUNTIES.	1865.	1866.	1867.	1868.
Columbia Dane. Green Iowa Juneau* Rock Trempealeau Vernon. Walworth	659 00 1	\$3,673 94 8,556 07 2,250 00 3,252 84 358 15 6,607 00 365 50 3,677 00 4,919 18 \$33,052 68	\$5,331 02 12,411 41 3,456 00 2,566 88 513 46 6,000 00 352 70 3,500 00 4,144 05 \$38,275 52	\$5, 179 38 12,380 70 3,167 00 3,037 25 888 98 7,000 00 88 50 2,557 00 5,678 61

TABLE NO. VI.

SHOWING COST OF PAUPERISM BY COUNTIES PER YEAR.

As reported by County Clerks, from 1865 to 1878.

	1869.	1050	1084	1	
	1009.	1870.	1871.	1872.	1873.
					_
(1-11 ·	07 440 00				
Columbia	\$5,442 02	\$6,828 24	\$6,629 41	\$6,287 38	\$7,615 84
Dane	14,430 10	9,247 31	11,375 14	14,025 75	14,430 99
Door		· · · · · · · · · · · · · · · · · · ·			450 00
Green		2,500 00	4,000 00	3,000 00	3,412 00
Iowa		2,396 21	4,440 57	1,520 00	1,500 00
Juneau	428 63	590 17	206 00	1,121 51	689 60
Kewaunee			200 90	690 00	850 00
La Crosse		2,997 53	3,259 52	1,739 20	3, 322 15
Monroe		6,000 00	3,000 00		1 ,
Pepin		,	3,000 00	3,000 00	3,850 00
Racine	••••••		9 904 00	0.040.00	600 00
Rock	9,500 00	0.000.00	3,864 09	3,640 60	3,010 64
Sauk	9,500 00	9,000 00	9, 181 00	9,866 00	8,743 14
					5,730 17
Trempealeau.		392 79	479 05	322 75	338 27
Vernon	1,500 00	$1,680\ 00$	4,500 00	6,650 00	3,619 00
Walworth	5,435 03	5,884 97	5, 267 17	5,310 76	8,911 00
Waupaca					3,657 15
ŀ					
Total	\$42, 168 57	\$47,515 22	\$55,901 95	\$57, 174 35	\$70 720 95
1	. ,)	, ,	755,201 00	Ψ 01, 11± 0 0	Ψ10,120 00

^{*} County transient poor.

Cost of Pauperism by Counties.

TABLE No. VII.

SHOWING COST OF PAUPERISM BY COUNTIES,

As reported by County Clerks from 1874 to 1878.

Counties.	1874.	1874. 1875.		1877.	1878.	
Columbia Dane Door Green Lake. Iowa Juneau Kewaunee. La Crosse Monroe Pepin Racine Rock Sauk Trempealeau.	\$7,175 98 11,583 59 400 00 4,195 00 3,529 30 1,995 83 420 00 2,686 89 4,300 00 400 00 3,684 00 8,705 82 4,472 82 502 54	\$6,686 93 12,670 28 750 00 5,400 00 	\$6,763 73 10,685 80 825 00 5,328 00 3,500 00 1,456 12 1,394 00 2,137 76 4,000 00 230 00 4,212 00 9,450 31 4,478 16 485 29	2,000 00 4,436 60 1,456 48 1,007 00 3,324 27 4,500 00 195 00 6,019 77 10,450 00 5,428 82 504 56	4,500 00 601 01 9,000 00 5,588 00	
Walworth Waupaca	2,839 00 $7,472 82$ $2,799 51$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$2,920 00 \\ 5,933 86 \\ 4,915 60$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	4,000 00	
Total	\$67,163 10	\$68,324 96	\$68,885 65	\$79,256 07	\$45,559 06	

Report of Town Poor.

Table No. VIII.

REPORT OF TOWN POOR,

As reported by county clerks.

	Nu	MBER AI	Amount Paid.		
County.	Males.	Females.	Total.	Dollars.	Cents.
Ashland Barron* Burnett Calumet Crawford Door Douglas Green Lake La Fayette Pepin Sheboygan Trempealeau Waushara	26 2	1 10 23 2 15 3 5 42 2	14 27 50 12 35 9 11 68 4	744 1,015 564 1,309 2,484 966 600 2,085 2,992 362 4,721 2,338 1,911	59 13 88 31 00 04 00 66 42 31
Total		•••••	258	\$22,093	01

^{*} Sex of 7 not reported.

Names of Superintendents of the Poor.

TABLE No. IX.

TABLE GIVING NAMES OF SUPERINTENDENTS OF THE POOR

In those counties from which reports have been received.

Adams - W. J. Sineman, O. B. Lapham and C. M. Simonds.

Brown - Dominick Hunt, Andrew Reed and H. A. Strawbel.

Chippewa - W. B. Bartlett, J. A. McRae and Arthur Ford.

Columbia - H. M. Roblier, W. W. Corning and J. Q. Adams.

C awford (City of Prairie du Chien — John Conant (Mayor), I. Rasenbaum, J. Cooke, J. P. McGraw and M. Frederick.

Dane - John C. McKinsie, S. M. Vanbergen and C. E. Warner.

Dodge - David Metcalf, Daniel Collins and J. W. Perry (and overseer).

Fond du Lac - C. B. Bartlett, M. J. Meisen and Frank Horner.

Grant - Chairman of each town and chairman of county board.

Green - D. Smiley, Wm. Brown and C. Gray.

Iowa - G. C. Cox, Charles Paul and W. L. Dimoch.

Jefferson - Geo. Tucks.

Kenosha (city) - Matt Fahmen.

La Crosse (city) - A. Steinline, with three aldermen, a committee.

La Fayette - E. C. Ferrin, L. E. Johnson and Thomas McNulty.

Marathon - Joseph Dessert, John Schneider and J. A. Cook.

Milwaukee - E. T. Sercomb, C. Fingard and Geo. Tyre.

Monroe - A. H. Isham, T. B. Marsden and Wm. Y. Baker.

Outagamie (Appleton city) - J. P. Hanley.

Ozaukee - None reported (Philip Dengle, contractor).

Pierce - S. A. Green, Gunder Isaacson and T. G. Atwater.

Polk - F. Wilke.

Portage — J. D. McLean (superintendent in charge), Geo. McMalkin and J. H. Felch.

Racine - Julius Lucre, Geo. West and W. P. Hays.

Richland - A. M. Crumbacker, L. M. Thorp and S. Kanable.

Rock - Volney Atwood, C. E. North and W. A. Pickett.

St. Croix - Charles Donahoe, A. J. Matteson and J. A. Bunker.

Sauk - A. F. Lawton, Anton Fisher and Orison Thomas.

Sheboygan (city) - E. McIntyre, E. Viech and Wm. Elwell.

Vernon - D. A. Barnard.

Walworth - Hollis Latham, T. W. Hill and Elisha Hulce.

Washington - Nelson Graw, Phil. J. Bussel and H. Albinger.

Waukesha — Wm. M. Jaynes, George Caincross and Wm. Rhodes.

Waupaca - John Gardinier.

Winnebago - C. L. Rich.

Name of Overseer of the Poor-Houses.

TABLE No. X.

TABLE GIVING NAME OF OVERSEER OF THE POOR HOUSE

Of each County from which a report has been received.

Adams - J. C. Ward.

Brown - John Cryon.

Chippewa - John Twohy.

Columbia — Geo. Muggleton.

Crawford - city - Wm. Bresv.

Dane - E. P. Titus.

Dodge - J. W. Perry.

Fond du Lac -- D D. Wilcox.

Grant - R. B. Showalter.

Green - R. C. Whitcomb.

Iowa - M. F. Rewey.

Jefferson - Tucks.

Kenosha - city - Matt Fahmen.

La Crosse — city — A. Steinluei.

La Fayette — J. C. F. Rodolf.

Marathon - Henry Paulus.

Milwaukee - F. W. Brinkmeyer.

Monroe - Luther Busby.

Outagamie - E. Lite, Appleton City Poor House.

Ozaukee - Philip Dengle.

Pierce - N. Travis.

Polk - D. P. R. Stone.

Portage - Mrs. M. Glidden.

Racine - John Deitrich.

Richland - Robert N . McKay.

Rock - W. A. Pickets.

St. Croix — S. G. Bowron.

Sauk - A. H. Perry.

Sheboygan - C. W. Prescott, administrator.

Vernon - D. A. Barnard.

Walworth - T. W. Hill.

Washington - Leonherd Harlamus.

Waukesha - John T. Morris.

Waupaca — John Gardinier.

Winnebago - James M. Emmons.

THE LABOR QUESTION.

THE RIGHTS OF LABOR.

The board feels called upon to express its opinion of the dangerous and untenable theories in respect to the rights of labor, etc., that are being promulgated in our state, and infusing their poison into, and exciting the popular mind to discontent with the present order of things.

Every man has a right to work and wages, either from the government or some one else, no matter whether his services are required or not," says a class of modern reformers.

This doctrine is not of American origin, but comes to us from the old world, and from those countries where all the land is owned by a few, and the laborer is in a state of dependence upon his suporior. It necessarily implies a state of subjugation, ignorance and dependance, as well as one of social degradation in which no man is expected to think for himself, or to choose his own destiny; but relies upon his superiors and depends upon them for instruction, as well as for food and clothing.

The doctrines of the monarchies and aristocracies of the old world teach this subjection in order to perpetuate their power by the degradation of their subjects, and the rich are born booted and spurred, ready to ride — the poor, ready to be ridden. There is with us, it is true, a difference in respect to wealth and social position, but there is no inequality of rights. Every man is a sovereign and a peer, and has a voice in choosing the rulers, who make and unmake the laws. No man has rights not possessed by all the rest, for all are equal parties to the social compact, and consequently no one has a right to demand work and wages or food from another.

If government is bound to furnish work and wages to the laborer, it is equally bound to furnish patients for the physician and clients for the lawyer, and this would be true of every occupation and trade. To claim that work and wages should be provided for one man by another, whether that other wants the service or not, is

virtually conceding the incompetency of the person seeking to aid himself, while he would doubtless strenuously deny his inferiority. The claim of right to work and wages virtually makes the relation of worker and workee, in a modified sense, one of master and slave, except in the one case, the thing sought is demanded, and in the other it is supplicated.

There are other views ,carcely less fallacious advocated by pseudo-philanthropists, like this: "That all men have a right to the means of subsistence." This is answered by saying that every man has a right to the fruits of his own labor and industry, and to nothing more. "In the sweat of thy face shalt thou eat bread," and "He that will not work, neither shall he eat," are primodeal principles, inwrought into man's organization, and they have never been repealed, and, with the present constitution of human nature, never will be.

There are landmarks established for the security of property and the peace of society that cannot be broken down without establishing a reign of chaos and social disorder. Industry, thrift, frugality and the right of property gives the right of subsistence — mere existence does not.

The claim to the "fruit of another's labor, without compensation," would lead to the most unscrupulous means of obtaining it. The strong would plunder the weak; "justice and judgment would be trampled in the streets;" force and rapine rule, and all the conservative influences, with their holy affinities which now unite the rich and the poor in one vast brotherhood, would be sundered; anarchy and lawlessness would necessarily ensue, and a worse than primeval barbarism desolate the earth.

So obviously false and mischievous is the sentiment objected to, that it appears idle to argue against it. A fair statement of it is equivalent to an elaborate refutation.

If by the phrase, "the world owes me a living," it is meant that in the constitution of society, and the natural relations that individuals sustain to each other, there exists any law of reciprocity that sustains the claim, we beg to enter to our emphatic dissent, and to say that it does not exist.

The views herein expressed are not inconsistent with the proper care of the needy. For while justice secures no rights in cases of helplessness and dependence, ample provision has been made with-unsettling nature's laws in respect to the right of property. Nature has implanted the instinct of compassion, and has found expression in statute laws in quite all civilized lands. Wherever it has not been restrained by educated selfishness, or suppressed by legal action, it universally operates for the succor of the distressed.

Charity is the essence and expression of all, or quite all religions. The exercise of benevolence and kindness to all "whose only claim is pity, and whose only plea is sorrow," is among the duties most fre uently and imperatively enjoined.

TRAMPS.

Tramps are wandering vagrants, idle vagabonds and peripatetic sponges. They will do almost anything except earn an honest living by work. From a small beginning, a few honest and worthy men, seeking employment, which could not be given, the class has become an army, and gradually criminal in character. Burglaries, thefts, rapes, and sometimes murders, are being committed by them. This is the natural result of the education they receive. During the past summer they have been traveling the roads in the country districts, having avoided in a measure the cities and larger towns, where the authorities have been prepared to receive them and put them to work. The residents of hitherto quiet neighborhoods, now bar and bolt the doors and windows of their dwellings against the thieving marauders, so that most private houses in the country are like a fortress in a state of siege. The law, chapter 65 of the revised statutes, while ample for the suppression of the evil in ordinary times, if rigorously enforced, is not sufficiently severe in its penalties to cure such an epidemic as has spread over the whole country.

During the year ending October 31st, 874 tramps were fed and lodged in the county jail at Kenosha. During the year, 1877, between ten and eleven hundred were thus entertained. After the authorities adopted the ball and chain, and work on the streets, in

the summer of 1878, their numbers greatly lessened. Dane county provided for setting them to work pounding stone in the yard of the jail, and Madison has received very few visits from them; while the country at large has suffered from their depredations. Cities and large towns can protect themselves by furnishing work, the thing dreaded most of all by the vagrant, while the smaller towns and villages cannot, and rural neighborhoods are levied upon ad libitum.

The remedy for the existing condition of things is, in our opinion, easy.

Let the legislature amend the "vagrant" act, by conferring upon county judges, in those counties where no municipal court has been established, authority to hear, try and determine all cases arising under it; provide further for the summary arrest, without process, of every vagrant, and the taking him before the county judge, and if found guilty of vagrancy, authorize and direct his commitment to hard labor, either in the Wisconsin state prison at Waupun or or elsewhere, for a term not less than six months. About two hundred, we think, can be profitably employed by the state in the prison. It may be necessary to authorize each town board of supervisors to appoint some competent person whose duty it shall be to make the arrest. It is true, the course recommended would be attend with expense, but the diminution of crime, and the safety of the wives, mothers, sisters and children of the state would more than compensate for it. Most of the states are passing stringent laws for the suppression of the tramp nuisance, which affords an additional reason for prompt action at the present session. Whenever a state takes effective action against the vagrant horde within its borders, adjoining states where such action has not been taken receive those frightened away. Probably most of the neighboring states will, the present winter, pass stringent acts against vagrancy, and if we neglect doing what is our plain duty, the vagrant army will again invade our borders in increased numbers with the return of spring. Early preparation to receive them and put them to work will best keep them away. The state owes a duty to its citizens in protecting them in their homes and property, that it ought not to neglect any longer.

The Defective Classes.

THE DEFECTIVE CLASSES.

The classes of defectives, or those who depend upon the state for their care and support, are four, viz.: the insane, blind, deafmutes, and idiotic.

The state has attempted to make ample provision for all but the latter. The increase of insanity has outgrown the provision for the care of all its victims, and as shown by the tabular statements in this report, there remained in the jails and poor houses on the first day of November, 1878, four hundred and thirteen (413). In a majority of the poor houses the insane are well cared for. In some of them their condition would be but little bettered by removal to a state institution; while in others no conveniences have been provided for their comfort or care. In the poor houses, we find a class of persons demented and idiotic, and whose mental powers seem to be totally obscured, leaving mere animal instinct.

Cleanliness, fresh air, food, and warmth, are all that can do them any good. This class can be as well cared for by the counties as by the state and at a much cheaper rate.

Another and a larger class yet retain a certain semi-reasoning condition of mind, and should have all the comforts that can contribute to their physical enjoyment, as well as the opportunity of enjoying the æsthetic, so far as they can appreciate it.

The Institution for the education of the Blind, at Janesville, affords room for all applying for its benefits, and the Institution for the education of the Deaf and Dumb, at Delavan, also receives all of the class for which it was built, who apply. No enlargement of either institution is called for for the year to come.

THE FEEBLE MINDED.

One class of our defectives is yet uncared for by the state, except as they receive, some of them, partial training in the public schools, viz., the feeble minded. In our report for 1877, we gave statistics gathered from 1,721 school districts, out of the 5,146 in the state, which we reproduce here, with remarks thereon:

The Defective Classes.

Table of mentally incapacitated children, etc.

	Number of school houses in county.	Number of dist. cl'ks making report.	Number feeble mind. ed children reported by district clerks.	Cases of congenital idiocy included in reports.	Cases of mentar weak- ness, from disease or accident.	Cases in which cause of mental weakness was not reported.	Blind children re-	Deaf chilu'n report'd.
Total	5, 146	1,721	296	89	88	119	18	96

Besides the reports mentioned in the foregoing table, 51 were received without dates or other means of ascertaining from what districts they came. Forty of the 51 reported no feeble minded children, in the districts, six mentioned children of that character, and five reported only deaf or blind children. The whole number of reports received from district clerks was therefore 1772, in which 302 idiotic or imbecile children were reported to the board. It will be seen that not many more than one-third of the whole number of districts was reported upon by the clerks, but it would be unfair to estimate that the other two-thirds might contain a proportionate number of imbeciles. On the contrary it is probable that the great bulk of the non-reporting districts were such as had no feeble minded children, and the officers of which thought it not worth while to send back a negative answer. That this was not always the case, however, is within the personal knowledge of individual members of this board, and when not a single imbecile is reported from the great city of Milwaukee, we are sure that the work of investigation was scarcely attempted by the school officers there.

But, putting aside mere probabilities, we have obtained the actual names of more than 300 children in the state who are incapacitated by nature or accident from deriving any advantages from the common school or any other public institution now in existence among us. Whether the additional number of such children is 100 or more, is of little moment except in determining the capacity of

a school for their instruction, if such a school be considered necessary.

The class — feeble minded — embraces many whose mental powers are so defective as to render them incapable of self-guidance and self-support, though they are not counted as idiots or imbeciles.

In early years, they may give promise of becoming capable of caring for themselves, but when the help of relatives is withdrawn, they yield to the temptations of social life, and being too feeble to stand alone, and to resist the downward tendency of their natures, sink into pauperism.

We concluded that part of our report as follows:

"In conclusion — and by way of recapitulation — we have found that there are teachable idiots in the state in sufficient numbers to warrant the establishment of an institution devoted to their especial instruction; we are convinced that such instruction is both morally and economically profitable to the people of the state, and we believe that it is the right of all children bred among us to receive an education according to their capacity. We therefore recommend that early and effective action be taken by the legislature for the establishment of an institution for the training of feeble minded children."

For the reasons before given, and some of them above quoted, we renew our recommendation of last year, for the establishment of a school for the feeble minded.

STATE PURLIC SCHOOLS.

This Board has in its published reports, and in its intercourse with the authorities of county poor-houses, discouraged the keeping of children in such places; believing that the influences surrounding them tend to corrupt both body and soul, and that all efforts to properly educate them must necessarily result in failure.

On the recommendation of this Board, the law was enacted which forbade the sending "of any child over five, and under sixteen years of age, to any county poor-housse for support and care, unless such child be an unteachable idiot, etc."

We are gratified in being able to state that, as a general rule, children are not kept in the poor-houses. And yet we find that the class of children whom the law aimed to benefit are not cared for by the county authorities as they should be.

In addition to the class of dependent children heretofore noticed, there is a large number growing up in ignorance and idleness, that the public schools fail to reach. Their mental and moral training is entirely neglected. Their parents are too degraded to exercise any care over their welfare, or too poor to feed and clothe them decently. Their ragged and filthy condition renders them entirely unfit associates for more refined and fortunate children. These miserable, poverty-stricken beings, with their pinched faces, hungry bodies and starving souls, may be found in all the cities and towns, living vagrant lives, and growing up to worthless manhood and wretched womanhood, because they receive no instruction except that which is gained in the schools of vice and crime.

Edward Chadwick, of England, says that "at one time English prisons were filled with orphans who had been reared in mendicancy and advanced from begging to stealing, and that juvenile vagrancy and mendicancy were the great seed-plot of adult criminality."

Official reports furnished the secretary of the London prison congress by wardens of penitentiaries and other officials, give the following as the principal causes of crime in their several countries: In Bavaria, neglected education and illegitimacy. In Norway, neglected education and want of good home influence. In Russia, want of elementary education. In the Netherlands, want of education, and second marriages, which embitter the position of the children of the first marriage, and deprive them of the salutary influences of home life. In Sweden, want of proper care in youth, and bad company. In Switzerland, defective education and abnormal family influences. In the United States, orphanage, idleness, and want of family government, wretched home life, or the deprivation of home life.

A majority of neglected children eventually become paupers and criminals, and it is only by the use of preventive measures that these sad tendencies can be checked or arrested.

In considering the future safety and prosperity of our country, grave questions arise concerning the treatment of the dependent classes, but none more important or fraught with deeper meaning than these: What shall be done with the dependent children? Since it is generally conceded that there is no system of government which properly cares for them, what provision, if any, shall be made? Upon whom does the responsibility of this class rest? Is it not the duty of the state to assume control, not only of the dependent youth in poor-houses, where mental, moral and physical natures are being poisoned by pernicious influences, but of that even more numerous class of vagrant and neglected children seen so often upon the streets, and known as "Arabs" and "hoodlums?"

Although they manage to subsist by begging or other questionable pursuits, and are not directly dependent upon the public for support, they are nevertheless burdens upon society; consumers who will never be producers. It has been clearly shown that this class of children grow to be paupers and criminals, or rather shrink down into them: for their souls, though once containing the undeveloped possibilities of future manhood, finally become hopelessly dwarfed by their vile surroundings.

The feeble in mind and body ultimately reach the poor-house. The stronger ones, and those who possess more natural intelligence are liable to become criminals, if men, and prostitutes, if women. Such are the inevitable results of neglected childhood. Juvenile vagrants and mendicants are constantly recruiting the ranks of pauperism and crime that war against society.

But with care and training dependent children can be reared to good citizenship. Brands can be plucked from the burning, and verdure clothe what seems devoid of the elements of strength and beauty. Vagrant children can be made to develop into self-supporting, if not model citizens.

It is under this firm conviction, and with a most inspiring faith, in the beneficence of such an institution, that we recommend a temporary educational home for the class of children mentioned. The state, with wise liberality and prudent care, should found a school for the public good.

Such schools have been founded in other states, and the reports of Boards of Control prove them to have been eminently satisfactory in their results. We quote the following from the Michigan Board: "That the operations of this branch of the charitable and education departments of this state, in a little over three years since its opening, have resulted so favorably for benefiting dependent children intellectually, morally and socially, is considered a matter of sincere satisfaction and congratulation. The demonstrated economical results are even better than were expected. That a state can clothe, maintain and educate a child with good moral and social surroundings more economically than it can be done in the county poor house, with all its detrimental surroundings, is a fact proved, in social science, of more value than many theories."

We recommend a state public school as a preventive, not a reformatory institution. We believe that it will close effectually many of the gates which lead to panperism and crime. We see in the establishment of such schools evidences of far-sighted statesmanship. Mingled with a benevolent purpose in behalf of poor and neglected children, is the equally noble regard for the safety and prosperity of the commonwealth, which prompts a state to found an institution of this character.

The grand, underlying principle of a state public school, where the children of the poor shall be mentally and morally educated to good citizenship, and become law-abiding men and women, instead of pests to society, moves us to earnestly urge the legislature to carefully consider our recommendation.

This institution shall not be an orphan asylum nor a reform school; but every dependent and neglected child who has not committed crime, shall be admissible, whether an orphan or not. It shall not be a permanent home, but a temporary one until a home can be provided in a family.

Various state boards of charities have examined into the condition of poor-houses, and pronounced them hot beds of vice. A state public school is desirable for both vagrant and pauper children. Although some of the latter attend disiriet schools, they meet with repeated obstructions and mortifications, which are calculated to

defeat the great end of education, self-elevation and development. Both as regards the vagrant and the pauper child, the state public school is the complement of the free school. It makes our educational system perfect.

The Cincinnati Prison Reform Congress, in the declaration of principles, uses the following language: "Preventive institutions, such as truant homes, industrial schools, etc., for the reception and treatment of children not yet criminal, but in danger of becoming such, constitute the true field of promise in which to labor for the suppression of crime."

A distinguished jurist of France, who is an associate member of the Parliamentary Commission on Prison Reform, and whose observation and experience give him high authority, says: "It is this wretched, ignorant, neglected infancy which at a later period will constitute the entire body of criminals. Study the antecedent life of adult criminals and you will find that, with the greater part of them, the moral perversity which has caused their ruin dates from early childhood."

Lyman P. Alden, superintent of the Michigan state public school, writes thus hopefully of the means that are now being employed to retard the flow of the dark stream of crime which rolls through our land, and which has ever been growing broader and deeper: "It is not probable, nor is it expected, that crime will entirely disappear, and the poor we shall have always with us, but their numbers may be largely decreased, and the reproductive tendencies of crime and pauperism may be arrested. The new movement in this direction has not been general enough, nor has the time been sufficient to demonstrate, fully, all that may be accomplished by the employment of such agencies, but enough has been accomplished to indicate what may be done when this work shall no longer be left to the isolated and feeble efforts of a few benevolent people, but when government shall assume this responsibility."

Ex-governor C. C. Washburn generously offered to the state his Edgewood property for an industrirl school for girls. The legislature appropriated \$15,000 to be used for that purpose in Milwaukee, and then passed a resolution to the effect that "the gift of Gov. Washburn of his residence at Edgewood for an industrial school be

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accepted by the state; and the property may be used for the purpose mentioned in his communication to Gov. Smith of January 11, 1878, or for such other purpose as may be approved by the donor."

It would be entirely satisfactory to the honored benefactor to have the property used for a state public school.

Believing that the location, surroundings and general advantages of Edgewood are admirably calculated to meet the demands of such an institution, we most urgently recommend that the school be established.

WISCONSIN PRISONERS' AID ASSOCIATION.

ORGANIZATION.

On the evening of February 4, 1878, pursuant to previous call, the citizens of Waupun met in the Congregational Church of that city, for the purpose of organizing a Prison Association for the state of Wisconsin.

The church was crowded to overflowing, and much interest was manifested. Rev. E. Tasker, chaplain of the state prison, delivered a lecture, showing the importance, necessity and economy of such an association as a preventive of crime.

At the close of the lecture, a charter, constitution and by-laws for the government of the association were read, and, on motion, adopted.

On motion, G. F. Wheeler was elected president; J. W. Oliver, secretary; Rev. E. Tasker, corresponding secretary; R. W. Wells, treasurer.

On motion, adjourned to meet at the prison on Monday evening, March 4, to complete the organization.

Pursuant to adjournment, a meeting was held in the prison parlor on Monday, March 4, at 7:30 P. M. Hon. G. F. Wheeler in the chair.

The following named gentlemen were elected vice-presidents of the association:

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Hon. Edwin Hyde, Milwaukee.

Hon. A. E. Elmore, Fort Howard.

J. B. Parkinson, Madison.

Mons Anderson, La Crosse.

H. S. Haskell, Portage City.

Rev. G. M. Steele, Appleton.

Edward Searing, Milton.

John Bertchey, Sheboygan.

Mat. Wadleigh, Stevens Point.

Hon. Charles H. Parker, River Falls.

Hon. N. M. Littlejohn, Whitewater.

J. A. Carhart, Berlin.

James Jenkins, Oshkosh.

Hon. David Atwood, Madison.

V. W. Pettibone, Fond du Lac.

John Lawler, Prairie du Chien.

Joseph B. Whiting, M. D., Janesville.

Hon. John Quincy Adams, Columbus.

Hon. H. N. Davis, Beloit.

J. I. Case, Racine.

Hon. A. R. Barrows, Chippewa Falls.

Z. G. Simmons, Kenosha.

Hon. Daniel Hall, Watertown.

W. H. Merriman, Ripon.

On motion, the following gentlemen were elected an executive committee: C. C. Bayley, S. J. Sumner, E. Hooker, E. M. Beach, John Bryce, Hon. H. N. Smith, L. B. Hinkley, W. G. Oliver, John Sewell.

On motion, it was ordered that the proceedings thus far in the organization be put in circular form and forwarded to each officer of the association, with a request that they give the subject their most earnest attention and warmest sympathy.

Adjourned.

The association issued the following address:

To the frinnds of humanity, greeting: The time when a convict is discharged from prison is the real crisis in his history, which

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shall determine whether he shall become a man or a demon, a blessing or a curse.

Persons unacquainted with the prison have no idea of the deplorable condition in which many leave it, nor of the peculiar trials and afflictions those have to suffer who have neither home, nor friends, nor money.

Their condition and circumstances are such that they are almost under the absolute necessity of committing crime in order to obtain the necessaries of life.

So many painful instances have come to our knowledge of men who have left the prison with a firm resolution of living honest, upright lives, and who, on account of their imprisonment, have been refused work, and even after securing employment, have been discharged when the fact became known, that we feel it to be a christian act, as well as an act of justice and humanity, to do something for these unfortunate ones, and thus prevent their return to a life of dishonesty and crime.

This desire to save some prompted the organization of the Wisconsin Prison Association, and through its agency we hope to so change public sentiment that men desiring to reform and earn an honest living shall have the opportunity of so doing. We also hope to organize committees of correspondence in every county throughout the state, and if possible procure employment for those who desire it prior to their discharge, and if they have homes or families, see that they are furnished transportation thither, without being exposed to the temptation to commit crime ere they can reach home.

The object is a worthy one, demanding the attention and sympathy of every philanthropist.

The corresponding secretary will, as he may have opportunity, visit different localities throughout the state in the interests of the association and the furtherance of its objects.

G. F. WHEELER, President.

J. W. OLIVER, Secretary.

KEV. E. TASKER, Corresponding Secretary.

WAUPUN, March, 1878.

No. 13.]

Wisconsin Prisoner's Aid Association.

The following letter from the president of the association to the president of this board, explains itself:

WAUPUN, Dec 11, 1878.

HON. A. E. ELMORE:

Dear Sir: — In accordance with your suggestion to Mr. Tasker, we have prepared a brief statement of the objects and purposes of the "Wisconsin Prisoners' Aid Association," which I trust your board will put in such form as suits their views, and incorporate it in their report with such recommendations as you may deem proper.

We are preparing a bill to meet the necessities of the case, and in accordance with the recommendations of the warden and directors of the prison, which we will forward in due time. Hoping your board will lend its aid in securing legislative action,

I remain, yours truly,

GEO. F. WHEELER.

Under date of December 11, 1878, the board received the following communications:

To the Honorable State Board of Charities and Reform:

In the hope of bringing the Wisconsin Prisoners' Aid Association more prominently before the public, and also securing legislative action, we desire to present to you a brief statement of its organization and objects.

The said association was organized on the 24th day of February, 1878, at the close of a lecture delivered by Rev. E. Tasker, chaplain of the State Prison at Waupun.

At a subsequent meeting of the officers, held on the 25th day of April, articles of association were prepared, and the association incorporated.

A few extracts from the by-laws, rules and regulations will explain the objects had in view:

The object of this association shall be to aid and encourage discharged convicts in their efforts to reform.

It shall be the duty of the corresponding secretary -

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1st. To be in communication with the warden of the state prison at Waupun, and the superintendent of the house of correction at Milwaukee, relative to the character and trades of prisoners, and to ascertain, previous to the discharge of the prisoner, his feelings, wants and capabilities, with a view to making the best arrangements for his future employment.

2d. To keep a record of all persons who will employ discharged prisoners, and of their several occupations; to procure such employment for prisoners applying therefor, as seems best adapted to their capacity; to hold correspondence with employers; to keep a record of the conduct and prospects of those for whom places have been obtained, that they may be sustained and encouraged with the idea that a friendly interest is felt for them.

3d. To procure suitable boarding places for discharged prisoners, where they will not be exposed to corrupting influences, taking care not to have more than one in a place, when it can be avoided.

4th. To ascertain whether discharged prisoners are provided with suitable clothing, of a kind that will not attract particular attention, and also with the necessary means of transportation to their homes.

Thus it will be seen that that the object of this association is to furnish the facilities necessary for the reformation of discharged prisoners. And for this purpose, it contemplates the appointment of committees of correspondence in every county throughout the state — intelligent persons of large sympathies and warm hearts, who will aid in promoting the objects of the association.

We think that no more worthy cause was ever presented to the people of Wisconsin, nor one fraught with so much benefit as an alleviator of suffering and preventive of crime.

The corresponding secretary has given to this work all the time he could, without interfering with his duties as chaplain of the prison. He has delivered several lectures or addresses, on the subject in different localities, and in those places visited, much interest has been manifested. And through the voluntary contributions of the people, a number of discharged prisoners have been helped with small amounts, by which they were enabled to reach their

Wisconsion Prisoner's Aid Association.

home and friends, who otherwise would have been obliged to beg or steal, or both.

The importance of the work is such, and requires so much attention, that we feel anxious an agent should be employed, who shall give his whole time to this work. Indeed, we believe this to be essentially necessary to efficiently carry out the objects had in view

We believe that many leave the prison with pure intentions, and struggle manfully against opposing influences for a time, and yet perforce of circumstances, necessarily resort to crime, to save themselves and families from starvation.

Something must be done to enlighten and change public sentiment in reference to this unfortunate class of persons, and they must be helped in their struggles to reassert their manhood, and regain an upright, honest and useful position in society.

Signed in behalf of Executive Committee.

E. TASKER,
Corresponding Secretary.

WAUPUN, Wis., December 10, 1878.

The duty of the state to discharged prisoners presents questions that grow more and more important as population increases. With quickened activity in the direction of preventive measures, the greater intelligence of prison officials, and the many voluntary organizations for the moral improvement of prisoners, we are encouraged to hope for good results in the future.

To punish crime is not the whole duty of the state, but while inflicting the law's penalty, it should seek to reform the criminal, and to render him fit to become a good member of society; and when the period of his sentence expires, be prepared to shield him from temptation and aid him in all honest efforts to become a worthy citizen.

Said ex-Governor Haines of New Jersey, in his report of the London Prison Congress: "An agency for providing discharged prisoners with employment is a present and pressing necessity, and one that is deeply and painfully felt. In some states this has been committed to individual efforts and benevolent associations; but it is obviously the duty of the state, and properly devolving upon it.

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If the protection of society is to be secured by the imprisonment and reformation of the convict, clearly that protection should be continued and assured by such measures as will provide against a relapse into crime and a repetition of the former prisoner's punishment."

The law should be severe enough to deter from crime, and at the same time extend to the weak and feeble a helping hand in their efforts to lead better lives.

It was well said, in one of the annual reports of the State Board of Charities of Massachusetts: "Undoubtedly every effort should be made to adjust the machinery of political society, and of all its subordinate divisions, to the elements of human nature, thereby economizing moral as well as physical activity. It is the legitimate work of the government to discover and apply the best methods of administration in regard to its discharged prisoners. The great warfare against vice and crime is always to be on the outside of prisons and reformatories.

"In the state, in the church, in the school, in the street, in the lecture room, in the tribunal of public opinion, in the family, in the individual heart, wherever a word can be spoken, an example set, or an effort made for purity of character, for right conduct, for simple and healthy modes of living, for a faith which neither demoralizes with its indifference or laxity, nor disheartens by its austerity, whether there be many or few reclaimed from the path of crime, the duty of the state and individual remains the same. So long as there is one child of woe and sin in the world, there is a duty upon the state to faithfully try to save him to honesty and self respect."

Our views are in complete accord with the sentiments expressed in the above abstract.

We believe that the Prisoners' Aid Association, in its aims and purposes as herein set forth, is an important auxiliary in the work of caring for discharged convicts, and commend it to the fostering care of the legislature; and trust that such measures may be enacted as will aid it in its work and render the organization more effective for good.

State Insane.

STATE INSANE.

There is a class of chronic insane who have no legal residence in any county in the state, and who have been inmates of our hospitals during several years past that raises an important question for the legislature to consider.

The counties of Dodge and Green Lake presented claims to the last legislature for the "one dollar and fifty cents per week" paid by them for certain state pauper insane sent to the hospital and for whose support while in the hospitals the counties had been taxed. An appropriation was made to refund to these counties the amount of tax paid on account of such cases for the previous six years.

There are other counties that propose to present their claims, based upon like grounds and taking the action of the last legislature as a precedent, we see no reason why their claims should not be allowed.

If it becomes the settled policy of the state to pay such claims when established, provision should be made by law for fully inquiring into their justice and ascertaining all the facts connected therewith to the end that the state may be protected, and at the same time no injustice be done to the counties applying for relief.

The presentation of the county's side to the legislature is almost wholly an ex parte one. The papers relating to claims from Dodge and Fond du Lac counties, on file in the office of the Secretary of State, furnish no evidence that at the time of the commitment of the insane men to the hospital they were state paupers, or had not a legal residence in the county from which they were sent, or in any other county. It is true that at the time referred to there was no provision of law that related specially to them, yet the fact that no claim for exemption from the tax from 1772 might be taken as a waiver of any rights they possessed under it.

Under the law of 1872, insane persons whose residence is unknown "and cannot, after due diligence, be ascertained, may be sent by the county judge and received into the hospital by the superintendent as a patient from the state at large, and not charged to the county as one of the number to which it is entitled."

The Insune Hospitals.

No claim for the reimbursement of money paid by the counties for the class of insane we are considering can be justly made for any tax paid since this law was passed, unless it can be shown that the charge to the counties was an error on the part of the hospital authorities, for if the commitment did not show the fact of non-residence, that fact would relieve the state of all liability in the premises.

THE HOSPITALS FOR THE INSANE.

Our two insane hospitals have continued to be conducted with such regard to economy in their management, as was consistent with their efficiency as curative institutions, and rendering them pleasant and comfortable homes for the most unfortunate of our race.

While it costs so much to support them, successfully, no tax payer, who is satisfied that the money is judiciously expended in promoting the comfort of their inmates, and realizes the great good being done, will complain.

In making this statement in relation to the cost of maintenance in our hospitals, we do not wish to be understood as in any sense abandoning the opinion expressed in our last report, that by separating the chronic from the acute cases, and treating them in separate institutions, a much lower average per capita expense could be reached without neglecting any thing essential to the welfare and comfort of the patients. The last legislature, instead of following our recommendations on this subject, passed what was known as the "County Insane Bill," which, it was held by some, would more effectually separate these two classes than by designating one of the present hospitals to take charge of the chronics, and we are content to await the result.

From personal examination and a careful study of statistics, we believe that in the results shown, our hospitals will rank with the best in the country, and in the wise administration of their affairs, and the quiet order that prevails, they are not surpassed anywhere.

We do not institute comparisons between the cost per capita in our own hospitals and those of other states, yet feel satisfied that such comparisons, if made, would show in our favor.

State Insane.

In what follows, we have computed the per capita upon the current expenses of each hospital, and we estimate such expenses from the itemized report furnished us by the institutions themselves; not including the amounts expended for permanent improvements.

The following is the comparative per capita expense per year and per week on subsistence and on salaries, and on total current expenses; of our two hospitals for 1878, on the basis of 52 weeks, and on an average attendance in the State Hospital of 380 patients, and in the Northern Hospital of 543:

SUBSISTENCE.

	014.		
State Hospital	\$19,285.72	Per y'r.	Per. w'k.
Per capita	• • • • • • • •	\$50.75	
Northern Hospital	37,928.66	69.84	1.34
SALARIE	S.		•
State Hospital	30,723.32		
Per capita		80.85	1.555
Northern Hospital	36,385.07		• • • • •
Per capita	•••••••	67.00	1.288
SUBSISTENCE AND	SALARIES.		
State Hospital	50,009.04	131.60	2.53
Northern Hospital	74,313.73	136.85	2.62
TOTAL CURRENT	EXPENSES.		
State Hospital	95, 035.85	250.01	4.81
Northern Hospital	130,799.81	240.88	4.63

⁶⁻C. & R.

IV.

CRIME AND COUNTY JAILS.

COUNTY JAILS.

We have not visited all the county jails in the state during the last year. We have, however, kept ourselves posted, by correspondence and otherwise, as to their condition, and in all cases have made a personal visit whenever a watchful supervision seemed necessary to reform abuses or correct wrongs being perpetrated.

New jails have been built, and on the modern plan, in several of the counties. Juneau, Jackson and Walworth counties have erected first class buildings in all respects, with all the modern jail improvements.

As a rule, prisoners have been well treated in comfortable quarters. The exceptions are noted in the reports of our visits.

Milwaukee county jail has been visited several times by members of the board and has always been found in good condition. Sheriff Sanger has done all that was possible with the limited accommodations furnished to his hands, and kept things orderly as well as clean.

No special report is made on jails of Rock, Green, Iowa and some other counties that have been visited, yet they have been well kept.

COLUMBIA COUNTY JAIL.

Visited October 14.

Columbia county jail contained 14 inmates, all males; some of them were undergoing sentence, some accused of different crimes and awaiting trial.

The jail was crowded, and many of the inmates appeared to be of the more desperate class, requiring continued watchfulness on the part of the turnkey and sheriff.

The ventillation of the cells was bad. The cellar of the residence part was damp and unhealthy, caused by a leak in the cistern. The privy vault was becoming filled up. The premises were found clean and well kept, but the building is old-fashioned and should be abandoned. A new one should be constructed. We would suggest to the county authorities that a site near the court house would be found preferable, and would urge that immediate steps be taken to erect a more commodious structure and on the modern plan.

DANE COUNTY JAIL.

Has been visited several times during the year. Mr. Wm. Charlton, the sheriff of the county, has continued an intelligent oversight of its affairs. It has always been found clean and orderly, although often crowded. A new jail is very much needed, the present structure being too small.

The "pen" for pounding stone has been a terror to tramps and vagrants. With the increase of population and crime, it is becoming a necessity for more ample accommodations for criminals, and early steps ought to be taken to provide them.

New stools have been placed in all the wards and a sewer constructed to the lake. Whether the stools may not become a nuisance, for want of water to flush them, will be best determined by time and use. The new sewer will obviate one of the greatest defects we have heretofore complained of.

Number of prisoners December 9th, the day of our last visit, 16.

FOND DU LAC COUNTY JAIL.

Visited September 26.

The jail contained the day of our visit 4 prisoners awaiting trial; 1 for embezzlement, 1 for stealing, 1 for larceny, and 1 female for arson. It contained, also, 16 insane that were removed there last year from the poor-house.

While we regard a county jail as in no sense a fit place in which to keep an insane person, we must say that in no county poor-house, even, have we found the condition of these poor unfortunates more comfortable. Everything about the jail, including the corridors, cells and bedding, and clothing of the inmates, was scrupulously clean and wholesome. There was a complete absence of the jail smell quite universally common in institutions of this class, and the air was fresh and sweet in each of the four wards.

This agreeable, if not delightful, condition of things, we believe, is due to the intelligent and humane efforts of Mrs. Colman, the amiable wife of the sheriff, seconded, no doubt, by the hearty cooperation of her husband. We wish every sheriff and turnkey in the state would visit the Fond du Lac jail and take its condition as a model and pattern, and strive to imitate its cleanly and orderly condition. All the inmates, including the insane, bathe weekly. The county pays \$4 per week for the board and washing of the prisoners and insane. Since our last report water has been introduced into the jail.

GRANT COUNTY JAIL.

The board received a letter, under date of June 28, from a prisoner confined in the jail at Lancaster, complaining of the treatment he was receiving, and the bad condition of the premises. The jail was visited by the secretary, and found in good condition. The complainant was found locked in his cell for aiding a fellow prisoner to escape, and he was both diseased and filthy.

JEFFERSON COUNTY JAIL.

Visited several times.

A very full description of the jail was given in our report for 1871. It is among the best structures for the purposes of a jail in the state, and well kept. It has complete arrangements for the separation of the different classes of criminals, with facilities for bathing. The prisoners are required to bathe weekly.

The building is as well lighted and ventilated as is consistent with safety against escapes.

The beds are kept clean, plain and substantial food furnished, and the institution presents a neat and habitable appearance. only needs the introduction of some kind of employment to render it a terror to tramps, and influence them not to seek it for bed and board.

The county allows the sheriff \$3 per week for boarding prisoners, and twenty cents per week for their washing.

The covered cess pool first constructed has been replaced by one of more ample proportions further from the building, connected with properly trapped soil pipes.

There was, November 1st, four prisoners. Number committed during the year, 256, over four-fifths professional tramps, on short Thirteen were sent to the state prison. Earl Newton sentences. is sheriff.

JUNEAU COUNTY JAIL.

Visited Oct. 23, 1878.

This is a new jail, erected during the past year, at the village of Mauston. The site is an elevated point of land on the banks of the Lemonwier river, and comprises, we should judge, from $1\frac{1}{2}$ to 2 acres, covered with oak trees. The height above the water is 10 or 12 feet, and affords perfect sewerage from the basement of the building to the river. The building is constructed of Portage brick, and presents an imposing appearance, being two stories above a high basement. The basement contains rooms for laundry and washing, a vegetable cellar, as well as storage room for fuel and a furnace.

The first floor front contains kitchen, dining room, parlor and office, and second floor front corresponds with the first, and is to be used for family rooms. The third floor (attic) contains two sleeping rooms and store room. In the rear of the administrative department, lower floor, are the quarters for the insane. A central corridor runs from a hall between the front and rear portions of the building to the end, and on each side of the corridor are two rooms, 7½ by 18 feet in size, and also one room on each side 12 by 14 feet. The corridor is cut off at the extreme end to make a water closet and bath room. A lattice partition separates the corridor from the hall next the administrative department. The jail proper comprises the second story of the rear part of the building, and is 29 feet by 32 in size.

The cells (which had not been built at the time of our visit) are to be of iron, 12 in number, in two tiers of 6 each, 5 by 7 feet in size, with a corridor 3 feet 6 inches wide, enclosed by an iron lattice on the sides and also on the top. The walls of the jail are $16\frac{1}{2}$ feet high, with 8 windows strongly barred.

There are "peep holes" from the hall and turnkey's room, that give a full view from the outside of all going on in the jail. Over the jail is a water tank holding 42 barrels, and bath rooms both above and below. The arrangements for ventilation and sewerage seem quite perfect. Considered in all respects, we think this the most complete and perfect structure for jail purposes in the state. We would, however, have preferred a division of the jail into two parts, for the purpose of classification of prisoners, and an extension of the corridor in the part designed for the insane to the outside of the building, for purposes of sunlight, air and a sight of the outside world.

The quarters for the jailor are roomy and comfortable. The situation is dry, and the grove of oaks surrounding the building adds much to the landscape. Juneau county has a right to be proud of its new jail.

KENOSHA COUNTY JAIL.

Visited November 30th.

The sheriff, Hugh McDurmott, has charge, and to the credit of Mrs. McDurmott and himself it was found in good condition; the apartments and beds were clean.

The jail contained 18 inmates; 17 men and one woman. There were 3 insane; 2 men and 1 woman. The insane are harmless and have the liberty of the yard during the day time.

A new sewer has been built since our last visit, which has greatly improved the air of the apartments. The sewer is flushed from the water of the roofs, and also by a pump when nesessary. The privy vault (new) has been built outside and the sewer connects with it.

The crowded condition of the jail renders it necessary to make beds upon the floor. There is no chance for any classification of prisoners; all occupying the common room during the day, to be locked in crowded cells at night.

Six of the prisoners had lain in jail over three months awaiting their trial, one young man was arrested for stealing a horse and buggy July 16th, and has been incarcerated four and one-half months.

Under the declaration of rights, article 1 of the constitution of Wisconsin, the accused shall enjoy the right" to a speedy public trial." Every man is presumed to be innocent until found guilty, and there should be some provision of law that will grant an early trial to all persons accused of crime.

The cost of boarding the 6 referred to has been over \$250 to the county, and very poor hotel accommodations furnished, there was however, no complaint made by the prisoners as to quality or quantity of food.

From November 1, 1877 to November 1, 1878, there were 874 tramps furnished food and lodging in the jail at an expense to the county of \$524. The tramp nuisance is, however, nearly abated since vagrants were set at work upon the streets of the city. Last year between ten and eleven hundred tramps were entertained. The county gives each tramp a tioket, once for supper, breakfast and lodging in the jail.

The county should take immediate steps to build a new jail, a tax of one-half of one per cent. on the assessed value of the county would build a good jail, with courtroom and sheriff's residence, and we express the hope that early maasures will be taken to remove the stigma that now rests upon Kenosho county.

LA CROSSE COUNTY JAIL.

During the month of April of the present year, the public prints of Chicago contained statements that one Mrs. Ida L. Pierce was detained in the jail at La Crosse, having been committed for contempt of court, her offense being the abduction of her own child that, in the decree of divorce separating herself and husband, was awarded to the husband.

These statements set forth that her quarters were filthy, and infested with vermin, etc. Complaints of a similar nature to the published statements were also forwarded to the governor, and upon his expressed desire, a member of this board, together with the secretary, went to La Crosse, and on the 30th day of April visited the jail in that city.

The report of the visit and result of the inspection of the jail, was communicated to the governor in the following, under date of Madison, May 1, 1878.

Hon. Wm. E. Smith, Goveonor of Wisconsin:

Sir.—It having come to the knowledge of the State Board of Charities and Reform, through the public prints, that one Mrs. Ida L. Pierce was confined in the La Crosse county jail, and it being further represented that her treatment was not as humane and generous as those accused of crime, or even convicted criminals should receive, and yourself having expressed a desire that the matter of the alleged inhuman treatment of said Mrs. Pierce be inquired into by the Board of Charities and Reform, the undersigned went to La Crosse, and on the 30th day of April visited the jail in that city and interviewed the said Mrs. Ida L. Pierce, and also conferred with the sheriff of La Crosse county, and other parties interested in the welfare of said woman.

As the result of our investigation we found Mrs. Pierce confined in the female ward of the jail, in a room of reasonably good size, well lighted and ventilated, but infested with multitudes of bed bugs. The bedding with which Mrs. Pierce's room is supplied, could be greatly improved by washing; the ticking being especially and offensively filthy and buggy.

We found the food with which Mrs. Pierce was supplied, by her own admissions, to be of good quality and quantity, except the coffee. The sheriff had refused to allow delicacies, and such food as Mrs. Pierce had been accustomed to, to be brought to her by

her mother and other friends.

We found that Mrs. Pierce's mother was not allowed to visit her except in the presence of the turnkey, and then her visits were restricted to ten minutes' duration. Other female friends have been denied admission, and still other friends have been permitted to see her. The restrictions above mentioned the sheriff says were in accord with his rules in the conduct of the jail.

Very respectfully, your obedient servants,

H. H. GILES,

Member State Board Charities and Reform. THEO. D. KANOUSE,

Sec. Board.

This jail was again visited October 24th, and found in tolerable good condition.

It has been greatly improved during the last year by placing three 14 inch patent elevators through the roof, and the introduction of water from the city mains. A dry well 35 feet deep has been sunk for a privy vault, with a funnel elevator outside the building. The quarters occupied by the state prisoners were found clean. The cells on the ground floor, used by the city prisoners and tramps, were not in so good condition, although greatly improved since the visit in April. The county does not furnish sheets or pillow cases for the jail. The privy, although improved, and as the sheriff said flushed with water frequently, was found in a filthy condition. The windows having been kept open, the air was pure except near the water closet.

It was visited again December 10th, and, with the exception of the dirty ticks and want of sheets for the beds, the jail was found in good condition. We had the pledge of the sheriff that these defects should be remedied, and it may be added that with the improvements made during the past year, the jail is now better than the average of jails in the state.

MANITOWOC COUNTY JAIL.

Visited October 8.

This jail is in charge of Mr. Peter Mullhalland, the sheriff of the county. It contained, the day of our visit, 12 inmates.

The following letter, written for publication in the county papers will perhaps convey an indea of what we found, and our impressions.

The sheriff receives \$5 per week for board of the insane and \$3.50 per week for the prisoners.

Madison, Oct. 12, 1878.

Mr. Editor: I visited the county jail in your city on the 9th inst. and thinking that the people of Manitowoc county are not informed of the true condition of things in that institution, I beg your permission to say a few words to them through the columns of your paper. The jail is not a fit place in which to confine criminals as it has not one requisite in its arrangement with a view to the safety of law breakers. It was built when the needs of the county were not what they are now, and doubtless considered but a temporary place to confine prisoners, anticipating the erection of a more suitable building at an early day on the grounds adjacent to the court house.

The objections to the jail are, its being a basement room to the court house; want of safety; quite entire want of ventilation. Nothing the sheriff in charge can do can remedy these radical defects. While unfit for use as a jail, how much more ought it to be condemned as a home for the chronic insane. The day of my visit it contained 12 inmates, eight insane and four prisoners. Of the insane, 5 were men and 3 women. Several of these insane have been in the jail for years — one old man of 60 years of age, over 9,

and I think four others between 5 and 6 years. Two of these poor creatures have not been outside of the corridors for over two years. Not over two of these insane are of the class called demented. I talked with everal, and they conversed readily, and I believe they would, quite all of them, enjoy God's sunlight and fresh air. One poor fellow I found locked in his cell, with the little window (of three or four small lights of glass at the top of the ceiling) curtained, and for what? He became excited and assailed his fellow prisoners. He had an ugly wound on his forehead, caused by a blow with a padlock, in the hands of the sheriff. We do not excuse the official for it, and think him not justified by the provocation.

A lattice of iron divides the corridor, cutting of two cells which are occupied by the insane women when they are not locked in their cells.

One poor man was said to be dying. He has endured a living death in that dungeon for quite six years. I feel quite sure that the citizens of your county do not desire to be charged with a want of common humanity, yet I question whether the equal of the Manitowoc county jail can be found in the United States. Its like may be found in Turkey or Algiers.

I feel equally sure that not one of your people will begrudge the pittance of his share of the sum that would be required to provide comfortable quarters for these poor people, for not one of them has the certainty that he or she will not be stricken down by the terrible malady of insanity. The sad condition of things I have set forth in the facts recited, is an unpleasant commentary on the people of your county or its officials. I am disposed to think the latter are mostly to be blamed, but would not in this stricture include the present resident county officers. Should you think this brief epistle will serve the great interest of humanity, please give it an insertion in your paper and oblige

Yours very respectfully,

H. H. GILES, Member W. S. B. of C. and R.

We have been gratified to learn that the county board of supervisors, at their fall meeting, provided for the early removal of all the insane from the jail to St. Nazians, and that a part of them have been so removed.

HOUSE OF CORRECTION, MILWAUKEE, WIS. Visited November 22, 1878.

The former inspector who has so ably managed this prison for several years, Hon. Daniel Kennedy, having been placed at the head of the police force of the city of Milwaukee, was succeeded by Henry Haas, Esq., formerly the keeper of the Milwaukee county poor-house.

The institution was found in its usual good condition. The cells were clean and the prisoners well cared for.

One prisoner confined in a cell, and who was evidently suffering from consumption, the board recommended should be removed to more comfortable quarters, which the inspector promised to do.

We have not received the annual report of this institution, and are therefore unable to give any statistics of its business, which is of considerable magnitude.

The discipline of the prison we judge to be good. The prisoners appeared to be healthy, but a large majority were of a low type of men.

The commitments during the last year have been 866. These, together with 97 remaining in prison November 1, 1877, make a total of prisoners for the year of 963.

Of the total number, eight hundred and fifty-one (851) were males, and one hundred and twelve (112) were females.

The foreign born were five-hundred and twenty-one (521), of which 456 were males, and 65 females. Of the native born, one hundred and ten were of foreign parentage.

Of the total number of prisoners, 540 were committed for drunkenness and disorderly conduct, 63 for assault and battery, 84 for larceny, 124 for vagrancy, and 14 for burglary. Over 50 per cent. of the total number were committed for disorderly conduct caused by drunkenness. For all offences other than those specified, there were 41 commitments.

Number of prisoners November 1, 1878, was 116, of which 109 were males and 7 were females.

The sexes are kept entirely separate, the females being employed in the kitchen and laundry.

The cost per week per capita is \$3.30.

MONROE COUNTY JAIL.

Visited September 12.

The jail contained, at the time of our visit, 6 prisoners and awaiting trial; 1 for attempt to rob; 1 for larceny; 1 for horse stealing; 1 for threatening to shoot; 1 for keeping a disreputable house, and 1 for drunkenness. Found 3 of the 6 locked in cells for breaking the jail in June and damaging the county property. The premises were found in good order and in a cleanly condition.

This jail is so unsafe that it is mere play for the prisoners to escape if not kept locked in the cells. Communication is easy with the outside, and tools can easily be passed to the prisoners, with which they can work their way out. There is no sewer connected with the premises. It is in charge of the sheriff.

OCONTO COUNTY JAIL.

Visited October 17.

Three prisoners, one for horse stealing and two insane.

The beds, with sheets and pillow cases, as well as the cells and corridors, were found clean and in good condition. James Coniff, constable and turnkey, has charge. He receives \$5 per week for board of inmates, and 75 cents per dozen for their washing.

PORTAGE COUNTY JAIL.

Visited October 15tth.

Contained two prisoners, a boy 19 years old, and one man, both for larceny. The premises were found in a filthy condition; no sheets nor pillow cases to the beds, and the blankets were foul. When the sheriff was asked why he did not wash the blankets, he replied, "they were all washed last April, and will be washed again this fall.'

There have been but 16 commitments to this jail since January last. The sheriff receives \$3.00 per week for board of prisoners, and 10 cents per week for washing — a stingy sum, surely, for a great county. The officer in charge excused the filth on account of

the meagre compensation allowed him. Counties should pay for what good services are worth, and then require them to be well and faithfully performed.

RACINE COUNTY JAIL.

Visited November 23.

In the first report made by this board, we called attention to the want of room for classification, and designated the jail to be "a strong, gloomy building, with no yard for fresh air."

In our second report we represented the building as in many respects defective, and "hoped that the county would soon provide a more suitable building."

In our third report attention was again called to the jail, which was built thirty years previous, and "had served its day and generation." There was no way to separate hardened criminals from those accused of crimes or held on suspicion.

In our sixth report the jail was discussed at greater length, and its defects pointed out, and, in our seventh, the condition of the vault was alluded to as an "inaccessible and undrained" one.

We have all along hoped that the county authorities would see the necessity of making radical changes in its interior, or abandoning it altogether, and constructing a new one. We are still of the opinion that it cannot be remodeled in a way to serve a good purpose, except by tearing down and rebuilding upon the modern plan. Even if this is done, its site is so shut in by surrounding buildings, that it would get neither light nor air in its interior.

It now gives no chance for classification of inmates. The hardened criminal, murderer, burglar, thief and youthful offender, together with vagrants and drunkards, as well as detained witnesses, are thrust into the same foul, dark, noisome dungeon.

The privy vault in the back end, of which we have heretofore complained, has been abandoned for the reason that it became filled up so that it would hold no more, and even overflowed into the jail, and the short corridor leading to it is boarded up to keep the foul and disgusting stench from suffocating the inmates.

A new vault has been dug in the opposite end next the outer

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wall since our previous visit, and a water-pipe leads to it, but its capacity is so small that it is already more than half full, while having been used only a few months, and emits a disgusting odor. A new residence for the sheriff was built two years ago on the north side. A part of this new structure stands over the privy vault first alluded to. The fermenting mass beneath emits a poisonous gas that cannot but cause malarious disease in the household, and must ultimately effect the health of the occupants of the county officers in the court house adjacent. Indeed the sheriff's family have several of them been down with typhoid fever.

It is said of the old French bastile built in 1369 that "its dungeons had no opening but a narrow loophole communicating with the ditch. The wretched inhabitant, deprived of air and daylight, buried alive in a damp and infected atmosphere, in the midst of loathsome mud, the breeding place of toads and noisome reptiles. surrounded by spiders and rats, could not long support his miserable existence amid such an accumulation of horrors." We will not draw the parallel, leaving it to others to say if any exists, but if the county board represents the average humanity of the people of Racine county, there is a good field for missionary labor in our own state, without going to heathen lands.

The jail contained, the day of our visit, nine inmates: eight men and one woman. It is used by the city as a lock-up for vagrants and tramps, which renders it a difficult matter to keep it clean, which it was not on the day mentioned. In the back yard was an old vault formerly used for a privy which has become filled up and emits its poisonous gas and foul effluvia into the surrounding atmosphere. When the new structure alluded to was erected, we were told that not less than five privy vaults were disturbed, but none of them were emptied of their contents.

In the care of the dependent and criminal classes we think the authorities of Racine county have exhibited a shiftlessness and stingyness unparalled by any other county in the state, and we write this in view of the present and past condition of the jail, and our added experience in the case of the poor house as it was two years ago, but now reformed.

Since writing the above report of our visit we cut from a Racine paper the following resolution passed by the county board of supervisors at its recent session:

Resolved, That a committee of three, to be known as the Sanitary Committee, be appointed by this board to take charge of the repairs of the jail of and court house grounds, build the necessary sewers to thoroughly drain the vaults and ground belonging to the county; and that they have full power and authority to carry out the wishes of this board as expressed in this resolution. That the work be commenced at their earlist convenience, so that the evil complained of may be speedily abated — and that said committee proceed to let the same by contract or otherwise, as they in their judgment shall deem best for the interest of the county. In case the city council shall neglect or refuse to grant a right of way for a sewer, as heretofore proposed, then and in that case the said santary committee shall have power and are hereby directed to apply to the circuit judge for the relief desired."

Messrs. Howell, Dickinson, and Osgood, were appointed as such committee, and it is understood that they will push repairs, etc., forward as fast as possible. The sum of \$2,000, was placed to the credit of the sanitary committees. This looks like business, and if the contemplated action is carried out, we will modify somewhat, our strictures pronounced above.

The board of supervisors also took action on the "tramp" question. We republish the action taken, as an advertisement to the "tramping" fraternity where to apply for food and lodging, and nothing will be said about work and wages. The committee on the boarding of tramps presented the following report:

The committee appointed to ascertain whether tramps can be kept at more reasonable rates than have heretofore been paid, would respectfully report that they have made inquires in regard to the same, and have received from Frank Schmit, proprietor of the "Washington House," the proposition to keep tramps, furnishing supper, lodging and breakfast for forty cents each. The committee recommend that the superintendent of the poor be requested to enter into a contract with Mr. Schmit for that pupose, and that said

Schmit shall receive no pay for the keeping of such tramps unless they present an order from said superintendent.

> ADAM APPLE, THOS. DICKINSON, HUGH GORTON.

RACINE, November 25, 1878.

After some discussion, the proposition of Mr. Schmit was agreed to, and he will furnish the victuals for the tramps henceforth.

RICHLAND COUNTY JAIL.

Visited May 17th

On the building of this jail there seemed to be no purpose except the safety of those confined therein; but even this was not secured. The cells, of which there are two, are without ventilation, and no human being possessing lungs should ever be shut in them. The building is of stone, 32 by 48 feet, and two stories high, substantially built, with quarters for the residence of the sheriff. Has had 11 inmates the last year. The county should build a new jail at once.

SHEBOYGAN COUNTY JAIL.

Visited October 9th.

This jail has been described in our previous reports. It is in the basement of the court house, and so far as possible, with the exceptions hereafter noted, it is the best basement jail in the state. It is under the charge of J. Schrage, the sheriff of the county. It was found clean and in good order generally. The beds should be provided with sheets.

The important exceptions above noted are the privies. Their stench is quite intolerable, although Mr. Schrage has attempted to exclude it from the jail proper, by tight doors inside the iron grated ones. We see no remedy easier than a flue or tube from the privy vaults up through the building to the outside world. Something should be done to correct the nuisance.

There were 3 prisoners: one boy for 90 days, for petit larceny; 7—C. & R.

one man awaiting trial "for being directed the wrong road, and tried to enter a dwelling to find out the right way"—burglariously entering a private dwelling; one partially idiotic man, who was kept about the premises to restrain him from being a general nuisance.

VERNON COUNTY JAIL.

Visited by proxy, the Hon. J. M. Rusk, October 3.

There were two inmates the day of the visit. The condition of the premises was good. The sexes are kept separate, and the disciplinary regulations good. Facilities for personal cleanliness, rather poor.

WAUKESHA COUNTY JAIL.

Visited July 23, 1878.

This is one of the oldest jails in the state. Is by no means a safe place for the confinement of criminals. Sheriff Paterson deserves great credit for the manner in which the jail is kept. It was found to be clean and orderly in all of its appartments.

WINNEBAGO COUNTY JAIL.

Visited September 25.

At the time of our visit this jail contained 5 prisoners under sentence, one for 3 months, for bastardy; one 3 months, for larceny; one 5 days, for assault and battery; one 30 days, for vagrancy, and one indicted for stealing. To our inquiry about the 5 days commitment for assault and battery, we were told that "it was only his wife that was beaten."

The cells were found tolerably clean and bedding in good condition.

This jail is in no sense a fit place in which to confine human beings. It is dark, damp and unwholesome. There should be some authority outside of Winnebago county, to condemn it and prevent it from being used, even as a place of detention for suspected offenders.

Besides the prisoners mentioned, the jail contained three incurable insane, and one idiot, taken from the poor-house. One poor fellow had been there 75 days, one was placed there July 20th, and one August 22d. It is simply barbarous to keep these poor, helpless men in jail, and in such a jail. Are there no humane christian ladies in Oshkosh, to take an interest in their welfare? We were told they were "harmless, but there was not room for them at the county poor house, and it was feared they would run away." They are not demented cases, and ought to be kindly cared for, and would appreciate humane treatment, enjoy God's sunlight and fresh air, and by birthright are entitled to it.

TABLE No. I.

OF JAIL POPULATION.

Number in jail October 31, 1878. Number received since. Number of males. Number of females. Number foreign-born males. Number foreign-born females. Number of native-born, of foreign parentage.

	Octo-	eived.	oners.	ison-			ber c	of for-	ative-born, parentage.	e per
Counties.	Number in jail 6 ber 31, 1878.	Number since received	Number male prisoners	Number female prisoners.	Total.	Males.	Females.	Total.	Number of native-born, of foreign parentage,	Cost of subsistence per prisoner per week,
*Adams Ashland Barron Bayfield Brown Buffalo Burnett Calumet Chippewa Clark Columbia Crawlord Dane Dodge Eau Claire Fond du Lac Grant Green Green Lake Iowa Jackson Jefferson Juneau Kenosha Kewaunee La Crosse La Fayette Lincoln	15 11 11 11 11 13 5 3 3 5 12 10 4 4 9 4 8 8 	8 4 1 151 17 8 48 18 96 106 489 44 33 7 10 1347 32 377 3 132 377 3 132	5 4 1 1399 17 13 102 108 490 48 36 188 37 90 14 14 12 25 27 330 3 119 21	27 	8 4 1 166 17 9 59 13 102 110 502 49 36 204 38 91 17 14 13 256 36 385 3 132 22	3 1 9 9 71 11 235 17 7 34 3 6 3 48 10 122 2 45 13	11 	93 99 71 133 241 25 17 7 34 3 6 3 126 2 5 13 14	10 20 10 5 3 3 48 2 116 11 16 116 116 116 116 116 116 116	\$5 25 5 00 5 25 3 00 5 25 3 50 4 00 4 00 3 55 3 50 3 50 3 50 3 50 3 50 3 50 4 00 4 00 4 00 4 00 4 00 4 00 5 25 4 00 4 00 5 25 6 4 00 6 6 00 6 6 00 6 6 00 6 6 00 6 0
Manitowoc	8	31	27	4	31	23	4	27		3 50

^{*} No jail, nor prisoners in other jails.

[†] No commitments during year.

Table No. I. — Of jail population — continued.

-										
	l Octo-	Number since received.	Number male prisoners.	prison-			ber o	of for-	Number of native-born, of foreign parentage.	ence per week.
Counties.	r in jail 1, 2878.	r since r	r male p	Number female ers.		-	si.		ber of nati	Cost of subsistence prisoner, per weel
	Number ber 31,	Numbe	Numbe	Numbe ers.	Total.	Males.	Females.	Total.	Numbe of for	Cost of priso
Marathon. Marquette Milwaukee Monroe Outagamie. Ozaukee Pepin Pierce. Polk Portage Racine Richland Rock St. Croix. Sauk Shawano Sheboygan Taylor Trempealeau	10 1 6 2 5 1 21 10 3 4 1	19 2 619 73 51 15 9 26 9 29 354 10 600 31 25 3 70 9	19 2 533 68 48 15 7 28 350 11 28 3 73 10 1 1	86 6 9 2 1 9 	19 2 619 74 57 15 9 28 9 359 11 621 41 28 3 74 10 1 2	12 1 282 14 32 10 1 188 4 10 182 2 394 31 111 3 43 6	56 1 5 4 7 1	12 1 338 15 37 10 1 18 4 10 186 2 401 31 11 3 44 6	34 8 8 8 8 5 4 70 2 10 17 30 4	\$8 00 3 00 3 00 3 50 4 00 2 00 4 75 15 00 3 50 4 50 4 50 4 50 4 50 4 50 4 50 4 50 4 50 5 25
Vernon Walworth Washington	6 4	25 59 17	26 62 20	1 3 1	27 65 21	7 43 11	2 1	45 12	10 8	3 50 3 50
Waukesha Waupaca Winnebago Wood	10 3 3	55 6 406 20	54 8 399 19	1 1 10 1	55 9 409 20	40 3 55 6	1 1 2	41 4 57 6	14 97 12	4 00 4 50 3 50 7 00
Total	121	4, 544	4,419	246	4,665	2,007	127	2,134	829	

TABLE No. II.

OF JAIL POPULATION.

(continued.)

Alleged offenses for which persons were committed, and the number of convictions.

	Assa	ULT.	Ars	son.	ADUL	TERY.	Burg	LARY.
Counties.	.Com.	Con.	Com.	Con.	Com.	Con.	Com.	Con.
Adams* Ashland Barron Brown Buffalo Calumet Chippewa Clark Columbia Crawford Dane Dodge Eau Claire Fond du Lac Grant Green Lake Iowa Jackson Jefferson Juneau Kenosha Kewaunee Fa Crosse La Fayette Manitowoc Marquette Milwaukeee Monroe Outagamie Ozaukee Pierce Polk Portage Racine Richland		22 6 5 4 17 1 33 8 4 2 1 1 2 5 3 3 1 2 5 1 1 2 1 2 1 1 2 1 2 1 1 2 1 2 1 2	1 2 4 1 1 2 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 1 1 +2	1 1 1 2	1	1 2 8 10 7 2 7 2 3 4 8 1	1 2 8 8 9 4
Rock	23	15	2		1		16	6

^{*}No jail, nor prisoners in other jails. †Bound over.

Table No. II. — Of Jail Population — continued.

	Assault.		Arson.		ADUL	rery.	Burglary.		
Counties.	Com.	Con.	Com.	Con.	Com.	Con.	Com.	Con.	
St. Croix Sauk Sheboygan Vernon. Walworth Washington Waukesha Waupaca Winnebago Wood Total.	5 7 14 6 8 8 29 3 7 4	1 7 5 6 5 29 3 6 266	1 1 1 33	1	1 1 16	2	2 2 5 10 1 1 9 3 157	8 1 1 4	

TABLE No. III.

OF JAIL POPULATION.

(continued.)

Alleged offenses for which persons were committed, and the number of convictions:

	II							
	Bro	AMY.	Basz	rardy.		UNTER-	Con of (TEMPT COURT.
COUNTIES.	Committed.	Convicted.	Committed.	Convicted.	Committed.	Convicted.	Committed.	Convicted.
Sheboygan Vernon. Washington Waukesha Winnebago	1 1	1	1 2 2 1 6 2 1 2 1 2 2 1 1 1 2 1 2 1 1 2 1 2	2 1 6	3		1 1 1 1 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 1 1 1 1 1 1 12
* U		- 1				1		

^{*} Has no jail, nor prisoners in other ccunties.

TABLE No. IV.

OF JAIL POPULATION. [con inued.]

Alleged offenses for which persons were committed, and the number of convictions:

•	Drunk	enness	Forg	gery.	Horse ing		Keep'g of ill	house fame.
Counties.	Com.	Con.	Com.	Con.	Com.	Con.	Com.	Con.
Bayfield Brown Calumet Chippewa Clark Columbia Crawford Dane Dodge Eau Claire Fond du Lac Grant Green Green Lake Jackson Jefferson Juneau Kenosha La Crosse Manitowoc Marathon Milwaukee Monroe Outagamie Ozaukee Benin	35 1 177 4 20 6 134 1 117 1 26 30 6 164 15 16 10 1	1 25 17 4 20 3 105 117 117 117 16 164 10	1	1 4 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 5 3 3 3 1 1	OO 1 2 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 3 1	3 3
Pepin. Pierce Polk Portage Racine Richland Rock St. Croix Sauk Shawano Sheboygan Taylor Walworth Washington Waukesha Waupaca Winnebago Wood	10 3 9 102 182 16 6 2 20 5 5 73 6 1,068	9 95 85 6 5 20 21	1 2 3 3 1 1 1 1 36	2	1 2 4 1 1 1 1 3 3 54	2 1 1 1 1 1 28	1	15

TABLE No. V.

OF JAIL POPULATION. (continued.)

Alleged offenses for which persons were committed, and the number of convictions:

mumber of convict	1	CENY.		AN-		EWD	Mm	RDER.
	II		SLAUB	GHTER	CON	DUCT.	1,10,	1111111
Counties.	Committed.	Convicted.	Committed.	Convicted.	Committed.	Convicted.	Committed.	Convicted.
Brown Buffalo Calumet. Chippewa Clark Columbia Dane Dodge Eau Claire Fond du Lac Grant Green Green Lake Iowa Jackson Jefferson Juneau Kenosha La Crosse La Fayette Manitowoc Marathon Marquette Milwaukee Monroe Outagamie Pepin Pierce Portage Racine Rock St. Croix Sauk Shawano Sheboygan Taylor Vernon Walworth Washington Waulesha Waupaca Winnebago Wood	31 7 1 11 3 30 50 18 10 26 5 3 6 3 1 20 8 40 34 4 4 5 2 1 1 25 6 8 1 1 20 6 8 1 1 20 6 6 1 20 6 1 20 6 1 20 6 1 20 6 1 20 6 20 6 6 20 6 20 6 20 6 20 6 20 6 20 6 20 6 20 6 20 6 20 6 20 6 6 6 6 6 6 6 6 6 6 6 6 6	19 2 11 3 26 31 6 2 3 1 6 3 1 1 3 8 8 37 29 2 5 1 1 13 6 22 40 2 1 4 20 1 10 1	1 1 2 1 1 2 1 1	2	3 1 2 2 3	3 1 2 2	1 1 1 3 1 3 4 1	Ins'ne 1 2 1 1
Total	651	333	13	8	14	14	27	8

TABLE No. VI.

OF JAIL POPULATION,

(continued.)

Alleged offenses for which persons were committed, and the number of convictions.

$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			PER- JURY.		TITU- ON.	PRETI FAI	ENSES, LSE.	Rie	OT.
Brown 6 6 6 6 6 6 6 6 6 6 6 6 1 2 3 5 6 6 7 8 6 6 7 8 6 7 8 6 7 8 6 7 8 7 8 7 8 7 8 <td>County.</td> <td>Committed.</td> <td>Convicted.</td> <td>Committed.</td> <td>Convicted.</td> <td>Committed.</td> <td>Convicted.</td> <td>Committed.</td> <td>Convicted.</td>	County.	Committed.	Convicted.	Committed.	Convicted.	Committed.	Convicted.	Committed.	Convicted.
	Brown Calumet. Chippewa. Columbia Dane. Eau Claire. Fond du Lac Jackson Juneau. La Crosse Manitowoc Milwaukee Monroe Outagamie Ozaukee Pepin. Portage Racine. Richland Rock	1		6 5 1 3 4	2	1 4 1 2 1 6 2 10 1 1 1 3	3 1 1 1 1 1 2	1 2 1	3

TABLE No. VII.

OF JAIL POPULATION.

(continued.)

Alleged offenses for which persons were committed, and the number of convictions:

	Recestolen	iving goods.	Ra	ipe.	Rob	bery.	Resi offi	sting cer.
COUNTIES.	Committed.	Convicted.	Committed.	Convicted.	Committed.	Convicted.	Committed.	Convicted.
Brown Calumet Chippewa Clark Columbia Crawford Dane Dodge Eau Claire Fond du Lac Grant. Green Green Lake Jackson Jefferson Juneau Kenosha La Crosse Manitowoc Milwaukee Monroe Outagamie Pepin Pierce Polk Racine Rock St. Croix Sauk Walworth Washington Waukesha Winnebago Total.	1	1	2 2 1 1 2 2 1 1 1 1 1 1 1 1 1 1 2 2 1 1 1 2 2 2 6	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 2 3 1 1 1 1 5 5 2 5 5 2 2 3 7	2 1 1 	1 1 2 2	1

TABLE No. VIII. OF JAIL POPULATION.

(continued.)

Alleged offenses for which persons were committed, and the number of convictions.

	VAGR	ANCY.	VIOLA OF LI LA		GAME	LING.	VIOLA OF C ORDIN	CITY
Counties.	Committed.	Convicted.	Committed.	Convicted.	Committed.	Convicted.	Committed.	Convicted.
Brown Chippewa Columbia Dane Dodge Eau Claire Fond du Lac Grant Green Green Lake Iowa Jackson Jefferson Juneau Kenosha La Crosse La Fayette Manitowoc Marathon Milwaukee Outagamie Ozaukee Pierce Portage Racine Richland Rock St. Croix. Sauk Sheboygan Vernon Walworth Washington Waukesha Waupaca Winnebago	4 3 7 197 40 3 6 3 38 2 175 3 109 23 1 11 121 121 122 3 192 280 13 27 285	109 21 110 110 110 110 110 110 110 110 110	1 2 6 1 3 1 1 1 1 1 6 6	1 1 1 1 6	1	1	15	15
Total	1,532	738	30	18	7	7	23	23

TABLE No. IX.

OF JAIL POPULATION.

[continued.]

Alleged offenses for which persons were committed, and the number of convictions.

		Violati'n of game law.		Obstruc- tion of R. R.		Cruelty to ani- mals.		Conspiracy to defraud.		Poison'g	
CONNTIES.	Committed.	Convicted.	Committed.	Convicted.	Committed.	Convicted.	Committed.	Convicted.	Committed.	Convicted.	
Chippewa	1 1 1 3	1 2	2	2	1 4 5	1 4 5	1	1	1		

TABLE No. X.

OF JAIL POPULATION.

(continued.)

Alleged offenses for which persons were committed, and the number of convictions:

Counties.	Malicious tres.	pass.		Sodomy.	Nonpayment of	fines.		Embezzlement.		Fornication.	Assault with in-	tent to kill.
	Com.	Con.	Сош.	Con.	Com.	Сов.	Com.	Con.	Com.	Con.	Com.	Соп.
Dane. Dodge Fond du Lac Grant Iowa Jackson Juneau Kenosha La Crosse La Fayette Milwaukee Portage Trempealeau Total	1 2 1 2 	4	1 1 3	1	1 1		1 1 9 2		1	1	1 1 3 5	

TABLE No. XI.

OF JAIL POPULATION.

[continued.]

Alleged offenses for which persons were committed, and the number convicted:

	Thr	eats.	conc	ying e'l'd pons	Fra	ıud.	usc	eless e of arms	Inc	est.
Counties.	Committed.	Convicted.	Committed.	Convicted.	Committed.	Convicted.	Committed	Convicted.	Committed.	Convicted.
Columbia Dane Dodge La Crosse La Fayette Milwaukee Racine Richland Sauk Vernon	 3 2 2 1 1	2	2 1	2 1	1	3	1		1	
Total	12	2	3	3	7	3	1		1	

TABLE No. XII.

OF JAIL POPULATION.

(continued.)

Alleged offenses for which persons were committed, and the number of convictions:

Counties.	Malfeasance in office.		Destruction and disposition of mortgaged property.		Violation of revenue laws.		Malpractice.		Wife beating.		
	Com.	Con.	Com.	Con.	Com.	Con.	Com.	Con.	Com.	Con.	Insane
Caiumet. Crawford Dane. Dodge Fond du Lac Grant Green Lakes. Jefferson Juneau Kenosha La Crosse La Fayette Manitowoc Milwaukee Outagamie St. Croix Sauk Taylor Vernon Washington Winnebago Wood	1		1 1		1				4		2 1 2 1 1 3 6 5 3 8 1 2 2 3 1 1 2 3 3 3 6 5 1 1 2 3 1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

⁸⁻C. & R.

Crime in the United States.

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CRIME IN THE UNITED STATES.

STATE.

The Directors of the prison publish the following table, which is a matter of interest:

COMPARATIVE PRISON POPULATIONS.

States.	Population in 1870.	Sentences in 1877.	Ave. No. in confinement.
Alabama California Concecticut Georgia Illinois Iowa, Fort Madison Anamosa Kansas Kentucky Maine Massachusetts Michigan Minnesota Mississippi New Hampshire New York, Sing Sing Auburn Dannemora New Jersey North Carolina Oregon Rhode Island Virginia West Virginia Wisconsin	1,321,011 626,915 1,457,351 1,184,059 439,706 827,922 318,300 4,382,759 	285 622 119 1,006 1,104 218 129 227 1,087 74 186 320 120 623 63	1,145 265 1,000 1,687 372 163 435 925 160 779 871 198 1,012 1,400 605 816 902 115 86
W 13COHSIII.	' '		l .

CRIME IN THE UNITED STATES.

Mr. F. B. Sanborn, in a report read at the recent International Prison congress at Stockholm, set forth at some length the increase of punished crime in this country since 1872, when he made a similar report to the Prison congress of London. The statistical facts attainable concerning the higher American prisons were shown in

Crime in the United States.

the following table, which has been corrected in some particulars since the report was sent forth in July. This table is still only approximately correct, and its publication may lead to the substitution of the exact figures in some of the states, from which no full returns have been received. The number of convicts in prison last January is not overstated, and the average number for 1877 is probably a little understated. Since January the number in confinement, in the whole country, has considerably increased, though it is less in some states. In Massachusetts it is about 200 greater, in consequence of the rapid filling up of the Women's Prison at Sherborn. Probably there will be 32,000 State Prison convicts in confinement in the whole United States on the Ist of January, 1879, of whom more than 1,200 will be in Massachusetts. county and district prisons, the number confined (which does not appear in this table) considerably exceeds 30,000; in Massachusetts it now exceeds 2,800, more than twice as many as are serving sentence in the state prisons. In some of the states, however, there are more prisoners in the state prisons than in those of the counties.

The "net earnings" of any prison, and the deficit of earnings to meet expenses, are very much a matter of estimate, and these estimates cannot be wholly relied on; but the figures in the table are mostly below, rather than above the fact. It will be noticed that nearly all the state prisons which now support themselves, or pay any surplus of net earnings, are at the south. The figures in the "deficit" column show the net cost of the prisons to the state. The whole section of former slave-holding states now make their state prison convicts pay for their keeping, and a little more - the net earnings of seven southern states footing up \$151,400, and the deficit or net cost of six other southern states footing up \$133,378. From the other southern states there are no definite returns, but they are probably self supporting as to their prisons. chiefly because the southern convicts are colored men, whose labor is profitably leased. At the north, on the contrary, there is a net deficit of nearly \$1,000,000 in the state prisons alone. county and district prisons the net deficit probably exceeds \$2,000,000.

The following is the statistical table above referred to:

Colorado Canon City 39,864 100 80 30,00 20 20 20 30 20 20 20		-					
Arkansas Little Rock	STATE.	Prison Location.	Poplation of the state by the latest census.	Number in confinement Jan. 1, 1878.	num y e	Net earnings.	Deficit.
South Jeffersonville Holdinapolis Tort Madison Anamosa Stort Madison Sto	Arkansas California Colorado Connecticut. Delaware Florida Georgia Illinois	Little Rock San Quentin Canon City Wethersfield No prison Atlanta	484,471 560,247 39,864 537,454 125,015 187,748 1,184,109	541 1,435 100 262 122 1,225	500 1,304 80 265 135 1,200	20,000	\$150,000 30,000 3,000 4,378
Massachu'ts Charlestown 1,651,902 772 780 45,00 Michigan Jackson 1,384,031 802 871 Minnesota Stillwater 599,891 235 198 22,000 Mississippi Jackson 827,922 1,025 855 6,400 Missouri Jefferson City 1,721,295 1,300 1,298 30,000 Nebraska Lincoln 246,280 116 104 20,000 New Jersey Trenton 1,014,502 836 816 55,00 New York Sing Sing 4,705,207 1605 100,000 Dannetaora 4,705,207 1615 1,600 50,000 Elmira 1,071,361 1,093 399 30,000 Oregon Salem 90,923 125 115 10,000 Pennsylv'ia Providence 258,239 92 90 100,000 S. Carolina Columbia 825,825,200 1,073	North South Women's . Iowa Kansas Kentucky Louisiana Maine	Jeffersonville	1,350,544 $528,437$ $1,321,011$ $857,039$ $626,915$	624 55 386 176 500 900 698 201	553 45 401 156 500 800 600 190	12,000	10,000 1,000 10,000
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Massachu'ts. Women's. Michigan Minnesota Mississippi. Missouri Nebraska Nevada Newada	Sherborn	1,384,031 $599,891$ $827,922$ $1,721,295$ $246,280$ $52,540$ $318,300$	240 802 235 1,025 1,300 116 144 180	100 871 198 855 1,298 104 137 170	6,400	45,000 10,000 22,000 30,000 20,000 20,000
R. Island . Providence . 258,239 92 90	New York { N. Carolina. Ohio Oregon	Auburn { Dannemora } Sing Sing { Elmira { Raleigh Columbus } Salem } Philadelphia' . }	4,705,207 1,071,361 2,665,260 90,923	$ \begin{vmatrix} 1376 \\ 610 \\ 1615 \\ 172 \\ 1,093 \\ 1,665 \\ 125 \\ 1106 \end{vmatrix} $	1,387 605 1,600 145 939 1,600 115 1,012	8,000	100,000 100,000 50,000 10,000 30,000 10,000 100,000
1, 1500	R. Island S. Carolina Tennessee Texas Vermont Virginia	Providence Columbia Nashville Huntsville Windsor Richmond	258,239 823,447 1,258,520 1,700,000 330,551 1,225,163	92 500 1,073 1,500 166 1,149	90 400 1,035 1,400 140 1,202 234	70,000 15,000	

VI.

STATE

CHARITABLE AND CORRECTIONAL INSTITUTIONS

WISCONSIN INSTITUTION FOR THE EDUCATION OF THE BLIND, AND WISCONSIN INSTITUTION FOR THE EDUCATION OF THE DEAF AND DUMB.

Comparative per capita expense per year and per week on salaries and subsistence in the Institution for the Education of the Deaf and Dumb, and the Institution for the Education of the Blind:

		Per year.	Pr week on 40 weeks.
Institution for Deaf and Dumb, salaries Per capita on average attendance of 140 per year Institution for the Blind, salaries Per capita on average of 77 Institute for Deaf and Dumb, subsistence Per capita on average of 140 Institution for the Blind, subsistence On subsistence and salaries Institution for Deaf and Dumb	\$12,955 41 6,565 33 7,457 03 4,040 02	\$92 68 85 26 53 26 52 46 145 80	
Institution for the Blind On total current expenses—		137 73	3 44
Institution for Deaf and Dumb Institution for the Blind	32,392 22 17,468 32	231 37 226 86	5 78 5 67

BOARD OF TRUSTEES.

Terms expire April 3, 1879, E. Bowen, Brodhead; Cyrus Miner, Janesville. Term expires April 3, 1880, B. R. Hinkley, Summit. Terms expire April 3, 1881, H. S. Hogaboom, W. T. Van Kirk, Janesville,

OFFICERS OF THE BOARD.

B. R. Hinkley, President.C. Miner, Treasurer,H. S. Hogoboom, Secretary.

OFFICERS OF THE INSTITUTION, AND SALARIES.

H. S. Hogaboom, Secretary of Board, \$5.00 each monthly meeting.

Mrs. Thomas H. Little, Superintendent, \$1.200 for year of twelve months.

Mrs. M. H. Whiting, Matron, \$500 for year of twelve months.

Miss S. A. Watson, Principal Teacher, \$400 for year of ten months.

Miss A. I. Hobart, Teacher, \$300 per year of ten months.

Mrs. H. F. Blinn, Teacher, \$300 per year of ten months.

Miss M. L. Blinn, Music Teacher, \$300 per year of ten months.

John S. Van Cleve, Music Teacher, \$500 per year of ten months.

Wm. B. Harvey, Foreman of Shop, \$400 per year of ten months.

John K. Wilson, Janitor and Engineer, etc., \$600 per year of twelve months.

These all board in the house, except the Secretary of the Board. The receipts of this institution for the year have been, including \$4,401.74 on hand October 1, 1877, \$21,079.15. The expenditures for the same period have been \$18,058.90. Leaving a balance in

the hands of the treasurer of \$3,020.25.

GENERAL STATISTICS.

The following table shows the cost of construction, current expenditures, total cost to the state, and the average number of pupils of the institution from the beginning, \$150,000 of the total cost of construction having been used to replace the main buildings destroyed by fire in 1874:

YEAR.	Cost of construction.	Cost of current expenses.	Total .cost to the state.	Whole number of pupils.	Average number.	Yearly cost per pupil.
1850 \ 1851 \ 1851 \ 1852 \ 1852 \ 1853 \ 1854 \ 1855 \ 1856 \ 1857 \ 1858 \ 1859 \ 1860 \ 1861 \ 1862 \ 1863 \ 1864 \ 1865 \ 1866 \ 1867 \ 1868 \ 1869 \ 1870 \ 1873 \ 1874 \ 1875 \ 1876 \ 1877 \ 1878	\$3,000 00 2,500 00 12,000 00 5,000 00 15,000 00 15,000 00 7,530 79 6,575 00 3,700 00 1,000 00 5,000 00 6,500 00 1,000 00 29,800 00 29,800 00 25,000 00 29,800 00 25,000 00 25,000 00 29,800 00 29,800 00 25,000 00 25,000 00 25,000 00 25,000 00	\$3,868 62 2,000 00 2,600 00 3,500 00 4,000 00 5,000 00 7,000 00 9,000 00 9,000 00 9,000 00 12,000 00 12,000 00 15,000 00 16,000 00 18,000 00	\$6,368 62 4,500 00 2,500 00 15,500 00 9,000 00 15,000 00 22,000 00 12,530 79 15,575 00 12,700 00 8,800 00 14,000 00 20,000 00 26,000 00 16,000 00 17,000 00 78,000 00 18,500 00 47,800 00 25,373 50 22,400 00 20,750 00 21,800 00 83,000 00 113,000 00	17 9 13 16 14 19 20 25 27 34 42 50 54 59 58 54 60 69 64 68 76 77 75 82 86 91	51 57 56 60 59 67 77	\$358 83 368 42 366 07 316 68 305 08 300 00 247 62 226 86

The following is a comparative statement of the expenditures on account of current expenses for the years 1877 and 1878:

	18	377.	18'	78.
Apparatus and means of instruc-		1		1
tion		\$491 09		. \$503 90
Clothing of puplils		131 79		157 54
Farm and barn		663 89		
Fuel, coalwood	327 tons	1,504 92		
wood	60 cord	s. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$		2,010 75
House furnishing	00 0014	691 87		
Laundry, etc		259 74		
Light		497 99		
Live stock.		268 00		364 59
Manufacturing department	•••••••	159 79		100.10
Medical attendance and medicin	eg	1 222 80		199 19
Miscellaneous purposes	· · · · · · · · · · · · · · · · · · ·	1 041 57		. 151 65
Permanent improvements	••••••	710 14		. 1,222 02
Repairs and tools	• • • • • • • • • •	400 00		
Salaries and wages	• • • • • • • • •	6 017 99	• • • • • • • • • • • •	566 52
Pararros and Wagos	· • • • · · · · • •	0,011 02	• • • • • • • • • • •	. 6,565 33
Subsistence —		1		
D. a. d. d		014 44		040.00
Butter.	2,754 fbs.	814 44		810 60
Coffee		548 29	3, 245 fbs.	605 58
Eggs	363 lbs.	100 85	349 lbs.	90 64
Fruit	$550 \ doz$	72 24	481 doz.	57 23
Lard		173 16	M44 32	194 65
Meat, beef, fresh	19 400 =	. 75 29	714 lbs.	65 61
beef, salt			14,963 lbs.	978 60
but died	62 lbs.	3 76	••• ••••••	
beef, dried	123 lbs.	17 57		1 31
mutton	449 lbs.	40 67	429 lbs.	40 35
ham	460 lbs.	59 50	462 lbs.	43 84
pork	81 lbs.	7 43	605 lbs.	31 77
poultry	000 7			
sausage	322 fbs.	38 78	146 lbs.	14 60
tongues	WOW 33			8 35
veal	727 Ibs.	56 96	1,233 fbs.	85 02
Fish	• • • • • • • • • • •	. 24 83	• • • • • • • • • • •	107 72
Rice	4 004 7	9 70		12 50
Sugar, A. and C.	4,281 lbs.	473 04	4,066 lbs.	421 86
Syrup and molasses	112 gals	61 04	· · · · · · · · · · · · · · · · · · ·	50 28
Sugar, maple	166 fbs.	21 58	228 lbs.	29 57
Tea	159 fbs.	80 85	109 lbs.	41 93
Syrup and molasses. Sugar, maple. Tea. Vegetables	• • • • • • • • •	. 223 80	• • • • • • • • • • •	156 89
Liscentaneous articles of subsist-		1 1		
ence	• • • • • • • • • •	. 77 70		117 01
(Data)	,	_f.		
Total subsistence	• • • • • • • • • • • • • • • • • • • •	. \$3,952.33 .	•••••	\$4,040.02
Total current expense	\$17, 30	0 70	\$1	8,058 90

The number of weeks' board, current expenses, average number and cost per capita for 1877 and 1878, compare as follows:

For 1877, weeks' board, $3.926\frac{4}{7}$, current expenses	\$17, 300 '70
For 1878, weeks' board, 4,2283/4, current expenses	18,058 90
For 1877, cost per year per capita	258 22
For 1878, cost per year per capita	234 53

The increase in the amount paid for salaries, is due, not to increase of salaries, but to the fact of more domestic help being required in the new and larger building, and the increased amount paid the foreman of the broom shop. Such foreman has heretofore furnished the capital and run the shop, and depended upon the profits for his remuneration, but with the "hard times," his profits decreased until the work ceased to be remunerative, and he was paid last year \$500 for his services. He lives outside the institution.

We cannot better present the work of the year in this school, than by quoting the language of Mrs. Little, the superintendent.

"During the past year, the work of educating the blind youth gathered in this institution has gone steadily forward. In some previous terms, the lack of sufficient accommodations has been a hindrance to the work, which has been overcome so far as possible by the patience and efforts of officers and pupils. The beginning of the year, whose history I now record, found the school in the commodious building erected to replace the one destroyed by fire in 1874, and the experience of the year has demonstrated its adaption to the purpose for which it was designed. The plan of the house renders it convenient, the rooms are large and airy, the heating apparatus and water supply are sufficient, and the accommodations ample for the number of pupils now in attendance."

Ninety persons, forty-three males and forty-seven females, have received instruction during the year. Nine have entered the school since the date of the last report. Applications have been received for the admission of several others. Nine have completed their course of instruction here. One, Augusta Zimmermann, who left scoool last spring on account of ill-health, died in September, at

her home in Jefferson county. The average number present during the term is seventy-seven.

Instruction has been given, as heretofore, in three departments; literary, musical and industrial. During the last term, the number of pupils having instruction or practice in the several branches was as follows: In reading, 55; spelling, 58; arithmetic, 72; geography, 51; grammar, 26; physiology, 21; English literature, 13; kindergarten, 13; vocal music in classes, 65; orchestra, 13; piano playing 35; organ, 16; violin, 11; theory of music, 14; broom-making, 26; caning chair seats, 33; beadwork, 36; hand-knitting, 23; machine-knitting, 4; hand-sewing, 23; machine-sewing, 10; crocheting and other fancy work, 18.

This term we have classes in reading, spelling, arithmetic, geography, grammar, writing (with card and pencil, and also by the New York point system), mensuration, natural philosophy and natural history. The class in mensuration will soon take up geometry. The kindergarten is continued for one hour daily, and affords an opportunity for much training required by the younger pupils, not readily obtained elsewhere. Three choirs seem still to be a necessity. Two classes in theory of music are still maintained.

The broom-shop continues to afford to the older boys opportunity for regular exercise, for acquiring mechanical skill, some knowledge of practical things and a habit of useful industry, as well as a knowledge of a trade which may afford to some of them a means of future support. A little has been done at weaving carpets, and we hope to accomplish more in this branch of industry the coming year. Both boys and girls learn cane-seating. Sewing and knitting by hand and with machines, and a variety of fancy work, are taught to the girls. Some of them obtain a good degree of taste and skill, and all have their capacity for usefulness enlarged."

The trustees ask for an appropriation of \$18,000 for the ensuing year, based upon the following estimates:

Apparatus and means of instruction	\$707
Clothing for pupils not repaid	100
Executive expenses	455
Farm and barn expenses	558

Fuel — coal and wood	\$2,725
House furnishing	420
House turnishing	450
Laundry and cleanliness	400
Light	200
Medical attendance and medicines	175
Repairs and tools	400
Repairs and tools	6.588
Salaries and wages	4.300
Subsistence	_,
Work departments	175
Miscellaneous	555
Permanent improvements	1,000
Total	\$19,000

The price of provisions and general supplies having been less during the past year, the board hope to close the year with a surplus of about \$500. The walls of the hall of the new building were never finished. 'They are badly stained, and having become thoroughly dried, should now be finished permanently.

During a part of the year the condition of the road leading to the city is very bad. The improvement of the sidewalk to the city seems very desirable. We concur with the trustees in recommending an appropriation of \$1,000 for permanent improvements, included in the above estimates, believing that amount will finish the building and build and improve the walk.

The whole amount asked for seems reasonable, and we recommend it be appropriated.

This school was established in the year 1850, and has gradually grown in the number of its pupils and its means of usefulness.

The average attendance for the year ending September 30, was 77. The current expenses for the same time were, exclusive of what might be considered permanent improvements, \$16,826.26 as reported by the trustees, making a cost per capita per year for each pupil of \$218.52, or per week for the term of forty weeks of \$5.46 against a weekly per capita last year of \$6.19, and a yearly of \$247.62. The expenses during the vacation of twelve weeks, which amount to considerable, are also included in the above.

The cost of salaries and subsistence for the last year has been

\$10,605.35; per pupil \$137.73; weekly, \$3,44. For 1877, the cost of salaries and subsistence was \$9,970.15; yearly per capita, \$148.80; weekly, \$3.72. When it is understood that the cost of subsistence includes that of the officers, and employes, during the whole year, it shows a due regard for economy.

WISCONSIN INSTITUTION FOR THE EDUCATION OF THE DEAF AND DUMB.

The history of this institution has been exceedingly unfortunate. It has been beset with difficulties, more or less serious, ever since its establishment. Its friends were hoping that under its present 'management, it would have a period of peace and prosperity. But they have been disappointed. Early in the year it became evident that an evil mind was secretly at work, plotting against it, and seeking to embroil it in new difficulties. For some time its friends and managers hoped to so adjust its matters as to avoid another public scandal and excitement. But their well meant and well directed efforts were defeated by the publication of the wildest and most damaging rumors concerning its trustees, its principle officers and teachers. Social gossip and newspaper correspondents added to the excitement, and rendered it necessary that another official investigation of its affairs should be added to its records.

The principal facts are contained in our report to the Governor found elsewhere in this volume; but the extraordinary character of the case seems to require further notice. The circumstances of this investigation were peculiar. The Trustees of the Institute stood publicly charged with grossly immoral conduct in connection with their relations to the institution. We now have reason to believe that the author of these charges, in addition to his motive of personal revenge, sought to disqualify them from conducting an investigation. At their request, the Governor directed the "State Board of Charities and Reform" to investigate into the management of the Institution. But the State Board was in a crippled condition. Mr. Elmore was out of the state and could render no aid. Mr. Haskins was in Europe. Mr. Tilton was confined to his house



INSTITUTION FOR THE EDUCATION OF THE DEAF AND DUMB, DELAVAN, WIS.

by serious illness. The Trustees, and friends of the Institute were anxious the work should be done before the term closed, and the teachers and pupils had scattered, which would occur in a short time. Messrs. Reed and Giles were thus left to do the work that should have been done by a full board, and for the purpose of a quorum were obliged to meet in the sick room of Mr. Tilton.

The dissatisfaction of the press at the exclusion of its reporters from the examination of witnesses, and the general public excitement concerning the case, rendered their work peculiarly difficult. To add to the difficulty, it was believed that the party making the charges, and largely directing the course of the investigation, would hesitate at no falsehood or fraud in consummating the purpose of his conspiracy.

It was perfectly natural that, by reason of these circumstances, our report would be severely criticised for not meeting public expectation. But a report that would have done this would have been untrue to the law, the instructions of the governor, and the facts developed in the inquiry.

In view of the history of the institution, especially of the coming and going of its several superintendents, and also of the well known ability and integrity of its present managers or board of trustees, we deemed it wise to submit the facts and testimony with our conclusions thereon, and leave the local authorities entirely free to perform their official duties without any recommendation from us.

This action upon our part has been made the occasion of loud complaint, and the re-election of Mr. DeMotte by the local board has brought upon us, and it, the bitterest hostility.

It seems to us that here is a test question in the management of our public institutions. Do the people of this state owe any respect and support to the men who are charged with the management of their state-institutions? That they have a right to demand official integrity in their public servants, will be readily admitted. But in the absence of all evidence of personal and official corruption, they owe to public officers their sympathy and co-operation. These trustees are well known in the state as gentlemen of high and honorable standing, and it must be admitted that they have a

more intimate knowledge of the condition and needs of the Institution than any equal number of citizens, or even the members of this Board. To show the malignity of those who plotted insubordination in the institution, we have reason to believe, that as soon as the decision of the trustees was made public, a combination was formed to secretly persuade the female pupils not to return to the public school. The conspiracy may have succeeded in a few instances, but generally it failed.

We do not deem it proper to enter into any defence of the superintendent, but are content to abide by our conclusions in his case, as expressed in our report to the Governor. We may, however, allude to the fact that not a single charge, as made, was established against him, and no proof of immorality was shown. The trustees, therefore, stood face to face with the question whether they would strike down another man and thus give a premium to insubordination and treason.

We believe the people will yet honor their firmness and integrity, if not their wisdom. If such men as have stood at the head of this school and as are these trustees, are to be sacrificed to a wild, unreasoning public clamor, who, as well fitted for their work, will be willing to take their places?

We appeal most earnestly to the good people of the state of Wisconsin to pause and consider these things. The loudest complaints against the characters of public men not infrequently come from persons of the vilest habits of life. If an election or appointment to office is to be the signal for the foulest aspersions, then dishonest ambition will come to wear the crown of public honors, while patriotism and purity will shrink from exposure to the dangers of public life.

If our public servants show any moral unfitness or administrative incapacity for their official positions, none will be so likely to take measures for their removal as those to whom they are made immediately responsible. The average citizen, however intelligent and loyal, cannot from the nature of the case, know the needs of our public institutions, as those do who are charged with their immediate management. The frequent changes in the boards of trustees,

as well as the general oversight of all, by the State Board of Charities and Reform, seem to be a public security against any extensive wrong-doing in any of our institutions.

We find that such of our citizens as become familiar with their conditions are the least disposed to find fault with their management, and are the most reliable in the support of their managers. We have found this to be especially true in the present instance. We have gratefully received many expressions of confidence and approval from our prominent and influential citizens.

The demands of a mere clamor are always unreasonable and unsafe. The loss of public wisdom, is a public disaster, as nothing can be so easily done, and so well managed as when the press and people remain calm and impartial.

It was the expectation of the members of the board making the report that the board of trustees would at once and summarily discharge the steward, and they regretted that it was not done.

We are glad to be able to say that the institute is doing a good educational work, with the usual number of pupils, and that the officers, teachers, pupils and friends are working in mutual harmony and confidence.

THE BOARD OF TRUSTEES

Of the institute is constituted as follows:

Term expires April, 1879 — Arron L. Cahpin, Beloit, Rock county; S. Rees LaBar, Delavan, Walworth county.

Term expires April, 1880 — Hollis Latham, Elkhorn, Walworth county.

Term expires April, 1881 — E. D. Holton, Milwaukee, Milwaukee county; D. G. Dheever, Clinton, Rock county.

OFFICERS OF THE BOARD.

President - Aaron L. Chapin.

Secretary - S. Reese Le Bar.

Treasurer - Hollis Latham.

Executive Committee — S. Rees LaBar, D. G. Cheever.

LIST OF OFFICERS of the Wisconsin Institution for the Deaf and Dumb, with salaries, July 1, 1878 to July 1, 1879.

W. H. DeMotte, superintendent, \$1,300 and home.

W. A. Cochrane, teacher, \$1,000, lives outside the institution.

G. F. Schilling, teacher, \$1,000, lives outside the Institution.

Z. G. McCoy, teacher, \$720, lives outside the Institution.

Miss E. Eddy, teacher, \$500 and home.

Miss W. E. Smith, teacher, \$500 and home.

Miss J. L. Tilden, teacher, \$500 and home.

W. J. Fuller, teacher, \$500 and home.

Miss R. C. Ritsher, teacher, \$275 and home.

Mrs. A. Broadrup, matron, \$500 and home.

H. D. Bullard, physician, \$100, lives outside the Institution.

Jno. Ronk, engineer, \$700.

E. Young, fireman cabinet shop, \$650.

R. S. Miner, fireman shoe shop, \$600.

One hundred and eighty pupils were registered as attending the Institute during the year, and the average number in attendance was one hundred and forty.

9 — C. & R.

Table showing cost of construction, current expenses, number of pupils, and unnual cost to the state by appropriation, of this institution from its foundation.

YEAR.	Cost of construction.	Cost of current expenses.	Total cost.	Number of pu- pils.	Average number.
1862 1863 1864 1865 1866 1867 1868 1869 1870 1871 1872	5,000 00 500 00 300 00 22,500 00 6,500 00 4,500 00 15,900 00 22,000 00 13,901 35 8,000 00 4,176 00 1,500 00	\$500 00 4,000 00 7,500 00 7,500 00 7,000 00 12,000 00 12,000 00 15,100 00 14,000 00 12,200 00 13,250 00 14,000 00 15,550 00 19,000 00 28,684 48 27,000 00 28,684 48 27,000 00 30,000 00 27,000 00 30,000 00 30,000 00 30,000 00 30,700 00 30,700 00 30,700 00 30,700 00 30,700 00 30,700 00 30,700 00 30,700 00 30,700 00 30,700 00 30,700 00 30,700 00 30,700 00 30,700 00 30,700 00 30,893 75 23,737 25 40,500 00 34,625 00 28,166 64	\$3,500 00 9,000 00 7,500 00 7,500 00 7,500 00 15,500 00 19,600 00 12,200 00 13,250 00 14,000 00 13,250 00 15,550 00 41,000 00 41,585 83 35,000 00 34,176 00 26,932 00 39,893 75 23,737 25 40,500 00 36,125 00 36,125 00 36,125 00 36,666 64	8 14 31 34 49 56 52 79 87 86 83 89 91 104 108 95 112 144 149 164 176 176 181	127 137 141 146 182 145
1877		37,583 36 30,000 00	$\begin{array}{c} 34,000 & 04 \\ 42,083 & 36 \\ 30,000 & 00 \end{array}$	182 180	155 140
	\$121,777 35	\$552,772 36	\$674, 549 83		* 1403/8

^{*} Average from 1870.

The receipts of the institution from all sources during the year ending September 30, 1878, as returned to this board, is as follows:

Cash on hand October 1, 1877	\$8,166	42
Cash of State Treasurer appropriation 1878	25,375	00
Shoe shop receipts	1,110	64
Cabinet shop receipts	5	03
Sale of cows	42	57
Sale of barrels	35	50
Sale of hogs	129	89
Sale of old engine	15	00
Sale of gasoline	3	00
Sale of gas pipe	25	85
Sale of registers	3	50
Sale of caustic soda		50
Rent of mill house	75	00
Seven weeks' board	21	00
Of pupils for cellars, etc	49	41
Total receipts	\$35,058	11
The expenditures of the institute were	32,892	
Leaving a bslance on hand and in hands of treasurer of insti-		_
tution, September 30, 1878	\$2,165	89
There was in addition to above balance in the hands of the state	, ,	
treasurer of the appropriation of 1878, the sum of	12,500	00
Total amount available for the use of the institute from October		
1, 1878, to March 1, 1879	\$13,665	89
	. ,	

The summary of itemized expenditures, as reported to this Board, are as follows:

EXPENDITURES.

For amusement and means of instruction	\$562 55
Clothing and expenses of indigent pupils	552 26
Drugs and medicines	42 60
Farm and barn expenses	362 02
Fuel	4,14759
House furnishing	999 47
Live stock	340 00
Lights (exclusive of fixtures)	593 00
Laundry	180 03
Manufacturing expenses	1,76359
Miscellaneous purposes	609 13
Permanent improvements	500 88
Repairs (ordinary)	1,211 95 7,457 03
Subsistence	•
Salaries and wages	12,955 41
Managers' and Trustees' expedses	614 91
Total expenditures	\$32,892 22

We have carefully scrutinized the bill of purchase that made up the above amount, and believe the money has been wisely and judiciously expended.

After carefully revising the estimates of the board of trustees for the coming year, their statement of the wants of the institute is as follows:

Amusements, means of instructions, etc	\$500 00
Clothing and expenses of indigent pupils	550 00
Drugs and medicines	
Fuel	
Farm and barn	300 00
House furnishing	1,100 00
Laundry and cleanliness	250 00
Lights	600 00
Live stock	200 00
Manufacturing	500 00
Manager and trustees expenses	300 00
Miscellaneous items	800 00
Repairs (ordinary)	1,000 00
Subsistence	7,800 00
Salaries and wages	12,700 00
Library	125 00
Pantry outside of building	600 00
New steam pump	400 00
Total	\$30,000 00

We recommend an appropriation of thirty thousand dollars to meet the wants of the institution the coming year.

The cost of salaries and wages for 1878 was	12,95541
A further reduction of salaries has been made for the pre	sent year.
The total subsistence cost for 1877 was	\$8,114 25
The total subsistence cost for I878 was	7,45703
Trustees and manager's expenses, 1877	503 35
Trustees' and manager's expenses, 1878	614 91

The increase is chargeable to the investigation.

House furnishing, 1877	\$1,426	51
House furnishing, 1878	999	47
Laundry, 1877	232	91
Laundry, 1878		03
Repairs (ordinary), 1877		09
Repairs (ordinary), 1878	1,211	95
Drugs and medicines, 1877	73	40
Drugs and medicines, 1878	42	60

From the superintendent's report, we learn that the following programme is strictly carried out in the school, and that its effect in preserving order and inducing habits of industry, is marked:

A. M.	P. M.
5:45 — Rise.	12:00 to 1:00 — Dinner and recreation.
6:30 — Breakfast.	1:00 to 3:00 — School.
7:00 to 8:30 — Work.	3:15 to 5:30 — Work.
9:00 to 12:00— School.	5:30 to 7:00 — Supper and recreation.
	7:00 to 9:00 — Study.

Young pupils retire at 8; older ones at 9 o'clock.

On Saturday, 7:15 A. M. to 10:30, work; remainder of the day, holiday.

On Sunday, 9:00 A. M., lecture; 2:30 to 4:00, class instruction; 7:00 P. M., lecture and reading.

Breakfast, 6:30; dinner, 12.00; supper, 6:00.

During the year 15 boys have been instructed in the use of wood-working tools, learning to perform a variety of work in the line of cabinet making and carpentry.

In the shoe shop 27 boys have been employed. All the work made has met with ready sale at fair prices. Both these shops have been repaired, refitted and somewhat enlarged, so as to extend the opportunities of learning a trade to a greater number of boys.

Eight pupils — 3 girls and 5 boys, have received instruction in the art of type setting. We have recently purchased two small presses, and have every reason to expect good results from the introduction of this branch of industry.

As the education of the hand and eye, in the direction of securing means of support hereafter, and the cultivation of habits of

industry are our objects, we use no machinery in our shops, believing that these results will be more satisfactorilly secured in the skillful use of the ordinary hand tools.

The smaller boys are employed in keeping the school rooms, walks and yard in order, and in preparing wood, etc.

STATE HOSPITAL FOR THE INSANE.

[Located at Mendota, near Madison.]

TRUSTEES.

R. E. Davis, Middleton. Term expires April 1, 1879. Andrew Proudfit, Madison. Term expires April 1, 1880. David Atwood, Madison. Term expires April 1, 1881. John A. Johnson, Madison. Term expires April 1, 1882. H. N. Davis, Beloit. Term expires April 1, 1883.

OFFICERS OF THE BOARD.

President — David Atwood, of Madison.

Vice-President — Romanzo E. Davis, of Middleton.

Treasurer — Andrew Proudfit, of Madison.

Secretary — Levi Alden, of Madison.

Executive Committee — David Atwood, Andrew Proudfit.

Building Committee — Audrew Proudfit, John A. Johnson.

Auditing Committee — H. N. Davis, Andrew Proudfit, John A. Johnson.

Farming Committee — H. N. Davis, R. E. Davis. Chairman Visiting Committee — Dr. L. J. Barrows, Janesville.

RESIDENT OFFICERS OF THE HOSPITAL.

Superintendent — D. F. Boughton, M. D. First Assistant Physician — Clark Gapen, M. D. Second Assistant Physician — J. W. Fisher, M. D. Matron — Mrs. Mary C. Halliday. Steward — George E. McDill.

Table showing the cost of construction, cost of current expenses, total cost to the State, the aggregate and average number of patients, and average cost per patient annually and weekly since the foundation of the hospital.

Year.	Cost of construction.	Cost of current expenses	Total cost to the State.	Whole No.of patients.	Average No.	Yearly cost per patient.	Weekly cost per patient,
1861 1862 1863 1864 1865 1866 1867 1868 1869 1870 1871 1872 1873 1874 1875 1876 1877	\$224, 925 33 20, 724 24 28, 645 06 7, 074 54 3,351 25 4,348 25 4,348 25 80,112 00 65,261 97 35,857 63 15,361 53 18,043 26 19,105 22 31,875 00 10,000 00 34,000 00 28,822 60	\$3,875 89 21,602 18 22,038 49 31,716 36 35,311 12 47,309 78 40,495 60 44,118 87 46,818 00 71,320 08 80,518 37 76,890 61 86,770 56 87,563 15 86,567 08 98,885 75 101,611 63 96,886 92	\$228, 801 22 42,326 42 50,683 55 38,790 90 38,662 37 51,658 04 42,586 80 124,230 87 112,079 97 107,177 71 95,879 89 94,933 87 105,975 78 119,488 15 96,567 08 132,885 75 130,434 23	45 147 192 254 300 257 272 294 355 455 455 532 531 585 457 507 507 5498	7 90 117 162 187 179 181 185 203 310 362 359 365 329 337 364 370 \$\frac{1}{2}\$		\$4 61 3 75 3 63 5 08 4 30 4 43 4 43 4 42 4 51 2 4 83 5 83 5 83
Total.		95, 035 85 81, 175, 336 29	• • • • • • • • • • • • • • • • • • • •		380	250 01	4 81

The trustees present the following estimates of the wants of the hospital for the coming year:

To meet current expenses from March 1, 1879, to March 1, 1880.	\$98,800	00
For new boiler and heating apparatus	12,000	
For new pump, and setting same	2,500	
For railway track from depot to coal house	2,000	
For modification of chapel	3,000	
For completing water closets, etc	800	
For new washing machine and wringer	800	
For storm sash	500	
For medical books and instruments	500	
Total	\$120,000	00-
Deduct amount received from counties, etc	37,152	
Amount to be appropriated	\$82,847	87

The item for current expenses is based on an average population of 400, at \$4.75 per week, each, and needs no explanation.

With regard to the amounts asked for special purposes, the board say:

"The second item for new boiler and heating apparatus is an absolute necessity, as is clearly shown in the report of the superintendent. Never, since the extreme wings were erected, has it been possible to keep these wings, in the coldest weather, as warm as they should be kept for the comfort and health of the patients. To remedy the difficulty has required a large amount of extra clothing, and been attended with much extra labor and considerably extra expense. Various means have been resorted to in order to remedy the evil,—all in the right direction—but not sufficient to effect the desired result. When the rear building was erected, the difficulty was increased, as it arose from an actual incapacity in the heating apparatus to perform the work required of it. Increased facilities are absolutely required, and the amount asked for will be necessary to accomplish the change, and render entirely comfortable to the patients the extreme wings.

"The new pump is rendered a necessity in order to the safe workings of the hospital. The gradual failure of the water in the well that farmerly supplied the institution, necessitated a connection with the lake that has been effected. It was supposed there would be water sufficient in the old well, to supply for any brief time that might be required for repairing the pump that draws from the lake, but such is not the case. The water in the old well has wholly failed, and in case the pump is out of order, there is no supply, and with the large amount required for daily use, this state of things cannot safely exist for a single day. Thus the necessity of two pumps in connection with the lake supply, is made clear that there may be no failure of a constant supply of pure water. The pump now in use, is considerably worn, needing frequent repairs; but it will answer for some time, as a second pump, but is entirely inadequate for doing the whole work.

"The railway track, for which \$2,000 is called for, is not only a matter of great convenience, but one of economy. The depot is

three-fourths of a mile from the coal house. The actual cost of transporting coal and other supplies for the hospital in wagons is not less than \$900 per year; to say nothing of the waste in coal, which is considerable. This would be saved by having the railway track contemplated. With what the railroad company will do in the matter, the cost to the state will not exceed \$2,000; and the saving will not be less than \$1,000 per year. The propriety of this expenditure cannot be even doubted.

"The item for the modification of the Chapel is to convert that room into apartments for the accommodation of patients; and use the present amusement room for chapel purposes as well as amusements. This will be attended with some inconvenience, which the authorities are willing to be subjected to, in order to make room for some twenty or thirty more patients. The necessity for room is so great that this change is recommended as one that will do much good at small expense.

"The other special items commend themselves. The completion of the water closets must be done; the new washing materials will more than save their cost in a year; the storm sash will do the same in keeping the building warm; and the item for books should be expended annually, in order to keep properly supplied with late medical works and improved instruments.

"In considering the special appropriations, it must be remembered that the main hospital and fixtures were erected nearly twenty years ago, and extensive repairs are a necessary consequence; and further, since it was built, great improvements have been introduced into hospital use, that must be brought into this one, or it will fall behind the age, a thing every citizen of the state must desire to avoid. To keep up these repairs, and to introduce the obviously necessary improvements, will require, what may be deemed at first thought, large special appropriations for several years. It is the policy of the board in bringing into use new articles, to procure the best, and in all changes, work in the direction of substituting the latest improvements."

Important and valuable improvements have been made in and about the hospital during the last year. The new coal gas works

have been constructed and are in operation, thus obviating the danger of accident from the explosion of naphtha gas, as well as furnishing a better light at, it is hoped, no greater cost.

The water pipe has been extended into the lake until it now reaches to the distance of 1,350 feet, and ends in a depth of 26 feet of water.

The herd of cows is now one of the best in the state, and supplies all the milk, as well as butter and cheese, needed by the hospital.

A new barn has been built, with a capacity to hold 108 head of cattle and 8 horses. There is now barn room on the grounds sufficient to hold all the hay and grain and all the implements, as well as all the stock, and store all the roots.

We have known of the difficulty of heating the extreme wings of the hospital with the means in use ever since their erection. A six inch steam pipe has always been used, which is too small, as is also the boiler capacity. As now arranged and supplied, the coils nearest the source of steam supply condense the steam, and as a consequence those farthest away do not get a supply, and are not warmed.

During some of the coldest days of last winter, the water froze upon the floors of some of the extreme wards.

The experience of other institutions demonstrates that it is economy to use large low-pressure boilers to warm public buildings of large size, and we believe that a change should be made in this hospital by substituting low for high-pressure boilers. This change can be gradually made by the addition of one new boiler now, of low pressure, to increase the heating capacity of the works to what is required, and then substituting low for high-pressure as fast as the present boilers fail, retaining one or two of the latter to run the engine as long as it lasts, until finally all can be dispensed with and a new low-pressure engine put in place.

We therefore recommend the purchase of one low-pressure boiler this year, and the laying of a larger steam service pipe from the boiler house to the junction in the covered passage, and replacing the heating coils in one wing with modern radiators.

The estimated cost of these improvements and changes is \$12,000. The modification of the chapel, so as to provide for the care of twenty-five to thirty more patients, at an expense of \$3,000, is also recommended, the amusement room being well adapted for chapel purposes.

Leaves a balance of	sti- 400 \$98,800 00 37,152 13
	\$61,647 87
New pump, etc 2,500 Railway track 2,000 Modification of chapel 3,000 Completing water closets 800 Washing machines 800 Storm sash, medicine, books, etc 1,000	00 00 00 00 00

Which amount we recommend be appropriated.

With regard to the cost per capita per year being governed by the number of patients, Dr. Boughton the Superintendent says in his report:

"During the time our appropriation bills were pending last year, much general discussion was had as to the cost of maintaining institutions for the insane. One important factor was generally lacking in these discussions, viz.: the facts shown by statistics. It would naturally seem as if this important class of facts would be the first thing sounht for by those who propose to discuss the cost of hospitals for the insane. The whole matter simply resolves itself inio a question of facts. There is no chance for theory any more than there is in the question of how much it costs to run a saw mill or a grist mill or a cotton factory of given capacity, when there are scores of them that are running and demonstrating that question every day. It may be said that these hospitals cost more than they should.

This may be true of isolated cases, but to say that it is generally the case would seem to require a good degree of confidence of judgment or a lack of information, to enable one thus to pronounce inefficient all the means the various states are employing to keep the cost of these hospitals within proper limits. One part of this general question which concerns us particularly is, whether increasing the number of patients in a given hospital diminishes the per capita cost of maintaining them. That the larger the population within certain limits, the smaller the per capita cost will be, is clearly shown by the following comparison of different hospitals which I prepared early In the present year.

"A few of these institutions have issued a later report than the one from which these figures are taken, but as there has also been some changes in prices during the past year, I deem that the showing will be more nearly upon the same basis, and of more value, not to change the figures for those of a later date. This also covers more nearly the same period of time as between the various hospitals. These figures give a practical solution as to the comparative cost of large and small hospitals. I do not for this reason advocate the principle of organizing large hospitals, but I do claim that if cost is to be the criterion by which to settle the question, then the question has long ago been settled, by showing the large hospitals to be the cheaper. That a smaller hospital may give better and more effective treatment to its patients I have no doubt, but we must at the same time be willing to provide for larger proportionate expenses.

"I have complied from our file of reports a tabulated statement of the cost of all the hospitals in the northern states whose reports give the requisite data for getting at the cost on the same basis as the reports of the Wisconsin State Hospital. Southern hospitals have been omitted because of their light expenses for fuel, and also their employment of colored service as well as their care of colored patients. New and unfinished hospitals have been omitted, because of the unusually high cost of the first few years required to organize, furnish, equip, and get started. These figures are in all cases obtained from the last report sent us, and are, for the most part,

for the fiscal year just closed. Two or three of the list only report once in two years, so that in one case we have to go back to to 1875. I have not selected such as suit my purpose, rejecting those that may show against us, but have taken all that give the requisite statement of average population and current expenses.

The following is the comparative table referred to in the above remarks:

NAME OF INSTITUTION.	Pcpulaticn.	Cost per capita per week.
•		-
Population less than two hundred— Butler Hospital for Insane, Providence, R. I	159 186	\$7 63 13 28
partment Pennsylvania Hospital for Insane, Philadelphia, female	202	9 20
Pennsylvania Hospital for Insane, Philadelphia, female		
department	214 270	8 42 6 00
2.00 Hamponio Esylvin for History	210	0 00
Population between three hundred and four hundred —		
State Hospital for Insane, Danville, Pennsylvania	312	4 47
Wisconsin State Hospital for Insane, Madison	370	4 92
Population between four hundred and five hundred —		
Michigan Asylum for Insane, Kalamazoo (1875)	424	5 13
Michigan Asylum for Insane, Kalamazoo (1876 and 1877).	569	4 87
Michigan Asylun for Insane, Kalamazoo (estimated for		
1878 and 1879)	650	4 68
State Hospital, Harrisburg, Pennsylvania	433	5 31
Northern Illinois Hospital for Insane, Elgin	$\begin{array}{c} 460 \\ 470 \end{array}$	4 84 4 50
New Jersey State Lunatic Asylum	490	5 65
Western Pennsylvania Hospital for Insane, Dixmont	500	4 66
The control of the co	000	1 00
Population between five hundred and six hundred—		l
Iowa State Hospital for Insene, Mt. Pleasant	505	4 11
Massachusetts Hospital for Insane, Worcester	506	3 90
Dayton State Hospital for Insane, O. io	596	3 71
Indiana State Hospital for Insane, Indianapolis	600	4 50
State Hospital for Insane, Longview, Ohio	$\begin{array}{c} 615 \\ 613 \end{array}$	6 27
State Hospital for insane, Athens, Ohio	646	3 44
The second secon	010	0 11
Populasion over six hundred —		
State Hospital for Insane, Tauton, Massachusetts	727	3 75
Government Hospital for Insane, Washington	735	4 33
Asylum for Chronic Insane, Willard, New York	1,227	3 24

Wisconsin State Hospital - Statistics.

Now as to the reason why hospitals with larger populations may be conducted on a smaller ratio of cost per capita: There are many items of expense that would not at all be increased by raising the number of patients from say 350 to 550 or 600; that is to say, there are in all hospitals, having a population within given limits, certain expenses that are fixed, and do not vary with any variation in the population, such as salaries of certain officers, the heads of the various departments of work, as the head farmer, gardener, engineer, head cook, baker, supervisors, night watches, etc. Also care and improvement of grounds, outhouses, etc.

STATISTICAL TABLES.

Table No. 1.

Movement of Population.

	Male.	Female.	Total.
Remaining September 30, 1877	90 278 14 19 24 18	194 58 252 21 17 12	382 148 530 35 36 36 30
Not insane	76	61 202 187.156	137 393 =================================

Wisconsin State Hospital — Statistics.

Table No. 2.

Admissions and Discharges from Beginning of Hospital.

	Male.	Female.	Total.
Admitted. Discharged recovered Discharged improved Discharged unimproved Died Not insane	383 312 294 189	1,294 368 253 288 157	2, 641 751 565 582 346

Table No. 3.

Number at each age in the year.

		м Арм	ITTED.	WHEN ATTACHED.			
. AGE.	Male.	Fem.	Total.	Male.	·Fem.	Total.	
Less than 15 years Between 15 and 20 years Between 20 and 30 years Between 30 and 40 years Between 40 and 50 years Between 50 and 60 years Over 60 years	3 28 18 21	1 2 11 17 15 7 5	1 5 39 35 36 19 13	11 22 19 20 11 7	1 3 16 14 16 6 2	1 14 38 33 36 17 9	
Total	90	58	148	90	58	148	

Wisconsin State Hospital - Statistics.

Table No. 4.

Nativity of Patients Admitted:

		sio ∖	<u> </u>		
	Vithin the year.	From the beginning.	and the second	Within the year.	rom the b'ginnin
NATIVITY.	Within the ye	in t	N	di y	n t
MATIVITY.	itk	ge Io.	NATIVITY.	lith be	From b'gin
	\triangleright	Fr		≥ 5	E o
Austria		2	Indiana	3	21
Bavaria		10	lowa		1
Belgium		1	Kentucky	1	6
Bohemia		28	Maine	2	46
Canada		67	Massachusetts	3	48
Cuba	• • • • • • •	2	Maryland		3
Denmark	1	18	Michigan		17
England	10	135	Missouri		3
France		5	Minnesota	1	1
Germany	22	447	New Hampshire	2	41
Holland	10	$\frac{1}{300}$	New Jersey		11
Isle of Man	10	300	New York	16	427
Isle of Wight	1	í	North Carolina		2
New Brunswick	-	7	Ohio Pennsylvania	2 9	84 84
Norway	18	178	Rhode Island	9	5
Nova Scotia	10	ii	South Carolina	1	3
Poland		9	Tennessee	1	2
Sweden	1	25	Vermont		66
Switzerland	$\bar{3}$	35	Virginia		7
Scotland	1	33	Wisconsin	19	247
Wales	5	37	On Ocean		2
Alabama		i	United States		3
Connecticut	2	40	Unknown	2	94
Illinois	2	22			
			Total	148	2,641
				1	

^{10 —} C. & R.

$Wisconsin \ State \ Hospital-Statistics.$

Table No. 5.

Residence of patients by counties admitted.

Adams 11 3 Marathon 3 Barron 4 2 Milwaukee 223 2 Bayfield Minnesota 1 1 Brown 25 Monroe 24 9 Buffalo 21 4 Oconto 14 <td< th=""><th>RESIDENCE.</th><th>Whole No. admitted.</th><th>Remaining.</th><th>RESIDENCE.</th><th>Whole No. admitted.</th><th>Remaining.</th></td<>	RESIDENCE.	Whole No. admitted.	Remaining.	RESIDENCE.	Whole No. admitted.	Remaining.
Manitowoc 36 Total 2.641 393	Ashland Barron Bayfield Brown Buffalo Burnett Calumet Chippewa Clark Columbia Crawford Dane Dodge Door Douglas Dunn Eau Claire Fond du Lac Grant Green Green Lake Iowa Jackson Jefferson Juneau Kenosha Kewaunee	111 	22 13 47 	Marquette Milwaukee Minnesota Monroe Oconto Outagamie Ozaukee Pepin Pierce' Polk Portage Racine Richland Rock St. Croix Sauk Shawano Sheboygan Trempealeau Vernon Walworth Washington Waukesha Waupaca Waunebago Wood	12 223 14 14 20 22 10 30 21 16 6 69 38 155 31 89 33 101 32 97 19 847	1 9 5 13 8 8

Wisconsin State Hospital - Statistics.

Table No. 6. Civil condition of those admitted.

Condition.	In	тне Ү	EAR.	FROM THE BEGINNING.			
Condition.	Male.	Fem.	Total.	Male.	Female.	Total.	
Single	1	10 40 8	52 85 8	701 583 44	347 771 120	1,048 1,354 120 44	
Divorced	2		2	4 45	10 16	14 61	
Total	90	58	148	1,377	1,264	2, 641	

Table No. 7.

Duration of insanity before entrance of those admitted.

Duration.	In	тне Ү	EAR.	FROM THE BEGINNING.					
DURATION.	Male.	Fem.	Total.	Male.	Female.	Total.			
Less than 3 months Between 3 and 6 months. Between 6 and 12 months. Between 1 and 2 years. Between 2 and 3 years. Between 3 and 5 years. Between 5 and 10 years. Between 10 and 20 years. Between 20 and 30 years. Over 30 years.	39 10 4 10 7 2 6 3	14 5 11 5 6 1 9	53 15 15 15 13 3 15 6	431 158 146 155 85 79 69 37	332 175 179 137 82 86 90 45	763 333 325 292 167 165 159 82 21			
Unknown	9	4	13	206	3 125	3 231			
Total	90	58	148	1,377	1,267	2, 641			

Wisconsin State Hospital—Statistics.

Table No. 8.

Attributed causes of Insanity in 473 cases (1876 to 1878, inclusive).

ATTRIBUTED CAUSE OF INSANITY.	Male.	Fem.	Total.
Child birth		19	19
Change of life		7	7
Chorea		1	1
Cerebral hemorrhage	2		2
Cerebral softening	ĩ		ĩ
Cerebral solution	i		l i
Cerebral congestion	1	• • • • • •	i
Congenital	1	6	7
Debility	5	17	22
Domestic trouble			
Epilepsy	7	2	9
Fever	1	2	3
Fever, typhoid	•••	1	1
Fright	2	••••	2
Grief	3	8	11
Heredity	74	63	137
Heredity with child birth		2	2
Heredity with typhoid fever	1	.	1
Heredity with change of life		1	1
Heredity with old age		1	1
Heredity with poverty	1		1
Heredity with uterine disease		2	2
Heredity with intemperance	4	2	6
Hepatic disease	1		1
Intemperance	28	2	30
Injury of head	2	2	4
Injury	3	3	6
Infantile cerebral disease		ĭ	Ĭ
Infantile cerebral disease	23	2	25
Masturbation	~0	~~3	3
Masturbation derangement	2	٥	
Meningitis	$\tilde{1}$	4	1 2
Overwork	2	2	1 4
Old age	5	î	6
Pecuniary embarrassment) 0		2
Prostration, nervous		2	
Religious excitement	9	9	18
Rheumatism	1	· · · × · ·	1
Sexual excess	1	2	3
Struck by lightning	1		1
Sun-struck	2	1	8
Suppressed suricular discharge	1		1
Synhilis	1	1	2
Uterine disease		10	10
Unknown	60	44	104
OHRHO HA TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT			·
Total	250	223	473

Table No. 9.

Showing the statistics of the Hospital from July 14, 1860, to September 30, 1878 (Hospital year ending September 30), for each year.

Whole Number. 1860 1861 1862 1863 1864 1865 1866 1867 1868 1869 1870 1871 1872 1873 1874 1875 1876 1877 1878 Total. Admitted. 45 106 89 123 112 87 95 114 175 209 168 154 166 212 143 160 181 144 148 2,641 Discharged. 44 61 66 130 80 92 114 109 91 172 169 148 271 110 132 199 116 137 2,245 Recovered. 1 19 25 37 56 33 42 49 55 51 53 54 60 39 31 32 34 45 35 746 1878 1878 1878 1878 1878 1878 1878 187																						1
Admitted	Whole Number.	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	Total.	
Improved	Discharged Recovered mproved Jinimproved Died Freated Remaining at end of year Males admitted Males discharged Females discharged Males died Females died Males recovered Females recovered	41 11 11 45 411 233 222 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	44 19 8 7 103 50 56 23 21 3 7	89 61 25 8 7 21 192 131 49 40 33 28 14	66 37 16 4 9 254 188 62 61 44 22 8 1 24 13	130 56 21 36 17 300 170 59 53 64 66 9 8 23 33	80 33 25 9 13 257 177 44 43 34 46 7 6 16	92 42 30 13 7 272 180 57 38 50 42 6 1 19 23	114 49 33 22 10 294 180 57 59 61 53 30 19	109 55 32 7 15 355 246 95 80 51 58 7 8 25	91 51 14 13 13 455 364 109 100 58 33 8 5	172 53 41 46 32 532 360 82 86 92 80 18 14 31	169 54 52 34 29 524 355 81 93 86 14 15 23	148 60 26 37 25 521 373 92 74 83 65 11 14 33	271 39 76 134 22 585 314 115 89 148 123 9 13 21	110 31 32 23 24 457 347 73 70 44 66 12 11 20	132 32 53 27 20 507 375 82 78 70 62 11 9 16 16	199 34 40 105 20 557 355 99 82 98 101 10 19	116 45 21 21 28 498 382 61 83 62 54 17 11 21	137 35 36 36 30 530 58 76 61 18 12 14	2,245 746 565 582 346 1,311 1,264 1,183 1,077 190 156 382 369	

Wisconsin State Hospital Statistics.

Table No. 10.

ATTENDANTS — CURRENT EXPENSES.	
MaleFemale	\$5,586 69 3,865 18
	\$9,451 87
MEDICAL DISPENSARY— Drugs, medicines and surgical instruments. Whisky (Bourbon), 183 gals. Whisky (Rye), 134½ gals. Alcohol, 44½ gals. Wine, Port, 32 gals. Wine, Sherry, 21 gals.	\$868 47 369 05 375 54 95 19 80 00 59 50 \$1,847 75
Amusements —	
Music Sundries	\$169 00 326 25
	\$495 25
Chaplain	\$258 00
Carriage driver	\$300 00
Boilers and Engines — Engineer's wages Firemen and blacksmith Lubricating oil	\$1,350 00 983 23 119 41 \$2,452 64
Fuel—	
Coal, 1,786 ₁₁₀₀ tons. Coke, 620 bush Charcoal, 840 bush. Wood and chopping Hauling coal and wood	\$10,415 22 101 40 89 40 888 01 500 00 \$11,994 03
House Furnishing —	
Blankets, quilts and spreads. Sheeting, 3,004½ yads Ticking, 982¾ yds. Straw, 88½½ tons Towels, 123 Crash, 1,328 yds Hair for pillows, 323 lbs Furniture Carpets and oil cloth. Cuspadores and urinals	\$745 80 283 05 144 37 353 38 25 78 164 63 138 89 608 42 490 15 164 20

Wisconsin State Hospital-Statistics.

W teconetic State 220ptime	
House Furnishing — continued. Table linen Combs, hair brushes, etc Miscellaneous	38 14 74 91 196 61 \$3,428 33
FARM AND GARDEN— Farmer and laborers Gardener's wages Teamsters Herders Live stock Feed, etc Threshing Machinery and tools Repairs of same Seeds, pots and plants Miscelianeous	\$1,032 13 893 18 763 48 430 69 2,072 60 2,430 43 111 53 435 44 339 32 372 00 226 00 \$9,106 79
Live stock on hand	4,072 60 \$5,034 19
KITCHEN — Cook and assistants Baker Kitchen ware.	\$1,534 95 470 96 157 93 \$2,163 84
Dairy — Dairy maid Milk coolers, tin pails, etc	\$236 66 304 30 \$540 96
LAUNDRY — Wages Soap stock. Starch Indigo Machinery. Wash tubs ,etc.	\$1,542 40 145 84 30 48 15 70 122 20 15 50 \$1,872 12
Library — Librarian Books Papers and magazines Binding, etc	\$90 00 445 96 190 03 152 45
	\$878 44

Annual Report of the

Wisconsin State Hospital — Statistics.

JIGHT —	
Gasoline, 202 bbls	\$2,542 1
	157 9
Tapers and Tuses	73 5
Gas fixtures, lanterns, etc	138 1
	\$2,911 8
EATS, GROCERIES AND PROVISIONS.	
Flour, 588½ bbls	\$3,102 2
Graham, 22 bbls	105 00
Buckwheat, 15 bbls	75 00
Corn meal, 5 bbls. Cracked wheat, 100 fbs.	13 88
Out moat, 500 ms	4 00
	30 74
110mmy, 000 ms	96 45
	19 50 258 08
2001, 11 to Weight. 133, 129 lbg	5,147 12
11 dtton, 2,100 lbs	81 64
11001105, 00	166 75
	14 00
Y CM1, II	20 07
	10 00
Codfish, 483 lbs.	35 1Ŏ
Fresh fish, 19,096½ lbs Mackerel, 10 kits White fish 01 kits	1,014 59
White fish, 9½ bbls	30 55
	39 75
Dai uines, o uoz	29 20
	9 80 61 80
OHICKORS, 44 10-12 (10%	88 27
1 01 KC v S, S ± 10-12 (10)%	206 06
Ducks, 00% uux	180 72
	80 30
DUNING DOWNER SMICK	*80 50
Corn starch, 200 lbs	20 70
Extracts Farina, 305 tbs.	26 79
Ginger, 105 lbs	24 13
	21 60
i cari barrey, 500 lbs.	27 50
T OPPOI, 100 IDS	20 63 64 80
	9 30
1 aproca, 30 lbs	9 10
	43 53
Dugar (Diown), 1,077 ins	105 01
Sugar (conee), 2.798 lbg	291 67
Dugai (granulandu, 15. 105 lbg	1,381 36
Sugar (powdered), 335 lbs	35 94
Tea (black), 68 lbs. Tea (Japan), 1,485 lbs	51 10
Coffee (Rio), 3,864 lbs	652 91
Conce Graval, 210 ing	813 31
COLICE (MIDCHA), 42 INS	62 43
	12 60
Syrup, 626½ gal Vinegar, 627 gal	11 70. 336 69

Wisconsin State Hospital - Statistics.

No.	
MEATS, GROCERIES AND PROVISIONS — continued.	
Beans, 67½ bu	97 54
Potatoes, 241 1-6 bu	80 46
Potatoes (sweet) 2½ bbls	10 75
Potatoes (sweet) 2½ bbls Apples, green, 63½ bbls. Apples, dried, 3,599 lbs	191 75
Apples, dried, 3,599 lbs	270 06
Lemons, 82½ doz	37 45
Prunes, 5,129 lbs	462 70 31 70
Peaches, dried, 634 lbs	1,484 16
Butter, 9,644¼ lbs	98 95
Cheese, 911% bs Honey, 103% lbs.	18 11
Eggs, 12,707½ doz	1, 125 47
Miscellaneous groceries	242 86
miscenaneous grooties	
	\$19,285 72
Postage	316 66
Stationery	263 25
	\$579 91
· · · · · · · · · · · · · · · · · · ·	
Repairs—	
Carpenters	\$1,888 35
Painters	764 25
Registers and mason work	451 69
Pipe, hardware, etc	919 16
Tools and machinery	324 70
Lumber	2,078 64
Paint, oil, glass, putty, etc	1,057 64
	\$7,484 43
	A1 010 PP
Freights, telegrams and express	\$1,213 77
Returning elopers and expenses home	187 65
	\$1,401 42
•	φ1,401 42
STORE ROOM	
Brooms, brushes, mops, etc	\$174 93
Hard and tin ware	244 67
Wooden ware	18 50
Crockery and glass ware	286 71
Tobacco	696 14
•	\$1,420 95
· '	
Salaries and Miscellaneous Wages	
Officers	\$5,614 72
Butcher	337 68
House maids	747 32
Seamstresses	441 60
Depot agent	137 50
Porters	586 82
Night watches	567 00
Bell boy	75 66
	\$8,508 30
	φυ, συυ συ

Wisconsin State Hospital — Statistics.

Steam traps Wood house Miscellaneous Miscellaneous Total current expenditures.	89 4, 350	98 69
	\$7, 196	24
Interest and exchange	236	91
	\$1,395	83
Wood house	\$375 75 1,178 708	60 67
Total current expenditures	\$97,311 973	
Actual current expense	\$96, 338	59

NORTHERN HOSPITAL FOR THE INSANE.

BOARD OF TRUSTEES.

Thos. D. Grimmer, Oshkosh, Term expires November, 1878. D. W. Maxon, Cedar Creek, Term expires November, 1879. Peter Rupp, Fond du Lac, Term expires November, 1880. W. P. Rounds, Menasha, Term expires November, 1881. N. A. Gray, M. D., Milwaukee, Term expires November, 1882.

OFFSCERS OF THE BOARD.

President, D. W. Maxon. Secretary, N. A. Gray, M. D. Treasurer, Thomas D. Grimmer.

RESIDENT OFFICERS.

Walter Kempster, M. D., Medical Superintendent.

Wm. H. Hancker, M. D., First Assistant Physician; John W. Goe, M. D., Second Assistant Physician; John R. Thompson, M. D., Third Assistant Physician.

Joseph Butler, Steward; Mrs. L. A. Butler, Matron.

The number of patients under treatment Sept. 30, 1877, was	537
Admitted during the year	190
Total	
Average under daily treatment	542 ==
There has been discharged recovered	55
There have been discharged improved	38
There have been discharged unimproved	37
There have been discharged not insane	- 1
Died	37
Leaving under treatment Sept. 30, 1878	

During the year, new gas works have been constructed with greatly enlarged capacity, and an addition built to the coridor, connecting the main center with the rear building. This addition was made by simply building one wall, with the partitions, and it provides rooms for the accommodation of about thirty employees. A new barn has been built, sixty acres of timber land cleared, grading done, etc. Much of this outside work has been done without hiring outside help.

Table Showing cost of construction, including permanent improvements, cost of current expenses, total cost to the state, aggregate and average number of patients, the yearly and weekly cost per patient, from foundation until September 30, 1878.

YEAR.	Cost of construction.	Cost of current expenses.	Total cost to state by legislative appropriation.		Average Nn:nber.	Yearly cost per patient.	Weekly cost.
1870 1871 1872 1873 1874 1875 1876 1877 1878	39,861 79 16,500 00 16,019 19	\$33,750 00 62,551 34 86,623 73 106,945 97 132,174 17 130,799 81 \$552,845 02	\$3,061 46 65,119 78 173,891 55 198,677 21 128,263 97 210,582 16 146,807 76 148,674 17 146,819 00 1,221,897 06	214 306 351 604 704 727	232½ 257⅓ 399½ 542½ 543	336 14 267 45	\$6 44 6 46 5 14 4 68 4 61

The location of the hospital, about four miles from the city of Oshkosh, and its ground partially surrounded by Lake Winnebago, conveniently accessible by trains of the C. & N. W. Railroad, is a good one, while its partially isolated situation and convenient distance from a large town recommends it, yet most of those visiting to deliver patients, visit friends, or other reasons, frequently find it inconvenient to get away when their business is done. As a necessary consequence, the hospital must serve the purpose of a hotel to the cost of the state, and the often serious inconvenience of those in charge.

We think it would be both economy for the state and promote the working of the institution, if a boarding house was provided at a convenient distance, and in charge of one of the employes, or other person under the direction of the trustees, where visitors and the public could be entertained at a reasonable rate. The State Hospital has such a building owned by the state, and saves to the Hospital nearly \$1,000 per year as estimated, as well as being a great convenience both to the public and the institution.

The Trustees present the following financial showing of the condition of the Hospital October 1, 1878.

There is a balance on hand, and in the state treasury, Octo-		
ber 1, 1878	\$66,451	28
Of this amount there will be required for the support of 550 pa-		
tients for 21 4-7 weeks, @ \$4.50 per week	55,389	28
To pay off indebtedness; to pay for work under contract and to carry out the purposes for which special appropriations	٠	
were made	12,825	00
Which will leave a balance on hand, March 1, 1879	237	00
There will be required for the support of 550 patients for one		
year, @ \$4.25 per week	121,884	00
Balance on hand from this year	\$237	00
Due from counties	47,389	40
To be received from the steward	2,000	00
Appropriation required for current expenses	72,257	60
Total	\$121,884	00

They also present the following estimate for current expenses and appropriations needed for the year commencing March 1, 1879:

and appropriations needed for the year commencing Ma	rch 1, 1879:
For current expenses	\$72,257 60
For building barn and root cellar	1,800 00
For the purchase of land	6,000 00
For purchasing and putting in weigh scales	1,500 00
For clearing land and improving ground in front of hospital	1,500 00
For enlarging laundry	2,000 00
Total appropriations required	\$85,057 60
The estimate for current expenses is based upon an average per capita of 550 patients at \$4.25	
per week	\$121,884 28
Eestimated receipts from steward \$2,000 00	
Balance on hand March 1, 1879, estimated 237 00	
Receipts from counties	\$49,626 40
Balance	\$72,257 88

The appropriation of this amount we recommend.

The trustees ask for \$6,800 for special purposes, besides \$6,000 for the purchase of land.

The increased productiveness of the farm, makes more storage room for roots and hay necessary. The enlargement of the laundry, and the track scales, are also necessities. We recommend an appropriation of \$5,300 for these purposes.

With an average population of 679, the want of more land for farming purposes is felt, and we would advise its purchase, whenever it can be bought at a fair price. We understand that owners of land, that adjoins the hospital farm, are not willing to sell it at the fair market price of such land, and shall not recommend a purchase at a price exceeding that for which lands of similar quality can be bought for, in other similarly eligible localities.

The superintendent, in his report, speaks of the character of the cases admitted, and the causes that produce insanity, as follows:

"Of the one hundred and ninety admissions, thirty were cases of acute mania, and forty-one were cases of melancholia; all the rest have forms of insanity which are more or less of a chronic type,

and about whose recovery there are grave doubts, which indeed is true of those who have melancholia, a form of disease more liable to become chronic and less amenable to treatment than those denominated acute mania.

"Seventeen of the one hundred and ninety were second admissions; of these seventeen, ten had been removed by friends in accordance with law, before they had recovered, upon the presumption that they could be properly cared for at home, but relapsing into violent states, were returned. Seven were cases of second attacks. The others were all admitted for the first time.

"The change mentioned in our last report, removing a quiet chronic case to make room for a violent chronic case, has continued, and the demand for room has been as great as before.

"We are constantly requested and petitioned to re-admit chronic cases, ordered away to make room for the more acute, and many cases about whose chronicity there were no reasonable doubts, we have been obliged to refuse admittance, because of the crowded state of the hospital.

"The highest number in the hospital at any one time, was September 24th, when there were five hundred and sixty. The lowest number, January 3d, when there were five hundred and twenty-four. We would again respectfully call attention to the fact, that more room is needed for the care of the insane of the state, many of whom are in a most deplorable condition in the several jails and poor-houses.

"There were fifty-five discharged recovered — twenty-nine men and twenty-six women; of these, two men had been in the institution previously, and were discharged recovered, this being the second attack.

"Reference to the appropriate table (No. 17) in the appendix, shows that of those discharged recovered, twenty had been insane but one month, and nine but three months, previous to admission, the balance had been insane for periods of time ranging from six months to eleven years. Facts of this character are far more potent than any argument for the necessity of early treatment; the table referred to shows a rapid diminution of the number of recov-

eries in those insane over six months. Of those admitted, ouly seventy-four had been insane for six months or under; the balance, one hundred and sixteen, had been insane for periods of time ranging from six months to forty years.

"Of the one hundred and ninety admissions, twenty-two had attempted suicide; two had attempted suicide and homicide; ten had attempted homicide; two had attempted homicide and threatened suicide; altogether, sixty-two; twenty-nine men and thirty-three women had attempted or threatened homicide or suicide; of these, nineteen had inherited a predisposition to insanity, or insanity was traced in some branch of the family, and twenty-nine inherited some form of disease independent of insanity. Last year, there were fifty out of a total of two hundred and one admissions, who had exhibited violent characteristics prior to admission, twelve less than this year, showing a larger percentage of violent cases this year than there was last. There were fifty-seven out of the one hundred and ninety admissions who inherited insanity, or had insane relatives; last year, the proportion was thirty-eight in two hundred and one, and there were sixty-six of the one hundred and ninety admitted this year who inherited forms of disease independent of insanity, of a character indicating family deterioration.

"These tables displaying hereditary predisposition of one form or the other, I regard as important, indicating as they do, not only that the disease is hereditary, but also that deterioration is active in other directions, in collateral branches. In the straight line of descent there were ten who had an insane mother, nine an insane father, and three an insane father and mother; the appropriate table shows, also, that several had insane grand parents, uncles, aunts and other collateral branches more or less remote.

"Another fact, is apparent, which is, that a large percentage of those admitted, inherited directly or through collateral branches, bodily deterioration of different kinds principally consumption or some other form of scrofulous degeneration; more than thirty-four per cent. of the admissions for the year, showed a family inheritance of some form or disease independent of insanity; taking both insanity and disease of some other kind given in the tables, we find

this year that there are eighty-three who show deterioration of some kind, being more than forty-three per cent. of the whole number admitted. Table eleven gives the form of disease inherited, the majority being consumption. If it is a fair assumption that where the two forms of disease are combined, deterioration must be more rapid, and the final break down more certain, hereditary influences cannot be ignored: nor is it well to shut our eyes to the fact that this predisposition plays a very important part in the downfall of mankind. The facts should be published and efforts made to guard against the evil consequences of extending disease by marriage with those who are similarly affected. Statistics seem to indicate that the mother exerts more influence for good or for evil in this direction than the father, that is, the mother is more apt to transmit her phisical infirmity to the child than the father is, also that where the father and mother inherit mental disease, the offspring are almost certain to become insane, sooner or latter; not only is this true of insanity, it is also true of other forms of disease; and further, where the wice of intemperance exists in both parents, even only to a moderate degree, some form of mental deterioration is very liable to befall the children.

Dr. Howe found that out of three hundred idiot children, one hundred and forty-five were the offspring of intemperate parents, and this is only the maximum of the evil; the minor defects eventuating more remotely in "weak minds," and the thousand other ills springing from like causes, ranging all the way from irritability and eccentricity to confirmed insanity, are not apparent, but doubtless they do exist and are the direct results of such cause.

"Taking into consideration the poverty, distress, grief, anxiety and other evils growing out of the habit of intoxication, not only so far as it affects the individual, but also as it affects his family and children, and which, from the nature of the facts, cannot be gathered up in any statistical method employed, it is no unfair presumption to assume that the evils springing from the intemperate use of intoxicants are the cause of more insanity than any other one thing. Twenty-six of the admissions of the year were acknowledged to be excessive drinkers, and their insanity was more or less directly connected with the habit.

"It is in this manner that the continued use of opium, tobacco, whiskey and other stimulants and narcotics act deleteriously upon the brain. The injudicious use of tobacco, now a national habit, will, unless checked, prove a national calamity.

"Year after year, nervous disorders of all kinds appear to increase in number and severity, many being clearly attribuitable to the excessive use of tobacco, either smoking or chewing. The habit begun in early youth, and continued by increasing the quantity consumed during middle life, induces directly certain diseased states of the nervous system, which are highly injurious to physical and mental health. From personal observation, I am convinced that insanity is sometimes induced by excessive use of tobacco, and I believe further, that used in the enormous quantities now consumed by certain classes of our people, it will deteriorate not only the individual who thus uses it, but it will also deteriorate the race. 'Nervousness' is a growing malady, and part of it is attributable to the excessive use of tobacco and stimulants, both being evils which are wholly within the power of each individual to check."

11 — C. & R.

STATISTICAL INFORMATION.

TABLE No. 1.

Showing movement of household for fiscal year ending September 30, 1878.

	Male.	Fem.	Total.
Remaining under treatment Sept. 30, 1877	266 96	271 84	537 190
Total number under treatment	362	365	727
Average under treatment daily			543
Discharged recovered. Discharged improved. Discharged unimproved. Discharged sober. Discharged not insane	$\begin{array}{c} 11 \\ 23 \\ 2 \end{array}$	26 24 14 · 1	55 35 37 3 1 37
Total discharged	82	86	168
Remaining under treatment Sept 30, 1878	280	479	559

Table No. 2. Showing age of those admitted.

	Male.	Fem.	Total.
Fifteen to twenty years	7	7	14
Twenty to twenty five years		15	29
Twenty-five to thirty years		13	28
Thirty to thirty five years		14	22
Thirty-five to forty years		8	19
Forty to forty-five years		7	17
Forty-five to fifty yaers	7	11	18
Fifty to fifty-five years	1 8	7	15
Fifty-five to sixty years	9	2	11
Sixty to sixty-five years		2	4
Sixty five to seventy years		1	3
Seventy to seventy five years		2	4
Seventy-five to eighty years		1	1
Unknown	1	4	5
•	96	94	190

Table No. 3. Showing occupation of those admitted.

	Male.	Fem.	Total.
Housekeepers Farmers	37	64	64 37
Laborers	15		15
Farm hands Teachers	7 2	' 6	8
Servants		8	8
Seamstresses Tinsmiths	3	5	5 3
Shoemakers	2		2
Merchants Lumberman	2 2		2 2 2
Dentist	1		1
Hotel keeperCarpenter	1 1		1
Miller	1		1
Butcher	1		ī
Veterinary Surgeon	1 1		1 1
Sailor	1		ī
Musician Eurniture maker	1	· · · · · · · · ·	1 1
Brick maker	ĩ		i
Cooper	1 1	• • • • • • •	1
Baker	1		1
Cigar MakerStudent	1		1
Clerk	1		1
Bookkeeper	1 1		1
Boiler maker	1	• • • • • •	1 1
Blacksmith	1		1
MechanicBaloon keeper	1 1		1 1
No occupation	1	7	8
Jnknown	2	4	6
	96	94	190

Table No. 4. Showing civil condition of those admitted.

	Male.	Fem.	Total.
Married	43 47 4 1 1	51 28 11 2 2	94 75 15 3
	96	94	190

Table No. 5.
Showing nativity of those admitted.

	Male.	Fem.	Total.
	26	22	48
Germany		18	39
Wisconsin	12	6	18
New York	120		17
Ireland	8 2 3	9	
Norway	Z	7	9
England		3	6
Canada		3	5
Vermont	. 1	4	5
Maine	3		3
Pennsylvania	1 3 1 1	2	3 3
Angtria		2	3
Belginm	. 1	2	3
Denmark	. 2	1	3
Bohemia		2	2
New Hampshire		2	l ã
Massachusetts	. 1	1	2
Illinois	l ī	l ī	2
Illinois	$\frac{1}{2}$	1	$\tilde{2}$
Ohio		i	2
Helland		1	l ~
Wales		1	1 1
Kentucky			1 1
New Jersey	· •••••	1	1 -
Michigan	• • • • • •	1 1	1 +
Poland	• • • • • • •	1	1
Sweden	. 1		. 1
Unknown	. 5	4	9
	96	94	190
		"	1
		1	

Table No. 6. Showing the degree of education in those admitted.

	Male.	Fem.	Total.
Academic Collegiate Common school Read and write Read No education Unknown	70 16 2	2 1 61 12 2 10 6	3 2 131 28 4 13 9
	96	94	190

TABLE No. 7.

Showing number of patients in the hospital from each county, and the number to which each is entitled.

		·	
Counties	Number to which entitled.	Whole number admitted.	Remaining in hospital September 30, 1878.
Ashland Bayfield Brown Calumet Clark Dodge Door Fond du Lac Green Lake Jefferson Kenosha' Kewaunee Lincoln Manitowoc Marathon Marquette Milwaukee Outagamie Ozaukee Ozaukee Ozaukee Racine. Shawano Shawano Shawano Shawano Shawano Shawano Shawano Washington Waukesha Waushara Wunnebago Wood Columbia. State at large	2 2 27 12 6 37 6 39 12 27 10 11 2 30 8 6 95 20 13 11 11 22 5 26 2 19 23 15 9 35 5 5	61 26 7 63 13 111 20 67 17 12 2 58 10 11 177 55 19 29 18 34 8 8 8 40 27 14 102 8 11 11 102 8 11 11 11 11 11 11 11 11 11 11 11 11 1	27 13 4 38 7 40 10 25 11 8 1 8 1 20 12 12 12 14 14 15 15 16 16 17 18 18 18 18 18 18 18 18 18 18 18 18 18
Total	• • • • • •	1,135	559

Table No. 8. Showing form of insanity in those who recovered.

	Male.	Female.	Total.
Acute mania. Subacute mania. Chronic mania. Paroxysmal mania Melancholia Dementia.	3 8	13 2 3 6 2 26	23 6 3 3 14 6

Table No. 9. Showing duration of insanity before admission and time under treatment in those recovered.

9					Tı	мЕ	Un	DER	. Т1	REA'	TME	NT.					_
DURATION BEFORE ADMISSION.	o month	o monens.	& months	o months:	0 months		1 7007	z ycan.	7 to 20 to 2	10 months.	18 months.	3,000	o years.	2½ years.	4 years.	5 years.	
	М.	F.	м.	F.	М.	F.	М.	F.	М.	F.	F.	М.	F.	М.	М.	F.	Total
One week or less One month Three months Six months One year Two years Three years Four years Six years Ten years Eleven years Several years	1 2 1	1	i	2 1 1 1 5		1 5 6	1	2	2 1 1 4	1 1 2	1	1 1	2 2 1 1 6	1	1	1	4 20 9 4 5 4 1 2 3 1 1 1

TABLE No. 10.

Showing hereditary transmission in fifty-seven patients admitted, and their insane relatives.

	М.	F.	Total.
Father insane	3	3	6
Mother insane	1	7	8
Brother insane	3	3	6
Sister insane.	2	4	6
Two sisters insane		2	1
Aunt insane	$egin{array}{c} 2 \ 2 \end{array}$	1 2	3
Cousin insane	$\overset{\sim}{2}$	3	5
Grandparents insane.	1	1	2
Father and mother insane.	1		ĩ
Father, mother and brother insane	-	1	ī
Father, mother and sister insane	1		ī
Father and brother insane.	ī.		ĩ
Father, brother and nephew insane		1	ī
Father and paternal uncle insane	1	[1
Father and maternal uncle insane	1		1
Father and two cousins insane	1		1
Father, two sisters and brother insane	1		1
Grandmother, two mat. uncles and brother insane	1	i	1
Grandmother and three maternal uncles insane	1		1
Grandmother's aunt insane	1		1.
Brother and uncle insane	1	• • • • • •	1
Brother and cousin insane		1	1
Brother, sister and two maternal uncles insane	1		1
Sister and aunt insane		1	1
	28	29	57

TABLE No. 11.

Showing hereditary predisposition to insanity in those who attempted or threatened homicide, suicide or infanticide:

	Attempted	Suicide.	Threatened	Homicide.	Threatened Suicide and Homicide.	Threatened Suicide.	Attempted	Homicide.	Threatened Suicide and Infanticide.	Total.
Father insane Mother insane Brother insane Sister insane Two sisters insane Fath., moth, and broth. insane. Aunt insane Grandmother insane Brothers and cousin insane Half-sister insane	M. 1	1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	F. 2 1	F. 2	1 1	M.	F.	f. 1	2 6 2 1 1 1 3 1 1
en e										19

TABLE No. 12.

SUMMARY OF EXPENDITURES.

For the fiscal year ending September 30, 1878.

ARTICLES.	Quantity.	At.	Amount.	Total.
Amusements and Instruction—Books	l		\$354 38 170 61	\$524 99
Clothing — Boots. Shoes Slippers. Hats and caps. Flannels Shirting Calicos Collars, ties, etc. Hose and socks. Suspenders. Mittens Marking ink Buttons, thread, etc. Suits. Coats. Pants Jackets. Underclothing	209 dozen 60 dozen 14 dozen	14 14 08 1 81 5 80	\$366 09 237 78 604 63 199 40 57 06 77 57 469 25 199 72 379 30 179 03 81 00 22 50 197 41 1.804 35	5,712 34
Drugs and medical supplies— Medicines Alcohol Whisky Wine. Surgical appliances.	42½ gals 141 gals 133½ gals	2 10	\$1,995 49 89 50 635 03 548 97 106 20	3,375 19
Farm and garden— Cows. Bull. Horses Tools and machinery. Fertilizers Feed. Blacksmithing. Vehicles and repairs. Harness, halt's, blank'ts, etc. Seeds. Plants. Fuel and lights—	1 3 100½ tons	12 40	1,276 50 517 56 18 73 1,246 16 186 22 713 28 289 25 173 65 186 09	4,607 44
Fuel and lights — Coal, hard Coal, soft Chopping wood Candles, oil and matches.	12 tons 1,665½ tons. 908½ cords.	5 25 4 30 75	\$7,225 45 704 38 121 77	8,051 60

TABLE NO.	12 — Summary	of	Expenditures -	-continued.

ARTICLE.	Quantity.	. At.	Amount.	Total.
Elopers				\$44 91
Elopers Expenses for patients burial and car fare home				226 47
Expressage				150 90
Furnishing and general house- hold supplies: Blankets Curtains Table linen Table linen Mattresses Cotton Straw for bedding Sheeting Pictures Toweling Towels	520	41 08 5 00 17	170 62 20 50 25 00 398 25 164 60 144 11 18 88	
Ticking Rubber blankets Rubber blankets	$45\frac{1}{4}$ yds.		. 176 80	
Carpeting Bed spreads	. 183 yds		. 292 00 91 00	
Furniture			. 2,495 45	
and dials			. 400 00	
Wooden ware Hardware			. 04 40	
Crockery and glass ware.			1 700 10	
Cutlery Brooms			. 110 00	·
Mong			. 14 20	
Small groceries	1057 fbs	06	67 48	
Laundry starch. Soap, hard Soap, soft Soap, soft Brushes.	. 5113 lbs	06	349 72	
Soap, soft	14920 lbs	s 2 18	$\{ 2,678 \ 50 \}$	
Brushes	1000/200		74 10	
Matting	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		
Sal soda etc			129 01	l .
Bath brick indigo, etc.			00 10	
Flour bags			15 00	, , , , , , , , ,
Combs, hair brushes Restraints, etc			92 6	
Additions, repairs and in	ı-			φ1, 10.
provements on farm— Farm, garden and roads.	1		\$2,693 8	5
Additions and renairs.)		• • • • • • • • •	
Paints and oils			400 4	
Glass			215 9	2 1

Table No. 12. — Summary of Expenditures — continued.

1 anie 11 o. 12. — 84	unimary of Exp	:	s — continu	ea.
Article.	Quantity.	At	Amount.	Total.
Additions, repairs, etc.—con.				
Pine and fixtures			1,396 96	i
Lilmber	1	1	1 222 12	
Sand	280 mda		4,555 15	•••••
Brick	916 M		451 95	
Lime and coment	210 M1	• • • • • •	1, 118 56	
Gas fixtures		• • • • • •	431 06	
Gas works	••••••	• • • • • • •	245 07	
Stone	• • • • • • • • • • • • • •	• • • • • • •	858 04	
Stone	• • • • • • • • • • • • • • • •		72 00	
Fire apparatus Heating apparatus Machinery	••••••	• • • • • • •	494,67	· · · · · · · · · · · · · · ·
Machinery	• • • • • • • • • • • • •	• • • • • • • •	2, 252 89	
Engine		• • • • • • •	3, 265 43	
Engine	• • • • • • • • • • • • •	· · · · · · · ·	5,298 58	
Doner	• • • • • • • • • • • • • • • • •		6,058 22	
Printing				32,707 50
Printing	• • • • • • • • • • • • • •	• • • • • •		256 58
Data Data Data Data Data Data Data Data		. 		421 12
Stationery Petty cash Laboratory				76 19
Liaboratory	•••• • • • • • • • • • • • • • • • • •		1	948 50
I Ustage				266.45
r reight	. 		1 1	1 098 75
relegraphing				182 41
Livery		 .		6 00
Managers and committees— salaries and expenses—				
Architect			\$200.00	
Architect Visiting physicians Trustees Traveling expenses Published	• • • • • • • • • • • • • • • • • • • •	• • • • • • •	94 70	
Trustees	• • • • • • • • • • • • • • • • • • • •	· · • • · • • •	550 19	
Traveling expenses		• • • • • •	900 14	
Building committee		· · · · · · · ·	204 40	
8			204 40	1,197 37
Salaries and wages —				2,101 01
Officers' pay rolls			\$7,225 00	
Officers' pay rolls Employes' pay rolls			29, 160 07	
				36,385 07
Provisions —				,
Salt	50 bbl	\$1 61	\$80 82	
Salt Baking powder, etc			67 00	
Cinnamon	27 lb	45	12 30	
Cloves	10 fb	53	5 35	
Cern starch	1,000 fb	9	97 63	
Extracts			61 55	
Ginger	30 th	24	7 20	
Mustard	192 tb	88	64 00	· · · · · · · · · · · · · · · · · · ·
Nutmegs	4 lb	96	3 85	••••••••••
Pepper	136 lb	22	30 50	
Chocolate, coacoanut, etc		~~	72 07	· · · · · · · · · · · · · · · · · · ·
Sundry spices			23 91	· · · · · · · · · · · · · · · · · · ·
Tapioca and sago			9 73	· · · · · · · · · · · · · · · · · · ·
Tea	4. 243 tb	80	1,675 12	
Coffee	8, 612 tb	21	1,831 52	
Baking powder, etc. Cinnamon Cloves Corn starch Extracts Ginger Mustard Nutmegs Pepper Chocolate, coacoanut, etc. Sundry spices Tapicca and sago Tea Coffee Sugar. Syrup	8,351 tb	9	3,686 49	· · · · · · · · · · · · · · · ·
Syrup	968 gal	51	498 95	· · · · · · · · · · · · · · · · · · ·
	D	0.1	100 00].	· · · · · • • • • • • • •

Table No. 12. - Summary of Expenditures - continued.

Articles.	Quantity.	At.	Amount.	Total.
Provisions — continued — Molasses. Vinegar Vegetables Beans Potatoes Apples Dried peaches Cranberries Currents Dried currents. Tobacco Lemons and oranges Prunes Grapes Peaches Dried apples. Raisins Strawberries Raspberries Canned fruit Confectionery Sundry fruit Butter Cheese Eggs Flour Flour Crackers Meal Hominy Rice Oat meal Peas Barley Venison Poultry Ham and sausage. Beef, dressed Beef, on foot Mutton Lard Fresh fish Cod fish Mackerel Oysters and can fish White fish	3, 102 fbs 3, 102 fbs 301½ boxe. 819 qts 1,866 qts 36, 910 fbs 2463¼ fbs 4,100 doz. 8543¼ bbls. 1,4601½ fbs 666 bbls. 1,4601½ fbs 17 bbls. 3,033 fbs 17 bbls. 3,033 fbs 182 fbs 1,838 fbs 2,214 fbs 328,375 fbs 823 fbs 4,093 fbs 1,600 fbs 1½ bbls	34 3 46 077 78 1 90 06 40 09 	60 94 6,785 31 559 89 4,169 61 19 45 92 36 6 02 47 90 426 58 85 75 101 40 28 32 6 30 247 19 11,588 91 78 86 31 98 411 91	
Total				\$146,819 00

WISCONSIN INDUSTRIAL SCHOOL FOR BOYS.

MANAGERS.

Terms expire April 3, 1879 — Wm. Blair, Waukesha; Edward O'Neill, Milwaukee.

Term expires April 3, 1880 - Chas. R. Gibbs, Whitewater.

Terms expire April 3, 1881 — Andrew E. Elmore, Fort Howard; John Mather, La Crosse.

OFFICERS OF THE BOARD.

Wm. Blair, President.
John Mather, Vice President.
Andrew E. Elmore, Treasurer.
Chas. R. Gibbs, Secretary.

Regular meetings of the Board on the second Wednesday in January, April, uly and October.

OFFICERS OF THE SCHOOL.

S. J. M. Putnam, Superintendent.

———, Assistant Superintendent.

Mrs. J. M. Putnam, Matron.

Mo. 19.]

Industrial School for Boys — Statistics.

STATISTICAL TABLES.

Table No. 1.

TABLE No. 2.

Shows the offenses for which they were committed.

Vagrancy	14
Larceny	56
Incorrigibility	72
Burglary	4
Sodomy	
Assault and battery	
Destruction of property	
Donard or Probable	~
Total	151

TABLE No. 3.

Number returned to parents or guardians on ticket of leave	92
Number out to place on ticket of leave	. 8
Number returned illegally committed	. 4
Number of deaths	3
Number of escapes	. 1
Number on record October 1, 1878	
,	
ers . 1	P0W

TABLE No. 4.

	1876.	1877.	1878.
Largest number at any one time	286	366 316 341	419 357 380

TABLE No. 5. Shows their ages at the date of this report.

Ages.	Previous years.	Past year.	Total.	AGES.	Previous years.	Past year.	Total.
Ten	13 20 25 30 35 70	14 17 21 28 30 41	14 30 41 53 60 56 70	Seventeen	10 5		41 19 10 5

Average age...... 14½

TABLE No. 6. Shows the counties from which they were committed.

Counties.	Past year.	Counties.	Past year.
Brown Calumet Chippewa Columbia Crawford Dane Dodge Dunn Eau Claire Fond du Lac Green Green Lake Grant Iowa Jackson Jefferson Juneau Kenosha La Crosse	4 2 7 1 2 2 15 2 3 2 3	Manitowoc Monroe Milwaukee Oconto Outagamie Portage Racine Rock Richland Sauk Sheboygan Vernon Waupaca Walworth Winnebago Wood Waukesha Waushara Total	

Table No. 7.

Shows number of inmates each year since school opened.

Year.	No. committed each year.	Boys.	Girls.	Whole number at close of year.	Whole number during year.
January 1, 1861 October 10, 1861 October 10, 1863 October 10, 1863 October 10, 1864 October 10, 1865 October 10, 1866 October 10, 1867 October 10, 1868 October 10, 1869 October 10, 1870 October 10, 1871 October 10, 1872 October 10, 1873 October 10, 1874 October 10, 1875 October 10, 1876 October 10, 1876 October 10, 1877 October 10, 1878	41 42 83 107 47 66 53 63 114 74 107 80 113 101 107	32 35 51 59 117 134 118 143 149 163 204 237 278 281 301 300 318	7 5 4 13 20 21 16 12 14 13 2 2	39 40 55 72 137 155 134 155 163 173 206 239 278 281 301 300 318 364 419	39 81 80 98 155 245 209 217 227 233 298 298 347 362 402 412 415 471 527

^{12 —} C. & R.

vagrants and incorrigible inmates.

Table No. 8.

Shows amounts charged to the several counties for the support of

Amounts. Amounts. COUNTIES. COUNTIES. \$173 00 \$52 00 Manitowoc Adams .*..... 1, 228 25 89 00 Monroe Brown 202 50 247 75 Oconto 694 50 160 00 Outagamie Crawford 52 00 166 75 Columbia..... Ozaukee Pierce 52 00 294 50 83 00 Polk 52 00 Dodge 93 25 52 00 Portage 110 50 Racine 544 75 Dunn..... 423 00 294 75 Rock..... Eau Claire..... 45 00 1.072 25 Richland..... Fond du Lac.... 52 00 426 25 St. Croix Grant 68 75 183 00 Sauk Green 112 00 Green Lake..... 186 75 Sheboygan 138 50 Iowa 187 75 Waukesha..... 251 75 88 00 Walworth Juneau 286 00 Waushara 54 50 Jefferson 79 00 Winnebago 611 00 Kenosha.... Waupaca.... 146 25 564 00 La Crosse..... 96 75 83 00 Wood La Fayette..... 1,321 25 Milwaukee \$11,119 25 Total

Table No. 9.
Shows birthplace of inmates.

STATES.	No.	Countries.	No.
Wisconsin New York Illinois Michigan Pennsylvania Ohio Iowa New Jersey Minnesota, Missouri Connecticut	7 1 2 3 3 1 4 1	Germany Belgium. Canada. England. Bohemia Ireland. Norway Total foreign	1 2 3 1
Total native		Total	151

Table No. 10.

Shows the nationality of parents.

Nationality.	No.	Nationality.	No.
American German Irish English Canadian French Scotch Indian	51 26 18 3 6 2	Bohemian Belgian Danish Norwegian Welsh Colored	1 5

TABLE No. 11.

Shows social and domestic relations.

Have No praents Mother only Father only Parents separated	16 8	Have Father and stepmother	10
	57		94

TABLE No. 12.

MORTUARY.

Shows number of deaths in the last ten years.

Year.	Total No. of boys in school.	Number of deaths.	Death rate per thousand.	Typhoid fever.	Inflammatory rheumalism.	Gastric fever.	Nervous fever.	Congestive chills.	Scrotula.	Typhoid pneumonia.	Dropsy.	Congestion of the lungs.	Brain fever.	Scarlet fever.	Paralysis of the brain.
1868	227 233 293 288 347 362 402 412 415 471 527	2 1 4 3 1 3 7 4 3 5 3 3	8.8 3.8 13.6 10.4 3 8.3 17.4 9.7 7.2 10.5 5.7	2	1 1	1		1	3	2 1 3	1	1 1	··· ··· ··· ··· ··· ··· ··· ···	2	··· ··· ··· ··· ··· 1

TABLE No. 13.

EDUCATIONAL.

Number under instruction at the commencement of the year Number newly committed during the year Number returned during the year	12
· · · · · · · · · · · · · · · · · · ·	
Number left the school during the year	108 419
Of the 151 received, could not write	
Commenced reading from chart Commenced reading from first reader Commenced reading from second reader Commenced reading from third reader Commenced reading from fourth reader Commenced reading from fifth reader	15 10
	===
Commenced numbers in primary. Commenced mental and written arithmetic. Commenced complete arithmetic. Commenced manual of geography Commenced complete geography	. 29
Of the 151 received, entered one of the primary departments	
-	151

TABLE No. 14.

DIVISION OF TIME.

Officers rise	5.45
Officers breakfast	6.00
Boys	6 05
1st division to work and 2d division to school	77 00
Zu division school closes	0 00
1st division work closes and 2d division work commences	9.30
1st division school commences	10.00
All dismissed at	
Boys dine	12.00
Boys dine Officers	12.30
_	
1st division to work and second division to school	1 15
zu division school closes	3.15
18t division work closes, and 2d division work commences at	3.45
1St division school commences	4.15
All dismissed at	6.15
Doys supper	6.25
Omcers	6.30
Assemble on the Sabbath	4.30

As a rule, for the last two years, the boys have not been assembled in the chapel on week day evenings.

TABLE No. 15.

The expenditures for the past year have been	\$48,721.45
The expenditures for 1877 were	
110 Cap of the cap of	

The classified summary of the expenditures of 1876, 1877 and 1878, together with the manager's estimates for 1879, are as follows:

	1876.		1877	•	1878.	1879.*
Amusements Means of instruction Ciothing and tailor shop. Drugs, medicines and medical services Farm and barn Fuel Lights Sewing room House furnishing Laundry Freight Broom shop Stone shop. Carpenter shop. Knitting shop. Paint shop. Repairs (ordinary). Improvements (permanent) Miscellaneous Subsistence Salaries. Wages Telegraph Postage. Express.	\$368 1 387 4 3,522 5 281 8 2,860 2 3,532 6 629 0 489 5 1,201 0 114 1 104 8 1,927 0 15 7 779 8 1,332 8 9,218 7 1,694 1 1,694 1 1,694 1 1,694 1	45 52 38 52 52 52 52 52 52 52 52 52 52 52 52 52	\$131 707 4, 241 533 2, 925 3, 048 567 1, 473 408 545 10 253 58 2, 184 672 899 588 10,810 14,167 1, 262 86 227	39 36 07 25 09 33 49 17 01 23 42 42 50 89 34 50 55 30	\$122 00 473 00 5,257 00 230 90 2,839 21 2,995 82 642 99 1,023,65 451 47 724 95 1,014 15 131 41 3,223 78 934 04 746 24 537 18 10,675 95 14,835 16 952 67 55 81 275 85 72 90	\$ \$600 00 5,000 00 300 00 3,000 00 \$4,000 00 500 00 800 00
Manager's expenses	\$48,149		\$46,321		\$48,721 45	\$45,119 25

It will be seen by the foregoing table that the managers esti-	
mate the current expenses of the school for 1879 at	\$45,119 25
From this deduct the amount to be received from counties	11,119 25
Leaving a balance to be appropriated of	\$34,000 00
Leaving a paramete to be appropriated of	

^{*} Estimates for.

The estimate made is \$3,602.20 less than the expenditures for current expenses for 1878, and after close examination, we are of the opinion that it is made in the interest of economy, and give it our endorsement.

TABLE No. 16.

Showing amount expended each year, and number of inmates and cost of support.

39 39 58 48 80 68 98 38	130 65
155 14± 245 17(209 160 217 165 227 165 233 176 288 206 288 255 347 284 362 286 402 298 412 300 415 298	83 83 33 35 85 10 116 21 150 60 12 149 68 162 07 140 35 41 125 05 4 128 66 3 145 01 150 52 0 161 37 00 161 37
	362 286 402 298 412 300

GENERAL REMARKS.

We regard this School as one of the most useful of our state institutions. Since July, 1860, 1,576 boys have been sharers of its benefits. Its criminal features have been so nearly eradicated as to almost disappear.

If a criminal record can be wholly avoided against a boy, it is better that it should be done. It would be better to send them for discipline, protection, and education, than for punishment, and on a criminal warrant.

No doubt a large majority of these, more than 1,500 boys have been saved from a life of crime. While, under the law, they were committed to the age of 21 years, their stay in the school is temporary, and depends upon their own conduct. The boy learns on his entrance, that his own best good depends upon good conduct, studious habits and correct deportment; that he is to remain there till the age of 21 is reached, unless he earns a position in the highest grade, and establishes a character that warrants his release.

The power to release resides only in the board of managers, subject to the power of the governor to grant pardons. In case of incorrigibility in the school, or when the continuance of a boy is deemed prejudicial to the management and discipline thereof, the board may return such boy to the court, justice or other authority directing such child to be committed, to be proceeded against as though he had not been committed to the school. When a boy has by good conduct gained the highest grade by a system of "marks" in operation in the school, and the superintendent and managers believe he can be trusted, he is returned to his parents and guardians, or placed in a home, on "ticket of leave." Ninety-two boys were thus returned, and eight placed in homes during the last year.

The crowded condition of the institution compels the board of managers to return boys frequently against their better judgment, in order to make room for the new comers.

It is only necsssary to inquire into the history of the large majority of discharged boys to learn the truly beneficent character of the institution.

It is, again, only necessary to stand before the more than four hundred boys when assembled in the crowded chapel, and notice the intelligent faces and bright, cheerful looks, to have faith in their future. There is an almost entire absence of the prison look. A look of felony once established on a boy's face becomes a title page to a life of infamy. As little restraint by walls and bars should be exerted as is possible consistent with good discipline. Furnish the boy with the opportunity to achieve success in a virtuous life, and in a majority of cases he will improve it. The good that is being done by this school cannot be estimated.

CROWDED CONDITION OF THE BUILDINGS.

The board of managers in their report refer to the crowded condition of the buildings in the following language:

"We are compelled to lodge fifty boys in dormitories originally intended for thirty-six only. To do this, we must not only place them one above another, but locate them so near the windows as to render ventilation difficult if not unsafe. We must have more room for the boys now here to accommodate them with anything like comfort or convenience; and the rate of increase makes it absolutely necessary to provide, as soon as it can be done, two additional family buildings, for fifty boys each. We are compelled to send away from the school boys who have no suitable homes, and soon they relapse in their behavior, to the injury of the school and themselves. We dare not put more in the dormitories. In view of their crowded condition, we wonder they are as healthy as they are. We fear some epidemic may break out and thus do serious harm. We estimate the cost of building and furnishing two family buildings, larger than the present family buildings, and sufficient for fifty boys each, to be built of stone with slate roofs, in the style of the correction house, at twenty-two thousand dollars. We have on hand, as before stated, for stone and building purposes, a little over four thousand dollars; an appropriation of eighteen thousand dollars by the legislature, will enable us to erect and furnish two buildings as above set forth. They are needed, and it will be economy for the state to build them now."

The family buildings are overcrowded to the extent that the sanitary laws are set at defiance, and it is a wonder that the health of the inmates has been so well preserved. It could only have been done by the strictest cleanliness, and making the very most of the insufficient accommodations.

CHARACTER OF THE PUPILS.

In our inquiries into the character and antecedents of the pupils, we came to the conclusion that only a portion, perhaps but a little above the larger part, are or were criminally inclined. The law under which the institution has been operated is too loose in its

provisions, and has afforded too wide a latitude for the discretion of the justice or judge before whom the boys were brought.

The law has been construed to authorize not only the sending of boys as vagrants, and those guilty of criminal offenses or incorrigible or vicious conduct, but of dependent and homeless boys. It was easier and cheaper for town, village and city authorities to get an orphan, or otherwise homeless boy, sent to Waukesha than to find a home and bind him out in some good family.

The provision of the revised statute that now requires "the court sentencing any child to be confined in said school shall, together with a copy of the record or certificate of the sentence, transmit to the superintendent of said school a copy of all the evidence, or a statement of all the facts proved in the case," may lessen the number of commitments of the class now under consideration.

We are of the opinion that between twenty-five and forty per cent of the whole number of boys now in the school ought not to be there, and should have been provided for elsewhere.

The establishment of a

STATE PUBLIC SCHOOL,

elsewhere recommended in this report, will furnish a temporary home for this class of boys, and relieve the over-crowded condition of the Industrial school.

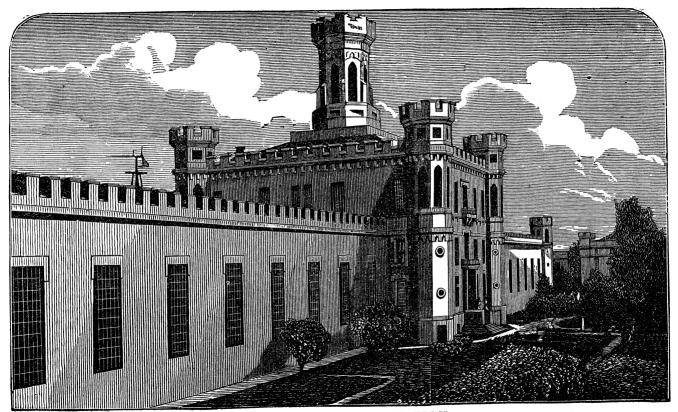
The transfer of 75 boys from this school would leave it still in a crowded condition, and necessitate providing additional room to accommodate the demands upon it. It will not do to neglect the class of boys which the state is wisely providing for here. They must be cared for, either here or elsewhere. It can be done more cheaply at Waukesha than anywhere else. The stone is now being dressed for two new buildings; the appropriation of \$1,000, made last winter for the purchase of stone, is being used, and we therefore recommend that the legislature make the the appropriation of \$18,000 asked for by the board of managers, to erect two new family buildings. The family buildings heretofore erected at Waukesha, accommodate families of 36 each. The buildings here recommended will be of sufficient capacity to accommodate families of 50 each.

WISCONSIN STATE PRISON.

OFFICERS.

Nelson Dewey Director Term expires Dec. 31, 1879, salary.* Geo. W. Burchard Director Term expires Dec. 31, 1881, salary. Howard M. Kutchin. Director Term expires Dec. 31, 1883, salary.	
Salary.	
Horatio N. Smith Warden \$2,000 00 per annum.	
Alexander White Deputy Warden 1,000 00 per annum.	
Jacob Fuss 1,000 00 per annum.	
Rev. E. Tasker Chaplain, Protestant 800 00 per annum.	
Rev. Joseph Smith Chaplain, Catholic 200 00 per annum.	
H. L. Butterfield Physician	
Henry Brooks Turnkey 60 00 per month.	
A. Bogar Foreman wagon shop 60 00 per month.	
D. C. Reynolds Keeper shoe shop 45 00 per month.	
David Harris Keeper shoe shop 45 00 per month.	
Silas Warren Keeper shoe shop 45 00 per month.	
S. S. Ormsbee Keeper shoe shop 45 00 per month.	
J. L. Sargent Keeper shoe shop 45 00 per month.	
C. S. Gilman Overseer prisoners' kitchen 45 00 per month.	
W. H. Clay Night guard cell room 45 00 per month.	
T. Colvin Night guard cell room 45 00 per month.	
W. Yokee	
W. H. Ferris Night guard office 45 00 per month.	
J. McDonald Day guard office 30 00 per month.	
Jos. Carroll	
J. H. Heath Guard on wall 30 00 per month.	
E. M. Spear Guard on wall 30 00 per month.	
Cornelius Holland Guard on wall 30 00 per month.	
Julius Gudden Guard on wall 30 00 per month.	
John Irving Keeper front gate 30 00 per month.	
Matt. White Farmer 30 00 per month.	
W. Houghtaling Overseer N. cell room 30 00 per month.	
Miss E. Moran Overseer officers' kitchen 20 00 per month.	
Miss Chittenden Matron female department 20 00 per month.	

^{*}The salary of the directors is three dollars a day and their necessary traveling expenses.



WISCONSIN STATE PRISON, WAUPUN.

CONVICTS.

The whole number of convicts			
Confined September 30, 1877	Males. 280 211	$Fem. \ 10 \ 2$	Total. 290 213
Totals Discharged and died during the year	491 151	12 6	503 157
In confinement at this date	340	6	346
In confinement—			
September 30, 1878. September 30, 1877. September 30, 1876. September 30, 3875. September 30, 1874. September 30, 1873.	• • • • • • • • •	2 2 2	90 66 48 30
Average number confined for the year ending			
September 30, 1878 September 30, 1877 September 30, 1776 September 30, 1875 September 30, 1874		20	40
Of the convicts received during the year, the	re were	of	
First convictions			89 16 6 2 — 13
Strictly temperate		···· <u>·</u>	53 79 81 —
Could neither read nor write		10	== 30 16 37 13 ==

TERMS OF S	SENTENCES.	
To 1 110	••••••••••••	3
Fourteen years		1
Eight years	••••••••••••	$\overset{1}{2}$
Six years		$\tilde{f 4}$
Five years		12
Four years and ten months	•••••••••••	1
Four years and six months		$\overset{1}{2}$
Four years	••••	11
Three years and six months		1
Three years	• • • • • • • • • • • • • • • • • • • •	$1\overline{7}$
Two years and six months		3
Two years and four months		1
Two years and one month		î
Two years	•••••	$5\overline{6}$
One year and six months		8
One year		68
Nine months	•••••	3
Eight months	•••••••••	4
Six months		$1\bar{5}$
		213
	=	
11.	1.1.7	,
he present prison population	was received in the severa	ı year
ollows:		
4000	a	
1857 1 1867		1
1860 1 1868		11
1862 1 1869		14
1863 2 1870		45
1865 3 1871		
1866 1 1872 \dots	7 1878	123
	-	346
	<u>-</u>	040
DUVSTOAT OHA	RACTERISTICS.	
THISICAL CHA	IRACTEMBITOS.	
Insane, violent		4
Insane, mild	• • • • • • • • • • • • • • • • • • • •	7
Superannuated		5
Partially disabled		11
Diseased		20
Able bodied		293
Females		6
	<u>-</u>	
		346
REC	ORD =	
TOE CO	OIVD.	
First convictions 305	Under 20 years of age	47
Second 26	From 20 to 30	
Third 11	From 30 to 40	82
Fourth 3	From 40 to 60	57
Eighth 1	Over 60	17
	-	
346		346

EMPLOYMENT.

Under contract 25 Wagon, blacksmith, and general repair shops 2 Wash house Tailor and mending shops. Kitcheus 1 Farm and yard 1 Choremen Miscellaneous Not employed, insane, old, sick and in cells 2 Females	2 5 9 0 1 7 4 0 6
34	6

Table showing counties from which prisoners were received during the year:

COUNTIES.		COUNTIES.	
Adams Ashland Barron Brown Buffalo Chippewa Clark Columbia Crawford Dane Dodge Dunn Eau Claire Fond du Lac Grant. Green Green Lake Iowa Jefferson Juneau Kenosha La Crosse. La Fayette Total	2 1 1 3 2 7 3 14 2 16 2 1 3 10 16 3 11 11 11 11 11 11 11 11 11 11 11 11 1	Manitowoc Milwaukee Monroe Outagamie Pierce Portage Racine Rock St. Croix Sauk Sheboygan Taylor. Trempealeau Vernon Walworth Washington Waukesha Waupaca Waushara Winnebago Wood United States courts	1 3 16 1 2 1 7 19 4 4 5 1 3 4 8 1 3 5 1 4 2 13
I Utal		• • • • • • • • • • • • • • • • • • • •	

RELIGIOUS INSTRUCTION.

Baptist	69 6 10 14 56 13	Protestant United Brethren Universalist Unitarian Wesleyan No religion1	4 2 1 9
Total		21	3

TERMS OF	SENTENCE.
During life. 3 Fourteen years. 1 Eight years. 2 Six years. 4 Five years. 12 Four years and ten months. 1 Four years and six months. 2 Four years. 11 Three years and six months. 1 Three years. 17 Total. 1	Two years and six months 3 Two years and four months 1 Two years and one month 1 Two years 56 One year and six months 8 One year 68 Nine months 3 Eight months 4 Six months 15
CR	IME.
Arson Assault with intent to kill Assault with intent to ravish. Assault with intent to rob Assault with intent to rob Assault with intent to do bodily harm Accessory to the crime of felony before Burglary Burglary and larceny Bigamy Crime against nature Embezzlement Forgery Horse stealing Incest Indictment under sec. 5421, U. S. statularceny Murder, first degree Murder, second degree. Murder, third degree Manslaughter, second degree Manslaughter, third degree Manslaughter, third degree Obtaining money on false pretenses. Passing counterfett money Robbing mail Robbery Uttering and passing forged orders	7 3 3 1 9 re the fact. 9 1 45 13 11 1 1 1 1 15 16 17 18 18 19 11 11 11 11 11 11 11 11 11 11 11 11
	_213
TTA	BITS.
Intemperate	Temperate
Male 211	
Total	213
13 — C. & R.	

State Prison.	
CONJUGAL RELATIONS.	
Married 64 Widowers Single 139 Divorced	
Total	213
HOW OFTEN SENTENCED.	
First time	
Total	213
The receipts of the prison for the year ending Sep were:	t. 30, 1878,
Balance on hand Oct. 1, 1877 Balance of appropriation of 1877. Received of M. D. Wells & Co. for labor of convicts. of M. D. Wells & Co. donation to library from United States for board and care of convicts. \$2,356 69 from visitors. 574 12 officers for board of their families. 160 75	\$46 23 6,000 00 22,979 58 100 00
amount of sales from shops \$1,024 58 sales of wagon stock \$1,024 58 interest 54 49 coupons on bonds 60 00 all other sources	3,091 56 43,354 04 1,139 07 132 62
an other sources	\$76,743 10
The disbursements were:	
For additions to library, newspapers, stationery, advertising	\$65,088 65
Balance Oct. 1, 1878	11,654 45

The directors present the following exhibit of the assets of the prison September 30, 1877, and also September 30, 1878:

	1877.	1878.
Cash on hand. Bills receivable and accounts. Due from United States. Due Blind Asylum. Due from Corn Exchange bank. Goods and materials for sale and use. Machinery and tools. Furniture and miscellaneous goods in use. Land in Dakota, taken in settlement of account.	\$46 23 22,750 54 1,209 88 123 42 9,631 07 62,106 62 28,206 48 13,215 12	\$11,654 45 15,692 30 510 62 123 42 30,698 03 25,999 55 13,565 90 600 00
Liabilities	\$137,289 36 6,412 75 \$130,876 61	\$98,844 27 706 68 \$98,137 59
ters in bankruptcy, and all accounts believed to be doubtful Decrease in net assets.		13,277 33 19,461 69
	\$130,876 61	\$130,876 61
Adding to the decrease in net assets as given abo The amount received from the state, being balance tion made in 1877	e of appropria- state for the last	6,000 00

Extraordinary expenditures have contributed to this expense, and the prison has permanent improvements to show therefor, as follows:

Finishing north cell room (not complete)	\$3,803 1	5
Water closets in main building	499 5	í 8
Steam heating coils in shops	298 8	37
Arbitrary reduction in invoice of machinery and tools	2,3745	
Leaving a balance to current expense account of	18,485 5	17

^{*\$25,461 69}

COMPARATIVE STATEMENTS.

For the fiscal years ending September 30, 1877 and 1878.

· ·	1877.	1878.
Total cost to feed, warm, clothe, guard, instruct and superintend the prisoners, exclusive of expense connected with manufacturing Average cost per year per man Average cost per week Total number of days of confinement Total number of days spent in productive labor. Amount of earnings per day of productive labor necessary to render the prison self-supporting.	\$39,841 68 137 05 2 63½ 105,823 60,649 63¾	\$42,229 86 125 21 2 41 123,078 74,099

THE CASH ON HAND, BILLS RECEIVABLE AND BILLS PAYABLE AND ACCOUNTS PAYABLE,

As per detailed statement "B," are as follows:

· · · · · · · · · · · · · · · · · · ·		
ASSETS AS PER LEDGER.		
Cesh on hand		8,787 53 6,904 77 510 62
Total		\$27,980 79
LIABILITIES.		
Accounts for purchases, payable in cash Accounts for purchases, payable in trade Convicts' deposits Total Amount of assets over liabilities	308 43 392 52	\$706 68 \$27,274 11

The Prison has stock hand to the amount of. Value of machinery and tools. Furniture and chattels Land on Sioux Falls	25,999 13.565	$\begin{array}{c} 55 \\ 90 \end{array}$
Total	\$70,863	48
Of the reported "stock on hand" \$30,698.03, about \$23,200.00 will be available for the current expenses of the prison when manufactured and sold, making the available assets — As per ledger above. Lumber stock and goods, etc.	\$27,274	11 00
Total		

The following table shows the total appropriations made by the state, together with current expenses, officers salaries, and cost of subsistence, etc., of the prison for 27 years:

1851. \$10,000 00	YEARS.	Total cost to state by appropriation.	Current expenses.	Officers' ser- vices.	Subsistence.	Average No.	Per capita for subsistence.	Per capita for officers' salaries.
1877 27,870 00 48,737 32 18,859 76 19,485 85 290 67 19 65 03 1878 43,233 74 16,537 05 17,141 28 337 50 86 49 07	1852 1853 1854 1855 1856 1857 1858 1860 1861 1862 1863 1864 1865 1866 1869 1870 1871 1873 1874 1875 1876	16, 389 60 13, 617 73 42, 378 08 88, 135 26 49, 079 73 37, 200 00 49, 500 00 49, 500 00 41, 500 86 30, 900 00 41, 371 55 35, 500 00 44, 000 00 40, 000 00 40, 000 00 40, 000 00 99, 990 00 52, 928 00 45, 550 47 49, 968 39 46, 341 54	40,675 76 50,589 45 46,341 26 41,954 86 53,500 72 50,226 47 49,889 12 31,250 00 43,054 88 42,427 88 48,737 32	\$15,535 06 15,060 91 17,970 84 17,994 18 13,998 48 23,720 15 23,453 05 22,108 20 9,194 68 18,155 68 19,073 56 18,859 70	\$8, 266 18 13, 636 14 18, 242 04 14, 769 69 11, 127 20 15, 805 92 13, 534 14 10, 776 77 8, 131 07 15, 171 39 14, 017 57 19, 485 85	194 202 186 189 202 201 180 214 240 261 290	70 28 89 86 79 40 74 92 78 24 67 33 59 87 75 99 63 21 53 71 67 19	77 62 88 52 96 74 94 25 117 42 116 68 122 81 85 92 75 64 73 08 65 03

Table showing the current expenses, average number of prisoners and per capita annual expenses for nine years, from 1870 to 1878, inclusive:

Current expenses.	Average number.	Per capita per year.
\$41,954 86 53,500 72 50,226447 49,889 12 31,750 00 43,054 88 42,427 85 43,737 32 43,233 74	189 202 201 180 214 240 261 290 337	\$221 98 264 85 249 88 277 16 146 02 179 39 162 55 150 81 128 58
	\$41,954 86 53,500 72 50,226447 49,889 12 31,750 00 43,054 88 42,427 85 43,737 32	\$41,954 86 189 53,500 72 202 50,226\$47 201 49,889 12 180 31,750 00 214 43,054 88 240 42,427 85 261 43,737 32 290

ESTIMATE FOR THE ENSUING YEAR.

The warden estimates the current expenses for the ensuing year as follows:

Means of instruction, and library	\$150 00
Memory of the detection, and tipiary	75 00
Newspapers	50 00
Chatian and advertising	25 00
Stationery	350 00
Drugs and medicines.	350 00
Stationery	3,000.00
H'11Q	650 00
Laundry	100 00
Laundry	1,000 00
House throughing and cen room	350 00
Traveling expenses	
Dispatches	30 00
Express	50 00
Tobacco	350 00
Salariag and warred	16,500 00
Clothing	2,350 00
Shoe shop!	550 00
Winheigtongo	17,500 00
Freight	300 00
Freight Postage Directors' expenses General repairs	300 00
Directors' expenses	700 00
Conoral renairs	1,000 00
Miscellaneous expenditures	150 00
Convicts discharged	850 00
Farming tools, seeds, plants, etc	125 00
New roof under iron roof in sheps	300 00
New ticks, sheets, blankets, buckets, pails, lamps, etc., for 100	
New ticks, sneets, brankers, buckers, paris, ramps, ctor, 101 100	750 00
cells in north wing	30 00
Razors, soap and prusnes for parper	
Total	\$47, 935, 00
Total	Ψ11,000 00
0.11	
He also estimates the reliable resources as follows:	
Cash on hand	\$11,654 45
Three-fourths of \$15, 692.30, being bills due the prison	11,769 21
Earnings under contract	32,000 00
narnings under conduct	,
Total	\$55,423 66
10tal	,

State Prison - Contract System of Labor.

THE CONTRACT SYSTEM OF LABOR IN THE STATE PRISON.

From the organization of this board, in 1871, to a somewhat recent period, it has not favored the introduction of the contract system of labor in our state prison, and we have heretofore urged strong reasons against it. It has also been severely criticised, if not condemned, by the leading minds occupied with prison reform and prison matters generally. It was urged that it had a demoralizing effect upon the discipline of the prisoners, and operated as an obstruction to the reformation of the convicts. It was considered injurious to the health of the convicts. The strongest objection urged against the system in the state of New York was, that it permitted the introduction into the prisons and reformatories, and their diffusion among the inmates, as superintendents and helpers of strangers and outsiders, who are employed as agents, accountants, trade-instructors, and even of ordinary laborers; men utterly irresponsible, and selected without regard to their moral character, and often without morals; men who did not hesitate to smuggle in tobacco, liquors and pernicious literature and sell them to the inmates at a large per cent. of profit; men whose influence was oftener evil than good, and who were more likely to corrupt than reform those with whom they came in contact.

A still further objection was made against the system, to wit: that it had a corrupting effect through the giving and receiving of bribes. The fact was brought out that in the case of the Sing Sing sing prison, the contractors paid the convicts in order to get their work well done; that they also paid the keepers a certain amount per month in order to advance their own interests. It was further ascertained, that convicts who had friends and money could have every comfort they wanted.

Again, it was urged that discipline, under the contract system, meant brute force, or corporal punishment; instancees often came to the public knowledge, of convicts being knocked down for slight offenses, or at the mere whim of brutal overseers.

Further, it was urged that the competition of convict with free la-

State Prison - Contract System of Labor.

bor was injurious to the latter, and that often trades pursued in the prisons, where the labor cost little, destroyed competition outside, and honest industry was compelled to abandon the effort to sustain itself against the low prices at which contractors could furnish their goods and wares. To meet this objection it was proposed to prohibit the manufacture of all goods or wares that were produced in the locality, or that would come into competition with articles produced by hired labor, and exclusively make articles that were imported, or that would come least into competition with the mechanics of the state, and also to forbid the sale of prison goods at less than a fair market value.

The labor of the Wisconsin States Prison was contracted to M.D. Wells & Co. of Chicago, on the 20 of September, 1877. By agreement between the prison authorities and the contractors the labor of not to exceed 300 able bodied convicts, was let to the latter to be employed in the manufacture of boots and shoes within the shops of the prison. The contract was for five years from January 1, 1878. We believe a sufficient length of time has elapsed to enable us to judge of the workings of the system in the prison as well as of its effects upon the prisoners and results generally.

The law under which the contract with Wells & Co. was made was guarded in its provisions and carefully drawn. Under it full power and authority was reserved to the warden and his subordinates to prevent the imposition of severe labor whereby the health of the convicts might be impaired, and the warden could prescribe all needful rules for the government of the contractors and their agents in their relations to the convicts, and he can summarily dismiss any individual employed by the contractors in the prison whenever it appears that his presence or conduct is prejudicial to the discipline of the prison or the welfare of the convicts.

The law further provided that the directors could order the cancellation of any contract, whenever in their judgment it was impracticable to furnish the labor of convicts to any contractor, after six months notice to such contractors, and thereafter all obligations of the warden to such contractor should cease.

We have watched with a degree of care the result of the operation of the change of the system of labor in the state prison, made

State Prison — Contract System of Labor.

about one year ago, and are gratified in being able to say that we see no grounds for any adverse criticism.

The convicts are all the time under the eye of the prison guards, the discipline is fully as strict as under the old system, and we fail to discover where any demoralizing influences are operative in obstructing reformation.

The agents of the contractors are placed under strict surveillance all the time. The rules and regulations for the

GOVERNMENT OF THE OFFICERS

of the Wisconsin State Prison are equally binding upon them, as as upon all the other subordinates.

The manner of keeping the accounts between the state and the contractors is very simple. The hours of labor of the convicts are kept in each shop by both the prison guard and the contractor's foreman, and at the close of each day they each sign a report furnished in blank. This report is made in duplicate each evening to the prison clerk and the clerk of the contractors, and the following day the latter compare with each other, and if found to agree the time for the previous day is charged np on the books of the prison. If any discrepancy is found it is corrected.

By the terms of the contract, $9\frac{3}{4}$ hours is reckoned a day's work. In summer the convicts average about $10\frac{1}{4}$ hours, and in winter about $8\frac{1}{2}$, the calculation being made to average a full day through the year.

All complaints against the men are made to the guard, and he reports to the deputy warden. The guard has his "look out," so that he can at all times oversee the men at work, and see that every one keeps his place, and that there is no communication between them. The agents of the contractors are governed by the rules of the prison, and are held strictly to their observance.

INSANE CONVICTS.

The warden again calls public attention to the deplorable condition of the insane convicts now in the prison. There were on the 1st day of October, eleven insane in the prison. Four of the cases were of a violent type, and in confinement in close cells. No one

State Prison - Contract System of Labor.

can visit the prison and witness these poor helpless fellow beings without having his sympathies enlisted in their behalf.

The seven mild cases cannot receive proper medical treatment, and should not be kept in the prison. We have heretofore recommended the finishing off of the north end of the north cell room as an insane ward. That wing of the prison hitherto unused except for storage purposes, is now being finished for occupancy by convicts, and the portion referred to will probably soon be required for hospital purposes.

The revised statutes, section 4944, provide for the removal of insane convicts from the state prison, as follows:

"Whenever it shall appear to the satisfaction of the governor, by the representation of the warden and directors of the state prison, that any person confined therein in pursuance of a sentence of any court within this state has become insane during such imprisonment, and is still insane, it shall be lawful for the governor to make inquiry thereof, and if he shall determine that such person has become and is so insane, to make an order that such insane person be taken from said prison and be confined and treated in one of the state hospitals for the insane, and upon his recovery from such insanity, if before the expiration of his sentence, that he be returned to said state prison; and it shall be the duty of the warden of said prison to deliver such insane person to the superintendent of such hospital, and such superintendent shall receive such person into such hospital upon the presentation of such order and obedient thereto; and the expenses of the same, when approved by the governor, shall be audited by the secretary of state, and paid upon his warrant out of the state treasury."

No one of our governors has deemed it wise to exercise the authority conferred by this statute. This question of what disposition shall be made of our criminal insane, has received much attention from this board. We have always advised against their removal to one of our insane hospitals.

Among the inmates of the wards of our hospitals very few committed violent acts, when laboring under a delusion, that a sane person would call criminal; but the delusion which impels the insane to violence does not cease when they enter the hospital, and

State Prison - Contract System of Labor.

they will labor earnestly to impress their ideas upon others, and to secure their co-operation in carrying them out. The criminal insane exert this influence over the other patients. All insane are more or less imitative and are influenced by each other. All hospital superintendents agree that the criminal insane exert a demoralizing influence in the wards of hospitals—are not answerable to disciplin, are plotting mischief and inciting others to acts of violence, contriving escapes, or urging others to escape, and their retention in the wards of a hospital is a

CONTINUED MENACE

to quiet and good order, so essential to hospital management.

Says Dr. James W. Wilkie, superintendent of the New York State Asylum: "In the care of this class of persons (insane criminals), more than of any other committed to our asylums, the greatest vigilance is required, that their confinement be entirely safe. Though irresponsible for their acts, which were of the gravest character and fraught with terrible consequences to society, this mania does not disqualify them from making combinations for assault and escape, often laboring under the impression that their detention is unjust, they become the most dangerous inmates of an asylum."

The superintendents of all the institutions for the care of the insane in Pennsylvania were appointed by the legislature a committee to consider the best method of caring for the criminal insane, and present a plan for their better treatment. Their report, presented to the legislature, closes as follows:

"In conclusion, your petitioners, as the result of an extended and varied experience among all classes of insane, and supported, as they are, by nearly every one who is regarded as high authority on the subject, or has had similar opportunities for observation, do most earnestly protest against the inauguration of any system looking to a provision for insane criminals in any of the existing state hospitals, or upon any part of the grounds of these institutions, as impolitic, unnecessary and detrimental to the best interests of the the insane."

By consulting the reports of the various hospital superintendents, it is found that they are unanimous that insane criminals should

State Prison - Convict System of Labor.

not be placed on the wards with other insane. The same opinion prevails in Europe, and where there is so perfect an agreement on the question among those who ought to know the most about its merits, we should be very slow to act contrary to so high authority.

In view of the difficulty of caring for the class we are considering, among other lunatics, the state of New York made provision for it in a wing at the Auburn prison. Ireland established a "criminal asylum" in 1850.

In our investigation we find that the general course of argument on the subject is directed against the association of criminal insane with others not criminals. The exception is contained in the report of the committee of Pennsylvania superintendents to the legislature of that state, before quoted.

We think there are good reasons why the place of their confinement should be in connection with a hospital, but not with any other class, where medical treatment may be administered and curative measures taken by experts. Prison guards, although humane men, are not supposed to be familiar with the best means of controlling lunatics, while attendants at hospitals are selected and retained because of their peculiar fitness for governing the insane.

Humanity demands curative treatment for the criminal insane equally with those not criminals. Such treatment, together with the watchful care that it implies, cannot be given at the prison without involving an expense to the state that would not be warranted for the few to be benefitted thereby. We therefore recommend that the legislature provide for the reception of the criminal insane now, and at any time in the states prison, at one of the hospitals for the insane either by the erection of a separate addition to one of the present buildings; or the setting apart one of the smaller wards in the hospital designated; and that when the said insane are removed to the hospital they shall be kept at all times separate and apart from all other patients.

VI.

PRIVATE

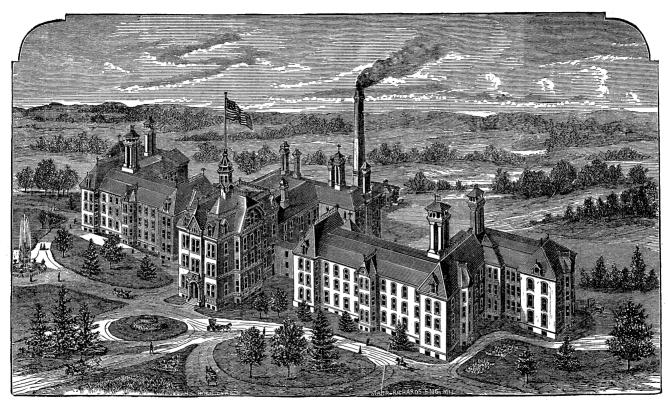
BENEVOLENT INSTITUTIONS.

MILWAUKEE COUNTY INSANE ASYLUM.

Under chapter 298, Laws of 1878, an act to further provide for the care of the insane, the county of Milwaukee has purchased a site and contracted for the erection of buildings thereon for the purpose of an asylum for its insane. The farm purchased consists of 78 acres in the town of Wauwatosa, 7 miles from the courthouse in the city of Milwaukee. The buildings to be erected are to be of sufficient capacity to properly care for 250 insane, and the contract price is \$134,983.

"This is for the building complete, together with all its machinery for cooking, baking and washing apparatus, gas-works and fixtures, heating and ventilating, engine and pumps, water supply, coal-shed, complete system of sewerage and morgue."

The price paid for the farm by the county of Milwaukee was \$9,750. The plans, drawings and specifications for the building proposed to be erected were submitted to the governor and state Board of Charites and Reform for their approval in respect to the number and sanitary care of the inmates to be provided for, and were approved by them.



MILWAUKEE COUNTY INSANE ASYSUM.

\$443 65

598 11

Private Benevolent Institutions.

WISCONSIN INDUSTRIAL SCHOOL FOR GIRLS.

Visited November 22d.

The average attendance at this institution during the last year has been 39.7, and the previous year 28. It had the day of our visit 44; girls 38, boys 6. It has had since its opening, 137. Commitments last year, 17. Total since organized, 68.

It contained children from 7 different counties. Milwaukee county had 29, Dane 2, Outagamie 4, Winnebago 3, Eau Claire 4, Jefferson 1, Iowa 1.

From the report of the treasurer, Mrs. C. D. Adsit, we gain the following exhibit of receipts and expenditures for the past year:

RECEIPTS.

Cash on hand Nov. 20, 1877.

Subscriptions and donations	1,048	25
Cash from counties	2,867	28
Cash from parents and guardians	234	25
Proceeds of work	23	31
Interest on investment	50	71
Withdrawn from investment	500	00
Total	\$5,167	
DISBURSEMENTS.		
Salaries of employees	\$1,052	70
Subsistence	1,510	82
House furnishing goods	147	06
Dry goods, boots and shoes	511	03
Drugs and medicines	9	00
Fuel	176	25
Kerosene oil	16	00
Water service	22	37
Rent	554	17
Repairs	156	23
Stationery and printing	135	42
Miscellaneous	278	29
Total	\$4,569	34

The officers elected for the ensuing year are:

President - Mrs. W. P. Lynde.

Vice Presidents — Mesdames E. P. Allis, A. C. May and Ed. Sanderson.

Secretary — Mrs. A. J. Aikens.

Treasurer — Mrs. C. D. Adsit.

The following counsellors were chosen for the ensuing year: Messrs. J. P. C. Cottrill, J. H. Inbusch, A. R. R. Butler, Wm. P. McLaren, I. W. Van Schaick, Geo. H. Paul, D. H. Johnson, T. H. Judd, Wm. H. Metcalf, Judge A. C. May, Dr. Ernst Kramer, and. Gov. Wm. E. Smith.

Mrs. A. J. Aikens, Secretary, sends the following report of the Wisconsin Industrial School for Girls:

It is three years since this school was organized, and the charitable women who control it feel that their efforts have been crowned with success. So confident was the state legislature of their efficiency, and also of their need, in the elevation of neglected, wicked and degraded young girls, that \$15,000 was appropriated for the purpose of erecting a building, away from the heart of the city, the better to carry on the good influences begun by these humane women.

Real estate is valued at \$35,000. The city of Milwaukee gave eight acres of land, valued at \$20,000, situated in a most healthful locality and commanding a full view of its beautiful bay. The cost of the building is \$15,000, the amount of the appropriation. Personal property is estimated at \$500.

Building. — Mr. E. T. Mix, architect, gives the following description of the new builing, which is to be occupied in January:

The building recently erected for a Wisconsin industrial school for girls is a substantial brick three story and basement structure, occupying a tract of eight acres on Lake avenue, overlooking Lake Michigan, and adjoining the city limits.

In plan, the building is a parallelogram of 60 feet depth by 83 feet length, with semi-octagonal extension at either end of 4 by 22 feet, and rear one story addition for laundry and cellar purposes of 18 by 48 feet.

14 — C. & R.

The arrangement of plan gives central corridor (10 feet wide) dividing building from front to rear in equal portions. In the basement story, that on the right being divided into fuel and heater rooms, the left occupied by dining hall 35 by 42, adjoining which, at rear, is the kitchen, pantries and stove and dish closets, etc., with outside laundry attached, as before referred to.

The first story of building is divided as below by corridor; on the right hand of entrance, is a cosy reception room for visitors, and committee room adjoining—back of this on same side of corridor, two large and well lighted work rooms, each with ample supply of closets, shelving, drawers, etc., for storage of work, etc.

On left side hall, first story, are two large school rooms, with clothes and bath closets attached. The second story of building is occupied by large dormitory, either side of central corridor, about 30×40 feet each, and six bed rooms of various sizes, for use of matron, assistants, etc., ample clothes and dressing rooms—store rooms for bedding, etc. On this floor also, are bath room and water-closet accommodations, and at the end of the hall space for library 10×18 feet.

The third story is divided into fifteen single bed rooms; two rooms for incorrigible inmates, and an infirmary for three beds. Here also are dressing and clothes rooms, and bath room complete.

Access to the several floors of the building is had by means of wide easy stair ways, with landings. There is also a private stair case from basement to attic, for the use of the matron and superintending officers.

The building is warmed throughout by steam by two low pressure Gold patent boilers. There are also grates in several of the rooms to allow of open fire in case of sickness.

The ventilation has been very fully provided for by the introduction of fresh air in large volume from heating apparatus as well as by automatic arrangement under window sills for introducing constant currents of pure fresh air on the steam, radiating and warming it in its passage to rooms. Exhaust flues for foul air are placed in floors of all rooms, connected with two large brick flues in center of building in which are placed the iron made pipes of heating apparatus, the waste heat of which produce strong and constant

draft of foul air out of all rooms, changing the air of the entire building every 20 minutes.

The building has been built in the plainest and most judicious manner, substantial and good in all respects, but not one dollar spent for useless ornament. The ladies having sought to secure a thoroughly lighted, cheerful and well ventilated building at the least possible cost."

The present number of inmates is 43 — 38 girls and 5 boys. Forty are native born, 3 of foreign birth.

At present there are children in the institution from six different Milwaukee sends 6, Dane 1, Outagamie 4, Winnebago 1, Eau Claire 4, Jefferson 1. Iowa and Calumet counties have at different times been represented.

During the year 25 pupils have been received; and since the organization, April, 1875, 160. There has been 17 commitments during the past year; since organization, 68. Have had 5 charity inmates during the year; since organization, 53. The average attendance has been 39.7; last year it was 28. Since the incorporation of the school, 25 have been placed in homes; 7 of these were apprenticed, and 18 adopted.

The children have manufactured over 1,000 pieces of wearing apparel and fancy work.

Six hundred pieces, often more, are washed and ironed each week and from one hundred to one hundred and fifty are patched and darned. One hundred and thirty-seven loaves of bread are made and baked by one pair of hands each week.

We expect to give each scholar a good English education. From the oldest to the youngest, all are expected to contribute by their labor to the general comfort of the household. We hope in the future to be able to give each one who shows any adaptability for it, some trade, such as dressmaking, millinery, tailoring, cooking, etc. so that she may be able to maintain herself honerably and virtuously when she leaves the school at the age of twenty-one.

Although the Board of Managers is duly grateful for the appropriation of last year, we cannot forbear to remind the state board that the legislature, while it has given more than one one million and a quarter for bad boys, has appropriated only sixteen thousand

for the reclamation and reformation of girls. With each additional year we gain profitable experience. The benefit to the community is so apparent, the removal of abject poverty and youthful vice from our streets—a blessing for which society is so grateful, that neither the community, or the state, can afford to permit us to lessen our endeavors, however weary we may sometimes become in well doing.

Respectfully,

Mrs. A. J. AIKENS, Secretary.

ST. ROSE AND ST. JOSEPH'S ORPHAN ASYLUM, MIL-WAUKEE.

The trustees of this institution are Archbishop J. M. Henni, Dr. J. L. Johnson, Rev. S. P. Salumier, Hon. Matt. Keenan, John Dahlman, and Hon. Edward O'Neill. Sister Camilla has charge of the St. Rose's branch, and Sister Urseinan of St. Joseph's.

At the date of their report, October 20th, both branches contained 149 orphan girls, all of them of foreign birth, and 88 from Milwaukee county. Thirty have been placed in homes during the past year, and 30 have been received.

We desire to call the attention of the trustees and managers of these institutions to the crowded condition of the dormitories, and the defective ventilation. One room in St. Joseph's, 18x40, and 9 feet 9 inches in height, contained 17 beds. Two other rooms, not larger, contained 14 and 15 each. The ventilation of St Rose's is equally, if not more, deficient.

Their report contained no statement of value of property, but referred us to previous reports made to the state board, and further stated that the receipts and expenditures could not be given until December, the close of their fiscal year.

ST. MARY'S HOSPITAL.

Visited November 22.

This institution is in charge of Sister Mary Joseph. Its resident managers are Sister Mary Joseph, President; Sister Stanislaus, Treasurer, in charge of male floor, and Sister Simeon Sec'y in charge

of female floor. Sister Euphemia and Sister Camilla are trustees of or managers outside.

November 1st, it had 40 inmates — 18 males and 22 females; 15 of foreign birth and 25 natives. The institution has relieved 339 during the year.

The value of real estate is reckoned at \$70,000 and its personal property at \$5,000.

SUMMARY OF RECEIPTS AND EXPENDITURES.

The following is a summary of the receipts and expenditures of the St. Mary's Hospital for the year ending September 30, 1878:

RECEIPTS.		
For marines	\$3,731 2,618	75 99
	\$6,350	
EPPENDITURES.		
For amusements and means of instruction Clothing Drugs and medicines Farm and barn expenses Fuel House furnishing Lights (exclusive of fixtures) Liquors Miscellaneous purposes Permanent improvements Repairs (ordinary) Subsistence. Salaries	\$25 60 400 50 800 215 82 31 500 350 160 4,375 840	75 10 00 71 60 33 30 00 75 32 63
Indebtedness	\$7,893 1,542	49 75

HOME FOR THE FRIENDLESS.

This institution affords a temporary home for women and children. It was organized in 1867. Its officers are as follows, viz.:

Mrs. Charles Keeler, President.

Mrs. John Nazro, Vice President.

Mrs. Davenport Fisher, Treasurer.

Mrs. M. P. Kent, Matron.

Mrs. W. L. Dana, the Secretary of the corporation, reports:

Eighteen inmates on November 1, 1878.

Five infants have been placed in homes during the year.

The expenditures of this institution for the last year have been \$2,398.03.

It has received in collections, and interest, etc., \$1,564.11.

Its cash on hand October 1, 1877, was \$1,366.32.

Cash on hand October 1, 1878, was \$532.40.

One thousand dollars of the cash on hand last year was a reserve fund intended for repairs, etc., but now crowded upon for subsistence, and nearly exhausted.

The value of real estate belonging to the home is estimated at \$10,000.00, and the personal property at \$500.00.

THE CATHOLIC ASSOCIATION.

ST. NAZIANS, MANITOWOC COUNTY.

This institution was organized in 1854, and has real estate, valued at \$30,000, with personal property valued at \$2,000. Its managers are Rev. P. Mertz, and Anton Stoll. It had 40 inmates Nov. 1 — eighteen males and twenty-two females.

The total receipts of the institution for 1878 were \$6,000. Expenditures are \$6,400, leaving an indebtedness of \$400, as reported by the managers.

ST. FRANCIS FEMALE ORPHAN ASYLUM.

Sparta, Monroe county.

AND

ST. MICHAEL'S MALE ORPHAN ASYLUM,

At La Crosse.

These institutions are under the charge of the Sisters of St. Francis, Sister Imocentia being superioress. Their outside managers are Rt. Rev. Bishop M. Heiss, D. D., Rev. F. H. Obermueller, Mother Maria Antonia, Superioress O. S. F. Receipts last year, from voluntary contributions, \$347.41. Reported expenditures for fuel, house furnishing and subsistence, \$373.73.

Both the St. Francis, female and the St. Michaels male Orphan Asylums, were established in separate houses in La Crosse. But as the connecting dwelling was too small, and not suitable for the boys, the Franciscan Sisters built an asylum in Sparta, to which the girls were transferred July 28, 1878, leaving the LaCrosse Asylum for the exclususive use of the boys. The total cash receipts since the foundation of the Asylum 1875 and up to October 30, 1878, were \$3,937.51.

The total cash expenditures for the same time have been \$3,938.19. The collections of provisions made it possible to supply needed subsistence, with the above amount.

The average number supported during the year was 60.

Thirty-three orphans were received during the year 1877. Fourteen were placed in homes, and twenty-seven girls were transferred to Sparta.

Since the foundation of the asylum, 108 orphans have been taken care of.

Special care is taken in both asylums to give a good industrial and school education.

Sister Alexandria, O. S. F., is teacher at Sparta.

The average number of female pupils is about 27.

Rt. Rev. Michael Heiss, Bishop of La Crosse, is manager in charge.

FINANCIAL.

Value of real estate at St. Michaels Value of personal property at St. Michaels Value of real estate at St. Francis Value of personal property at St. Francis	950 0	0
	,	•

The above facts are taken from the reports made to us by the authorities of these institutions.

MILWAUKEE ORPHAN ASYLUM.

Milwaukee, Wis.

This asylum was established in 1850.

Value of real estate, about \$15,000.

Value of personal property, about \$1,000.

The officers of this institution are:

Mrs. C. Shepard, President.

Miss S. Sherman and Mrs. E. LaDue, Vice Presidents.

Mrs. J. H. Vandyke, Treasurer.

Mrs. Wm. P. Lynde, Secretary.

Mrs. M. P. Mason, Matron.

The number of pupils November 1, 1878, was	
The number of boys	
The number of girls	
The number of foreign parentage	
The number born in Milwaukee county	
Number placed in homes during the year	
Number relieved during the year	

Of the number of children relieved during the year, 25 were born in Milwaukee county.

The receipts during the year were \$5,521.95, derived as follows:

Board of half-orphans	$1,032 \ 00$ $34 \ 68$	$\frac{0}{5}$
	\$5,521 9	5

The total expenditures have been \$4,570.49.

CATHOLIC DEAF MUTE INSTITUTION.

This institute contained at the time of our visit 45 pupils, 29 boys and 16 girls. It was opened May 10, 1876. Rev. Father Bruner is principal of the pupils; 15 have been in the Delevan Institute. A new building of brick 40 by 72 feet two stories high above a good basement has been built the past summer. It is a substantial structure, well designed for the purpose of a school and calculated for about 70 to 80 pupils. Its support will be derived from from pay pupils and alms and has cost about \$4,500. Certainly a very cheap building at that sum.

ST. AMELIANUS ORPHAN ASYLUM.

St. Francis, Milwaukee County.

This institution is located on the line of the Chicago & North-western Railway, three miles south of Milwaukee, and is under the charge of Rev. Mr. Wapelhurst as manager, with the Rev. J. M. Henni as president, Aug. Greulich, treasurer, and J. A. Kotting, secretary.

It is a charity school for orphan boys, and reported 98 in attendance October 20th. It also reported having placed 19 in homes during the year.

The school is doing a good work in educating the boys. The teaching is all in the English language, but German is also taught. Connected with the asylum is a "boys' home," or industrial school, incorporated May 10, 1878. It was organized under chapter 325 of the laws of 1875. Some fourteen or fifteen boys were found in the home, committed there by Judge Mallory, of the municipal court of Milwaukee county.

MILWAUKEE PHONOLOGICAL INSTITUTE.

This school for deaf mutes was established and opened January 14th, 1878, with seven pupils.

Prof. Adam Stettner is principal, B. Stern is president of the corporation, B. Leidersdorf vice-president, P. L. Dohmen secretary, and L. Teweles treasurer.

At the time of our visit it contained sixteen pupils—eight boys and eight girls.

We witnessed an exercise in articulation by the use of object lessons that was very interesting, and we were impressed with the success of the method of teaching pursued without the use of signs. Prof. Stettner gave it as his opinion that every mute could learn to talk so as to be understood, and also could learn to read the language of the lips and throat, so as to understand every word and syllable. An aid society has been organized in connection with the institution. The school is carried on at No. 594 National avenue (Elizabeth street).

The Deaf and Dumb Investigation.

VII.

APPENDIX.

The following is the report of the investigation into the management of the Wisconsin Institute for the Education of the Deaf and Dumb, submitted to his Excellency the Governor:

PRELIMINARY.

To his Excellency, WILLIAM E. SMITH,

Governor of the State of Wisconsin:

The undersigned, members of the State Board of Charities and Reform, have the honor to submit herewith the report of their investigation into the past and present management of the Wisconsin Institute for the Education of the Deaf and Dumb, at Delavan, together with all the testimony taken.

In the early part of the year 1877, the members of this Board were in receipt of letters from one C. L. Williams, a former teacher in the Wisconsin Institute for the Education of the Deaf and Dumb, and who set forth, in a general way, serious charges against the management of the Institute.

Not only were letters written to members of this Board, but to many gentlemen in different sections of the state, and especially to those interested in mute children, either as parents or guardians, until the institute began to feel the untoward influence of such continued charges. As a natural result of the bad odor thus thrown around the management of the institute, parents kept their girls at home, refusing to permit them to return and finish their course of study. The charges made were so general in their character

The Deaf and Dumb Investigation.

that the Board paid but little attention to them until January, 1878, when they were made in a more specific form, whereupon we proceeded to investigate, by visiting the pupils who had left the institute, and taking their depositions. Having thus obtained a knowledge of the facts, and of such a nature as in our opinion required action, we laid the matter before the Board of Trustees for the Institute.

After the board of trustees had considered the evidence thus placed in their hands, the president of said board requested Your Excellency to direct the State Board of Charities and Reform to make a thorough investigation into the past and present management of the Institute. In answer to such request, this board received from Your Excellency the following order, viz.:

STATE OF WISCONSIN,

Executive Department.

WHEREAS, The board of trustees of the Wisconsin Institute for the Education of the Deaf and Dumb, desiring that a rigorous investigation may be made by a disinterested and impartial tribunal, of all the facts and circumstances connected with the past and present management of that institution, have requested that the further examination of said matter may be committed to the State Board of Charities and Reform; and,

WHEREAS, In view of reports recently circulated, the public welfare demands that such an investigation should be had.

Now, therefore, I William E. Smith, Governor of the state of Wisconsin, do hereby direct the State Board of Charities and Reform to investigate into the management of the Wisconsin Institute for the Education of the Deaf and Dumb, and upon the completion of such investigation to report the facts of the case, in full, as required by law.

In testimony, I have hereunto set my hand and caused the great seal of the state of Wisconsin to be affixed. Done at the Capital in the city of Madison, this first day of May, in the year one thousand eight hundred and seventy-eight.

[STATE SEAL] (Signed) WILLIAM E. SMITH. By the Governor:

HANS B. WARNER, Secretary of State.

STATE BOARD OF CHARITIES AND REFORM.

The Deaf and Dumb Investigation.

Upon the receipt of the order, a meeting of the board was called to consider the same, and at said meeting, held in the city of Janesville on the 6th of May, 1878, Messrs. Reed and Giles were appointed a committee to take testimony in the case. The following rusolution was also adopted:

"Resolved, That it is the sense of the board that the investigation be not a public one."

By this resolution, it was not designed to keep out interested parties. But during the investigation the accused, the accusers, parents of pupils summoned as witnesses, the Board of Trustees of the Institute, attorneys for parties, and all persons especially interested in the results of the investigation, have been invited to be present. Mr. Ezra G. Valentine, of Chicago, has acted as attorney for Messrs. DeMotte and Woodbury. The Board was fortunate in securing the services of Prof. L. H. Jenkins—the first principal of the Institute—as interpreter. Hons. D. G. Cheever and E. D. Holton represented the Board of Trustees of the Institute, and assisted in the examination of witnesses.

Since comment has been made pro and con on the action of the Board in closing the doors against the public, the following considerations are set forth as influencing the Board in so determining:

1st. The difficulty of getting the testimony of deaf mutes, especially girls, in the presence of a crowd. This difficulty can only be appreciated by those who have had experience.

2d. The investigation was to be in the circumstances more in the nature of an inquiry than a formal trial of parties, and the wide latitude of the inquiry would necessarily involve, more or less, the character of innocent persons, who would have no opportunity to defend themselves.

3d. We were satisfied from our preliminary examination that very much of the testimony which would be presented would be but the merest ravings of madness, and that its publication from day to day would not redound to the interest of the state, as connected with the institute, justice to parties nor the general good.

It became necessary for the board to hear a mass of hearsay evidence in order to get the names of witnesses from whom to take testimony.

The Deaf and Dumb Investigation.

CHARGES AGAINST TRUSTEES.

In entering upon the investigation, we found the members of the board of Trustees of the institute charged with:

- 1st. Speculating for their personal profit in the purchase and sale of supplies for the institute.
- 2d. Some of the members of the board of trustees were charged with keeping their mistresses at the institute.
- 3d. That the board had refused, on demand being made, to investigate charges against a teacher, whose resignation had been requested, but on the contrary, gave him a certificate setting forth the fact that it had not been called upon to ivestigate any charges against said teacher.

The foregoing charges, one, two and three, were made against the board of trustees by Mr. C. L. Williams, who was called as a witness, and who, under eath, testified that the first charge had special reference to Messrs. Hamilton and Long, former trustees. The witness utterly failed to prove his charge in the case of Trustee Hamilton, and only had against Trustee Long the fact that he (Long) had sold the institute some butter, and had tried to market other things there while a trustee, and which he (Williams) saw. His testimony on this subject closed with answer to the following question by Mr. Giles:

"Have any others of the trustees realized pecuniary advantage from the institute?

A. No.

In case of the second charge, the witness, C. L. Williams, testified at some length, and most signally failing to substantiate his charge. The following question was put to him by Mr. Giles:

Q. Do you retract your charge against the trustees of keeping their mistresses in the institute?

A. I do.

In case of the third charge, President A. L. Chapin, of the board of trustees, was called and testified as follows:

- Q. When did he (Williams) leave the institute?
- A. A year ago last March (1877).
- Q. Why die he resign?

The Deaf and Dumb Investigation.

- A. On account of representations made to him that it was expedient for the interests of the institution that his connection with it should cease.
 - Q. Please state what those representations were.
- A. They were to the effect that his intercourse and correspondence with former pupils of the institution were such as were believed to be inconsistent with the best good of those pupils, and with the interests of the institute.
- Q. Did you cite him to interview, and remind him of the correspondent to which you allude?
- A. A committee of the board was appointed to confer with him, and after that conference he came before the board and tendered his resignation. It is my impression he came in person. The resignation was in writing. We had reason to believe that he was cognizant of the charges of immorality which had been brought against him.
- Q. What reason had you to believe that he was cognizant of the charges?
- A. I was told that the Principal had spoken to him concerning them, and that Mr. Bishop had met him on a visit here, who had urged these charges.
- Q. Do you, of your own knowledge know if Mr. Williams was advised privately, or otherwise, of the charges made against him?
- A. I do not know the fact positively, but supossed that he was fully aware of, and that he understood all that underlay the intimations of the resolutions that were passed and made known to him.

The resolutions referred to are as follows, and were given in the testimony of Mr. La Bar, Secretary of the Board of Trustees, viz.:

"Whereas, As it has come to the knowledge of the board that the conduct of Mr. C. L. Williams, a teacher in this institute, with certain former pupils has been so imprudent as to seriously impair, if not totally destroy his influence as a teacher, said C. L. Williams is hereby requested to tender his resignation, to take effect immediately; his salary will continue to March 1, 1877."

Whereupon Mr. Williams tendered his resignation, to take effect March 1, 1877, which was accepted.

The secretary further testified, in answer to the question, "Was that preamble, or the substance of it, communicated to Mr. Williams before he tendered his resignation? state what you know."

- A. It was communicated to him, I think, just as it appears upon the records, without alteration, and by being read to him.
- Q. Was the resolution passed by the board communicated to Mr. Williams before the committee called upon him, or the substance of the same?
- A. My impression is, that Mr. Thomas communicated it to him. He went to have a conference. It may be, however, that the resolution was passed after his report of the conference, and then communicated to Mr. Williams. The board of trustees finally gave to Mr. Williams the following paper, viz.:

Wisconsin Institute Deaf and Dumb, Delavan, Wis., April 10, I877.

At a meeting of the board of trustees of the Wisconsin Institute for the Education of the Deaf and Dumb, held March 30, 1877, the following resolution was adopted: In accepting the resignation of Mr. C. L. Williams as a professor in the Wisconsin Institute for the Education of the Deaf and Dumb, the board of Trustees have not been called upon to investigate any charges of immoral conduct on the part of Mr. Williams, or has any judgment been pronounced by them, derogatory to his moral character.

S. R. LABAR, Secretary.

Mr. Williams made numerous copies of the foregoing resolution, by the electric pen process, and distributed them in connection with his other correspondence, very generally over the state. We could not learn that Mr. Williams demanded any investigation, but by the testimony of President Chapin, it appears that his "understanding at the time was that he (Williams) preferred to resign rather than stand an investigation."

From the foregoing, it appears to the satisfaction of this board that Mr. Williams was fully informed of the charges against him, and on account of which his resignation has been requested; and the board is of the further opinion that the granting of the paper to Mr. Williams, of date of April 10, 1877, by the board of trustees,

was inconsistent with their former action, and not conducive to the public good.

It seems to us that it became the duty of the Board of Trustees, with the evidence before them, to arraign Mr. Williams in a formal manner and require him to answer to the charges instead of accepting his resignation. President Chapin testified that he was of a similar opinion, but that "in this matter my (his) opinion was overruled by a majority of the Board."

CHARGES AGAINST DE MOTTE.

Principal W. H. De Motte, of the Institute, was charged with:

1st. Ordering several of the older girls — pupils of the Institute — to their rooms and causing them to undress and go to bed in his presence, that they might not thereafter be in a position to cry "shame" on a teacher.

2d. Improper, impure and criminal intimacy with female teachers in the Institute, and some of the older female pupils.

Under the first charge the following named were suggested to the Board as witnesses by the accuser, Mr. C. L. Williams, and as being two of the number who were thus abused, viz: Miss Frances Meinert and Miss Mary H. McKey. Frances Meinert being sworn, testifies as follows:

- Q. Did you hear the girls talk about De Motte sending the girls to bed one Sunday afternoon?
 - A. Yes.
 - Q. Were you one of those girls?
 - A. Yes.
 - Q. What were you sent to bed for at that time?
 - A. I thought at 7:30 minutes.
 - Q. Why were you sent to bed at 7:30 P. M.?
- A. Because some girls went to the sewing room and sat down and talked with us on Sunday. Miss Smith (teacher) called us to go down in the study room. We ran to the hill. We were disobedient.

- Q. Did Mr. DeMott go with you or follow you to your sleeping room?
 - A. No.
- Q. Was Mr. DeMott in your bed room when you undressed and went to bed on that Sunday?
 - A. No.
 - Q. Did he stand at the door?
 - A. No.
 - Q. Did Miss Smith go to the room with you?
 - A. Yes.

Mary H. McKee testified as follows:

- Q. Did Mr. De Motte offend some of the girls?
- A. Some girls played in the yard, and Miss Smith told him about it. He had call them and scold them. They went up stairs for sleeping.
 - Q. What time in the day was it?
 - A. On Sunday.
 - Q. What hour?
 - A. Seven o'clock.
 - Q. Did he (De Motte) go to the sleeping rooms with them?
 - A. No, sir.
 - Q. How do you know he did not?
 - A. He only told them to go up for sleeping.

Miss Mary E. Smith (teacher), being sworn, testified as follows:

- Q. Do you have charge of all the girls during one Sabbath of each five weeks?
 - A. Yes; all, unless some are under charge of the matron.
- Q. Did you have charge of the girls one Sabbath each five weeks during the spring of 1877?
- A. I could not say every five weeks, but I took my turn, and I think it was each five weeks.
- Q. Do you remember one particular Sabbath during the spring of 1877, when some of the girls were disobedient?
 - A. Yes, sir.
 - Q. Please state what offense those girls were guilty of.

A. They were called together in the study-room in the evening at 7 o'clock. I think I told the monitor to call them, and some of them did not come. Then I went up stairs and found two others of them in the sewing-room and called them, but they did not obey and come to the study-room. They went out of the building into the yard or over the hill. I reported them to Mr. De Motte. In the meantime, I think they did come back, as near as I can remember. Mr. De Motte came to the study-room and talked to them about their disobedience, and he told them they should go to bed directly.

- Q. What was the hour for the girls to go to bed at that time?
- A. For the older girls, $8\frac{3}{4}$.
- Q. Did they go to bed?
- A. They did go up stairs.
- Q. Did Mr. De Motte go with them?
- A. He did not.
- Q. Did you go with them?
- A. I did not directly, but in a few minutes I went up to see that they had obeyed his directions.
 - Q. Had they thus obeyed?
 - A. They had or were obeying.
 - Q. Did Mr. De Motte go to their room that evening?
 - A. Not to my knowledge.
- Q. Would you probably have known it had he gone to their room that evening?
 - A. Yes, sir, and all the household, probably.
 - Q. At what hour were they sent to bed that evening?
 - A. Either at 7 or 71.

From the foregoing, it appears to the board that the first charge is negatived by the testimony, and we believe it to be utterly without foundation in fact.

As to the second charge, a large amount of testimony has been taken. Miss Mary Stilwell testifies to seeing Mr. De Motte kiss one of the female teachers in the reception room. She was sent by the matron, Mrs. Hill, to the office, which being on the opposite side of the hall from the reception room, upon her passing the re-

ception room door, she saw one of the female teachers "sitting near the table in the middle of the room, and he (De Motte) was near her, fooling around," and that she "saw him kiss her." She also testified that she saw him kiss Miss Rossman, a pupill.

[Principal W. H. De Motte, being sworn, testified as follows:

- Q. You heard the testimony of Miss Mary Stillwell, at Madison?
- A. Yes, sir.
- Q. From your best recollection, what was there in the "parlor scene" she described?
- A. I have recollection of nothing more than ordinary social freedom, such as would be proper among ladies and gentlemen associated as we are here.
- Q. What may we understand by the term "ordinary social freedom?"
 - A. Such as would not be offensive in the best society.
- Q. What is your idea of social freedom? Would it be proper to kiss female teachers with whom you are associated?
 - A. It certainly would not be proper.
- Q. Have you ever indulged in the practice of kissing female teachers?
 - A. No, sir.
- Q. Have you ever indulged in the practice of kissing female scholars?
 - A. No, sir; not in a single case over ten years of age.
 - Q. Have you ever kissed one of the female teachers?
- A. I have occasionally when they were leaving, and perhaps when they returned to the Institute; but never impurely or criminally.
- Q. Did you ever kiss a female teacher in the reception room or any other room in the Institute when no one else but yourself and the female teacher were present?
- A. I never did in the reception room; I have occasionally, at least once, elsewhere, as above mentioned.

[On examination by Mr. Valentine, his attorney, Mr. De Motte testified as follows:]

- Q. The question was asked you if you ever kissed a female teacher in the reception room or any other room of the institute when no one else but the female and yourself was present; in your answer you said you never did in the reception room, but have occasionally, at least once, as above mentioned. Did you mean by your answer that you had kissed a female teacher in a room of the institute when no one else but the female teacher and yourself were present?
- A. That is simply a repetition of the other question, and needs no answer.
- Q. What did you mean by your answer to the question put to you by Mr. Giles, as above stated? Please explain.
- A. I did not mean that I had interviews with teachers or scholars in private rooms. I did mean that in casual meetings, passing along the halls or stairways, I might have sometimes indulged in slight familiarities.
- Q. Have you been in the habit of visiting the private rooms of femcle teachers?
- A. I have never gone to them except on errands or business, staying but a few minutes, generally leaving the door open and standing in the door.
- * * * * * * * *
- Q. What did you mean in your answer to Mr. Giles' question, by the words "as above mentioned?"
- A. The phrase refers to a qualifying phrase, "impurely or criminally."
- Q. What occasion do you refer to in your answer to Mr. Giles' question when you say, "at least once?"
 - Q. I do not deem it necessary to answer that question."

From the foregoing testimony, we are of the opinion that there has been no impure or criminal intimacy between Principal De-Mott and the female teachers or the older female pupils of the institute.

We are, however, of the opinion that indiscreet familiarity has been more or less indulged.

CHARGES AGAINST WOODBURY.

We found the steward, A. J. Woodbury, charged:

1st. With the seduction of female pupils.

2d. With having committed rape upon the persons of female pupils.

Many of the officers, teachers and employees of the Institute were examined in behalf of Mr. Woodbury, and uniformly testified to his good character and gentlemanly behavior.

Steward Woodbury, in his own behalf, testifies as follows — the examination being conducted by Mr. Valentine:

- Q. Did you ever call any mute girl to come to your rooms?
- A. No sir.
- Q. Do you remember Miss Mary Stilwell, a female pupil of this Institute?
 - A. Yes sir.
 - Q. Did you ever act ungentlemanly in her presence?
 - A. No sir, I can't imagine anything.
- Q. Did you ever at any time take any improper liberties with Miss Anderson, a former pupil of this institute, or do or say anything improper to her?
 - A. No, sir.
 - Q. Did you ever visit the private room of a female teacher?
 - A. No, sir.
- Q. Did you ever say or do anything of an improper nature to a female teacher?
 - A. No, sir; I wouldn't dare to.
- Q. Do you remember Miss Sophia Bues, a former pupil of this institute?
 - A. Yes, sir.
- Q. Did you ever at any time take any improper liberties with her, or do anything improper to her?
 - A. No, sir.

Like questions were asked, and like answers returned, as above, as to Misses Augusta Whichtner, Alda Hunnel, Emilie Eberle and Helen L. Tenney, former pupils of the institute, and Miss Maggie Delaney, an employe in the institute, thus making a general and specific denial of the above charges.

Mr. Woodbury further testified that Miss Helen L. Tenney was never, to his knowledge, in his room.

Miss Helen L. Tenney, a deaf mute, of Richland Center, being sworn, said:

Q. Did you make the bed in Woodbury's room, at the Institute?

A. Yes.

Q. What did Woodbury do to you?

A. He did not rape on me, but he kissed me.

Q. Tell all about it.

A. I knew that he tried to do; he put me on his bed; he is on me; I pushed him,

Q. In what year was this?

A. Six or seven years.

Q. Was it in 1872?

A. It was in 1870 or 1871.

Q. What were you doing in Woodbury's room?

A. I did not go to his room. He called me to go.

Q. Where were you when he called you?

A. His room.

Q. Was he in his room?

A. Yes.

Q. Where were you when he called you?

A. He stood in the door.

Q. Were you in the hall, when Woodbury called you to his room?

A. I was in the boy's bedroom.

Q. Did Woodbury come there and call you out?

A. Yes, he came there to see me.

Q. Was it the same time he called you to his room?

A. Yes.

Q. Did he tell you what he wanted?

A. When I worked and did not talk with him, I finished making beds; then he called me.

Q. Did you go with him to his room?

A. Yes.

Q. Did he tell you what he wanted?

A. No.

- Q. Did you go to his room often?
- A. I once went there.
- Q. Did you go there many times?
- A. No.
- Q. Did you go there more than one time?
- A. Yes, I went one time.
- Q. You went never but one time?
- A. I won't go again.
- Q. (By Attorney Valentive). In one of Mr. Williams' letters to you, he said he wanted you to make an affidavit that Mr. Woodbury had raped you, did he not?
 - A. Yes.
- Q. You replied to the request, that Mr. Woodbury did not rape you or try to rape you, did you not?
 - A. He tried to.
- Q. You told Mr. Williams that Mr. Woodbury did not rape you, did you not?
 - A. Yes.
 - * * * * * * *
 - Q. How old was you when you was in his room? A. I was seventeen years old.
 - Q. Do you mean to say that Woodbury put you in his bed?
 - A. On the bed.
- Q. You mean you and Mr. Woodbury stood beside the bed, don't you?
 - A. I did not mean.
 - Q. He pushed you against it, didn't he?
- A. He and I stood near the bed, and he pushed against me bed, and I pushed against him again, and wanted to get up.

The witness further testified that this was in the month of June, in the morning after breakfast. Mrs. Hill was matron, and she did not tell her (the matron), because of her fears that she would tell the principal, and continuing—

- Q. What did he say to you while you were going to his room?
- A. He showed his picture to me, then hugged and kissed.

And to a further question, she answered: "I pushed him and got up. He kissed me, and then I went out of there immediately.

Helen's mother, Mrs. A. Tenney, being sworn, testified that she had had a correspondence with Williams, who wanted Helen to make an affidavit concerning Woodbury's conduct with her. "I told him all I could learn from Helen; that she was in Mr. Woodbury's room, and that he caught her and kissed her, and put his hands to the bottom of her dress; and she pushed his hands away and run out of the room. I also wrote him that Helen could not make affidavit that Woodbury raped her, for the Father of the fatherless watched over her and saved her that degradation. In my opinion, the conduct of Mr. Woodbury might have been simply playful, but I thought he was going too far. I cannot state when this occurred. Helen wrote Williams it was six years ago. I do not know whether Helen told me the first vacation after it occurred or the second. She told me about this when I was cautioning her about permitting any liberties from gentlemen. In my opinion Woodbury's conduct was not simply playful. I do not think he attempted to commit a a rape, but he went too far for play."

It will be observed that Helen's testimony to the Board gives a more circumstantial account of Woodbury's actions than her statement made to her mother.

Miss Emilie Eberle, a deaf mute of Watertown, a graduate of the Institute, was examined under oath and testified:

- Q. Did you ever make the bed in Mr. Woodbury's room?
- A. No sir.
- Q. Were you ever in his room at any time?

Yes sir.

How many times were you ever in his room?

- A. I don't remember.
- Q. Were you ever in his room with him?
- A. Yes sir.
- Q. Where did you get the money you paid for your new hat?
- A. My pa sent it to Mr. Woodbury for me.
- Q. How did you know?

- A. My pa wrote to me I could ask Mr. Woodbury to give money to me.
 - Q. What were you in Mr. Woodbury's room for?
 - A. He wanted me to come and play it with me of fun.
 - Q. Tell all about it.
 - A. He played with my body.
 - Q. How did he play with your body?
 - A. He wanted to play with me bad doing.
 - Q. Did he hug you?
 - A. Yes, sir.
 - Q. Did he kiss you?
 - A. Yes, sir.
 - Y. Did he push you on his bed, or on his lounge or sofa?
 - A. Yes, sir; on his bed.
 - Q. Please tell all all he did.
 - A. He tried to do it but I refused it.
 - Q. Did you tel! your mother about it?
- A. No, sir. (Wi'ness further testified she did not remember telling anyone, except A. F. Hunnel.)
 - Q. Did Mr. Wood bury tell you not to tell of him?
 - A. No, sir.
 - Q. What did he promise you if you would not tell of him?
- A. He said that he was afraid that he would be expelled from the Institute.

The witness further testifies that she thinks it was in 1872, as it was before she came home to stay one year, in June, 1873.

Mr. Valentine, attorney for Woodbury and DeMotte, had visited Miss Eberle prior to this examination, and had taken her affidavit. Attempt was made to introduce said affidavit in evidence, but it was ruled out, for the reason that the witness stated to the interpreter that she did not understand the language of the questions put by Mr. Valentine.

Mr. Valentine was allowed to examine the witness upon all matters concerning which she had testified in the affidavit, provided he should use language intelligible to the witness. The following question was then put by Mr. Valentine:

Q. Did Mr. Woodbury, either by signs or in writing, ask you to do anything wrong?

A. He called me to come to his room, and did not write.

Phœbe Smith, a deaf mute, who was a pupil in the institute, testified that Emilie Eeberle had confessed to her that Woodbury had seduced her. She (Eberle) seemed to be in much distress. She said that he had her on his bed, and that he behaved ungentlemanly! that it occurred in 1873 or 1872. She also testified that Miss Mary Stillwell was considered a good and truthful girl in the institute.

The accused parties called several witnesses to impeach the testimony of Misses Stillwell and Eberle.

Mrs. A. C. Bishop, of Decatur, Ill., whose maiden name was Cornell, and who was connected with the institute as matron from Nov., 1869, to July, 1872, testified that as matron she had the general oversight of the family at large, and the special care of the girls. She stated that the girls freely came to her to make complaints, if they had anything to complain of, and that she encouraged them in doing so. She further stated that she had never seen or learned anything against the character of Mr. A. J. Woodbury.

[Examination by Mr. Valentine:]

Q. Did you know Helen A. Tenney, a pupil, while you were matron?

- A. I did.
- Q. Did you consider her a trusty, truthful girl?
- A. No. There were others more so; I found it was always necessary to send one older and a more trusty girl with her.
- Q. Do you remember Emilie Eberle, a pupil of the Wisconsin Deaf and Dumb Institute while you were matron?
 - A. I do.
- Q. What estimate did you put upon her character as a trusty, truthful girl?
 - A. Very much the same as Miss Tenney.
- Q. Do you remember Mary Stillwell, a former pupil of this in stitution?
 - A. I do.
 - Q. Did she ever equivocate to you?

A. I remember in one or two instances, in some slight matters she did.

Do you remember any instances in the cases of Misses Tenney and Eberle?

- A. I do not think of anything now in particular.
- Q. From what did you gain your impression in regard to the Misses Tenney and Eberle?
 - A. I did not consider them generally trustworthy.

EXAMINATION BY MR. GILES.

- Q. When did Miss Stillwell enter the institute?
- A. I really cannot tell.
- Q. Please give the instances when Miss Stillwell was untruthful.
- A. I could not tell you in just what particular it was. I remember her coming to me about some matter, and I asked her a question about something I knew about what the answer ought to be, but she answered me differently, and I said: "Mary, that cannot be so;" [she was a semi-mute,] not in signs, but in her own words, she answered. It was more of an equivocation than a positive falsehood.

Elizabeth Florey was called, duly sworn and questioned by Mr. Valentine.

She testified she was assistant matron; had charge of the boys' dormitory; the boys' clothing and work in the sewing room; that she had never known anything against the character of the principal, Mr. De Motte, or the steward, Mr. Woodbury, except the stories of Mr. Williams; that her relations with the inmates of the institution have been such that any reports of misconduct on the part of those gentlemen, had there been any, would have come to her knowledge; and further testified as follows: I knew Helen L. Tenney, a former pupil of the institute, for two years; she came under my supervision in the sewing room, when I went through the dormitories at night and in the study room.

- Q. Did you consider Helen L. Tenney an honest, reliable girl?
- A. No, sir; I did not.
- Q. What reason can you give for not so considering her?

A. I cannot mention any particular circumstances; but I knew I could not depend upon her.

Witness stated that she knew Emilie Eberle; that she became acquainted with her in the Institute, and had known her about a year.

- Q. Did you consider her a truthful girl?
- A. I did not.
- Q. Why did you not consider her a truthful girl?
- A. Because I had known her to tell tales that were not true.
- Q. Then you considered Helen L. Tenney and Emilie Eberle both to be unreliable and untruthful girls?
 - A. Yes sir.

EXAMINATION BY MR. GILES.

- Q. What have you to do with the girls in the sewing room?
- A. Teach them how to sew.
- Q. Anything else to do with them?
- A. Nothing else, except to see that good order was maintained.
- Q. Did anything ever occur between you and Miss Tenney, or between you and Miss Eberle, in the sewing room, that led you to believe that one or both of them were untruthful?
- A. I can't remember the particular circumstance, but could not depend upon them.
- Q. Did anything occur in the dormitories that led you to believe them untruthful?
 - A. Yes, sir; with Helen Tenney.
 - C. What was it?
- A. I found her out of her bed one night, and I asked her where she had been, and she said, "in the closet praying." I don't believe she was there.
 - Q. What reason had you to doubt her word?
- A. I don't know any particular reason, only I don't believe she she was there.
 - Q. I ask you the same question as to the study room?
 - A. No, sir, not in the study room.
- Q. Did anything occur with Emelie Eberle which led you to believe she was untruthful?
 - A. No. I can't remember anything particular.

- Q. When did you first make up your mind that these girls were untruthful?
 - A. I can't remember.
- Q. Did you ever detect either one or the other of them in willful lying?
 - A. No, I don't know as I did.

Prof. F. G. Schilling, a teacher in the Institute, was called by the defense, and testified to the mental characteristics of the deaf and dumb. He gave it as his opinion, that from the fact that they did not possess language, the mind had not the necessary machinery to work with, and, therefore, they don't see things in all their bearings as a hearing and speaking person would. Their mental characteristics are the same as any other child naturally, but from the fact that they cannot communicate with people as others do, they do not understand or see the relation of facts and things as completely and thoroughly as their more favored hearing and speaking brothers and sisters do. That they would be easily influenced by a person to whom they take a likeing, while they might be very hard to influence by one of whom they were suspicious.

After further testimony of a general nature, the following questions were asked:

- Q. Do you know Mary Stilwell, a former pupil of this Institute?
- A. I never was well acquainted with her.
- Q. Was you a teacher here all the time she was a pupil?
- A. I was.
- Q. Was you acquainted with her reputation all the time she was a pupil in the Institute?
 - A. I was, more or less.
 - Q. Was that reputation good or bad?
 - A. It was not very good.
 - Q. Did you know Helen L. Tenney, a pupil of the Institute?
 - A. I did.

The professor testified that Helen was a pupil in his class for at least one term; that she was deficient in memory, and her power of independent thought was limited, and that she could be easily influenced by a designing person.

In reply to H. H. Giles, the professor said that Mary Stillwell

was never in his class, and in saying that her reputation was not very good, he meant that she had frequently to be disciplined for misconduct in the institute. This he learned from the other teachers, Miss Smith being one of his informants—he could not recollect any other person. Continuing.

- Q. Was Miss Mary Stillwell rather a leading character among the pupils, here?
 - A. Rather.
- Q. Did you hear Miss Smith or any teacher say that Miss Stillwell was untruthful?
 - A. I do not recollect those words.
- Q. Did you hear them use words which expressed the idea that she was untruthful?
 - A. Yes.
 - Q. Who was it?
 - A. Miss Smith, as I now recollect.
- Q. Did Miss Smith give instances of her untruthfulness to you or in your presence?
 - A. I don't recollect.
- Q. Is it not a characteristic of all mute children that they can be easily influenced by designing minds?
 - A. It is.

It does not appear to the Board that the testimony of the two girls, Tenney and Eberle was materially effected by the foregoing attempt at impeachment. On the other hand, their testimony, in our estimation, stands as a simple and honest recital of facts.

The attempt to show that the testimony of Misses Tenney and Eberle were prompted in detail by Mr. Williams was not successful since Miss Tenney had told her mother of Mr. Woodbury's improper actions, a long time before this investigation was ordered or thought of; and it does not appear that Miss Eberle had been catechized at all by Mr. Williams either in person or by letter.

Whatever was done, to, or with these girls, by Mr. Woobury, the fact which appears in evidence that he "was afraid he would be expelled from the Institute" if his conduct with them should become known, suggests the verdict that he had done wrong.

The tenor of the impeaching testimony, in so far as it affects the truthfulness of these girls, is in striking contrast with the reputation for probity enjoyed by them in the communities where they live.

We therefore reluctently conclude that A. J. Woodbury, did, according to the testimony above cited, commit an offense, the object being to test the willingness of these girls to submit to his purpose by a surrender of their chastity. This was the conclusion of Mrs. Tenney, who, when her daughter first told her of the occurrence, was of the opinion that "Woodbury's conduct was not simply playful. I do not think he attempted to commit a rape, but he went too far for play." With these exceptions, occurring as carly as the year 1873, and before his marriage, the testimony has failed to develop anything against Mr. Woodbury. On the contrary, it appears that his life has been exemplary, and his duties as steward of the Institute have been discharged with fidelity.

THE ACCUSER, WILLIAMS.

The circulation of the scandal concerning the past and present management of the Deaf and Dumb Institute is due almost wholly to the efforts of C. L. Williams, a former teacher in the institute, and whose connection with the charges against the trustees, teachers, employes and pupils, of the institute, both past and present, demand notice at our hands.

Mr. Williams was first appointed a teacher in the institute in the year 1870, and resigned March 1st, 1877, as noticed in our treatment of the charges against the trustees.

In the year 1879, this board was ordered to investigate "the past and present management of the institute," by Governor Taylor and Mr. C. L. Williams was an important witness in that investigation.

In the testimony of Mr. Williams in 1875, it appeared that he was very friendly to the then principal — Mr. Weed — and in the trouble between Mr. Weed and the male pupils, he had tried to get his class to respect the principal. In short, during all that trouble, he had, as a teacher, been perfectly loyal to the principal, Mr. Weed, and to the interests of the Institute.

We quote as follows from Mr. Williams' testimony taken during that investigation:

I (Williams) told him (Principal Weed) that I was willing to assist him, and wished to know what I could do. A general feeling of dissatisfaction began in February, 1872, and has been pretty general ever since. I have brought this to the knowledge of Mr. Weed. * * My relations with Mr. Weed have been friendly; I have endeavored to have my class respect him, and have done nothing to detract from his authority, or their respect for him, either in the class or out.

In the present investigation, the following testimony has been found bearing upon Mr. William's connection with the trouble during and preceding 1875, and shows the intrigueing character of the man, and the underhanded means he used to accomplish a purpose.

Prof. George F. Schilling testified that he was acquainted with Mr. Williams for eight or nine years as a teacher in the Deaf and Dumb Institute at Delevan. He had a good many talks with Williams about the Weed (1875) trouble. "He (Williams) told me some parts he played in that trouble; in substance, he said that he had incited the boys to their attack on Mr. Weed. That Mr. Weed ought to get out of that institution."

Hugh Cork, a deaf mute of Mazomanie, testified that Mr. Williams had talked to him about Mr. Weed; that Williams told him "Mr. Weed must be expelled." That Mr. Williams often "got boys into his room to talk about Mr. Weed," and in these meetings he would persuade the boys to help him against Mr. Weed. "Would tell them that Mr. Weed was a very mean man to treat them cruelly." That Williams wanted the boys to "help him expel Mr. Weed, by telling the State Board of Charities about Mr. Weed's cruelty. Mr. Williams told me about the present scandal.

Fred Stickles, a deaf mute, testified that "Williams was getting up the Weed trouble;" that he organized some boys and girls to aid him; that what he said to the girls he wrote on their slates, or told them in sly 'signs; that all the trouble that occurred, was first planned at these meetings—that Mr. Williams had got Weed

bounced, and would get De Motte and Woodbury bounced and himself elected Principal.

Eugene A. Gates, supervisor of boys and night watchman, testified that Williams often had interviews with the boys, on Saturday afternoons, in his school room, and said "the boys were more saucy and impudent after these sprees with Williams. If I corrected them, they said they would 'tell Williams; they would get up a row and have me and De Motte put out, as they had done Weed;' and after Williams left, they said that 'he had put them up to it.'"

The immediate cause for the dismissal of Mr. Williams, as a teacher in the institute, was a charge against him of undue familiarity with Miss Ada Bishop, a former pupil of the institute, which charge had been made by Mr. Hiram Bishop, Ada's father.

Mr. Hiram Bishop, of Evansville, was therefore summoned before the Board, and testified that Mr. C. L. Williams visited at his house twice; that he had charged that his child was entirely demoralized, body, soul and mind, and this had come to his (Williams) knowledge through her (Ada) and that was why he (Williams) was there. As evidence of this demoralization "her whole spirit was bent towards Mr. Williams, which he found by her cummunications with her sisters and mother. I found Ada was in receipt of a large amount of letters, many of them addressed by the same hand." "Some of his letters were all proper and friendly, in good language and gook keeping, as a teacher, and some the reverse, inciting Ada to leave home and to disobedience. In one of the letters, he told Ada "if she was his sister, he wouldn't allow her to stay there 24 hours.' Williams would write a letter all right, and put a little carefully folded note inside, and tell Ada (so she says) to burn it after she had read it. Some of Ada's letters to Williams were intercepted. She seemed to have an idea that she ' was to marry Williams - he had promised to marry her.' She expected to travel and go abroad with him, and to go as a teacher in Chicago, and in a school he (Williams) was going to get up. said in her letter, 'you will give Sila (Williams' wife) a baby this summer, and she will die when it is born, and then we will be married and travel off."

Mr. Bishop was questioned at considerable length with regard to

the intercoure between Mr. Williams and his daughter, and finally admitted that he formed his opinion that Williams was a "black-hearted scoundrel," more from his daughters's letters to Williams than from Williams' letters to her. (Mr. Bishop had also intercepted a number of Williams' letters to Ada.)

Miss M. E. Smith (teacher) testifies that she had a private interview with C. L. Williams in the Institute, at his request, just before Christmas, in 1876. "Previous to this interview, he had written me a note and sent it to my school room." The *note* was produced and read as follows:

"Miss Smith:—I can't discern a shadow of grief cross your countenance without a feeling of true sympathy for you. I noticed this in something of that kind, but of course I could not judge the cause; nor do I ask, nor wish to crowd myself upon you—only to assure you that you may have a better friend in me than you have thought. With me, so far in life as age has taken me, true friendship has been my greatest treasure, yet very few indeed have I considered such. Circumstances may chain and enthrall the soul, yet they cannot rob it of its own. I have wondered sometimes, what sort of an idea you have got of me; and yet I can not enter into any defense of myself, and I choose to let it alone. I hope you will see nothing improper in this, and believe me your true friend.

"(Signed)

C. L. WILLIAMS.

"After receiving the note, I met Mr. Williams in Mr. De Motte's office. He then requested an interview with me, some time. I supposed it was something in reference to his wife, and told him I would be willing to have a talk with him, and if I could help him, I should be only too glad. Then I had the second note, which I considered a very strange one."

The second note was produced, which reads as follows (without date, address or signature):

"Pardon me for holding you a few minutes in conversation in the office, after you said you would like to talk with me sometime. I knew it was really no place, and I understand the present circumstances well. And it almost seemed like new hope in what little

[&]quot;December 20, 1876."

you did say. The real way is to have our confidence, as far as it refers to ourselves, to ourselves, and only to ourselves.

I feel the greatest reliance upon yourself, and I would take real pleasure if I could do anything for your comfort or pleasure. I have thought everything of you for a long time, longer than you have ever known, and I wish I might have made myself free long ago to you, but a false idea of gallanry made me a slave to principle. I know we can scarcely meet in the parlor for a talk, and I would refuse to take any step that would subject you to the least inconvenience. There are ways and places so we could safely have our conference, and no person know it, and I wish you felt perfect freedom to make your suggestions. For instance, there are times when I could come to your room and no person know it. And further calculations that could be met. And I wanted to speak of Chicago, too. Some other things I was going to mention, but I have not time here."

Mr. Williams has intimated that the above note is not his own production, but had been played off on him by some one (he thinks Fred. Stickles). The note has, however, been submitted to experts, in connection with others admitted by him to be his own, and its identity as the work of his own hand placed beyond a donbt.

Miss Smith granted him a "private interview," and it was had in the office. We quote: "When I sat down asked Mr. Williams what he meant by that note (the second one), he hesitated and said: "Perhaps I ought not to have written that note." I asked him again what he meant by it, whether he meant that he carred for me more than he ought. He hesitated, and then said that he "had always loved me since our acquaintance." He said that "my notion of honor had forbidden my saying anything about it, while I was in Minnesota." He wanted to know if I believed that he would tell a lie? I said I don't know that you would lie, but there has been nothing that would make me think that you entertained such a feeling for me.

"He said he knew that there had not, and he thought that it was a secret that he should have carried to the grave with him. Then he asked me if he had been such a man as I could have made him before his marriage, if I could have loved him. I told him no. I

think he asked me that question twice. I begged him to go home and make his wife happy; that his only happiness was in his family. I told him he was making a perfect wreck of himself. He wanted to know how I knew that. I told him his conduct toward his wife showed it. I told him it would be well for us to have no more communication. From that time I have had no conversation with him. This is the substance of the conversation, though I do not claim to give the exact words. Very soon a third note was received, which was produced, and reads as follows:

"One thing I wish to remove from your mind, if I made such an impression, and, i. e., a complaining spirit on my part. Such was far from my intent when I started, but as you are so happy and contented here, and all's so agreeable to you, of course there is nothing that I can do. I have appreciated your kind words, and considered them well. This is the last I shall offer unless opportunity shall occur wherein I may serve you."

The foregoing note was without date, address or signature, but was identified.

On cross-examination by Mr. Williams, the witness stated that he (Williams) did not offer her any undue familiarity at the interview, or at any other.

Miss Smith further testified, in explanation of the private interview grauted, that it was at the request of his (Williams') wife. "She wished me to use my influence to induce him to treat her better." She had made a confident of me for some months previous to my last interview with him. She told me he seemed to have respect for my opinions, and had several times begged me to remain on friendly terms with him for her sake. This explains also the reason of my conjecture, after receiving the first note, that Mr. Williams wished to talk with me about his wife.

The conclusion cannot be avoided that C. L. Williams has, for some reason or other, made desperate attempts to blacken the characters of some of those connected with the institute. Since this investigation began, over fifty letters written by him, largely to aid in the circulation of the scandal, have come into our hands. Some of the letters have been written to members of this board, and conveying the idea that he was to have no opportunity to develop the

truth of his charges in the investigation. It is proper in this connection to say that Mr. Williams has been specially urged by the members of the board to be present during the investigation, and that he has been present a portion of the time. When we have been able to bring him under oath, face to face with his most serious charges (as against the trustees, etc.), he has retracted and acknowledged their falsity. He has exerted his influence against the school by writing letters to parents and guardians of mutes. By insinuations and by specific charges, he has made it appear that the management of the school was resulting in the general demoralization of the female pupils. He himself furnishes the board with the names of several female pupils who have remained away from the school because of these scandalous stories, and some of these scandals, those which he has confessed, were groundless, and "ought not to have been started."

During the progress of the investigation the parents of some of these girls have expressed anxiety to have their daughters return to school and complete their education.

An evidence of the desperate character of this man (Williams) may be found in the testimony of M. L. Gregory herewith submitted, wherein Mr. Gregory swears that he (Williams) offered to pay his fine if he would not appear as a witness in the Weed investigation, and also wanted to know if he (Gregory) could not *change* his testimony, Mr. Gregory responding that he guessed Williams didn't know him.

Enough has now been given and said of the testimony taken, and of the character of the principal accuser, to give to Your Excellency and the public a full knowledge of the case.

IN CONCLUSION

we desire, before closing this report, to say, that we have been greatly pleased with the unfortunate deaf mutes of this sate who have come under the influence of this school, as pupils, giving evidence by their intelligence of the faithful and successful instructions they received.

The business affairs of the Institute are economically managed. Harmony exists between the officers and teachers and pupils, and

the citizens in the neighborhood of the Institute. Some of us having been intimate with the management of the institute for several years, express it as our opinion that the school was never in better condition than at the present time. It would, perhaps, be wisdom to do away entirely with the office of steward—one responsible head to such an institution is better than more. A clerk or a supervisor of the boys who could also act as clerk, would it seems to us, be all the help the Principal needs in the business management of the Institute.

It has been our determination to leave nothing undone to rid the Institute of all the suspicions which have clustered around it for many months.

Forty eight witnesses have been examined during the investigation, and we have been forced to go to the counties where witnesses resided, instead of bringing the witnesses to the office of the Board, because of the provision of the statute under which we were acting.

All of which is respectfully submitted.

H. C. TILTON. H. H. GILES. W. W. REED.

Attest:

THEO. D. KANOUSE, Secretary.

N. B.—Two members of this Boaard, viz.: President Elmore and Mr. Haskin, are absent from the state, and have been during the progress of the investigation.

Note. Mr. Haskins disagrees with the other members of the Board in this—that he thinks this Board should have recommended to the governor the removal of the employees, who were tried for the benefit of the school.

Mr. H. accordingly filed his protest with the governor.

Religious Instruction in Public Institutions.

RELIGIOUS INSTRUCTION IN PUBLIC INSTITUTIONS.

[The following paper was prepared by the Rev. Mr. Tilton for the consideration of the board. Some of the members of this board dissent from the first premise laid down therein; but all of us believe that the thoughts therein expressed are worthy of consideration, and therefore insert it.]

We do not deem an elaborate discussion of this subject, at this time, necessary or appropriate. But there being considerable confusion in the public mind concerning it, and as the managers of our state institutions are pressed and perplexed with extreme and opposing demands, it does seem proper that we should make a general statement of what seems to us the true American theory of religion and the state.

THE CHRISTIAN RELIGION

has been an important factor in the formation and development of the American union. By the official action of the legislative, executive and judicial authorities, the Christian religion has been, from the first, recognized as the common faith of the nation, and the Bible has been recognized as the standard of public and private morality. Religious liberty is the right of all; but it does not therefore follow that religion must be eliminated from the state.

One of the most common mistakes in treating of this subject is in confounding religion and the state with church and state; there being a state religion, but no state church, it is equally anti-American to attempt to destroy the one or to establish the other. When any one becomes a ward of the state, that person passes out from the control of all sects or parties. Especially is this true with criminals. The forfeiture by crime of personal liberty, carries with it the privilege of citizenship, and the criminal can make no demand for any particular religious instruction. Nor has any church the right to dictate any form of religious instruction or services in the insti-

Religious Instruction in Public Institutions.

tution in which the criminal is confined. While in the hands of the state, he has a right to all the benefits of the state religion. To deny him this right is to oppress even the prisoner.

The inmates of our industrial school, for instance, are for the time being, state property. No sect has any right to demand control of the religious concerns of the youth, as its right; the right to instruct them in its peculiar theories ceased when the state took them in charge, and can only be resumed when they return to private life.

On the other hand, the state fails in its duty to itself, and to them, if it does not give them the benefits of its own religion and morality. The neglect and violation of the truths and morality of our common Christian faith being the cause of their present condition, it is the especial duty of the state to instruct them faithfully while in its care.

The demands of any sect to establish its peculiar services in this Institution should be resisted and denied, at once and forever; while the demand to have all religious instruction suppressed should be denied with equal firmness. There is a common religious faith accepted by the state, and the great mass of the citizens, on which it is easy to agree, when we are content to be true Americans.

In private life, and in voluntary religious organizations, we may be as sectarian, and even bigotted, as is consistent with loyalty to the state; but when we enter the domain of a public institution, we must be simple American Christians.

These briefly expressed views may be sustained by the documentary and general history of the country. But we do not deem it necessary to argue the case at length now. To a true and loyal citizen, this subject presents no serious difficulty when he looks at the general good of the whole people, for he is content to "abide in the faith of the fathers."

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Erratta — Page 44, Table No. 2, in second column, opposite Fond du Lac, read "1," instead of "21."

FIFTH

ANNUAL REPORT

OF THE

COMMISSIONERS OF FISHERIES

OF THE

STATE OF WISCONSIN,

FOR THE

YEAR ENDING DECEMBER 31, 1878.

MADISON, WIS.:

DAVID ATWOOD, STATE PRINTER.

1879.

FIFTH ANNUAL REPORT.

To the Honorable the Legislature of the State of Wiscocsin:

Gentlemen: We have the honor, herewith, to submit our fifth annual report:

A brief summary of the appropriations heretofore made by the legislature, to be expended in the artificial propagation of fish, is made, for the purpose of placing before the legislature full knowledge as to the amount of the money so placed at our disposal. By chapter 211, (G. L.) 1873, \$500.00 were appropriated directly to Prof. Bird, United States commissioner of fisheries, to be expended under his direction; in 1874 (chapter 253) \$360.00 were appropriated to be expended by commisssioners who were appointed by the governor in that year; in 1875 (chapter 222) \$2000 were appropriated; in 1876 (chapter 807) \$10,000 were appropriated; in 1877 (chapter 85) \$8000 were appropriated, and in 1878 (chapter 299) a like sum was appropriated, and by the same act the commission was reorganized, increasing the number of commissioners to seven, the governor remaining a member ex-officio, and requiring the governor to appoint the commissioners by and with the advice and consent of the senate. Chapter 62, revised statutes of 1878, contains a codification of the laws organizing the commission, and under which the commission is now working, it having fully organized under that law on the 19th day of June, 1878, and at which time a full accounting and settlement was had with the old board as it had therefore existed. The annual reports heretofore made, contains a full statement of the work of the commission, and the itemized expenditures during those several periods of time are on file with the secretary of state as required by law. The items of expenditure which are voluminous, we are not premitted to embrace in our reports under existing law. We are not at liberty 4

to criticise this law and only say it would afford us better satisfaction to lay before the legislature an itemized statement of the expenditure of the generous fund placed at our disposal. We shall content ourselves with saying that not a dollar has been unnecessarily expended to the knowledge or belief of the commission.

Our first hatch of fry was from the spawn taken in the fall of 1876, and after we had purchased our site, erected our buildings. and constructed our ponds in the summer and fall of that year, so that our first considerable distribution of fry was in the spring of 1877. With the small appropriations previous to that year, we had done some little work by hatching in private establishments, but our real work commenced in the fall and winter of 1876-7. have now but entered upon our third year of efficient work. two preceding reports contain a detailed statement of the work of the commission, which to us is in every respect satisfactory, and is also, we believe, satisfactory to the people at large. In this enterprise we started with nothing but our money, excellent places for locations for hatching purposes, and have been fortunate in securing skilled labor. Many are impatient for results, but in this pursuit, as in every other that is new, time is required to bear fruit. As stated, we have put out the hatching of but two seasons, and from every direction we get excellent reports that the fish we have planted are re-appearing in large numbers, and promise an abundant harvest.

It is not our purpose in this report to enter into any argument to show that fish culture by artificial means is a success, or that it is worthy of public aid through the agencies at present employed. The success which has attended this work by the twenty-eight or more states embarked in it, and the efforts in that direction by the national government countenanced and supported by the most honored men in the nation, is a sufficient guaranty of the importance and the necessity of the undertaking. There has been no abatement in the energetic labors of public spirited men, who give their time and their abilities, and their influence in the work of increasing the food resources of the people. The reports of the various Commissioners of Fisheries without an exception, speak but one language and point to but one result. States which have

Mill-Dams and Fishways.

been organized in this work from six to twelve years, bring evidence that waters heretofore barren, by means of planting the young fry in them, are now teeming with fish, and that lakes and rivers and brooks which had become depleted, have, by the same means, been brought back to the maximum of their earlier capacity, thereby materially cheapening this wholesome food and placing it within the reach of all, notwithstanding the increased consumption, besides giving constant employment to the thousands who depend upon the fisheries for a living, and making capital renumerative to those who furnish money in prosecuting this, one of our most substantial industries. If the members of our legislature have not taken the trouble to examine into this matter, will do so, they will find abundant reason for astonishment at the possibilities of artificial fish breeding. The work in this country is yet in its infancy, and with the force now employed in it, both of mind and muscle, new developments are constantly being made, which, when applied to practical purposes, will defy the efforts of fish murderers to exterminate our fish, as pot-hunters have destroyed our game. But not withstanding this, we do not overlook the fact that we need stringent laws and a better enforcement of them than we have had, in the direction of protecting fish from wanton spoilation, as well as protection by giving to the fish the free use of the waters, in which they were originally placed by a benificent Providence. And this brings us to the consideration of

MILL-DAMS AND FISHWAYS.

In previous reports we have called the attention of the legislature to the great importance of fishways over the dams erected across the rivers and streams in the state. The migratory habits of the native fish occupying these rivers and streams, leads them, in the season of spawning, to get as near the head or source of the stream, or into the upper tributaries of such streams to find spawning beds. In times of freshets, and in seasons of scarcity of fish food the fish go down stream in considerrable numbers, and when they seek to return they find themselves unable to reascend these dams. As a result, they congregate together in large numbers at the base of these obstructions, where they are slaughtered by the

Mill-Dams and Fishways.

thousands by improvident men and reckless boys. "After us, the deluge," is their motto. The female fish laden with spawn and just ready to deposit her eggs, accompanied by the male ready to impregnate them, are arrested by this obstruction in their efforts at propagation, and destroyed. The upper portion of the stream, and in fact, throughout its whole length, is thus being gradually depleted of fish, and unless a remedy is provided by fishways and the waters protected from saw-dust and filth, in less than ten years the inhabitants of these waters will substantially disappear.

The people living on the margins of these waters demand fish-They are witnesses to the increasing barrenness of the streams, and have time and again petitioned the legislature to compel the owners of mill dams to construct a passage for fish over them. Opposition to our annual appropriations has developed itself among members of the legislature, and particularly in the lower branch, owing to the fact that it is impossible to stock such streams named with these obstruction existing. The commission has felt the same embarrassment, and has not felt disposed to expend much money in supplying such streams with fry. Equally anxious has been the commission not to subject mill dam owners to unnecessary expense. It is competent, in our opinion, for the legislature to require the proprietors of these dams to construct fishways over or around them, and hereafter, in all cases granting the right to construct dams, the act should require their construction. Under the decision of the United States supreme court, it seems to be established law as applicable to all streams, and which are tributary to the Mississippi and the great lakes, that no person has the right to obstruct the free passage of fish. Such obstructions are unquestionable a nuisance and, upon proper prosecution by persons who sustain loss through them, the courts would abate it. No one has a right, under the common law, to obstruct the free passage of fish up or down any stream such as we have named.

It will become a serious question with the commission whether it is judicious to undertake the stocking of streams which are obstructed by dams, until they are provided with fish-ways. We earnestly recommend the passage of a general law requiring the construction of fish-ways by dam owners or their lessees, giving a

Fish-Nets.

reasonable time for such construction and affixing an adequate penalty for non-compliance. We are in possession of plans for fishways such as have been approved by various states, and which are inexpensive. These fishways should be constructed upon a nearly uniform plan, and under the direction of the superintendent of fisheries. If the state does not direct the construction of fish ways, in the manner suggested, it then becomes a question whether the state ought not to construct them at the public expense. In some instances the states have made appropriations for this purpose, and notably the states of Pennsylvania and Kentucky. In this same connection we will add that the accumulation of saw-dust in streams is very destructive to fish. At a very trifling expense, owners of saw mills could obviate this difficulty.

In fact, all impurities which find lodgment in the fish water of the state can easily be obviated, and the interests of fish propagation and protection demands stringent legislation in this direction.

FISH-NETS.

The number and variety of nets used for fishing are appalling, and their destructive character, supplemented by the spear, are rapidly exterminating the white fish and salmon trout in Lake Michigan, Green Bay, and in many of the larger inland lakes. Two years ago, an effort was made by our commission, acting in conjunction with Ohio and Michigan, to establish a base line or a certain depth of water in shore on Lake Michigan and Green Bay, within which nets should not be dragged, in order to protect those varieties of fish while in the act of depositing their spawn. It was also sought to make a provision regulating the size of the mesh of the nets. As soon as the fishermen became advised of this effort, they sent a strong delegation to the legislature and succeeded in smashing the measure, and came very near annihilating the commis-The commission was then in its infancy, and we incontinently surrendered. The commission feels a little stronger now, backed up as we are by many of the fishermen themselves, by fish dealers and shippers, and by the support of citizens of all pursuits, who are witnesses to the murderous manner in which fish are treated. We have sought and obtained information on this subject by a per-

Fish-Nets.

sonal examination made by one of the commissioners among the fisheries of Lake Superior, at Superior City, Ashland, Bayfield, La Pointe, and other places, and we feel authorized in saying to the legislature, that there is almost a universal demand for legislation which shall protect the young fish from being caught in these destructive nets and left to rot upon the beach or hauled off by wagon-loads for manure.

It is generally understood that the seine fishermen do not obtain an adequate remuneration for their labor and for the capital invested. In fact, that they are losing money. years they have swept the bottoms of the lakes, until numerous points which were once famour for their fish are now entirely deserted. This is true of the whole chain of lakes. The exhausting sweeps of the great seines, the drifting of the gill-nets, the pound-nets, fencing-off the runaways of the fish, with no days of "shut-off" are fast driving the fishing interests into bankruptcy. In a recent conference had with the Hon. A. J. Kellogg, one of the Fish Commissioners of Michigan, that gentlemen gave it as his opinion and the opinion of his co-commissioners, that were it not for the efforts of the Canadian, Michigan and Wisconsin labors, in putting into the waters of the lakes annually, millians of the fry of the White Fish, that invaluable fish would altogether disappear within the next ten years. Our planting have reappeared at Racine and Milwaukee in immmense numbers, and particulary of the planting of two years ago. At no time within the past 10 or 18 years have so many of these young fish been seen, and we regret to say that of the two-year olds, large numbers have been taken and marketed from door to door in those ities. This practice must cease and we must have legislation to stop it.

The efforts being made to protect fish as well as in their propagation, are directly in the interest of the fishermen. The inconvenience attending the establishing of days of rest and the changing of the mesh of their seines will only be temporary. Upon Lake Superior and within the jurisdiction of this state the fishermen should have a year or two to adapt themselves to the change; but upon Lake Michigan and Green Bay the correction should at

Fish-Nets.

once be administrated. The new revision of the statutes, section 4563, page 1077, furnishes legislation on this subject, but is only applicable to waters of Lake Michigan and Green Bay. The size of the mesh of the particular net is fixed at three inches, when it should have been larger. Of those used at present in pound nets the mesh is but one inch in size, and when tarred would shrink to about 3 inch, and capturing young white fish and trout but one year old. In the vicinity of Milwaukee and Racine many of the young fish planted by us have been caught in these small meshed nets. This is evident from the fact that the breeding grounds on the west shore of Lake Michigan for white fish have been destroved, and until our planting of that fish they were not to be found in those localities. The legislation referred to is a step in the right direction and must be enforced. If this is not done it will not be long before the legislature will pass an act completely interdicting fishing at the places named for a series of years, and until by natural and artificial means these waters are restored to their natural fruitfulness. Michigan and Ohio and the Dominion of Canada will be compelled to work together for this common purpose, and what might be better, a law of congress which would sweep the whole chain of lakes. When the white fish disappears from the hotels of Toronto, Cleveland, Detroit, Milwaukee and Chicago, and from the tables of the millions, and the fisherman shall have lost his business and his markets, they will be apt to regret that the notes of warning given during the last ten or fifteen years have not been heeded. It is only through timely legislation and a vigorous enforcement of law, that such a calamity-for calamity it would be,-can be averted.

What we have said in respect to the white fish, the great leading fresh-water fish of the world, is equally true of the salmon or Mackinaw trout.

In this connection we beg leave to call attention to Superintendent Welsher's report, whose knowledge and means of observation respecting the use of nets, is second to that of no man in the country.

Interior Waters.

INTERIOR WATERS.

An impression prevails in the interior part of the state, that the commission is neglecting interior waters at the expense of the white fish and the lake trout. People read that we are depositing millions of that variety of fish in lakes Michigan, Green Bay and some of the larger inland lakes, while but few thousands of fry are deposited in the smaller lakes and rivers and streams. It is not considered that in obtaining the spawn of the white fish and trout that the superintendent and his assistants, to obtain those varieties of spawn have only to go out on the lake with the fishermen, and when they draw their seines or nets, take the spawn from the fish designated for market, on the spot, impregnate it, and place it on the trays in the Hatching House and let on the water, and that for the purpose of stocking interior waters, we are compelled to procure our fish and raise our breeders in the ponds of the Madison Hatchery. This is particularly the case with speckled trout, the fry of which is in immense demand. Of this trout we have had but two hatchings, the winters of 1876-7. We have now at the Madison Hatchery 8,000 trout breeders, all artificially bred and raised, and in excellent condition. From these we have been, and are taking spawn, and expect to have a good supply for distribution in April and May of the coming spring. In addition to the above we have five thousand which will come into breeding next fall, this species yielding eggs when two years old. From those heretofore planted we have excellent reports, and in no instance have we heard of their failure to reappear, and it is also gratifying to know that in streams in Lafayette and Grant counties where a speckled trout has never been seen until artificially planted, that they exist in large numbers and have been frequently caught, for examination, but humanely returned again to the stream.

With our facilities for hathing, there is practically no limit, but the want of money and breeders to the number of fish we can propagate. It is the purpose of the commission to make this fish a specialty. The ease with which they can be raised in ponds; their hardy character; the rapidity with which they grow; their delicious flavor; the unlimited extent of our springs and streams in

Interior Waters.

which they can live and thrive, render them a peculiar favorite with the people, and to anglers with the hook and line. Aside from applications for this fish for public waters, there are numerous requests for the fry for private springs. Without expressing our own opinion on the subject, it has been suggested, in various quarters, that some legislation should be had, authorizing the commissioners to furnish private parties with a limited supply of the fry of this fish for the purpose of stocking private ponds, the person receiving it to construct ponds as directed by the superintendent, reserving to the commission the right to take spawn from these deposits for the use of the state, if it desires so to do. It may be claimed that this would constitute an interference with the business of private parties engaged in pisciculture; but not so when we consider that of this fish artificially raised for the market, and of those taken wild, the market is immeasurably short of being supplied.

Notwithstanding the enormous price per pound there does not appear to be any danger of lessening the profits of private breeders. We are convinced that a slight encouragement in this way, would introduce private fish breeding directly among the people, and that where the facilities could be had in the settled portions of the state, a fish-pond would come to be regarded not only as a luxury, but as a necessity. The only expense to the state would consist in taking and hatching the eggs, the expense of transportation to be borne by the party applying for the fish. Except for unforseen and unexpected ill-luck, after the seasou of 1879 shall have passed, when we expect to have our breeders on hand, we shall be able to supply all private applicants, and without neglecting a single troutstream in the state. We make these suggestions as an advance step in the matter of fish culture, although we believe that Seth Greene at the New York Hatchery at Caledonia, has for years furnished private parties with packages of spawn and cans of fry, for the purpose of experiment at a mere nominal cost.

We purpose next season, and after we shall have distributed the hatch of the year, to transplant the better varieties of fish food from waters where they abound to those which are barren, keeping however, carefully in view adaptability of water and the question of fish food. Experiments are being made in New York in the

Improvements at Madison Hatchery.

matter of providing food for fish by transplanting to streams which require it, moss, cress, and other water plants which contain and carry, the year round, representatives of the animal kingdom suitable as fish food. Vegetable growth of this nature is found in immense quantities in our springs at the Madison hatchery. Prof. J. A. Lintner, of the New York State Museum, makes an extended and able report on insects and other animal forms found in Caledonia creek, and which is embraced in the tenth annual report of the New York fishery commissioners. The crustaceans, of which he speaks, are peculiarly adapted for trout food. The supply with us is sufficient in quantity to plant miles of streams, and without making any perceptible difference in the quantity. In fact, our supply is inexhaustible, and can be safely packed in barrels for transportátion. If, as claimed, waters are sometimes barren of fish, because of the absence of fish food, a door is here opened through which a supply can be obtained. Once transplanted, it increases with great rapidity and carries with it its inexhaustible store of provisions, which is constantly being reproduced.

The report referred to embraces twenty-five closely printed pages, and contains a large amount of useful information bearing upon this important question. In the paper on Fish Food, in this report, prepared by Dr. Hoy, this question is again referred to.

IMPROVEMENTS, ETC., AT MADISON HATCHERY.

At the time of the reorganization of the commission, the commissioners visited the Madison Hatchery, and inspected the state buildings and ponds and the different varieties of fish on the grounds. The main springs are located near the south line of the site, and immediately contiguous to land owned by a Mr. Sykes, and upon whose land the stream created by the springs meanders in an easterly direction, at intervals entering upon and leaving the state's property. We deemed it important to secure the margins of this stream, as well as the bed of it, where it leaves us, which had been heretofore acquired by deed, and for the further purpose of enabling us to construct a large pond, or artificial lake, below the main springs, where we have a fall of a large sheet of water a distance of twelve or fifteen feet. The president and superintendent were

Milwaukee Hatchery.

authorized to enter into negotiations with the adjoining owner for the purchase of a strip of land which would secure these objects, at a cost not exceeding thirty-five dollars per acre. The result of the negotiation led to the purchase of three acres and a fraction, at the price of thirty dollars per acre. The deed of the same, following the line of previous conveyances, conveys the fee absolutely to the state, is recorded in the proper register's office, and deposited with the secretary of state. This gives to the state a tract of fortythree acres, containing the finest springs in the state, or in the northwest, and wonderfully adapted to the purposes of our commission - we think the best on this continent. The location is four miles southwest from the capitol, and about three miles from the West Madison depot, easy of access, and is altogether a very valuable piece of property. The entire cost of land is less than thirtyfive dollars per acre. The buildings thereon have been erected at a cost of about two thousand dollars. To this should be added the cost of the ponds, fencing and some other improvements of an inexpensive but permanent character.

We also, during the past summer raised the roof of the Hatching House so as to give us the use of an upper floor, which was needed for the storage of moveable effects, and other useful purposes. We have also erected a shed for the temporary accommodation of horses, carriages and other vehicles, conveying vistors to the grounds. No other structures will be required, except, perhaps as they may be needed, a few additional ponds. Our visitors at Madison and at Milwaukee, are very numerous, and it has been our aim to make both places attractive, and as comfortable as possible and worthy of the state. We have also, at intervals, levelled off the grounds around the ponds and planted trees and shrubbery.

MILWAUKEE HATCHERY.

Through the liberalty of the common council of the city of Milwaukee, we have occupied up to the present time and are still occupying, a large and commodious room connected with their pumping works on the shore of Lake Michigan. This fall we received official notice that, during the winter or spring the city might require this room for purposes of excavation preparatory to the

Milwaukee Session.

putting in operation of an additional engine, to supply the city with water. As the question of our occupation was uncertain, we concluded to take the chances of remaining for the present, and hope to remain until the hatch of 1877-8 is completed. If however, the city wants the grounds we have the reserved right of two weeks for removal. This can be done without detriment to the spawn being hatched; but would entail considerable extra expense. It is evident however, that this is the last year in which we can use the city's property, and hatching in Milwaukee must cease unless we can procure another site. To hatch the white fish and the salmon trout, we must have the cold waters of Lake Michigan, and Milwaukee is the only place on that lake supplied with water-works, and where we can obtain a bulk-head or resorvoir from which to draw an abundant supply of water for hatching purposes. We have no ponds at Milwaukee and do not need them there, the fish hatched being taken directly from the troughs and distributed. Salmon trout can be artificially raised in ponds, - but so far, efforts to raise the white fish in that manner have not been a complete success. The Commission has been under many obligations for favors extended to them in their work, by the city of Milwaukee.

On the 18th of November last, by resolution, the common council authorized the committee on waterworks, with the comptroller and city engineer, to consult with the State Fish Commissioners as to the establishment of a permanent fish hatchery in that city, and as to the proper location thereof; a certified copy of which resolution was furnished the commissioners by the city clerk.

AT THE MILWAUKEE SESSION

of the commission, held on the 11th and 12th of December, a committee on the part of that city, consisting of Hon. H. C. Hobart, Pres. of the Common Council, H. J. Hilbert, Esq., City Engineer, and Aldermen Kittredge, Stirn and Stoltz, met the Commission, when a conference was held respecting the expediency of erecting a permanent fish hatching house at that place. It was proposed, on the part of the city, to give to the state suitable grounds for such purpose in perpetuity, and also water for hatching purposes. The site proposed, and which was examined, is well adapted to the

work of the commission. The carrying out of this plan depends entirely upon the action of the legislature. The building, if ordered, ought to be constructed and put into condition for use as early as the 1st of September next year. We respectfully ask the legislature to make the necessary appropriation to put up such a building. Upon an estimate made without matured plans or specifications, we think that the sum asked for would cover the cost. The law providing for its construction would, of course, follow that of similar enactments providing for the erection of state buildings. Upon its completion, the commission would be provided with all the buildings in that direction required for many years to come. It must be borne in mind that the pecuniary advantages already enjoyed by us from the city of Milwaukee, are fully equal to if they do not exceed in dollars and cents, the amount of the appropriation asked for.

At this session the accounts for the current year were fully examined and passed upon by a full board. Mr. Hooper, our active and efficient secretary, much to the regret of his associates, resigned, and his resignation as one of the board is, we understand, to take effect the first of January. The vacancy thus created will doubtless be filled in the selection of some gentleman residing in the northeastern part of the state. The treasurer's report will be found in the appendix.

SUPERINTENDENT'S REPORT.

We call attention to the report of Supt. Welsher, giving a detailed statement of the distribution of fry during the past season. We believe that every accessable place where fry had been engaged was supplied, except, perhaps, in the matter of brook trout. We incur a great risk, and no small degree of embarrassment in trying to "count our eggs before they are hatched." We make it a point to place in rivers and streams and our small lakes only game fish. These do not embrace the whitefish, which can only be taken by the spear and net, and require deep waters. Most of the other varieties of food-fish indigeous to our waters, readily take the hook. We get no reports satisfactory from the planting of the California salmon. Spirit lake being land-locked, has been liberally supplied

with this fry, as also lake Mendota. Dead ones ten and twelve inches in length have occasionally been found on the beach of lake Mendota, but we have no report of any from Spirit lake. It is a very hardy, gamey fish, and thrives elegantly in ponds, as can be seen at the Madison hatchery.

The experiment of acclimating them to our fresh-water lakes may prove a failure, although Mr. Wilmot, of the Canadian fisheries, asserts with great confidence that the Atlantic salmon of Lake Ontario have never been to the sea. The letter of Mr. Fairbank, in this report, however, is very encouraging. We have now in the Madison hatchery 100,000 of the fry, in superb condition. The impregnated eggs are donated to us by the general government, subject only to express charges. It is not the purpose of the commission to expend much money or time with this variety of fish, until it shall be demonstrated that they can be raised in fresh water and lose their sea-going instincts. It is possible that those planted in the tributaries of the Mississippi may, after the lapse of sufficient time, return to their place of deposit. The perils which they incur in going to the Gulf of Mexico and returning to these freshwater streams renders their reappearance quite improbable.

By correspondence, the commission is tolerably well supplied with a description of inland lakes, rivers and streams, and of the varieties of fish which inhabit them. We are constantly acquiring information on this subject, and, so far as possible, tabulated. This aids us very materially in the distribution of fish. Our superintendent and his assistants are thorough experts in the matter of handling and planting fry, and are faithful and attentive to the discharge of their respective duties. Of Mr. Welsher, and of Messrs. Scott and Lyons, we have heretofore made mention in favorable terms, and need not repeat them here. Our great success is largely due to their vigilance, attention, and unremitting care. They earn their wages by putting their hands and their skill directly into their work, and in fair weather and foul, by day and by night, the great interests intrusted in their hands are never allowed to suffer.

Fish Food.

FISH FOOD.

It is well known that the flavor of fish depends mainly upon the kind of food on which they subsist. It is notorious that fish fed on liver, taste suspiciously of that cheap article of diet. Those which feed on fish lack the delicate flavor which distinguishes those which feed on Crustaceans, Crawfish, Shrimps, etc. The six-spined Bass of our rivers and small lakes is certainly the best flavored fish found in these inland waters for the reason that they feed mainly on Crawfish. In lakes Michigan and Superior there are four or five known species of minute Crustaceans some of which inhabit the profound depths of these great bodies of water. On these gammaridge the Whitefish principally subsist, which is the cause of their superior excellence. Crustaceans are exceedingly prolific and it is well they are so, for otherwise the vast numbers that are consumed by fish and other animals would soon cause their extinction.

We have in Wisconsin many species of Crawfish and Shrimps. At the State Hatchery, Nine Springs, the water fairly swarmed with a species of Shrimp, Gammarns Faciatus. They lurk under stones and among aquatic plants during the day, but at night come out of their hiding places in myriads. This little Shrimp which seldom exceeds one-half inch in length is just the kind of food on which fish delight to feed.

The commission has introduced the Anacharis Canadensis into the ponds at Nine Springs. This aquatic plant is of great value in purifying the water rendered impure by the accumulation of carbonic acid gas as well as excrementiticus matter. The office performed by plants in the economy of nature is of vital importance. Animals take in oxygen and give out the injurious carbon is acid gas which is absorbed by plants, which convert the carbon into the structures of their growth and return the pure life-giving oxygen to stimulate animal life, being thus mutually dependent, giving and receiving in turn.

Fish are healthier in consequence of aquatic plants, while the plants are invigorated by the animal products.

Plants perform also an accessary office by giving shelter to those aquatic animals that are so valuable as fish food, and also

^{2 -} FISH COM.

Bounties for Water Pirates.

serve as a pasture on which crustaceans and aquatic insects as well as the larvæ of terrestrial species are fed. Without doubt good would result from planting the Anacharis with all its wealth of animal life in those waters intended to be stocked with fish. Is it not reasonable that we should see to it that the fish planted in public waters are abundantly supplied with appropriate food?

There is little difficulty attending the transportation of crustaceous and aquatic insects in any desirable numbers.

This is a practical matter, the solution of which bids fair to redound to the advancement of fish culture, and would be a step in the right direction. To insure the best results, it would of course be necessary first of all to examine carefully each lake and river, to ascertain the vegetable as well as animal life therein.

BOUNTIES FOR WATER PIRATES,

We give liberal bounties for the destruction of wolves, lynxes, wild cats, etc., animals destructive to sheep, poultry and pigs, while one pickerel, dog-fish, gar or bill-fish destroys more food, and of more value, than any dozen of these wild animals, year in and out. Lizards, too, are very destructive to spawn, while the sucker eats more spawn of the better kinds of fish than his whole tribe is worth. A fair bounty should be awarded for the destruction of these enemies to the better varieties of our fish. We are not aware that bounties in this direction have ever been given. The fish has had no adequate protection against its enemies, while it constitutes one of the very substantial sources of the life of the people.

CHICAGO INTER-STATE EXPOSITION.

Last summer the managers of this institution applied to the commissioners for aid in the way of skilled labor and fish, to stock aquariums, of which there were 50 or 60, as one of the attractions of their exhibition. Being the central point for the northwest, and to which large numbers of Wisconsin people would be attracted, we determined to aid the managers as far as we could in making it a success. We accordingly authorized our superintendent to supply them with some of our own fish, and to give them the aid of his skill, as also that of experts in the employ of the

Grayling - Ptanting Fry.

state, but not so as to interfere with our own operations. The exposition paid Mr. Welsher's expenses, as also the wages and expenses of his assistants. This was the first exhibition of the kind ever had, west of Detroit, and was in all respects a success.

GRAYLING.

Supt. Welsher, on his return from Chicago, added to our ponds twenty grayling, and he expects at a trifling expense to obtain one hundred more through the politeness of Mr. J. W. Bradley, of Milwaukee, next spring. These, with those on hand, will give us a fine start, and we shall soon introduce this fish into our Wisconsin waters. The species belong to the trout family, live with them in the same streams, attain about the same size, and are fully equal to them in flavor and take the hook with the same avidity. This fish is a spring breeder. They are only found in the United States in the northern streams of the state of Michigan. The fish is common to the north of England, and is embalmed in verse by Tennyson in "The Brook," being descriptive of his native streams:

"And here and there a lusty trout, And here and there a grayling."

PLANTING FRY.

In the distribution of fry, we have sought to deal justly by all sections of the state. In the eastern half of the state there are numerous lakes in which the white fish and lake trout will thrive. These have been planted to a considerable extent with those varieties of fish. The speckled trout, limited as these have been in numbers, were properly due to the western half of the state, where trout streams abound in great numbers. We hope, next spring, to have from three to four hundred thousand speckled trout fry for distribution, besides keeping all the breeders we want. In our work for 1879–80, we reasonably expect to hatch a million of the speckled trout. That of this year, and of the next hatch, will reach many trout streams in the northeastern part of the state. The demand for this fish is immense, and has in no small degree embarrassed the commission.

$Lake\ Mendota\ White\ Fish-Railroads-Educational.$

LAKE MENDOTA WHITE FISH.

Last January, Supt. Welsher packed and sent to Prof. Baird at Washington, specimens of this fish for examination. He acknowledged their receipt, and concurred in our opinion that it was an excellent fish, and worthy of propagation. They are found in great abundance in Lake Mendota or 4th Lake, at Madison, and at the writing of this report it is the purpose of the superintendent to take and impregnate one or two millions of the ova, and place them in the boxes for hatching at Milwaukee, for the express purpose of stocking the inland lakes of the state, as it is reasonably certain that they will thrive in such waters. Fishermen take them with the hook in large numbers, and for this reason they are preferable to the Lake Michigan White Fish, which can only be taken with nets. Many attain to the size of No. 1 White Fish, and are taken in large numbers averaging two or three pounds, and some weighing four pounds.

We think this species of fish will become popular with the people. They are only found at present in the Madison lakes, and a few other deep and cold lakes, and are used extensively upon the tables of Madison people, and in their season are shipped in considerable quantities to other markets. It is not a species of destructive fish, and in spite of all its enemies, the pickerel included, there is a marked increase in their numbers from year to year. They are only taken during the fall and winter months, remaining in deep water during the remainder of the year.

RAILROADS.

In the transmission of fry, the railroads of the state have extended to us many courtesies. They justly regard our work as a new enterprise, and as developing a new and growing industry. This liberality, we are glad to say, is common to all the roads operating in states and territories provided with fish commissioners.

EDUCATIONAL.

The state of Virginia has consolidated her fishery interests with her great university, as a factor in the study of Natural History.

Appropriation.

The study of the habits of the fish is attended with many difficulties, and is confined almost entirely to old fishermen who follow fishing for a livelihood. Chancellors and presidents of universities, professors and students are compelled to take their knowledge on this subject from the writings of our great naturalists, Buffon, Agazziz, Green and others, who have made these studies almost, if not quite, the study of their lifetimes. It may be thought advisable, in time, to follow the example of Virginia in this particular.

The establishment at Madison is easy of access to the principals of our university, and to the thousands of students who flock to it from every part of the state to acquire an education. There, the habits of the fish can be studied every day in the year, and not only are these advantages to be enjoyed by those thus favorably circumstanced, but all our people have free access to this wonderful mine of useful information. Viewed alone, in its scientific aspects, the enterprise is well worthy of the encouragement of the state.

APPROPRIATION.

In order to keep the commission up to its present working capacity, we shall require an appropriation this year of eight thousand dollars. In addition to this sum, we shall need an extra appropriation to obtain the facilities at Milwaukee for the hatching of the whitefish and trout.

If we perfect the arrangements contemplated with the city authorities of Milwaukee, in the obtaining of a free site and the free use of water, we think it far preferable to at one erect a suitable building at that place for a permanent hatchery. Such a structure, we think, can be built and supplied with the necessary fixtures so as to obtain the water, at a cost of about five thousand dollars. The building should be respectable in appearance, and substantial in character. We have all the necessary inside apparatus. The main cost will be the walls, two floors, roof and windows, and accommodations made for a portion of the help, as vigilance is necessary both night and day.

Scientific Names of Fish.

SCIENTIFIC NAMES OF A FEW VARIETIES OF FISH.

- Pacific or California Salmon: Salmo Quinnat.
 Atlantic Salmon: Salmo Salar.
 Land-Locked Salmon: S. Gloveri.
 Sturgeon: Acipenser Sturio.
 White Fish: Caregonus Albus.
 Brook Trout: Salmo Fontinalis.
 Sheeps-Head: Sargus Ovis.
 Codfish: Gadus Morrhua.
 Mackerel: Scember Vernalis.
 White Bass: Roccus Chrysops.
 Black Bass: Micropterus Pallidus.
 Yellow Perch: Perca Americana.
 Carp: Cyprinus Carpio.
 Lake Trout: Salmo Namayacush.
 Salmon Trout: S. Confinis.
- Note.—This list might be increased ad infinitum; but the general reader cares but little for these scientific designations.

- Wall-Eyed Pike: Stizostedium Americanus.

SUPERINTENDENT'S REPORT.

To the Fish Commissioners of the state of Wisconsin:

Gentlemen: Having assumed the superintendency of the hatching houses under your control, on the 1st of September, 1877, I beg to lay before you a concise account of the work performed, and the various developments which rewarded our exertions in the field of pisciculture.

Upon taking charge in Madison, I employed the few weeks prior to commencing operations in Milwaukee, in making such alterations in and about the premises as would be conducive to the better working of our affairs there.

Our operations opened in Milwaukee on the 23d day of October. The lake trout are procured at this point.

There are five steam tugs employed in trout fishing there, named respectively D. Castello, Eaton Eviston, G. R. Green and Pottawottamie.

In answer to the oft repeated question, "Are the fish becoming scarce?" I will say that, where a few years ago, excellent fishing was found, now there is none; but a few miles off the land, I am told by the fishermen, "full nets" was the only cry, now they have to go twenty or thirty miles further to get but a meagre supply.

The amount of capital invested at this point, alone in fishing vessels, nets, houses, and so forth, will amount to forty thousand dollars, and the pursuit gives employment to quite a number of our people.

Each boat employs about four gangs of nets; a gang consists of forty nets, and when set, will reach a distance of two miles. The gangs are set parallel with each other, and range about east and west; or, in others, set across the lake. When the nets are all down, or to use a fisherman's phrase, "fishing," there are about forty miles

of net work. It would seem that with this great cordon of nets, very few fish would escape, but the truth is, no great shoals of fish exist as formerly, straggling remnants of a once "mighty tribe," now alone become unwilling captives in the meshes of the "toilers of the deep."

The evidence of the decline of the fisheries is daily growing more manifest, and only by our labors in pisciculture can we hope to arrest its decay.

Those fishermen who use the gill net, complain in bitter terms of the destructiveness of the pound nets. Their complaint is a just one, for there is no doubt but the pound nets are specially destructive to the young fish. The meshes of the pound nets should be enlarged, making them incapable of holding a small fish within their confines. It is a notable fact, that within our range of observation, while attending the "lifting of gill nets," we have failed to discover but few small fish. We need some measures that will eradicate the evils of the pound net, and thereby avert, what will certainly be an an irreparable loss; not only to those who have considerable of worldly goods invested, and who follow fishing for a livelihood, but to humanity in general.

Under the head of usages which are destructive to the finny tribe, I would call your attention, as mine has often been, to that nefarious practice "spearing." They who ply the spear return not as the warriors of old, with ribboned trophies as evidence of their prowess, but, on the contrary, come marching homeward with the kingly occupants of our magnificent lakes, who are rich in those means which a wise creator endowed them with to reproduce their kind. In the spring of the year, when the ovaries are filled with spawn and the time has arrived to deposit it, the fish seek some shallow spot, and proceed to obey the mandate of nature. While in the act, these warriors of the spear appear upon the scene and do their dishonorable work. It should be stopped, and if those who spear wish to get fish, let them pursue a more honorable course. Give the fish a fair show. As long as he has life he should be considered an honorable adversary.

On each of the steamers above named, I had a man securing spawn of the Lake Trout. Our trays, 300 in number, were entirely

covered on the 18th day of November, 1877, twenty-six days being consumed in the taking of the eggs.

The white fish eggs were secured at Saugatuck, Michigan. On the 6th of November, your superintendent, in company with his assistants, left Milwaukee for Saugatuck, arriving there on the 8th, and at once proceeded to make arrangements for the taking of the spawn. The fishing here is done by sail boats, and there is a small steam tug also engaged. For years past this point has been considered the best on the lakes for white fish, but constant fishing, miles of net-work, and other influences, have depleted the source, and the prestige of the place exists only in name, not in fact.

Our supply of white fish eggs was all secured by the 22d of November, and the men returned home.

The past season being one of unusual mildness, the water in use at the Milwaukee hatchery was of higher rate of temperature than in the preceding season, hence the development of the embryotic fish was more rapid, and the chances of any great loss materially averted.

I was of the opinion that the hatching would occur at a much earlier period than the year before, but alternate spells of cold weather so modified the temperature, that the hatching period came in proper season.

The first lake trout hatched out on the 20th of January, and on the 22d we had eleven floating boxes with a capacity of 7,700 each in use. An interval here occurred in the hatching and on the 24th of February, they began to hatch out in good shape, the last hatching occurring on the 4th of March.

The White Fish began to hatch on the 20th of February, a slight flurry of fish this day, and on the 27th, 28th; 1st, 2d and 3d of March the hatching was completed.

THE LAKE TROUT

were distributed as follows:

Brown's Lake, Racine county	40,000
Birch Lake, Marquette county	20,000
Badger Lake, Eau Claire county	40,000
Beaver Dam Lake. Dodge county	40,000

Boner's Lake, Racine county	40,000
Bergh's Lake, Waushara county	
Crooked Lake, Waushara county	50,000
Camp Lake, Kenosha county	40,000
Cedar Lake, Polk and St. Croix counties	50,000
Crooked Lake, Walworth county	50,000
Cedar Lake, Washington county	50,000
Devil's Lake, Sauk county	40,000
Elizabeth and Mary Lakes, Kenosha county	50,000
Eagle Lake, Racine county	40,000
Elkhart Lake, Sheboygan county	50,000
Ella Lake, Milwaukee county	40,000
Fox Lake, Dodge county	50,000
Fish Lake, Waushara county	20,000
Fowler's Lake, Waukesha county	30,000
Green Lake, Green Lake county	100,000
Little Green Lake, Green Lake county	50,000
Hicks' Lake, Waupaca county	40,000
Judson's Lake, Waupaca county	40,000
Koshkonong, Jefferson and Rock	40,000
Kilby Lake, Marquette county	40,000
Keesug Lake, Waukesha county	40,000
Lauderdale Lake, Walworth county	40,000
Lulu Lake, Walworth county	50,000
LaBelle Lake, Waukesha county	20,000
Loss Lake, Columbia county	100,000
Najawicka Lake, Waukesha county	40,000
Ocachee Lake, Waukesha county	50,000
Oconomowoc Lake, Waukesha county	50,000
Pine Lake, Waukesha county	50,000
Pewaukee Lake, Waukesha county	50,000
Pine Lake, Waushara county	20,000
Powers' Lake, Kenosha county	40,000
Silver Lake, Waushara county	40,000
Stone Lake, Marquette county	20,000
Rock Lake, Jefferson county	40,000
Winnebago Lake, Winnebago, Calumet and Fond du Lac counties.	20,000
Wilkes' and Bowers' Lakes, Sheboygan county	200,000
Michigan Lake	40,000
	1,000,000
Total Lake Trout distributed	3,040,000

White Fish and Madison Hatchery Distributions.

WHITE FISH DISTRIBUTION.

Racine	1,000,000
Manitowoc	1,000,000
Green Bay	1,000,000
Winnebago	
Geneva Lake	300,000
Fourth Lake	50,000
Milwaukee	5,000,000
Total white fish and trout	
Total write fish and flout	=====

The deposits were attended with success.

MADISON HATCHERY DISTRIBUTION OF SPECKLED TROUT.

The brook trout commenced spawning about November 14th, 1877, and commenced hatching January 12th, 1878.

1878.

- Mch. 21. Planted in Mormon Creek, La Crosse county, 9,000 Brook Trout.
 Planted 4,000 Brook Trout in Smith creek, La Crosse county.
 Planted 6,600 Brook Trout in Burnham Valley Creek, La Crosse county.
 Planted 5,500 Brook Trout in Adams Valley Creek, La Crosse
- Mch. 26. Planted in Spring Creek at Lodi, Columbia county, 15,000 Brook
- Mch. 27. Planted in Lamberton Creek at Mayville, Dodge county, 15,000

 Brook Trout.
- April 1. Planted 10,000 Brook Trout in Bear Creek, Oak Dale, Monroe county.
- April 4. Planted 10,000 Brook Trout in Douglas Creek, Jackson county.
- April 22. Planted in Nine Spring Creek, below the Madison ponds, 5,000 Brook Trout.
- April 23. Delivered at ex-Commissioner Palmer's house at Boscobel, Grant county, by his order, 10,000 Brook Trout.

Fish Distribution

The residue of the hatch of 1877-8 were kept for breeders, yearlings to the number of 3,000.

HLANTING OF CALIFORFIA SAEMON.

1877.

- Oct. 18. Planted in Lake Mendota, at Madison, 6,000 California Salmon—yearlings.
- Oct. 5. Planted in Boscobel, Grant county, 6,000 California Salmon, in a tributary to Mississippi.
- Jan. 18. Planted 50 yearling California Salmon in creek running from hatching ponds, and emptying into Lake Monona.
- Mar. 22. Planted in Spring Creek, at Lodi, Columbia county, 15,000 California Salmon.
- Mar. 23. Planted at Poynette, Columbia county, 15,000 California Salmon.
- Mar. 24. Planted at Hartman, Columbia county, 12,000 California Salmon.
- Apr. 4. Planted at Boscobel, Grant county, 600 yearling California Salmon.
- June 13. Planted at Silver Lake, near Portage, Columbia county, 150 yearling California Salmon.
- June 13. Planted in Wisconsin river, at Portage, in Columbia county, 8,000 California Salmon.
- Apr. 27. Planted in Perch Lake, Walworth county, 5,000 California Salmon.
- Apr. 29. Planted in Boothe's Creek, Walworth county, 10,000 California Salmon.

Two of the above lakes have no outlets or inlets. The waters are deep and cold. The planting in these lakes is an experiment, and we hope in time to produce the land-locked salmon similar to those now found in the state of Maine.

There are now in the ponds 500 California salmon of the hatch of 1878. We have also a few land-locked salmon, Kennebecs and Penobscots, two years old. Also six or eight hundred salmon trout, yearlings, and three or four hundred California salmon, coming four years old, besides our extensive family of one, two and three years old, speckled trout. The fish are all in fine condition, and growing rapidly.

And now for a subject I wish to engross into this report. When distributing the young fish throughout the state, we are met at almost every station and also on the railroad, with the query, "Won't the pickerel eat them small fish?" - "Will they live?" and a thousand other queries of a like nature. These questions are in the main propounded by those "old fishermen," (every town has one), who catch these monstrous fish in such and such waters, (according to their tell); and who in their conceit imagine that nothing pertaining to fish (especially pickerel) ever escaped their observation. Now I do not wish to say ought against their ability, but I must confess their propounded queries are of the shallowed kind. pickerel is a prowling Ishmaelite, levying on all for his daily sustenance. No respecter of family ties, breaking the bond existing. between him and his brother or sister by complacently swallowing them if he can. He possesses the power of reproduction and does reproduce his kind, and they stand the same chances of being eaten up as the young trout or young white fish. Yet we know they multiply, and prosper notwithstanding, the fact that capacious mouths stand wide open to grasp them, at almost every turn in their swimming career. In view of the above facts, is it too much to assume that the young trout will not possess these same chances, and will not succeed in evading this particular destroyer, the pickerel?

Information relative to growth of the fish planted under the auspices of your commission is not wanting. Mr. Wilkinson, in writing from Delafield, Wis., speaks of a "trout measuring 9 inches being caught in Nayawicka Lake." Mr. Vedder, proprietor of the Oaklon Springs Hotel, Pewaukee, asserts he "saw schools of young trout of good size in Pewaukee Lake." Mr. Ferguson, of Fox Lake, also has seen the young trout in that lake, and of good size. The cases might be multiplied, and I have no doubt you are in receipt of many letters from parties who have seen and caught the fish planted by us. The demand for fish for our inland lakes is greater each year, which conclusively proves that plenty of our people have faith in the science of pisciculture, and are no believers in the oft repeated and truth lacking assertion, "The pickerel eat them all up."

I assert, without any fear of contradiction, that the waters selected by your commission for the planting of young fry to be in every way suited for their welfare and growth, and that in a few years the people will enjoy the benefits accruing from our labors in pisciculture.

With many thanks for courteous treatment and your appreciation of my former labors, I remain,

Yours respectfully,

H. W. WELSHER, Sup't.

Inventory of Madison Hatchery.

INVENTORY OF PERSONAL PROPERTY AT MADISON HATCHERY.

1 large tin can for transporting young

6 medium tin cans for transporting 2 brooms.

young fish.

3 small tin cans for transporting y'ng

fish.

10 tin pans.

2 pails.

2 dippers.

1 syphon tube.

1 wash tub.

15 trays for hatching trout.

15 trays for Holton box.

2 four gal. crocks.

1 cleaver.

3 feed strainers.

1 crowbar.

1 handsaw.

1 hammer.

2 picks.

2 wheelbarrows.

2 shovels.

1 grub hoe.

1 grass scythe.

1 bush hook.

1 scrub brush.

2 whisk brooms.

2 stoves and pipe.

4 saw horses.

1 saw-buck.

1 gill-net.

1 net for catching spawn fish.

2 scap nets.

1 hauling net.

1 writing desk.

5 chairs.

1 table.

1 lounge.

1 sledge hammer.

1 work bench.

1 register book.

2 ink stands.

1 piece of carpeting in office.

1 thermometer.

1 guttapercha syringe.

1 pair tin snips.

1 pair knee boots, rubber.

Inventory of Milwaukee Hatchery.

INVENTORY OF PERSONAL PROPERTY AT MILWAU-KEE HATCHERY.

1 large reservoir.

24 hatching troughs.

20 patent Holton boxes and receivers.

6 barrels.

15 transportation cans.

10 transportation boxes and fixtures.

325 trays for trout eggs.

300 trays for white fish eggs.

3 aquaria.

6 glass globes.

12 floating boxes for young fish.

2 large pans.

8 small pans.

4 dippers.

50 frames for trays.

15 filtering screens.

1 step ladder.

4 chairs.

4 stools.

1 spittoon.

1 3/4 inch chisel.

2 hammers.

1 tar can.

1 oil can.

18 wooden pickers.

4 pails.

1 saw.

3 brad-awls.

1 pair tin snips.

1 pair forceps.

12 picking cups.

1 market basket.

5 syphon tubes.

3 syphon cases.

12 scap nets.

2 whisk brooms.

2 bracket lamps.

4 hand lamps.

2 lanterns.

4 percolators.

1 table and cloth.

2 beds and bedding used in hatching house, consisting of two mattres-

ses and bedding.

1 looking glass.
1 thermometer.

1 wash tub.

1 sprinkling pot.

1 broom.

CORRESPONDENCE.

CHICAGO, ILL., December 9, 1878.

Hon. WM. WELCH,

President Wisconsin Fish Commission.

DEAR SIR:— I have your letter asking me to write you "respecting my success attending fish planting in Geneva lake, Wis."

The lake is about nine miles long, and from three-fourths of a mile to three miles wide, and from fifty to one hundred and fifty feet deep through its center. The water is very pure and clear, as it is fed entirely by springs. It is free from weeds and grass, and has not a single bull-rush or lilly-pad in it.

I will refer, in this letter, only to the California salmon planted, as they are the only variety which have shown themselves as yet to any extent.

In the spring of 1876, I deposited 40,000 California salmon.

In the spring of 1876, I deposited 8,000 land-locked salmon.

In the spring of 1877, I deposited 75,000 California salmon.

In the spring of 1878, I deposited 200,000 California salmon.

In the spring of 1878, I deposited 5,000 land-locked salmon.

I have now, in my hatchery, 200,000 California salmon ready to put in next spring. So that you will see I have hatched and deposited in the lake about 500,000 California salmon and 13,000 land-locked salmon, all told. Now as to the results:

During the last spring and early summer, considerable numbers of the salmon were seen, and as nearly as I can learn, about twenty-five fine fish have been caught with a hook. Mr. George Ayer caught three one morning in June from the pier of the Howard camp, at the head of the lake, which he kindly sent to me. They were about twelve inches in length, and weighed twelve; thirteen and fifteen ounces each. The flesh was a fine pink color and most excellent flavor, and made a delicious breakfast.

3 - FISH COM.

None were seen after until about the middle of June, that I heard of, but they appeared again in considerable numbers late in October, about the outlet at the foot of the lake. Several fine ones were taken with a hook, one of which I have now alive in my fish house. Those which were caught were about fifteen inches long and weighed one and one-half pounds each, showing a fine growth since spring. I saw myself, in November, four fine ones from the pier near the outlet. I should judge they would weigh fully one and one-half pounds each.

These, of course, are the fish hatched in the fall of 1875, and they are consequently three years old.

This I regard as a fair showing, and I feel greatly encouraged, for it demonstrates that the California salmon will live and thrive well in our small fresh water lakes. What size they will ultimately attain to, I think is a question depending entirely upon the amount of food they can find in the lake. If food exists in abundance, they will grow to a large size. This has been demonstrated in the ponds near McGregor, Iowa, where I saw several hundred Kennebec salmon, which were hatched there and fed daily, and which now weigh ten to twelve pounds each.

I am, as yet, unable to form any accurate opinion about their natural propagation. The difficulty in Geneva lake is, that there is no stream emptying into the lake large enough to make spawning ground for them, and whether, when they find they are "land-locked," they will adapt themselves to their circumscribed situation and do the best they can under the circumstances, remains to be seen.

I am strongly inclined to the opinion, however, that if they find sufficient food in the lake to develop them to good sized, healthy, vigorous, fish, that nature will assert herself and that they will deposit their eggs in the clean gravel near the shores. I confidently expect that the anglers will take considerable numbers next season, which will weigh fully two pounds each.

I also stocked a small spring brook about two miles in length which empties into the lake, with brook trout. I put 50,000 into it in the spring of 1876, and 100,000 each year since. Last sum-

mer they were abundant, and several fine strings of fifteen to thirty were taken, some of them weighing one-half pound each. In May they make their appearance in the lake, and considerable numbers were taken with a fly.

Yours truly,

N. K. FAIRBANK.

FISH IN FOX LAKE.

The following is a private letter to Senator Williams:

Fox LAKE, Feb. 11, 1878.

Hon. C. H. WILLIAMS:

DEAR SIR — If you remember, early last May, there were put into Fox lake 40,000 lake trout from the Milwaukee hatching house. The application was made by you for the said fish. I want to say to you, they have grown finely; we put them into the water on the north side of Webster Island, which is rocky bottom. We have lately examined, from holes in the ice in that vicinity, and have seen large schools of them from four to seven inches in length. We think a large per cent. of them, from present appearances, will reach maturity. We think white fish will do equally as well in this lake.

Yours respectfully,

BENJ. FERGUSON.

BROOK TROUT IN SOUTH WISCONSIN.

The following letter, which will prove of interest to the people of Wisconsin, explains itself:

Dodgeville, Wis., March 14, 1878.

Hon. WILLIAM WELCH, Fish Commissioner:

Sir.— In the spring of 1876, Mr. Samuel Hoskins and myself purchased of Mr. Dousman, of Waukesha, two thousand young brook trout for the purpose of testing whether the several streams run-

ning north into the Wisconsin river, in this county, were suitable for the raising of brook trout.

The fish were received in tolerably good condition, but were on the road two days, with but little care taken of them. The next day after we received them, we placed them in a stream where no trout had ever been seen in, and we must say that the experiment has been a perfect success.

Last fall, the trout could be seen in perfect shoals ascending the stream for the spawning grounds, and several of them were seven or eight inches long, and were only eighteen months old.

There are many of such streams from the Blue Mounds to the Blue river, and by all means they ought to be stocked.

Very truly yours,

SAMUEL W. REESE.

Note. A few days ago, we met Mr. Reese at Madison, and he informs us that during this fall, he took six large speckled trout weighing from one and one half pounds each from one place on the stream named in his letter, but returned them to the stream without injury.

The following from a former Wisconsin sportsman, expresses the views of a true guardian of fish and game.

ELLENVILLE, N. Y., Dec. 15, 1878.

WM. WELCH, Esq., Madison:

I notice in the "Forest and Stream" of the past week, a notice of the success attending fish culture in Wisconsin: but also a complaint that the state fish law as regards nets and spearing a failure—that the law is disregarded with impunity. As you are one of the State Commissioners of Fisheries, let me beg you as an old lover of Wisconsin, to have a stop put to this outrage. Surely public sentiment ought to sustain you. The intelligence of the nineteenth century should frown upon such senseless barbarism.

Yours, WM. H. HASBROUCK.

The enthusiastic Fish Superintendent of Michigan, sends us the following letter:

NILES, Mich., Nov. 23, 1878.

Friend Welch:

The child is born, sure, and his name is Salmo Gloveri. We captured a land locked salmon yesterday, weighing eight pounds strong, two feet and four inches long, and two years and six months old. No mistake, and no tears save the tears of joy. He is as beautiful as Absalom, and a very monster for his years. It is believed that they are spawning, and we are making a vigorous push to secure some of the fertilized ova, so that we may obey the scripture, increase and multiply. You, and all good men, pray for us! All herald the salmon gospel.

Yours, and of the scaly faith, GEO. H. JEROME, Superintendent Michigan Fisheries.

PORTAGE, Wis., Nov. 27, 1878.

WM. WELCH, Esq., Fish Commissioner:

A year ago last spring, the fish commission of this state deposited several thousand lake trout, which had been hatched the previous season, in the waters of Silver Lake and Swan Lake in Columbia county. Last summer, the trout were often observed in large schools near the shore, and the boys and others frequently caught them, I am told, while they were angling in the lake. Indeed, some men made a practice of fishing for them regularly as though it were a legitimate proceeding. While I never saw any of these trout that had been taken, I have no doubt they were so caught quite commonly, for the persons taking them gave me a description of some "new fish" they had caught, which described the lake trout exactly; they had attained about six inches in length. I have heard nothing from the California salmon that you put in Silver Lake last summer, but as there were only about 150 of them, year-

lings I believe, it is not strange that they have not been heard from. They are doubtless doing well, and in a couple of years, we shall be able to do our salmon fishing without going to Columbia river or to Halifax.

At the late session of our board of supervisors, an ordinance was passed protecting the trout and salmon that had been put in Silver Lake until May 1, 1880. It may be found desirable to extend the time another year, before allowing much fishing in the lake.

We appreciate what the fish commission is doing to stock the waters of this state with choice fish, and will second all your efforts in that direction. We have several streams in our county well adapted to the brook trout, and we desire to file our application for as many as you can spare us; "we will place them where they will do the most good," and protect them until they are suitable to be taken. We shall want a few thousand for Silver Lake, and Swan Lake also, if you have enough to go around.

Yours truly,

A. J. TURNER.

The following is a copy of a letter from Mr. Newton to his local member in the assembly:

St. Joseph, St. Croix Co., Wis., Jan. 4, 1879.

Hon. Assemblyman HILL:

DEAR SIR — In compliance with the wish of many of the citizens of this and adjoining counties, I would earnestly ask and urge that you make every consistent effort to secure an appropriation for the stocking of our lakes and waters with fish. The planting of the fry in some of our lakes, by Mr. Welsher, for the two preceding years, have in the main done nobly; some few instances, they have as yet given no evidence of success; but in others, the fish are doing nobly, and will furnish food for the hundreds around these small lakes. Only a few days since, I saw Hon. Daily, who has a deep interest in the appropriation; parties at Hudson are urging an immediate effort. Bass lake, of St. Joseph, of St. Croix county, is one

of the finest bodies of water in the state. There have been two installments of fry planted here, and there are hundred of salmon here; but we need more to complete our work. This is submitted to you, praying your most earnest attention.

J. A. NEWTON.

MILWAUKEE, Sept. 24, 1878.

Friend Welsher:

I have to inform you, on last Sunday, that a lake trout was caught in Nagawicka lake, measuring 8 inches, well grown, and in splendid condition. It was evidently one of those put in the lake in the spring of 1877. There have been several smaller ones caught when they have been fishing for minnows, which have been put back in the lake. This shows that trout will do well in this lake.

I am yours truly,

W. WILKINSON.

Trial Balance.

TRIAL BALANCE, JUNE 18, 1878.

2	Appropriation of 1878		\$8,000 00
3	Appropriation of 1877		3,505 30
12	Salmon account	\$46 75	
16	H. W. Welsher, superintendent	1,200 00	
18	H. W. Welsher, expense account	67 04	
20	Milwaukee, expense account	2, 252 33	
24	Madison, expense account	335 08	
26	Breeding fish	370 55	
28	P. R. Hoy, commissioner	35 50	
29	A. Palmer, commissioner	41 60	
31	H. F. Dousman, commissioner	61 55	
33	State Treasurer	7,000 00	
34	Cash account	94 90	
		\$11,505 30	\$11,505 30

The above is a copy of H. F. Housman's trial balance, in the hands of Dr. Hoy.

Abstract of Treasurer's Account.

ABSTRACT OF TREASURER P. R. HOY'S ACCOUNT.

December 29, 1878.

	Dr.	Cr.
Received of H. F. Dousman		\$94 90
Received of Wm. Welch		30 CO
Received of state treasurer		7,000 00
Paid H. F. Dousman	\$49 20	
Paid Mark Douglas, commissioner	53 28	
Paid William Welch, commissioner	152 43	
Paid Moses Hooper, commissioner	29 52	
Paid C. Hutchinson, commissioner	17 80	
Paid P. R. Hoy, commissioner	50 06	
Paid H. W. Welsher, superintendent, salary	1,099 96	• • • • • • • • •
Paid H. W. Welsher, superintendent, expenses	847 52	• • • • • • • •
Paid B. B. Scott, assistant	324 54	
Paid John Lyon, assistant	166 44	
Paid D. Sykes, for land	99 50	
Paid all other bills audited	453 28	
Balance on hand	3 , 037 85	•••••
Total	\$7,124 90	\$7,124 90

COMMISSIONERS OF FISHERIES.

United States.					
Prof. Spencer F. Baird	Washington, D. C.				
41					
Alabama.					
Charles S. G. Doster	Montgomery.				
Robert Tyler	Montgomery.				
D. R. Hundley	Courtland.				
Arkansas.					
	יי דו מ				
N. H. Fish	A CONTRACTOR OF THE CONTRACTOR				
J. R. Steelman					
N. B. Pearce	Fayetteville.				
California.					
B. B. Redding	Sacramento.				
S. R. Throckmorton					
J. D. Farwell					
Colorado.					
Wilson E. Sisty	Brookvale.				
VV IISOR 12. Disby	DIOOK VIIIO				
Connecticut.					
William M. Hudson	Hartford.				
Robert G. Pike					
James A. Bill					
James 11. Din	Lymo.				
Georgia.					
Thomas P. James	Atlanta.				
[Duties embracing the work of the fish intere	ests assigned				

to Commissioner of Agriculture.]

Illinois.					
W. A. Pratt Elgin.					
Iowa.					
Samuel B. Evans Ottumwa. B. F. Shaw Anamora. Charles A. Haynes Waterloo.					
Kentucky.					
Wm. Griffiths; President. P. H. Darby. Princeton. J. B. Walker. Madisonville. C. J. Walton. Munfordville. John A. Steele Versailles. J. H. Bruce. Lancaster. S. W. Coombs. Bowling Green. James B. Casey. Covington. T. T. Garrard. Manchester. W. C. Allen. Owingsville.					
Maine.					
E. M. Stillwell Bangor. Henry O. Stanley Dixfield.					
Maryland.					
T. B. Ferguson Baltimore. T. Downs Denton. H. J. Rice					
Massachusetts.					
Theodore Lyman					

Michigan.					
A. J. Kellogg E. R. Miller J. C. Parker G. H. Jerome, State Sup't of Fisheries	Richland. Grand Rapids.				
${\it Minnesota}.$					
R. O. Sweeney W. W. Sweeney Daniel Cameron	Red Wing.				
New Hampshire.					
Samuel Webber. Luther H. Hayes. Albina H. Powers	Milton.				
$New\ Jersey.$					
B. P. Howell. J. R. Shotwell. G. A. Anderson	Woodbury. Rahway. Trenton.				
$New \ York.$					
Horatio Seymour Robert B. Roosevelt Edward M. Smith Seth Green, Superintendent	New York City. Rochester.				
North Carolina.					
Gov. Z. B. Vance. Prof. W. C. Kew. Prest. R. P. Battle. Col. S. M. Holt. Capt. S. B. Alexander Maj. Johnathan Evans. Capt. J. R. Trispan.	Raleigh. Raleigh. Chapel Hill. Haw River. Charlotte. Fayetteville. Tarboro.				
T	0010.				

Nevada.				
H. G. Parker				
Ohio.				
John C. Fisher.Coshocton.L. A. Harris.Cincinnati.Robert Cummings.Toledo.E. D. Potter, Superintendent.Toledo.				
Pennsylvania.				
H. J. Reeder Easton. B. L. Hewitt Hollidaysburg. James Duffy Marietta.				
$Rhode\ Island.$				
Newton Dexter				
Utah Territory.				
A. P. Rockwood Salt Lake City. [Superintendent of Fisheries, Zion's Co-operative Society.]				
Vermont.				
M. Goldsmith Rutland. Chas. Barrett Grafton.				
Virginia.				
Col. Marshall McDonald Lexington.				
West Virginia.				
Henry B. Miller				

Wisconsin.

[Fishery Officer.]



ANNUAL REPORT

OF THE

WISCONSIN

GEOLOGICAL SURVEY

FOR THE YEAR 1878.

By T. C. CHAMBERLIN,

Chief Geologist.

MADISON, WIS.:
DAVID ATWOOD, STATE PRINTER.
1879.

ANNUAL REPORT, 1878.

To his excellency, Wm. E. Smith, Governor of Wisconsin:

Sir: I have the honor to submit herewith, in accordance with legal requirement, a brief report of the progress and results of the Wisconsin Geological Survey for the year 1878.

Most respectfully, your obedient servant,

T. C. CHAMBERLIN,

Chief Geologist.

Beloit, December 31, 1878.

REPORT.*

The state of progress of the geological survey at the close of last year was set forth in my annual report for 1877. There was at that time statute provision for the continuance of the survey only until the first of last June. But by enactment of the legislature the work was ordered continued until the 31st of March, 1879, and an appropriation of five thousand dollars granted to meet the necessary expenses. The previous annual appropriation had been thirteen thousand dollars; and this wide difference in the funds placed at the disposal of the corps, must be taken into consideration in judging of the results attained during the year. would be quite unfair, however, to infer from the smallness of the appropriation that the importance of the survey was not appreciated and endorsed by the last legislature, since their generous action in relation to the publication of the reports and to other matters pertaining to the survey, evinced a cordial and appreciative interest in it. But the advanced condition of the work, and the large amount of accumulated material ready to be wrought into permanent form and published, and the great labor and large measure of the time of the members of the corps which this would necessarily occupy, rendered it wise, perhaps, to curtail somewhat the prosecution of the field work. There arose also, then as now, the question whether the degree of completeness attained by the survey was, or was not, sufficient to subserve the best interest of the state. A survey of this kind admits of being carried to almost any degree While a survey cannot be stopped, without of exhaustiveness. defeating its objects, until the general geological structure of the state is fully ascertained, the degree of minuteness and thorough-

^{*}The appearance of this report has been delayed somewhat by sickness and death in my family.

T. C. C.

General Plan of Work.

ness to which it should be carried beyond that is somewhat more a matter of judgment. It is the opinion of experts that such work becomes increasingly profitable as it is carried to greater and greater degrees of completeness and exactness; because the application of the results to the development of the resources of the state become more certain and evident. At the close of last year the survey had arrived at the stage indicated. The degree of detail to which the work in the southern part of the state had been carried was shown by the volume and atlas issued during the year. similar measure of completeness had been attained in the other portions of the state that were settled. In the northern regions, the work had been more concentrated on the iron belts, where some very thorough work had been done, and only a general knowledge of the formations underlying the great forest region had been attained. The corps had conscientiously endeavored to place the work in the best attainable condition for closing at the time specified in the organic law of the survey; and they felt that, however far from that entire completeness which they might desire, they had placed the work in such an advanced condition that they might cheerfully accept the judgment of the legislature as to its continu-It was also felt that, in view of the depressed condition of the industries of the country, which rendered less imperative the immediate development of some of our natural resources, a smaller appropriation, with more time, might be quite as economical and satisfactory in the end, as a larger allowance and more rapid execution. It is therefore in a spirit of entire concurrence in the wisdom of the enactment, that attention is called to the more limited means granted for the prosecution of the work during the past year, and it is only here referred to, because it must be taken into account in forming a just judgment of the work of the year.

GENERAL PLAN OF WORK.

The attitude of the survey being such as has been indicated, it was deemed best to concentrate the field work upon the more important practical subjects of investigation. It hence follows that the results of the year's survey have a more directly practical

Work Under Professor Irving.

bearing than it has always been possible to give the work in previous years. The laying of the foundation of any structure, whether material or mental, has little value in itself, but finds its importance in the superstructure built upon it. The working out of the geological foundations of the state, is of value mainly as a basis upon which to found investigations of more direct and specific industrial importance; and this latter class of work, the survey now finds itself competent to enter upon in a larger degree than ever before.

The subjects selected for investigation, were the more thorough examination of the important Oconto iron district, the completion of the observations on Penokee iron range, the continuation of the crevice survey of the lead region, a special study of the method and laws of deposit of the lead and zinc ores, and an examination into the nature and means of utilizing our sandy soils.

Besides these special topics, chemical, microscopical and paleontological examinations have been in progress, and the observations in the various departments of natural history have been continued as heretofore, while the elaboration of the report has occupied a large measure of time. A brief outline of the work in these several districts, is given herewith.

WORK UNDER PROFESSOR IRVING.

Professor R. D. Irving has been occupied, during that portion of his time given to the geological survey, in the completion of his final report on the eastern portion of the Lake Superior district. This comparatively small area has, crowded within it, fully 50,000 feet in thickness of crystaline rocks, with many subdivisions, the accurate defining and mapping of which is of immediate practical importance as well as of scientific interest. In order satisfactorily to attain this result it has been necessary to examine in minute detail some thousand of specimens collected in the field, making use largely of microscopic analysis. In this new method of investigation we have been aided by Professor Pumpelly who has examined a suite of our copper rocks, chiefly with a view to their comparison with the rocks of the Michigan copper series, as to

Work Under Professor Irving.

which he is the chief authority. Mr. A. A. Julien has also examined a small collection of eleven specimens, mainly from the Huronian series, with the rocks of which, as developed in Michigan, he is especially familiar. It has, however, been necessary to extend the microscopic work much beyond this, in order that each one of the subdivisions of the copper and Huronian series should be thoroughly investigated, and also that the numerous ledges examined might be thrown into their proper stratigraphical positions. This microscopic work Professor Irving has himself undertaken, and during the past summer he has examined over 200 of these sections in detail. In this way a number of difficulties have been overcome, and some interesting new points developed. Several colored plates, representing the appearances under the microscope of the rocks of each of the great groups of the region, have been prepared and are now in the engraver's hands. These will serve as a guide for the determination of the true stratigraphical position of the ledges to be found in the future, and thus will be of direct practical value.

In order to add to the collections of specimens from this district, especially from those portions poorly represented in the collections already on hand, Mr. A. D. Conover was employed in May last to spend two weeks collecting. Mr. Conover's route was from the crossing of the Montreal river by the Flambeau trail, up the river to the mouth of the Gogogushugun, thence up the latter stream for two miles, thence westward to the Potato in T. 46, R. 1 W., thence down the Potato to the falls in Sec. 17, at which point some time was spent in mapping the large ledges exposed in the bed and sides of the stream, thence southward along the west line T. 46, R. 1 W., and T. 45, R. 1 W., to the southeast corner of the latter town; thence westward to the large gabbro ledges on the south line of T. 45, R. 2 W., thence northward to Tyler's Fork, in the north part of the same township, and thence down that stream to its junction with Bad river, Sec. 17, T. 45, R. 2 W. Mr. Conover's trip was thus planned so that he might both add to the collections from points already known, and collect from ledges, or determine their absence, on lines not previously followed.

Reconnoissance in Polk and Burnett Counties.

Professor Irving's report is nearly ready for the printer, the maps and plates having been for the most part engraved. This report has cost much more labor than was anticipated, but it is hoped that it will afford great assistance and a reliable guide to the iron and copper explorer. The general nature of the report was outlined in the last annual, and, although a number of additions, then unthought of, have been made, it will so soon appear in the final shape, that it is not necessary to give anything further with regard to it here.

RECONNOISSANCE IN POLK AND BURNETT COUNTIES.

The observations of our lamented colaborer, Mr. Strong, in Polk and Burnett counties, were only partially revised and reduced to permanent form at the time of his death, as some of them had been made just previously, and no opportunity had been permitted. the purpose of becoming, in some measure, familiar with the region to which these relate, preparatory to editing them for the final report, and to make some supplementary observations, the writer visited these counties in June, and made a brief reconnoissance of the region, in company with Mr. D. A. Caneday, who had been Mr. Strong's field assistant. Aside from such observations as were made upon the Copper-bearing series, which it would scarcely be proper to introduce here, in anticipation of those of Mr. Strong, some new facts were gained in relation to the surface geology, and the drift movements. It is often of much assistance to explorers to know definitely in what direction the blocks broken off from prominent ledges have been borne by the drift agencies, or rather the converse, to know from what direction any given bowlder, which may possess interest, has come. It seems to have been the common impression heretofore, that the drift movement of this region was from northeast to southwest, as this is undoubtedly the direction of the general movement about Lake Superior. But in the vicinity of St. Croix Falls, the striation and abrasion of rock prominences show that the line of drift was from northwest to southeast, the average trend of the scratches and grooves being S. 45° E. In the northeastern portion of Polk county, in the townships of West Sweden and Clam Falls, four localities show the direction of drift

Investigation of the Lead and Zinc Deposits.

to have been S. 20° to 25° E., S. 18° to 20° E., S. 10° E., and S. 25° E., respectively. All these, except the third (S. 10° E.), were upon prominences, and there is no reason to suppose they were modified by local topography. The evidence of the striation was corroborated by the forms of rock prominences and the abrasions they had suffered, as well as by the distribution of the drifted material and the linear form of the lakes, marshes and topography of the region. Prof. N. H. Winchell, State Geologist of Minnesota, expresses the conviction that the later drift in the region of St. Paul and Minneapolis was from the northwest. My opinion is, however, that this southeastern movement was characteristic of only the southeastern margin of the later drift area, and that in the Lake Superior trough, and in its extension westward, the direction was southwesterly, which was really the general line of massive ice movement; but on the margin of the great ice stream, the lines of movement diverge toward the border of the glaciated area, in a manner analogous to that which has been demonstrated in eastern Wisconsin. In my view, if the glacial grooves could be continuously traced backwards along their course, they would be found trending more and more to the northward, until the great channel of ice movement was reached. when they would be found coming from the northeast. This view is based upon the analogy of the Green Bay and Lake Michigan glaciers, the proximity of the Kettle moraine, and such facts as are known concerning the nature and distribution of the drift materials.

Considerable additional information was also gathered concerning the great Kettle moraine, which, in this part of its course, passes southwesterly through Burnett, Polk, and St. Croix counties. While its general position in this region is established, many details remain yet to be wrought out, but as they have only subordinate industrial importance, they must await opportunities when they can be studied in connection with other subjects, or until the settlement of the region renders their examination less expensive.

INVESTIGATION OF THE LEAD AND ZINC DEPOSITS.

As much time as I could spare from office and administrative duties, during the fall, was spent in a special study of the lead and

Observations in Europe.

zinc deposits of the southwestern part of the state, with the purpose of determining, as far as possible, the precise method of deposition, and the laws of formation. All the districts where mining operations were in progress, or where mines were known to be accessible, were visited, with one or two unimportant exceptions, and a large mass of data and material was collected. The elaboration of this will require some months labor, and, as I have heretofore persistently declined to prejudge the case by an expression of opinion before the full evidence was collected and carefully considered, I must ask leave to waive all discussion of the subject here. I shall resume the investigation as soon as some pressing duties in relation to publication are performed, and shall endeavor to complete them and present the result at as early a date as possible.

SURVEY OF THE LEAD-AND ZINC- BEARING CREVICES.

In my last annual report, a sketch of the survey of the lead- and zinc-bearing crevices, then partially made, was given. The character and object of the work need not be here repeated. It has been carried on to essential completeness during the past season by Mr. J. Wilson, Jr.

OBSERVATIONS IN EUROPE.

Through the unsought and very generous action of the last legislature, leave of absence for three months was granted the chief geologist to visit the Paris Exposition, and to attend the International Geological Congress which convened there on the 29th of August. Owing to pressure of duties in connection with the survey, it was found impracticable to be absent the full time granted, notwithstanding the proportionately greater advantages of a more protracted visit, when once the long journey is made, especially in view of the great facilities for profitable study which were presented. The period of absence from the state was about two months and a half, nearly one of which was occupied in transit. In this limited time, no very thorough examinations were possible, and such as were made will more appropriately find a place in connection with the discussion of the topics to which they relate.

Observations in Europe.

The Exposition afforded opportunities for studying some of the metalliferous deposits of the several countries represented, and of making instructive comparisons. In respect to the lead and zinc deposits, however, concerning which, particularly, light was sought, little of direct and specific value was to be learned, since the most of the ores of these metals exhibited were formed in quite different manners and associations from our deposits. The same was also largely true of the ores of these metals found in the museums that were visited. The displays of building materials, especially the products of clay, the cements, the slates, the building and ornamental stones were very full and highly instructive. The very much greater extent to which these non-combustible and nearly imperishable materials are used in construction in Europe, is very striking and suggestive. It is doubtless but the practical expression of the lesson which centuries of experience have taught as to the error of building with perishable materials. In our pioneer condition, the large use of wood which has prevailed has doubtless been entirely pardonable, and perhaps it may even be well, that many of our buildings are no more permanent than they are, but as we arrive at that stage, when we should build for the future, this subject assumes much importance. Probably few, if any, states on either continent surpass Wisconsin in the abundance and quality of its brick clays, limes and cements, or its building stone, and these resources must prove of eminent value in the future development of our state. The brick in ordinary use in London and Paris is much inferior in strength and beauty to the white brick so extensively manufactured in many parts of our state. The Portland cement of Europe, mainly an artificial compound, probably still surpasses anything produced on this continent; and, in the less trying climate to which it is there exposed, it proves exceedingly durable, and subserves some purposes to which it could not safely be applied here. But, aside from this foreign article, the Milwaukee cement is taking a leading rank, and increased facilities for its manufacture have been necessitated during the past year.

Without entering at length upon this subject here, it may be proper to urge upon our citizens and civic corporations increased

attention to the utilization of our abundant, substantial and enduring building material.

The proceedings of the International Geological Congress have been reported in outline in the various scientific periodicals, and have thus reached those most interested, and the full transactions will presently appear, so that it would be superfluous to give a sketch here.

OBSERVATIONS ON THE RECENT GLACIAL DRIFT OF THE ALPS.

The drift phenomena of our state forms an important feature of its geology, and, owing to some peculiarities of its development, perhaps more than ordinary interest attaches to it. I therefore zealously embraced the opportunity which my leave of absence afforded of observing the drift deposits formed by the glaciers of the Alps.

Observations were made upon the deposits of the Bossons, Bois or Mer de Glace, Findelen, Gorner, Viesch, Aletsch, Rhone, Unter Aar, and the upper and lower Grindelwald glaciers, and, casually, as many more.

It was my endeavor to utilize the limited time at my command to as great an advantage as possible by confining my attention to those features which are most analagous to our drift; the more so, because it is most difficult to gather exact and definite descriptions of this phase of glacial phenomena from most accessible writings on the subject, and, naturally enough so, because the glaciers themselves and their surface moraines present so much more conspicuous and absorbing objects of interest.

My observations will, therefore, have value, if they have value at all, not because of fullness and completeness, for they do not approach to that, but because they were made from this standpoint, and because they have been brought to the standard of the same mental meter with our own deposits; and whether that meter be accurate, or too long or too short, it is hoped that, with some corrections for mental temperature, it has measured alike in both cases.

It is essential, at the outset, to clearly discriminate between the products that arise under those conditions which are peculiar to

Alpine situations and those that are more specifically due to glacial agency without regard to special local circumstances; and hence a few explanatory words, antecedent to the observations themselves, may be appropriate.

In the majority of cases, Alpine glaciers occupy narrow steep valleys which afford them little opportunity to deploy as they undoubtedly would in more open ground, where they might present phenomena analogous to those of continental or arctic glaciers; but in some cases, they terminate, or have recently done so, in broader and less sloping portions of their channels, and thus furnish some very valuable hints as to the probable action of broad glaciers on less sloping floors.

Alpine glaciers derive the material of their deposits from two general sources, and their debris is correspondingly divided into two general classes, 1st, that which falls upon them from above, and 2d, that which they abrade from the rocks over which, or against which, they move. The first class is borne passively on the ice stream, while the second is pushed or rolled along beneath it. The first is due to the accident of the glacier's position, the second is the direct result of its own action. The first class is only present when the glacier originates among towering peaks or flows along precipitous slopes; the latter presumably is always present. At the edges of the glacier the two classes often mingle, and undoubtedly some of the surface debris, finds its way to the bottom through crevasses and moulins, so that the material carried along beneath the glacier is greater than it would be but for the surface burden; but, for the purposes of our study, this is unimportant. It is imperative, however, that we distinguish between the superficial and basal debris, as the former can have little or no representative in so plane a region as that covered by our drift, and can therefore throw no light upon its origin. This distinction is very easily made, for the most part, in the case of the Alpine glaciers mentioned; for the surface material is almost wholly unworn and angular, while the basal portion is usually abraded and rounded in greater or less measure.

The surface material forms in lines along the sides of the ice

stream, where it has fallen from above, constituting lateral moraines; and where two streams unite, two of these lateral moraines are brought together and form a line along the middle of the joint stream, constituting a medial moraine.

To the rock rubbish borne along beneath the glacier, the term ground moraine, or moraine profonde, is applied.

So far, all is clear. So long as the glacier itself is present bearing lateral moraines on its sides, medial moraines on its surface and a ground moraine at its base, there is no room for confusion. But this detrital material at length reaches the end of the glacier and is deposited; and here arises something of confusion in the deposit itself, and something of confusion of ideas respecting it, or, at least, a want of accurate and precise use of terms. terminal moraine is used to designate accumulations formed at the extremity of the glacier. But, setting aside the terminal deposits arising from the dropping of the lateral moraines, which remain somewhat distinct, it is evident that the medial moraines will be dropped upon the ground moraine at the foot of the glacier, and that this will occur under three conditions that ought to be distinguished. First, the foot of the glacier may be retreating, as is the case at present, because the melting is more active than the onward flow of the ice. Under these circumstances, the withdrawal of the ice leaves the medial moraine as a ridge, or line of debris, lying on the sheet-like ground moraine, and their relations remain essentially the same as before, save that the glacier has vanished from between them. In this instance the terms medial and ground moraines may still be used appropriately to designate them.

Secondly, the foot of the glacier may be stationary, in which case the material of the ground moraine, pushed along beneath, will accumulate at the glacier's margin in the form of a ridge, and the medial moraines will pile up in heaps on this. To call this simply a terminal moraine is not to speak very discriminatingly; for, in addition to the complexity of its own formation, it is liable to be confused with that which arises under the third condition, viz.: that in which the foot of the glacier is advancing.

In this case the glacier is not only discharging material from its

surface and bearing it along its base, but it is plowing up that previously deposited in its pathway.* The result of this is the formation of a ridge at the foot of the ice plow, as in the previous case, but of more irregular character in respect, at once, to material, structure, and surface configuration. This is a terminal moraine in a more significant sense than the preceding, in that it was not simply accumulated at the foot of the glacier, but was formed by its mechanical agency; and in that it marks the termination of a given glacial advance.

It would appear to be much in the interest of precision of thought and expression to confine the phrase "terminal moraine" to accumulations produced by a glacial advance, and to employ some other term, as peripheral moraine, for ridge-like accumulations due to halts in the retreat of the glacier; while the term "ground moraine" should include the wide-spread, sheet-like deposits of retreating glaciers. Our classification of morainic accumulations would then stand:

I. Superficial moraines.

- (a) Due to local environment and passive glacial agency.
- (b) Characterized by angular material.
- 1. Lateral moraines.
- 2. Medial moraines.

II. BASAL MORAINES.

- (a) Independent of local environment and due to active glacial agency.
- (b) Characterized by worn material.
- 1. Ground moraines (sheet-like).
- 2. Peripheral moraines.
- 3. Terminal moraines.

Besides the glacial accumulations, we have constantly to deal with the associated torrential and other aqueous deposits formed by the abundant glacial waters, but these may usually be distinguished by structural characters.

^{*}A portion is probably also overridden by the glacier.

The following observations relate to individual features of drift phenomena, and will be found more or less disconnected, and the paragraphs are arranged without much reference to logical sequence of thought:

1. The Rhone glacier surpasses all others visited in its instructiveness in relation to drift deposits. After a course of nearly 15 miles, it descends precipitously, like a gigantic frozen cascade, into the valley of the Rhone, where it finds a broader area and more gentle slope. Here its foot spreads out into a flat semicircular form not altogether unlike an equine hoof.

The first point of special interest to be noticed is that the crevasses in this flat portion diverge in curving lines from the axis of the glacier toward the expanded margin. This I believe to be correlated with a divergent motion of the ice by which the expanded foot was formed; and in this I find a close analogy to the divergent motion of the ice of our own ancient Green Bay glacier, as shown in my recent report. The valley of the Rhone just below this is covered with drift, so that the striations, which it might be presumed to have made in its recently more expanded condition, are concealed, but at the foot of the Glacier de Bois, in the Chamouni valley, a divergence in striation amounting to about 75° was observed.

2. The Rhone glacier is now retreating at a somewhat rapid rate. With commendable regard for the interests of science and the profit of transient students, the successive positions occupied by the retreating foot of the glacier, each year since 1874, have been marked by lines of tarred bowlders and cairns. The method and rate of retreat, is thus mapped out on the face of the valley itself. It will be sufficiently near for our purposes to say that the average retreat since 1874, has been about fifty paces per year. It therefore presents a fine opportunity to observe the deposition of a receding glacier, and, as it bears but little detritus on its surface, its abandoned ground moraine is well exposed to study. However, certain portions of the plain have been swept by glacial floods, which have somewhat modified the deposit, and care should be aken not to confuse the two deposits. A little close observation

will show that in the portions recently abandoned by the glacier, and that have not been washed by the issuing waters, the bowlders frequently bear, perched upon their tops and slopes, sand, pebbles, and small fragments of rock. It is hence evident that they have never been swept by even the gentlest stream, and that no assorting or modifying action of any kind has been brought to bear upon them since they were abandoned by the ice. Furthermore, we may go to the foot of the glacier and see them slowly issuing, thus crowned, directly from the ice.

The ground moraine here consists mainly of rounded and scratched bowlders, gravel and sand, with but little clay, and only a small proportion of angular blocks that cannot be traced distinctly to the medial or lateral moraines. The surface contour is slightly, though not conspicuously, ridged. The more abrupt side of these little ridges is toward the glacier and their trend is in the main approximately parallel to the edge of the glacier, though sometimes notably oblique. This relationship suggested that they might be due to annual oscillations of the glacial margin. There is also discernable a feeble tendency of the material to arrange itself in heaps and ridges parallel to the lines of movement of the ice.

2. If we now approach the foot of the glacier, we shall find this morainic sheet of detritus passing without notable change or interruption beneath the ice. The appearance is as though a stationary mass of ice had formed on the surface of a bed of bowlders and gravel and was now quietly melting away. More critical examination would, of course, show that any given particle of ice was advancing. The edge of the glacier is thin and sloping and we may walk directly up on it. This edge seems to rest lightly upon the drift below. This last is not a mass of debris frozen together, or imbedded in the base of the ice - although individual bowlders are - but an independent underlying bed of bowlders, and finer material, with open interspaces. These observations of course relate to the immediate edge of the ice. Some of the crevasses enable us to see a short distance farther in, where the same condition prevails. An artificial tunnel, styled an ice grotto, shows the same through a break in the ice.

The marginal portion of the glacier rests, so far as could be ascertained, not upon the bed rock, but upon its own basal moraine. How thick this bottom accumulation was, I had no means of ascertaining, but from the configuration of the valley, I should judge it was considerable.

- 4. The surface contour of the ground moraine seems to some extent to take shape beneath the glacier. At one point I observed a diminutive hillock, about six feet high, half enclosed in the edge of the ice, which was here nearly vertical. The appearance was as though the ice, in its withdrawal, had half disclosed a mound lying beneath it. This, though a mere mound, was about equal in hight to the adjacent heaps that had been left by the glacier.
- 5. At other, points, near the center of the valley, the ice may be seen resting directly upon well assorted, stratified sand and gravel. Level sheets of fine detrital matter extend without disturbance of continuity or surface beneath the edge of the glacier. The assorting and stratification of this material was apparently accomplished by sub-glacial streams, which seem afterwards to have found other avenues, when the ice occupied their place, either by settling down from above, or advancing from behind. The singular fact is that the stratified sands should not have been disturbed. It is very likely true that these fragile formations near the edge of the glacier are heated by conduction from the warm earth surrounding, and by transmission through the comparatively thin ice above, and that they are thus enabled to protect themselves from the forcible action of the ice, by melting it as fast as, in its slow motion, it is pressed upon them.
- 6. If we now turn to the sides of the valley, we shall see that up to a certain hight they are mainly bare of vegetation, and present a fresher and less weathered surface than the slopes above, as though the glacier had recently stood at that hight. If we glance down the valley, we shall see that the upper margin of this surface descends curvingly, much like the contour of the present foot of the glacier. If we descend the valley to the point where this reaches the plain, we shall find the ground moraine rising into a low, irregular ridge, which stretches in a broken curve across the

^{2 -} GEO. SUR.

valley. The material of this ridge is essentially the same as that of the ground moraine, save that there is noticeably more sand and gravel in proportion to the coarse material, and the whole is more thoroughly rounded. These remarks relate to the surface material. The superficial contour, however, assumes quite a different and distinctive aspect. Although but a diminutive ridge itself, not perhaps exceeding twenty feet in height, its surface contour, instead of presenting a simple curving outline, exhibits a complex series of still more diminutive ridges, hills and hummocks, of irregular outline and arrangement, accompanied by correspondingly irregular depressions, some of which are filled with water and form miniature lake-The irregular outline and little islands of one of these made it almost a Lilliputian Minnetonka. Bowlders are abundant in all positions on and in the ridge, as shown by the sections exposed by the outflowing streams, which also exhibit the confused unstratified condition of the interior. Locally, there are small patches of stratified material. This ridge is most abrupt on the outside, or that away from the glacier, while on the inside, it graduates, without any distinct line of definition, into the bowlder sheet above described.

This ridge presents a striking similitude to our Wisconsin Kettle moraine, and I think it may be safely said to be a miniature representative of the same phenomena.

This is a true terminal moraine, according to our definition, formed by an advance of the Rhone glacier.

7. A few rods—perhaps 20—below this there is another moraine of like character, but of older date, as shown by the grass and shrubs that have grown upon it, as well as by its position and less angular contour. It is narrower and more simple in form than the preceding, and like it, is interrupted by level passes, the channels of former streams.

About 30 rods below this is a third, still less continuous, a good good illustration of an interrupted, half destroyed moraine.

- 8. Between these three moraines are level gravel flats of fluviatile origin, and doubtless stratified.
- 9. On the south side of the Rhone, the middle moraine breaks up into an area of scattered mounds or "knobby drift."

- 10. On that side also, at the foot of the acclivity, where the solar action is less effective than elsewhere, a considerable mass of ice has been left by the retreating glacier, and this is much covered by sand, gravel and coarse detrital matter. As the ice melts, it deposits its burden of rock-rubbish in an irregular, hummocky fashion, somewhat resembling that of the moraine above described, but without the ridgy characteristics of the latter. It is mainly interesting as illustrating the form of deposition of a superficial glacial accumulation where the ice lets it down by melting from beneath, instead of casting it over its extremity in the usual method.
- 11. The south side of the Rhone also presents a fine exhibit of fluviatile silt, sand and gravel flats, and shows the pre-eminent tendency of glacial streams to wander widely, back and forth, across their valleys, when the slope is moderate, owing to the unusual rapidity with which they fill up their channels by the large burden of glacial mud, sand and gravel that they carry, or roll along their beds. They thus rapidly accumulate broad stratified sheets. I suspect that some deposits formed in this way during the Quaternary age have been mistaken for lacustrine formations, owing to their breadth and extent.
- 12. None of the other glaciers visited terminate in a manner equally favorable for the observations sought, but some of them present particular features of equal interest. The terminal moraines of the Grindelwald glaciers are even more instructive by way of comparison with our drift moraines, because of the closer proximity of the successive ridges, and the greater similarity of the material, it being a limestone bowlder clay, with some metamorphic erratics included, and some assorted detritus. Some of the moraine ridges are a pronounced bowlder clay, while others are largely composed of bowlders or gravel. On the inner moraine of the upper Grindelwald glacier, there is much fine gravel and sand in heaps and miniature ridges, presenting a very interesting phenom-The outer range is more massive than those of the Rhone glacier, and is very strikingly similar to the Wisconsin Kettle moraine in its superficial expression. The corresponding moraines of the lower Grindelwald glacier show the same features very neatly, and those of the Bois and other glaciers display like characteristics.

13. So far as my observations went, the nature of the rock over which the glaciers passed was more influential in determining the proportion of clay, sand, gravel and bowlders, than I had supposed. Where the rock was mainly granitic, the amount of clay was proportionately small, the detritus being mainly coarse sand, gravel and bowlders. This was doubtless due to the difficulty of reducing the hard constituents of granite to powder. Where the glacial channel lay through schistose rocks, or limestone, there was a notably larger proportion of clay, and some of the moraines were a typical bowlder clay. These observations throw unexpected light on the drift of our state, where there is a very marked difference between the glacial deposits of the limestone and granitic districts in respect to the physical condition of the material.

14. In former times, the Alpine glaciers were greatly expanded and stretched entirely across the lake region to the foot of the Jura mountains, on the French border. In this expanded condition, they most nearly, though still quite inadequately, represent the nature American Quaternary glaciers. The Juras and much of the intermediate region are composed of limestone strata. To the west of Lake Neuchatel the sheet of drift extends up the mountain slope nearly 3,000 feet above the lake surface, when it terminates on the declivity in a rude, imperfect terrace of undulatory surface. This, where I observed it, is composed of bowlder clay, usually quite gravelly, and associated with gravel beds. It was my hope to find the margin of this great moraine profonde at some point on a comparatively level tract, where its developement would not be cramped or coerced by encompassing barriers, but both at this point and in the vicinity of Gex, west of Geneva — the only two points where I was able to examine it - I found it pushed high up on the steep side of the mountains, and could, therefore, only conjecture what its form and structure would have been on plains similar to those of the Mississippi valley; indeed we can hardly assume that its material would have remained precisely the same, since in more level regions it might have been influenced in a greater degree by glacial waters. As it was, it may be characterized as a gravelly bowlder clay, with accompanying gravel beds.

15. In the beautiful valley of Ruz, west of Neuchatel, I found excellent exhibits of the morainic bowlder clay. If an excavation seen on the east side of this valley were placed side by side with any one of a large number that can be found in Wisconsin, no one but a skilled lithologist or paleontolgist could determine to which locality they severally belonged, so striking is the physical similarity of the two formations. Indeed the resemblance of the rock forming the detrital material is so close that, were the Swiss hill transplanted to certain localities in Eastern Wisconsin, probably no geologist would ever detect the imposition, unless fossils, of which I saw none, were found in it.

16. In company with our genial vice consul at Geneva, Dr. Delavan, I had the pleasure of visiting the celebrated Jardin, in the Chamouni region. A four hours walk up the Mer de Glace and over the Glacier de Talèfre brought us to an island of sub-triangular outline, completely encompassed by a sheet of snow and ice; and around which clustered an amphitheater of mountain pinnacles. It derives its name, "The Garden," from the fact that, although more than nine thousand feet above the sea, and surrounded on all sides by perpetual snow and ice, a handsome flora of grasses and bright, beautiful, little flowers bloom on its southward sloping side. But, putting aside this interesting phenomenon, and restraining the sentiments, which the magnificent surroundings and the grand views of Mount Blanc and the glaciers below, inspire, I can only, in this connection, remark upon the point of chief geological interest to us, viz: the likeness to our driftless area which this glacier-girt island presents. Let me say, however, at the outset, that the Jardin is not a driftless area. It was formerly covered by an ice sheet and contains erratics on its surface. But at present, though the glacier originates much higher up the slope, it divides and passes around the Jardin and again unites below it, leaving it, so far as present action is concerned, a non-glaciated area, surrounded on all sides by active glaciation.

Its likeness to our driftless area, however, ceases here. It is walled in, as is appropriate to a garden, by a steep, sharp moraine, thrust up by the ice in moving around it. On the border of our

driftless area, the glacial debris thins out very gradually and disappears in an obscure margin. The Jardin differs also, in that it appears to owe its immunity from present glacial action more to its own prominence than to the effects of adjacent depressions. The driftless area of Wisconsin does not lie, like it, on the summit of a protuberance, but on its lee side. The ice of the glacial period surmounted the Archæan heights, south of Lake Superior, in Wisconsin and Michigan, and descended the southern slope a distance of about one hundred miles, where it terminated on the declivity, and its waters continued on across the driftless area, leaving gravel terraces along their course. We must, therefore, seek elsewhere for an adequate illustration of the essential principles involved.

At the foot of the Viesch glacier, the ice stream divides and the branches pass through valleys on either side of a ridge, though the ice at the point of branching is higher than the ridge. Formerly the branches extended much further, and probably united below the ridge. This would be an approach to an illustration of the phenomena in question, but, unless the ice moved over the ridge and terminated on its slope, it would fail of an essential element.

The right hand branch of this glacier is antagonized by a prominence, and the greater portion of the ice passes through lower channels on either hand; and these subordinate streams approach each other below, leaving an island, or nearly so, on the slope. Above this island the ice terminates on the declivity. On one side, the slope is so steep that the ice breaks away and rolls to the bottom, marring the perfection of the illustration, but not destroying its force. The ice, while not really split in twain, is so far thinned by the combined action of the prominence and the adjacent depressions, as to be unable to maintain itself against the wasting to which it is subjected. If the slope were somewhat less precipious, the illustration would be more complete.

Near the termination of the upper Grindelwald glacier, there has recently been a similar instance of an island in the glacial stream with higherice on either side and above it. In this case, the slope was so great that a portion of the ice above the island became loosened and rolled down to the ice below. The amount which

thus passed over was less than an equivalent of the melting capacity of the area of the island, so that, had not the cohesion of the ice been overcome, it would have been melted on the upper margin of the island.

In all the foregoing instances, the areas have formerly been glaciated, and thus differ from the Wisconsin driftless area. They have force, however, as illustrating, in a miniature and imperfect fashion, the fact that, not only may a glacial stream be parted and an island be formed by a prominence projecting through the ice and wedging it aside, or by valleys leading it around; but also that there may be such a combination of prominence and depression as — while not entirely parting the stream — to so thin the ice passing over the prominence, that it shall be wasted and disappear before it can join the main currents diverted on either side; so that there shall be a non-glaciated area, not on the summit of the prominence, but on its lower slope, and these I conceive to be the esssential phenomena and elucidation of the Wisconsin driftless area.

It was not my original purpose to more than call brief attention to the foregoing Alpine phenomena, as illustrations of the agencies entering into the causation of the driftless area, but it might not seem just to others who have recently written on the subject to pass their views in silence, and a brief review of them will therefore be here given:

Professor N. H. Winchell has attributed the origin of the driftless area to the agency of the Archæan protruberance of northern Wisconsin and Michigan acting, at Kewenaw point, like a wedge, splitting and turning the ice stream to the right and left, through the valleys of lakes Superior, Michigan and Huron.* There seems to me to be a large measure of truth in Prof. Winchell's views; and, as a preliminary theory, looking toward the elucidation of what had previously been entirely without satisfactory published explanation, is worthy of much respect, but he appears to me to emphasize too much the wedge-like action of the Archæan heights; for they did not rise through the ice, and the figure of

^{*} Annual Report Nat. Hist. Survey of Minn., pp. 35, et seq.

the wedge does not very accurately portray the topography or its effects on the glacial movements.

His views also fail of adequacy in not accounting for the fact that the nearest margin of the driftless area is more than one hundred miles south of the crest of this Archæan wedge and, that, as already stated, the ice surmounted it, and descended the slope that distance; and this is really the point of difficult explanation.

Professor Irving has presented, in the Wisconsin geological report,* a view closely analagous to that of Professor Winchell, but differing from it in emphasizing the diverting influence of the great lake basins, rather than that of the Archæan highlands. To clearly distinguish between the two views, let us imagine the surface of the whole region involved to be brought to an average grade by the removal of the highlands into the depressions. We shall then have an inclined datum plane to which the influence of elevation or depression can be referred. On such a plane, the glacier may be supposed to move as an approximately uniform sheet. If, in thought, we now erect upon this plane the Archæan elevation, the effect it will have in directing the ice stream to the one hand and the other will illustrate the first view, carried to an extreme, and without the qualifications introduced by Professor Winchell. If, on the other hand, without any such elevation above the plane, we excavate the great lake troughs, on either hand, the deflecting effect of these channels upon the ice current will represent the second view, likewise carried to an extreme. It is safe to say that in neither case would there have been any driftless area; for, in the first instance the ice must have passed over the highlands in much greater thickness than it did, for want of the relief afforded by the great lake troughs; and the example of the Jardin and similar cases, as well as theoretical considerations, would compel us to conclude that the ice would wrap around the protruberance, and unite just below it. On the other hand, the lake depressions were not sufficiently capacious to withdraw into themselves all the ice sheet, for it arose at least one thousand feet above our supposed datum

^{*}Professor Irving's report was already printed when that of Professor Winchell was received by him.

plane, and, by estimate, much higher. The removal of the highlands would have given it more freedom of passage and it might not have risen quite so high, but it would still have been so massive as to have resisted wasting influences far beyond what it did, and to have swept on over the driftless area in company with the streams on either side.

The view of Prof. Irving has the merit of appealing largely to established facts in relation to drift movements in Wisconsin, and also the quite important one of showing, in large part, why the main currents were kept apart for so great a distance—about 250 miles—south of the highlands.

My own view, entertained some two years previous to the publication of those sketched above, involves a combination of these views, and some supplementary elements that seem essential to anything like adequacy; for when we have combined the above views, and given full emphasis to the agency of the highlands in crowding the ice aside, and to that of the great lake troughs in leading it away, we still have a troublesome residuum to explain; for, as previously stated, the ice, nevertheless, mounted the heights in sufficient massiveness to maintain its onward flow for 100 miles. It cannot be said to have spent its force, for the momentum of a glacier is insignificant, on account of the slowness of its motion.

The disappearance of this stream on the southern slope, I have attributed to the wasting to which it was subjected.* Assuming that the surface over the Lake Superior region was essentially plane, it is evident that this sheet was thinner than those that passed through the lake troughs to the extent of the difference in altitude of the bed of each, which may be stated in round numbers as ranging from 1,000 feet to 2,000 feet. It is manifest that any such difference must greatly affect the progress and endurance of the mass.

In every glacier there are two regions or zones, one of accumulation, and one of waste, with a line of equilibrium between them, where growth and waste are equal, on the average. In Alpine glaciers, the portion undergoing waste forms a very considerable part

^{*} Discussion attending the reading of Prof. Irving's paper before Wisconsin Academy of Science, December, 1877.

of the total length of the stream, and the line of equilibrium is often far up toward the source. In the great glaciers of the Quaternary age, it may be very difficult to locate the neutral line.

Some writers hold that the motion of the glaciers of that period was very slow, because of the slight inclination, and it might be claimed that, if this were true, the waste would be accomplished in less space. But, in offset, it may be urged that the slight slope would bring the ice down the less rapidly into warmer horizons, and hence prolong its endurance. But it may be questioned whether these writers have made sufficient allowance for the accelerating influence of great depth upon the rate of glacial flow. The thick glaciers of Greenland, with moderate slope and low temperature, are said to have a motion of 60 feet per day, in some cases; while that of the glaciers of the Alps, with very much greater slope, and a warmer temperature, is only from one to three feet daily.

The enormous discharge of icebergs from the glaciers of Greenland and the Antarctic continent, and their great size, would be difficult to understand, if the glaciers of those regions thrust themselves into the sea at no greater rate than that estimated by some writers for the Quaternary glaciers. At the rate of one foot per week, it would take nearly sixty years for a given portion of a glacier to thrust itself forward far enough to give origin to an iceberg 3,000 feet in diameter, making no allowance for melting, or the wear of the waves, and icebergs are said to sometimes considerably exceed this size. With this rate of flow, the great Humboldt glacier, with its vast frontage, would discharge on the average less than two such icebergs per year; and the whole number that could be discharged from the west coast of Greenland would be comparatively small. But hundreds of icebergs of the first magnitude are sometimes visible at one time, and the number annually borne away is very great.

It would appear probable, therefore, in the absence of a sufficient number of positive determinations to make it altogether certain, that the deep, semi-continental glaciers of the present day move at a more rapid rate than the thinner alpine ones; and Mr. Helland's view, that the Quaternary glaciers moved at similar

rapid rates, seems the best supported in the present state of evidence. In this view, owing to the comparatively rapid onward flow, and the slow descent into warmer horizons, it would appear that the zone of waste was very broad, and the limit of perpetual snow remote from the margin of the glacier.

It has been a matter of surprise to some geologists that so little evidence of glaciation has been found in the Appalachians, in the near presence of the great glacier; and, on the supposition that the limit of perpetual snow lay near the margin of the glacier, it would, indeed, be difficult of explanation; but, if that limit was remote from the foot of the glacier, to an extent in any measure analogous to that of existing glaciers that terminate simply by subaerial waste, it is not at all remarkable. I believe it is a fact that the Juras escaped general glaciation, even while the foot of the ancient expanded glaciers of the Alps pressed hard against their flanks.

I think, therefore, that I am safe in assuming that, during the glacial period, the line of equilibrium between glacial growth and waste lay entirely to the north of the driftless area. In addition to the reasons above indicated, the general import of the drift phenomena seems to me to harmonize with this view, and to be discordant with any other known to me.

In the zone of waste, the endurance (1) of a glacier is dependent upon its massiveness, when melting and evaporation are uniform. The extent (2) to which it stretches onward is dependent upon its massiveness and the rapidity of its flow. Other things being equal, the greater the volume, (3) the faster the flow. As the waste is almost wholly at the top and bottom, it is evident that the proportional rate of waste (4) is greater in thin sheets than in more massive ones. It is manifest, therefore, that, in the trial of endurance and southward progress, to which the glaciers of the region were subjected by a wasting climate, the advantages were vastly in favor of the deep massive currents of the great valleys.

This advantage is manifested in the comparative lengths of the glacial streams at the time of the formation of the Kettle moraine. Taking the Lake Superior watershed as a datum line, the massive Lake Michigan glacier stretched southward, according to my determinations, about 400 miles; the less gigantic Green Bay glacier

reached 280 miles; while the shallower stream that passed over the highlands, only reached about 75 miles. The westward current cannot well be compared with these because of the long stretch through the trough of Lake Superior before it passed over the watershed.

There is no room for question that Wisconsin lay below the snow line at the time of the formation of the Kettle moraine; and the immunity of the driftless district at that time must be explained on that basis.

I think it has been successfully shown that the Kettle moraine marks the limit of the ice at a period of secondary glacial advance. There must, then, have been at the time, a zone of waste, north of the line of this moraine, sufficiently wide to cousume the enormous thickness of ice, and stay its progress at this limit. I think that no glacialist will claim that this was a narrow or insignificant belt. Aside from the nature of the case, the distinctness of the Lake Michigan, Green Bay and other glaciers forbid such a supposition. It would be difficult, if not impossible, to imagine any rational means by which their differentiation and divergent internal motions could take place within the region of perpetual snow. It would be still more absurd to suppose that the re-entering angles of the terminal moraine penetrated the region of glacial accumulation. The most extreme supposition that can be admitted, is that these glacial lobes arched up in their central portions so as to be above the line of perpetual snow.

The question toward which we are tending is this: Was the advance at the time of greatest glaciation, beyond that represented by the Kettle moraine, sufficient to bring the line of perpetual snow down to the southern limit of the driftless area?

The Lake Michigan glacier at the time of the formation of the Kettle moraine, extended more than 200 miles (probably about 275) south of the point where it became entirely distinct from the Green Bay glacier, as shown by the striation and intervening moraine. In its most advanced state, it never doubled this length. There is no evidence that it was ever expanded in width westward towards the driftless district more than 30 miles. If there was, at that time, no distinction between it and the Green Bay glacier, then

there was essentially no advance westward beyond the area subsequently occupied by the two.

The ice stream that came over the highlands has left no evidence of having ever extended more than about 25 or 30 miles south of the position occupied at the time of the formation of the Kettle moraine, and this is the stream that should have overwhelmed the driftless area, if any.

The Minnesota glacier seems to have been proportionally more extended; but, granting this a most liberal allowance, both in extent and effects, it seems highly improbable that the advance of maximum glaciation over that which obtained at the period of secondary glaciation, represented by the Kettle moraine, could have brought the snow line below the driftless area. And, if not, it must have been an area of higher temperature, warmer atmosphere, and probably clearer and dryer skies than the glaciated regions around it, and it must have thus been assisted in maintaining to itself its immunity from glaciation, by acting as a heated area, melting back the advancing ice, which it consumed by the time it reached its margin. Originally, it may have had a little climatic advantage over adjacent areas, and it had to contend with a thinner, slower stream of advancing ice, which it mastered, while the regions on either hand were overwhelmed.

On any other supposition it is not clear to me how an ice stream sufficiently strong to bear immense blocks of rock from the Lake Superior basin onto, and over the crest of the Archæan heights, and to descend its slope 100 miles could be stayed in its course, while its comrades on either hand pushed on some hundreds of miles farther south.

Professor Dana has recently * attributed the origin of the driftless area in Wisconsin to hygrometric conditions; and, in support of his view, appeals to Mr. Schott's charts showing the present rate of precipitation of rain and snow. He calls attention to the fact that the driftless area, except its southern portion, lies within areas of less abundant precipitation, than adjacent regions, both during the winter and the entire year.

^{*} American Journal of Science, April, 1878, pp. 250 et seq.

If I understand Prof. Dana correctly, his argument is based upon the assumption that the driftless area lay within the zone of perpetual snow, but that the accumulation was not sufficient to cause motion. I have already given reasons for thinking that the limit of perpetual snow was never brought below the driftless area; and to those given, others might be added; so that, unless I am in error, whatever explanation is adopted must be one applicable to the zone of glacial waste. Within that zone, it is evident that a slight winter precipitation will be the more readily removed in spring and will the less retard the wasting action brought to bear upon the glacier. It seems also probable that a dry summer would facilitate glacial waste; so that, the present rate of precipitation over the region mentioned, if it then obtained, would be favorable to glacial consumption, and would, therefore, assist in protecting the driftless region from the advancing ice sheet.

But I cannot free myself from a grave doubt as to whether the present rate, or even ratio, of precipitation can safely be assumed to correctly represent, in its details, that of the glacial period. While it is freely admitted that there is much force and importance in the sagacious suggestion of Prof. Dana in reference to the general effect of the great arid region of the west, it seems much less probable that the comparatively slight local variations in precipitation, observed in Wisconsin, remained constant in character, and fixed geographically, through such vicissitudes as the glacial theory presupposes.

Aside from these general and fundamental objections, there are certain special ones, in part admitted, but whose force would doubtless have been much more fully conceded, had a more accurate outlining of the driftless area been at the command of the distinguished author of the article. The area is mapped as extending to the northwest fully 70 miles beyond the limit assigned by Mr. Strong, and includes considerable territory heavily covered with drift; and this elongation quite materially adds to its correspondence to the designated areas of meager precipitation. When correctly outlined, the correspondence is not very obvious, at least, much less so than that between the area of low precipitation and the sandy belt underlain by the Potsdam sandstone, which has been

supposed, with some plausibility, to be an influential agency in reducing the precipitation. Of course, it matters not what is the cause, so long as it remains efficient; but the efficiency of a soil would cease, if it became perpetually covered with snow.

When accurately outlined, scarcely more than two-thirds of the driftless district lies within the belt of low precipitation and the trends of the axes of the two areas are mainly transverse to each other, while areas of similar precipitation on either hand were covered to great depths.

In the foregoing discussion, the present relative elevations of the region have been accepted as a basis of explanation, and no support has been asked from any supposed change of topography. There is some evidence, however, that a slight change was an historical fact. This is based upon the present inclined position of the ancient flood plains of some of the rivers adjacent to the driftless district. One of the best illustrations is afforded by the Rock river, which runs parallel to the longer axis of the driftless area. From above Janesville to Rockford, in Illinois, a distance of about 40 miles, there stretches a gravel plain from three to five or more miles wide, having a uniform, plane surface, except as channeled by streams. The underlying drift is stratified gravel of varying coarseness, with intercalated beds of sand. Wells from 50 to 100 feet deep seldom reach its bottom, and, in one case, it is known to have a depth of 350 feet. The coarseness, water worn character. lamination, and position of this deposit is such as to make it quite evident that it was formed by the glacial predecessor of Rock river, acting mainly at the time of the formation of the Kettle moraine, which limits it on the north.

The original surface of this plain, of course, sloped to the south in the direction of the flow of the depositing waters; but profiles across the valley should show an essentially level surface, as the flood plains formed by glacial streams of the present day do, and from the nature of the case must. At the present time, however, the drainage is toward the west side of this plain, and throughout the 40 miles of its length, the Rock river hugs its western margin, and even encroaches upon the adjacent territory.

The Sugar river, which runs parallel to the Rock river, on the

west, and lies on the immediate border of the driftless district, presents a similar ancient flood plain, apparently formed at the same time and by the same means; and for a somewhat greater distance—as far as the plain continues—the present stream runs on its western border. Similar phenomena may be observed in connection with other streams to the north and westward as far as the Chippewa river.

These facts would seem to justify the belief that in the latter part of the glacial period, at least, the general surface was either lower at the east or higher at the west. In either case, the driftless area must have been *relatively* higher, in a moderate measure, than at present, so far as the region lying east of it is concerned.

To make the evidence complete, the facts with reference to the rivers on the west side of the driftless region are necessary, but I am not aware that they have been carefully observed with the discriminations necessary to make them completely applicable to this subject.

There seems no reason to suppose, however, from the partial evidence at hand, that the amount of change in topography was large, certainly not sufficient to constitute it more than a minor, auxilliary element in the explanation of the phenomena under consideration.

OBSERVATIONS ON SANDY SOILS.

In certain districts of the state, chiefly those underlaid by the Potsdam sandstone, a portion of the soil is sandy. A considerable percentage of this is good soil, and will give excellent returns to culture under the usual system of farming, but some of it is quite poor, and will require special methods of cultivation and judicious selection of crops to be productive. The question as to how best to utilize these arenaceous lands is one of much importance. It is scarcely to be hoped that an immediate satisfactory answer to this problem can be given, as it can probably only be solved by investigation and experience running through a considerable period of years.

There remained at the beginning of the year a small area lying between the Black and Chippewa rivers, and adjacent to the line

of the Chicago, St. Paul & Minneapolis Railway, that had not been included in the districts definitely examined by the members of the survey, though its general geological structure was quite well known. This area includes some of the sandy land in question, and it was thought best to shape the investigation of the region with express reference to the question above stated. Dr. J. A. Renggley, of La Crosse, formerly for nine years Professor in the Agricultural College of Zurich, and familiar with the results of European experience, was engaged to investigate the subject, and a synopsis of his report is here given.

He commenced work on the 30th day of September, and continued it until November 22d, as late a date as it is practicable to carry on this class of field work. To give more completeness to the special subject of investigation, the sandy tracts in the valleys of the Chippewa, Trempealeau and Black rivers were examined as far south as the Mississippi, and also the sand flats formed by the latter and the La Crosse river.

As far as possible, the underlying strata, the rock foundation of the soil, was examined with reference to the origin, extent and quality of the soil. In general, the Potsdam sandstone extends, in unbroken connection, beneath the whole region explored. Below this is found the granitic rocks, which come to the surface to the northward, but do not reach it, in the district under consideration, except in the river valleys, as at and above Chippewa Falls and Black River Falls, where it forms the river beds and banks. The limy sandstones and magnesian limestones are not found until we reach the elevated bluffs of Buffalo, Trempealeau and La Crosse counties, where they lie upon the Potsdam sandstone. As having an important relation to agriculture, there was observed a thin (mostly only a few feet thick) layer of white, or light colored, silicate sand (Kaolin) which was thought to have a very general extension beneath the layer of Potsdam sandstone.

To these rocks, belonging mainly to the Lower Magnesian and Potsdam formations, and including magnesian and sandy limestone, limy and quartz sandstones, and the layer containing intermixed kaolin, the origin of the mineral parts of the sandy soil is attributed.

³⁻GEO. SUR.

Without doubt, these formations formerly extended much farther north, and have been carried away by erosion. However this may be, it is sure that where the Potsdam sandstone approaches its northern boundary, especially in Chippewa and Clark counties, the material, so far as it has been found under the soil in flat layers, becomes softer and the layers thinner, and in its further extension is mixed with clay, and, finally, is replaced by a clayish marl, in more or less thick layers, which contain kaolin frequently.

The extent of the sandy soil in the region examined is considerable in proportion to the fertile soil that is not sandy. This proportion is determined by the size of the river basins, and the approach and recession of the bluffs from the river. Since the bluffs on the west side of the river are generally found nearer to the river banks, and, generally, the banks themselves are higher than those on the eastern side (especially those of the Black river), we find that the diluvial depositions, in the form of sandy soil, have a comparatively greater extension in an easterly direction, and rise higher upon the hills and terraces, than on the western side, where the bluffs break down more abruptly to the river. But there, also, we find sandy drifts in places farther back.

We find sand tracts, caused by the Black river, extending in considerable width from Hatfield and Merillan in a northwesterly direction to Humbird; and in a southwesterly direction, they spread through the Trempealeau valley down to Arcadia. We likewise see similar formations in the Chippewa and Eau Claire basins, stretching eastward from Eau Claire to Augusta, while from there to Humbird, the "Garden valley" shows a very fertile tract of land, embracing several townships, and is surrounded by a chain of mostly low wooded bluffs.

At most points where the sandy tracts approach the rocky bluffs, the soil becomes gradually more fertile; and in the immediate vicinity changes to a fertile clay soil. The same is true in the tributary valleys lying between the bluffs. To this change in the mineral constitution of the soil, the annually decaying local vegetation adds greater fertility, and this is enhanced by what is derived from the more or less rich deposits of the forests, which cover the

bluffs. Indeed, we find a striking variation in regard to the degree of fertility in the vicinity of the bluffs, according to the size and density of the woods that crown them. It is much to be regretted that, through the destructive agencies of fire and the ax, these heights have been, and are still being, to so large an extent cleared away, as it is greatly to the detriment of the agriculture of the adjacent regions.

A change in respect to fertility, similar to that noticed on approaching the bluffs, is also to be found as we approach the river beds, especially where the banks are low, or rise but little above the highest water mark. There is here, however, this remarkable difference: that the presence of clay is either very rare, or entirely wanting. The increase of fertility of the low lands along the rivers becomes the greater where the adjacent sandy tracts rise back from the river, or form terraces or hills, and are covered with woods.

Those sandy tracts along the rivers that are spread out flat, and are overflowed by the rising of the waters, generally possess a greater fertility, provided that the action of the water is gentle. Rapid overflowing currents usually cause new drifts of sand, which are apt to be infertile. On the other hand, we find that the more the sandy tracts, lying back from the rivers, rise into rolling plains, terraces or hills, the less fertile the soil becomes. While the humus in the sandy soil near the bluffs is five or six per cent., and sometimes more, and in the low lands, along the rivers, seven to eight per cent.; we find it gradually decreasing with the rising of the surface, so that the humus in the soil of the higher elevations can be estimated at scarcely more than one-half per cent.

It may also be considered as a general law, that the organic matter in the sandy soil, if it is only a few feet thick, gradually decreases downward. Exceptions to this law are found when the sandy soil at a slight depth has a clayish or rocky foundation.

In regard to the fitness of these sandy soils for agriculture, or forest growth, the presence of water is a condition of great importance.

Sandy soil lying above the highest water mark, and having a porous subsoil, receives its moisture principally from the precipi-

tation from the atmosphere, but a portion rises from below by capillary action. Where the water level lies near the surface, this results in that amount of moisture which, in a sandy soil, is best adapted to a thriving vegetation. The humus substances - humin and humic acid, ulmin and ulmic acid, geic, crenic, and anocrenic acids - find under these circumstances, favorable conditions for their chemical combination with the atmospheric elements - oxygen, carbonic dioxide, ammonia, nitric acid, etc., and, at the same time, for the absorption by the vegetation of the resulting compounds, dissolved in the proper quantity of water. This action is much facilitated by the great porosity of the soil, This porosity, however, causes a rapid change in the relative amount of moisture. When the deposit of moisture from the atmosphere is copious, the soil absorbs freely and becomes fully saturated, while in dry weather, especially when attended by a high temperature, rapid evaporation takes place and dryness of soil results. Still, in this respect, a remarkable difference is to be found, corresponding to the quantity of humus in the soil. The greater the amount of this, the slower the process of absorption and evaporation, and conversely.

If the sand fields in the low lands are level, and rise but little above the surface of the adjacent bodies of water, they are then, of course, saturated and wet; in which case, even if the humus contained is abundant, its availability for the nutrition of plants will be found to be very small. This will be manifested in the production of a comparatively few kinds of plants, which are mainly cyperaceæ and the hardy kinds of gramineæ. This striking phenomenon is due mainly to the fact that, of the different forms of humus which are found in marshy lands, some are but feebly soluble in water, while others will practically not dissolve at all, and therefore they have little fitness for the nutrition of vegetation. In these moist lands, the atmospheric agents have but little access to the humus, and are therefore unable to enter into combination with it to produce those soluble compounds that are nutritious to plants.

If sand plains, containing humus, are overflowed periodically, or

occasionally, for short periods, and afterward attain a certain degree of dryness, they become well fitted for the production of a manifold and luxurious growth of grass, or arboreous vegetation, and we find such on the bottom lands along the rivers.

The depth of the sandy accumulations above the rock or clayish subsoil, varies greatly. In some cases, it measures only a very few feet, in others, it is ten, fifty, or even one hundred or more. The maximum depth can probably be found in the Mississippi valley, and in the vicinity of the junction of the Black river with it. The average depth of the sand beds, constituting the La Crosse prairie, is above one hundred feet. The depth of the sand deposits generally declines as the valley is ascended, but, in going back from the rivers, it increases in different degrees.

Concerning the adaptability of these sand fields for agriculture, it is to be remembered that what is said applies, not only to the sandy lands of the country examined, but to such lands in general. For the sake of clearness, we have made the following divisions:

I. Wet sandy soils.

1st class - swamp lands.

2d class - bottom lands.

II. Dry sandy soils.

1st class - very rich in humus.

2nd class - moderately rich in humus.

3d class - poor in humus.

I. 1. Swamp land. The soil of this class may be said to be constantly saturated. It is usually very rich in brown, or black, soft humus to the depth of from one to several feet. When dry, it contains about 10 or 12 per cent. of organic, and from 88 to 90 per cent. of inorganic substance.* The rich annual fall of the vegetation growing on it, and the decay of animals of the lower orders that live in it, constantly increase its richness in humus. Nevertheless, it produces only a very simple vegetable growth, with little variety of form, and but few species, the grasses predominating, and constituting the so called marsh meadows. The younger growth only, of these grasses, is filled with nutritious elements.

^{*} Based on analyses of Louis Runkel.

When fully grown, the nutritious portions are greatly reduced, and the plants then consist mostly of hard, woody cellulose.

- 2. Bottom lands. These are very similar to the last, except in their hydrographical relations, and that which results from it. They contain about the same per cent. of organic and inorganic ingredients as the preceding. They differ in that, whereas the swamp lands are continuously wet, the bottom lands are only occasionally covered by floods. These, on retiring, usually leave behind a new deposit of organic matter. During most of the year, the soil is dry, or only fairly damp, so that the atmospheric agencies are admitted, by the porosity of the soil, into contact with its contained humus, and chemical reaction results, rendering the organic matter more available for plant growth. In consequence of this, we see on the bottom lands, a great variety and luxuriant growth of arboreous vegetation. Various species of the oak, elm, maple, beech, birch, poplar, willow and alder there find a congenial home.
- II. Dry sandy soils. We class a soil as dry, if it does not contain more water than falls directly upon it from the atmosphere, or is derived by capillarity. Its content of water is therefore a changing one, dependent on the phases of the weather. The soil is always very light, and extraordinarily porous, and is, therefore, very easily worked, and freely admits the chemcial agencies of the atmosphere, into combination with the organic matter it contains. The depth to which the humus penetrates is quite varying, but decreases downwards.

An example tested, gave the following results:

	Organic mat	tter Inorg	anic matter.
At 1 foot depth	3.77		. 96.23
At 2 feet depth	3.025	ŏ	. 96.975
At 3 feet depth	2.03		. 97.97

- 1. The soil of the first class under this group carries humus to a depth of from two to four feet, and is grayish black and blackish gray; and, when thoroughly wet, black. At from 1 to 2 feet depth it is composed of about 6 or 8 per cent. of organic matter, and 93 to 94 per cent. inorganic.
 - 2. In the medium class, the humus soil extends to about $1\frac{1}{2}$ or 2

feet in depth, and is composed of about 4 or 5 per cent. of organic matter, and 95 to 96 per cent. of mineral ingredients.

3. The soil of the third class is poor in humus, the organic element ranging from a fraction of one per cent. to two per cent. It therefore appears to the physical examination very sandy.

In respect to the herbaceous vegetation which grows natively on these sandy soils, we observe that, on the soils of the first and second classes, there grow a great variety of herbs and grasses that are, for the greater part, juicy and nutritious, and furnish the herbivorous domestic animals a food of easy digestion.

On the other hand, we find these very scarce on the sandy soil of the third class, on which the burr grass (cenchus tribuloides) is more abundant, and is known as the characteristic plant.

Of the arboreous vegetation, the red and black oaks are the predominant species. On soils of the first and second quality, they grow well. This can also be said of most of the deciduous trees of our region. On sandy soils of the third quality, the arboreous vegetation arrives at nothing more than crippled trees and shrubs.

In general, the agricultural capabilities of these sandy soils is greatly undervalued. Preconceived ideas that they are not remunerative are generally accepted without due regard to positive evidence.

The following general opinions may be briefly expressed:

- 1. The humus soils of the swamp lands contain the chemical elements of all kinds in great abundance, and to make this available for agricultural purposes little more is necessary than drainage and cultivation.
- 2. The drying of the swampy wood-growing lands by drainage would in a short time bring about a mingling of the humus with the almost clean sandy or sandy-marl subsoil; and, through this, a deep rooting of the trees, which would give them a more healthy and natural growth, instead of the feeble one they now manifest.
- 3. That part of the bottom land which is overgrown with trees, gives, in the condition in which it now stands, a most valuable product of timber and fuel. From the great extent and density of these woods, the bottom lands find much protection from wash by

Work in the Menominee Iron Region Under Maj. T. B. Brooks.

the annual and occasional floods. They also subdue the climate, partly by breaking the force of stormy winds, and partly through the evaporation of water from their foliage, when the air is hot and dry.

The idea of using the wet bottom lands for any other purpose would undoubtedly be found foreign to the purposes to which they are best adapted. To drain and protect them from floods would be found very difficult on account of their flatness and slight elevation above the adjacent rivers.

- 4. The dry, sandy soils to which our subject chiefly relates, are, beyond question, easy of cultivation. If they belong to the first or second class, with a small amount of labor they can be made to give a plentiful reward for the labor bestowed. The fertility of the sandy soil of the first quality is similar to that of drained swamplands. The extraordinary ease with which the humus soil parts with its nutrition, and the resulting luxurious growth of vegetation, would soon draw from the soil its stock of nourishment, unless its fertility be maintained by regular manuring.
- 5. The sandy soil of the third quality cannot be cultivated to any advantage unless first well manured. As a manure, Dr. Renggley expresses his opinion that stable manure is the most practically available, and also buckwheat plowed under while in bloom.
- "A diligent cultivation, a plentiful manuring, a proper selection of plants, and their timely planting, would be remunerative to the farmer, as well as horticulturalist, on dry, sandy soil."

WORK IN THE MENOMINEE IRON REGION UNDER MAJ. T. B. BROOKS.

NEWBURG, N. Y., Jan. 13, 1879.

Prof. T. C. CHAMBERLIN, Chief Geologist:

DEAR SIR: I have only need to report in brief that when I had nearly closed my report on the Menominee Iron Region — about a year ago — and after I had formally resigned all connection with the survey, you informed me that a part of the last appropriation was available for the further prosecution of field work in that region, with the view of settling some questions which previous work had not solved, and which would have left my report in a less complete

Work in the Menominee Iron Region Under Maj. T. B. Brooks.

state than was desirable. I spent nearly two months in the field the past summer, and had parties at work for a longer time, and have pleasure in stating that our fund of facts has been largely increased through more thorough work on the same ground than had been possible before, with the means available. So far as the main objects of my survey of this region are concerned (which have been fully discussed heretofore), I do not regard any further field work as now necessary.

Frank H. Brotherton and Robert McKinlay, of Escanaba, and Geo. A. Fay, of Menasha, were engaged on the work. The latter gentleman, through his full local knowledge of the country, and interest in rocks, rendered much assistance, and continued the survey until the snow stopped it.

Fred. J. Knight, who has been connected with the survey from the beginning, is now engaged in correcting proofs of maps and arranging the material collected the past season.

My assistant, Chas. E. Wright, of Marquette, will determine the rocks collected last summer, and, according to the arrangement some time ago submitted to you, will write the economic chapter on the iron deposits, and make all necessary analyses for the same.

The very complete paper by Dr. Arthur Wichman, of Leipsic, giving the results of his microscopic study of thin sections of the Iron bearing (Huronian) rocks, south of Lake Superior, has, as you are aware, been in my hands, ready for the printer, for over two years.*

Since my completed report will soon be in your hands, it does not seem worth while to anticipate any of its results.

It is but repeating what has been stated in former reports, and in numerous periodicals, that the explorations of the Commonwealth Iron Co., and of other land owners to the west and north, have proved, beyond all question, the existence of iron deposits of great value, in the Menominee region, which only require transportation facilities to inaugurate a settlement and development of the coun-

^{*}This, of course, could not properly be printed apart from the other reports upon the region to which it relates.

T. C. C.

Zoological and Botanical Work.

try, parallel to that which is now taking place on the Michigan side of the river.

Respectfully and obediently yours,

T. B. BROOKS.

CHEMICAL WORK.

The arrangements for the analytical work of the survey have continued, as heretofore, with Prof. W. W. Daniells of the state university, and Mr. Gustavus Bode, of Milwaukee. Their analyses will appear in the reports of the parties for whom they were made, and will there be duly accredited.

DRAFTING.

Professor W.J. L. Nicodemus,* topographical assistant to the survey, and Mr. A. D. Conover, of the state university, who have previously done the larger part of the drafting of the geological maps, have completed those assigned them for the atlas that is to accompany volume III of the final report, and have made progress with other work placed in their hands.

PALEONTOLOGICAL WORK.

Prof. R. P. Whitfield has completed the descriptions and drawings of the fossils selected for representation, and this portion of the report is now stereotyped.

The ticketing and cataloguing of the paleontological and a portion of the lithological collection, a labor of several months, has been performed by Mr. I. M. Buell, and the distribution will be made at an early day. It will be necessary to retain till a later date most of the lithological specimens for further study in connection with the preparation of the reports yet to be completed.

ZOOLOGICAL AND BOTANICAL WORK.

For the character of this work reference is made to my two preceding reports. The observations there indicated have been con-

*Since this was written, we have been called upon to mourn the sudden death of Professor Nicodemus. This painful loss will be further referred to in another portion of the report.

Publication

tinued; those on the fishes, reptiles and insects of the state by Dr. P. R. Hoy; those on the food of our native birds by Prof. F. H. King; those on the crustaceans and the fungi by Prof. W. F. Bundy; and those on the phenogamous plants by Prof. G. D. Swezey.

PUBLICATION.

The final report will consist, when completed according to the present plan, of four volumes, with accompanying maps. As here-tofore explained, Volume I, in obedience to the specifications of the law of publication, will include the general geology of the state and certain special reports that can only be properly prepared after all the detailed reports are elaborated, and it will therefore be published last.

Volume II was issued during last year. The appreciative manner in which it was received by the people of the state and the scientific public has been very gratifying. A second edition, to be placed on sale exclusively, was ordered by the last legislature, and has been prepared during the year. Owing to some delays in publishing and to my absence in the field, it was not placed before the public until late in November, and the extent to which there will be a demand for it is not yet evident.

Work in the preparation of volume III has been in progress during the entire year in connection with other duties, and it was hoped that it would have been essentially completed at this date, but it has involved more labor than was anticipated. This volume relates to the northwestern portion of the state, and will include: (1) a report on the upper Mississippi region, by the late Moses Strong; (2) on the lower St. Croix district, by L. C. Wooster; (3) on the fossils of the state, by R. P. Whitfield; (4) on the general geology on the Lake Superior district; and (5) on the detailed geology of Ashland county, by R. D. Irving; (6) on the Penokee Iron Range west of the Gap, by C. E. Wright; (7) on the west Lake Superior district, by E. T. Sweet; (8) on the upper St. Croix district, based mainly on the notes of M. Strong; and (9) on the microscopical characters of the copper-bearing rocks, by R. Pumpelly. It will be accompanied by an atlas of ten large maps, uniform with those ac-

Acknowledgements.

companying Vol. II. The first three parts are composed and stereotyped, and most of the remaining manuscript ready.

Some progress has also been made in the preparation of Vol. IV, but a large amount of labor will yet be requisite to bring it to completion.

ACCOUNTS.

Full accounts of all expenditures connected with the survey, accompanied by vouchers, may be found on file in the Executive Office.

ACKNOWLEDGEMENTS.

The survey has been greatly indebted during the past year, as heretofore, to numerous citizens, who, by their kind assistance through personal services or valuable information have greatly aided in its prosecution. To all these, the members of the corps desire to return their warmest thanks. While the number of these favors is far too great to admit of enumeration here, some have been so conspicuous as to merit special mention, particularly the generous assistance of W. T. Henry, Esq., of Mineral Point, and also of Mr. J. J. Ross and Mr. John Hutchinson, of the same place; of Senator O. C. Hathaway, of Muscallonge; of Hon. H. Robbins, Hon. J. H. Evars and Mr. Leonard Coats, of Platteville; of Mr. John Cover, of Lancaster; of Hon. Gabriel Mills, of Hazel Green; of Mr. Frank Craig, of New Diggings; of Mr. Phillips, of British Hollow; of Capt. Poad, of Linden; of Mr. Geo. Weatherby, of Shullsburg, and of Dr. Geo. W. Seymour, of Taylor's Falls.

The survey has also been placed under renewed obligations to the officers of the Chicago, Milwaukee & St. Paul railroad, the Chicago & Northwestern railroad, the Chicago, St. Paul & Minneapolis railroad, the Wisconsin Central railroad, the Western Union railroad and the Mineral Point railroad, for free transportation, which has much facilitated the work and reduced its expense.

The survey is also particulary indebted to Mrs. G. P. Mavine, for a suite of specimens of the Michigan copper bearing rocks collected by her late husband. My cordial thanks are also due Governor William E. Smith, for documents that proved of much service in

Acknowledgements.

my European trip, and to General Lucius Fairchild, consul at Paris, Governor Packard, consul at Liverpool, and Mr. Montgomery and Dr. Delavan, consul and vice consul at Geneva, for much kind assistance.

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APPENDIX.

IN MEMORIAM *-WILLIAM J. L. NICODEMUS.

August 1, 1834 - January 6, 1879.

William J. L. Nicodemus was born August 1, 1834, at Cold Springs, Va. Soon after his birth, his parents moved to Maryland, settling near Hagerstown. In his early childhood, he gave evidence of unusual mental activity, developing a remarkable memory. His precocity was, however, unduly encouraged, and while still a small boy he was the victim of a severe attack of brain fever, which very nearly proved fatal. He recovered from this with almost wonderful rapidity, and soon regained a condition of sturdy health.

At quite an early age, his parents commenced sending him to the country school, and here he very quickly outstripped the other scholars, exhausted the meagre course of study of the district schools of the day, and fitted himself to teach, by the time he had reached the age of fifteen.

Teaching during the winter and working on the farm during the summer, occupied his energies during the next three years. Meantime, his unusual abilities and pleasant address had attracted toward him no little attention, and in his eighteenth year he received from the representative of his district an appointment as cadet in the West Point Military Academy, whither he went in the fall of 1854.

His life at West Point was, with all its rigors, an exceedingly pleasant and profitable one. He graduated from the academy in June, 1858, and the following month received his commission as second lieutenant in the Fifth Infantry. His first post was Newport Barracks, Ky., just opposite Cincinnati. Here his handsome face, genial and gentlemanly ways, and thorough enjoyment of the comparative freedom from rigorous discipline, soon made him a great favorite among his brother officers and in social circles.

^{*}Prepared by Professor Allan D. Conover.

In May, 1851, he was promoted to first lieutenant of the Eleventh Infantry, and transferred to the Department of New Mexico, where he remained until June, 1862, acting, during that time, as assistant adjutant general of the department.

Meanwhile the confederate forces had entered the Department, and on February 21, 1862, came to an engagement with the Union troops in the battle of Valverde. In this action Lieut. Nicodemus showed great gallantry, and was recommended by Maj.-Gen. E. R. S. Canby, commanding the United States forces, for a brevet majority. After this battle the federal forces, divided into two commands, one at Fort Craig, the other a Fort Union, two hundred miles apart, the intervening county in the hands the enemy, and of hostile Indians, were in great danger of being forced to surrender. Every means of communication had been tried, and had failed. Lieut. Nicodemus volunteered to open communication and succeeded, though at great risk of his life. A union of the federal forces resulted.

The campaign which followed was short but stirring, and in it Lieut. Nicodemus took active part, and was present at every engagement. The enemy were driven from the Department. Lieut. Nicodemus was now made the bearer of important dispatches to Washington, whence he returned, and was, at his request, relieved, that he might join his regiment in the east.

He was now in the real theater of the war, and in October, 1862, after acting for a while on recruiting duty at Cincinnati, he was tendered, and accepted from the governor of Maryland, a commission as colonel of the 4th Md. Volunteers. He immediately joined his regiment in the field, but was soon afterward ordered with his regiment to Baltimore, to guard conscripts. It was a post of trust, and Col. Nicodemus, his regiment largely in sympathy with the men they guarded, passed two months of intense activity, on duty day and night, cathing only short snaches of sleep in his clothes, but never a full nights rest. The strain proved too great, and ended in his complete nervous prostration. He resigned his commission, and, after a short rest, rejoined his regiment..

While in New Mexico, he had shown great efficiency on signal

duty, and February, 1863, was selected to take charge of the "Signal Camp of Instruction for officers and men." He was at the same time given command of the signal detachment of the department of West Virginia, and personally superintended a signal line of communication from Harpers Ferry to Washington, after the battle of Gettysburg until Lee had been driven south of the Potomac.

His valuable services in this Department were promptly recognized, and, in July, 1863, he was promoted Major of the Signal Corps of the army; in October following, was placed in charge of the Signal Bureau; was promoted Lieut. Colonel of Signal Corps in September, 1864, and was soon after made Inspector of Signal Corps. In this position, he acted until August, 1865, when he was mustered out as Lieut. Colonel, and then rejoined his regiment, the 12th Infantry, as captain, to rank from October, 1861. In March, 1865, he was brevetted Major in the regular army, "for faithful and meritorious services during the war."

Captain Nicodemus was stationed, during his service on the Signal Corps, very largely at Georgetown, and here he became acquainted with Miss Fannie, E. Pettit, to whom he was married December 27, 1864.

From 1865 to 1868, Captain Nicodemus was stationed at Washington. In 1868, he was detailed to give instruction in Military Science and Tactics at the Western University, at Pittsburg, Pa., and remained there two years.

In 1870, the Regents of the University of Wisconsin elected Captain Nicodemus to the chair of Military Science and Civil and Mechanical Engineering, a position which he accepted, at the same time resigning his commission as captain in the regular army.

In thus breaking away from the associations which his early education and long and active military career had so well fitted him to enjoy, in time of peace, and where his position promised him speedy promotion at least one step, and a life of comparative ease and freedom from anxiety, Captain Nicodemus was actuated by a desire to secure for his wife and young family the benefits and advantages of a permanent home. This sacrifice for those he loved typifies the man.

^{4 -} GEO. SUR.

In February, 1870, he moved to Madison, bringing his family with him, and immediately entered upon the duties of his new position.

Ambitious and energetic, he soon gave life to the department to which he had been called. He thoroughly remodeled the course in Civil Engineering, and soon drew around him a number of students of that specialty, winning from them, by his thorough but kindly manliness, his enthusiastic devotion to their wants, and his efforts for their subsequent welfare, a warm and lasting regard. Equal success crowned his efforts in the Department of Military Science, where he succeeded in making both popular and useful the drill, which before had always been extremely irksome to the students.

His genial manner and varied experience made him a very pleasant companion, and he soon won the regard of his fellow workers at the University, and of a large circle of acquaintance among those in public and private life around him. With some of these he was associated in business enterprise, and they know, and have felt, as others cannot fully, the thorough honest manfulness of his character, his wholesome integrity in small as well as great affairs, his manly way of meeting any draft on his time and energies they had a right to call for.

With the State Geological Commission, whose surviving members now mourn his loss, he has been associated in sympathy from the commencement of their labors, as a sharer in their work, since 1875, when he was commissioned Topographical Assistant of the Survey. Of his work for the survey, those atlas maps to which his name is signed, speak sufficiently.

Since his settling in Madison, Professor Nicodemus had more than once been tempted to leave, and among other proffers, he received one from Gen. Sherman, with whom he was personally well acquainted, asking him to accept a position as Professor of Mathematics at \$2,500 per annum, in gold, in a college just being started by the Khedive of Egypt.

Of modest, retiring disposition, Professor Nicodemus rarely spoke of himself or of his many experiences. Possessed of large store of nervous force, he rapidly and efficiently accomplished whatever he

took in hand. Ambitious to provide for the wants of his family, should they ever be left without his care, he felt pressed to engage in business enterprise outside of the duties of his professorship, and never slack in his duty to the university, he must have drawn very largely on his vitality, to accomplish the work he undertook. This is more especially true of the past collegiate year, when, burdened more than usually with the needs for instruction in his growing department, and with his work for the Geological Survey, he shared largely in the labor, the risks and anxieties consequent on publishing his large state map. The draft on his nervous system proved great, and brought on *insomnia*, which finally developed alarmingly.

Shortly after the beginning of the fall term, his condition became so precarious as to necessitate absolute rest, and he obtained leave of absence. With country air and complete rest he was rapidly regaining his normal state of health, when he was suddenly called to his home, to watch and care for one of his little children, who, attacked with a malignant type of diphtheria, hovered for a long time between life and death, but finally recovered. This care and anxiety probably lost him all he had gained, and though he again attempted his duties, he was soon compelled to give them up and again seek rest. He returned once more at the beginning of the winter term, and though at first apparently well, soon became subject to the same trouble. He struggled against it, but all in vain. His trouble grew on him, till finally he was unable to sleep at all. He resorted to the use of opiates, and it is probable that on the night of January 5th, he unwittingly took an overdose of laudanum. Discovered toward morning in an utterly unconscious state, he once or twice rallied, never becoming fully conscious, but finally, after a terrible struggle, gave up his life at 2:30 P. M., January 6th. His widow and four small children, the oldest thirteen, are left to mourn his loss.

Prof. Nicodemus was a devout, consistent member of the Roman Catholic church, and dying, received its last offices. His was a truly liberal Catholic spirit, and his life and bearing bespoke the real goodness of the man.

Madison, Wis., February 1, 1879.

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ANNUAL REPORT

OF THE

STATE SUPERINTENDENT

OF THE

STATE OF WISCONSIN,

FOR THE

School Year Ending August 31, 1878.

WILLIAM C. WHITFORD

State Superintendent.

MADISON, WIS.:
DAVID ATWOOD, STATE PRINTER.
1879.

Office of the State Superintendent,
Madison, December 10, 1878.

To His Excellency, WILLIAM E. SMITH,

Governor of Wisconsin:

SIR — I have the honor to submit, through you, to the Legislature, the Annual Report of the Department of Public Instruction, for the year ending August 31, 1878.

I am Sir, very respectfully,

Your obedient servant,

WILLIAM C. WHITFORD,

State Superintendent.

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ANNUAL REPORT

OF THE

STATE SUPERINTENDENT

OF WISCONSIN.

Office of State Superintendent, Madison, December 10, 1878.

To the Legislature of Wisconsin:

Gentlemen: — In accordance with law, I have the honor of submitting to you, and through you to the people of the state, the thirtieth annual report of this department, which covers the school year ending August 31, 1878.

The statistical summaries of the condition of our public schools and other educational agencies, are first given, with the usual comments and explanations. Then follow brief references to such of my official labors as may be of a general interest, and accounts of the transactions of the different boards and other organizations which operate in close connection with this office. Various suggestions are next presented in reference to the immediate needs and the permanent improvement of our common schools.

Under the head of "Documents" will be found the special reports and the tables of statistics, which always accompany the annual statement of the Superintendent.

2 - Supt.

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General Statistics.

GENERAL STATISTICS.

The statistical summaries are prepared from the tables given at the close of the report. The items in these tables are chiefly furnished in the annual returns from the city and county superintendents. These returns, in the aggregate, are perhaps substantially correct, though in detail they are often inaccurate. This is generally owing to the lack of experience on the part of the school officers, in keeping their accounts and in making their reports. The town clerks are not always able to correct the errors in the reports which they receive from the district clerks. Often these officers, as well as the superintendents of the cities and the counties, remain each in their positions only one term; and they do not, in that time, become well acquainted with this portion of the business under their supervision. But it gives me pleasure to know that many of the reports from these superintendents are models of neatness, and are made as accurate as possible with the materials at their command.

I. SCHOOL-DISTRICTS.

The number of regular districts is reported to be 4,276—a decrease of 290; and the joint districts are estimated to be 1,085—an increase of 87. The whole number of districts, not including the independent cities, is 5,361—a net decrease of 203. It is doubted whether the reports on this subject are altogether reliable. In five counties, the returns show a decrease of 281 districts since last year; and in one of these counties, 100 districts. Those extinguished in the whole state, in that time, cannot equal this number. Besides, the information received from other sources indicates that the number of districts has actually increased during the past year. Last year, 566 more school-districts than school-houses were reported; this year, there are 32 more school-houses than school-districts.

II. INDEPENDENT CITIES.

The cities which maintain public schools under special charters, are 27, the same as last year. The number of ungraded schools in

them is 25; of schools with two departments, 41; and of schools with three or more departments, 95; making in all 161 schools. The whole number of school rooms is 683; and of teachers required, 703.

III. CHILDREN OVER FOUR AND UNDER TWENTY YEARS OF AGE.

The number reported is 478,692, showing an increase of only 304 this year. In the counties, the decrease has been 925; and in the cities, the increase has been 1,229. A less number of children is returned from the southern and eastern portions of the state, and a greater number from the northern and western. Some of the older settled counties show each a decrease from 369 to 620 children.

IV. NUMBER OF CHILDREN OF SCHOOL AGE IN THOSE DISTRICTS WHICH MAINTAINED SCHOOL FIVE OR MORE MONTHS.

The number is given as 476,975, an increase over last year of 2,016. The gratifying fact is presented that only 1,717 children of school age resided in districts which maintained schools less than five months. Last year, they were double this number. The disposition seems to be almost universal to comply with the law on this point. A wholesome stimulus is imparted by the provision which withholds from the districts for non-compliance, their share of the annual income of the school fund. But a more adequate cause is found in the growing estimation placed by the people, in all parts of the state, upon the training given in our public schools. The tendency in the depressed state of our business affairs to curtail the expenses of conducting our schools, has not operated, as it seems, to deprive many children of the opportunity to attend school the full five months.

V. TOTAL NUMBER OF PERSONS ATTENDING THE SCHOOLS.

The number between four and twenty years of age, who have attended the public schools, is 295,215; under four years of age, 590; and over twenty years of age, 2,387, — making in all, 297,602. The gain this year is 6,332.

The pupils who attended only private schools, as reported, were 25,532. Of these, 9,606 resided in the counties, and 15,926 in the

independent cities. The returns under this head are believed to be the most complete ever furnished.

The attendance upon the academies and colleges which have reported, and upon the benevolent institutions, show a slight increase under each head.

Tabulating all classes of pupils attending public or private schools, the returns and estimates for 1877 and 1878 are as follows:

Description.	1877.	1878.
The rumber reported as attending public schools The number reported as attending private schools only The number reported as attending colleges and acade-	$\begin{array}{c} -291,270 \\ 23,624 \end{array}$	297, 502 25, 532
mies The number (by estimate) instructed in benevolent insti-	1,699	1,781
tutions	1, 175	1,287
Totals	317,768	326,102

VI. PERCENTAGE OF ATTENDANCE OF THE CHILDREN.

Of the children of school age, 67 per cent. have attended either the public or the private schools in the state. This is a gain of nearly 2 per cent. The independent cities report an attendance of these children of slightly less than 49 per cent. upon the public schools, and some over 16 per cent. upon the private schools; making in all about 65 per cent.

Of the children between four and fifteen years of age in the state, 69 per cent. attended the public schools. Those of this class in attendance upon the private schools have not been ascertained. Under this head, the counties made a better exhibit than did the independent cities; the attendance in the former being 74 per cent., while in the latter it was 62.8 per cent. If the statistics gave the number and the attendance of the children between six and fifteen years of age, the percentage of their attendance would be materially increased both in the counties and in the cities. Many children under six years of age are not allowed by their parents to attend school. This may be judged to be the case from the fact that in

the whole state only 590 children under four years of age were reported as attending the public schools.

Of the youths between fifteen and twenty years of age, nearly 56 per cent. attended the public schools. This class numbered 60 per cent. in the counties, and only 14 per cent. in the independent cities.

VII. SESSIONS OF THE PUBLIC SCHOOLS.

The average length of time a school was taught in the counties was 161 days, an increase of 12 days; and in the independent cities, 189 days, a decrease of 4 days. This gives for the former, reckoning twenty days to a school month, an average of slightly over eight months to each school; and for the latter, an average of nearly nine and a half months. No other facts could better indicate the firm and growing interest of the people of the state in using the advantages of our public school system.

VIII. TEACHERS AND TEACHERS' WAGES.

The number of teachers necessary for all the public schools, is 6,700, an increase of 129; and the number actually employed, in the course of the year, was 9,808, a decrease of 50. Thus it will be seen that 3,108 schools changed their teachers, a practice so injurious to our educational system that it should be discontinued as fast as practicable. It is maintained largely on the ground that cheaper teachers can be hired for the summer term than for the winter. The results are that inferior teachers are supplied for the schools, that the wages of the teachers are reduced to the lowest rates, and that many of the best qualified teachers are driven into other and more lucrative employments.

In the country districts, the average wages of male teachers were \$38.45 per month, a decrease of \$2.03; and of female teachers, \$25.33, a decrease of \$1.02. In 1874, the wages of country teachers reached their maximum in this state, the average for gentlemen being \$47.44 per month; and for ladies, \$32.13, In the following year, the wages declined very sensibly, about \$4.00 per month for each gentleman, and exactly \$5.00 for each lady. Since that time, the decline each year averages \$1.68 in the monthly wages of the

former, and \$.60 in the monthly wages of the latter. We think that the reduction has reached the bottom of the scale.

In the independent cities, the average salary paid to the male teachers was \$1,002.73 per annum—a decrease of \$79.27; and to female teachers, \$347.04—a decrease of \$12.26. The average monthly wages of male teachers in these cities, reckoning nine and a half months' time to each school, were, therefore, \$105.55—a decrease of \$2.65; and of female teachers, \$36.53—an increase of \$.60. The annual salaries of teachers in the independent cities reached, for gentlemen, the maximum in 1874, the average then being \$1,148.00; and for ladies, the maximum in 1875, the average then being \$394.00 The decline has since, in the main, been gradual, averaging for gentlemen per year \$39.82; and for ladies, \$15.65.

Of the 766 teachers employed in these cities the past year, 112 were males, and 654 females—the ratio being nearly one to six. The tendency here has been growing, for several years, to engage a larger proportionate number of lady teachers.

IX. TEACHERS' CERTIFICATES.

The whole number issued of all grades, not including the state certificates, in the counties and cities, was 8,930 - a decrease of 446 on that of the previous year. Of these certificates, 7,750 were third grade - being 511 less than those issued in 1877, while a larger number of the second and first grade certificates were granted this year. It is evident that the superintendents of the counties and cities are using greater discrimination in licensing teachers, and are encouraging them to seek higher attainments in this direction. Of the teachers qualified by law last year, 2,230 were in excess of the number required to teach the public schools; and they were 878 less than the number reported as actually employed. It may be expected that the superintendents will license a surplus of teachers, as long as the public sentiment shall demand it. The certificates were issued to 2,744 males, and to 6,186 females a ratio of nearly seven to sixteen. The reports of the county superintendents show that, of the teachers employed in the country districts, nearly one-third are gentlemen, and over two-thirds are ladies.

The following table gives a synopsis, by sexes, of the teachers who received certificates:

TEACHERS.	1st Grade.	2d Grade.	3d Grade.	Total.
Male teachers		353 510 863	$ \begin{array}{r} 2,189 \\ 5,561 \\ \hline 7,750 \end{array} $	$ \begin{array}{r} 2,744 \\ 6,186 \\ \hline 8,930 \end{array} $

X. GRADED SCHOOLS.

The number of graded schools with two departments, is 207—an increase of 13; and with three or more departments, 225—an increase of 14. The total number is 432, and the total increase is 27.

Of those with two departments, 41 are in the independent cities; and 166 in the other cities, in villages, and in country districts. Of those with three or more departments, 95 are in the independent cities, and 130 elsewhere. Appleton, La Crosse, and Racine report each seven graded schools; Oshkosh, nine; Fond du Lac, twelve; and Milwaukee, twenty. The other cities have each from one to six. Outside of the independent cities, Grant county has the highest number of graded schools, thirteen in ally Fond du Lac, twelve; La Fayette, Walworth, and Waukesha, each eleven; and Dane, Dodge, Jefferson, Rock, and Waupaca, each ten. Crawford reports none this year, though it has reported one heretofore. All the other counties, except three in the northwestern part of the state, have each from one to nine such schools.

In the revised statutes adopted this year, a new provision was incorporated, which authorizes any incorporated village, having a graded school with three or more departments, to accept, at any charter or general election, with the town in which it is located, the township system of schools. Many villages in the state, by acting with the towns on this measure, can place their graded schools in such connection with the other public schools of the towns, that the more

advanced pupils of these other schools can be received, without the payment of tuition, into the higher departments of their own schools. In various other ways, they can also assist in stimulating and organizing the school operations of their towns. Such action on their part would tend toward securing ultimately the adoption of the township system of schools in the state — a result greatly to be desired.

XI. FREE HIGH SCHOOLS.

Fifty-eight such schools received state aid last year. Of these, thirty-seven then reported for the first time. Two of them were established under the law of 1875, and thirty-five reported under the amendment to the law, passed in 1877. After the entire appropriation of \$25,000 had been distributed in December a year ago, it was discovered that the reports of the schools at Burlington and Columbus had been overlooked. As these schools were justly entitled to their share of the appropriation, the Secretary of State arew warrants on the special certificates from this office in favor of these schools, to the amount of \$460.85 each.

Eighty-five schools reported this year under the law as it existed previously to the first day of November, when the new law, as given in the revised statutes, went into effect. This is an addition of twenty-seven schools. Twelve of these were organized under the law of 1875, and fifteen reported under the amendment of 1877.

The present law on free high schools contains the following provisions: "Any high school district which shall have established and maintained a free high school in a building not used for other school purposes, for not less than three months in each year, shall be entitled to receive from the general fund of the state during the first three years after such high school is established, one-half the amount actually expended for instruction in the high school of such district during such year, over and above the amount required by law to be expended for common school purposes, not to exceed in one year five hundred dollars to one district. To obtain such aid, the high school board shall, before the first day of December, report in duplicate to the state superintendent, under their oaths, the amount actually expended therefor since the preceding first day of

December, specifying the several items thereof, with the date and object of each fully."

On the 26th of November last, I issued a circular to the secretaries of the free high schools, informing them that the Secretary of State and the Attorney General had reached the conclusion, on the examination of the above provisions of the law, that these provisions, and not those of the former law, must govern in the distribution of the state aid to the free high schools in the month following. The new features in the law, as represented in the foregoing extract, are as follows:

- 1. The high school district which organizes and maintains a free high school, recognized hereafter under the law, must be established by the people in any municipality in voting by ballot on the subject at a special district meeting, town meeting, or charter election. No ordinary school district can, in any case, become a high school district.
- 2. The school year in which the free high schools must be maintained at least three months, closes the last day of November, instead of the last day of August, as under the old law.
- 3. Only such high school districts as have conducted a free high school in a building not used for other school purposes, are entitled to receive aid from the general fund of the state.
- 4. This aid is extended to each free high school only during the first three years after it has been established.
- 5. No free high school district can receive in any year, under any circumstances, over five hundred dollars from the general fund.

With the circulars issued to the secretaries of the free high schools, blanks were sent to be filled in duplicate and returned to this office, giving a statement of the amount actually paid for instruction from the first day of December, 1877, to the last day of November, 1878, with the date of each payment; and, also, the number of weeks their schools had been taught in buildings used or not used for other school purposes. Satisfactory returns have been received from nearly all these officers. Under the item of conducting their schools in buildings not used for other school purposes, only seven of the eighty-five schools were found to have complied with this feature of the law.

Inasmuch as these schools were maintained in good faith, during the pist school year, with the expectation of receiving state aid under the former law, it seems evident to me that they have a just claim upon the state, accruing under the law in force till the first of November last. I recommend that the legislature pass an act at their session this winter, which shall authorize the distribution of the \$25,000 raised this year to aid the free high schools, among such schools as furnish satisfactory evidence of having complied in all things with the law in force up to the first day of November last, and with the requirements of the State Superintendent in reference to courses of study and admission of pupils.

XII. SCHOOL-HOUSES.

The number of school-houses reported is 5,561—an increase of 241. Last year, they were 566 less than the number of school-districts; this year, after deducting 168, the number of school-houses in the independent cities, they are 32 more than the number of districts, and 94 more than those reporting. This excess must be accounted for on the supposition of incorrect returns.

The school-houses will accommodate 353,119 pupils — an increase of 7,175. There were conveniences for 55,517 more pupils than those in attendance during the year; but there were in the state 125,573 more children of school age than those who could be accommodated in the school-houses. In the independent cities, the schoolhouses furnished accommodations for 42,546 pupils, while the whole number of different children in attendance upon the public schools of these cities during the year, was 45,983 - an excess of 3,437. The capacity of these school-houses, we may therefore judge, is fully used. In these cities, there are 67,291 children between four and fifteen years of age, and 94,309 between four and twenty years; and their school-houses can accommodate only three-fifths of the former number, and about four-ninths of the latter. In the counties, with accommodations in the school-houses for 310,573 pupils, there were in attendance upon these schools, 251,519 — a deficit of 59-054 pupils. Of the children between four and fifteen years of age, 134,354 reside in the counties; and of those between four and

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General Statistics.

twenty years of age, 384,383. The capacity of the school houses outside of the cities, is sufficient to meet all the demands which are likely to be made upon them in this direction at present.

The city of La Crosse has erected, during the year, a commodious and substantial High School building, at a cost, including the site, of \$23,500. Racine has provided a new edifice for the High School, a want which it has felt for several years. Appleton, Beaver Dam, Menasha, Milwaukee, and Watertown are building plain but convenient structures, principally for their ward schools. Most of the counties report the erection of new school-houses for the country districts, some as high as six, during the year, and at a cost usually not exceeding \$500 each. In each of at least forty counties, from \$1,500 to \$6,000 were expended for such houses. They are described as generally tasty buildings, well situated on good sized lots, with airy and well lighted rooms, and furnished with blackboards and improved desks. In several of the counties, special attention seems to have been given to repairing the old houses, enlarging and ornamenting the sites, supplying better apparatus and furniture, and erecting convenient outhouses. Much still needs to be done in all the counties of the state, in the selection of better sites, remodeling the houses, furnishing out-buildings, and purchasing more extensive apparatus. Of the number of these sites, 2,717 are reported as badly selected; 3,828, as containing each less than one acre; and 3,507, as not well enclosed. Of the school-houses, 938 are represented as not in good condition; and 1,730 as poorly ventilated. In the matter of supplying the requisite apparatus and more convenient seating for the pupils, the information received from the various portions of the state shows a more general lack than is usually believed to exist. In the cities and larger villages, however, the ill and sometimes wretched accommodations, so apparent in country school-houses, do not, as a rule, prevail.

The subjects of ventilation and the proper supply of light in all our school houses, must receive the more serious consideration of our people. The injurious effects occasioned by vitiated air and the imperfect admission of light in our school rooms, are exciting much alarm. An investigation of our school-houses in these

respects, could properly be made by the State Board of Health; and a valuable document in the shape of an elaborate report, could be issued by them. A cheap but well prepared work on school architecture is greatly needed. This should embody the improvements in the style of building—those based on scientific principles, by which the school-houses can be better adapted to their purpose. In this country we are behind some governments in Europe, which employ skilled architects to prepare plans for all grades of school buildings, and then require the new buildings to be erected in accordance with these plans. Their school-houses, lately built, are reported to be superior to ours.

The state is wisely learning economy in the construction of its school edifices. This is particularly noticeable in our villages and cities, where hundreds of thousands of dollars have heretofore been wasted in the erection of large structures, frequently four stories in height, elaborately ornamented on the outside, and placed on commanding situations, less for the convenience of the teachers and pupils, than as an advertisement for the places. School-houses smaller in size, but more in number, substantially built, not over two stories high, with rooms well arranged, and situated in the midst of spacious and neatly ornamented grounds, would better meet the necessities of the schools in our cities and villages. ple in some localities who have been heavily taxed in the past, or are now burdened with debt on account of the needless expenditures of large sums of money in the erection of their palace-like school buildings, are led to think that similar extravagance is shown in other operations of the school system, which, however, they will find not to be the case.

XIII. TEXT-BOOKS.

The number of districts which have adopted lists of text-books, is 2,959—slightly over one-half of those in the state. In 1875, the number was 1,402. In all the independent cities, an adoption has been made. The districts which purchase text-books, number 1,104—a gain of 651; which loan them to pupils, 427—a gain of 183; and which sell them to pupils, 681—a gain of 511. Seventy towns report uniform series of text-books used in all their schools.

The principal text-books in use in the counties, and the number of districts using them, are given in table IX, at the close of the report; and those used in the cities, in table XX.

The following table gives the number of the different series of text-books, and the number of different books in these series, in use in the public schools of the state, as reported by the county and city superintendents:

Common Branches.

Common Branches.		
	Number of Series.	No. different books.
Spelling	. 7	11
Reading	. 10	55
Arithmetic	. 11	42
Geography	. 9	22
English Grammar	. 9	19
	46	149
Higher Branches.		
United States History	. 11	14
Constitutions		6
Algebra	. 6	11
Physiology	. 7	9
	29	40
Whole number of series		. 75
Whole number of different books		. 189

XIV. SUMMARY OF GENERAL STATISTICS.

In the first of the two following tables the increase or decrease from 1877 to 1878 is given, decrease being indicated by an asterisk (*):

Description.	1877.	1878.	Increase or decrease
Number of school-districts, not including independent cities	5,564 5,533	5,361 5,299	*203 *234
nage in the state	478, 338	478, 692	304
age in districts maintaining school five or more montos	474, 959	476, 975	2,016
	289, 125	295,215	6,090
	291, 270	297, 502	6,232
in the counties during the year	149	161	12
in the independent cities during the year Number of days schools have been taught by qual-	193	189	*4
Number of pupils who have attended private	334, 630	868, 328	33,698
s hools only during the year	23,624 194	25, 532	1,908
Number of schools with three or more departments Number of teachers required to teach the schools. Number of different persons employed as teachers	211 6, 571	6,7t0	14 129
during the year	9.858 \$40 48	9,808 \$38 45	*50
counties Average monthly wages of female teachers in the	\$26 35	\$25 33	*\$2.03
Average monthly wages of male teachers in the cities.	\$108 20	\$100 27	*\$1.02 *\$7.93
Average monthly wages of femile teachers in cities Number of schools visited by the county superin-	\$35 93	\$34 70	*\$1.23
intende ts during the year	$\frac{4}{5},554$ $\frac{5}{3}$	4,674 5,561	120 241
Number of pupils the school-houses accommodate. Number districts which have adopted text-books:		353,119 2,959	7, 175
Number of districts which purchase text-books	$\begin{array}{c} 453 \\ 244 \end{array}$	1,104 427	651 183
Number which loan them to the pupils Number which sell them to the pupils	170	681	511
Number of sites containing less than one acre	3,762	3,828	66
Number of sites well enclosed	1,787	1,886	99
Number of school-houses built of brick or stone. Number of school-houses with outhouses in good	790	809	19
condition	3,670	3,760	90
Highest valuation of school-house and site out of	\$54,500 \$40,000	\$54,000 \$45,000	*\$500 \$5,000
the independent cities	7 20, 000	φ10,000	φο, σοσ

XV. RECEIPTS AND EXPENDITURES.

The total receipts and expenditures, during the last school year, are reported as follows:

RECEIPTS.

Amount on hand August 31, 1877	\$491,331 58
Received from taxes levied for building and	Ψ101,001 00
-	408 004 40
repairing	
teachers' wages	981, 258 79
apparatus and library	18, 315 93
at annual meeting	423,613 92
by county supervisors	
income of state school fund.	
all other sources	
an other sources	205,597 02
Total amount received	\$2,749,955 93
EXPENDITURES.	
EXPENDITORES.	
Paid out, building and repairs \$235,197 36	
apparatus and library 17,453 88	
services of male teachers 657, 462 48	
services of female teachers 943,789 26	
old indebtedness	
•	
furniture, registers, records, etc 41,573 84	
all other purposes	• • • • • • • • • • • • • • • • • • • •
	\$2,148,329 54
Money on hand August 31, 1878	\$601,626 39

The total receipts exceed those of last year to the amount of \$3,612.07; and the total expenditures are less than those of last year to the amount of \$101,308.91. The gain in the amount of money on hand at the close of the year, is reported to be \$107,920.98. This sum is \$3,000 in excess of the other two items, which it should equal. When we consider that separate financial reports are made to town, village, and city clerks by nearly six thousand district clerks, and that sixty-four county superintendents send to this office their annual reports upon this subject, prepared from the defective materials furnished to them, the existing discrep-

ancy in the aggregates of the receipts and expenditures for the past two years, is not a matter of surprise, but rather of satisfaction, that it is not larger than the sum presented.

The amount expended for the services of teachers, was \$5.42 for each pupil attending the public schools; and the whole amount expended for the support of these schools, divided by the number of pupils attending them, gives \$7.24 as the cost for each. If the interest, at 7 per cent., of the amount invested in school property be added, the cost for each pupil is \$8.49.

Aggregate of values of school property.

Description.	1877.	1878.
Values.		
Total valuation of school-houses	\$4,343,888 685,386 154,628	\$4,857,960 83 598,554 70 159,040 39
Totals	\$5, 183, 902	\$5,115,555 92

The decrease of \$86,831.30, in the estimated valuation of the sites, is due to the general shrinkage in the value of real estate property.

XVI. EDUCATIONAL FUNDS AND INCOMES.

The amounts of the educational productive funds for 1877 and 1878, are stated, in the last report of the Secretary of State, as follows:

Funds.	1877.	1878.
School fund	224.807.94	\$2,680,703 27 226,953 80 256,602 11 1,038,198 55

The income from each of the funds for two years past, is given below:

Income of Funds.	1877.	1878.
School fund income University fund income Agricultural College fund income Normal School fund income	70 641 09	\$185,368 44 64,116 32 17,326 31 83,364 79

The decrease in the income of all the funds above mentioned, may properly suggest an inquiry into the sources which the State has for enlarging these funds. As will be seen from the last annual report of the Commissioners of School and University lands, the State held in trust, September 30, 1878, the following number of acres, the sales of which will accrue to the several educational funds:

	Acres.	
School lands	213,407	05
University lands	3 737	15
Normal School lands	593,112	00
Agricultural College lands	38,481	35
Total	848, 737	 55
· · · · · · · · · · · · · · · · · · ·		

The prices for these lands range as follows: For school lands, from \$1.00 to \$1.25 per acre; for University lands, from \$2.00 to \$3.00; for Normal School lands (swamp), from \$.50 to \$1.25; and for Agricultural College lands, at \$1.25.

His excellency, the Governor, has urged, the past year, upon the attention of the Department of the Interior the claim of the State for the deficiencies in the school sections; and the general government has already ordered about 35,000 acres to be added to the school lands of the State, toward satisfying this claim. Another order for 7,000 acres on the same claim, is confidently expected. It is believed that the State has also an equitable demand for many thousand acres of school and swamp lands in the Indian reservations; and that Congress will shortly authorize the selection of

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lands without, in the place of those within, these reservations. One-half of the swamp lands would be applied to the benefit of the Normal School fund.

XVII. APPORTIONMENT OF SCHOOL FUND INCOME.

The amount apportioned last June, on the returns for the preceding school year, was \$185, 546.01. It was distributed on 475,759 children of school age, at the rate of 39 cents per scholar. Last year it was 41 cents. The ratio will doubtless continue to decrease in the future.

XVIII. WEBSTER'S DICTIONARY.

No dictionaries were on hand, at the beginning of the year, to be supplied to the school districts, owing to the fact that the State had not procured any the previous year. The Legislature at its last session directed the State Superintendent "to purchase, on behalf of the State, two hundred copies of the latest edition of Webster's Unabridged Dictionary, at a cost, delivered at his office, not to exceed seven dollars per copy; provided, that he may purchase four hundred copies, if they can be delivered as aforesaid, at a price not exceeding six dollars per copy." On correspondence with the publishers, I learned that the books could not under any arrangement, be procured for the public schools of the State for less than seven dollars per copy. Accordingly two hundred copies were purchased, and they have all been distributed among the districts which have not heretofore received their first supply. This number has not proved sufficient to meet the applications of this kind. By an arrangement made with the publishers the past year, copies of the work were obtained directly from them to be sold at seven dollars apiece to the districts which had formerly been supplied. In this way, one hundred and twenty-six additional copies were furnished by the first day of November. To fill the applications for first supply and for re-supply already on file, and those which will be received during the coming year, and until another purchase is made, four hundred copies will probably be needed; and I recommend the purchase of that number.

XIX. CONSTITUTIONS.

In 1871, a text-book on the constitutions of the United States

and of Wisconsin, was prepared by the State Superintendent, under the directions of an act of the Legislature, passed that year. An edition of 30,000 copies of the work was published by the State, and placed in the hands of that officer to be distributed to the school districts, free of cost to them, and each to receive not more than six copies. This edition was exhausted in January last, and the Legislature refused, at its last session, to order a new supply. Under the present revised statutes, nothing can be done to furnish the districts which have not been supplied with the books, as they only direct the State Superintendent to distribute copies of the printed edition, "heretofore prepared and remaining in his custody."

XX. THE SCHOOL CODE.

The changes in the school laws made in the present revised statutes, required the issue of a new school code. Accordingly, in October last, an edition of 7,500 copies, the number allowed by law, was prepared by my assistant, Rev. J. B. Pradt, and published by the State. They were distributed, in accordance with the regulations of the office, to the clerks of the school boards, the county and city superintendents, some other school officers, and the State institutions of learning. Exchanges were made with the other States for copies of their school laws. Less than two hundred copies of the code remain in the office; and these will be needed for distribution to those district officers who failed to receive the first supply. provisions have ever been made to furnish teachers with the work. As applications for it are frequently received from them, I would suggest that, when the next edition is ordered, arrangements be made to sell, at cost, extra copies to them, and to any other parties not supplied by the State, desiring to obtain the same.

XXI. COUNTY AND CITY SUPERINTENDENTS.

The number of counties and superintendent districts in this State, is 64,—the same as last year. Each of them, as well as each of the twenty-seven independent cities, elects a superintendent of public schools. Dane, Dodge, Milwaukee, and Rock counties have, for some years, been divided each into two districts. It is understood that Dodge county has abandoned the division; and that Milwaukee

county is making an effort in the same direction. A backward movement of this kind must be deprecated, when it places too many schools under the supervision of one person. Experience, in this country, has shown that no county superintendent can take the efficient and satisfactory oversight of more than seventy-five schools, on an average. In some countries in Europe, a district inspector is not permitted to have jurisdiction over more than fifty schools. Careful and vigorous work by both teachers and pupils in our public schools, is more dependent upon active and intelligent supervision, than upon any other agency. In some places abroad the saying prevails, "As is the inspection, so are the schools." To burden, then, a superintendent with the care of more schools than he can closely inspect, is to weaken very materially his efficiency, and to bring reproach upon his office. In this State, there are five county superintendents each in charge of over 150 schools; thirteen, each in charge of over 125 schools; twenty-three, each in charge of over 100 schools; and thirty-seven, each in charge of over 75 schools.

Two county superintendents have been appointed the past year, viz.: Rev. W. G. Bancroft, of Ashland county, in place of James W. Bell, who resigned; and Prof. C. S. Stockwell, of La Crosse county, in the place of Prof. S. M. Leete, who resigned on account of illness. The last named died with the consumption a few months after he left his office. He was truly a self-made man, a thorough scholar, an accomplished teacher, and a most highly respected superintendent. Though but thirty-two years of age at at the time of his death, he had gained the favorable notice of a wide circle of the teachers and other educators in the State.

The annual convention of the county and city superintendents, was held at Madison, in the holidays of 1877, my predecessor, Hon. Edward Searing, presiding. Nineteen of these officers were in attendance. Their proceedings are published among the documents appended to this report.

XXII. PRINCIPALS' ASSOCIATION.

This body, also, held a session at Madison, on two afternoons in the holidays. A new constitution was adopted, and some valuable papers were presented. The discussions were animated and sug-

gestive, and the association gave promise of greater activity in the future. Their proceedings are, also, published with this report.

XXIII. STATE TEACHERS' ASSOCIATION.

The semi-annual meeting was held at Madison, December 26-28, 1877; and the annual meeting at Geneva Lake, July 16-18, 1878; both under the presidency of James MacAlister, Esq., of Milwaukee. Papers and addresses of a high character were presented at these meetings. An earnest and intelligent interest in the educational movements and prospects of this State, was manifested by all who took part in the exercises. The proceedings of both sessions, which are published elsewhere in this report, will show what subjects were introduced and discussed.

Hon. W. H. Chandler, of Sun Prairie, was chosen the president for the ensuing year. The holiday meeting will be held at Madison, the last of December, this year; and the annual meeting will occur in the city of La Crosse, sometime in July next.

XXIV. THE STATE UNIVERSITY.

The past year has been, in many respects, the most prosperous in the history of this institution. The attendance of students has reached 449 — a gain of 61 over that of last year. The income is sufficient to meet all current expenses, and supply additional facilities for room and instruction, now greatly needed. A spacious and elegant building, called the Assembly Hall and Library, is in process of erection, and will be completed by next fall, at a cost not to exceed \$35,000. Through the noble liberality of ex-Governor C. C. Washburn, an Astronomical Observatory has been erected for the use of the University, and is now nearly ready for the instruments, which will be of superior construction. The services of Prof. James C. Watson, already widely known for his astronomical discoveries, have been secured in charge of the Observatory.

The University is furnishing instruction of a superior quality, and the discipline maintained among its students is seldom surpassed in similar institutions. It is receiving students from all parts of the State, and is rapidly enlisting the confidence and respect of all classes of people.

During the year, two of the professors have been called, in the prime of their usefulness, from the work of the class room to the labors of the higher life. The University mourns their death. John B. Feuling, Ph. D., filled the chair of Modern Languages and Comparative Philology for ten years in the institution; and he was a profound and thorough scholar, and a practical and consciencious teacher. Stephen H. Carpenter, LL. D., Professor of Logic and English Literature, died a few days since, in Geneva, New York. He was a man preeminent in native ability, of extensive and accurate acquirements, singularly apt in teaching, forcible as a writer, generous in his spirit, and exalted in his christian integrity. He gave twenty-six years of his life mainly to the service of education in this State.

XXV. THE STATE NORMAL SCHOOLS.

I call attention to the full report of these schools, made by Hon. William Starr, the president of the board of Normal Regents, and included among the documents appended to this report. The present condition of these schools is highly satisfactory. In them, nearly 1,900 students were enrolled last year; and 101 graduated-24 in the full course of studies, and 77 in the elementary course. They are all supplied with superior faculties, who are becoming thoroughly acquainted with their special work. The instruction imparted in the class rooms is being sensibly felt in many of our common schools. Rigid economy is exercised by the Regents in the expenditure of the income placed in their hands. Close attention is given by them to the care of the grounds, apparatus, libraries, and buildings; and faithful supervision is held over the labors of the faculties and the training of the students. Many questions connected with the management and instruction of Normal Schools, are most thoughtfully studied by them.

XXVI. CHARITABLE AND REFORMATORY INSTITUTIONS.

Extracts from the annual reports of these institutions, will be found elsewhere in this report. The number of pupils enrolled, the past year, in the Institute for the Blind, was 90; and in the Institute for the Deaf and Dumb, it was 180. The whole number of

inmates in attendance, during the year, at the Industrial School for Boys, was 527; and at the Industrial School for Girls, it was 51. The management of the boards in charge of these institutions, has been marked with fidelity and efficiency. The good order, industry, and advancement of the pupils or inmates have been in every way, it seems, worthy of the State which supports these charities.

XXVII. CHILDREN INCAPACITATED FOR INSTRUCTION.

At the request of the State Board of Charities and Reform, the clerks of the school districts were instructed to include in their annual reports, this year, special statistics of the number of children who, from defect of vision, or of hearing, or of intellect, are incapacitated to receive instruction in the common schools. The returns must be considered as only approximately correct, as four of the counties and four of the independent cities make no reports on the subject, and it is hardly probable that they contain none of these unfortunates. The statistics give the following numbers:

Incapacitated from defect of vision	148
Incapacitated from defect of hearing	234
Incapacitated from defect of intellect	309

The attention of the State has been called, in various ways, the past twelve years, to its duty to provide the means for the suitable training of feeble minded children. The Legislature, in 1877, directed the State Board of Charities and Reform to enquire into the expediency and necessity of organizing a school for the instruction of imbecile or idiotic children. This board reported a year ago:— "We have found that there are teachable idiots in the State in sufficient numbers to warrant the establishment of an institution devoted to their especial instruction; we are convinced that such instruction is both morally and economically profitable to the people of the State; and we believe that it is the right of all children bred among us to receive an education according to their capacity. We, therefore, recommend that early and effective action be taken by the Legislature for the establishment of an institution for the training of feeble minded children."

The demands made upon the State to support, in a vigorous man-

ner, the benevolent institutions already established, and the necessity of exercising at the present time greater economy in the use of the public funds, seem to prevent the speedy establishment of of the school above recommended. All intelligent and humane persons must desire, when they know what improvement these imbecile children may receive under proper training, that some provisions should be made as soon as practicable, by the State, for their education. They have as great a right to the guardianship of the State as the blind, the deaf and dumb, and the incorrigible.

XXVIII. DENOMINATIONAL COLLEGES.

The following institutions have reported this year: Beloit College, Carroll College, Lawrence University, Milton College, and Ripon College. The Northwestern University reported last year, and the Racine College for the last time two years ago. The Galesville University, the St. John's College, at Prairie du Chien, and the Pio Nono College, at St. Francis Station, have not made any returns for several years.

The Milwaukee Female College (an unsectarian institution), the Wayland University, at Beaver Dam, and the Wisconsin Female College, at Fox Lake, are giving instruction at the present time only in academic studies. They make no reports this year, though they are doing efficient work.

The State Superintendent seeks every year to obtain from these incorporated institutions such statistics as will enable him to lay before the legislature "a fair and full statement of their affairs and condition." The law enjoins upon the presidents of their boards of trustees the duty to make annual reports to him upon various subjects which are specified; and the neglect to furnish these reports on the part of a portion of these institutions, deprives the State of the information which it is anxious to obtain, in order that it may yearly have a complete survey of the educational work going on within its limits. The same remark applies to the presidents of the boards of trustees of the academies and seminaries, only one-sixth of which are reported this year.

The State in exercising, in a measure, its fostering care over the private academies and the denominational colleges, must desire

their assistance in securing the higher education of its young people. There need be no antagonism between these schools and those established and maintained by the State; as there is room for a suitable number of both kinds to do successful work. The past history of these institutions shows that they have operated together in harmony and for the good of the State. The suggestion can be pertinently made, whether it would not be advantageous to the former class of schools, and at the same time be recognized as an obligation on the part of the State, to extend to them such supervision as could be exercised yearly by a State committee of visitation.

The statistics of the denominational colleges and universities, as reported the past two years, are as follows:

DESCRIPTION.	1877	. 1878.
Number of colleges reported, not including State Uni-		
versity	6	5
Number of members of faculties	61	44
Number graduated at last commencement	71	46
Total number who have graduated	697	713
		====
Number of students in senior classes	54	39
in junior classes	59	34
in sophomore classes	87	72
in freshmen classes	127	104
not in regular classes	123	11
in preparatory departments	613	691
Total number in the institutions	1,063	951
Number of acres of land owned by the institutions	2, 156¼ ====================================	4,117½
Estimated cash value of lands	\$65,700 00	\$65,700 00
Estimated cash value of buildings	242,050 00	180,000 00
Amount of endowment funds, except real estate	245,612 00	243,679 63
Amount of income from tuition	18,364 43	14,312 08
Amount of income from all other sources but tuition.	36,602 38	28,659 20

In addition to the above institutions, three theological seminaries should be mentioned: The Nashotah House, at Nashotah; St.

Francis Seminary, at St. Francis Station; and Monona Seminary, at Madison.

XXIX. ACADEMIES AND SEMINARIES.

Four have reported, one more than last year: Elroy Seminary, Janesville Classical Academy, Lake Geneva Seminary, and Rochester Seminary. Kemper Hall reported last year. The aggregate number of teachers employed, was 21; and of the students in attendance, 262. Besides these, there are at least twenty other incorporated schools furnishing secondary instruction, and not reporting to this department.

XXX. PRIVATE SCHOOLS NOT INCORPORATED.

In both the counties and the independent cities, 518 private elementary schools were taught—373 in the former, and 145 in the latter. Of these, 417 were denominational or parochial; and 101, unsectarian. In them, were employed 853 teachers; and were instructed, as stated elsewhere, 25,532 pupils who did not attend any public schools during the year. In the counties, these schools were conducted, on an average, 6.35 months; and in the cities, 8.2 months. In the former, the average number of pupils in attendance upon a school, was 45; and in the latter, it was 77.

XXXI. SCHOOL APPARATUS AND REFERENCE BOOKS.

The cash value of school apparatus reported by the counties, is \$143,486.39; and by the independent cities, \$15,554.00. The schools in the cities are quite well supplied with blackboards, illustrative charts, outline maps, and globes. Of 683 rooms in these schools, 153 are reported as adequately furnished with apparatus. In the country schools, there is very often a great deficiency of these useful aids to instruction. Many towns report no apparatus in their schools, not even a small sized blackboard. The least sufficient outfit of an average rural school should consist, besides the blackboard, of sets of writing and reading charts, maps of the county, State, and the United States, and a globe. These can be obtained of firms which supply school apparatus or school books, at a cost not exceeding \$40.00 for each school.

Books of reference are also indispensable. The State has shown its interest in this subject by supplying each school, or each department of a school, with a copy of Webster's Unabridged Dictionary. A comprehensive history of the United States, a Biographical Dictionary, an Illustrated Historical Atlas of the county or State, and a cyclopædia of general knowledge, would be very useful in many schools. If all these cannot be obtained at once, arrangements could be made to purchase some of them the coming year, and the balance in succeeding years. The same wisdom which supplies the mechanic with the best tools for his work, should furnish the school teacher with the best apparatus and reference books.

XXXII. DISTRICT AND TOWN LIBRARIES.

Nothing in our public school system is so humiliating as the condition of the school libraries. Only 328 districts in the counties report such libraries; and the independent cities report only 19 libraries. Eight counties and nine cities report none. The whole number of volumes in these libraries is 21,577; and the cash value of them is \$20,985.23. This year, \$2,378.34 were expended in purchasing 3,098 additional volumes.

For eleven years, the towns have had the privilege of establishing town libraries; and only twenty-six report the acceptance of the system. This result is not surprising, as the towns have not usually any organization which can properly care for the books. Not until the township system of school government is adopted throughout the State, can we expect town libraries to be extensively formed, nor any great efficiency to exist in the school library system. District libraries are generally so small, and therefore supplied with such a limited variety of books, and these often ill adapted to their readers, that it is difficult for the children, and even for the parents, to maintain an interest in them for a great length of time. What is needed are larger libraries, each under the management of school boards with enlarged powers, and with more discretion in the selection of books; and each, also, accessible to a greater number of people.

It is painful to think how many thousands of our young people are growing up without the means at hand to become acquainted

with our living works on history, biography, travels, science, the practical arts, and the great moral themes of life. Very narrow must become the range of their ideas. Many hours must be spent by them in idleness or in frivolous amusements, because they have not acquired a taste for reading excellent books. They are crippled by the want of a knowledge of the general affairs of life, and are not influenced by the examples which the great men of the past and the present furnish to intelligent and ambitious minds. Very many of our youth, as a consequence, reach maturity with no aspirations for an active and useful sphere in society. Many experienced teachers know how effective is the influence of a well selected and well stocked library upon the pupils of their schools, in aiding them to become interested in their studies, and to understand thoroughly many of the subjects investigated in their classes.

XXXIII. TEACHERS' INSTITUTES.

The whole number of institutes held this year was 66, which were distributed among 58 counties and superintendent districts. Of these, 31 were each one week, and 35 were each two weeks in duration. Those held in the spring were 21, and those in the summer and fall were 45. They were attended by nearly 5,000 teachers, a gain of nearly 400. Of the teachers, 505 have received their instruction in our colleges and universities; 199 in our academies; 573 in our normal schools; 2,111 in our high schools; and 1,367 in our common schools only. The number who held first grade certificates, was 502; who held second grade, 544; and who held third grade, 2,979. The average time in which the teachers attending the institutes have had experience in teaching, was 22.4 months. Counting eight months to the year, this would give 2.65 years as the average period which these teachers have taught. The question might be raised whether the average time of those who are employed in the schools and did not attend the institutes, would extend beyond two years. These facts show plainly the deplorable want of permanency in the occupation of the teachers of our public schools.

The four regular conductors, professors in our State Normal Schools, Robt. Graham, Duncan McGregor, Albert Salisbury, and

Jesse B. Thayer, gave a very large share of the institute instruction. They had the charge of all the spring institutes, and of twenty-seven of those held in the summer and fall. Principally during the month of August, they were assisted by twenty-eight prominent teachers, most of whom had acquired experience in this kind of labor.

The outline of instruction to be given in these institutes, was prepared in the winter by the regular conductors. It was published in a pamphlet form, and was sent to the different county superintendents to be distributed among the teachers and to be used at the institutes. It embraced the second part of a scheme of work which extends over three years. This was closely, though not exactly, followed in the exercises of all the institutes.

The annual meeting of the conductors of the institutes was held at Geneva Lake, July 15th and 16th, in connection with the annual session of the Wisconsin Teachers' Association. It was attended by about forty persons, among whom were nearly all the conductors of institutes. The exercises were of a most interesting character. They consisted largely in the discussion of the best methods of teaching Physiology, Physical Geography, Drawing, and Phonics in our public schools; and in the examination of a proposed course of study for the ungraded schools. A portion of the outline of instruction for this year came under review.

A careful observation of the work done in our institutes — excellent as it is — convinces me that in two respects, at least, marked improvement should be made in them.

First, A much larger number of the teachers should attend them. Last year, less than one-half of the public school teachers in the State received instruction in the institutes. In some counties, where a hundred and fifty or more certificates were granted, less than one-third that number were enrolled by the institute conductors. The money expended by the State, and the labor performed in this work, are too great to be received with such apathy. Teachers who will not make the necessary exertions to avail themselves of the benefits thus freely offered them, should be denied positions in our schools. They should be treated as too indolent to teach, or too indifferent in obtaining the requisite qualifications

to assume the charge of the public schools. With our superior methods of conducting institutes, the percentage of attendance is much less than in some other States which could be named. This is mortifying, but the fact should be known. The remedy is partially in the hands of the county superintendents, but in a greater degree in the hands of the teachers and the school boards.

Second. More teachers in attendance should take a really active part in the exercises. Some one has classified the members of our institutes as workers and observers. We do not say that the latter class are not benefited; we know that they would retain more of the instruction and drill by an energetic participation in all the work. Let the timid ones acquire confidence in themselves, so much as to ask practical questions, and to recite calmly in the classes whenever called upon. Let no one shun any exercise in fear of exhibiting his ignorance, or of inviting a sharp reproof from the conductor. These institutes are not appointed with the view of affording the teachers a social time. The opportunity for visiting and getting acquainted, is merely incidental. The exchange of views upon school work, and the account of personal experiences in teaching, may be made valuable. No doubt, the associations here formed greatly aid, many times, the teachers in the country. But the institute, like a well ordered school, is for careful study, for stimulating thought, for acquiring self-possession under strong excitement, for drill in observing wholesome and rigid regulations in respect to conduct, and for ascertaining how much one's knowledge of the common branches is exact and serviceable. Besides, a valuable fund of information in reference to the methods of teaching and conducting a school, can be gained. Then, to secure the best advantages of the institute work, and to repay the State for the expenditure of money and toil, each attendant should strive to participate fully in all the exercises.

OFFICIAL LABORS.

I. STATE CERTIFICATES.

The Board of Examiners for Teachers' State Certificates consisted this year of Prof. Albert Salisbury, of Whitewater; Prof. Stephen H. Carpenter, of Madison; and Prof. George W. Peckham, of Milwaukee. They held an examination for four days, in August last, at Madison, under the rules and methods prescribed by the State Superintendent. There were three sessions daily; and the order of the examinations was arranged so that each examiner could spend a part of each day in the inspection of the applicants, and a part in marking the papers written on the questions submitted by himself. The candidates who failed last year in some of the branches, or who did not then complete their examination in any branch, were allowed to present themselves this year for re-examination in such branches. Seven availed themselves of this privilege. In conformity with the recommendation of the examiners a year ago, chemistry was omitted this year from the list of required studies.

Seventy-five per cent. was fixed as the least average standing in all the branches for the full life certificate; and seventy per cent., in all the branches for the five years' certificate. In each of the following studies, the minimum standing was seventy per cent.: United States History, Arithmetic, Geography, Civil Government, Physiology, Reading, English Grammar, Penmanship, Orthography, and the Theory and Art of Teaching. In each of the others, it was fifty per cent., viz.: in Algebra, Geometry, Physics, English Literature, Mental Philosophy, General History, Geology, Political Economy, and Botany.

Eighteen candidates were examined in all or a portion of the prescribed studies. Of these, seven were successful, four receiving the unlimited and three the limited certificate. The former were Dwight Kinney, of Darlington; Michael McMahon, of Kewaunee; Arthur A. Miller, of Waukesha, and John W. Sercomb, of Milwaukee. The latter were William Lynn Gordon, of Beloit; Miss Mary Lantry, of Manitowoc; and Miss Harriet A. Salisbury, of Whitewater.

The examiners expressed great satisfaction with the deportment and spirit of all the applicants, some of whom will doubtless present themselves next year for further examination. The attention of the examiners was directed to the too slight difference which had hitherto existed between the requirements for the two grades of certificates. For the unlimited, only four branches are prescribed, which are not also required for the limited; and in each of these four, the minimum standing has been fifty per cent. It was decided that the work in procuring the latter grade was relatively too difficult, and so the average standing in all studies of this grade was reduced to seventy per cent.

There are no other teachers' certificates in this State, to which so much honor is deservedly attached, as to those acquired in these State examinations. I trust to see a larger number of candidates seeking them next year.

II. OUR EDUCATIONAL EXHIBIT AT PARIS.

In February last, the Superintendent of the United States Educational Exhibit at the Paris Exposition, sent to this department the request that various articles be furnished him at once, to show the present status of education in the State. Fortunately, there were in the office most of the materials in good condition, which had been used in the Centennial Exhibition at Philadelphia. found that a large share of these would answer the requirements for the Exhibit at Paris, and that the balance could easily be obtained in season. They altogether consisted of the annual reports of the State Superintendent; school codes; the volumes of the Wisconsin Journal of Education; History of Education in Wisconsin; histories of the State University, the State Normal Schools, and the denominational colleges; annual catalogues and reports of these institutions, the academies, and the high schools; a large educational map, with summaries of the school statistics, and with views of the buildings of the State institutions; county registers, and reports of institutes; the forms and blanks used in the office of the Superintendent; Normal School laws and proceedings of the Normal Regents; syllabus of work in the teachers' institutes; second volume of the Geological Report, with the portfolio of Geological

maps; Phelps's Hand-book for Teachers; catalogues of the State Historical Society; essays by the faculty, and students' work in the State University, together with plans and photographs of the buildings, and a topographical map of the grounds; and examination papers from the four Normal Schools. Whitewater and River Falls furnished new volumes of these papers.

Arrangements were perfected with the Board of Education of Milwaukee to contribute the excellent materials which they exhibited at the Centennial, together with some new views and plans of their best school buildings.

The expenses of the preparation of the articles from the State Department and their transportation to Washington, where they were taken in charge by the general government, were paid by the Governor from the contingent fund. They were light, not exceeding \$75.00 in all. The Milwaukee Board of Education defrayed the cost of their exhibit.

On the application of the authorities of the French government, it was decided, after consultation with the presidents of the State University and the State Normal Schools, and with Governor Smith, to donate to that government nearly all articles furnished by the State for the Educational Exhibit, to be deposited in the Pedagogical Museum at the Palais Royal, in Paris. It was believed that this disposition of them would be more advantageous to the State, than to have them returned to this country, and placed on exhibition in the office of the State Superintendent or in our State institutions of learning. Milwaukee, also, gave its contribution to the French government for the same object.

I am informed by a circular from the Superintendent of the United States Exhibit, that silver medals have been awarded by the juries to the State Department of Public Instruction, the Milwaukee public schools, and the State University; to Pres. W. F. Phelps, for his Handbook for Teachers; and a bronze medal, to Prof. T. C. Chamberlin, State Geologist, for the second volume of the State Geological Report, with the accompanying Geological maps.

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III. OFFICE WORK, TRAVEL, AND LECTURES.

The larger share of my time has been given to the work of the office. This increases year by year as a result of the growth of our educational system; and it has occupied, also, the almost exclusive attention of my faithful and efficient assistant, Rev. J. B. Pradt, and of my active and competent clerk, W. P. Clarke, Esq.

The correspondence with teachers, school officers, and dissatisfied persons in the school districts, forms the principal item of business. During the past year, thirty-two appeals have been decided, some of them being complicated, and demanding long and patient consideration. Much labor is required in the distribution of the materials supplied from this office, as school codes, blanks for the annual reports from various officers, dictionaries, outlines for the institute work, circulars to school boards, and the annual report of the Superintendent. Add to these, the compilation of the statistics contained in the reports sent to the office, and the daily consultations with people calling to transact business or to obtain advice, it will be seen that all who are employed in the department must necessarily perform a large amount of work.

The State Superintendent as a member of the Board of Regents having the charge of the State University and the State Normal Schools, is occupied a considerable portion of the time in attending the meetings of these boards, in acting upon their committees, in visiting these State institutions, in arranging for the teachers' institutes, and in supervising the instruction given therein.

As required by the statutes, I have devoted as much time as practicable, to visiting the schools and institutes in the different parts of the State; to attending the meetings of teachers' associations; to delivering public addresses, usually to audiences in villages and cities; and to consulting with teachers, school officers, and parents in reference to the management and instruction of the public schools. I have visited thirty-three counties, and lectured thirty-eight times, besides making brief addresses to schools and institutes. Every where I have been received with the utmost cordiality; and all the assistance which could be desired, has been rendered me in the inspection of schools and in securing audiences.

IV. TEXT-BOOK COMMISSION.

The Legislature of the State, at its last session, appointed a board of text-book commissioners, consisting of the State Superintendent; Hon. R. E. Davis, of Dane county; Hon. George H. Paul, of Milwaukee county; Pres. George S. Albee, of Winnebago county; and Hon. John B. Quimby, of Sauk county. This board was organized June 3d, and proceeded, through its committees, to investigate and report upon the subjects assigned to them by the Legislature. It held several meetings during the year, carefully considered the propositions which came under its notice, and now has nearly in readiness to submit to the Senate and Assembly, in accordance with the provisions of the law, an elaborate report embracing the ifollowing points:

- 1. A statement of the substance of the various bills which have been presented to the Legislature of this State, relating to uniformity in text-books for the public schools, and to the cost of such books.
- 2. A full synopsis of the existing statutes in the different States, in reference to the uniformity, cost, and number of text-books, and to the changes in such books, with such information as may be desired in regard to the success or failure of the various policies adopted in the States.
- 3. A discussion on the advisability of State uniformity, giving the arguments in favor and in opposition.
- 4. A table showing the number of different series of text-books, and the number of different books in these series, now in use in the public schools of this State, with the opinion what would be a proper reduction in the number of these books.
- 5. A bill carefully drawn, proposing a mode of cheapening the cost of text-books to our citizens. "It seeks to accomplish that purpose, (1) by encouraging uniformity, without its arbitrary enforcement; (2) by insuring to the people of the State, in the purchase of text-books, the advantages which naturally and properly pertain to all purchases made in the gross; (3) by introducing and maintaining, under State authority and regulation, the principle of competition on the part of book publishers offering text-books for

the use of schools in this State; and (4) by affording to home talent and home capital the same opportunity for supplying our people with acceptable text-books, that is now afforded to authors and publishers residing without the State."

6. A short but well considered treatise, in which the commissioners present their views on the subject of spelling reform. They were required by the act of the legislature "to inquire and determine whether any of the proposed reforms in English orthography now under consideration by legislative bodies, or in practice in any of the public schools, or commended and approved by associations of scholars and experienced teachers in this country or in Europe, can be properly and expediently adopted, or otherwise encouraged or promoted in the public schools, or in the publication of the official documents of this State, or otherwise." This portion of the report takes the most radical grounds in favor of the proposed changes in the spelling of our language; discusses the propriety and economy of such changes; shows that the reform has been reduced to practice in some of the schools of this country and in Europe; presents the fact that among its advocates are found "scholars and statesmen of the highest personal attainments and public repute;" and closes with the recommendation that whenever an amended orthography of the English language shall be proposed, of such character as to command for it the approbation of those who may be charged with the supervision of public instruction in the State, and under such circumstances as to induce probable co-operation of other States in its support, and such amended orthography shall be embodied in one volume, with any existing dictionary of the language approved for use in our public schools, then the State shall authorize the purchase of such dictionary for sale and distribution in these schools.

V. THE NATIONAL BUREAU OF EDUCATION.

The correspondence of this department with the Bureau of Education at Washington, has been somewhat extensive. All inquiries of mine directed to this Bureau, have received prompt and satisfactory answers. It has rendered special assistance on several

occasions, and especially in the prosecution of the work which was connected with the investigation of the Text-Book Commissioners. Information on the present state and requirements of our schools, has at various times been communicated to the Bureau, in response to its circulars. The Annual Reports of the Commissioner in charge, and the pamphlets occasionally issued by him, containing dissertations on educational subjects, have been found to be very valuable in transacting the business of the office, and in acquiring a knowledge of the condition of the schools in this country and abroad. Some of the leading teachers in the State have sent, the past year, a memorial to Congress urging a larger appropriation of money to aid this Bureau, in the publication of its reports and other documents, in increasing its clerical force, and in directing its efforts to influence more effectively the educatonal movements of the different States.

SUGGESTIONS AS TO THE NEEDS OF THE SCHOOLS.

I. PERMANENCY OF THE TEACHERS IN THEIR WORK.

I have elsewhere animadverted upon the frequent changes of the teachers in our public schools. I wish to emphasize more distinctly the need of a general reform in this matter. The evil here mentioned, prevails most extensively in the country districts; and still the graded schools of our villages and cities, and the State institutions, are not exempt from it, though a greater permanency exists among their teachers. The instances are quite rare, in which a teacher may rely confidently upon the expectation of continuing in his position, after his engagement for the term or the year expires. In his mind, a sense of uncertainty and restlessness is apt to be created. Either he is compelled to use, outside of his regular school work, a considerable portion of his time and energies to secure a re-appointment, or he becomes so dissatisfied with his pursuit that he abandons it after a brief trial.

The great majority of our teachers in making plans for their course of labor in life, are led, more by this instability in the instructional force of our schools than by the inadequate wages which they

receive, to arrange for their teaching to be only a temporary help in gaining a fixed occupation. They acquire no just estimate of the importance of their work. The public entertain no such respect for their profession as they do for that of the lawyer or the clergyman. The slight tenure which they have upon their positions, often induces the more vicious pupils and the indulgent parents to conspire against their retention in the schools; for the latter know that the simplest complaint preferred, or the least prejudice excited, against a public school teacher, is very frequently sufficient to cause his dismissal, or his application for another engagement to be rejected.

In this condition of affairs, a teacher cannot become thoroughly acquainted with his school, nor with the community in which he labors. The methods of teaching and management pursued by his predecessors, are but little known to him. The traits and the attainments of his pupils, he never has the opportunity to study fully. He introduces new regulations for the government of the scholars, and new ways for conducting their recitations, and subjects not before pursued by them; and all these, without understanding whether they are adapted to the needs of the school. Confusion or disorder is apt to arise, the teacher feels ill at ease in his position, and the pupils acquire but little interest in their studies.

It is a duty resting upon all who desire to see public education making substantial progress, to strive to abolish this custom of retaining the teachers in our schools for so short a time. Many more persons should be encouraged to qualify themselves for teaching as a life pursuit. Teachers performing good work in their schools, should be assured that their services will be required in those schools, for terms to come; and that they will not be removed, unless for some sufficient cause.

II. HIGHER STANDARD OF TEACHERS' QUALIFICATIONS.

I regard with great favor the efforts of the county and city superintendents to raise the standard of the qualifications of our teachers; and thus to aid those in finding employment in our schools, who, by their literary attainments and their experience, are fitted

to do the best work therein. Some superintendents grant certificates to only a sufficient number of teachers to supply their schools; and these are usually given to those teachers who have been the most successful. A few do not furnish limited licenses under any circumstances. Others have advanced the average percentage in the standing which the candidates must reach, in answering the lists of questions presented. The movement is quite general to test more closely the ability of the teachers, by increasing the severity of the examinations. In most of the counties, from one fourth to two thirds of the applications for certificates were rejected the past year.

To those who desire to teach in our public schools, the State furnishes the best opportunities to qualify themselves thoroughly in the Institutes, the High Schools, the Normal Schools, and the State University. It expresses, in this way, its great interest in this subject; and its efforts in supplying the highest grade of instruction for these schools, should be heartily seconded by all the teachers and the superintendents.

III. HIGH SCHOOL INSTRUCTION.

Departments for instruction in the higher branches were early organized in the graded schools of the State. The work done in these departments proved to be so satisfactory that they have been largely accepted in the place of private academies. In them, more attention is usually given to the English studies and the physical sciences, but less to the ancient and modern languages. They were established mainly in the cities and larger villages, because the county districts were not supplied with the organizations or other means for securing this higher instruction, as a part of the public system of education. Three years since, the free high school law went into operation for the purpose of encouraging and aiding these districts to form such schools in the towns and smaller villages. Subsequently, the benefits of this law were extended to the high school departments which had been previously established in some of the graded schools, and which complied with the provisions of the law, as far as applicable to their ogranization. The system

thus created, though tested only for a brief time, has been productive of such excellent results that it is regarded with approval thoughout the State.

As already noticed, several important features of the old law were changed, this year, in the revision of the statutes; and a large majority of the free high schools are deprived of the opportunity to receive State aid, and the system under which they now operate, is compelled to bear unnecessary and pernicious restraints.

- 1. The provision should be restored, which gave the State the privilege to exercise supervision over the courses of study pursued in these schools, and over the standard of qualifications for the admission of pupils to the same.
- 2. The work in them would be improved, if the State appointed a committee to visit them annually, and to report upon their condition and their compliance with the law.
- 3. The statutes should be so amen led that the free high school year should be the same as the common school year, which ends the last day of August. The present arrangement creates confusion in the reports of school boards, and in the management of the free high schools.
- 4. There is no propriety or advantage in requiring these schools to be conducted in buildings not used for other school purposes. They can be taught just as well in rooms by themselves, as in buildings by themselves.
- 5. Each school should receive aid from the State for a period longer than the first three years after it is established.
- 6. Opportunity should be given to districts to organize under the law, when they are not located in cities and incorporated villages, but still maintain graded schools with at least two departments, and with a sufficient number of pupils to form high school classes.
- 7. The boards of education in our independent cities should exercise full control over the free high schools operating under their jurisdiction; and this power should not be transferred, as provided in the new law, to other boards in the same municipalities.

A firm and intelligent sentiment prevails in nearly all portions

of the State, in favor of supporting the instruction given in the higher branches, by taxing the property of the inhabitants. This is required to prepare a suitable number of young people to take the courses of study in the State University, now so generously sustained by the people, and in the other colleges of the State. A large number of the students who enter the State Normal Schools, and very many of the teachers at work in the common district-schools, were fitted for their positions in our high schools. In various other ways, the public support furnished the last named schools, contributes to the advancement of elementary education. Besides, in them are provided the only advantages for obtaining instruction in studies above the common English, which great numbers of our young men and young women can enjoy, in qualifying themselves for the ordinary pursuits of business.

IV. FREE TEXT-BOOKS.

The plan of purchasing text books by the districts, and then furnishing them, free of charge, to the pupils in our public schools, has given satisfaction, in most instances, where it has been tried in the State. It has decided advantages over all other modes of supplying these books to the pupils; provided, the school boards which have adopted it, exercise sufficient care in the purchase of the books, and in their distribution, use, and preservation in the schools.

It increases the attendance of the pupils, as the children of indigent or careless parents needs not be kept from school for the want of books. It aids in the proper classification of the pupils; and this can be promptly effected at the opening of the term, by having on hand a full supply of books. It enables pupils to pass readily from lower to higher classes when they are prepared for the change, without waiting for the irregular purchase of the books by their parents. Families removing from one district to another, are not compelled to buy new books.

Y. COURSE OF STUDY FOR THE UNGRADED SCHOOLS.

This subject has been discussed, in one form or another, by the leading teachers and school officers of the State, during the past

nine years. In a few sections, the experiment of devising a full course of study for the country schools, and of introducing it into some of these, under the charge of experienced and intelligent teachers, has been tried by some county superintendents, with reasonable measure of success. At the last annual meeting of the State Teachers' Association, the outline of such a course was adopted, and its use in the elementary schools was earnestly recommended. The subject was presented and carefully explained at most of the institutes held last summer and fall; and a number of teachers, under the instructions of their county superintendents, are testing, this winter, in various parts of the State, the practicability of this scheme. It may need modifying to suit the circumstances of the schools in different localities; and it doubtless requires to be made more specific, that the average teacher may more clearly understand it, and be able to apply it to practical use in the school room. I trust that it will continue to enlist the serious consideration of the educators of the State; and that it will, in some acceptable form, be established in all our ungraded schools. It will aid greatly in removing the palpable and injurious defects existing in the elementary schools of the country districts.

VI. TOWNSHIP SYSTEM.

The old-fashioned school district must have been the product of accident rather than of intelligent design. Originating in New England, it naturally spread westward. So long as nothing but elementary instruction was expected from the public schools, and while a system of academies furnished, to a considerable extent, that of a higher grade, the defects of the public school system were not so seriously felt. Then, it is to be noted that Massachusetts, as early as 1647, required every town, with one hundred families, to maintain a "grammar school," which meant a school that could fit for the university.

For many years past, a better plan than that of single, independent districts, has been earnestly advocated, and to some extent introduced. In 1852, Pennsylvania made the town, borough, and city, the unit for school purposes. Iowa adopted the same system

in 1858. Massachusetts introduced it gradually, and for several years it has been universal in that State. The other New England States are moving in the same direction, as is also New York. Ohio and Indiana have tried a mixture of the two systems, but without satisfactory results. In the former State, the people are calling earnestly for the town system proper. Wisconsin should not be the last State to secure this great improvement. It is time for her to take a step "forward," and make the system obligatory.

The advantages of the system may be briefly restated, at this time, under the following heads:

- 1. It would promote economy and simplicity. A town with ten districts, not an unusual number, requires the services of thirty school officers, besides those of the town clerk, the town treasurer, and the town board, in the administration of school affairs. A board of five directors, with the town treasurer, would do all the business more intelligently, more efficiently, and at less expense.
- 2. It would aid in securing peace and quiet. As shown by the numerous appeals taken to the State Superintendent, and by the correspondence of the office, there are constant disputes about district boundaries, the lawfulness of the action of district meetings or district boards, to the great detriment of the schools. Under the consolidated system, this trouble would mostly disappear. Each voter would have, as now, a voice in the election of the school officers, and in the determination of the school policy. Each taxpayer would pay his school taxes for the general good, and be allowed to send to the most convenient and appropriate school.
- 3. School taxes would be uniform and equitable. Public schools are for the public good, and should be supported at the public charge. A State school tax, supplementing the income of the school fund, would leave the local taxation lighter, and the burden of sustaining the schools would be still further equalized.
- 4. The schools would also be much more uniform, and of better average quality. At present, we find an excellent school, perhaps, in one district, and in the next a poor one; chiefly, sometimes, because the people are poor. But the State cannot afford to tolerate poor schools.
 - 5. Graded schools are generally out of the question, under the

Suggestions as to the Needs of the Schools.

present system. Under a town system, they could be much more readily introduced, as increase of population, and the advancement of pupils might render it desirable. A considerable number of towns could at once establish a central school of higher grade, open to all pupils of sufficient advancement. This would, in effect, grade the other schools. Some advantages, beyond those of elementary instruction, would thus be attainable, more especially in towns embracing villages.

6. A course of study could be much more readily introduced, and made uniform, if desired, for the county.

7. Tex.-books and apparatus could be uniformly and adequately supplied, and at reasonable rates.

8. Teachers would be employed for their fitness, and longer retained, and would do far better work. A superior teacher would naturally be secured for the central school of highest grade, if established, who would diffuse correct methods of teaching, through all the schools.

9. Supervision, now almost a nullity, would be exercised by such head teacher, or by the secretary of the town board; and the general care of the schools on the part of the county superintendent, would be properly supplemented.

10. School-houses would be better, and better located, the law providing, as it does now, for the equalization of cost, for a series of years.

11. Town libraries would naturally and readily connect themselves with a town system of schools, greatly to the public benefit.

12. Statistics would be uniform, reliable, and of some value.

No human system is perfect. The school system here advocated, opens possibilities nevertheless which can not be realized under the present one, except in rare cases. It would certainly render it practicable to make the bulk of the country schools much better than they now are; and the system should, therefore, be enacted into law, without much longer delay. The present permissive law was intended as an experiment. Though well devised, in the main, it retains too much of the present system, and should be carefully recast.

WILLIAM C. WHITFORD,

DOCUMENTS

ACCOMPANYING REPORT.

REPORTS OF COUNTY SUPERINTENDENTS.

BAYFIELD COUNTY.

JOHN MC CLOUD, SUPERINTENDENT.

The county of Bayfield, with its many resources of lumber, fish, soil, and minerals, has not as yet received its due share of the emigration that has been filling up the other portions of our State. Consequently, my reports, from year to year, do not compare very favorably with those of even newer counties, whose population is constantly increasing by the incoming of settlers, and whose resources are being more rapidly developed.

The location of this county, in the extreme northern part of the State, and its isolated position, caused by the want of railroads to give us a market for our products, and a quick and easy communication with the county around and below us, is doubtless the cause of such slow growth and development, and one that can only be remedied in time, and by the general prosperity of the country at large. Stillit is gratifying to know that, even under these unfavorable circumstances, we are not only holding our own, but slowly gaining, as my report will show.

There is but one school district in this county, and but two schools; one of them, however, has two departments, with three teachers employed. By my report, it appears that there are in the

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district 303 children over 4 and under 20 years of age, while but 137 have attended school during the year. When it is known that there is a government school at Red Cliff, on the Indian reservation in this county, of which we have no report (it not being within my jurisdiction), this item will be better understood.

The population of our county is largely made up of Indians and their descendants, who have adopted the habits and customs of civilized life, and a large majority of our scholars are from that class.

I am glad to say that our educational interests are, and ever have been, held to be of the first importance by our people; and that the efforts of an efficient school board to maintain and improve our schools, have in all cases been heartly endorsed and aided by our community.

BUFFALO COUNTY.

J. C. RATHBUN, SUPERINTENDENT.

STATISTICS.

The number of children of school age in this county, as appears from the reports of the several town clerks, is 6,212. Of these 3,890, or but a little over one-half, have attended school during the year. Of the 3,890, 158 are reported as being registered in the non-incorporated private schools. This leaves 2,164 children in the county which receive no school instruction, and it is a fair statement to say that nearly all of them receive no instruction whatever. In most instances, they are of foreign parentage, and can not receive an English education at home. The baneful influence which such children will, in the future, inflict upon the state, may well cause the people to consider the benefits of a compulsory education enactment.

SCHOOLS.

The schools of the county are in a progressive state. Generally speaking, our teachers seem to be interested in their work. It has been my practice, while visiting a school, to carefully note the

teacher's modus operandi, and afterwards to make such suggestions as occured to me. I have, in every instance, left a report with the teacher to be forwarded to the district board, in which I have called their attention to such matters as I thought they ought to attend to. I am not among those who attach such an infinite amount of importance to school visitation by a superintendent. can not see a school in its normal condition. The presence of a stranger in a school will invariably embarrass pupils, and very often a teacher. He can, to be sure, throw out suggestions and give advice; but from the fact that what he sees in the school is not the the every day mode of carrying on, his suggestions and advice are more general than appropriate to any specific case. The district board, too, is apt to treat his recomendations with complete indifference. These things, together with the fact that a superintendent sees a school probably but twice in a year, and some of them but once, as many districts have no summer school - make it impossible for a superintendent's half-day visit to accomplish what many expect it to accomplish.

The district boards and parents of the county do not take the interest in the schools which they should. Some of our teachers are assisted and encouraged by district officers, others seem to succeed in spite of those functionaries, while many others prosper under the blessed sanction of the district board's magnificent indifference. I have tried to induce district officers to throw off their lethargy; have told them that it is as much their duty to visit their schools, as it is mine; that the law makes it so. What their practice will be another year, is yet to be observed. I have attempted to induce teachers to see the necessity of studying and reading in connection with their work. In this, I have partially succeeded, although not to that extent which I desire. I have given those who do read educational periodicals, credit for so doing; and have required them to report, in connection with their monthly reports, the number of educational publications read.

EDUCATIONAL DEPARTMENT IN THE COUNTY PAPER.

Soon after my inauguration, I became convinced that there was something lacking in the present system of school management; a "missing link" somewhere. There is a too extended gap between the county superintendent and the schools. There should be a local officer, more efficient than the average district board, to work with the superintendent. For the purpose of helping to bridge this gap, I obtained of Hon. John W. DeGroff, proprietor of the Alma Express, consent to edit a column in his paper, the same to be devoted to educational matters. It affords an excellent opportunity of conveying to teachers and school officers important matters bearing upon their work. It contains locals, personals, editorials, an occasional question upon school law or school work, reviews of educational journals, in fact, any thing which, in the opinion of the editor, will be of educational interest.

TEXT-BOOKS.

After somewhat carefully examining the different laws relating to text-books, I became satisfied that very great benefits would result to the schools, if district boards and the people would avail themselves of the advantages thereby offered. I saw no opportunity, whatever, of any swindle being perpetrated by an agent being sent to work up the school book trade, provided the district boards would follow the law. It was impossible for me to do this without arousing suspicion as to my collusion with the "school book ring," and at the same time violating the law of 1877. That the matter might be brought before our school boards, I obtained from the different school book publishing houses their price lists, and also asked them what they would pay a live agent. None of them seem disposed to work in Buffalo county, except the firm of Appleton & Co. This company immediately dispatched a man, Mr. A. H. Porter, to work up the trade in this county. After a somewhat lengthy conference with Mr. Porter, I became convinced that he desired to carry on the work in accordance with the strict principles of honesty, and to take no advantage of a district offi-

cer's ignorance of the school law. I also caused the following to be published in the "Educational Department," before mentioned:

"The book agents have reached Buffalo county, and no doubt each one is urging district boards to adopt his books. So far as he does this in a legitimate way, he will do a good work, certainly good for the schools; but the agent class contains so many merciless swindlers, who regard neither individual honesty nor public rights, that we, as in duty bound, are disposed to throw out a word or two of caution. It very frequently happens that district boards are ignorant of school laws, or prefer to let an agent have his own way in order to get rid of him. This, of course, gives an agent all he asks.

"We have before called the attention of the people to the adoption of lists of books, and also to the plan of district purchase, and are pleased to have these men come to the county and help carry our recommendations into execution; but district officers should remember that they must adopt text-books as they do everything else, by first having a meeting of the board, as provided for on page 53, of the school code. If an agent comes to you and says he has seen the other members of the board, and asks your consent and signature, pronounce that man a fraud. He knows very well he is leading you to violate the law, and at the same time is compromising the honor of the publishing house which he represents. Do not let another "Wood's Mathematical Chart" swindle be perpetrated.

"Another point worthy of note, and the neglect of which has led a few district boards throughout the State into trouble, is the manner of purchasing the books. The district board can not buy the books without a vote of the district.

"If there is already uniformity in the schools, and the books are considered good, we advise the adoption of these books by the board, and that provisions be made for district purchase. It is hardly possible that the works of one author are so superior to all others that all others must be thrown out. Uniformity in the school is the objective point. There is everything to be said in favor of uniformity and district purchase, and we know of not one

argument that can be brought against it. It is a conceded truth that a large portion of the inefficiency of our schools is due to the great variety of text-books upon the same subject, used in the schools, and the reason for their being there is the negligence of the proper authorities.

"We are in receipt of testimonials from clerks in districts which follow this plan, and the unanimous verdict is that at least from one-third to one-half is saved, and all advise other districts to adopt, and purchase from the publishers. We submit these facts and consider them well worthy the attention of every person interested in the progress of the schools, and in the progress of his own financial condition."

Mr. Porter succeeded in getting several local agencies established, placing over them men who were acquainted with the people, and in whom the people would have confidence. There was also a man canvassing for Ivison, Blakeman, Taylor & Co., who succeeded in securing quite a number of adoptions. The result is that many of our schools are blessed with a uniformity of textbooks, and in many instances there is uniformity in an entire town. I did not recommend for adoption any particular series of books, but mentioned in the "Educational Departments" the names of several books, from which I advised district boards to select a series.

EXAMINATIONS.

In my examinations I have endeavored to have the questions such that the number of teachers would correspond as nearly as possible with the number of schools in the county. I have found it necessary to grant a few "limited certificates," but have adopted the rule of demanding from the district board desiring such a licentiate, a written request that he be permitted to teach their school. The best teachers will be engaged to teach the best and most advanced schools. This leaves for the less advanced schools, teachers holding limited certificates. This brings the holders of such certificates to an examination twice per year, which is a powerful stimulus for self-improvement. They will thus, ere long, be competent to obtain a full certificate, or else be dropped from the

pedagogic ranks. I am willing to help and encourage those teachers who help themselves, but those who do not, who are content with receiving a limited certificate semi-annually, must soon feel the keen edge of the educational pruning knife. Our common school system can ill afford to have hanging to it a set of parasites, who, leech-like, continually draw nourishment and return nothing as a recompense. I believe in having teachers pass a thorough examination. Better issue a few limited certificates than have a superabundance of half qualified teachers, whose only function is to keep the wages down, and to encourage a district board to put up its school at auction, and to knock it off to the lowest bidder.

SCHOOL CODE.

During the past year, I have been asked by teachers and others, how a copy of the school code may be obtained. Many are desirous of owning one. Cannot arrangements be made withthe State Printer—prefacing the same with legislation, if necessary—by which a copy may be secured? It seems that a book so valuable, ought to be in the hands of every one interested in school work, especially when one is found who is anxious to procure a copy and profit thereby.

By the action of the Institute Committee, the annual institute for this county was fixed for the two weeks following August 5th, the same being conducted by Prof. J. B. Thayer and Mr. F. D. Ensign, of the River Falls Normal School. This was the first two week's institute with which this county has been favored. Although the time of the year was exceedingly unfortunate for us, yet the attendance was good and a lively interest was kept up. The Institute Syllabus was the principal source of my examination questions for the fall examinations.

On the whole, the past year has been one during which school work has been on the progressive. I have been aided much by some school officers, and let alone by the indifference of orders. Have acted with the Chairman of the Supervisors in one town, and condemned a school house. Our action was appealed from, and after ten weeks of delay the appellant was informed by a decision

from the State Superintendent's office that his appeal had been dis-I understand that a neat and commodious school edifice is taking the place of the worthless one condemned. New school houses have been erected in other portions of the county, and action has been taken this fall toward building still others. I anticipate that the coming school year will be one of unusual progress in educational matters in this county. In some portions of the county there seems to be a growing opinion in favor of school work. and of employing good teachers. In others — and in that portion where we would least expect it - are men whose actions show that they consider a teacher nothing more than a figure head, and who assert that he now receives more and better pay than a day laborer, leaving the only inference to be drawn to be that he receives too much. We may pertinently ask, Ought he not to receive more? Are not his services worth more? Isn't the teacher's labor deserving of better remuneration than that of the wood-chopper or hodcarrier? Does not a teacher have to devote both time and money in preparing himself for the work? It is a recognized principle everywhere that intellectual labor is deserving of more and better remuneration than physical labor; that the pay should be in proportion to the amount of intelligence required to do the work. Hold this principle in view, and then answer the question, How does the compensation of teachers compare with that of those engaged in other employments?

From the very nature of the work a teacher ought to receive more and better remuneration than a day laborer. An average lawyer, physician, farmer, or mechanic receives more pay than he does. The doctrine that every one must receive equal remuneration for work done is as dangerous as it is unsound; and is nothing but the communism which is the curse of some portions of the world to-day. It takes for a basis that all men are created physically and intellectually equal which is not the case, never has been, and never will be. It strikes down the last barrier between industry and indolence; it takes from the realm of intelligent action all of our authors, statesmen, discoverers, and inventors, and places men of genius on a level with the wandering tramp.

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Reports of County Superintendents.

COLUMBIA COUNTY.

KENNEDY SCOTT, SUPERINTENDENT.

The school work of the past year has been unusually prosperous throughout the county. Eight of the nine graded schools have been in charge of competent and experienced teachers; while the teachers in the rural districts have shown by the quality of their work that they are not unmindful of the responsibilities and requirements connected therewith. The number of persons examined during the school year was 504, — 193 in the fall, and 311 in the spring. The number licensed was 376, of whom 6 received first grade, 27 second grade, and 343 third grade certificates; of this number, 137 were limited, or for six months only. These persons examined furnished nearly 5,000 papers, having 40,000 answers to examination questions, to be inspected, considered, marked, and recorded, employing, with the travel incident thereto, about three months of time and labor.

THE NORMAL SCHOOLS.

Columbia county now maintains somewhat irregularly, at the various Normal Schools, from 15 to 20 students. It is expected that these will be of much benefit to our county schools, in which they teach, and that they will incite progress in their fellows; it is hoped they will meet due reward for their enterprise, toil, and expense. Quite a number of our schools are taught by those who have attended the Normal Schools, and they are teaching very successfully, giving excellent satisfaction generally. I think that the Normal Schools of the State ought, by all means, to be well sustained and supported, as they form a most essential element in the education of our teachers. The normal quota to which this county is entitled is sixteen.

THE INSTITUTE.

The annual institute was held in April, at Portage, under the management of Prof. A. Salisbury. The enrollment was 156, aver-

age daily attendance 125. The work was highly appreciated by the teachers and superintendent.

SCHOOL HOUSES.

During the past year the Lodi Public School building was burned, causing the school to be closed for the summer term, with the exception of the "Free High School" department, which was continued under difficulties in a building procured for the purpose. This was a great loss to the cause of education in the village and surrounding country, and would have been more severe had the building not been well insured. But the enterprising people of Lodi were not long to be without a suitable school building, and at this time have one nearly completed, equal to the one burned and in some respects superior.

Two old and worthless school buildings have been replaced by good and comfortable ones. Especially the one at Leed's Center, which is the best country school-house in the country.

TEXT-BOOKS.

Fifty-five districts have adopted lists of school-books; nineteen purchase at wholesale and sell at cost to pupils. Besides saving from 20 to 30 per cent. on the price, this method tends to uniformity and constant supply of books, slates, etc., thereby increasing the working power of the school. Where this plan has been tried, it has given entire satisfaction, as far as I have been able to learn. Experience alone can determine the practical utility of this attempt to solve the text-book problem.

With its cheapening of prices, disadvantages appear; chief among which is inability of some school officers to properly transact the business connected with ordering, keeping track of the books, and accounting for the book-fund, and by ordering books in such small quantities that trouble and freight overbalance reduced prices. Another difficulty is that some books will be trusted out and lost, or if the price is collected, it will cost more than it is worth. While I think it is a good plan to adopt a set of books, school boards should be careful about making sweeping changes

without consulting some one in whom they have confidence, and who has had experience in the matter.

CRAWFORD COUNTY.

M. E. NORRIS, SUPERINTENDENT.

To accompany my annual statistical report I have prepared this special statement as a means of giving additional information regarding the public school interests of this county.

PROGRESS.

Since the last report of this kind was sent to the department, showing up the condition of our educational interest, considerable improvement has been made in the schools of "old Crawford." the first place some of our larger districts have erected, or are now erecting new and commodious school houses, which they are furnishing with the improved style of furniture and apparatus. As instances of this kind, I would mention the villages of Lynxville and Bell Center. Many of the other districts are repairing and improving their school houses and putting in new furniture, among which are Marietta, Batavia, and three of the districts in the town of Prairie du Chien. A few districts which are, in my opinion, well able to build new school houses, such as they very much need, complain of the "hard times" as soon as the subject of a new school house is mentioned. With the exception of the last named class of districts, the school houses of this county are about as good as the circumstances of the people in the various districts permit. Two new districts have been organized since last year, each of which maintained school five months during the expired school year. Those districts are joint district No. 5, of the towns of Prairie du Chien and Bridgeport, which was formed from territory taken principally from old joint district No. 6; and district No. 17, of the town of Seneca, which has put up a new and comfortable frame school house.

TEACHERS.

Our teachers are all alive to their work, and apparently cognizant of the responsibilities which rest upon them. A desire for higher grading is being manifested by many of the older teachers, and more than usual applied for the 2nd and 1st grade certificates at the last two examinations. There were, in all, two hundred and thirty-five applicants for teachers' certificates during the year, including fall of 1878, of which number one hundred and sixty-seven were successful. Of this one hundred and sixty-seven certificates issued, three were first grade, ten second, and all of the others third grade, of two kinds, extending for six months, and one year. The six months class of certificates all expired this fall, and many of them have not been renewed, which leave about enough experienced teachers in the field to fill the schools.

INSTITUTES.

Two institutes have been held during the year 1878,— the spring institute at Wauzeka, and the fall, at Seneca. We all felt very much disappointed on account that the institute committee could not give us an institute in the county this fall; but consoled ourselves with the thought that we shall have two institutes next year—a one week's in the spring, and two week's in the fall—both to be conducted by Prof. D. McGregor. The institute which was held last spring at Wauzeka and conducted by Prof. McGregor, was a success; and I would say that your visit and lecture were a source of great benefit to the teachers, as the presence in the field of a soldier who has had long experience, and is commander-inchief, inspires confidence in the army and incites them to action for the accomplishment of greater results.

THE TEACHERS' LIBRARY ASSOCIATION.

To the efforts of my predecessor and those of the many earnest teachers who were co-laborers with him, is Crawford county indebted for the establishment of this teachers' library. It is true that the association is yet only in its infancy, the few books which

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were on hand not having been distributed to the various places of deposit at the time that I assumed the superintendency. ject of the association is the establishment of a public library for the benefit and use of the teachers of the county, and others who may comply with the terms and conditions as set forth in the constitution of the society. Through the means of the library, most of the books in which are works on theory and art of teaching, we intend to obtain more uniformity of work - a thing very much needed — and more culture among the teachers generally. association meets on the last Saturday of each month, at various places in the county, and at each of these meetings a regular programme of exercises is carried out, consisting of discussions, select readings, and other useful exercises.

VISITATION.

On account of my term not beginning until January 1st, I could not visit as many of the schools during the winter term as could have been done had the work begun November 1st. The bad condition of the roads, too, throughout the entire winter made it very impracticable - in fact almost impossible - to get around to the schools. However, I believe as many schools were visited since January 1st as there ever have been in this county in the same length of time. I intend during the present year to visit all the schools in my district, and think that the law by the late revision of the statutes making it obligatory on the superintendents to do so, is a good one.

CONCLUSION.

In conclusion, I would say that I return my most sincere thanks, first, to the State department for promptness in rendering all asked for assistance, and in evincing willingness to do more in advice for the general good of the public educational system. Second, to the people of Crawford county for the interest shown by all in the welfare of our schools, and the kind hospitality extended in all parts of the county, wherever my duties called me. And last, but not least, to our teachers for their hearty co-operation with this department in promoting all things conducive to the advancement of the

cause of education. Hoping that when another year shall have rolled round the report from this office will contain an account of many improvements made in 1879, this report is respectfully submitted.

EAU CLAIRE COUNTY.

AGNES HOSFORD, SUPERINTENDENT.

During the year, one new district was formed in Ludington, in a part of the town which has previously had no school privileges. In district No. 1, in Drammen, and No. 2, in Seymour, no school was maintained during the year, and no report was received from These districts are much in need of the school privileges, which they have failed to provide, but, I do not know how to help them, until they help themselves. Two new school-houses were built, where they have long been needed. One in district No. 1, in Fairchild, the other in district No. 1, in Washington; the latter is one of the prettiest and most convenient country school houses in the county. There are still eight districts, in which new houses ought to be built. Some of these will probably be built during the coming year, unless "hard times" prevent the needed improvement. There are also six other school houses, having a shabby exterior and uncomfortable interior, that might be made respectable and comfortable by needed repairs.

The statistics show a considerable increase over last year, in the number of children of school age in the county, and an increase in the number registered in the school. The percentage of attendance, was greater than it has been for five years previous. I have not records further back than that. The reports show that there has been some increase in the length of time which school has been maintained in the several districts. It is desirable that this increase should be much greater. There are too many districts giving to the children only five or six months school in the year, that might, and therefore, ought to give them seven or eight. The average attendance has been greater this year than last, owing in

part, probably, to the mild winter, and in part to the better arrangement of the school term. In nearly all the districts, school opened earlier in the year, and closed before the the heated term and "berry time."

The changes of teachers were a little less numerous than in either of the last two preceding years, but still far too numerou for the interests of the schools. There has been a good degree o advancement in the educational qualifications of teachers. Many of those who teach in the country schools, are themselves pupils a part of the year, in some one of the graded schools of the country. The applicants for certificates during the past year, were fewer in number, and more mature in years, than in the previous year. The number of teachers holding certificates, was at one time nearly double the number required for the schools, as would appear from statistics given. The explanation lies in the fact that many of the certificates issued were valid for six months only; and, also, that many teachers holding certificates for a year attend the examinations both in the spring and fall. So it frequently happens that one person holds two certificates.

While teachers have been gaining in ability, it has been under the discouragement of constantly decreasing wages. It is not strange, in the retrenchments consequent on "hard times," that teachers' wages have been reduced. Still, I think this a poor economy, and one that will inevitably work injury to the schools. The decrease has been greater in the wages of gentleman than of lady teachers, and was commenced at least four years ago. The result is that the number of gentlemen engaged in teaching, has been steadily decreasing. There are few found in the schools, even in the winter. The decrease in the wages of the lady teachers has not been so great, but already some of the best teachers seek more profitable employment in other counties. The evil does not end in the banishment of some ambitions teachers, but their places must be supplied by those of inferior qualifications, who are glad to teach at any price.

During the year, I saw each school in the county, at least once each term, with three exceptions. These I found, unexpectedly

closed for a short vacation, when I attempted to make the second visit. In nearly every case, I found the schools in good working order, the pupils apparently studious, the teacher earnest and interested. While I have been convinced that, as a rule, the teachers manage and instruct their schools according to their ability, I have also been painfully convinced that that ability is far short of what the work of education needs. When making my first series of visits to the schools of this county, I was impressed with the need of professional training for teachers. This was forced upon my attention, by witnessing the false, feeble, ineffective teaching of those, whose technical knowledge was sufficient to warrant even the expectation that good instruction would be given. While our State has made ample provision for this needed training in her four normal schools, our country districts can hope for little benefit from this provision until their teachers receive such compensation, as will encourage them to incur the expense necessary to acquire that training.

There has been an encouraging gain in the matter of uniformity of books. Twenty-three districts report the adoption of a series, to be used in their schools, and sixteen have adopted the plan of district purchase. I expect to report a much greater number next year that furnish books free, for the plan has met with universal favor, whenever tried in the county.

The Teachers' Library Association, organized last January, has been measurably successful, but not in the degree which I anticipated. From membership fees, the appropriation of the board of supervisors, and the contributions of friends, seventy-five volumes have been collected. These nearly every one relate specifically to education. While the library has not benefitted so large a number as I hoped it would, only forty teachers having become members, still I entertain the hope that it may become a greater power in the near future.

FOND DU LAC COUNTY.

ED. MC LAUGHLIN, SUPERINTENDENT.

Having forwarded to you our statistical report, we now have the honor to transmit the following special report of the condition of our schools and the work done since January 1st, when we entered on the duties of our office.

Our first action was to call the attention of teachers and patrons to the necessity of a more uniform plan of work, and the development of a still greater interest in the education and training of pupils.

TEACHERS' MEETINGS.

To this end we organized a series of teachers' meetings, dividing the county into four districts, and holding a meeting in each, once a month, on Saturday. As circumstances might prevent our attendance at all these associations, a president and a secretary were appointed at each place to take charge of the order of exercises and report the proceedings, in full, to us. The work included class and individual exercises in the third grade branches - particularly orthoepy, orthography, reading, and geography - discussions on the same, class drills in primary work, and short addresses by leading teachers on their experience in governing, classifying, and instructing pupils. The teachers throughout the county at once manifested an intense interest in their better preparation; and by large attendance, better acquaintance, and a mutual desire to receive and exchange thoughts and methods, much good has, even at this early day, been accomplished. These societies are a most profitable auxiliary to our Institute work, and promise rich returns the next year.

VISITATIONS.

During the year we made 300 different visits, and after observing the teacher's work, gave the rest of the time to hearing recitations, examining classes, and urging pupils to more thoughtful preparation in each study. While we believe teachers to be earnest, yet we are sorry to see so many mere slaves of text-books. It

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detracts from true genuineness and confidence, and lacks that force which better knowledge with oral teaching always gives. In those visits we endeavored to impress on the minds of the pupils the benefits arising from a clearer understanding of the fundamental branches, and warned them against hasty and imperfect work, and a foolish desire for rapid promotion from lower to higher classes.

TEXT-BOOKS.

Many districts have adopted a series of text-books, and apparently with good results. In a majority of cases the boards purchased from the publishers and sold at cost to the pupils. This is an improvement, yet it falls short of the mark. Some boards adopt without consulting the superintendent, and as their own taste or fancy commends, or book agent prompts. This course does not secure a uniformity, and therefore it is to be regretted. As even our best laws possess more or less inconvenience, we join in the views of some of our co-workers in instituting a town board of education, which will, in co-operation with the superintendent, secure at least a town, and perhaps a county uniformity.

FREE HIGH SCHOOLS.

We regard these schools as indispensable to the great need of the State. They are fountains of wealth to the Common Schools, the Normal Schools, and the University, and should be generously fostered by the people. The four now in this county are giving good satisfaction. The Ripon High School, under the able management of J. H. Firehammer and his corps of normal assistants, is doing a noble work. The Ceresco School, directed by J. M. Craig; the Brandon School, by Kirk Spoor; and the Waupun School, by E. R. Hicks, are all in successful operation. The Rosendale Graded School, now under the supervision of ex-superintendent O'Connor, is improving. In this as well as in several other places, we ought to have Free High Schools.

SCHOLARS' ATTENDANCE.

It is astonishing to know how many pupils over four and under twenty years of age fail to attend school. The cause is insufficient, and our public schools will never be able to stand on a higher plane until the evil is removed or rendered less injurious. This and irregularity of attendance are running sores, never self-healing, but ever gnawing deeper and deeper into the vitals of our school system. We have, by addresses in different parts of the county and otherwise, called the attention of patrons to this growing defect, and urged upon them immediate steps toward its correction. Would it not be well, in the apportionment of school money, to make the number attending school, instead of the number in the district, the basis of distribution?

SCHOOL-HOUSES, ETC.

A large number of our school-houses are in good condition, but all afford opportunity for improvement. A few are a disgrace to us, and a libel on educational institutions. Our county, in general, is poorly supplied with school apparatus; but we hope, through better teachers and improved methods, to supply the deficiency.

NORMAL SCHOOLS.

Fond du Lac county points with pride to the Normal Schools. The sentiment of her people is largely in their favor, and constantly growing. The best positions are being secured, and the best salaries received by those of normal training, and we strongly commend their work, and advise others to take advantage of a similar preparation. About thirty of our teachers are now attending the Oshkosh Normal School.

EXAMINATIONS.

Our aim in these examinations has been to submit questions involving principles rather than facts, and requiring the exercise of thought and judgment rather than mere memory. The teachers have been held to written and oral work, the latter being particu-

larly interesting and profitable. We believe there should be a law regulating the minimum age of applicants. No certificates have been granted to those under seventeen years of age, yet many of fifteen and sixteen passed creditable examinations. It is very annoying to be interviewed by partial and loving parents, and very threatening if this interview proves fruitless. Of 262 applicants, last spring, 22 received second grade and 101 third grade certificates; and of 170, this fall, three received first grade, and 99 third grade certificates. There is a strong demand for experienced teachers and those of second grade qualifications, and by a closer examination than usual, by winnowing the chaff from the wheat, and by refusing certificates to children, we met this demand, and called into the field many who had gone out to seek more remunerative employment. Private examinations were decidedly disapproved, and endorsements emphatically refused.

CONCLUSION.

Our object throughout has been to give the people a better class of teachers, to encourage the latter in their work, and to impress upon them the nobility of their profession, that they may strive with still greater earnestness and better plans to educate the young, and prepare them for a life of usefulness to themselves and to others. We have sought to enlist the energies of patrons and school boards, to direct their attention to important duties and responsibilities, and to persuade them to avoid all mistaken economy by which the schools might suffer. Hoping to be in strict accord with the state department, and in harmony with our co-laborers, we will close this, our first report, by wishing a bright and prosperous future for the educational development of our adopted state and country.

JEFFERSON COUNTY.

C. J. COLLIER, SUPERINTENDENT.

I herewith transmit my annual report, and though it is not as reliable in all points as I could desire, yet it is the best that I could obtain from the materials furnished by the reports of the various town clerks.

In many instances, the reports from the towns were models, being full and complete in every particular; but these, when placed in a summary with the others, fail to show the proper results.

I have been able to make some additions to the statistics from reports of teachers, and notes taken by myself during the year.

The column in the financial statement, showing the money on hand, will not balance with the total money received during the year, as we have no column showing the indebtedness, and as some districts have expended in excess of their receipts, the footing from the town may show that expenditures were more than the receipts, and still have a balance in the hands of some of the district treasurers.

I am happy to report improvement during the past year in our school work, as evinced by the following items of the report.

Although schools, as a general rule, are among the first things to be affected by "hard times," yet I am able to report 10 per cent. increase in the average length of the school term, and with a 3 per cent. decrease in number of children between the ages of 4 and 20, a 6 per cent. increase in the number registered, and a 10 per cent. increase in the average attendance; also, from the teachers' reports, that the number of visits made to schools, by school boards and patrons, have been increased more than 50 per cent. during the last year. More care has been taken by the patrons to provide suitable buildings and furniture for the comfort and convenience of the pupils, as is shown by the increased valuation of school property. Each of these items of improvement, although small, is a step in the right direction.

TEACHERS.

During the past year, 232 teachers have been employed; 703 persons have been examined, and 298 certificates granted; of this number, 10 were first grade, 38 second, and 210 third, and 40 limited. Many of the applicants were students of the high and graded schools, and only desired to obtain a standing, while others, who passed a fair examination, were too young to be fully qualified as to judgment and many other points of vital importance to a teacher.

In conducting examinations, I have endeavored to ask such questions as would test the applicant's knowledge of principles, rather than facts, and although those teachers having experience, and those who have had some special preparation, either by institute work, or at school, have had no difficulty, beginners have found the work somewhat difficult, yet all seemed resolved to do their best in acquiring and using practical ideas, instead of theoretical.

INSTITUTE.

The institute at Fort Atkinson, commencing Aug. 5, was remarkable for the average age and experience of the teachers in attendance, and its effect will be felt in the schools this coming winter. The institute was conducted by Profs. Salisbury, Emery, and Maxson. Of the first two, nothing need be said, as it is well known that their presence at an institute insures good work; but of Prof. Maxson I must speak a word, he being a new worker among us; his thorough scholarship, his happy illustrations of his work, his practical knowledge of a teacher's requirements, attainments, and duties, and his genial manner, won him many friends and the teachers of this county would be pleased to meet him often in the future, and to listen to his instruction.

TEXT-BOOKS.

The number of districts that have adopted a series is 44; that loan books to pupils, 17; that sell to them, 10; that have adopted the plan of free text-books, 4.

The opinion that a uniformity of text-books is a matter of importance to the success of a school, is rapidly gaining ground; and

I hope, at the the close of the next school year, to be able to report district uniformity at least.

The total amount expended in the county for school purposes, including interest at 10 per cent. upon the valuation of school property, county superintendent's salary, printing, stationery, etc., is \$55,968.71. The expenses, per capita, of school population is \$5.27; of pupils enrolled, 8.57; of average attendance, 11.65. This statement shows that the average attendance is less than one-half of the school population; and even after making allowance for the 860 pupils attending private and incorporated schools, the discrepancy is still so large as to demand the attention of all persons interested to devise some means for securing a more general attendance.

We had an educational exhibit, in connection with our county fair, which, although very defective in its details, owing to the shortness of the time given for preparation, and a lack of experience in such work, proved very successful; and, I believe, will prove to be an important aid to those having charge of the schools in the future.

KENOSHA COUNTY.

D. A. MAHONEY, SUPERINTENDENT.

The number of school houses in the county is sixty-one; the number of teachers required, sixty-two, there being one school in the county which employs two teachers.

During the past year, three school houses have been built, and many of the old ones repaired, so that they are about as good as new. That the circulars sent out by the former superintendents and myself have had the desired effect, is proved by the fact that in some districts the site has been enlarged, the district either buying or leasing more land; in others, old outhouses have been torn down and new ones built in their stead; in others, the site has been improved by setting out ornamental and shade trees, and by being enclosed by good, substantial fences; in fact, a marked improve-

ment may be noticed in the general tone of the schools of the county.

Many of the school boards have recognized the fact that a change of teachers is an injury to the school, and are endeavoring to engage good teachers in the fall for the school year. The plan of hiring a "good teacher for the winter, and anybody for the summer," is a thing of the past in this county; never before has the demand for good teachers been as great as it has been this fall.

The teachers' library, which was started two years ago, has gone on increasing until it now numbers about one hundred and fifty volumes. It has been the source of great improvement to the teachers, and the demand for books on school work is ever increasing.

The number of certificates granted during the year ending August 31st, was one hundred and four; the number of persons now holding unexpired certificates is seventy-three; of these, three hold first grade, ten hold second grade, and sixty third grade. Candidates are required to pass sixty per cent. in third grade studies, seventy in second grade, and eighty in first grade, and no averaging. The examination this fall was harder than usual; next fall it will be full as difficult, and the standard will be raised.

The two weeks' institute, conducted by Prof. Salisbury, was a decided success. This is the third institute that Prof. Salisbury has conducted in this county, and the teachers have learned that an institute under him means work, and come prepared to meet all requirements. I can testify that no better work was ever done in the county. Eighty-five per cent. of the teachers that will be employed in the county, the coming year, attended the institute. Reckoning those who are attending normal school, the number who have made some preparation for the work in which they are to engage will exceed ninety per cent. of the whole number employed.

The number of districts, so for as heard from, that have adopted a list of text-books, is sixteen. The plan of district purchase works well wherever tried. I know that a number of districts voted at the annual meeting to purchase books for the school, and I am in hopes that another year will see a uniformity of books throughout the county.

Owing to the bad condition of the roads, our association meetings have not been as successful the past year as they otherwise might have been. This year we have divided the county into two association districts, — four towns in each, — have a meeting every Saturday, alternating between the two districts. Have made out a regular programme, which has been printed and sent to every teacher in the county, and to all the school officers and other leading men in the different districts. Beside the day meetings, we are to have a number of evening meetings, at which the discussion of points relating to education, readings, essays, and recitations will be the order of the day, or rather of the night. The object of those evening meetings is to bring the people out, and awaken an interest in educational work.

Neither the corps of teachers, nor the desire to work has ever been better than now. Given a good winter, and we will make our work tell by spring.

LA CROSSE COUNTY.

C. S. STOCKWELL, SUPERINTENDENT.

I have the honor of transmitting herewith my first annual report of the condition and progress of the schools of La Crosse county.

After filling the blanks furnished for statistical reports, there is but little to record save the general welfare of the schools, and the interest taken in school work by teachers and patrons.

As to my own personal plans and efforts, I will say that so far my time has been fully occupied in getting acquainted with the schools of the county. I was called to the work of the superintendency late in the winter, and as I was then in charge of the school at Onalaska, I found it impossible to do much in the way of school visiting at the end of the winter term. The school board accepted my resignation, and since that, I have given my whole time to the work of the office.

As many of the districts in the county maintained but two months' summer (or rather spring) school, I was compelled to move

rapidly in order to reach them all; however, I succeeded in reaching 56 out of a total of 59 districts that maintained a summer school.

In the majority of the schools I found teachers doing good work, though a few were found, with whom, perhaps, I would have been better satisfied, had I not visited them. Some of our districts (fortunately but few) consider it economy to employ cheap (?) teachers for the summer school, urging as an argument for so doing that there are no large scholars to attend, and "any one can teach the little ones." As a natural consequence, some of our summer schools have been "time and money wasted."

The text-book question has been quite thoroughly agitated the past summer, there having been no less than four agents, representing as many different publishing houses, at work in the country; but so far as I have learned, very little was accomplished by them. Something needs to be done in regard to this matter of text-books; there is a decided lack of uniformity in many of our schools. As an instance of this, I found in one school four pupils studying grammar, all about the same grade, but each pupil had a text book differing from those of the others, Harvey, Clark, Greene, and Kerl; and probably had there been more pupils pursuing this study, there would have been more authors represented. I have, when possible, called the attention of school boards to this matter. Many of them say, "We don't want to take any active part now, as they are agitating this thing at Madison." Let us hope that the legislature this winter will either do something definite or stop agitating.

A teachers' institute was held at Onalaska, in September, at which there was a fair attendance and a genuine interest taken in institute work. The teachers of La Crosse county, as a rule, are progressive, and are using every available means to fit themselves for the trying and responsible duties of their profession.

A teachers' association was organized last fall, and met semimonthly during the winter and spring. It has been productive of much good, and the indications are that, as a factor in the educational work of the county, the association is yet in its infancy. The executive committee has arranged for a course of lectures to

be delivered the coming winter, and will use the proceeds to lay the foundation of a teachers' library. May abundant success attend their efforts.

MARATHON COUNTY.

THOS. GREENE, SUPERINTENDENT.

The past school year has been one of steady progress in educational work. Our schools in general have been well attended and the teaching greatly inproved, owing to the fact that the teachers were prepared to do good work. The demand for good teachers has never been so great as at the present time.

The evils arising from the practice of changing teachers once or twice a year are very great. The scholars are put back in their studies by each new teacher, with the plea that they have been forced ahead in their studies, and do not understand what they have been taught. In this way the children are put backward and forward until they are taken from school to learn a trade or to work on the farm.

MILWAUKEE COUNTY—SECOND DISTRICT.

THOS. F. CLARKE, SUPERINTENDENT.

This superintendent district is composed of three towns, with a population of nearly 11,000 inhabitants, and is divided into 32 districts, requiring the services of 34 teachers.

The statistical report shows that there are 3,896 children of school age in the district, and that the number attending school during the year is only 1,769, which, together with the 253 reported as having attended private schools, constitutes but little more than one-half of the children of school age. This may be accounted for in part from our proximity to the city, so famed for its educational facilities, many children traveling from six to seven miles per day to attend those schools, either public or private.

While a majority of our school buildings are very creditable to the educational spirit of the people, still there are many, I am sorry to state, in a very wretched and dilapidated condition. There are still two log buildings in use, which present a very sorry contrast to the private residences and other buildings in their respective vicinities.

In many of the otherwise comfortable buildings the furniture is of the most primitive style, consisting, in too many instances, of long wooden benches, and desks to match, which are not at all adapted to the use or comfort of the occupants. In calling the attention of the members of the district to this condition of affairs, you are almost invariably reminded of the "hardness of the times," as though the health and comfort of their children were of no consequence whatever.

A circular which I issued to the patrons just before the annual meetings (a copy of which I inclose), was not, I am pleased to report, without its effect, and in my next I hope to be able to report a more favorable condition of affairs.

The teachers of this district, as a class, are very enterprising and faithful, and if the tendency to change teachers could in some way be retarded, the interests of our schools would be much advanced. It would also be of much advantage to the educational interests of our schools, if school boards would be more particular in their selection of teachers, and distinguish between those who make teaching a business, and have a reputation in that line to make or sustain, and those who only use the position as a makeshift, or as a steppingstone to something else. A tendency to break down the wages is also having a bad effect, as it is driving many of our most efficient teachers to seek more remunerative employment in the various branches of trade or labor.

In order to encourage the teachers to obtain a higher standing in the third grade branches, I divided this grade into two classes, A and B, requiring 75 per cent. for an A, and the minimum, or 60 per cent., for a B certificate. I am well satisfied with the result, as it established a rivalry where it was much needed.

The Institute, so ably conducted by Messrs. Miller and Flett,

was a grand success, and will be conducive of much good to the district, as its effects are plainly visible in every school I have since visited.

The free high school at Wauwatosa, under the charge of Mr. A. W. Smith, an earnest and faithful worker, is in a very prosperous condition, which is a source of much gratification to those who labored so arduously for its establishment.

In conclusion, although we labor under many disadvantages, not the least of which is our proximity to the city, still the outlook is encouraging, and the attention given to our home schools is on the increase, and in time I am in hopes that the people will see that with proper attention, their children can as well be educated near home, at least in the elementary branches. I wish here to return thanks to the State Superintendent and Prof. A. F. North, for the kindly interest they took in us, in visiting and delivering lectures before the members of the Institute.

MONROE COUNTY.

N. H. HOLDEN, SUPERINTENDENT.

Supplementary to my statistical report, I submit a brief special report.

The statistical report shows but little change within the last year. The aggregate expenditures are about \$2,300 less, but the amount paid to teachers nearly the same as the previous year. The difference is due to a less expenditure this year for buildings. There has been a decrease of two per cent. in school children, and an increase of three per cent. in the school attendance. The average wages paid to teachers are a trifle less, and the number of teachers employed, fourteen more.

The number of applicants for certificates examined is 342; of which 204 received certificates: 4 received first grade; 16, second grade; and 184, third grade. Of those that received certificates, 20 were under 18 years of age, 81 under 20 years, and 123 over 20 years; average age, 24 years.

I have visited 106 schools, making 156 visits. During the fore part of the winter, the roads for several weeks were nearly impassible; and for this reason, and the fact that some schools were not in session when making my visiting tour, a number of schools were not visited.

There is a deplorable lack of uniformity in text-books; and the efforts of several active agents, representing different school book publishing firms, during July and August, in the county, have not contributed to greater town or county uniformity, although they have aided in producing district uniformity, and in partially lessening the text-book evil.

The number of districts which have adopted books is 46. Most of them purchase directly from the publisher, and sell to the pupils at cost. The plan of loaning books to the pupils has been tried in a few districts, with satisfactory results; but generally, the parents prefer to own the books used by their children.

Substantial improvements have been made on several school buildings, and one new house erected, a frame building, furnished with patent desks, and well designed for class exercises.

A partial or complete failure of the wheat crop for two years in succession has caused, I might say, compelled several districts to defer needed improvements until they can bear the additional burden.

Presuming the column in the statistical report headed "No. of sites improved or ornamented," has reference to shade trees, shrubbery, etc., I have to report that no sites in country districts are so ornamented. We can hardly expect any considerable expense in ornamentation in districts where few, if any, of the inhabitants make such improvements, or think they are able to make them about their own dwellings. There are many difficulties to overcome in accomplishing a general improvement in this direction, and especially so in counties where most of the people are poor. Where the necessary improvements and current expenses of maintaining the schools, tax the resources of the people all they will bear, any large amount of energy expended in urging ornamentation would be so nearly fruitless that it might better be spent in a field offering more possibilities.

It certainly would be desirable that each school district should have a neat, comfortable school-house, supplied with all the modern improvements and useful apparatus; a site inclosed with a tasty fence, and ornamented with shade trees, shrubs, grasses, and flowers; also, district officers and a teacher able and willing to save this thing of beauty and utility from the lawless hands of the children; but I apprehend that under our present school system few counties will ever realize this desideratum. Discreet effort at the right time and place will accomplish something, and that effort should be made.

Our annual teachers' institute was held in April, at Kendall, conducted by J. B. Thayer. Number of teachers present, 94. Through the able efforts of Mr. Thayer, and the presence of the State Superintendent and a lecture by him, the institute was very satisfactory and profitable to those in attendance.

We have six graded schools. The Sparta village school employs 13 teachers, and during the past year has maintained its reputation for efficient work. The Tomah village school employs 5 teachers, but by reason of twice changing its principal, its work was not fully satisfactory. It is now under good management, and is prospering. The schools at Norwalk, Wilton, Kendall, and Glendale have each two departments, and have been reasonably successful, although the small wages paid in the primary departments results in the employment of teachers not well skilled in primary work, and whose success is not always what it ought to be.

I hope for better schools, mainly through more skillful teachers—teachers that not only have more art in the class-room, but who will make it a part of their duty to inspire parents with interest and ambition in the progress of their children, and who will call to their aid all the possible home influences. These home influences are powerful for good or ill, affecting the attendance, punctuality, deportment, and industry of the pupils. Teachers should understand that with the co-operation and sympathy of the parents, their work will be lighter, the progress of pupils greater, and success more likely to follow.

I believe our teachers and schools compare favorably with those

in our sister counties. The examinations are made more exacting each year, and teachers required to make continued efforts for improvement. Through instruction at institutes and teachers' meetings, teachers have adopted a nearly uniform plan of work, although their methods, not always the best, are sometimes widely different.

If every teacher could be furnished with an extended topical course of study for ungraded schools, with copious directions and suggestions, and required to follow it strictly, the country schools would produce far better results, and approximate nearer the efficiency of the village or graded schools. Such a topical course of study is published by A. S. Barnes & Co.; and while it is not as full as indicated above, or all that can be desired, it is a valuable aid, of but trifling cost; and I intend that the teachers of Monroe county shall be supplied, and use it until a better one is substituted.

PEPIN COUNTY.

J. H. ROUNDS, SUPERINTENDENT.

Pepin county is small in territory and comparatively new. It has 36 school houses, requiring about 42 or 43 teachers. Sixty-six different persons have been engaged in teaching in this county during some part of the past school year, and 72 persons have been licensed to teach, being an excess of 6; but about that number, licensed in this county, have found employment as teachers in adjoining counties; so all, or very nearly all, to whom I have issued certificates, have been employed to teach. I make these statements to show that we aim to secure competent teachers, by making the required standing such that the supply may not much exceed the demand.

The River Falls Normal is doing much toward giving us a better grade of teachers. I have made four new nominations to that school for this fall term. They are young ladies who already stand well in the profession, but are seeking still higher attainments. We are also receiving valuable aid from the two free high schools in our county. In method, these schools are excellent, and they have given us some good teachers for the district schools. They also

form a connecting link between our public schools and the normal school. Mr. E. T. Fitch was called to take charge of the school in Pepin, when it was first organized; and Mr. C. D. Bon that of Durand, and there has been no change made.

In the teacher's institute, we recognize an indispensable agency for training teachers in methods, and showing them what they ought to be able to do in the school room, and how that work should be performed.

The spring institute was conducted by Prof. J. B. Thayer, of River Falls. About thirty members were enrolled, and most of them engaged heartily in the institute work. The other institute was held in the village of Arkansaw, commencing August 26th, and was conducted mainly by Prof. C. D. Bon, of the Durand Free High School, assisted by volunteers and others, to whom work had been assigned. On Thursday evening of that week, Mr. Bon, by request, lectured to a large audience assembled in the M. E. Church. His subject was "The War of the Rebellion; Its Causes, Events, and Results." The lecture was full in scope, and yet comprehensive, being a complete resume of that terrible conflict.

Last winter teachers' meetings were held in Pepin and Durand, with profit to those who were enterprising enough to attend them; so, under the influence of our Normal school, Free High schools, and teachers' institutes and meetings, our teachers are becoming progressive in spirit and work. Some who will not work in this line, fall behind and are stricken from the roll.

The school-house sites are, I think, with but two or three exceptions, well selected; and although very little has been done to ornament them, still, some of them are not without natural attractions. The Lake Port school house, on the shores of Lake Pepin, is located in a beautiful grove, of nature's own planting.

The school house in the village of Arkansaw is squarely, or, rather, diagonally in one of the streets. When built, it was in a thick grove of underbrush, and supposed to be on a lot on which they had a promise of a perpetual lease. Now they find themselves without any legal title to a school-house site, and the school district liable to be complained of for obstructing the highway.

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There are six log school houses in the county, and two or three that are perhaps less comfortable than these; but many of our school houses are good buildings, with patent seats and desks. They have built a new school house in the village of Stockholm within the last year. The school building in the village of Durand was erected in 1876, at a cost of about eight thousand dollars. It will accommodate about 200 pupils. It is heated by two furnaces, and it was built with especial reference to the health, comfort, and convenience of teachers and pupils. It is evident that each year brings an improvement in our school buildings, teachers and schools.

PIERCE COUNTY.

H. S. BAKER, SUPERINTENDENT.

SCHOOL VISITATION.

The importance of this part of a superintendent's duty can hardly be overestimated. The results of last summer's visitation have been eminently satisfactory. In order to have a complete understanding between the teachers and myself, I published last spring in the River Falls Journal, which reaches nearly all teachers, a series of articles, stating the objects of my visits and how they could best aid me. Some of the ideas which I advanced were evidently new to them, among which were the thoughts that I was interested in their success; that their failures brought disgrace upon me; that frankness in the statement of difficulties was the first step towards their removal, by my advice; that I should not make public any faults which they might have; and, in short, that I was the friend most desirous of their success.

The extreme embarrassment of young teachers upon the occasion of an official visit has been often noted, but by the means above alluded to, and a feeling of sympathy for all diffident persons, prompting a manner in accordance with the spirit, as I believe, I have generally received a plain and open statement of difficulties and been importuned for advice. The suggestions have usually

been followed cheerfully. In some cases, my visit was, of necessity, toward the latter part of the term, and in one instance the teacher, who had before, during several terms, been visited by me, demanded to know why I had not come earlier, with an ardor which would have been impertinent, had it not been made in a regretful manner, and with deep earnestness, and been supplemented by the remark that a visit earlier in the term might have removed many troubles. Are not teachers of such a spirit more deserving than the present low wages would indicate?

I have left suggestions with nearly every teacher. They rarely take to argument when advised, as their good points are placed in the foreground. The fact that I publicly stand committed to all teachers, who are faithful, as a friend, is a revelation that at once melts away all barriers of reserve and distrust. They seem to be thoroughly astonished that such is the case, and no longer attempt to conceal from me any defects.

To show the spirit with which the teachers of Pierce county are endowed, I give one letter, received a short time after my visit to the school, which was excellent:

"Mr. Baker — Your visit was a great benefit to me, and it would have been of some benefit to the pupils had it been made earlier in the term. I have always dreaded visits from the superintendent, but I think I never shall again. I thank you for your suggestions, but really expected you to find more fault with me, for it seems to me that I have not done as I ought in all points."

BOTANY.

During the summer term, this branch has been taught in a good number of schools, as shown by monthly and term reports. The results and interest are almost incredible. Next summer, nearly all teachers will probably do something with it.

MUSIC.

Some teachers have given instruction in the rudiments, and, this winter, it will have a place on many programmes.

TEXT-BOOKS.

By taking counsel in season, with one or two leading firms who publish nearly all the books which I have recommended to the boards of Pierce county, the agency business, so unfortunately managed in other counties, has been worked in unison with my own efforts, and the books introduced are first-class and adapted to the Nearly every district has adopted a satisfactory list, and a large majority have purchased directly from the publishers. Mixed text-books in Pierce county schools have become a matter of history. The books are nearly uniform throughout the entire county. The battle between confusion and multiplicity of classes and individual purchase at retail on the one hand, and entire uniformity in schools, the minimum of classes and district supply on the other, has been fought, and the right has won. As the smoke rolls away, and other counties are seen swarming with rival agents, fighting each other, and all hostile to the superintendent, we may congratulate ourselves that progress upon an average will be nearly twice as rapid as was possible under the old regime of three years ago. No more legislation is needed upon text-books.

DRAWING.

Twenty-two teachers have used Walter Smith's Manuals of Drawing during the last term of school, and nine more have taught it by some other method, chiefly Kruse's. Many more will teach it during the winter term, at least two-thirds of the teachers, I think. I have not learned that any regretted that they taught it. It has thrown a flood of light upon other topics, besides giving results directly beneficial. With few if any men opposing, whose judgment is considered valuable in educational matters, it is unfortunate that our legislature does not make drawing a common school study, and require an examination in that branch, from all teachers. The example of Massachusetts and New York, in introducing industrial drawing and the very excellent results, should be held up for the admiration and imitation of the legislature of Wisconsin. In primary schools the result of its introduction has been beneficial to an

almost incredible extent. I have prepared questions in drawing for the last three examinations, optional, of course.

LIBRARY ASSOCIATION.

Last spring, a Library Association was organized, and is now in successful operation. Great benefits are sure to come from it, and they are already apparent. Mental activity in the teacher, is the condition of imparting an interest to school work, and it can be secured by a judicious course of reading.

TEACHERS' ASSOCIATIONS.

These have met at various times during the year, and, as usual, have resulted beneficially in ways too numerous to mention. I should be glad to see such meetings made obligatory upon both teachers and superintendents. The number of such meetings which each teacher has attended is marked upon his certificate, and school boards have been requested to discriminate in favor of those whose markings show their duty done. They have, in some cases, been supplemented by an evening lecture. Some town associations have been held within the year. The teachers of Martel and Gilman sustained one last winter.

A COURSE OF STUDY.

Upon no subject do I feel more deeply. The requirements for a certificate need a radical revision, and consequently the branches studied in the district schools. Let us banish all musty medieval errors from our school system. If the Oxford graduate spends six years upon Latin, and six weeks upon Geology, need we ape customs so mossy? If some fossilized college gives its students ten terms in Greek, after a three years' preparation, and ten weeks in Botany, we muse very doubtingly upon its usefulness. Is it not even more absurd, that a person teaching may spend his lifetime in the country and village schools of Wisconsin, and never know the name or nature of a single plant that grows? Before he can enter the school room, he must know the "appellate jurisdiction" of the supreme court, even if he take the lowest grade of certificate; but

men grow old and die in the school room, and neither know nor teach their pupils a single fact that will enable them to preserve their health. The average mechanic leaves school by the time he is 18. He may know more vowel sounds than ever flitted through the brain of Webster or Walker, and have all the algebra from addition to Horner's Method of Approximation, but he cannot draw so much as a plan of a door yard gate, nor make one from a plan drawn by his superior, and superior only because he learned to draw. Is it not time to discard the idea that because a branch is of some value to the ordinary man, there is no "discipline" in it?

It will be a glad day for Wisconsin when the legislators shall make a good course of study for common schools, which shall meet the plainest demands of man's nature, as recognized by those who know it best. I need not further indicate these obviously needed changes. The best thing for a citizen to know two generations ago, is not sure to be the best thing for his grandchild to-day. New sciences have demanded recognition, and materially changed the conditions of the prosperity of the state. If our legislators now can only afford to make laws for railroads, let us increase their pay, and foster their consciences, until common schools are, at least, remembered in their discussions.

LOCAL EDUCATIONAL LITERATURE.

The practice, not uncommon, of furnishing a column of educational items to some local newspaper, cannot be too highly recommended. Through this medium, teachers, officers, and parents may receive suggestions at any time. Good teachers may be commended and encouraged, and their patrons thus give them additional confidence. Especially has the column been useful to me in placing good methods before the teachers. The text-book question has been constantly agitated. The column in the River Falls Journal has reached, I believe, every district in the county, nearly every teacher, and nearly every district board. If I have assisted progress any, it has been largely due to this instrumentality. Is the education of our children of less account than agriculture, which has a department in nearly every paper? The Chicago

Journal deserves commendation for its plan of giving one page per week to education. May other city dailies and standard weeklies follow its example. The subscription list of any paper is increased among the teachers and others, by this addition, and sharp publishers are glad to get the copy. To make it "newsy," I have sent stationery, at my own expense, to nearly every teacher, with a circular asking for any items of interest for publication, from time to time, and the response has been liberal. By that means I am kept well informed in all that relates to schools and teachers. The column is read by older pupils, and even many parents say it receives their attention before any other part of the paper. the monthly and term reports, I compile lists of teachers who teach such optional, and yet necessary branches as drawing and botany, and publish them with a word of commendation to district boards. I have also given the list of the "most studious pupils" in each school, which is also given upon the monthly reports. Every superintendent would receive aid in his work from this source, if he would give the time and labor necessary to edit a column. The schools can hadly rise above the general intelligence, and I may add, the interest of the community. A constant supply of reading relating to them, can hardly fail to make better schools possible. Agitation of a good object is always desirable, even if it only calls out thought, or brief hostility.

LEGISLATION NEEDED.

A law placing botany, physiology, industrial drawing, and music among the third grade requirements, and philosophy among the second grade.

A law requiring boards to withhold the last months' pay until the county superintendent certifies that he has received all reports which he requires from the teacher.

A law making it *obligatory* upon districts or towns to establish a public library.

A law compelling boards to present the certificate of adoption of text-books to the county or state superintendent for his signa-

ture, before it becomes binding. Some very antiquated and worthless books are adopted.

A law making the standard for private examinations ten per cent. higher than public examinations require.

A law forbidding the county superintendent to issue two limited certificates to any teacher consecutively.

The branches which a child should study in school, should be decided, not by the parent, but by the teacher or board, who would, I believe, use good judgment in acceding to the wishes of parents. Now, parents often disturb the school work by unwise directions. The law should be explicit and plain.

WAGES.

The present low wages of teachers are having the effect, in Pierce county, of driving into other professions, especially law and medicine, many young men who would shine as teachers; and young women of superior natural ability and adaptation to the work, have sought other fields of labor. Many, also, have sought and found employment in other counties and states, where the supply of teachers was less abundant, and the pay more satisfactory. Older counties, also, naturally have more wealth, and can afford, with less sacrifice, to obtain good teachers. This matter presents the saddest outlook of any phase of progress. The present financial depression may be largely responsible, and I look forward with hope, to the revival of business.

PORTAGE COUNTY.

C. S. SUTHERLAND, SUPERINTENDENT.

I herewith transmit my annual report. Though I have endeavored to do the best I could, yet it is full of imperfections. I have found it difficult to get reports from town clerks, which were complete. This I attribute somewhat to the fact that many of our district clerks are both ignorant and indifferent in regard to many subjects required in their annual report. In fact, school-patrons

many times are indifferent, and do not elect proper persons as members of the school board.

SCHOOLS AND TEACHERS.

To teach the schools of the county, requires eighty-three teachers. One hundred and thirty different persons have been employed in the schools of the county during the year; thirty-four males and ninety-six females. Of these, one hundred and twenty held third grade certificates, nine second grade, and one a first grade. I think it is but just to state, that as a whole, the schools compare favorably with those in adjoining counties.

HIGH SCHOOLS.

A high school has just been organized at Almond, which will be under the management of ex-Supt. Williams, for the ensuing year.

SCHOOL HOUSES.

Three new school buildings have been erected during the past year, one in the town of Belmont, one in the town of Lanark, and one in the town of New Hope. However, there are quite a number of school-houses yet in the county which furnish a sad commentary upon educational work. The supply of blackboard surface is somewhat deficient, though I am happy to state that during the past year, many of our schools have been supplied with a more liberal area of this important school-room appendage.

EXAMINATIONS.

In conducting examinations, I have aimed to select such questions as would not only test the applicant's knowledge, but to suggest a study of what they ought to know. A large portion of my questions were taken within the range of the institute work, that it might induce a larger number to attend those institutions, and thus be better prepared for the work. In deciding upon the merits of candidates in these examinations, I have endeavored, at all times, not only to do justice to myself and to the applicant, but to consider with care the educational interests of the county.

INSTITUTES.

The Institute held at Plover last spring, was the largest ever held in the county, there being 123 registered, with an average attendance of 105. As regards successful work, I need only to state that it was conducted by Prof. Albert Salisbury, of Whitewater Normal School.

Two lectures were delivered before the Institute, one by Hon. Wm. C. Whitford, and one by Prof. Salisbury.

TEACHERS' ASSOCIATIONS.

We have our county divided into four districts for the purpose of teachers' meetings. To each district we give one Saturday in each month, and in this way we have a meeting in some district every Saturday. New methods, a professional spirit, and much valuable information are the results of these meetings.

SCHOOL VISITS.

During the year, I have made one hundred and forty-one school visits. I have endeavored to ascertain the true condition and real wants of each school, to advise with the teacher, encourage pupils, and to arouse parents and school officers to the importance of the duties they owe to the schools. I think that district boards and school patrons are too often the occasion of failures of the school—they being many times too indifferent to make even an occasional visits to the school-room.

Others, again, out of a supposed economy, engage a cheap teacher, and petition the county superintendent to give him "something upon which to teach." It is unnecessary to state the result. I would add, however, that while it may be economy to hire the teacher cheap, no school can afford to have a cheap teacher.

I conclude this report by urging patrons and school boards to give the work in the school-room their personal supervision.

ROCK COUNTY—FIRST DISTRICT.

J. W. WEST, SUPERINTENDENT.

The whole number of school districts under my care is eighty-three, the number of children of school age, 4,335; the whole number of children of school age that have attended school, 3,433; the number of persons required to teach the schools, 92; the number of applicants for certificates at the public examinations, 251; the whole number of certificates granted during the year, including transfers and renewals, is 212. Of this number, 195 are third grade, 13 second grade, and 4 first grade.

The attendance of children of school age living in this district, is, this year, over seventy-nine per cent., an increase of six per cent. on last year's attendance, and it would have been still better had the summer terms all closed before the heated season commenced. Money expended for the support of schools, during the extreme warm weather, is, in my opinion, worse than thown away, hence I have advised that the summer schools commence earlier in the season. In a few country districts the three term system is practiced.

The teachers employed the past year, have, generally speaking, done excellent work for the schools. Many of them have had the benefit of Normal School training, and others have received instruction and thorough drill at teachers' institutes, and it should be said to their credit that they have not been negligent in putting in practice the valuable information received. The result is that, in many cases, in the management of schools, as well as in methods of instruction, there is a marked improvement.

Our annual institute, at Footville last March, was the largest and (considered by those present) the best that has ever been held in this district. Seventy-five names were enrolled, the greater number of whom took an active part with profit and interest to themselves. Much credit is due the efficient conductor, Prof. McGregor, for his earnest zeal in the work, and the interest he manifested in the

teachers. It is generally conceded by our teachers that it pays well to engage in institute work.

In the examination of teachers, a standing of six upon a scale of ten, is required in each branch for a third grade certificate, of seven for a second, and eight for a first. This is generally understood by the teachers, and it is seldom that we are troubled with requests for "permits," or limited *licenses*.

The best teachers, as a rule, are those who attend teachers' institutes, read educational works, and try by every means at their command to keep well posted on subjects relating to their profession. There is always a demand for this class; and they are entitled to, and will receive, the patronage of the public.

No new school houses have been built the past year, but extensive repairs have been made on some of the old ones, so that they are generally in a comfortable condition. Many of the sites heretofore open to the commons, are now fenced, and a few decorated with shade trees.

My annual report shows that thirty school districts have adopted a uniform series of text-books; of this number, sixteen purchase direct from the publishers and sell to the pupils. The plan of free distribution is not received with favor.

In districts where changes of books have been made, it has been the practice of school boards to seek advice from the superintendent and other educators, in order to obtain the best; by this means the latest and most improved books are now used in our schools. Quite a number of our districts have recently taken action upon the text-book question, so that at present, at least, one-half of the districts have adopted a uniform series.

The Evansville high school, under the direction of Prof. Sprague, has been thoroughly graded the past year, and a definite course of study established. The members of the high school room are composed largely of students not belonging to the district, thus showing that the good name and character of the school extend abroad. A class of not less than nine will graduate this year.

We are pleased to note the literary character of the school. A district library of one hundred volumes has been purchased, and

its beneficial influence upon the minds of the youth, is already felt in the community. Appropriations have been made for enlarging the library this year.

ROCK COUNTY - SECOND DISTRICT.

J. B. TRACY, SUPERINTENDENT.

In reviewing the work undertaken, and the results attained in the interests of education in this superintendent district during the past year, I feel confident that there has been some advancement in the right direction; especially in the district where the school officers and patrons have taken a proper interest in their schools. The demand for teachers of high qualifications, and greater experience, has increased. It is more difficult for the young and inexperienced to find employment now than formerly. As a whole, teachers have manifested a stronger desire to raise the standard of teaching by becoming more thoroughly fitted for their work. Educational journals have been more generally read, and works on the theory and practice of teaching sought after and studied. Teachers have aimed for better discipline, and for the practice of the most approved methods of class drill.

I think I have never seen greater interest manifested at any of our institutes than at the one held at Milton in August last. While some of the younger members showed timidity and rather shrank from the ordeal, yet a large majority were quite prompt to respond, and did very fair work. The institute was well attended (110 registered members), and I look for good results in the increased efficiency of the teachers in the school-room. Profs. Salisbury and Maxson will be gratefully remembered for the thorough instruction given, and very practical suggestions made by them. It seems strange that all our teachers do not, as far as possible, avail themselves of the opportunity which the institute affords for special preparation for their work. There would be more complete organization and systematic instruction, if they did.

I am very hopeful that the course of study for elementary schools,

which was presented at our Wisconsin Teachers' Association, and explained at our institute, will be generally adopted as a guide by our teachers, in organizing and carrying on their schools. While districts indulge in a change of teachers every term, as some do, there will be but little dove-tailing of one teacher's work into that of another; no proper joining or connecting link between them. Subjects introduced and taught by one teacher are not taken up and completed by the next; and so, for lack of completion, they prove in a great measure worthless to the pupil.

I am sorry to report that, in a few instances, "school district quarrels" have very materially interfered with the progress of the schools. Some of these have arisen from the injudicious action of the school board in hiring a relative of some member of the board, or a resident of the district, to teach the school. I have tried to discourage such action on the part of school boards; for, though the teacher is thoroughly competent, and has a reputation established, it is very apt to create jealousy and fault finding, which neutralizes the good efforts of the teacher. If neighbors must disagree, let it be in matters where the future welfare of their children will not be involved. Let harmony prevail at the school meeting, and wisdom rather than passion guide, where such interests are at stake.

One new school house has been built since my last report, in district number six, town of Beloit. The structure is quite tasty and pleasantly located, but is not furnished with the most approved seats and school apparatus. It is hoped that this deficiency will soon be supplied. There are still several school houses in this superintendent district, which are a disgrace to the districts where they are located. They do not furnish proper protection from cold in the winter, nor afford comfort in sitting, or convenience for work.

The whole interior and exterior surroundings, are such as to endanger the moral as well as the physical health of the pupils. When will parents fully realize that such things have much to do with the proper education of their children?

Quite a number of districts have adopted a series of text-books,

and the good results are already apparent where the new books have been used. Much precious time has been wasted, and efforts of the teacher lost in our schools for lack of uniformity.

From teacher's monthly reports, I learn that the regular attendance of pupils has decidedly improved in many cases, and that there are fewer cases of tardiness also; especially has this been a fact in the several departments of the Clinton Graded School. Only a few have been absent or tardy during the term, or the school year.

Though the condition of some of the schools is quite far from satisfactory, and a state of ignorance or indifference regarding public education prevails, that at times discourages effort and disheartens the laborer, yet as a whole, I feel much encouraged, and it is my purpose to prosecute my work with renewed vigor and energy, during the remainder of my term of office, trusting that my efforts will be seconded by school officers, teachers, and others.

SAUK COUNTY.

J. T. LUNN, SUPERINTENDENT.

The children of school age number 10,379, of whom 3,193 were not enrolled in the public schools, nearly two-thirds of the absentees being between four and fifteen years of age. Some of these absentees were doubtless enrolled at some of the denominational schools, receiving an education little adapted to American citizenship. None of these outside schools report their doings, and a few repel any attempts to collect their statistics.

The average number of days schooling per district is 129, but district five of Dellona, one of Franklin, and eight of Winfield, have willfully refused to maintain any school; and some of these, together with joint district one; of Bear Creek and Franklin, intend to defy the law during the year to come, leaving the children therein to grow up in ignorance, or to sponge what schooling they can from adjoining districts.

Heavy penalties are prescribed by law against officers who refuse or neglect to levy taxes to maintain schools, despite any votes

of their respective districts not to have any school, or refusal to raise moneys to support a school. All such action of a district being contrary to law, and consequently void, officers cannot urge such a vote to shield themselves.

Such, however, is the collusion in certain districts, that no one will complain against district officers, or else those who wish to complain are afraid of the resentment that might result, or are possessed of too little property to hazard costs and time in prosecution of officers to perform their duty. I lay before you the suggestion that you are competent to direct the District Attorney to investigate grave derelictions; for few more despicable crimes are committed than that of depriving helpless children of their legal right to the elements of an education, whether on account of a miserly sordiness, or of petty neighborhood strifes about locating sites or controlling the school.

TEACHERS.

During the year, 432 persons attended the examinations, of whom 270 were authorized to teach. The number at present in commission is 211, and the examination at Rock Springs is yet to be held. The tendency to change teachers to the detriment of schools, was kept up to the average, as shown by 289 engagements to supply 182 situations. Examinations have been conducted with a view to secure the best qualified applicants sufficient to fill the schools, and leave a surplus of about twenty-five per cent., which seems a reasonable margin for choice and casualties. To secure such quota this fall, four out of every five applicants have been passed to teach, and any candid person will admit that to open the door much wider, is equivalent to no examination at all. Licenses have been promised to twenty-three applicants who otherwise had failed, on condition that they attend some graded school about two months previous to commencing their own teaching, on which they will enter with knowledge well brushed up. Also, unless for special reasons, those receiving license have to sign a promise to study two hours per day while teaching.

Wages have had a wide range, from \$144.66 per month to the

principal of the Baraboo school, to \$15 per month to a young lady in a country school. The average for various classes per month being:

MALES.

To principals of schools of over two departments	\$105	47
To principals of schools of only two departments	47	75
To teachers of schools of one department	33	30

FEMALES.

To assistants in graded schools	\$32 66
To teachers of schools of one department	24 68

VISITS.

Of the 182 positions for teachers, about three-fourths were visited last winter, and the remainder, except eight, during last summer. Enough schools were visited twice to make a total of 232 visits for the year. The eight unvisited were not in session when visiting in adjoining districts, or at other times when I was at liberty to reach them.

Many schools have no summer term, and must be visited in the winter or not at all, which, when open as was last winter, with its alternate deep muds or sharp stony hubs, made traveling over our broken country neither rapid nor pleasant.

It may be superfluous to state that visits were not the mere spending more or less time in school, but rather occasions for criticising all pertaining to the workings of the schools, giving credit and encouragement where due, and not omitting censure where deserved.

The light estimate of this feature by some superintendents, is not shared by me. It is a means of encouraging worthy teachers to a greater effort, and of selecting the best to recommend for more difficult stations; and it is an eye-opener to the indolent, the careless, and the conceited, who have a chance to say, we "see ourselves as others see us."

7 — Supt.

PROMOTIVE.

A two weeks institute was held at Delton last April, at which fifty-seven were enrolled. A second institute, also of two weeks, was held at Reedsburg, in August, with an enrollment of 103.

The County Teacher's Association held its February session at Spring Green, and its October session at Baraboo, with an encouraging attendance and interest at each.

Several local associations maintained series of monthly sessions, especially during the winter.

Full reports of each term of school are required, and a circular of advice sent to teachers before most schools open. A "Course of Study" for country schools, drafted and recommended by the highest educational authority in the state, is in the hands of teachers to test its ability to remedy the aimless work done in the many schools.

Five nominations to Normal Schools were made.

TEXT-BOOKS.

About forty districts now purchase text-books directly of the publishers, at rates lower than the usual retail. Two-thirds of these sell the books at cost to pupils, and the other third loan to pupils, charging only for needless injuries. More time is needed to determine the full value of this handling of books, though as yet no considerable objection has been made. Our territory has been well explored by the keen eyed book agents, anxious to secure contracts and adoptions for the "best" and the "latest" series; and so thoroughly have they done their work that but few districts have escaped them.

LIBRARIES.

Only 1,238 library volumes, valued at \$1,440, are reported, of which more than one-third of the books and nearly one-half of the value are reported from Prairie du Sac alone. Thirteen towns do not report a single volume. It is a with a feeling of sadness that I present this sickly exhibit of what should be a most energetic agency to aid and to supplement the purely school work of our

county. Large areas are almost destitute of sound books, and their youth grow up unread, even though hungering for information which district libraries might supply.

SCHOOL HOUSES AND SITES.

Of the 163 school houses in the county, forty-five are reported as "dilapidated," which, though an expressive word, but faintly pictures the forlorn tumble-downness of a few. Only thirty-seven have "sites inclosed," and less than half of these deserve such report, and but nine sites have any attempt, however crude, at ornamentation. Three-fourths of the sites contain one-half acre or less (with one or two roads taken out), many are situated on steep hill sides or in muddy ravines, affording no adequate play ground for pupils.

FINANCIAL AND SUPERVISORY.

The total school expenditure for the year is \$56,229.15, of which female teachers received \$23,165.94, and male teachers \$16,599.71, the remainder being for building, repairs, fuel, etc. This large annual expenditure depends for its value received on the quantity and quality of work done by teachers, most of whom are of quite limited attainments and experience, young in years with the usual immaturity of judgment.

Sifted as these teachers are by testing examinations, the poorer required to promise to study their deficient branches two hours per day while teaching, and the poorest in addition having to attend some graded school before teaching; drilled and advised by competent instructors at a month of institutes; counseling and aiding each other at dozens of associations; stimulated by plainly worded circulars, and checked by full written reports, and specially warned by letter when complained of; directly criticised and prompted, and sometimes severely reprimanded when visited, all of which is directly or indirectly the work of the superintendent—all this tends to keep the schools on a much higher average plane than they would be, were he and his works withdrawn.

If all the superintendent's work barely raised the school work two per cent., or one-fiftieth, he has saved his salary, for one-

fiftieth of this annual \$56,229.15 is \$1,124.58, or more than his annual stipend. Now, how much of a raise does it take to make a school one-fiftieth better? If he raise the efficiency ten per cent. or one-tenth, he has saved five times his salary; and yet a raise of one-tenth is hardly perceptible. If he raise the efficiency twenty-five per cent. or one fourth, which is a very moderate estimate, there is a saving, of what would otherwise be lost, of many times his salary; for school work should be measured by its efficiency or quality, and not by the months the school house doors are open, or by the number of children attending.

Many wrongs known best by the superintendent, he can not remedy because of lack of jurisdiction, and district boards often fall far short of their proper goal in administering school affairs.

SHAWANO COUNTY.

WM. SOMMERS, SUPERINTENDENT.

I have the honor to forward the first special report, as I believe, that has ever been sent from this county. I have been anxiously looking through the reports of the Superintendent of Public Instruction for the last few years, but cannot find any such report from Shawano county. The reason of the same I do not feel safe to decide.

I wish to say that our schools are in as good a condition as I have found them in some of the oldest counties in the state, although our county is as yet quite new. We have, so far, only forty-nine school houses in the county, among which we have some, I think nine, with patent seats, and as far as the buildings are concerned, they would be a credit to some of the oldest counties in the state, "if they had them." It is true that the most of them are log buildings, and we have been building two log school houses this summer, but this has been the case in all the counties in the state, where new settlements build their first school houses, unless it is in a saw mill settlement. Some of our largest and best districts

have log school houses with upwards of sixty scholars in them, and a teacher with such a flock around him, may think himself happier than one in a stone building with but a dozen scholars in it.

It is now about ten months since I entered upon the duties of superintendent, in which time I have held twelve public examinations, besides the never ceasing private examinations. This fall, eighty-six applied for certificates, but to only fifty-five were certificates granted, out of which were sixteen male teachers, and two of them held first grade certificates. More gentlemen teachers would be desirable, as we have not enough to supply our schools, since most of the districts now vote for four or five continuous months of winter school, with a male teacher. I have fixed the age for both sexes that will entitle them to a certificate at eighteen, aside from the qualification required by law, and I think this is young enough to assume the responsible charge of a teacher. Licenses were granted to only four, and those were granted at the unanimous request in writing of the school boards of the respective districts making application for the same.

I have thus far visited all the schools but six, and those are so far distant that a person must go from twenty-five to thirty miles to get to them; but I will visit them before the year is up. Some of the schools that are not so distant, I have visited several times.

I would also say that we have had a very interesting institute this fall, which was conducted by Prof. Hosea Barns. By all the old teachers it was pronounced the best that has ever been held in the county.

I use all means to encourage those who propose to make teaching their profession, to prepare themselves better for the school room. Some of those that thought themselves sure of a situation for this coming winter, even if they did not feel sure of their capability to discharge its duties, have found themselves badly mistaken as to whether it would be all the same if they attended an institute or not, as the different school boards complied very heartly with my request made through the Shawano Co. Journal, to give those that put themselves to trouble and expense to prepare better for the school room, situations, preference over those

that merely adopt teaching for the time being, because they can find nothing else to do that will pay them any better for the present. By thus striving to get good teachers into the schools, they can not help but better accomplish their design.

In conclusion, I will say that I shall be able to give a more correct and a fuller report next year.

SHEBOYGAN COUNTY.

B. R. GROGAN, SUPERINTENDENT.

I have the honor to transmit to you, in addition to my annual report, the following special report of the work of past year, and of the present condition of our schools. As wealth accumulates, the condition of our schools improves. Intellectual development is no longer purchased at the expense of physical comfort.

We have 112 districts in the county. The majority of them have good school houses. People generally build such as fast as they are able. Still we have here and there a school house which is neither an ornament to the neighborhood nor a credit to the district. We require 124 teachers to teach our schools. Last year we employed 186. Every change of teachers is attended with loss of time. We have one teacher who has taught the same school seventeen years. This district has acted wisely; would that other districts would do the same. We organized two teachers' associations during the past winter, one at Glenbeulah, and the other at Hingham. Both, considering the condition of the roads, were well attended.

SCHOOLS.

Our schools, considering the disadvantages under which they labor, are doing fairly. Teachers work hard; patrons contribute liberally; still much is lost from misdirected efforts for which neither teachers nor patrons are to blame. The cause lies above and beyond them. In order that the greatest amount of work may be done in the shortest possible time, there must be order and

method. We have neither in our district schools at present. First, studies are often pursued without any direct reference to their bearing, either upon the welfare of the school or the child's future as a citizen. Second, owing to the frequent change of teachers and lack of a complete system of records, much valuable time is lost at the beginning of each term. Since no two teachers pursue the same plan, what is learned in one term is often unlearned in the next. What we need in our common schools, to-day, is a course of study mapped out by competent authority, similar to that which we now have in our graded and high schools. We should then have order where now is chaos; each teacher could begin where his predecessor left off, and, with a saving of time and money, harmony would be introduced into our common school system. I think, with slight explanations, the course published in the circulars, meets the wants of our common schools. True, it will take time to introduce It took a generation to bring our high schools to their present state of efficiency; it may take as long to grade our common schools. Still, we should not hesitate to begin the noble work, but plant the seeds of grand results in the schools, as the German foresters plant the oak and the pine on the slopes of the wild Hartz mountains for the generations that are to come.

ATTENDANCE.

My annual report shows that there are 11,419 school children of school age in the county. Of this number, 6,463 attended the public schools, but the great majority of children do not go before they are seven, and leave school before they are twenty; hence these figures do not represent the educational status of the country. My report also shows 7,758 children between the ages of four and fifteen, 5,546 of whom attended our public schools. I have good reason to believe that nearly all the remaining 2,212, especially between the ages of seven and fifteen, have attended private schools, — facts that speak well for the intelligence and public spirit of the citizens of the county.

Statistics show that the per centage of attendance is highest in the immediate vicinity of the best schools. This is natural. If

the school is poor, the parent cares but little whether his child attends or not; if the school is good, the case is different. Believing that "as the teacher, so is the school," I have endeavored to raise the standard of attendance by improving the quality of the teachers.

EXAMINATIONS.

Three hundred and sixty-four applicants presented themselves at ten public and three private examinations. Of this number, fiftyfour received third grade certificates, three, second grade, one, first grade, and 134 limited, or for six months.

While the large number of limited certificates adds materially to the work of the superintendent, still frequent examinations, by compelling continuous study, must ultimately redound to the benefit of the teachers. To secure better scholarship, I have raised the standard as high as seemed reasonable, with the supply of teachers and their opportunities for improvement, and I believe that in so doing, I am sustained by the best educational sentiment of the county. We have good high schools at Sheboygan Falls, Plymouth, and Glenbeulah. The first two under the charge of Professors Anderson and Brier, each of whom is now entering upon his fourth year of efficient work, and the last under the supervision of Prof. Morin. These, in connection with our Institutes and Normal Schools, furnish us with excellent facilities for improvement.

VISITATION.

Since January 1st, I have made 170 visits to 112 schools, visiting every district in the county. I have given particular attention to reading, writing, arithmetic, and the common school studies, believing that if our schools teach these and teach them well, they are doing their legitimate work. I found the majority of our winter schools doing good fair work. In summer, the terms are shorter and not as well attended, besides many of them are taught by young and inexperienced teachers. Money paid for school in July and August, as a general rule, is money wasted. The larger scholars have work to do at home, and the weather is "too hot" for

the little ones to study. They get tired and sleepy. I have urged districts, having four months summer schools, to arrange their term so as to have school in May and June, and then after the " hot spell" is over in September and October.

TEACHERS.

Visitation has convinced me that the chief need of our schools to-day, is a supply of thoroughly qualified teachers; but how we can obtain such a supply is not clear. Much can be done by intelligent action on the part of district boards in hiring only those teachers who hold good certificates. Teachers can do much for themselves by studying while they are teaching; and by study is not meant the mere accumulation of facts, but the discipline of thinking. A mind stored with facts, but without thought, is like a gun loaded with bullets but without powder. Thought is the powder that drives the facts to the mark. Thought alone can awaken thought, and as a true magnet acts upon steel, so the thinking teacher acts upon the minds of the pupils, rousing their latent powers into life and activity. No amount of facts stored, like unthreshed harvests, can offset habits of real thoughtfulness. pupils are taught how to think, they will soon learn what to think. Here our system of teachers' examinations too often fails. We get facts but thought evaporates.

A false idea of economy often induces districts to employ teachers whose qualifications are just a grade higher than their schools, forgetting that a teacher is valuable in proportion as his mental and moral overplus surpasses that of his school. This overplus gives a teacher strength in the school room, and enables him to enforce order and maintain discipline without having recourse to harsh measures. Pupils cannot respect and will not obey a teacher who is painfully struggling to keep ahead of his scholars. We admire and respect whatever does its work with ease and grace; whatever tugs and struggles excites our pity and contempt. A good teacher acts as an intellectual leaven, a ferment inciting to life and activity, the otherwise dormant elements of the school. Mental activity, contagious enthusiasm, love for the work, and an honorable ambi-

tion should be placed among the qualifications of the teacher. We will never reach our educational ideal until the examination for teachers shall be made to include the quality of mind possessed as well as the quantity of facts accumulated.

TEXT-BOOKS.

In the month of August, I issued a circular calling attention of districts to the "text-book problem." Since the annual meeting, many districts have investigated the subject more thoroughly, and have called special meetings for the purpose of taking action upon the same. I think that before the close of another year, the great majority of our patrons and school officers will see the wisdom of the wholesome laws relating to text-books.

INSTITUTE.

Our institute was the largest ever held in the county. We enrolled 159 teachers, with an average attendance of 137. Prof. Graham did good work, and made the institute in every sense a decided success. Hon. W. C. Whitford favored us with an able address.

The institutes of Wisconsin are no longer an experiment. In them the educational thought of the county is shaped, and the teachers go away with a broader conception of their work, a deeper insight into the philosophy of human development, and a firmer determination to do their duty "to the best of their ability."

At the close of the institute, we organized a county teachers' association, and also took steps towards arranging an "exhibit" of the county schools in connection with our county fair.

The educational sentiment of the county will compare favorably with the better counties of the state. We have a corps of earnest, ambitious, and wide awake teachers, and every effort towards improvement has met with a cheerful response from them.

TREMPEALEAU COUNTY.

MARY BRANDENBURG, SUPERINTENDENT.

According to the reports of the town clerks, for the year ending August 31, 1878, the number of children of school age in this county is 6,460, and the number in districts which have maintained school for five or more months is 6,372. The number enrolled in the public schools is 3,377. The number of days school has been taught is 9,950. The number of teachers required to teach the schools is ninety-four. The number of certificates granted is 126, of these four are first grade, six are second grade, and 116 are third grade. Though 126 certificates are granted, there are only a very few teachers unemployed. A few receive certificates limited to six months, and quite a class, hoping to raise their standing, write both spring and fall, and they are usually successful in their efforts.

Ex-Superintendent Whiting reported fifteen schools visited by him. I visted eighty-two after the first of January, and made 130 different visits. These visits generally occupied the greater part of one-half day.

The whole amount of money paid out for school purposes during the year, is \$28,789.89. The average wages per month of male teachers, this year, is \$35.06, which is \$3.39 less than for last year. The average wages per month of female teachers, is \$28.22, which is \$3.60 less than the last year.

There are, properly speaking, only three graded schools in the county. The Trempealeau school has three departments, and the Galesville school also has three departments. The Arcadia school has four departments. These three schools are in good condition. More effective work, with a view to grading, is being done in Whitehall than heretofore. The school buildings in the county are generally pleasantly situated, comfortable and convenient, though some need repairs, and there are two which are really unfit for use.

The number of districts which have purchased text-books, is twenty, and of this number, seven loan their books, and nine sell

them to their pupils. As no report was made, it is not known whether the remaining four districts loan or sell the books to the pupils. As far as as I have been able to learn, the plan of purchasing books by districts, where adopted, has given satisfaction.

A two weeks institute was held at Galesville, commencing August 19th. Prof. J. B. Thayer, assisted by J. H. Cummings, conducted the exercises. Ninety-five working members were enrolled, and, although the weather was very warm and oppressive, the average daily attendance was eighty-one. Each day, many of the citizens manifested their interest by visiting and listening to the exercises. Prof. McLaury, of the Galesville University, occupied part of two afternoons with the subject of kindergarten training and its advantages, which was very interesting, and, with many of the teachers, awakened a desire to know more of the subject. Rev. Mr. Moore, of Galesville, gave us a lecture, entitled "The Palmy Days of English Literature, Essays and Essayists," which showed ripe scholarship.

The examinations are a combination of oral and written work. There are five examination districts, and the time given to each district is three days. Just after the close of examinations, great numbers of would be teachers come forward with certificates from other counties, or an old certificate granted some five or six years ago, by the county superintendent of this county, and ask to have them duplicated or extended. To duplicate a certificate, I have no right, and a third grade certificate, which is one year after date, has reached its greatest extent, and I will not try to extend it further, even if I had the power, which I have not.

But there is still another class of these after-thinking and afterseeking applicants, who ask an oral examination. They generally make their appearance on Saturday afternoon, at near four o'clock, and state that they have a school engaged, which is to begin the following Monday morning. They virtually ask for a certificate without examination. To this class, I state, that in order to obtain a certificate, they must do just the same kind, quantity and quality of work that others have, no more and no less; and if they can do the work in three hours, which the regular teachers required three

days to do, all well, otherwise not so well. It seems to me that, to a greater or less extent, county superintendents are responsible for those irregularities, and the only way to break up this shirking skulking band, is to treat them to the very thing they aim to avoid — thorough examination.

Taken as a whole, our teachers are an earnest, ambitious, faithful, hard working, patient and persevering class, and I see no reason for discouragement. Only time is needed to reach an excellent standard, and to prove that the work of education in our common schools is not only the foundation, but the preservation of our republic.

VERNON COUNTY.

O. B. WYMAN, SUPERINTENDENT.

SCHOOL ATTENDANCE.

Teachers' term reports show a larger attendance of pupils at school than during any previous year since these reports have been made. Still the reports show that nearly a fourth of the pupils of the county have not attended the public schools any part of the last year. The only means we recommend to cure the defects of irregular and non-attendance, is to raise the standard of school work to its proper sphere of training children to become intelligent, industrious, and law abiding men and women. We find the better attendance in those districts that employ well qualified teachers, and consequently support the more profitable schools. As a rule, the attendance of pupils increases in a direct ratio with the efficiency of the school.

BUILDING AND REPAIRS.

The buildings that have been erected during the past year, are commodious and well adapted to school purposes. In many sections, the log school house has been replaced by a substantial frame building, well finished and furnished with patent seats and desks, apparatus, etc. The number of really poor school houses

is comparatively few, and we hope that ere long, every district will be supplied with a school building that will be in keeping with the development of the material resources of the county.

Circulars were sent to district boards previous to the annual meetings, calling their attention, among other things, to needed repairs on buildings, and it is with pleasure that we note the many instances where permanent improvements have been made.

TEXT-BOOKS.

A large number of districts have adopted a series of text-books within the past few months, and many have adopted the plan of purchasing directly from the publishers, thereby saving from a third to a half of the usual retail prices. When the advantages of this system of purchasing from publishing houses by the quantity are more thoroughly understood, we think that a large majority will vote a tax to be used for that purpose.

SCHOOL TERMS.

The attention of school officers has been called to the fact that it does not pay any district to maintain school during any part of the months of July and August. The attendance during those months is very small, and teachers as well as scholars, are inclined to give way to that influence which seeks repose rather than earnest, effective work. Many rural districts still adhere to the time honored custom of having two terms a year, one in the middle of the winter, the other during the intense heat of the summer. Schools may profitably be maintained during any part of the year, except in the months above mentioned, and it is hoped that district officers will investigate the matter, and so arrange the spring and summer terms that they will close during the latter part of June, at least before the Fourth of July.

EXAMINATIONS AND INSTITUTES.

Sixteen public examinations have been held, with an entire four second grade, and 167 third grade certificates have been issued, enrollment of 287 applicants for certificates. Three first grade,

making a total of 175 legally qualified teachers in the county. These examinations have been conducted by combining the written with the oral method, and we have dealt with general principles more fully than with technical points. Many questions have been introduced to test the teacher's general knowledge, as well as his knowledge of the branches required to be taught. We have endeavored to use all the means in our power to induce teachers to study, not only the common branches, but the theory of teaching and the philosophy of human development.

We have endeavored, also, to direct their attention to the work that seems to be the more important, and have recommended that more time be given to the elements of the common branches, and less to the advanced classes in higher arithmetic, algebra, and the higher studies. The work of our schools has been systematically arranged, and teachers, with but few exceptions, work by a carefully arranged programme, a copy of which is placed on file in this office. Penmanship is receiving the attention it justly demands in most of our schools, and our scholars are taught to write a legible hand, as well as to extract the cube root of numbers.

In view of the fact that nearly two-thirds of our pupils do not attend public school after they arrive at fifteen years of age, and believing that the "greatest good to the greatest number" is the true policy of school work as well as of governments, we shall continue to urge upon our teachers the necessity of laying the foundation broad and deep upon which the superstructure of the pupil's life, is, day by day, to be constructed, and we shall continue to recommend that considerable time be given to teaching the elements of the common English branches.

Two normal institutes have been held, one at Hillsborough, in April, with an enrollment of fifty, the other at Viroqua, for two weeks, with an enrollment of 126. Hon. W. C. Whitford visited the institute at the former place, and delivered a very interesting and profitable lecture on educational topics. At these institutes, instruction has been given in the approved methods of teaching, and teachers have been taught "how to teach." The benefits derived from institute work, have influenced the teachers of the

county to do better work, and to strive for higher attainments in the teachers' profession. We expect to hold at least two institutes during the coming year.

VISITING SCHOOLS.

One hundred and eighty-four official visits have been made, and we are satisfied that our schools have made fair progress during the past year. At these visits, we have endeavored to commend pupils and teachers for their meritorious work, and have kindly criticised existing defects. We have spent considerable time in conducting class exercises, and have endeavored to support teachers in maintaining thorough discipline. The attention of pupils and teachers has been repeatedly called to the care of school property. desks and defaced walls exert a silent, but potent influence for evil. Public sentiment for the preservation of public property, is low at best, in this free land of ours, as indicated by pencilings and caricatures to be found in public places, from government buildings down to the country school house. But we are glad to note that there is a growing sentiment for the better in the schools of this county, and the too prevalent desire to efface and destroy school property, is being supplanted by the better spirit of true culture, which tends to preserve and protect the same. Much more needs to be done in this direction, and the improvement now commenced, will not be completed until every school building shall be freed from the stains of the rude and uncultivated.

TEACHERS.

The steady improvement and prosperous condition of our schools, are due to the zealous labors and well directed efforts of the earnest, working teachers of the county. And while there are those who hold legal certificates that are not well qualified for the duties of the class room, still a large majority have proved themselves to be thorough and efficient teachers. Districts that desire the services of successful teachers, have now no need of employing those of the poorer class, as competent teachers can readily be engaged at reasonable rates. In appreciation of the services rendered by

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Reports of County Superintendents.

our true teachers, and the valuable work by them accomplished, I feel that a debt of gratitude is justly due by a grateful public, and for their kindness in complying with the suggestions made for advancing school work, I return to them my many thanks.

The too prevalent practice of changing teachers every term, is being discontinued in some districts, but in many others, each succeeding term introduces a new teacher to take charge of the school. Circulars to district clerks this fall, stated that "as a usual practice, it is poor policy to change teachers every term. If you have an incompetent teacher, you will not care to retain him. But if you have employed a teacher during the past year that has proved a successful and worthy worker - one that has labored for the advancement of your scholars and the interest of your school it seems that his or her efforts ought to be appreciated and recognized, by being retained by the board for the coming term or year. By the united efforts and harmonious co-operation of teachers, parents, and school officers, the public school system of this county will prove an enduring monument to our free institutions, and will form a protection against foreign or domestic foes, more formidable than standing armies and munitions of war. We extend our best wishes for the advancement of popular education and the continued success of our public schools."

WALWORTH COUNTY.

FRED. W. ISHAM, SUPERINTENDENT.

In reviewing the school work in this county during the past year, I find much that is gratifying and encouraging. A steady progress is observable in all directions, due to several causes, among which may be mentioned the salutary effect of teachers' institutes and normal school training, greater care in licensing only those teachers who are believed to be thoroughly competent, and more frequent consultation by district boards with the county superintendent in the selection of teachers.

There are 129 public school houses in the county, with accommodations for 7,500 pupils, and requiring 164 teachers; the schools have been attended by 6,641 pupils, and were maintained at an expense of \$54,731.99.

The 252 qualified teachers of the county held certificates as follows: Eleven, state certificates; six, first grade county certificates; fourteen, second grade; 221, third grade; 230 different persons were employed as teachers in the schools of the county during the year; thirty-five per cent. of the teachers in the eleven graded schools, and fifteen per cent. of the county teachers, occupied the same positions as one year previous. No certificates were granted to persons under seventeen years of age.

The annual teachers' institute was held in August, under the direction of Profs. J. Q. Emery and J. M. Rait; Prof. Chas. F. Zimmermann gave instruction in industrial drawing during the first week; about one hundred actual teachers were in attendance, the average age being twenty-three years.

It was the most successful institute, so far as results are concerned, ever held in the county, and was composed of an old and experienced class of teachers, who were already well informed in both the principles and practice work of their calling. No county in the state has more reason than Walworth to be proud of the energy, professional spirit, and devotedness of her teachers.

Three years experience in this office, has confirmed my previous belief that the county superintendent can do his most efficient service for the schools in the matter of teachers' examinations; it is no small task to prepare, from year to year, new and suitable questions for examinations, questions which shall be plain, practical, and comprehensive; then the applicants must be made to realize that every answer will be marked at precisely its face value, and that a certain fixed standard must be reached.

Monthly reports are required, and have been promptly and regularly sent by all the teachers; these reports were not long drawn, embracing seventy-five or a hundred items, but short and easily compiled reports, embracing only items of greatest value. An educational column in the paper published at the county seat, has

proved of considerable service in communicating with the working force, but does not reach all.

At a meeting of the county association in January last, the attention of the teachers was called to the feasibility of a school exhibit at the county fair, a committee drafted a plan which was approved, the agricultural society allowed \$25 to be offered in premiums, and the teachers went to work. One great drawback was the limited time which intervened after the premium list was announced and before the schools closed; in the country, the summer schools being composed largely of small scholars, the work was of necessity, simple and elementary. Specific directions in regard to the prepation of the work, were sent to each teacher by the superintendent: and later on, questions were prepared and sent out for both the graded and country school examinations, these examinations being held on the same day in all the schools; and the work, consisting of maps, drawings, specimens of penmanship, pressed flowers, and written papers in arithmetic, grammar, and civil government, being sent in to the county superintendent's office on the following Saturday, where it was arranged, classified, bound in volumes of uniform size, and labeled. The exhibit was assigned to one of the best places in Floral Hall, and a lady teacher placed in charge.

Prof. Rockwood, of the Normal School at Whitewater, was chairman of the committee which examined the work and awarded the premiums. The exhibit attracted a great deal of attention, and was carefully examined by the visitors at the fair, and as a whole, was very satisfactory and creditable to the schools. A similar exhibit will be prepared during the coming year. Several new school houses have been built in the county this season, and poor school buildings are fast becoming the exception and not the rule of hereabouts. The annual report, which I forwarded to your office some time since, is much more accurate and complete than last year-due largely to the greater care and exertion of the town clerks. world moves on, and in nothing is this more visible than in the matter of providing for the educational wants of the children of the land. In building for the future, let us here as elsewhere, lay the foundations broad and deep, that the structure may be stately and enduring.

WAUPACA COUNTY.

L. L. WRIGHT, SUPERINTNDENT

The general progress of the schools in this county is, in a measure, satisfactory. In most of them, the instruction which has been given is of an excellent character, the discipline good, and there has been a growth of healthy educational sentiment. The schools lack much of perfection or even of that excellence to which I hope and expect they will attain. Certain measures have been inaugurated, during the year, which have aided in producing a better state of affairs than has existed heretofore. There has been a reform in the matter of

TEACHERS' CERTIFICATES.

Some time previous to the examination, a circular was issued from this office, in which it was stated that no "licenses" would be granted, and that no private examinations would be given. These rules, strictly adhered to, have largely increased the excellence of the teaching force of this county. Only enough teachers to fill the schools have been given certificates.

TEXT-BOOKS.

Nearly one-half of the districts of this county purchase their books directly from the publishers. Some sell them to the pupils, others loan them. It is the result of my observation, that the loaning plan is the better. The books have not always been judiciously selected; cheapness has been aimed at rather than quality.

INSTITUTES.

Two institutes have been held during the year. One in the spring, conducted by Prof. Graham, the other in the fall, conducted by the County Superintendent, very largely assisted by the prominent teachers of the county. The attendance at each one was about 100. A great amount of good was accomplished. Under the present condition of affairs, there is nothing productive of so much good to schools as this institute work.

TEACHERS' LIBRARIES.

There are two in the county, containing about fifty volumes each. These supply excellent reading to the teachers at a very slight expense. By paying three dollars, one may have the reading of fifty volumes. We expect to make large additions to the libraries the coming year.

DISTRICT BOARDS.

Many of the district boards have consulted the County Superintendent before engaging teachers. This is well. The Superintendent by visitation becomes better acquainted than any one else, with the excellence of teachers and the needs of schools, and is, therefore, prepared to advise intelligently. The Superintendent ought to be made by law a party to every contract between district and teacher. It seems to be the aim of most district clerks, as well as of the Superintendent, to have the work done in schools of a practical nature — the kind of work needed in every day life by farmers, mechanics, and business men.

RECORDS AND REPORTS.

There has been a conviction, for some time, that the records ordinarily kept in country schools are insufficient. There has been issued from this office a form of record, including general progress of school for each month, the exact amount of work accomplished by each class, the exact amount of work done by each individual of the class, with his standing in monthly examination. It also includes a list of examination questions and the programme of the school. It would seem that this is a record of both teacher and pupil, and will add greatly to the efficiency of succeeding teachers. An abstract of this record is made by the teacher and sent to the County Superintendent at the close of each month, together with other items relating to the work of the school.

From the character of the workers and the excellent spirit manifested, the prospects for the coming year are good.

WAUKESHA COUNTY.

JOHN HOWITT, SUPERINTENDENT.

In addition to the general statistics contained in my annual report, I submit the following items:

SCHOOL HOUSES.

Four new school buildings have been erected during the year, one a frame building of two departments, two of brick, and one of stone; all of which are ornaments to the districts in which they are built, being furnished with the latest school furniture. A number of school buildings have been remodeled and supplied with the best improved furniture, and I hope that the same sentiment may prevail which has arisen during the past year, until all the school districts in the county are supplied with good buildings and school furniture, also with globes, maps, charts, libraries, etc.

TEXT BOOKS.

In my official annual report of last year, I called the attention of district boards to section 53, school code, which makes it the duty of every district board to select and adopt a list of books to be used in each branch of study pursued in the school under their care, and forbids any change of books within the period of three years after adoption; and there has been a large increase in the number of districts making such adoption this year. The number of districts reported as purchasing under the law of 1875, for the years 1877 and 1878, is given in the following table:

Number of districts which have adopted a list of text-	1877.	1878.	Inc.
books	5	52	47
Number of districts which purchase text-books	2	40	38
Number of districts which sell text-books to pupils	0	40	40
Number of districts which loan text-books	2	1	0

A large number of districts have adopted a list of text-books since I received the reports from town clerks, but the text-book problem seems to be solved, and the plan of district purchase is evidently growing in favor. Do not understand me as favoring any

particular series of text-book, though, I have my preference, and am willing to express that preference to district boards when asked. In certain districts, I do not think that they adopted the best books published at the present time, but I recommend that some uniform series of text-books be adopted in each district, as thereby the frequent changes which are made to the detriment of the schools, will be prevented, at least for the specified time. I do not think the success of a school depends so much, however, on the series of text-books used, as it does on the live, energetic, and skillful teacher.

HIGH SCHOOL.

Pewaukee high school is the only one in the county, organized under the state law for high schools. The whole number of pupils registered is 101, average 43; teachers employed 1; number of terms, 2; number of weeks taught, 32.

TEACHERS.

According to the returns made, the number of teachers required in all the schools is 143—five more than last year, and the number actually employed some part of the year was 208. We have to issue some limited certificates, (as quite a number receiving certificates do not intend to teach, but simply to test their knowledge of the subjects) to supply the demands of the schools.

By referring to previous reports, I notice that the change of teachers is not so frequent as it used to be, especially in the better schools; and I have recommended where districts have teachers that are doing good, systematic, and thorough work, not to make any changes, if their services can be secured for a longer period. The frequent change of teachers, I think, is a great detriment to our common school system, as well as irregularity in attendance by the pupils.

COMPULSORY LAW.

Notwithstanding the opposition to compulsory education, I would like to see the legislature pass some law that would compel those parents who neglect the proper education of their children, to do their duty by them, as I think it but just for the state to require every child that is capable, to be educated at least in the common branches.

PRIVATE SCHOOLS.

The returns or estimates of children attending private schools, are more complete than usual, and, I think, approximate to accuracy.

LIBRARIES, ETC.

I have recommended an increase of libraries in the districts throughout the county; also of globes, maps, charts, etc. The necessity of the above is so evident to the careful observer, that it needs no comment, and I would here state that the majority of the districts have shown a commendable interest in supplying these essentials, but still there is a great chance for improvement.

WEBSTER'S DICTIONARY.

During the past year, a large number of the districts have been resupplied with Webster's Revised Dictionary, and it is hoped that during the coming year, all the district unsupplied will avail themselves of the opportunities given by the state for procuring the same.

TOWN CLERKS' REPORTS.

Town clerks' reports, I think, approximate nearer to accuracy than usual, and I trust that no imperfect reports will be made by district clerks to town clerks the coming year, and then our statistics will be correct in every particular.

INSTITUTE - NORMAL SCHOOLS.

A very successful and unprecedently large institute was held in the month of April, conducted by Prof. Salisbury. He made the session very pleasant, interesting, and profitable to the teachers of the county. The number of working members enrolled was 145. Some of the more prominent educators of the state were present, of whom I may mention, Hon. W. C. Whitford, Superintendent of Public Instruction, Hon. W. H. Chandler, Regent of State Normal Schools, and Prof. Rockwood, of the Whitewater Normal School. All the prominent educators of the county were present, of whom I will mention only a few, viz: Profs. North, Rankin, Miller, Hubbard, Radcliffe, and Cory. A very interesting and instructive lecture was delivered by Hon. W. C. Whitford, Superintendent of Pub-

lic Instruction, before the institute and the citizens of Waukesha. We intend to hold an institute the coming spring, for we find the instruction given seems to create new zeal and energy in the teachers for their work, and, I think, it is carried with profit into their schools.

A larger number than usual have been nominated by the superintendent to the different Normal Schools of the State, and a large number of our teachers, teaching at the present time, have, to some extent, been educated in them.

VISITATIONS, ETC.

All the schools in the county have been visited twice, and some three times during the past year. Number of different visits made, 273; thirty-three more than last year. I try to make my visits unexpected to both teachers and pupils, observing the routine of the school room, classifications, recitations, etc., and sometimes examining classes. The register is examined to see if it is kept according to law; the condition of the school building, library, maps, furniture, etc., is ascertained and noted, as well as the teacher's theory, government, and ability to teach. Such suggestions as I think are required for the benefit of the school, are made to the pupils and teachers.

I have now started to visit the schools of the county for the winter term, and will continue my work until all are visited. You will readily see that to visit 143 schools in one winter term, the visits cannot be long; not so long as we would like, to ascertain the ability of the teachers as well as the true condition of the school.

CONCLUSION.

Notwithstanding the general depression of business, the people of Waukesha county have kept their eye, as they have always done in the past, steadily on their educational interest, knowing that the future welfare of the state and nation depends on the intelligence of the citizens. I would not say any thing boastingly, but a careful comparison of the condition of our schools at the present time, with those of the past, will show a gradual improvement in efficiency and usefulness, as a greater interest is manifested in the cause of education.

WAUSHARA COUNTY.

J. H. TOBIN, SUPERINTENDENT.

The general condition of the public schools in this county is good; the interest taken in them by the people is undiminished; numerous new and renovated school houses, and the very large attendance of the teachers at the institutes, are positive proofs of this.

This year the total expenditure for school purposes was \$21,595.15. Of this amount \$2,302.70 was expended for building and repairing, and \$812.34 for apparatus and libraries. Six new school houses have been erected; two in Rose, and one each in Marion, Hancock, Bloomfield, and Warren. The one at Austin was built at a cost of \$598. It is a neat frame building, 26 by 40, in a pleasant location, and is a monument to the enterprise and public spirit of the people in the district.

The school house at Wild Rose was erected at a cost of \$492.05, which includes cost of site, etc. It has patent desks, and is also a credit to the people of the district. No special reports have been received concerning the school houses, though I believe they are adequate to the present needs of the districts.

Since January 1st, I have had 280 applicants for examination. Of this number, 134 received certificates, one of the first grade, fourteen of the second, and one hundred and nineteen of the third. At the present time there are one hundred and forty-three persons holding certificates in this county, and ninety-eight is the number required to teach the schools. During the year, 171 different teachers were employed. All but four of the schools have been visited by me, and the number of different visits was 179. These visits have generally occupied a half day each. Owing to the mildness of the winter and spring, several districts continued their schools, with short vacations, thus closing before the "heated term."

Teachers' Institutes of six weeks each, held at Poysippi and Plainfield, were largely attended, and good interest preserved throughout the sessions. The lecture and visit by Hon. W. H. Chandler did

very much to encourage those present in the work. These institutes were under the very excellent management of Prof. Graham, whose thorough, earnest work will long be remembered with pleasure by those who were in attendance. Mr. T. S. Chipman assisted in the spring, Mr. D. W. Dunlap in the fall. Allow me to add that it is the earnest wish of every working teacher in this county that Prof. Graham be appointed here again, at the pleasure of your Institute committee.

The course of study sanctioned by your committee on institutes, for our ungraded district schools, is, I think, a move in the right direction. Such a system or plan has long been needed, and it is my intention to prepare for its adoption in the schools of this county at no distant day, as I firmly believe it will insure a more definite work with a more definite object to be reached.

EXTRACT FROM THE STATISTICAL REPORT.

Intitute 1 1 to 11	
Number of children of school age in county	4,921
Number of days school has been taught by qualified teachers	18,658
Number of school houses	93
Number of teachers required	98
Number of applicants for examination since January 1	280
Number of certificates granted	134
Number of different teachers employed	171
Average wages paid male teachers per month	\$ 30 05
Average wages paid female teachers per month	\$19 57
Number of days teachers' institutes held	57
Number enrolled at teachers' institutes	227
Nominations to Normal schools	3
Official visits by me to schools	179

WOOD COUNTY.

GEO. L. WILLIAMS, SUPERINTENDENT.

As a whole, the schools of this county are in a prosperous condition, being supported by a general sentiment of the people healthful and growing. As shown by the financial part of my report, \$3,362.45 have been expended for building and repairing, an increase

of \$1,820.30 over last year. Four new school houses have been completed, and one to cost about \$1,000 is now in process of construction. If the financial statements of last year and this are correct, \$7,787.67 more has been expended for all school purposes for the year just closed than for the preceding one. The attendance of pupils also shows a good advance, being from 865 to 1,291, a gain of 426, while the actual increase of school children in the county is but 265. Hence, I am of the opinion that educational matters in this county are in a fairly thriving condition.

The soil in this section is varied, being in the south and southeast parts of the county generally poor, yielding but scant returns · for the farmer's labor, while in the center and north and northwest portions the soil is rich, and the returns of labor bountiful. That these variations should exert an influence upon the schools is not strange, and while in one district a tax of five to seven per cent. is required to meet simply the ordinary expenses of a five months' school, with a teacher at \$20 per month, another district maintains an eight months' school, with a teacher at \$30 per month, with a tax of less than one per cent. Such contrasts are not rare in this county, and frequently is it true that the number of children in the district maintaining but five months' school with so heavy a tax, far exceed those of the district having eight months' school with so light a tax. Can any farther argument be needed than the bare statement of the facts, to prove that some more uniform method of supporting our public schools is demanded in the interest of justice and a due regard for the education of the rising generation? A uniform state tax, or the establishment of a fund for the assistance of the poorer districts in the state, is certainly needed.

A few districts in the county are badly in debt, owing, in some instances, to unwarranted ventures, and in others to dishonest officials and "straw-bondsmen." Hence, some districts report wages paid female teachers as \$35 and \$40 a month, when, in fact, teachers are obliged to take orders for pay and keep them for a year or two, or sell at a sacrifice of twenty to thirty per cent.

Thirty-seven districts are reported in the county, an increase of three over last year; of these, thirty-six have reported, and but

two of the whole number have had not less than five months school taught by a qualified teacher. One district had no school during the past year, and one had a school five months or upwards taught by an unqualified teacher. The officers of this district are noted for their disregard of law and right, and seem determined to maintain their unenviable position in spite of my earnest request and the sentiment of a better, but smaller class of the district in which they live, and this, too, whether the one hundred children are properly taught or not taught at all. It would seem that some punishment for the fault of its officers, other than the depriving of the whole district of its share of the appropriation, should be provided for such cases.

All but ten districts have adopted a list of text-books, and twenty-five have made district purchases of books. The only cause for regret in this connection is, that some unscrupulous parties have taken advantage of the ignorance of some of the school boards, and have succeeded in placing a set of almost worthless books in the hands of the children to remain three years and upwards.

The two Institutes held during the year, with Prof. J. B. Thayer as conductor, have resulted in great good to the teachers of the county. The attendance has been good, including nearly every teacher in active work. The examinations this fall show a marked improvement in the status of those examined over last spring. Few certificates for longer time than six months have been issued, and those to only such as are known to have been eminently successful in teaching, and attain an average-standing of $7\frac{1}{2}$ on examination. Under this plan teachers are stimulated constantly, rather than periodically, just before an examination. Onward and upward is our aim.

CLARK COUNTY.

JOHN S. DORE, SUPERINTENDENT.

TEXT-BOOKS.

The whole number of districts reported as having adopted text-books	45
The whole number of districts reported as having purchased text books.	42
The number of districts which loan books to the pupils	33
The number of districts which sell books to pupils	9
The number of districts in which no series of books has been adopted, as	
reported, is	22

The law requiring district boards to adopt a series of text-books for each school district of this state, has been disregarded in this county, as shown by the above figures, and to the positive injury of the school in each district where school officers have thus neglected this important duty. No vote of the electors of a school district is necessary, but the district board should meet together and adopt some regular series of text-books, make a record of their action, and furnish their teacher with a list of the books thus adopted. The system of district purchase is growing in popular favor, and I hope soon each school district in Clark county will purchase all the books required in the schools. By this system of district purchase, direct from the publishers or their wholesale agents in Chicago, at least forty per cent. of the cost is saved to the people, and the schools are promptly and fully supplied with the books needed. There is also another great saving in having the books used until worn out, instead of being thrown aside but slightly or partially While it is the duty of the board to adopt a uniform series of text-books in each district, they have no authority to make the purchase of a supply of text-books without a vote of the people of the district, either at an annual meeting or at a special meeting called for that purpose. There are some districts in this county where at least one-half of the value of the school the past summer has been lost to the people, for lack of a proper supply of a uniform series of text-books. In my judgment, it is better, if it cannot be done without, to shorten the terms of school till enough shall be saved to supply all the books needed. I have no special

interest in any particular series of books, and as all of the leading publishers offer about the same term to districts, it is of more importance that a uniformity be secured and a sufficient supply procured, than what particular books shall be adopted. All of our leading publishing houses are sending out good books, and district officers will not go far astray in dealing with any of the well known firms direct. I have sent the names of all school district clerks to the several publishing houses, and catalogues giving prices and terms have been sent by each to all districts, so without trouble or expense, all may know just what they can do with each firm. It is as well for district officers, as for individuals, to be cautious in dealing with unknown traveling agents.

RECEIPTS AND EXPENDITURES.

The reports of town clerks are very imperfect and unsatisfactory, as regards financial statistics, showing clearly that school district officers do not keep in a proper manner their accounts with their several town treasurers; and I may add, it is also more than likely that town treasurers do not always keep their accounts carefully, and give to each school district treasurer, with any school money they pay him, a clear and definite statement in writing of the source from whence the money so paid over was received, whether it is school district tax, county, or state school money. The duty of making such statement ought not to be neglected by either the county treasurer, or any town treasurer; whenever any school money is paid over by either of these officers, he should state definitely and correctly the account upon which such money is paid.

The actual expense to the tax-payers of Clark county for each of the 1869 pupils who have attended school, is \$13.48. If the 1,205 school children who have not attended school during the past school year, could have received their share of the benefits of this large expenditure, the cost per scholar would be reduced to \$8.22. By the absence of these 1,205 school children from the schools of this county, there is an absolute loss in money of \$9,805.10; and if to this large sum now lost, we add the losses from the irregular attendance of those who are reported as having attended school,

which I find by reference to my Teachers' Monthly Reports to be an average of one-fourth, equal to \$3,861.60, this makes an absolute loss of \$13,776.72; or more than one-half of all the money expended for school purposes is wasted, because of the non-attendance and irregular attendance of pupils at school. I say wasted, because while provision is thus made for all the children of the county to attend school, these advantages and opportunities are not half improved.

To secure the prompt and regular attendance of all these children at school, and thus save and utilize the whole of this vast sum of money so freely contributed by the people for the education of all the children, has been my constant study since I came into office. And this is the one question connected with our common schools, that to-day, demands the earnest work as well as thought, not only of the superintendent, but of all school officers, and in fact of every intelligent citizen of the county. Whether so large a share of our children shall grow up to manhood and womanhood without that education and discipline of mind that shall fit them for usefulness in life, as well as for intelligent citizenship, is an important question that school officers and teachers as well as the fathers and mothers, should meet and fairly answer. Is it not their duty, as well as mine, as public officers or citizens, so far as they direct, control, or influence the educational work of the county, to see that it is well performed, and that there is no lack of interest on their part, and no failure to provide in a proper way for the efficient performance of the work their official action so largely influences or controls? This vast sum of \$50,000 invested in school property, and the \$25,000 annually expended in supporting the schools of Clark county, shows in a way that cannot be misunderstood how highly the people prize the education of their chil-

In my office, I have begun a thorough and systematic work, the the object of which is to reach out to those homes where are found children absent from school. In the teachers' examinations, this subject has been pressed upon them in many ways, and also definite answers have been required of each as to what he or she would do in this direction, if licensed to teach. In some instances, this

subject has been treated lightly, even by old teachers, and they are teachers no longer. I have also required a monthly report from the teachers, one object of which is to give them a strong desire for a large and regular attendance. The teacher's report of school engagement places in my possession the facts and information necessary that I may know when each school is in session, the names and post-office address of school officers and teachers, as also the wages per month and length of term, which will aid me next year in obtaining a correct and, complete account of the amount expended, for teachers' wages. The examination of teachers has been made very thorough, requiring of each applicant two full days of constant and vigorous work.

I have held twelve public examinations in different parts of the county, attended by 177 applicants, and have granted ninety-three certificates. An evening session was held at the examinations at Colby and Greenwood, and I held, also, a special examination later. To these examinations I have given, perhaps, a larger share of my time than many would think necessary. The preparation of questions of a plain and practical nature, that shall fairly and yet thoroughly test the teacher's knowledge, and the examination and marking of their answers, being over 4,500 pages of legal-cap paper, cannot be done properly in a very speedy manner. These answers all require careful reading and close marking, of which I have made a permanent record, showing the standing of each applicant in each and all of the branches required by law.

The correspondence of this office is quite extensive, and no light tax upon my mind. As a rule, I receive two or three letters each day requiring an answer, and often that answer necessitates an examination of the statute and careful thought, to make it satisfactory to myself and of use to those for whose benefit it is written. This correspondence has all been promptly and carefully answered.

An institute of two weeks has been held during the past year, attended by fifty-five persons, who either are now or expect soon to become teachers. The teachers have gone out to their work, after attending this institute, with new life and ambition; and I feel sure

their work in the school room will show good results from their two weeks' training and instruction at the institute.

As to the future, I have only to say it is my intention to keep the standard of teachers' qualifications, in all respects, fully up to what I have required in the past, and to raise the standard of scholarship slightly at each examination; also, to visit during the year, at least once, each school in the county.

As to reports, I propose to continue the use of those I have begun, and for some time I have been to work upon another blank, which I intend to use, when arranged to suit me. This will show more definitely the actual condition of each school, and exhibit the progress made during each term. In preparation of this blank, I am aided by some of the members of the Board of Regents of our State Normal Schools, and I think it will be a great aid in the direction of attendance and thoroughness of work in all of the schools.

I propose, during the coming year, to hold an institute at Colby and another at Greenwood, of one week each. These will probably be held just before the spring examinations. Another of at least two weeks' duration, will be held at Neillsville next fall. I regard the work of the institute very useful, especially to the younger teachers of Clark county. The good attendance at our institute this fall, and the interest manifested till its close, with the promptness and willingness with which each and every one performed the work assigned him, induce me to give more time to institutes the coming year, than has ever been the custom in our county.

It is, perhaps, fair for me to make the statement that when I came into office, I found much of the work in our largest schools had been done in a very superficial and imperfect manner. I at once began a vigorous attack upon that system of conducting our schools, and continued the work of reformation, until to-day; and now those schools are models of thoroughness, and are doing, in a satisfactory manner, the solid work desired.

In my associations with the people as I have visited different parts of the county, I have been most kindly treated everywhere; and only regret that my time for this, the most pleasing and agreeable, part of the work of my office, has been so limited.

MANITOWOC COUNTY.

W. A. WALKER, SUPERINTENDENT.

The reports of the town and city clerks have, as a general thing, been correct in form and matter. I believe, however, that those reports are still too long and complicated, and that much saving in time and lab or can be made by their greater curtailment without consequent loss to their value educationally.

During the current year 148 licenses were granted, three of the first grade, eight of the second grade, and 137 of the third grade. The preceding year 135 persons received licenses, showing an increase in the number licensed the present year. The standard required for certificates has been raised somewhat during the year. the teachers being stimulated to greater, and generally, successful labor. It seems to me that a superintendent can in no way benefit his county more than by giving school officers an opportunity to select teachers from the best material at command. The indiscriminate granting of licenses not only directly and greatly injures schools, but represses that healthy desire for better scholarship among teachers that can be so easily and successfully cultivated. If the ignorant as well as the competent be rewarded, the able and ambitious teachers are not stimulated to work while the indolent repose confidently and trustfully in the betrayal of the public by its sworn conservators.

All the schools of the county were visited during the year, the majority of them twice. In the visitation particular attention has been paid to methods of instruction and the classification of the scholars. Teachers' meetings have aided greatly in these directions.

A large number of those heretofore engaged in teaching in the county have engaged in other pursuits the present year, the teaching force of the county being thereby reduced below the number required to fill the schools. Various causes have contributed to this state of affairs, but the chief one in all probability is the reduction of wages in some portions of the county. This reduction

has not, however, been as great as at first appeared. Better times will, in all probability, remedy this matter, and the better class of teachers will be induced to continue in the business.

The report from this county does not fairly indicate the number of districts that buy text-books directly from publishers and sell to pupils. The plan is meeting with general favor, giving satisfaction in every case tried. I still believe, however, that if some plan can be introduced by which books can be secured through the regular avenues of trade at something near the price paid by districts to publishers, it would be in many ways preferable.

The era of better school houses seems to be dawning. Several good buildings have been built during the past year, and projects are on foot looking to the construction of several more during the coming year. The plans and arrangements of some of these new buildings are worthy of imitation, while others exhibit a want of adaptability to the purposes of school work greatly out of harmony with their cost. A lack of apparatus suitable to the proper carrying on of school work, exists in the majority of the schools. District boards do not and cannot be led to see this want, and are very slow to avail themselves of opportunities of securing needed articles.

The Institute, under the leadership of Mr. Graham, was well attended, the majority of those registered being males. The good effects of the work have been seen in the schools of those teachers who were in attendance.

REPORTS OF CITY SUPERINTENDENTS.

BELOIT.

T. L. WRIGHT, SUPERINTENDENT.

We have the impression that the public schools of Beloit have attained to a degree of prosperity and excellence more than ordirary. The causes contributing to this result, to us are quite apparent. In the first place, our citizens are united and harmonious in their appreciation of the value of this institution.

In the next place, the organization of our school board is not made dependent, in any respect, on any other corporation or power whatever. The amount of funds deemed requisite for all purposes connected with sustaining the schools, is determined by vote of this board, and the money is collected by the city treasurer, together with the other taxes, and then paid over to the treasurer of the school board.

In the third place, the same degree of liberal and confiding treatment, which the people extend to the board, is by the board ex tended to the teachers. They are not cramped, manacled, and shorn of all reasonable independence, as intelligent ladies and gentlemen, and as competent teachers. It is not supposed that because they become teachers, they have, therefore, relinquished all self respect, all common sense, and their discretion and sound judgment. Hence, they are left essentially to the exercise of their own good sense in their methods of discipline, management, and teaching We believe this feature of our policy indispensable to the greatest success. No teacher, if possessed of the proper tact to become a teacher, can work so well on the plan of another as on his own.

In the next place, our plan of examination of pupils for advancement, we think to be the only reasonable and just one. The re-

sult is not allowed to depend on one final annual examination. The monthly reports during the year are to be taken into the account, to modify, if need be, the yearly examination. Nor then is the result deemed complete and satisfactory, until the teacher's private judgment, relative to qualification in each case, is combined with the whole.

Our system of graduation from the high school also works to its advantage, we think.

We have three courses of study: "The classical," "The general," which is partially classical, and "The English and scientific," four years being required for each course. Pupils completing either are entitled to the diploma of graduation in accordance with the course taken. The largest number receiving diplomas at any one graduating exercise, has been eighteen; the smallest number five; but only one year so small a number as the latter.

But the most important of all the means used, are the habitual, earnest endeavors of the principal and teachers, both by precept and example, to impress the minds of the pupils with a true sense of the proprieties of life, and to stimulate their efforts to make themselves respected, honored, and useful in the world. These influences, in their silent way, work with power to mold young minds to true excellence of character, and thus to make well behaved, industrious children and youth. Thus they advance with all due rapidity in their various branches of study, as the means to a noble end, while governed, unconsciously perhaps, by a higher respect for moral qualities than for any acquisitions of mere learning.

We believe in a more general, earnest habit on the part of teachers in this direction. We fear many are not aware of their own power in this matter. They seem to forget that youth, and even children, as well as grown people, are governed by popular sentiment. The true teacher can so create and control this sentiment as greatly to abridge his own labors in the management and instruction of his pupils.

FORT HOWARD.

W. H. BARTRAN, SUPERINTENDENT.

I herewith transmit my second annual report, and take pleasure in stating that the schools in this city are in a very prosperous con-The statistics in my report are, in many respects, quite satisfactory. The per cent. of attendance upon the number enrolled, is indicated by ninety-two, an attendance never before equalled in this city.

During the past two years, an earnest effort has been made in this city to establish a more complete grading of schools, and to bring them to a higher standing of thoroughness and efficiency. Our board has brought a strong influence to bear upon teachers and pupils, and upon the parents themselves. They have adopted rules and regulations more specific and direct than ever existed before. The results of this action are seen in the larger attendance and the greater regularity and promptness of pupils, and the greater unanimity of feeling and effort on the part of the teachers. The attitude of the mass of people towards the schools, is friendly; and their friendliness has resulted, from the persistence of the authorities, in making the schools essentially places for honest and earnest study of the elements of citizenship.

We have kept very free from sectarianism, and all other elements which so often produce discord and ill feeling. Protestant and Catholic, Jew and enlightened Heathen, alike co-operate with us in building up and maintaining a thorough school system.

A large majority of our teachers are retained from year to year. They are earnest, faithful, and experienced, and are making teaching a profession. We hold teachers' meetings semi-monthly, and find them productive of much good. Recitations, methods of instruction, school government, and discipline, are the principal subjects considered at our meetings, thus securing harmony and uniformity in our school work.

We come now to speak of parents, whose power and influence do so much to secure or prevent success in our public schools. parents will properly command their children at home, hold them

in due subjection to parental authority, they will be easily governed at school. If they send them to school seasonably every day, from the beginning to the close of the term, and work togther with the teacher in all respects, success is sure to follow. Our school registers contain very many marks for absence and tardiness; and it is believed that they would be much less numerous, if parents and guardians were not negligent in the performance of their most sacred duty. Irregular attendance is the great bane of our public schools.

Any close observer will perceive that by placing a child under daily instruction and discipline in the school room, to be governed and drilled, and plied with good motives, and taught self control, punished for wrong doing, and rewarded for good behavior, a moral force of unmeasured extent is constantly brought to bear. Thus the school room becomes a vast insurance office to the state, to guarantee that its inmates shall be found, in the coming years, among the sober and industrious ranks of the community, and not in her alms-houses, jails, and state prisons.

To sustain our public schools, therefore, with a liberal hand, and to watch over them with an ever wakeful vigilance, is to subserve most surely the future well-being of the state. Our free institutions are safe, and our country is impregnable, only so long as the people shall be characterized by a broad intelligence and a high christian morality.

GRAND RAPIDS.

THOS. W. CHITTENDEN, SUPERINTENDENT.

I submit herewith the annual report required by law of the condition of the schools of this city, together with the census of the number of persons of school age resident here.

Owing to the depression of business of all kinds, that has prevailed throughout the country for so long a time, the tax levied for school purposes in this city has been only partially collected for some years, and owing to this and other causes the district, ever since its organization in 1874, has been unable to pay the salaries

of the teachers as they became due; thus a large residue of indebtedness on this account has been carried over from year to year, with apparently little prospect of relief. In June 1877, the board of education resolved to recommend the levy of a tax sufficient in amount, if collected in full, to carry on the schools for the usual term of thirty-six weeks; but resolved, furthermore, that the schools should be closed whenever the funds in the treasury should be exhausted, and to insert a clause to that effect in all contracts made with the teachers for the term of 1877–1878, and ordered the publication of these resolutions in the local newspapers.

In February, 1878, the treasurer reported to the board that the funds in his hands were exhausted, and moved that the schools be at once closed in accordance with the terms of the above mentioned resolution. Inasmuch as a school month had ended some little time before, and as it seemed rather unjust to all concerned to close the term abruptly and without any notice whatever being given, it was decided to carry on the schools for the remainder of the current month, and to give notice to all concerned that they would be closed at the end of that time.

This was accordingly done, and our schools were closed from the 15th of March to the 2d of September, a period of nearly six calendar months. It is needless to say that the action of the board provoked much unfavorable comment, at the time; but it seemed to be in accordance with the judgment of the tax-payers of the district, as shown by their votes at the annual school meeting, which was held but a few days after the closing of the schools, when the feeling in regard to the matter was probably at its greatest height; two out of three of the members of the old board were then reelected, and the third doubtless would have been, had he been eligible as a candidate.

A similar line of conduct has been determined upon for the present year, and all contracts with teachers have been made under conditions in consonance therewith. The district is however so much more favorably situated financially, that it is earnestly hoped that the schools can be carried on for the full term of nine months, and that there will be in future no necessity whatever for closing them except for the usual vacations.

The census of persons of school age resident in this city, shows a slight decrease from the number shown by that taken in 1877. This falling off is due, it is believed, partly to the removal of some families beyond the city limits, and partly to the increased age of individuals, which removes their names from the list.

We have in this city one of the largest and most costly schoolbuildings in central Wisconsin. It stands upon a low bluff near the center of the city, and forms a land mark which can be seen from all directions for a long distance around. It is three stories in height, is built of sandstone quarred in the vicinity, and contains accomodation for about six hundred pupils, which it is thought will be sufficient for several years to come. At present, six out of the eight school rooms which it contains, are occupied; the number of pupils in each ranging from seventy-five in the primary department, down to about thirty-five in the principal's room. When the debt incurred in its erection shall have been liquidated, and all the modern improvements for which the building has been planned placed therein, it is earnestly hoped that educational apparatus fully up to the requirement of the times will be provided, and that our school, of which we feel justly proud even now, will take a rank second to none in the state.

Some steps have already been taken looking toward the formation of cabinets of natural history, ect., and efforts will be made to render these as complete as possible. A greatly needed thing, is a good library of reference, embracing one or two good cyclopædias, works on history, natural science, biography, etc., all of which should be, not school text-books embodying the state of knowledge as it was ten or even five years ago, but advanced works up with the present time, from which teachers can draw the information required to answer the thousand and one questions daily asked by a class of bright, intelligent boys and girls. The writer has been present at many examinations for teachers' certificates, both in this state and elsewhere, has conducted not a few, and has looked over very many sets of answers to written and printed lists of questions, and it has been his almost invariable experience to find teachers far behind the times in knowledge of matters, a very little removed from their every day work. Not long since, in the course of conversation with

one of the best educators in Wisconsin, a gentleman connected with one of our normal schools, the writer proposed a series of five questions, not, it is true, directly connected with school work, but having a very close relation thereto — questions intended to test a teacher's knowledge of certain physiological points, and asked the gentleman above mentioned, what proportion of teachers throughout the state could, in his opinion, give approximately correct answers to them? The answer was, "About one per cent., possibly; certainly not more."

The salaries paid to teachers in this state are not sufficiently large to permit of the purchase of books to any great extent, especially books such as those referred to above, which, from their very nature, are, and always must be costly; and yet knowledge of the subjects of which they treat is imperatively necessary to the real, "live" teacher. Should not then the district provide the means by which it can be obtained? The added taxation needed to do so would be but a trifle annually, and the good accomplished by means of it almost incelculable. One hundred dollars judiciously laid out at the start, invested in the works of acknowledged authorities of our own day and generation, would give a rich return in the course of a very few years, and the same sum expended in the same manner each succeeding year, would yield a more substantial interest, than an equal amount invested in any other conceivable way. sincerely hope that our city will soon be in a position to make such an outlay, feeling sure that once begun, it will never thereafter be discontinued or grudgingly made.

In gathering cabinets of various kinds, no outlay, whatever, is necessary for a comparatively long time; every intelligent boy or girl will gladly assist in forming such collections, the only teaching needed being such as every teacher should be competent to give; and here again, every teacher who should undertake such a work, would be greatly aided by having a few good volumes to which to refer.

I look forward to the time when a school without its cabinets and library of reference, will be as rare as is a school without a blackboard at the present day; the time when the system of common schools founded by the wise and far seeing policy of our early

legislators, shall have reached a point of development as far in advance of its position to-day, as the state university buildings are in advance of the log school house.

In this city there are yet standing two buildings erected in former days for school purposes, one a small one story structure of the class found in scattered neighborhoods all over the state, the other, a more pretentious building, erected about a dozen years ago, and then expected to afford ample accommodation for all the students of this place for a far longer time than that. By the side of this last, rises the imposing edifice described above, five of whose rooms were filled on the first day of its opening, and six at the beginning of the second year.

In the days of the primitive school house, the usual elementary English branches were taught by a single teacher. To-day, we point with pride to an elaborate course of instruction free to all, which may be begun with the alphabet, and running through a term of twelve years, can send the student from its doors fitted to enter the state university, if he so desire, or with a practical education to begin the struggle with the world; and to a corps of teachers equal on the whole to any in the state, and to some of whom it would be difficult indeed to find superiors.

JANESVILLE.

R. W. BURTON, SUPERINTENDENT.

Janesville has a population of about eleven thousand. Of that number the school census reports 3,610 children, between the ages of four and twenty years, 1,714 males, and 1,896 females. A little more than forty-six per cent. of the school population, or 1,665 children, are enrolled in our public schools. Speaking approximately, the number in local church and private schools will reach 350. Thus about forty-five per cent. of the children of school age in our city, are now non-attendants. The causes operating to reduce the attendance in our public schools, are principally the private schools, and the local manufacturing interests. The latter

seem to beget in our boys a business longing; with whom, before they have advanced very far in the high school grades, or even, in many cases, before the grammar course is completed, the struggle between the business inclination and the desire for an education becomes an unequal contest, resulting too frequently in favor of the former. The same is true of the girls to a large extent, as much of the work done in the box, shoe, and cotton factories is performed by female operatives. The wages which these positions command, prove strong inducements for parents to deny their children even an ordinary amount of school training.

The percentage of attendance on number enrolled is 76.9, while upon number of members, it is 94. The percentage of prompt attendance for the year, is 99.7.

Our corps of teachers consists of thirty-five members, all of whom, save four, are our own citizens. Fifteen are graduates of the high school, while twenty-eight have secured the education they possess in the city schools. Our experience and observation have been such as to create with us a marked preference for persons that have been educated in our own, or some other good system of graded schools, to fill vacancies in our teaching force. dividuals of native ability, both for imparting instruction and school management, are more rare than is commonly admitted, most of the teaching and managing tact being the product of study and training. As we confidently look for manly and womanly growth from favorable home surroundings, so with equal assurance may we expect that those educated upon good models will evince a greater aptness to teach, and versatility to manage, than persons who have been less favorably situated for school privileges. The dependent scholar, from the nature of his surroundings, absorbs much truth; so the graded school pupil, parent of the teacher, must, from like causes, become comparatively rich in resources, both for class work and general management. Normal school training is, doubtless, excellent; but a normal school finish cannot compensate for the lack of graded school drill. Let the former be preceded by the latter, and the compound, we may reasonably expect, will be a metal of the right ring.

For industry, energy, intelligence, honesty of purpose, and good

management, our teachers will not suffer by comparison with any corps of equal magnitude in the state. True, a few of them are novices; but their untiring industry in the work of preparation, is such as largely to offset their inexperience. In cases where our graduates aspire to teach, their aptness is tested by using them as substitutes, when the regular teacher is disabled. They are also encouraged to attend the meetings of teachers. On these occasions, our teachers' class is often worked in sections, the primary teachers forming one section, teachers of the higher departments The former is placed in charge of one or two of our most skillful primary instructors, who arrange and conduct the exercises in accordance with prescribed methods. At these meetings, class and school management receive due attention. semblies of teachers, though comparatively few during the term, do much to quicken the aptitude of the younger in the service, and to improve the methods of all.

Through the liberality of our school board, valuable additions to school apparatus have been made during the year. A set of Monteith's outline maps for each building has been furnished, and also ten copies of Nicodemus & Conover's state map. An admirable school paper, intended to supplement the reader in the lower-grades, has been published by the board, and is now in use. For the use of the high schools, a geological cabinet of 125 specimens has been purchased. These aids, though few in comparison with our needs, have awakened renewed interest.

During the year, the high school has enrolled 134 pupils. The average age is sixteen years. A class of nine, three boys and six girls, was graduated at the close of the winter term. Of these, one boy has entered West Point Academy, one girl is a member of the State University, and of the balance, three are teachers. Fourteen of the twenty-nine that have left us since 1875, are now teaching successfully.

The modifications of our course of study, mentioned in the last report, have materially quickened the life in our schools. By the change, the work of the year for each department being clearly defined, a more perfect uniformity of action by the schools, increased thoroughness in the various branches of study, and unvarying reg-

ularity of promotion obtain. Our rules provide for promotion by grades at the close of the winter term. However, none whose best interest can be subserved by promotion, are detained for the advance of their class. During the year, 211 individual or term promotions have occurred. By this plan industry is encouraged and rewarded, and wrecks of scholarly ambition in less numbers are found along the way. The course of study below the high school is now so arranged that any pupils withdrawing at the close of the grammar course, may do so with a good common school education. Within these limits, arithmetic and U. S. history are completed, and the elements of grammar mastered. Our high school course proper is covered in four years. From force of circumstances, there are at present five grades in this department. This feature will disappear during the year entered upon, when our grades will correspond to the years in the course. The course of study is as follows: First year, Algebra, Word Analysis, Composition, Physiology, Higher Arithmetic, and Latin. Second year, Higher Arithmetic, Philosophy, Political Economy, Physical Geography, and Latin. Third year, Geometry, Civil Government, State Constitution, Universal History, Chemistry, Botany, and Latin. Fourth year, English Literature, Rhetoric, Mental Philosophy, Geology, Latin, and review of elementary branches. Through the courtesy of our county superintendents the high school classes undergo a thorough examination by these officials before graduation, and when they leave us, they do so with authority to teach any where in their own county. Reports from these gentlemen concerning the work of our students is, to say the least, encouraging.

In the matter of management, our schools move very smoothly. While corporal punishment is not prohibited, it is seldom resorted to. As a rule, parents heartily co-operate with teachers and school authorities, and collisions are rare occurrences.

While all the members of the school board are not "school men," they are eminently practical, and have served so long and favorably as school commissioners as to have acquired sound views upon the public school question. Few school boards equal, and none surpass, the Janesville Board of Education, in the stanch support rendered the teachers serving under them.

LA CROSSE.

C. W. ROBY, SUPERINTENDENT

Our school census shows the number of school children residing in the city, August 31, 1878, to be 3,968, an increase over last year of 348; 2,199 have attended the public schools during the year. This shows an increase in the total attendance over that of last year and of 152.

PER CENT. OF ATTENDANCE.

The percentage of attendance in all the schools for the year was 96.22. This, I think, is the highest we have ever attained, and it will not be an easy task to increase it materially. Several fortunate circumstances have combined to produce this result. Our city has been free from contagious or infectious diseases during most of the year. The weather has been generally good. Teachers have been unusually careful to secure regular attendance, and some additional rules of the board have conduced to this result; but above all, may we attribute it to a favorable sentiment among both pupils and parents. All seem to agree that when a child is once enrolled for a term of school, he should make it a business to attend with regularity, as much as if he were employed to labor in the factory where his daily recompense would be dollars and cents. favorable sentiment is growing, and the strict accountability required of pupils and parents in each and every case of absence, is no longer regarded as a menace at their liberties, but rather a measure for their welfare.

PUNCTUALITY.

Our teachers' reports, show but 226 cases of tardiness, during the last ten months of school. This is 115 cases less than during the previous year, and by far the best showing yet made in the city. It is one case for every seven pupils, if based upon the average attendance, and about one case for every ten pupils enrolled during the year. The importance of prompt attendance at school is now fully recognized, and the general sentiment among the pupils is such as to make it very unpleasant for any of their number who would dare be late without a valid excuse.

ADDITIONAL ACCOMMODATIONS PROVIDED.

Our enrollment had increased from 1,511 in September, to 1,690 in April. In the winter months we were obliged to seek temporary relief by opening a school in the court house, and afterwards another in an engine house. The board of education and common council were convinced that more school accommodations had bebecome a necessity. The high school department, which was located in the second ward building, had become so crowded that much inconvenience was experienced in its work, and it was evident that by another year it would require larger as well as more suitable apartments. Accordingly in my annual report to the board of education, the erection of a suitable high school building was recommended. The common council upon recommendation of the board of education, appropriated, at different times, sums amounting in all to \$23,500 for a high school site and building. The work on the same was early begun, and by the 16th of September, 1878, it was completed and ready for occupancy. The withdrawal of the high school from the second ward building, enables us to sustain another full grammar department, besides giving more room for primary grades. We now have five large brick buildings, with an average seating capacity of about 350 each, and four branch buildings capable of accommodating 350 more. Our central ward buildings are generally substantial and convenient, and will compare favorably with those of other cities of the size of La Crosse. new high school building is withal the most substantial and beautiful school edifice in this section of the state, and one to which our citizens refer with pride.

HIGH SCHOOL COURSE.

The new and extended course of study for the high school has been in operation one year and gives general satisfaction. It contains a liberal course of English and mathematical study, and allows no missing link between it and the grammar schools of the different wards. Book keeping is regularly taught, and generally those branches which are fundamental, and which will be of value to the

pupil in practical life, have been given much prominence in the course. The classical course is retained, but the study of Greek is not pursued by many.

DISTRICT SCHOOLS.

Each of our district schools is under the immediate charge of a male principal, and is conducted in a very creditable manner. Their general efficiency, we believe, is not excelled by many in the country. They all work in accordance with the same course of study, which requires seven years as the average time for its completion, and at present a single set of questions each month is used in the examination of all schools of corresponding grade. This plan has the advantage of bringing the teachers together with more interest in the work, and of securing a uniformity which is in many respects desirable. German has been added to the course as an optional study, in the 2nd and 3d district schools. We have a large German population and there is a demand for this branch; besides, its introduction secures more general attendance, and, consequently, a wider dissemination of general education.

In conclusion, I would say that a judicious board of education and an able corps of teachers, are the main factors that have produced a very prosperous year's work in our city schools. The agitation of various questions, has caused the masses, always friendly to our school, to exhibit still more interest in them. This has been shown by better co-operation with school officers and teachers, and by more frequent visitation. The visits of parents and friends as reported by the teachers, were but few less than 4,000. No better evidence of interest can be shown, than that which prompts parents to frequent the schools in which their children are receiving their education, and examine the work as it is actually done. It is not expected that all parents will be able to pass a critical judgment upon the work of the teacher, and this is not necessary; but there is an untold amount of good in the encouragement given to both teacher and pupil by these visits. A word of encouragement to the teacher in the school room, is worth volumes of written congratulations.

NEENAH.

J. R. BARNETT, SUPERINTENDENT.

The Annual Report which I have the honor to transmit herewith, contains some facts and statistics worthy of remark; and omits others of importance to us, which may best appear in a separate report.

There has been a slight falling off from the school population of the city, -53 out of 347 - not as great as was expected, from the unprecedented movement of population from the cities to the west. The percentage of enrollment on those resident in the city remains about the same, while the per cent. of attendance on number enrolled shows the gratifying increase of $11\frac{1}{2}$. I anticipate for the coming year a still further growth of both of these percentages, as a result of the new system of book supply adopted recently by the Board of Education. The plan, stated in a few words, is this: The city purchases the books at the ordinary introductory rates of the publishing houses, placing them in the hands of our booksellers for sale to the pupils of the schools at an advance of ten per cent. This puts the books in the hands of scholars at about the common wholesale price heretofore paid by dealers, and at the same time saves the city from all trouble and loss. I cannot help believing that this large saving to the patrons of the schools will be the means of bringing in very many children hitherto deprived of the benefits of the public school system by the extortionate prices of So far the plan meets with universal favor.

The addition of one year to the high school course prescribed by the state superintendent, originally made as a temporary experiment in the transition from the old to the new order of things, has been found so convenient and desirable that it has been made permanent. Of course, the course of instruction, so far as it goes, remains unaltered, but it permits more time to most of the studies of the course, and for reviews of studies previously gone over, and gives some time for a limited number of new ones, e. g., drawing and general history.

I can speak of the progress of this school during the past year, under the administration of Mr. H. A. Hobart, and his very efficient assistants, Miss M. G. Van Olinda, and Miss Julia Bacon, in terms of the most unqualified commendation.

PRAIRIE DU CHIEN.

'A. C. WALLIN, SUPERINTENDENT.

In my annual report as city superintendent you will note, by comparison with last year's report, no amount reported as "special tax for building and repairing." There were expended in 1875-6, for building a new school house \$11,488.07, of which amount \$7,000 was borrowed from the state. This should have been reported in 1877. Last year \$1,733.50 was reported. The present debt, \$7,000, is a bonded debt on the city, and the common council has nothing to do with levying the tax, it being entered on the tax roll by the city clerk in the same way that state taxes are entered, *i. e.* by notice from the secretary of state. There should be entered to our credit \$10,488.07 more expended in building than is shown by reports to your office. Referring to report of last year and of 1876, I find

" Highes	t valuation	of sch	ool	house	and	site,	1876,	\$	3,000
"	"		"	"		"	1877,		15,000
" Paid fo	r building	and 1	epa	iring,"			· · · · · · · · · · · · · · · · · · ·	2.	2 65 23

Now, our new building was paid for when completed, should it not be so entered in the report of 1877?

I want the reports — those coming from me — to be strictly accurate, and I do not feel justified in correcting the work of another, who, undoubtedly, supposed himself to be doing accurate work. The error might be rectified by making the statement that \$10,488.07 more was expended in 1876-77 than was reported from this city, for building purposes. If you deem it necessary, I hereby make that statement.

SHEBOYGAN.

JOSEPH BAST, SUPERINTENDENT.

Having been appointed to fill the vacancy occasioned by the emigration of my predecessor, I was greeted on entering into the office, by complaints against our schools — various in kind, and by no means flattering in style. I went to work, and, after ten months' labor, find no record of complaint against either teacher or pupil, but absolute peace all around. Our city fathers allowed every point of my estimate for the ensuing year, without a word of dissent from my recommendations — one of them involving an additional school house.

My principal aim has been to allure our children into the bonds of almost filial affection to me and my teachers, so as to enable us not only successfully to work up their heads, but also their hearts—and we have succeeded.

Our methods of teaching the different branches are fixed in the monthly institutes, and exactly fitting our special wants and the capacity of each grade of pupils, mere lesson hearing goes out of style with us, and the text-book, out of place, is avoided as a cover for dullness or stupidity in a teacher. We aim at ability to turn knowledge to practical purposes; at admiration of and love for science; at thirst for general excellence, and are determined to reach it.

Although we have thus far succeeded in not giving the least chance for cavil to those that are against uniting both sexes in classes, on moral grounds, yet the question as to whether they at about twelve years of age, should not be taught by different methods in some special branches, is still an open one. I am for separation at that time. With respect to religion, I hold: that the public school has to qualify its pupils to become good citizens, and to make their way through this world; and that it should teach such truths as lead them to God, leaving it to the pulpits afterwards to win them over to any of their paths to the other world.

The frightful charges heard of late from all sides against the

public schools, such as filling state prisons, houses of correction, insane asylums, idlers' corners, and halls of dissipation, and emptying work-shops, farms, family circles, nay, the temples of God, I fling back, into corrupt households, street corners, public places and unpublic places, gambling and other hells, the halls of so-called justice and legislation, the dens of gross materialism and egotism; in short, down the throats of all that speak, write, print, and otherwise act in the trains of the refined bestiality of the times, — for our schools here can plead "not guilty."

Should I, in conclusion, speak of sundry tribulations thus far endured, for instance, books, change of teachers, influence of politics? Had I gall at hand to dip my quill, I would.

WATERTOWN.

CHAS. F. NINMAN, SUPERINTENDENT.

The year just closed has been a prosperous one for our schools, and the benefits resulting from the use of free text-books and from the free high school, have contributed considerably to such prosperity.

As regards the use of free text-books, the last year has again fully demonstrated the practicability, the efficiency and the economy of the system. The advantages of the system have, at different times, been so ably set forth that I need not attempt to do so here, save to say that what has been stated in theory has here been practically demonstrated. I can but advise every city or school district which has not as yet adopted the plan, to do so. Any information concerning the management or operation of the same will be cheerfully given.

This law should not be repealed or changed; a law requiring a uniform use of text-books throughout the state — books obtained by state publication — would work harm to our schools, and we would certainly wish to be exempt from its operations. We should prefer to be at liberty to purchase our books from different publishers, thereby having the benefit of selection, and of purchasing

the best books we could obtain, to being obliged to take the state publications cheap as they might be.

Our high school has been prosperous during the past year. Citizens are beginning to appreciate it more and more; non-residents send their children — willingly paying for tuition. Nevertheless, there are some citizens who believe that secondary instruction ought to be given at public expense, but fortunately this number of malcontents is small; the great majority of our citizens think, too highly of our high school to have the same lowered, or abolished.

The changing of the law for the establishment and maintenance of free high schools in the revision of the statutes, cannot but work injury to the schools. Many high schools are maintained in buildings in which other departments are taught, without detriment to the high school; the high school at the same time acting as a stimulus to the other departments. Losing the state aid after three years operation is not encouraging to school districts. The law was intended to stimulate the imparting of secondary instruction in our public schools, and especially in rural districts where such instruction was not given. It is alleged that the law does not benefit the rural districts, that villages and cities, having already better schools than the districts, avail themselves of the benefits resulting from the law, and reap all the advantages.

Granting that such were the case, who is to blame? The law offered the same advantages to rural districts as to cities and villages, and every town, aye, even every district in the state, might have availed itself thereof. Granting further that the original law was partial to cities and villages (which it was not), is the new law, as it appears on the revised statutes, going to remedy the evil? Certainly not. It is a blow, a severe blow, at secondary instruction in our public schools; the law is so mangled as to be next to useless; districts will not desire to establish a high school, knowing that at the expiration of three years state aid will cease. The cities will continue their high schools without such aid, as they have done before the passage of the free high school law, and the difference between popular education in the cities and that of the rural districts will increase.

UNIVERSITY OF WISCONSIN.

ANNUAL REPORT OF THE BOARD OF REGENTS.

To the Governor of Wisconsin:

It is very gratifying to be able to report the steady progress of the University during the past year, both in its substantial growth, and in the confidence which it inspires in the people as to its present utility and practical success, and in the prospect of still greater advantages for the future.

The wise liberality of the Legislature, though long delayed, has enabled it to fulfil in an encouraging degree what its name implies, and the purpose which its originators intended, an institution capable of bestowing a thorough University education upon those seeking its benefits.

The encouragement given to it by private benefactions, also, has aided to increase the regard entertained for it by the people. Lewis Medal Fund and the Johnson Endowment Fund have inspired a generous emulation among the students, and brought its position as an influence upon the educational interests of the State, more nearly to the attention of men of culture and means. ever is done to encourage and maintain the University, and to promote its success, inures to the benefit of our whole educational system, for it is a necessary and essential part of it, the keystone of the educational fabric, and gives strength, symmetry, and grace to the structure. It in no wise conflicts with the primary and intermediate schools, but rather aids and advances their interests. is a counterpart and assistance to the other. The primaries and intermediates furnish its students, and the University in turn sends back to the communities from whence they came, the same students with enlarged and improved understanding, trained by thorough

mental discipline, and broadened and liberalized by a higher culture, to exert a healthy and elevating influence upon the primary and intermediate schools. The benefits of the University do not terminate, and are not limited to the student who receives its graduating degree, but extend to and permeate the whole structure of society. It is the distributing center of that mental aliment which is absolutely essential to a healthy condition of the body politic.

The Board of Regents hope to see the interest which has of late years been manifested, increased and extended; and the members of the Board will faithfully labor, in conjunction with the instructional corps, with which they are in full sympathy, to place the Institution upon a still more solid and enduring basis, and to confer upon it that position of equality with other institutions of a similar character in sister states, which the progressive character and advancing influence of our own State entitles it to.

The people of late years have manifested an awakening interest in its progress and success, and made liberal provisions for its advancement, and the Board have endeavored faithfully to execute the trust conferred upon them, and to satisfy its donors that their contributions have been honestly applied to the purposes designed.

The Board has for some years seen the absolute necessity for an Assembly Hall upon the University grounds, capable of accommodating all the students, when at specified times, or whenever necessary, the President of the University can meet his entire charge face to face, and for lectures or society exercises. They have also seen the necessity for a material expansion and enlargement of the Library accommodations, and to meet these wants have economized and husbanded their resources for the last two years. have so far succeeded, that, with the funds now on hand, and what they may reasonably expect to reserve hereafter for that purpose, they have deemed it wise and expedient to contract for the erection of the Assembly Hall and Library, so long and so much needed. They have accordingly let the contract to responsible parties for the erection of a building suitable in character and design, for the purpose named, upon the University grounds, which will not cost when completed to exceed \$35,000, the whole to be finished and

ready for use by the 1st day of October, 1879. It is unnecessary to remark upon, or refer to the benefits and facilities to students which this addition to the University will give, for all those who are familiar with the present cramped and inconvenient accommodations will appreciate the improvement at a glance.

In this connection, I should accuse myself of injustice did I not refer to the faithful and laborious efforts of the Executive Committee and each of its members, who have labored in season and out of season to accomplish this desirable result, and to whose earnest and persistent efforts not only this enterprise is indebted, but also the successful and economical completion and present successful operation of Science Hall.

For the convenience, better accommodation, and safety of the State Capitol building, and the benefits accruing to the surrounding grounds, pipes have been laid by the State, connecting the University Water Works with the Capitol, and an ample supply of water is now afforded from this source.

The Astronomical Observatory devised and erected by the munificence of Governor Washburn, is now nearly completed and ready for the instruments; and when finished and in operation, I feel confident that no better equipped or more convenient observatory, and none better adapted to the purposes sought, can be found in the country. The generous liberality and wise provision of its projector and founder has not stopped with the completion of the structure, but he has given his personal attention to the procuring of the most perfect instruments that can be obtained; so that when it passes into the custody of the University, it will be complete in all its parts, and thoroughly adapted to subserve the designs of its founder.

The Board have succeeded in procuring the services of Prof. James C. Watson, of the Michigan University, as Director of the Observatory, who will be prepared to take charge of it when completed; and I esteem it very fortunate that it can commence its career under such an able and accomplished director, and under such favorable auspices.

The observations contained in the last report of the Board of Vis-

itors, herewith transmitted, in regard to the co-education of the sexes, are in harmony with the views of the Regents. As they associate together in almost every other walk in life, in the social and domestic relations, it would seem to be more in accord with providential designs and the laws which society has framed for them, that they should be educated together. At all events, the attempt should be thoroughly tested before it is abandoned.

The Board invites the closest scrutiny into the management of the funds of the University, which have been administered with a view to that wise and prudent economy which is consistent with its highest interests.

The total income from all sources for the fiscal year, just ended, was \$81,306.60, and the total expenditure for the same period was \$61,753.40. The full and complete financial reports of the Secretary and Treasurer are herewith transmitted, which show in detail the receipts and disbursements, and the condition of all the funds belonging to the University.

The sum of \$800 has been expended, during the past year, for the University Library, and \$1,000 for the Law Library. It is to be hoped that after the new building is completed, it will be found feasible to devote a larger sum each year to these purposes.

The whole number of the instructional force now employed is 32, classified as follows: President and professors, 12; instructors, 9; tutors, 2; law faculty, 9.

The whole number of graduates at the last commencement was 43, and degrees were conferred as follows: Bachelor of arts, 7; bachelor of letters, 1; bachelor of science, 15; bachelor of agriculture, 1; bachelor of civil engineering, 1; bachelor of law, 18.

The whole number of students in attendance at the University at the present time is 449, classified as follows: Resident graduate, 1; seniors, 38; juniors, 34; sophomores, 64; freshmen, 66; sub-freshmen, 120; special students, 78; law students, 48.

The report of the President of the University, which is submitted herewith, contains numerous practical suggestions, which will be considered by the Board, and such action taken as the interests of the University demand.

Your attention is called to the reports of the Board of Visitors and the Professor of Agriculture made to the Regents and hereto annexed.

On the 23d of May last, the southern portion of the state was visited by a tornado which destroyed several lives and a large amount of property. Its course through the counties of Iowa, Dane, and Jefferson, and the destruction which followed, excited great interest among the people, and the faculty of the University deemed it important for scientific purposes that an investigation should be made as to the cause, course, and effect of the tornado. meeting of the faculty, Prof. W. W. Daniels was charged with the duty of making the investigation, and he subsequently spent two or three weeks going over the ground and obtaining all the facts and incidents of its progress. At the request of the Regents, he has embodied the information gained, together with his conclusions, in a written report, accompanied by very finely executed maps and diagrams, showing the track of the tornado. The Board deem it a matter of sufficient interest to the people of the state to warrant the publication of said report, with the accompanying maps, in such form that it can be easily distributed, and we therefore hand you herewith all the matter relating thereto, and request your Excellency to present the matter to the Legislature in such manner as you may think best, with the view of having them provide for its publication and distribution in pamphlet form.

LEWIS MEDAL FUND.

This fund consists of a donation of \$200, made to the University by ex-Gov. James T. Lewis, in the year 1866, for the purpose of distributing medals to such meritorious students as should become entitled thereto, in accordance with the standard of merit to be prescribed by the Regents and faculty. As the fund was hardly sufficient to accomplish the object of the donor, it remained at interest, by direction of the Regents, until June 17, 1873, when, by resolution of the Board, the Treasurer was instructed to invest the principal and interest, amounting to \$300, in such interest-bearing

securities as should seem to him most desirable. In accordance with his instructions, the Treasurer purchased United States bonds, bearing six per cent. gold interest, due in January and July, which he now holds as a special fund, the income therefrom to be used for prizes.

At the annual meeting in June, 1874 (with the consent of ex-Gov. Lewis), the Regents resolved "to give a prize of \$20 each year, at such time and under such regulations as the faculty shall determine, to the under-graduate student who shall produce the best written essay; that the name of the prize shall be the 'Lewis Prize,' and that the name of the successful competitor of each year shall be published in the next issued catalogue of the University."

JOHNSON ENDOWMENT FUND.

This fund was created by the liberality of Hon. John A. Johnson, of Madison, Wisconsin.

In a communication addressed to the President of the University, dated February 12, 1876, Mr. Johnson donated the sum of five thousand dollars (one-half to be paid to the Treasurer of the University, January 1, 1877, and one-half, January 1, 1878), as a perpetual fund, "the annual income from which shall be devoted to aiding needy students at the University of Wisconsin, who have, previously to entering the University, attended the common school in the United States at least one year in the aggregate before fifteen years of age, and have attended the University at least one term; or, if they have not attended the common school as aforesaid, they must have attended the University at least one year."

"Until the year 1900, such students only as either read or speak (or both) any of the Scandinavian languages (Norse, Swedish, Danish, or Icelandic) reasonably well, shall receive aid from this fund."

"No student shall receive more than fifty dollars in one year, nor shall more than two hundred dollars in the aggregate be given to any one student."

"The President, or acting President of the University, together with two of the professors that the President may designate, shall

constitute a committee to distribute the aid to the students under the provisions of this bequest."

"All applications for aid must be made to said committee, who are hereby authorized to make such rules in relation thereto as they deem proper."

"No distinction in sex shall be made by the committee in giving aid."

"It should be impressed upon the students who may apply for such aid, the duty of paying back to the fund, as soon as they may be fairly and reasonably able to do so, the full amount they may have received from it; the money thus paid back to be added to and treated as a part of the original fund."

In accordance with the terms of this donation, Mr. Johnson has turned over to the University, securities amounting to \$5,000, drawing ten per cent. interest, payable annually, which are now on deposit with the State Treasurer.

Respectfully submitted,

J. M. BINGHAM,
President of the Board of Regents.

Madison, October 1, 1878.

UNIVERSITY COLLEGES.

REPORT OF THE PRESIDENT OF THE UNIVERSITY TO THE BOARD OF REGENTS,

To the Regents of the University of Wisconsin:

The year that closed with September 30, 1878, was marked by general industry on the part of the students, and by courteous and manly behavior. The sentiment among the students of the University is wholesome; somewhat beyond the habit of like institutions. We are hopeful that it may remain so, or change only for farther improvement.

The instruction of the last year suffered from sickness in the Faculty, and from the want of a sufficient instructional force. We have been compelled constantly to overpass the numbers that can be profitably heard in a single recitation. It is not justice to our students to allow, especially in languages and mathematics, crowded rooms.

Our courses of instruction have been somewhat modified in two respects; first, in making the peculiar features of each course more prominent; second, in providing for a freer option between studies, and an easy substitution of studies in the terms of graduation. We can not go as far as we would wish in this direction without an increase in our instructional force.

In external features indicating progress and preparing the way for it, we have been favored during the past year. The Astronomical Observatory is nearly completed, and will soon receive a superior outfit. It has also been placed in the hands of Professor James C. Watson, whose experience and skill will give it at once a

prominent position, and cause it, we have no doubt, in its service to science to fulfill the hopes which led to its erection. Ex-Governor Washburn will heartily concur with the efforts of Professor Watson, by providing the best of instruments.

Another great want, long felt, is in the way of being supplied. An Assembly Hall and Library are in the process of erection. The unity of the University and its intellectual activity will be greatly aided by them. We expect great advantages from both rooms, and, together, they will make full the circle of desire as regards buildings. Though our library has been greatly increased in value in the last few years, the limited accommodations of our library-room have led us to ask a less appropriation for this object than we should otherwise have sought. With the new building, we shall hope to see a rapid growth of this most needful adjunct of extended instruction.

A literary institution in vigorous life will rarely fail to have importunate wants. The great need to which we now direct attention is one for which all other supplies are a preparation. It is the need of more adequate instruction. (1) We would displace as far as possible the work of tutors by that of experienced professors. We would so far subdivide the branches of instruction that each professor should have the opportunity to thoroughly master his topic. It is in vain to look for superior instruction without an extended subdivision of labor. (3) We would materially increase our corps of instructors; first, for the sake of this larger subdivision of labor; second, that the divisions of the classes may be smaller; third, that our optional studies may be extended; fourth, that we may favor thorough scholarship and large attainments on the part of our professors. We must nurse talent in our instructors or we can not nurse it in our students. Our system should be such as to develop the powers of our professors. We have not hitherto been able to do in this direction what can now justly be expected from us. Much of our instruction has been given by inexperienced teachers; the divisions of our classes have been much too large; and our professors have been compelled to do so much work, and work so varied, as to be straitened in the development of any one

line of labor. I shall expect to indicate to the Board, in a more specific way, at their January meeting, the needful enlargements in the instructional corps. I hope this suggestion will meet with a favorable reception, and that the funds of the institution will be carefully directed to this central provision for farther growth.

There is a subject of considerable difficulty to which the attention of the officers of the University has long been directed — the removal of the Sub-Freshman courses. Whether we retain them or remove them we are met with serious difficulties. If we retain them, (1) it is undesirable to unite, as closely as we must, the Sub-Freshman and collegiate classes. The same discipline is not adapted to both. (2) The work of the high schools — more especially that of the High School at Madison — is unfavorably interfered with. This we must greatly regret. (3) So large a body of students, in strictly primary work, cannot fail somewhat to affect our character as an institution, and to prevent the needed concentration of interest and influence on our collegiate courses.

On the other hand, if we dismiss our Sub-Freshman classes, (1) so little instruction is given in the high schools in Latin and Greek, that our classical courses would be seriously crippled. There is not made, in the public schools of the state, sufficient provision for these branches; and we may well be reluctant, by the removal of our Preparatory courses, to still further reduce it. (2) There are many localities in the state without high schools, and students from these regions would experience serious difficulties in reaching the University, if we refused them preparatory instruction.

Of the sixty-two students in our Ancient Classical Course, thirty-two have been fitted in whole or in part by us. Of the sixty-seven students in our Modern Classical Course, forty-one have been fitted in whole or in part at the University. Of the seventy-two students in our Scientific Course, twenty-seven have been so prepared. Out of two hundred and one students included in our regular collegiate courses, one-half have been fitted for the University by the University. While this ratio remains, we can hardly cut off the source of so large a portion of our supply. There are one hundred and twenty-two students in our Sub-Freshmen classes; twenty-five in

the Ancient Classical Course; sixty-six in the Modern Classical, thirty-one in the Scientific. Eight of these, from abroad, could do at home in the high schools of the state the same work they are doing with us. Twenty-one more, from Madison, are directly with-drawn from its High School, with which we are put in unfortunate competition. It would seem, therefore — with the very marked exception of the High School in this city — that there is little ground of complaint, that we are taking students who should be in the intermediate schools. This branch of our public instruction is as yet very incomplete, and must be allowed more time for development before we can rely on it exclusively — a result greatly to be desired.

We believe that the ultimate solution of this problem will be, and should be, so decided an enlargement and improvement of the High School of Madison, that it shall be able to do all our preparatory work. But it can never achieve this growth, if we do what we can in the mean time to cripple it. We ought, then, plainly to exclude from our Preparatory Department those students who belong in the High School of this city; and by favoring in every way the development of that school, to bring it forward speedily to a position in which it can do easily and do well, this intermediate work, so wholly within its scope.

In our collegiate classes, one-fourth of our students are young women. Adding to the collegiate the special students, who properly belong with them, we have two hundred and eighty students in a university grade. The record of health, kept through the year, shows, especially in the upper classes, less interruption in work by ill-health among the young women than among the young men. In the last Senior Class the young women were one-fourth of the whole number. Their absences from sickness were one-tenth. In the Junior Class, the first ratio was one-fourth, the second one-sixth. In the Sophomore Class, the first was one-fourth, the second one-eleventh. We certainly see no proof that the health of the young women suffers with us from their work. There are clear indications to the contrary.

JOHN BASCOM.

ANNUAL EXAMINATIONS.

REPORT OF THE BOARD OF VISITORS TO THE BOARD OF REGENTS.

To the Honorable Board of Regents of the University of Wisconsin:

The undersigned, members of the Board of Visitors, called upon to attend the annual examination of the University, respectfully report that they have, so far as was permissible to them in the pressure of other duties, been present at those examinations during the month of June, 1878, and they desire to make certain suggestions respecting matters which have come under their observations.

From the best information obtained by us, corroborated by what we have seen, we have been convinced that in some instances the number of those reciting together in one class, or in one division of a class, is too large for obtaining the best results. It appears to us that in the time in which recitations must necessarily be limited, those in attendance should have the opportunity to be always heard, and we are constrained to urge, as a measure of necessity, that in some branches there should be additional teachers in order that there may be thorough instruction and thorough recitation every day. It seems to us impossible that the work of education can be satisfactorily performed when recitations take place every day, without opportunity given to each pupil to be heard.

We have in the examinations observed a fault, which, as we attribute it to the best of motives, we should he sitate to criticise, except that we have seen by the report of the last Board of Visitors

that it has not now been noticed for the first time. The natural desire of teachers to finish the examination of each class in the brief time allotted to it has led naturally to the method of occupying that time in such wise as to cover the widest field. complish this, instructors have fallen into the way of answering their own questions rather than wait for the slow and often hesitating answers of pupils. We have been impressed at some of the recitations with the learning of the professors rather than with the progress of the scholars, and we would suggest that it is more satisfactory to the examiners that the scholar should be left unaided to pass or to fail, as the case may be, rather than to derive instruction in the hours devoted to examination. We repeat the objection made by our predecessors to putting to the scholars leading questions, requiring from them merely affirmative or negative answers, or otherwise suggesting to them proper responses. The topical method of examination is not, in our judgment, sufficiently pursued.

In connection with this subject we may also refer to the lack of vocal power or vocal energy on the part of the pupils. There were some pleasing exceptions, but it was too generally the case that the answers of the scholars - particularly, but not alone, of the ladies, were so feeble and indistinct as made it painful to attempt to understand them. We would suggest that it is not only important to those attending examinations, but it is most desirable to the scholars as mere matter of education, that they should acquire the habit of distinct utterance, with sufficient power to be plainly heard by all whom it is intended their voices should reach. It appears to us that instruction by way of exercise in the way of vocal gymnastics or otherwise should be inculcated and insisted upon. This deficiency was combined with the one least noticed, and to some extent seemed to be the excuse for it. We can appreciate the difficulties in the way of the improvement we desire, but none the less do we think it important that each scholar should be trained to state what he knows on a given subject, or at least confess his ignorance, in a distinct and audible tone. If the frequent lack of energy results from a low tone of the physical system, it is so much

the more a thing to be noticed and remedied by curing the evil which causes it.

A university being devoted to the general training and improvement of the physical as well as the mental powers, it would be perhaps akin to the subject last mentioned to suggest instruction and practice in music, at least to such extent as would develop and strengthen the vocal muscles and give sweetness, softness and power to speech, and aid to overcome the bad habit of nasal, flat and mouthing utterances which are too common characteristics of the American youth. On this subject we refer to the report of the visitors of 1877, and commend what they have said to the earnest attention of the Regents. We have observed with pleasure the robust appearance of many of the students, and although we were deprived of the opportunity of witnessing the military drill, by reason of a change in the order of the exercises which was not seasonably made known to us, we thought we perceived the beneficial results of that exercise. We do not concur in the criticisms made by some upon the system of co-education, and we are on the whole not ill-pleased with the evidence of physical strength on the part of the ladies, but we think there is much yet to desire in that respect. There should be provision for regular and vigorous exercise for the female pupils, and for systematic cultivation of their health and strength.

There is nothing that we observed for their use corresponding to the young men's gymnasium and the military drill, although there can be no sufficient reason for the omission of calisthenics. Unremitting care should be taken to secure for them a bodily development and strengthening, which in these days are recognized to be necessary requisites of any complete education. It is probably more difficult to secure regular and thorough physical exercises and discipline for young women than for young men, but to our minds that is only a reason why greater effort should be made in that direction and to be persevered in until successful.

In as much as it is rarely possible for all of the visitors to give attendance during the entire period of the examinations, and as several classes are examined simultaneously, it seems to us that

provision should be made, if possible, for the increase of the number, either by doubling the number appointed, or by adding Regents to the Board of Visitors. Several of the classes are examined without the presence of any visitor, and many of the examinations are attended by visitors only for a short time. An improvement in this regard within the last few years is visible, but manifestly more should yet be done. It is desirable that one or more visitors should hear every examination. For that purpose we would suggest to the Faculty, or those to whom is intrusted the making of the annual programme, that the plans of examinations prescribed should always be rigidly adhered to and fully carried out.

We have been sincerely gratified with much that we have seen in our brief visit to the University, and we should not do justice to ourselves, having criticised a few deficiencies, if we should fail to express our sense of the zeal, learning and efficiency of the instructors whose examinations we attended. Very much has been already accomplished; the University has attained a standing as a means of education, greatly to the credit of the State, and we note improvement from year to year. Some drawbacks have come to our notice which we hope may be remedied as soon as your Board shall have pecuniary means. Some of the recitation-rooms in University hall, and the halls furnishing access to them, are so small as to be insufficient for the many who daily occupy or pass through them. If some alteration could be made affording more space in these rooms and in the passages leading to them, it should be done.

The space assigned to the library is, in our judgment, entirely inadequate and should be enlarged at the first practicable opportunity. We concur entirely in the recommendation of the visitors of last year in favor of the erection of a building which should contain a hall large enough for a daily meeting of the whole body of students. Possibly accommodations for indoor physical exercises for the young women might be provided in that or in a smaller hall. In such a building the library and some recitation rooms should also be placed. When this want of the University shall be supplied, we think your honorable body may be justified in

believing that for a considerable period of time no further expenditure of University funds would be required for the erection of new buildings. But until such halls and ample library rooms shall be provided, there must be an oppressive sense of incompleteness, and the palpable deficiency in the means of instruction which the University of Wisconsin may fairly be expected to furnish to the youth of this State.

D. M. KELLY, of Green Bay. M. P. WING, of La Crosse. A. C. FISH, of Racine. WINFIELD SMITH, of Milwaukee.

J. ALLEN BARBER, of Lancaster, As per his letter of August 12, 1878.

Concurred in by

making that report.

GEO. W. EASTMAN, of Platteville, Except as to that which may be construed as criticising last year's report in regard to co-education; has not changed his mind since

THE NORMAL SCHOOLS.

REPORT OF THE PRESIDENT OF THE BOARD OF RE-GENTS OF NORMAL SCHOOLS.

Hon. W. C. Whitford, Superintendent of Public Instruction:

Sir: I have the honor to submit the Annual Report of the Board of Regents of Normal Schools, for the year ending August 31st, 1878, including the statistics of receipts and expenditures required by law, the annual reports of the Presidents of the schools, and of the Committee of the Board having in charge the Institute work of the State, and such statements of the actions of the Board and of the condition and work of the schools as seem to be of public interest.

The semi-annual meeting of the Board was held in Madison, January 29-31, inclusive. A change in the ex-officio members of the Board occurred at that time, Governor W. E. Smith taking the place of ex-Governor H. Ludington, and Superintendent W. C. Whitford taking the place of ex-Superintendent Edward Searing. No other change in the personnel of the Board has taken place during the year, except that of Carl Doerflinger, of Milwaukee, appointed in place of F. W. Cotzhausen, of the same place, whose term of office had expired.

MEMBERS AND OFFICERS.

The present members of the board and officers are:

Gov. W. E. SMITH, ex-officio, Madison.

W. C. Whitford, Supt. Public Inst., ex-officio, Madison.

Term ending February 1, 1881.

WILLIAM STARR, - - - Ripon.

J. H. Evans, - - - Platteville.

C. Doerflinger, - - Milwaukee.

Term ending February 1, 1880.

W. H. CHANDLER,	-		-		-	Sun Prairie.
A. D. Andrews, -		-		-		River Falls.
T. D. WEEKS.	-		-		-	Whitewater.

Term ending February 1, 1879.

S. S. SHERMAN,		-		-		-	Milwaukee.
JOHN PHILLIPS,	-		- '		-		Stevens Point.
S. M. HAY		-		_ `		-	Oshkosh.

OFFICERS OF THE BOARD.

President — William Starr, Ripon. Vice President — J. H. Evans, Platteville. Secretary — W. H. Chandler, Sun Prairie. Treasurer, ex-officio — Richard Guenther, Madison.

COMMITTEES OF THE BOARD.

Finance — Regents Sherman, Smith, Phillips.

Employment of Teachers — Regents Starr, Whitford, Sherman.

Course of Study and Text-Books — Regents Whitford, Andrews, Doerflinger.

Supplies — Regents Starr, Evans, Weeks, Hay, Andrews. Executive Committee — Regents Starr, Chandler, Hay. Institutes — Regents Whitford, Chandler, Smith. Visitation — Regents Evans, Weeks, Hay, Andrews. Senior Classes — Regents Chandler, Sherman, Whitford.

By a rule of the Board, adopted January 30, 1873, the State Superintendent, the president of the Board, and the regent associated with the Superintendent in supervising institute work, are constituted a standing committee to visit the schools, fully acquaint themselves with the condition, management, and needs of the same, advise and consult with the faculties of the schools, and with the committees of the Board in relation thereto, and report to the Board, from time to time, for its information, upon all matters thus given them in charge.

In addition to the usual routine business transacted at the semiannual meeting, the following resolution was adopted:

"Whereas, In a case pending in the circuit court of Winnebago county, wherein W. T. and G. C. Griffith were plaintiffs, and G. S. Albee, President of the Oshkosh Normal School, was defendant, the court has adjudged 'that neither the president nor the faculty of a normal school has the power to suspend or expel a student; that that power is vested in the Board of Regents, and they alone can exercise it. They cannot delegate nor transfer it to any person or to any other body;' and

"Whereas, Such decision, if it be the law, will greatly embarrass the successful management of the normal schools of the State; therefore,

"Resolved, That the president of the Board take the necessary measures to have said case appealed to the supreme court, and he is hereby authorized to employ counsel for that purpose. If the president, upon investigation, is of the opinion that a legislative act can be passed at the present term of the legislature that will leave the question of delegation of power unquestioned, then he is authorized to pursue that course."

It subsequently transpired that the decision was not formally rendered, but notice was given to the parties that such would be the judgment of the court. The attitude of the court and the facts of the case made necessary a special meeting of the board to consider the same, which was held at Oshkosh, April 3, 1878.

After hearing testimony adduced with regard to the fitness of the young man to continue a member of the school at Oshkosh, the matter was determined by his voluntary withdrawal therefrom. The board has received no notice of the decision quoted being announced, but the legislature, at its last session, so amended the law as to leave, without doubt, the right of the board to delegate power to discipline, suspend, and expel students for cause.

ANNUAL MEETING.

The annual meeting of the board was held in Madison, July 10-12, 1878. From the reports of committees submitted to the board, and from the record of the secretary, the following statements are compiled:

Schools.

Table showing the amount disbursed and received at the different schools during the school year 1877-78, the purpose of each disbursement and source of receipts, and the total amount of receipts and disbursements during the year:

EXPENDITURES.

	Salaries of teachers & janitors.		Ref. Books.		Fuel and Lights.	Furni- ture.	Repairs.	Building.	Print- ing.		Miscel- laneous		T
Platteville Whitewater Oshkosh River Falls	15,750 00 15,306 75	784 84 553 59	31 85 135 39	140 46	890 75 1,082 55	332 54 1,016 66	1,009 42 637 00	35 09 3,937 65	212 48 157 05	111 67 143 20	114 26 480 19	\$16,900 52 19,413 36 23,692 62 13,112 80	No
Totals	\$55,689 25	\$2,328 74	\$410 70	\$742 68	\$2,805 49	\$1,794 74	\$2,766 29	\$4,256 70	\$881 01	\$591 52	\$852 18	\$73,119 30	nal i

RECEIPTS.

Schools.	Tuition.	Book rents.	Book sales.	All other sources.	Total.
Platteville	\$2,994 70 1,723 85 4,287 40 2,758 50	\$736 05 854 67 814 25 369 08	\$120 28 236 42 342 06 300 04	\$5 50 4 00 5 51 85 15	\$3,856 53 2,818 94 5,449 22 3,462 77
Totals	\$11 764 45	\$2,774 05	\$998 80	\$50 16	\$15,587 46

INSTITUTE EXPENSES. For salaries of Conductors...... \$4,302 50 For expenses of Conductors........... 1,813 46 For printing and incidental expenses.... 461 82 \$6,577 78 2,000 00 Amount paid from general fund Amount paid from Normal school fnud \$4,577 78 OTHER EXPENDITURES. Regents' expenses attending meetings of the board ... \$ 386 77 1,829 28 Expenses and per diem of committees..... Secretary's salary 300 00 256 51 Printing and incidental expenses..... \$2,772 56 73, 119 30 Add amount paid at schools \$80,469 64 Total disbursements from Normal School fund income ..

ATTENDANCE.

The following table shows the number of pupils who have attended the several grades in each school during the year, and the total number attending all grades in all the schools:

	Normal dep't.	Prep. dep't.	Model school.	Total.
Platteville	212 270 291	43 83	247 139 241	459 452 615
River Falls	100	115	144	359
Total in all schools	873	241	771	1,885

An analysis of this table shows that the 212 Normal students at Platteville came from ten different counties in the state, and one came from Wyoming Territory; the 270 Normal students at Whitewater, came from twenty-four different counties in the state, one came from New York, one from California, one from Iowa, two from Minnesota, one from Colorado, and one from Switzerland; the 291

Normal students at Oshkosh, came from thirty-seven different counties in the state, one came from Ohio, three from Illinois, one from Florida, and one from Michigan; the 100 Normal students at River Falls, came from eleven different counties in the state, one came from Michigan, and one from Illinois.

A summary further shows that every county in the state, furnished pupils to the Normal department of the schools, last year, excepting the counties of Ashland, Barron, Bayfield, Douglas, Jackson, Juneau, Lincoln, Oconto, Taylor, and Trempealeau — only ten of the sixty counties in the state not being represented.

Several of these counties, as is well known, are new, remote, and sparsely settled. It is equally well known, that in several of them, also, many of the schools are in charge of graduates or under-graduates of the Normal Schools.

FUND AND INCOME.

The following statistics relating to the Normal School Fund and the Normal School Fund Income, are obtained from the records of the Secretary of State, and show the condition of said fund and income at the close of the state fiscal year.

NORMAL SCHOOL FUND.

This fund consists of one-half the proceeds of the sales of all swamp and overflowed lands received by the state from the United States. The number of acres of unsold land is 593,112. The cash receipts and disbursements during the year have been as follows:

RECEIPTS.

Sales of land	\$13,258 75	
Dues on certificates	2,691 00	
Loans	15,280 67	
Penalties	28 67	
United States bonds, sold	43,000 00	
Loan to Iowa county	10,000 00	
Loan to Racine county	1,875 00	
Loan to city of Madison	2,500 00	
Loan to town of Pine Valley, Clark county	600 00	

500 00	
300 00	
700 00	
\$90,735 45	
	\$2,800 00
	3,000 00
	40,000 00
• • • • • • • • • • • • • • • • • • • •	50,000 00
	4,500 00
	2,000 00
	201 41
\$90,735 45	\$102,501 41
45,056 84	
• • • • • • • • • • • • • • • • • • • •	33, 290 88
	\$135,792 29
	\$90,735 45 \$90,735 45

The amounts of productive Normal School Fund, on the 30th days of September, 1877 and 1878, were as follows:

	1877.	1878.
Due on certificates of sale	\$39,431 29	\$33, 913 29
Due on loans	112,750 05	99,969 38
Certificates of indebtedness	515,700 00	515,700 00
United States bonds	43,000 00	
Milwaukee city bonds	160,000 00	160,000 00
Town bonds	14,300 00	12,800 00
Loan to Iowa county	55,000 00	95,000 00
Loan to Racine county	7,500 00	5 , 625 00
Loan to Wood county	30,000 00	33 , 000 00
Loan to town of Pine Valley	3,000 00	3,400 00
Loan to city of Madison	2,500 00	
Loan to town of Princeton, Green Lake co		4,500 00
Loan to city of La Crosse		40,000 00
Albany city bonds	·····	2,000 00
Total at interest	\$983, 181 34	\$1,004,907 67
Cash on hand	45,056 84	33, 290 88
Grand total	\$1,028,238 18	\$1,038,198 55

Increase during the year, \$9,960.37.

NORMAL SCHOOL FUND INCOME.

This income is derived from the interest on swamp land certificates and loans, and is applied to establishing and maintaining Normal Schools. Previous to March 31, 1878, the moneys belonging thereto were disbursed on the warrant of the Secretary of State, drawn in pursuance of the certificate of the Board of Regents of Normal schools; but on that date, chapter 227, laws of 1878, having taken effect, all of this Income was, pursuant to that law, placed at the direct disposal of the Regents by transfer to the treasurer of the board. In consequence of this transfer, the itemized account of the payments during the last half of the present year does not appear in this report. The receipts and disbursements during the year have been as follows:

RECEIPTS.

Interest on land certificates and loans	\$9,941 90	
Interest on certificates of indebtedness	36,099 00	
Inteerst and premium on United States bonds	2,226 34	
Interest on Milwaukee city bonds	11,200 00	
Interest on Clinton town bonds	175 00	
Interest on Kinnickinnic town bonds	147 00	
Interest on River Falls town bonds	490 00	
Interest on Troy town bonds	189 00	
Interest on Albany city bonds	120 00	• • • • • • • • • • • • • • • • • • • •
Interest on loan to city of Madison	175 00	
Interest on loan to Iowa county	3,850 00	
Interest on loan to Racine county	619 69	
Interest on loan to Wood county	1,013 00	
Interest on loan to town of Pine Valley	201 71	
Tuition fees, Platteville Normal School	5,186 28	
Tuition fees, Whitewater Normal School	2,818 94	
Tuition fees, Oshkosh Normal School	5,449 22	
Tuition fees, River Falls Normal School	3,46271	

\$83,364 79

DISBURSEMENTS.		
Expenses of Regents		\$143 62
Platteville Normal School		$6,822\ 34$
Whitewater Normal School		8,766 76
Oshkosh Normal School		8,478 81
River Falls Normal School		5,463 96
Institutes		2,191 19
Expenses		970 92
Treasurer of Board of Regents of Normal Schools		59,955 02
Refunded for overpayments		24 65
	\$83,364 79	\$92,817 27
Balance September 30, 1877	9,452 48	•••••
	\$92,817 27	\$92,817 27

The continued large attendance at these schools, as well as the constantly large and increasing demand upon them for teachers, shows a growing appreciation of their value on the part of young people themselves, their parents, guardians, and citizens generally interested in education.

Diplomas and certificates were awarded at the several schools, at the close of the year, as follows:

OSHKOSH SCHOOL.

Diplomas awarded for completion of full course	$\frac{2}{24}$
	26
WHITEWATER SCHOOL.	
Diplomas awarded for completion of full course	11 34
	45
PLATTEVILLE SCHOOL.	
Diplomas awarded for completion of full course	11 19
	30

Making a total of 24 diplomas and 77 certificates awarded. No class in either course has yet graduated at River Falls.

TEXT BOOKS, APPARATUS, ETC.

The system of purchasing directly from publishers all text-books used, and renting them to students at \$1.00 per term for all books needed, or selling to them at cost, as may be preferred, is still continued. As will be observed by the financial statistics, this affords a sufficient revenue to keep up the text and reference book library, after the first supply, and is found entirely satisfactory, as a matter of convenience and economy for pupils, and as securing uniformity and certainty of supply for use at all times.

Quite extensive expenditures for repainting, repairing, and furnishing were found necessary last year, which leaves all the buildings in excellent condition, and reasonably well furnished; and no appropriations were recommended or made at the annual meeting for these purposes for the ensuing year, excepting one appropriation for the purchase of apparatus for the school at River Falls, which has not heretofore been supplied therewith.

INSTITUTES.

The institute work has been carried on through the year, upon the general plan of recent former years, with vigor, efficiency, and success. This has become a very important factor in our educational system. Almost the only source of inspiration and professional suggestion and help within the reach of a large number of the teachers of the common schools of the state, is the annual institute. Contact in these with strong, able, skillful, and enthusiastic men, bringing to them the wisdom gained from experience and observation; and the proffer from the state of the best and most prominent teachers to aid them in their work, not only of laying foundations, but of completing the education and intellectual training of a large proportion of the future citizens of the commonwealth, cannot but be useful; and evidence yearly accumulates that it is so. You are respectfully referred to the full report of the committee

having this matter in charge, which is herewith transmitted, for detailed information relating to institutes held during the year.

TEACHERS.

By transfers, resignations, and new appointments, several changes in the corps of teachers have occurred. The following are now assigned to the positions indicated:

PLATTEVILLE SCHOOL.

Edwin A. Charlton, President.

Duncan McGregor, Theory and Practice, and Conductor of Institutes.

George Beck, Natural Sciences.

D. E. Gardner, Mathematics and Vocal Music.

Albert J. Volland, Latin and Greek.

Emily M. B. Felt, English Language and Literature.

Emeline Curtis, Geography and History.

Charles H. Nye, Director of Practice Work.

Ella C. Aspinwall and Jennie S. Cooke, Teachers in Grammar Grade.

Anna Potter, Principal Intermediate Grade.

Mary Brayman, Principal Primary Grade.

WHITEWATER SCHOOL.

J. W. Stearns, President.

S. S. Rockwood, Mathematics.

Albert Salisbury, History, Political Economy, and Conductor of Institutes.

W. S. Johnson, Drawing and Penmanship.

L. C. Wooster, Natural Science.

Miss Mary DeLany, Civil Government, Geography, and U. S. History.

Miss Mary E. Farrand, English Grammar, Rhetoric, and Literature.

Mrs. E. M. Knapp, Vocal Music.

Miss Maggie Conklin, Superintendent of Practice Work.

Miss Helen L. Storke, Principal Grammar Grade.

Miss Isabella J. Storke, Teacher Grammar Grade.

Miss Cornelia Rogers, Teacher Grammar Grade.

Mrs. Ada Ray Cooke, Principal Intermediate Grade.

Miss Fannie C. Timanus, Principal Primary Grade.

OSHKOSH SCHOOL.

George S. Albee, President.

Robert Graham, Vocal Music, Reading, and Conductor of Institutes.

William A. Kellerman, Natural Sciences.

Mortimer T. Park, Book-Keeping and Calisthenics.

Miss Anna W. Moody, History and Civil Government.

Miss Mary H. Ladd, Mathematics.

Mrs. Helen E. Bateman, English Grammar and Composition.

Miss Rose C. Swart, Geography and German.

Miss Emily F. Webster, Latin and Mathematics.

Miss Amelia E. Banning, Drawing and Penmanship.

J. P. Haber, Teacher Preparatory Classes.

Mrs. L. L. Cochran, Teacher Preparatory Classes.

L. W. Briggs, Director of Practice Work.

Miss Maria S. Hill, Principal Grammar Grade.

Miss Francis E. Albee, Principal Intermediate Grade.

Miss Elizabeth B. Armstead, Primary Grade.

RIVER FALLS SCHOOL.

W. D. Parker, President.

J. B. Thayer, Mathematics and Conductor of Institutes.

F. W. King, Natural Sciences.

Miss Lucy E. Foote, English Literature, Reading, and Spelling.

Miss Julia A. McFarlan, Mathematics.

Mrs. M. E. Jenness, English Grammar and Composition.

Miss Julia M. Stanclift, Supervisor of Practice work.

Miss Anna S. Clark, Music, Drawing, Penmanship.

Miss Ellen C. Jones, Principal Grammar Grade.

Miss Mary A. Kelly, Principal Intermediate Grade.

Mrs. Louisa Parker, Principal Primary Grade.

Owing to illness, Miss Mary L. Allen, transferred from Whitewater, does not take charge of the primary grade at River Falls, and Miss Stanclift has taken charge of that grade temporarily.

In some of the schools, classes are frequently so large as to require a division, and temporary teachers are employed to do the additional work thereby made necessary, and these are generally obtained from among the more advanced students.

Upon the occasion of the presence of committees of the board at Whitewater, at the close of the school, President Phelps presented to me formal, written charges against Professors Salisbury and Rockwood, for insubordination, partisan political conduct, and for encouraging disaffection and insubordination among the students. These communications were directed to the board, and at the annual meeting, held soon after, which was the earliest time possible to do so, they were presented to the board for its consideration. The whole matter was referred to a committee, with instructions to inquire into and report upon the facts.

President Phelps, denying the jurisdiction, and denouncing the honesty of the tribunal to which he had appealed, and refusing to appear or produce any evidence to substantiate the charges, the committee has postponed the investigation, until the re-assembling of the school shall bring together those who may be supposed to know concerning the truth or the falsity of the charges made, when the committee will notify Pres. Phelps, and make a thorough investigation, and report to the Board at the next meeting.

PROFESSIONAL WORK.

The experience of each year strengthens the conviction that an important function of normal schools is not only to give the future teacher technical instruction, in the form of lectures upon theory and art of teaching, school economy, organization and management, history of education, etc., but to induct that teacher into the practice of accepted theories, and the actual use of the powers acquired in the lecture and class rooms. To provide for this imperative demand, and for the most favorable conditions for profit in its exercise, the practice teaching at the several schools, is now (under the general direction of the president) placed in immediate charge of a director. By this arrangement, it is hoped to secure that careful, constant, and intelligent supervision and criticism which will insure the greatest advantage to the practice teachers, and such quality of instruction to pupils in the model departments as to remove all ob-

jections to the system on the part of patrons and pupils of these departments. The position and work of these directors is important, delicate, and, much of it, invisible to the casual observer. Peculiar qualifications are requisite to great efficiency in these positions. It is also essential that harmony of views and hearty cooperation between the president and the director of practice work, exist; that the work in the normal department may be exemplified, vivified, and fixed in mind, by the practice teaching in the model department. It is the purpose of the board that the persons occupying these positions shall reasonably meet these high demands.

You are respectfully referred to the accompanying reports for further and detailed information relating to the condition and work of each school.

No report from the retiring president of the Whitewater school has been received.

Respectfully submitted,

WILLIAM STARR,

President of the Board of Regents of Normal Schools.

ANNUAL REPORT OF COMMITTEE ON INSTITUTES.

The committee on Institutes submit to the Board of Regents the following report of their operations since the last annual meeting:

They held in July, a year ago, a meeting of the institute conductors, in connection with the annual session of the Wisconsin Teachers' Association at Green Bay. This meeting occupied only a day and an evening; and while not largely attended, it was a profitable occasion. The chief work consisted in the discussion of the outline of the studies which the committee had prepared for the institutes to be held shortly afterwards. The object of this discussion was two-fold: To familiarize the assistant conductors with the subjects to be taught in the institutes, and to unify the instruction given by all the conductors.

Arrangements were made for holding forty-seven institutes during the three months beginning with August last year. Two of them, in Pierce and Taylor counties, were subsequently abandoned. Besides the regular conductors, Profs. Graham, McGregor, Salisbury, and Thayer, thirty-one assistant conductors were employed, chiefly in August. They were mainly teachers who had acquired already some experience in the institute work.

The spring institutes were held during March and April. They were twenty-one in number, and were wholly under the charge of the regular conductors. In addition to these, two were appointed for Fond du Lac and Juneau counties; but they were suspended, as the time for holding them did not accommodate the teachers of those counties.

For this last series of institutes, the outline of studies was prepared by the regular conductors, under the direction of the committee. It embraced the second portion of a course of instruction which has been adopted to cover three years. A circular contain-

ing this outline was published, and furnished to all the members of those institutes.

Reference to the tables given shows that sixty-six institutes were in session last year, all of which have reported. Instruction was given for ninety-five weeks, in thirty-seven one-week, and twenty-nine two-week institutes. This makes two institutes more than those held the year before, with four weeks less time. This fact is due to the change of the normal institutes from four weeks' duration to two weeks. Both series of institutes, last year, were attended by 1,357 males and 3,433 females, the whole number being 4,790. The attendance was 239 over that reported for the previous year.

An examination of the reports of the conductors gives us the fact that, of the whole number attending the institutes, 3,023 had previously received, and 1,767 had not received, instruction in former institutes in the state. It is interesting to note the kinds of the schools in which the members of the institutes have prepared themselves for teaching. Of these, 429 have attended the colleges and universities; 394, the academies; 460, the normal schools; 2,055, the high schools; and 1,283, the common schools only. Of those present at the institutes, 1,767 had never taught in the public schools, but were intending to teach.

The sixty-six institutes were held in forty-eight counties, making eighteen counties which were favored each with two institutes. The committee have endeavored to follow the directions to appoint institutes in those counties most needing them — those calling for this kind of work, and the more remote from the normal schools. Still, twelve counties did not enjoy, last year, the benefit of institute instruction. In six of these, Ashland, Bayfield, Burnett, Douglas, Lincoln, and Taylor, no labor under the supervision of the committee has ever been performed. This is owing to the few schools organized in these sparsely settled sections. One of these counties, Taylor, asked for aid. Of the remaining counties, Dunn and Jefferson had institutes in the spring of 1877; the other four, Fond du Lac, Milwaukee (1st Dist.), Shawano, and Winnebago, held their last institutes in the spring and fall of 1876.

The committee have labored to become thoroughly acquainted with the interests under their charge. They have had frequent interviews with the conductors, both regular and assistant; they have visited a majority of the institutes, and carefully inspected the work done in them; and they have consulted with the county superintendents and other educators of the state, in reference to the needs of the teachers and the influence which the institutes are exerting over them and the public schools.

The expenditures for the institutes, the past year, are classified as follows:

Salaries and expenses of the regular conductors Salaries and expenses of the assistant conductors	. ,	
Incidental expenses of the county superintendents allowed		95
Services and expenses of the Institute committee	279	10
Expenses for lectures	114	60
Printing and blank books	260	20
Total	\$6,552	77
Amount of state appropriation	. ,	
Total	\$7,000	00

Respectfully submitted,

W. C. WHITFORD,

W. H. CHANDLER,

Wм. E. Smith,

Institute Committee.

Madison, Wis., July 10, 1878.

REPORTS OF NORMAL SCHOOLS.

PLATTEVILLE NORMAL SCHOOL.

To the Honorable WILLIAM STARR,

President of the Board of Regents of Normal Schools:

Sir:—I have the honor to present to you my annual report of the condition and progress of the State Normal School at Platteville, during the year ending June 27, 1878.

At the annual meeting of the board of regents held in July, 1877, certain modifications were authorized in the plan of the school, which led to a partial re-organization of the faculty. At that meeting, Mr. Charles H. Nye, who had served faithfully and efficiently as principal of the Grammar Grade for four years, was appointed director of the Model Department and supervisor of the practice work, though nominally retaining his former position. Subsequently, the committee on Employment of Teachers, engaged Miss Ella C. Aspinwall, principal of the Fifth Ward School of Madison, and a graduate of this school in the class of 1873, to take charge of the Grammar Grade, as first assistant.

For the Normal Department, the same committee employed Miss Emily M. B. Felt, of Chicago, as teacher of English Language and Literature, and Mr. Albert J. Volland, A. B., a graduate of the University of Michigan, as teacher of Latin and Greek.

These arrangements having been perfected, the school opened on the 4th day of September, 1877, with the following:

FACULTY.

Edwin A. Charlton, A. M., President, Mental and Moral Science.

Duncan McGregor, A. M., Theory and Practice of Teaching, and Conductor of Institutes.

George Beck, M. S., Natural Sciences.

D. E. Gardner, Mathematics and Vocal Music.

Albert J. Volland, A. B., Latin and Greek.

Emily M. B. Felt, English Language and Literature.

Emeline Curtis, Geography and History.

MODEL DEPARTMENT.

Charles H. Nye, Director and Principal of Grammar Grade. Ella C. Aspinwall, Jennie S. Cooke, Assistants in Grammar Grade. Anna Potter, Teacher and Critic in Intermediate Grade.

Mary Brayman, Teacher and Critic in Primary Grade.

No changes occurred in the faculty during the year. All the teachers devoted themselves to their respective duties with the most commendable diligence and fidelity, and, so far as I am able to judge, accomplished very satisfactory results.

The enrollment for the year, as shown by the annual catalogue, was as follows:

NORMAL DEPARTMENT.

Gentlemen 112	
Ladies	
Total	224
CLASSIFIED AS FOLLOWS:	
Fourth year class 11	
Third year class	
Second year class 47	
First year class 147	
Total as above	224
	==
ENROLLMENT BY TERMS.	
Fall term	155
Winter term	170
Spring term	124
	==

MODEL DEPARTMENT.

GRAMMAR GRADE.

Gentlemen. Ladies. Total.	96	180
INTERMEDIATE GRADE.		
Boys	18	
Girls	26	
Total	_	44
PRIMARY GRADE.		
Boys	18	
Girls		
Total		44
Deduct twice counted		
Total enrollment for the year		459

Ten counties of Wisconsin were represented in the Normal Department; also the states of Illinois, Iowa, Minnesota, and Missouri; and Wyoming Territory and Nova Scotia.

The Board of Visitors appointed by the State Superintendent, consisted of Prof. J. B. Parkinson, A. M., of Madison; Prof. Wm. H. Beach, A. M., of Beloit; and Supt. Thomas C. Richmond, of Green county. Each of these gentlemen visited the school twice and made such examinations as seemed expedient.

At the close of the year, eleven students were graduated in the full course, and nineteen received the elementary certificate; all having been recommended by the Faculty, and examined and approved by the committee of the Board of Regents.

The general programme of the anniversary exercises, the names and residences of the members of the graduating and elementary classes, and the programmes of their respective closing exercises, are given herewith.

ANNIVERSARY EXERCISES.

MONDAY-THURSDAY, JUNE 24-27, 1878.

Examinations — Monday and Tuesday, commencing at 9 c'clock, A. M. Public Exercises of the Grammar and Intermediate Grades — Tuesday, 71/2 o'clock, P. M.

Closing Exercises of the Normal Department — Wednesday, 8¾ o'clock, A. M. Public Exercises of the Primary Grade — Wednesday, 10½ o'clock, A. M. Exercises of the Elementary Class — Wednesday, 2 o'clock, P. M.

TENTH ANNUAL COMMENCEMENT.

THURSDAY 9½ O'CLOCK, A. M.

Business Meeting of the Alumni Association — Thursday, 2 o'clock, P. M. Class Day Exercises — Thursday, 3 o'clock, P. M. Meeting of the Alumni Association and Reunion — Thursday evening.

GRADUATING CLASS - 1878.

Judson P. Casselman, - Middleton, -- Dane. Henry D. Fruit, . . Washburn, Grant. William T. Jenning, - Hazel Green, - Grant. John W. Livingston, -Martinville, -Grant. Thomas C. Morrow, - Mazomanie, - - Dane. Matt. H. Richards, . Linden, -Iowa. John H. Symons, - Laramie City, Wy. Ter. Nettie E. Brainard . Bescobel, Grant. Sadie F. Burr, - Lancaster, -- - Grant. Hattie Gillette, - -Buncombe, -La Fayette. Myrtie Sylvester, - Castle Rock, - Grant.

PROGRAMME

Of the tenth annual commencement.

Music — Anthem, "And the Glory of the Lord Shall be Revealed."—Handel. Prayer — By Rev. A. P. Johnson.

Oration - Elevation is Exposure. - Henry D. Fruit.

Essay — Heroism in Common Life. — Nettie E. Brainard.

Oration — The Safeguards of our Nation. — Judson P. Casselman.

Music - Chorus, "Great Apollo strike the Lyre." - Webbe.

Essay — The Women of Shakespeare. — Sadie L. Burr.

Oration — Superstition and Advancement. — John H. Symons.

Oration - Sound. - John W. Livingston.

Music - Trio, "O Restless Sea." - White.

Oration — Innovation. — William T. Jennings.

Oration - Art. - Thomas C. Morrow.

Essay - Pennsylvania Pilgrims. - Hattie Gillette.

Music — Double Quartette, "Spring's Delights." — Muller.

Essay — Among the Wild Flowers. — Myrtie Sylvester.

Oration - The Mission of Poetry. - Matt. H. Richards.

Music - Chorus, "God is our Guide." - Verdi.

Presentation of Diplomas.

Doxology.

Benediction.

ELEMENTARY CLASS, 1878.

Ernest W. Blackstone, -	White Oak Springs, -	La Fayette.
Robert A. Bratton, -	Elk Grove,	La Fayette.
Everett C. Dickinson, -	Platteville,	Grant.
Harry K. Evans,	Platteville,	Grant.
Charles M. Fox,	Big Patch,	Grant.
Alfred J. Frazier, -	Bloomington,	Grant.
	Platteville,	
Henry M. Johnston, -	Lloyd, -	Sauk.
Chas. M. Scanlan,	Mount Hope,	Grant.
Martha A. Cook,		
Lizzie J. Craig,	Newton,	Vernon.
Florence Elgar,	Platteville,	Grant.
Mary D. Gillham,	Platteville,	Grant.
Florence M. Graves, -	Bloomington,	Grant.
	Fennimore,	
Margaretta Lewis, -		
Ida M. Newman,	Platteville,	Grant.
Violet Rundell,	Platteville,	Grant.
Lucy Stevens,	Montford,	Grant.

PROGRAMME

Of closing exercises of elementary class.

Music.

Paper - Punctuality, Martha A. Cook.

Class Exercise - Rivers, Violet A. Rundell.

Paper - Relation of Teachers and Patrons, Chas. M. Scanlan.

Paper - School Honor, Margaretta Lewis.

Class Exercise - Verbs, Henry M. Johnson.

Paper - Grit, J. Lillie Griswold.

Recess.

Paper - Habits of Study, Ernest W. Blackstone.

Class Exercise - Roman Notation, Ida M. Newman.

Paper - Disorder - Its Causes and Remedies, Florence M. Graves.

Class Exercise - Reading, Charles M. Fox.

Paper - Recreations, Mary D. Gillham.

Presentation of Certificates.

The graduates of the school in the full course now number one hundred and thirteen, and sixty have received the elementary certificate. The following tables show the classification and employments, during the past year, of those who have completed each course.

GRADUATES.

Occupation.	Gentlemen.	Ladies.	Total.
Teaching in Wisconsin. Teaching in other states. County superintendents, Wisconsin. University or college students. Lawyers. Physicians Clergymen. Mercantile business. Farming U. S. Mail agent. Clerk of court. Editor. Married, and left the profession. Not teaching at present Deceased Class of 1878.	2 1 12 2 1 4 2 1 1 1	23 8 1 1 11 4 1 4	444 122 22 122 14 42 11 11 11 22 11
Total	60	53	113

ELEMENTARY CLASSES.

Occupation.	Gentlemen.	Ladies.	Total.
Subsequently graduated in full course	9 7 3 9	9 13 10	18 7 16 19
Total	28	32	60

I count the work of the past year as eminently successful. The attendance was good, and nothing occurred to mar the harmony of the school, or to seriously interfere with its progress. Fidelity in the performance of duty, seemed to be the ruling principle. The standard of scholarship was kept up, and the reputation of the school for a high moral tone, was fully sustained.

Of the teachers recently employed, it is sufficient for me to say that, in my judgment, they have proved themselves equal to the situation, and have fully justified the high expectations that had been formed concerning them. The appointment of a director who could devote his time and attention to the interests of the Model Department, has proved a judicious measure. The course of study in that department has been thoroughly revised, and is followed as closely as is possible. The practice work is carefully supervised, and regular meetings are held for the purpose of giving special instruction to the pupil teachers. The amount of work performed by these teachers during the year, is indicated by the following summary:

Fall term	24	teachers;	whole	time	236	weeks.
Winter term	18	teachers;	whole	time	180	weeks.
Spring term	12	teachers;	whole	time	120	weeks.
Total	54	teachers;	whole	time	536	weeks.

Being an average of nearly ten weeks for each teacher.

In the normal department, the course of study as published in the annual catalogue, was substantially followed. The study of the Greek language having been authorized by the Board, a class was formed in it at the opening of the fall term. Only two pursued the study during the entire year.

I am still of the opinion that it is desirable to bring this school into more intimate relations with the State University, by affording in it facilities for full preparation for the classical, as well as for the scientific department of that institution. I believe this can be done without detriment to the Normal work. To make such a preparatory course successful, however, it is necessary that the Board should formally recognize Greek, and give it a definite place in the curriculum. It should either be accepted as a substitute for certain branches in the present course of study, or a special course should be arranged, on the completion of which, students should be graduated with due honors.

The State Normal School at Platteville was opened in the fall of 1866, and has consequently been in operation twelve years — four years under the presidency of Prof. Chas. H. Allen, and eight years under myself. Its growth has been steady, but not rapid. Three other normal schools have been established in the state since this was organized, one of them "within six hours' ride of the counties containing three-fourths of the population of the state." This school, on the contrary, is situated near one corner of the state, and is not easily reached except from a very limited area.

The following table exhibits the enrollment and number of graduates of each academic year since the opening:

	Enrollment.			GRADUATES.	
Academic Year.	Normal Dep't.	Model Dep't.	Grand total.	Year.	No.
1866-7	99 143 150 184 173 198 182 195 213 204 224	111 173 214 207 218 206 226 272 247 265 225 235	210 316 364 391 391 404 408 467 460 469 449	1869 1870 1871 1872 1873 1874 1875 1876 1877 1878	8 15 12 8 26 10 9 7 7

Since the opening of the school, there have been enrolled in the Normal Department, one thousand and sixty-three different students, three hundred and seventy by my predecessor, and the remainder by myself. Of those registered by my predecessor, however, about one hundred and twenty returned to the school subsequently to my taking charge of it, so that I have had under my immediate care in this department upwards of eight hundred students. Of the whole number enrolled, eight hundred and thirty eight have taken the obligation required of Normal students, the remainder being counted as Academic or Preparatory.

This is my last official report from this school. My resignation, to take effect at the close of the Fall term, Dec. 20, 1878, is already in your hands.

For my successor, I can wish nothing better than that he may here find students as faithful in the performance of their duties, and fellow teachers as zealous in every good word and work, as it has been my good fortune to find them.

In taking leave of you, and of the board of which you are president, permit me to say that I have always endeavored to follow
13—Supt.

whatever directions have, from time to time, been given by those in authority over me; and to carry out, to the best of my ability, their plans and purposes, so far as the same have been made known to me.

In all points left to my own judgment, I have aimed to promote sound learning and true discipline. I regard character and scholarship as the essential foundation upon which to base professional skill. I have thought it more important to develop true manhood and true womanhood than any mere technical skill in the art of teaching.

How successfully I have performed the various duties devolving upon me, how far I have met or failed to meet the requirements of my position, it is not for me to say. If among the hundreds who have been brought under my influence, I have aided any to lay the foundation of a good education, if I have helped any to develop a noble character, if I have guided any into right courses of thought and action, if I have encouraged any in their purpose to live pure and upright lives, my work has not been wholly in vain.

Thanking you and your associates in the Board for many personal and official favors during the past eight years, and wishing for this school continued prosperity and the highest success.

I have the henor to remain,

Very respectfully, your obedient servant,

EDWIN A. CHARLTON.

OSHKOSH NORMAL SCHOOL.

Hon. WILLIAM STARR,

President Board of Regents of Normal Schools:

DEAR SIR -The following statements regarding the organization, work, and progress of the Oshkosh Normal School, during the year ending August 31, 1878, are respectfully submitted for consideration:

ENROLLMENT AND CLASSIFICATION.

	Applicants.					
	Noi	rmal.		ded ools.	Ungra School	
Number prepared in		35 2		47 12		116 47
#	FALL	Текм.	Winti	ек Т'м	SPRIN	г а Т.
	Men.	Women.	Men.	Women.	Men.	Women.
Number examined	40 15 22	87 29 56	13 5 8	20 6 13	48 24 17	43 25 14

ENROLLMENT BY CLASSES.

N ID	Average	Av. No. Memb-	No. Pupils.	
Normal Department.	Age.	ship.	Gents.	Ladies.
Fourth year. Third year. Second year. First year. Preparatory grade.	23.7 21.6 18.5		2 8 35 74 34	4 7 44 117 49
Total	•••••		153	221
Grammar grade			60 30 20	69 31 31
Entire enrollment	• • • • • • • • • • • • • • • • • • • •		268	352

ENROLLMENT BY TERMS.

Normal Department.	FA	LL.	WINTER.		Spring.	
DEFAITMENT.	Gents.	Ladies.	Gents.	Ladies.	Gents.	Ĺad's.
No. registered	106 87.3 86.4	175 166.7 165.4	83 81.6 81	164 160.4 159.2	110 99.2 98.9	134 123.9 122.3

2
24
1,136
760
74
665

Of those enrolled during the year, 137 are teaching, and 141 are present members of the school.

GRADE OF CANDIDATES.

The grading of applicants indicates a higher average discipline than in the former years, which, taken in connection with the increased size of classes, has enabled a higher section of the incoming class to be organized. This section is able to successfully carry the work demanded in the regular outline without detriment to health, and even, in some cases, to complete the work in less than the specified time.

SPECIAL FACILITIES.

The increasing number of applicants warrants the organization of an *advanced* section of the first year class, each fall and spring term.

To the large class of teachers of good attainments who, lacking professional training, have been deterred from entering a normal school because of a fear that they might not be permitted to advance as rapidly as their abilities would warrant, this class offers facilities not hitherto furnished by this school.

All applicants attaining an average of at least 80 per cent. will be enrolled for this special work.

PROFESSIONAL WORK.

While this "special" class is organized for more rapid advancement in normal work, it is most important that no one mistake it for an "advanced" class in the academic sense. But few persons have ever been enrolled in the school who were fitted to begin professional work in any but the elementary branches. Scores of letters are received annually, asking if students are admitted to an advanced standing if found proficient in the "lower" branches. All this misunderstanding of the essence of normal work emanates from the waning but wide-spread sentiment that a knowledge of science, minus any definite acquaintance with the laws of mental and moral growth, minus all knowledge of, and even careful reflection upon, skillful modes of presenting subjects of thought to mind, constitutes the first member of an equation whose second member is "fitness to teach."

An apothecary, whose stock of drugs is his sole qualification to practice the healing art, attempts the practice in most civilized countries with a prison cell opening to receive him. In this country, a jeering label is attached, and he is let loose as a warning to all presumption. Are the functions of the body more delicate or physical laws more obscure than those of the mind? Is mal-practice more dangerous or fatal amid muscles than morals? For all important departments of labor, and especially those whose processes can neither be analyzed by the senses nor measured by a rule, it was long since conceded that upon a basis of general culture, technical discipline is essential to worthy work. Upon this principle, the work of a teachers' seminary must be based, and for a difficult art make adequate provision.

To all who believe that the truly successful teacher must combine skill with scholarship, and study the processes of mind even more carefully than the principles of science, the normal school is striving to afford both incentive and opportunity. These schools are maintained to aid in hastening the day when the person who "ciphers to keep up with his class," will not be tolerated as teacher; but, moreover, their missionary character will not have ceased, until throughout the commonwealth it is conceded by every thoughtful person that no teacher is fit, who does not understand the nature of mental soils and the best conditions of cultivation, as well as the quality of the seed proposed to be sown.

To achieve this, we ask for vigorous natures that love to think. Energetic workers, though crude in attainments, need not to remain long in our preparatory work, and earnest students already trained to habits of logical thought, find a broad field for growth; but persons whose highest ideal of education is the conning of phrases or the accumulation of facts regardless of their relations, would better never enter or come prepared to undergo severe discipline in the attainment of right methods of study.

BASIS OF EXAMINATION.

The frequently reiterated expression of disappointment by applicants at the grade of their classification, would scarcely call for a

statement here, were it not that it is claimed to be based upon the assurance of their teachers or superintendents that they were qualified to enter upon normal work.

The growing sentiment regarding the desirability for special training for teaching, exhibited by teachers and superintendents, is most gratifying. But we fear that zeal in the cause has not infrequently defeated its own purpose. In regions where good district schools are rare, it is, no doubt, best that the pupil should seek preparation elsewhere, and carefully graded "preparatory classes" are organized in each normal school for their benefit. Only we most earnestly urge that no person be sent with an undue estimate of his ability, to enter at once upon the study of methods with logical discrimination. Superintendents desiring to encourage a higher degree of efficiency in their districts, will see a less number returning, after a brief sojourn at a normal school, weakly despairing of success, if those who fail to win an average of 70 per cent. in the county examination are plainly told that it is highly improbable that they can grade higher than "preparatory" class in a normal school, until after a few months' academic drill.

Above all, if superintendents would interpret the certificate of "good moral character," which they give in every nomination, to include not only honesty and purity, but also a courageous heart and persistent self-denial for worthy aims, the normal schools can do in months what years of labor, with weak natures, can never do, to elevate and mould the school work throughout the state.

The increasing number of excellent minds entering the school is, in great measure, due to the earnest efforts of the superintendents of schools; but as the normal schools are already approaching the limit of their capacity to receive, it is important that no strong and worthy mind should fail of receiving training because of a mass of pupils ill prepared.

The following questions used at an examination of candidates may suggest the grade of attainment sought at the beginning of a course:

QUESTIONS.

ARITHMETIC.

Science.

- 1. Define Notation, Decimal Point. Give Rule for Arabic Notation and for Arabic Numeration.
- 2. Analyze the subtraction of 39 from 403.
- 3. State principles relating to the denomination of the multiplier, of the product. Illustrate with a problem. Show how the sign of multiplication should be used.
- 4. Define L. C. M. and G. C. D. Find the L. C. M. and G. C. D. of five numbers and make a Rule.
- Define fraction. Analyze the reduction of ²/₃ to 13ths. State the principle employed.
- 6. Analyze $\frac{3}{4} \times \frac{5}{6}$, and state the principles employed.
- 7. Express as a decimal fraction $\frac{34}{10000}$, $\frac{23801}{100}$. Give rule for writing Decimal Fractions.
- 8. $3.0\frac{2}{7} \times 300 \div 1.2 \frac{4}{5}$ of .002 = what ?
- 9. Distinguish simple and compound numbers. Illustrate.
- 10. Write a Denominate Fraction upon which you can perform two reductions, and perform the two reductions.

PROBLEMS.

- A merchant bought 40 yards of cloth for \$260. He sold \(\frac{3}{5}\) of it at a profit of \$\frac{3}{8}\) per yard, and the remainder at a loss of \$\frac{1}{8}\) per yard. What was the result of his investment. (Analyze.)
- 2. Two speculators bought land. A bought $\frac{21}{23}$ of a "section." B $\frac{23}{25}$ of a sq. mi. Which bought the more? How many acres more?
- 3. If 40 bu. of potatoes are worth 45 bu. of corn, and 18 bu. of corn are worth 14 cwt. of hay, and 35 cwt. of hay are worth 4 bbls. of flour, how many bbls. of flour can be bought for 75 bu. of potatoes?
- 4. $\frac{(\frac{2}{3}+4.2)\div.125}{.375\times\frac{3}{5}+(16\frac{2}{3}-\frac{3}{5})=?}$

- 5. From Oshkosh to Chicago, via the C. & N. W. R. R., is 193 miles. The train leaving Oshkosh at 9:05 A. M., reaches Chicago at 4:55 P. M. If it makes two stops of 20 min. each, and 15 of 5 min. each, what is its average running time per hour?
- 6. What is the sum of 8 yd., 2 ft.; $75\frac{1}{2}$ ft., 2,005 in.; 4.35 yd., $28\frac{3}{5}$ ft.; $3\frac{2}{3}$ yd.; 226 ft., in rods?
- 7. A hound ran 200 rods before he caught a fox; \(\frac{3}{7}\) of the distance run by the fox was equal to the distance he was ahead of the hound at starting. How many rods did the fox run? (Analyze.)
- 8. If $22\frac{4}{9}$ cords of wood last as long as $15\frac{7}{13}$ tons of coal, how many cords will last as long as $11\frac{9}{6}$ tons of coal?
- 9. What is the least number which, being divided by 3, 5, 7, 9, and 10 respectively, leaves a remainder of one? Prove your statement.
- 10. A gentleman bought 95 yds. cloth, \(\frac{3}{4}\) yd. wide, for \$100, and gave the same, plus \$25, for cloth of the same quality, but 1 yd. wide. How many yds. did he buy?

MENTAL PROBLEMS.

(Questions dictated and Answers alone written. Time 20 minutes.)

- 1. Divide 1,580 by 130.
- 2. Reduce 19 gal. 3 qt. to pints.
- 3. How old is a man who was born March 3, 1829?
- 4. Bought a jar of butter, which with the jar weighed $39\frac{3}{4}$ lbs; the jar alone weighed $11\frac{5}{8}$ lbs. What was the weight of the butter?
- 5. At $$4\frac{1}{2}$ a cord, what costs $3\frac{3}{4}$ cords of wood?
- 6. The cost of fencing a lot was \$100. If this was $\frac{4}{9}$ the cost of the lot, what were both lot and fence worth?
- 7. I sold a book for \$1.75 and gained \(\frac{2}{3} \) of its cost; what did it cost me?
- 8. Add .02076; .001101; 5.0625.
- 9. If 1 Franc = \$.186, what is a 5 Franc piece worth?
- 10. How many acres in a field 16 rd. square?

GRAMMAR.

- 1. Give three ways of forming the plural of nouns, with two examples of each.
- 2. Define declension. Decline sister, man, deer, cupfull.
- 3. Write a sentence containing a predicate noun, a noun in the Independent case, and an adverb. Parse each.
- 4. "During this century, America has exhibited a progress that is truly wonderful." Parse the italicized words.
- 5. Define an *Irregular* verb. Give the principal parts of four irregular verbs.
- 6. "Keep still or I will chastise you."
 - "If I have erred, I hope to be forgiven."
 - Name the mode and tense of each verb in the above sentences.
- 7. Name and decline the simple relative pronouns.
- 8. Conjugate the verb respect through the Indicative and Potential modes, both voices.
- 9. Define Comparison. What is meant by the superlative degree? Parse the adjectives in the following stanza:

Sweet is the time of spring,
When nature's charms appear.
The birds with ceaseless pleasure sing,
And hail the opening year.

- 10. Correct and give the reason for each correction:
 - (a) Miss Smith looks finely.
 - (b) It is very common among these sort of people.
 - (c) The state of the roads are very bad.
 - (d) Every man and woman should earn their own living.
 - (e) We thought it was him.

GEOGRAPHY.

- 1. Map the township in which you live. Give its number, and the number of the range in which it lies. Divide it into sections, and number the sections.
- 2. Draw an outline of your county. Locate the town in which you live, and give its name.

- 3. Which is the greater distance, one degree north from Madison or one degree west? Why?
- 4. Tell all you know of each of the following:
 - (a) Lake Pepin.
 - (b) Fox and Wisconsin River Improvement.
 - (c) Sturgeon Bay Ship Canal.
 - (d) Wisconsin Central Railroad.
 - (e) Penokee Iron Range.
- 5. Bound Wisconsin by political divisions. Name the natural features of the boundary.
- 6. Locate the following cities of Wisconsin by counties:

Waupun, Madison, Oshkosh,
Green Bay, Beloit, Janesville,
Stevens Point, Appleton, Watertown,
Prairie du Chien.

- 7. Name five important vegetable products that are common to Wisconsin and Georgia. Name two that are produced in Georgia and not in Wisconsin.
- 8. Name five states having a less area but greater population than the state of Wisconsin.
- 9. Name five important cities in the United States that are within one degree of the latitude of Chicago.
- 10. Which state of the Union ranks first in the production of wheat, corn, lead, iron, coal, cotton, rice, sugar, petroleum, and copper?

READING.

(Written, except seventh and tenth.)

- 1. How many elementary sounds?
- 2. How many vocals?
- 3. How many sub-vocals?
- 4. How many aspirates?
- 5. Add the numbers expressed by Answers 2, 3, and 4, and subtract the sum from the number expressed by answer to 1, and write the difference.
- 6. Analytical Fifth Reader "Robinson Crusoe's manner of living and style of dress"—page 137, first two lines of first

paragraph. Write the *vowels* in the *monosyllables* and *accented* syllables, with the diacritical marking. (Webster's, 1864-78.)

- 7. Give each sound indicated in 6.
- 8. State the use of apostrophe. Give rules for the use of capital letters in this selection.
- 9. Define each of the following words, and place each in a sentence: Essay, dungeon, stoic, draw, equinox, degree.
- 10. Read orally one paragraph. Enunciate clearly the consonant sounds, and discriminate between the rising and falling inflections.

SPELLING.

- 1. Write a list of twenty-five words, beginning no word with a capital unless it be a proper name.
- 2. Indicate the primary accent of each word.
- 3. Write a definition of each word in the list, illustrating its meaning by appropriate use in a sentence, if you can thus make its meaning more evident.

List of words to be written:

discern, diffidence, balky, attorney, embarrass, merge,	purge, commercial, substantial, gauging, honey-comb, benign.
	diffidence, balky, attorney, embarrass,

TO SUPERINTENDENTS.

When more than one assembly district is included in your jurisdiction, you are entitled to eight candidates for each.

If any of your former candidates have left school, you are entitled to fill their places with others.

If your quota is already full, and more desire to attend, please certify to their residence, age, health, and moral character, and send them, as they can be assigned on the records of the Board of ReNo. 16.7

The Normal Schools.

gents, to districts where vacancies exist, in accordance with section 1 of regulations for admission.

UNDER-GRADUATE TEACHERS.

While it is believed that the respective normal courses of instruction are none too broad for the purpose of a mental development, essential to a subsequent worthy growth of a teacher, it is none the less certain that, for the present, the normal work must exert its widest influence through the work of under-graduate teachers.

Mindful of this fact, and of the no less patent fact that half-educated minds, drilled in precisely defined forms and phrases, are ever prone to follow the letter regardless of its spirit, the greatest attention is paid, in the first year, to the underlying spirit of the work in elementary branches. A method is never pushed to the front until a careful unfolding of the end may enable the student to view a "method" merely as an expedient, more or less wise, intended to facilitate the attainment of an ultimate purpose; always subserving and never dominating that purpose, either in the eyes of teacher or pupils.

In this effort, one serious obstacle occurs. In that grade of culture, it by no means follows that a truth clearly and logically expressed by an instructor is at all definitely apprehended by every student; hence there is constant necessity of individual examination and restatement.

This character of work, so closely bearing upon the thorough appreciation and comprehension of each thought by every individual, cannot be accomplished in classes numbering more than twenty students, while the large number of students necessitates classes of forty and fifty more frequently than the proper number. Until facilities enable the teachers of the first year sections to more certainly test each student's grasp of subjects presented, there will be ample ground for improvement in the character of our undergraduate representation in the common schools.

RELATIONS TO THE "SYSTEM."

One of the most embarrassing features in the obligation of a normal school to improve the nature and mode of teaching in the

schools of its vicinity, is the influence of tradition in certain of its aspects.

First, the tendency, begotten of vanity, to incorporate among the branches of district school work, various illogically related branches, valued by fond parents and precocious pupils either for their novelty or exclusive tendency in building up an aristocracy of pretense.

Shall a student, soon to teach, be taken from the class in which his symmetrical development is most certain, and be permitted to "coach" for attainment in some branch with a class whose training is decidedly beyond him, because his patrons to be, demand the latter attainment, and are too indiscriminating to perceive the other lack? Enhanced pay and assured position plead for temporary indulgence, when justice to all would deny.

Second, the dissimilarity of views regarding the most essential qualifications in a teacher, which exists among school officers, different superintendents, and normal faculties.

Every age finds occasion to restate its beliefs and formulate anew its convictions. The business of teaching is no exception; but rather because of the very recent enlargement of its field to the serving of social and governmental, as well as ecclesiastical needs, it is undergoing more extensive and less clearly defined changes than any other profession.

Educational works and journals, as well as the popular press, have waged incessant war upon many a cherished custom, until in the centers of thought and experiment radical changes have been wrought in school work; yet the requirements of a teacher, judged by the nature of the examination, not its length or form, have changed very little during the last forty years. A certain deference to the merits of an intricate problem, an antiquated linguistic form, or the location of a geographical point, as compared with underlying principles, each controlling a multitude of facts, renders it a difficult and delicate matter for a normal school to act up to its convictions of what is best when confronted with the necessity for its students, to essay teaching, and an examination for certificate, long before a completed course of study shall have prepared him

for the peculiarities of a science and inversions of logic. This is no less an embarrassment, because it is no one man's fault. In the frequent change of examining officers, and in the wide diversity of bent, culture, and convictions of these officers, there is enough to account for all difficulty experienced by us whose duty it is to prepare for all these emergencies and still preserve an ideal standard.

Should the group of amiably independent enterprises, called "our state system of education," ever evolve a system, doubtless some systematic lines of procedure, emanating from the department of public instruction, will harmonize and facilitate the efforts of all.

TEACHERS' INSTITUTES.

The most valuable instrumentality for the serving of an interchange of thoughts, needs, and purposes between school superintendents, patrons, and teachers, is the teachers' institute as at present conducted. The conductor is not, and does not assume to be, a mere missionary, with all to give and nothing to learn; but performs a most important part as investigator of results and a gatherer of valuable practical suggestions. The value of this thoughtful work and close comparison of views, in its influence upon normal and district school growth, cannot be measured, but is clearly evident in the progress of the last five years.

INSTRUCTORS.

The following is the present organization of the Faculty, two members having been added to the corps during the year, to meet the wants of a growing school:

George S. Albee, President, School Management, Didactics, and Mental Science.

Rrobert Graham, Vocal Music, Reading, and Conductor of Institutes.

William A. Kellerman, Natural Science.

Mortimer T. Park, Book-keeping, Calisthenics, and Preparatory Classes.

Anna W. Moody, History and Civil Government.

Mary H. Ladd, Mathematics.

Helen E. Bateman, English Grammar and Composition.

Rose C. Swart, Geography and German.

Emily F. Webster, Latin.

Amelia E. Banning, Drawing and Penmanship.

Mrs. L. L. Cochran, Principal of Preparatory Room.

MODEL DEPARTMENT.

L. W. Briggs, Director.

Maria S. Hill, Teacher and Critic, Grammar Grade.

Frances E. Albee, Teacher and Critic, Intermediate Grade.

Elizabeth B. Armstead, Teacher and Critic, Primary Grade.

M. T. Park, Vocal Music.

M. B. Parkinson, Instrumental Music.

It has been the good fortune of this school to receive a large portion of the teachers engaged at its organization and in the first years of its work. Thus the instructors have thorough familiarity with the peculiar character of the work, both in its general and local features. The increasing economy of effort and time in attaining results, and the steady improvement in methods of instruction are largely due to this permanence.

It is with great pleasure that I can testify to this unswerving devotion to the common interests of the school, counting nothing a sacrifice which might promote the growth and efficiency of the work.

The cordial co-operation and valued suggestions of Regents, Superintendents, and fellow teachers have been important factors in the work of the past year. It is our trust that, through the growing unity in confidence, sentiment, and conviction, the forces engaged in fostering the interests of our common schools, may so win the public regard, and so wisely use the better impulses of the people, that the education of the next generation shall be a real defense against the evils that have shaken the nation, and not a mere plume with which to decorate patriotism.

Most respectfully yours,

G. S. ALBEE.

RIVER FALLS NORMAL SCHOOL.

RIVER FALLS, WIS., Aug. 31, 1878.

HON. WM. STARR,

Pres. Board Regents Normal Schools:

The following report of the work of the River Falls Normal School, for the academic year ending at date, is respectfully submitted.

On the whole, the year has been one of successful issues. Students have evinced unflagging zeal in general discipline and in means of scholarship, till self-restraint, persistent thought, and patient industry give assurance of the steady growth of individual students in all the particulars in which friends of the school expect to witness development, under the influence of a sparsely settled country, remote from centers of general educational means and influences.

Many students who seek the school are unlearned in any branch of study; they are wanting in theory and art of any branch of knowledge; they have little power of communicating facts.

The work of the school is, therefore, initial in promoting habits of thought, and for the acquisition of facts. With irregular attendance, incident to the environments, many students consume two years in reaching the standard fixed by the board for admission to the normal grade, even with a moderate interpretation put upon that standard. Nor is this condition a source of discouragement, since it is true that the students of the normal are in part the actual teachers of district schools, and are types of the average teachers of such schools. That they who actually do the work in the district schools are sufficiently conscious of their deficiencies to seek means of improvement, is an extremely hopeful sign of ultimate improvement in the whole body of teachers, through contact, under the specific and general means for study afforded by the graded schools, the normals, the institutes, and the associations of teachers.

The specific work of regular classes has been shaped towards the printed course of study, and at this time the first three years of the course are represented in the school.

COURSE OF STUDY.

NORMAL GRADE.

First Year.

	FIRST TERM.	SECOND TERM.	THIRD TERM.
READING	Reading. Spelling.	Reading. Spelling.	Reading. Spelling.
LANGUAGE	English Grammar.	Sentential Analysis.	Composition.
MATHEMATICS	Analysis of Problems.	Analysis of Problems.	Elementary Algebra.
HISTORY	U. S. History.	U. S. History.	Constitutions.
PHYSICAL SCIENCE	Local Geography.	Local Geography.	Botany.
PROFESSIONAL	School Organization.	School Organization.	School Organization.

Second Year.

	FIRST TERM.	SECOND TERM.	THIRD TERM.
READING	Analytical Reading.	Select Reading.	Word Analysis.
LANGUAGE	Rhetoric.	Latin, Essays.	Latin, Essays.
MATHEMATICS	Elementry Algebra. Accounts.	Plane Geometry.	Plane Geometry.
HISTORY	General History.	General History.	Constitutions.
PHYSICAL SCIENCE	Elementary Physics.	Elementary Physics.	Physiology.
Professional	School Management.	School Management.	School Management.

Third Year.

	FIRST TERM.	SECOND TERM.	THIRD TERM.
LANGUAGE	Latin,	Latin.	Latin.
MATHEMATICS	Geometry.	Trigonometry. Civil Government.	Higher Algebra.
PHYSICAL SCIENCE	Physics.	Physical Geography.	Astronomy.
Professional	History of Pedagogy.	History of Pedagogy.	History of Pedagogy.

Fourth Year.

	First Term.	Second Term.	THIRD TERM.
LANGUAGE	Latin.	Latin.	Latin.
Риговорну	Mental Science.	English Literature.	Political Economy.
Physical Science	Zoology.	Chemistry.	Geology.
Professional	Didactics.	Didactics.	Didactics.

Of the one hundred and four members of the normal, sixty-nine have taught an aggregate of 1,008 week during the year, and fifty-students have practiced in the model grades a total of 145 weeks.

The means of promoting understanding and sympathy with the professional thought of normal work, continues to be the chief problem of this school. The prevalent, persistent belief that stating a fact implies knowledge of the fact, and similar belief that a listener is (therefore) a learner, offer constant obstacles to study, and notwithstanding these conditions are incident to all classes in all time, yet normal schools attempt to stimulate intelligence and to promote rationality of means of presentation of subjects to the novice; therefore, they treat all the elementary subjects from the point of view of the learner, so long as their students are unlearned in the science of mind.

Many students come at once into rapport with the distinctive thought of the normal, and all students give their faith to it sufficiently to yield themselves to its operation, as shown in the convic-

tions of more than two hundred students in the normal and preparatory classes during the year, with the varied purposes of "preparing to teach," "preparing for second grade certificate," and "preparing for business." But habits of study are rarely formed before the students enter the normal, whatever their aims may be in seeking its special privileges. While this chief obstacle of the school will continue, the school will find its most powerful auxiliary in promulgating its thought through its students who go among the people to teach district schools, thus exhibiting so many facts, and so much of manner as have been stimulated by contract with the normal, and this school will ultimately become the objective of the district pupil. This ideal mutual influence of normal and district is already realized in part, and the result constitutes the chief encouraging feature of the school.

When the territory contiguous to the normal is less sparsely settled; when mutual understanding shall have been promoted by the influence of graduates; and when more capital has been accumulated by citizens, affording subsistence during the period of study, the school will assume the character and the numerical importance of the older schools.

The following statistics afford means of estimating the possible growth of River Falls Normal, when placed on a level identical with the other similar schools of the state.

To compare resources of the four Wisconsin normal schools, circles of thirty miles radius are drawn, with the normals as centers; the numbers of population therein are estimated from the census of 1875 as a basis; the assessed valuations are taken from the Legislative Manual of 1878, and the income from tuition is taken from the Report of the Proceedings of the Board of Regents of Normal Schools for July, 1878:

RIVER FALLS district has -

- 53 per cent. of No. inhabitants, but 46 per cent. of No. normal students, that 'Platteville has.
- 28 per cent. of No. inhabitants, but 35 per cent. of No. normal students, that Oshkosh has.
- 27 per cent. of No. inhabitants, but 38 per cent. of No. normal students, that Whitewater has.

10 per cent. of No. inhabitants, but 11 per cent. of No. normal students, that the four schools have.

RIVER FALLS has -

- 30 per cent. of assessed valuation, but 92 per cent. of tuition income, that Platteville has.
- 24 per cent. of assessed valuation, but 64 per cent. of tuition income, that Oshkosh has.
- 12 per cent. of assessed valuation, but 160 per cent. of tuition income, that Whitewater has.
- 6 per cent. of assessed valuation, but 23 per cent. of tuition income, that the four schools have.

The enrollment of River Falls Normal is as follows:

Normal grade	104
Preparatory grade	
Grammar grade	
Intermediate grade	49
Primary grade	50
Total enrollment	361

Respectfully submitted,

W. D. PARKER,

President.

REPORTS OF VISITING COMMITTEES.

TO THE PLATTEVILLE NORMAL SCHOOL.

Hon. W. C. WHITFORD.

Superintendent of Public Instruction:

The undersigned committee invited by your predecessor to visit and examine the State Normal School at Platteville, have performed the duty assigned them, and respectfully submit the following brief report:

The first visit was made by the entire committee in November 1877, one member visiting the school again in May, and the other two during the closing week of the academic year.

The building at Platteville, although not of the most modern and approved style, is convenient and well suited to its purposes. Both building and grounds, too, are kept in excellent condition.

The time of the committee's first visit was in many respects favorable. It was in the latter half of the first term. The work of the year was fairly entered upon. The attendance was full. There was a healthy flow of vitality, and the school throughout was in good working order. Every opportunity was afforded the committee of examining the different departments, and of witnessing the exercises in each as carried on in an every-day manner.

The work throughout seemed to be earnestly, faithfully, and yet quietly done. There was very little of that forced and unnatural "enthusiasm" that often unfits a student for quiet, accurate, and prolonged thinking.

A commendable care on the part of instructors, in the matter of securing accuracy and precision in the use of language, was every where noticeable. On the part of one or two of the subordinate teachers there was, perhaps, a tendency to be a little "fussy" in

this regard, and to waste time. It is not common nor easy to err in this direction, but such a thing is possible. Absolute accuracy in the use of language can scarcely be hoped for — certainly cannot be reached at once. It is an end always to be aimed at, but is not the only end, and the process of its attainment, or approximation rather, must be a gradual one.

The instruction in the Normal Department, so far as it came under the committee's notice, was of a high order; and the lectures were full of good thought, practical and interesting. We were pleased to see that some provision has been made in the school for the study of the classics. We submit whether it would not be practicable to begin the Latin earlier and carry it further. The classical instruction now given seems to be accurate and thorough.

Our normal schools would be badly crippled without the model or training departments. This would certainly be true of the Platteville school, as the outside advantages for preparatory instruction are not of the very best in southwest Wisconsin. These training departments not only serve as constant feeders of the normals proper, but their well filled, thoroughly graded and carefully classified rooms afford good models for the young teacher, and give him an excellent field for actual practice. This "practice work" is an important part of the normal training, and we are not sure but more time could be devoted to it with profit, in view of the fact that many of the students take charge of our larger village schools immediately after graduating.

The quality of the teaching in the several grades of the model department was, for the most part, very good indeed. Some of it could hardly be surpassed. It was a source of delight to witness the exercises of the classes in the primary grade. The tact of the teacher and the absence of apparent effort were strikingly noticeable. The children were under no painful restraint, yet they were orderly and all the time interested.

The discipline of the school throughout seemed to be excellent. The precision in the movements of classes was a pleasant feature, and the light gymnastic exercises occasionally practiced, were stimulating and healthful. The musical training was of a high order,

and its good effects were noticeable in all the classes. The school appears to be especially fortunate in this respect.

All in all, the Platteville Normal School is doing good work, and wielding a beneficent influence; and we heartily commend it to the continued confidence of the people of the state.

J. B. PARKINSON, Wm. H. BEACH, T. C. RICHMOND, Committee.

August 31, 1878.

TO WHITEWATER NORMAL SCHOOL.

Hon. W. C. WHITFORD,

Superintendent of Public Instruction:

Sir: —The undersigned committee, appointed to visit the White-water Normal School, beg leave to submit the following report:

The entire committee visited the school in November, and again in May, each member spending three, and one of them four days in the recitation rooms.

Little can be said in favor of the architectural effect of the building, but both it and the ample grounds surrounding it bore evidence of having been well cared for. The rooms were neat, well lighted, and well ventilated. Should the Board of Regents commit the naturally beautiful grounds surrounding the building to a competent landscape gardnener, they might furnish an important factor in the education of teachers.

The general appearance of the students indicated that the school is located in the midst of an intelligent community, and that it has unsurpassed advantage for the maintenance of a high grade of scholarship.

In the discipline of the school, your committee found little to criticise and much to commend. Precision in the movement of classes, prompt obedience in the execution of the rules of order

are not unfrequently secured at the expense of the full and free development of individul characteristics. On the other hand, in the effort to grant to the individual the largest freedom consistent with efficient government, there is constant danger that liberty will degenerate into license. In the November visit, it seemed possible that the government of the school was impaired by the latter fault. In the later visit, all evidence of this had disappeared. Prompt and apparently cordial obedience characterized the conduct of the students, leaving it clear in the judgment of your committee that the administrative affairs of the school were conducted wisely and well.

In so large a corps of teachers, uniform excellence of instruction is scarcely to be expected. In the main we found the work of the class room well done. Many of the teachers were unusually fortunate in retaining perfect control of the class, while affording the fullest opportunities for the expression of individual opinion. Perhaps the last remark is especially applicable to the teachers of mental and moral science. No other topics in the school curriculum afford equal advantages for the cultivation of the habit of reflection and introspection - a habit valuable to anybody, but invaluable to the teacher. Moreover, the tendency of all educational efforts must be to make men better as well as wiser, or the only ground that can justify their support by public taxation is removed. The effort to analyze the powers of the mind, and to probe the sources and follow the tendencies of moral obligation were wrought with constant reference to the teacher's work. A healthful and stimulating method prevailed in the mathematical class room. The recitations were generally conducted by students, under the direction of the professor in charge. The student-teacher's method was the subject of constant criticism. Each point in the lesson was freely discussed, but not in a captious or disputatious spirit. Here as everywhere in the school, we noticed that criticism, couched in the most explicit terms, never seemed to provoke ill-feeling.

The scientific department was conducted with that utter absence of self assumption, which is, after all, the noblest result of ripe scholarship. Accurate and thorough work was obtained without whip or spur. Additional apparatus is necessary to the adequate

equipment of this department. We found the drawing department in charge of a teacher thoroughly conversant with the details of his work. To train the eye to habits of accurate observation, and to render the hand deft in execution, is to contribute important material toward the outfit for man's practical duties. With little technical knowledge of the art of drawing, we feel justified in saying that this topic is taught at Whitewater in a manner that leaves little to be desired.

Geographical science is fertile in themes for thought. We found this department in charge of a teacher that had genuine appreciation of the worth of this noble science.

The academic department was full, the teachers enthusiastic and the students earnest and orderly. The Latin classes were exceptionally well handled. The class in Virgil translated with a freedom and felicity of expression that would be remarkable anywhere. The teacher in charge of the Practice School, was earnest and enthusiastic. In our earlier visit the work was wholly theoretical, and we thought much of it was hypercritical. Methods of work were presented in a manner so dogmatic, as to leave little room for the exercise of private judgment. The work here and in the room where Grammar and Composition were taught, seemed to us a little finical. In both rooms, pupils were often confused while the teacher pressed for an answer conformable to prescribed formulæ. However, both teachers gave an unstinted devotion to the work, and it is hoped that a riper experience will lead them to encourage, rather than suppress, the free play of individual thought. In our later visit we were much pleased with the actual work of the class. members seemed to have obtained that command in the school-room that comes only from rigid self-control.

The class criticism that followed the day's work, was characterized by intelligence, frankness, and good feeling. This department is so potent in shaping the earlier years of the teacher's course, that it is important that it be committed to a teacher of wide and varied experience. We were greatly pleased with the work in the primary and intermediate departments. The teachers were capable and thoroughly furnished. Under their discipline and instruction the pupil teachers found their labors pleasant and profitable.

We desire respectfully to urge upon the Board of Regents the abolition of the shorter course as such. It is true that many pupils will be able to remain but two years or even less; but we fail to see the justice of awarding the diploma of the school, and of exempting from examination pupils whose mental training is not equal to that imparted by a well conducted high school. Sound scholarship is the only abiding source of the deepest and best power of the teacher. Teachers' seminaries ought to stimulate it by awakening a generous appreciation of what is best in books. This will never be the case so long as the majority of normal graduates have received their literary and professional training in two years.

Upon the whole, the school seems to your committee to be ably managed, and we desire in conclusion to record our conviction that here a body of able and efficient teachers are doing thorough work for their classes.

Respectfully submitted,

C. A. HUTCHINS, T. P. SAWIN, GEO. M. GUERNSEY.

Committee.

TO THE OSHKOSH NORMAL SCHOOL.

Hon. W. C. WHITFORD,

Superintendent Public Instruction:

The undersigned committee, appointed to visit the Normal School at Oshkosh, respectfully submit the following report:

We spent two days at the school together, in November, 1877, and two of us made a second visit in June, 1878. We found the ground and buildings in good order, and the inmates busily engaged at work. The general spirit and discipline of the school seem to us to deserve the highest commendation. The presidential management is eminently judicious and successful; the teachers seem to be in entire concord with each other, and to have the confidence and esteem of their pupils; the pupils appear to come to their work with a serious purpose, which is happily preserved and cultivated; and, as a result of all, the general harmony, the quiet earnestness,

and the high moral tone which pervade the school, are unusually noticeable.

This high commendation of the general excellence of the school should, however, be seasoned with some minor criticisms. It did not seem to us that the especial work of training for teaching and educating, was made as prominent as it should be in a normal school. The work is chiefly academic, as in other schools. This may be unavoidable and necessary with the present condition of pupils. Most of them come with little learning or mental training; and, hence, there has to be an unusually thorough drill in acquiring rudimentary knowledge and good mental habits. Yet, we should prefer to see a normal school relieved of the necessity of so much preparatory work, and giving more time to the especial object of training teachers. It may not be possible to accomplish this without raising the standard of scholarship for admission; yet, as long as the present system is continued, the normal schools will do comparatively little to remedy existing defects in the common school.

It seemed to us, however, that in some branches too much of this drill was spent upon petty details, comparatively unimportant features, mere words and formulas, rather than upon essential and practical principles; and that the teacher, at times, exacted too rigid adherence to prescribed methods of expression in recitation. This may be, to certain extent, necessary in correcting loose mental habits, and in training pupils to accuracy; but, if carried too far, it tends to narrow and superficial habits of thought, and represses that freedom and life of mind which are so essential in the teacher. Probably this criticism applies no more to this than to other schools; but here, as elsewhere, we would be glad to see more regard paid to the truth, that "the letter killeth, but the spirit giveth life."

Thus, in arithmetic we noticed a striving for short methods and rapid execution. We admit the usefulness of these automatic short-cuts at certain stages of development and in certain pursuits of life; but we cannot believe that those, who are to enter the country schools, should be impressed with the idea that formulas and short methods are of greater value to their pupils than that clearness of insight, which results from a plodding self-activity of the mental functions. Again, could not the study of grammar be made more

interesting and useful with less formal parsing and more practice in the use of language and in composition? And might not the mere memorizing of geographical and even historical facts and figures be largely reduced, and the valuable time and vigor thus saved, be applied to subjects more important in the life of coming generations?

The true work of the pupil—especially of the normal pupil—would seem to be not cramming with facts, but learning how to find them when wanted, and how to discern their use and value when found; his work is not to learn books, but to learn how to use books; not to fill or fetter the mind, but to sharpen its faculties and to strengthen its powers.

By a reasonable attention to these suggestions, much valuable time and teaching force might be saved, in these and other studies, and applied to the department of natural science, so important in the evolution of the culture of our day. To this department, the school gives the work of but one teacher; and he, on account of the vastness of his province, must sacrifice thoroughness of instruction and intensity of method, and swamp his classes with dry technicalities, in proportion to the conscientiousness with which he attempts to do full justice to his subject.

The model department was visited, and the manner of training pupils in practice carefully examined. The work of the regular teachers deserves commendation, especially in the primary grade. We were pleased with the order and discipline in each of the rooms; but we were impressed with the fact that more attention was paid to the pupil-teacher's ability to formulate his work, to meet certain set requirements, and to keep external order, than to his or her skill in enlisting the living attention of the children, and in arousing them to self-activity in thought and word.

Your committee were especially pleased with the musical training in the several departments, as well as with the marked attention paid to drawing; and they would respectfully urge the Board of Regents to continue their laudable efforts in giving prominence to these subjects, whose importance is fast being recognized by educators and the people at large.

Your committee were requested by your predecessor in office to

report upon the desirability and facilities for the introduction of the Kindergarten as a feature of the practice department, and of Kindergartening as a factor in the training department. The results of our observations and deliberations, we present in the following conclusions:

I. The Kindergarten, as the entering wedge of a new education, based, on the one hand, upon an assiduous study of child-nature, and, on the other, upon a careful analysis of the growth of humanity, deserves respectful consideration on the part of educators and educational authorities.

II. All teachers ought to be acquainted with its theory and practice, so that they may diffuse correct ideas of its nature and value in the community (which is now frequently deceived by ignorant or malicious pretenders); and that they may make use of its ingenious appliances for teaching in the work of the primary school.

III. The establishment of Kindergartens, however, should be left to the family and to private benevolence, until the people in general and school authorities in particular have sufficient insight into their distinctive features and specific value. Unless this is done, the school, with its different aims and means, will absorb the Kindergarten, without deriving adequate benefit from the process and the effort. On the other hand, if this is done, the school and the Kindergarten, each from its peculiar soil, will grow towards each other, and will, in due time, together constitute a more natural and more efficient educational system than we have now.

IV. We found the president and the teachers favorably disposed to the kindergarten, and a number of citizens willing to sacrifice time and money for the sake of establishing a model kindergarten, conveniently located with reference to the normal school; and we have no doubt that a similar state of feeling exists in other normal schools of the state. Thus, by availing themselves of the readiness of the people to establish model kindergartens, the board of regents could, at a moderate cost, employ one competent teacher of the theory and practice of the work for all these normal schools, and, thus induce the natural growth of kindergartening into our schools.

V. If, then, in due time, the establishment of kindergardens in

connection with our public schools becomes possible and universally desired, the state would, with aid of a great number of teachers so taught, be enabled to carry out the reform, without jarring and without extra cost to the people.

At the same time, we would direct attention to the State University as a suitable place for the education of teachers of higher qualifications as to general culture, than can be obtained from our normal schools, whose work is and ought to be even more than now—directed to the training of teachers for elementary schools. Teachers of high-schools and academies, principals, and superintendents ought to have a professional training on the basis of the widest general culture, such as the University is intended to give; if the school is to lead progess, instead of following in its wake. There is now at the expense of the people, in connection with the University a post-graduate course for lawyers. We do not question the propriety of this; but we believe, that the people would get at least as valuable a return for the outlay from a post-graduate course for teachers of a higher order.

Such a course would raise the profession of teaching to a higher level in the eyes of the people; indeed, it would *create* the profession, which now is merely so-called, inasmuch as it depends for its followers largely upon the overflow of other professions; and teaching, which now is rarely sought by talented young men — for the lack of honor it brings, would in due time, be sought as eagerly as jurisprudence, medicine, etc. Respectfully submitted,

W. N. HAILMANN. H. W. SIMMONS. W. A. WALKER. Committee.

TO THE RIVER FALLS NORMAL SCHOOL.

Hon. W. C. Whitford,

State Superintendent of Public Instruction:

DEAR SIR: — The undersigned, members of a committee, appointed by your predecessor in office to visit the State Normal School at River Falls, would respectfully report.

The school was visited once during the year by Dr. Whiting, twice by Mr. Reynolds, but in consequence of continued ill health that compelled an entire cessation from all mental and physical labor, no visit was made by Mr. Leete, and hence the other members of the committee were deprived of the valuable aid of his scholarship, experience, and good judgment. The two members of the committee, who did visit the school, saw it in its regular everyday work, and listened to one or more recitations in the classes of every teacher in the institution. We made careful inspection of the classes and of everything that would naturally claim our attention, and we herein proceed to make specific statements.

LOCATION.

The River Falls Normal School does not have the same advantages of location possessed by the schools at Oshkosh and Whitewater, and therefore it does not receive those unconscious aids enjoyed by these latter schools. In its immediate vicinity there are very few High and Preparatory schools, and hence the pupils who form its classes, are not in possession of that culture and general knowledge that characterize the pupils at Oshkosh and Whitewater. Moreover, the village of River Falls is so difficult of approach as to deprive the school of frequent and repeated visitations by educational men and women, who by such visitations would give encouragement by their sympathy and presence to both teachers and pupils. This feature should by no means be overlooked in the case of either River Falls or Platteville in forming our judgment of the merits or the demerits of these schools. The neighborhood of a school has very much to do in determining its intellectual and moral status.

BUILDINGS, GROUNDS, RECORDS, AND APPARATUS.

The buildings and grounds are well kept. After the most careful examination, we could find no traces of pencil marks or scribbling on the walls of the school building or the outhouses, and we observed that the students were careful in regard to the cleanliness of the floors, making good use of scrapers and mats. Every precaution seems to be taken to protect the health of teach-

ers and pupils, and to guard against fires. The janitor seems to discharge his duties with care and fidelity. The records of the school are kept with system, so that the rank of any pupil who has ever been connected with the Normal Department can be shown at once. We were particularly pleased with the system of records, and with the examination papers that we had the privilege of seeing. The library is carefully kept and well preserved. Your committee deem it proper, however, to suggest that there should be a still further supply of maps, charts, and books of reference. These are the furniture of the learner, and unless the school is well supplied therewith, it fails to accomplish its work. There should also be a supply of philosophical, chemical, and astronomical apparatus, together with all necessary means of illustration in all branches of study. We feel that we cannot urge this point with too much earnestness.

MANAGEMENT OF THE SCHOOL.

We noticed with great pleasure the ease and rapidity with which changes were made in the school when passing from one exercise to another. They were made with promptness, precision, without any confusion, and without any apparent effort; and the decorum of the students during the changes was exemplary and worthy of high commendation. There is scarcely any part of the management of a school when its discipline and the teacher's ability to control, is more clearly exhibited, then in the changes that are made as classes pass to and from recitation rooms, through halls, and as they assemble and are dismissed. Time is economized or lost, good order is secured, or there is confusion, according as the discipline is thorough or lax.

The changes is this school throughout all its departments, were made in such a manner as to economize time, secure good order, and at the same time leave the student free from unnatural restrains. This phase of the discipline, has a moral aspect, for the pupils are thereby led to act according to law, and not according to momentary impulse. The discipline of the school under consideration, we think needs no criticism from us, but may be commended as worthy of imitation.

INTERCOURSE OF TEACHERS AND PUPILS.

We were highly gratified in observing the free intercourse of teachers and pupils. It was not marked by forwardness on the part of the latter, nor by cold reserve and moroseness on the part of the former. Pupils freely approached their teachers with their various questions and difficulties, and with the deference that is due a teacher from a pupil; and the teachers answered their questions, aided them in their difficulties, with tone, manner, and method that served to inspire confidence, give encouragement, and beget in the pupils a love for their work. During our visits, we did not hear a teacher speak an unpleasant word to a student, nor any word of reproof mingled with the instruction.

WORK OF TEACHERS.

Your committee deem it unprofitable, in a normal school as well as in a high school, for teachers to be engaged the entire day in hearing classes. Some time should be allowed for preparation. We observed that some teachers were crowded in their work, having more classes than they could conveniently manage, with advantage to the school and full credit to themselves.

Especially was this the case with Professor Earthman and the president. The latter is thereby debarred from those executive duties that pertain to his office, and from that supervisory work that is naturally expected of him in a school of that character; or, if he does attend properly to all the duties incident to his presidential office, he must necessarily be overworked. Some might say that all preparation should be made out of school hours. committee do not think so. There are some other demands on the teacher out of school. Society has its demands, and there should be leisure for miscellaneous reading and study, attending to the personal requests of students, domestic duties, and rest. The work in a normal school is far more laborious than in a high school, if properly done, and there should be some opportunities for rest of body and mind. In view of these facts as well as others, we suggest that the Faculty be reinforced by the addition of at least one lady teacher.

SIZE OF CLASSES.

We are of the opinion that some of the classes are too large, and that is another reason for the necessity of an additional teacher. Classes in a normal school should be so small that the teachers may come into constant personal contact with every pupil, and that every pupil may be called upon in all the recitations to discharge his duties fully as a member of the class. He should do as much of the work as may be possible in recitation, and it would be well if every pupil could be required to do all the work assigned to the class. Moreover, we do not think it for the interests of a Normal school that preparatory pupils, unless in exceptional cases, should recite with normal pupils. We have some grave doubts whether they should even occupy the same rooms. The tendency of reciting together must be to lower the rank of the normal pupils. We have had the question rise in our own minds whether our normal schools are not too large; but if they are to be conducted on a large scale according to the policy generally pursued in the northwest, very great care should be observed in the gradation and in keeping the grades as distinct as possible.

In this connection, we would suggest our fears that too much is expected of the Normal schools, that there is a tendency to crowding and overwork. The students have a certain amount of mental power that they can bring to bear on their work. Beyond that they can do nothing. They must acquire, assimilate, reproduce, and make the results the stepping stone to future tasks. The process is slow. Too many studies should not be taken at once, nor the ground passed over too rapidly. The education of a boy or a girl is not "done to order," but is a growth. This growth is the result of a healthy, systematic exercise of all one's powers.

READING.

We cannot speak on all the branches pursued in the school at River Falls. We will suggest that, in our judgment, reading is the branch above all others that should receive attention. Perhaps no other branch is so poorly taught in our public schools, and a taste for the reading of works of standard literature, is not culti-

vated to the extent that its importance demands. It is debatable how far instruction in reading should consist of elocutionary drill, and how far of analysis of thought. These are the two extremes. It is to be remembered that all ideas derived from the printed page, enter the mind through the ear, and hence to derive pleasure and and the greatest profit from silent reading, good elocutionary training is very important. The student is to be thus trained, not because he is to read to others, but because he is to read to himself, not as an end, but as the means by which he can extend the boundaries of his knowledge. But good elocutionary training must be accompanied with a careful, thorough study of the thought. great use may be made of maps, charts, histories, biographies, dictionaries, encyclopædias, and all other books of reference, by which the reading lesson may be thoroughly illustrated and its spirit caught. If the selections in the reading books are to be thus studied, the whole range of science and literature will be laid under tribute for their thorough elucidation. Although the reading in this school is well taught as far as it goes, still we think it holds too subordinate a rank in the curriculum of study, both theoretically and practically. Our Normal schools should be the nurseries of scholarship, and scholarship in its broadest sense, comes only by constant and loving intercourse with the writings of the great living and the great dead; by drinking from these fountains the garnered wisdom of the ages.

We would impress the vital importance of instilling into these candidates for the teacher's profession the priceless value of a love of reading.

AIM AND INSTRUCTION.

The aim of the normal school is the preparation of teachers for our primary and intermediate schools, and it would naturally be expected that the instruction and the method of instruction would correspond to the aim. It would be expected that mental processes and the order of intellectual development would be an important subject of study and investigation. Such is obviously not the case. Didactics and the philosophy of education would be thought to be a large part of the work, whereas they hold a subordinate rank.

Ever since their organization, it has been objected to the Normal schools in this state that they do simply academic work, that they have never performed their legitimate function. The friends of these schools have steadily insisted that it is impossible for them to do much else than academic work at the present stage of our educational progress. In all states and countries where normal schools were first established, higher and secondary education had made great advance, colleges and universities had already attained high rank, highly educated men were in the several professions, mental processes had become an object of investigation, and scholarship was sought not more as a means by which to do the ordinary business of life, than as a means by which man might be improved intellectually and morally, and a higher civilization attained.

In the northwest colleges are weak, secondary schools are few, there are few men of leisure, and hence there are but few who can devote themselves to reading, thought, and abstract studies. country is new and all must devote themselves to labor in order to procure the necessaries and the comforts of life; scholarship is not sought for its own sake; and we might say, perhaps, with some truth, that Normal schools are prematurely established among us, and hence they are forced by the very condition of things to do work that does not properly lie within their sphere of action. Normal schools simply are advanced condition of scholarship, a knowledge of the human mind and of the process of intellectual development. Mental processes are investigated and the results of such investigation made subservient in our methods of instruction. This requires men of leisure, we repeat, who can devote their time to study, thought, and reflection. The northwest was not settled by scholars but by men of activity, of labor, and business; and our civilization is not so much an intellectual as it is an active civilization, and our Normal schools and other schools are more or less affected by this condition of things. States and communities as well as individuals have their infancy, youth and manhood so far as regards educational affairs, and the northwest cannot have passed its youth. Any one who supposes that a Normal school in Wisconsin can be conducted on the same plan and with precisely the same aim as in Prussia, is indulging a delusive dream. What then?

Shall we shut up our Normal schools? Certainly not. Let them flourish. Let them develop with all our other grades of schools, accomplish all the good they can, and by and by they may enter their own appropriate domain.

Let such work as can be done in them be honest, thorough, and correspond to the intellectual advancement of the pupils.

In the River Falls school, your committee believe that, on the whole, the instruction is thorough, honest, and adapted to the intellectual condition of the students that compose the school. Some, perhaps, might raise the question whether too much time is not given to minute details, but it must be remembered that the instruction is imparted to those who have never had the advantage of good secondary instruction, and many of whom have not had even good primary instruction.

They have but little ability to classify and generalize the facts they have already acquired; they know nothing of methods of investigation; they cannot study their own mental processes; and the instruction must be concrete in its nature; the students must deal with facts rather than with fundamental principles; they have not yet penetrated the region of abstract thought. Had they already reached this latter stage of their education, it would be necessary to modify very materially both the curriculum of study and the teaching force, as well as the method of instruction.

It might be proper, in passing, to suggest that the work of the school room consists in guiding the pupil in his education, inspiring him with a love of study, encouraging him to go boldly forward in the acquisition of knowledge by putting forth continuous and energetic mental effort. It also consists in imparting instruction out of the abundant fullness of the teacher's own knowledge, showing the applications, limitations, and extent of the subjects studied and their interdependence. Furthermore, it consists in examination to test the thoroughness of the teacher's own work and the pupil's knowledge and mental power. The examination should have for its purpose, not so much to test the pupil's acquirements simply, as to test his ability to think and to enter with probable success on new and untried works. The teacher, in order to inspire, encourage and guide must be an enthusiast in the subject to

the careful study of which he is endeavoring to allure his inexperienced and timid pupil. He must have traveled the whole road himself, and made himself thoroughly acquainted with all its dangers and difficulties. The query rises in the minds of your committee whether too much time is not given in the class room to mere examination and not enough to actual positive instruction. We simply raise the question without giving any definite opinion thereon.

CONCLUSION.

In conclusion, your committee are pleased to say that, in their judgment, the River Falls Normal School, so far as is consistent with the educational progress of our state, is fulfilling its high mis-The teachers are earnest, laborious, and faithful to their sacred trust; the pupils are studious and attentive to duty. congratulate that section of the state on their excellent advantages in this school. For twelve years we have watched with increasing interest the growth and the development of our Normal schools. We have never lost faith in them, and after visiting the school specially considered in this report, our faith in them is stronger still, and we commend them to the sympathy, fostering care, and considerate judgment of our people. No State in the Union has more splendid opportunities or grander possibilities in the direction of her Normal schools than Wisconsin. May her legislators, her public men, her educators, and all her people so discharge their duty that the state may go forward in morality and general intelligence, and in everything that contributes to make a people free, prosper-J. B. WHITING. ous, and happy.

J. B. WHITING, B. M. REYNOLDS,

S. M. LEETE,

Visiting Committee.

LA CROSSE, Wisconsin, July 31, 1878.

STATE TEACHERS' ASSOCIATION.

SEMI-ANNUAL MEETING.

WEDNESDAY EVENING, Dec., 26.

The Association convened at the Capitol, and was called to order by the president, James Mac Alister, of Milwaukee.

The session was opened with prayer by Pres. W. C. Whitford, of Milton.

Pres. Whitford presented a paper on "Our Country Schools."

[This paper, by request of the Association, was printed in the January number of the Journal of Education, 1878.]

The reading of the paper was followed by a discussion.

Prof. Searing subscribed to all that had been said by Pres. Whitford, but was disappointed that no suggestions for a practical reform had been made. The average country school is now worse than it was a quarter of a century ago, in New York. Teachers are less apt to teach now than then. This condition of affairs is partly brought about by the action of the graded schools in taking the best of the teachers from the country to the cities and villages.

How can these abuses be reformed? (1) He would have teachers' wages raised, to a large extent, by a state tax. (2) A stricter supervision must prevent the competition now existing between the good and the poor teachers.

Supt. Walker, of Manitowoc, thought that it was possible for county superintendents to get along without encouraging poor teachers and discouraging good ones, in issuing licenses to teach. Let no limited certificates be granted. There are none granted in Manitowoc county. There are only teachers enough to fill the schools in his county.

Mr. Reynolds, of New Lisbon, thought that the want of proper organization is largely responsible for our poor schools; that the schools are as good now as at any previous time; that the fault is

in the old district system of organization; and that the township system will prove the true remedy. Mr. Reynolds thinks that the crowding out of male teachers and substituting females, has also had a bad effect on the schools.

Mr. Westcott, of Racine, thought it a hard question, but that the schools are not so bad as they are said to be.

Asst. Supt. Pradt said we must look at the question as it is presented in Wisconsin; that the various nationalities, the isolation and individualism of our single districts, form an insurmountable barrier to efficient schools; that a town organization is essential to an adequate and general reform.

Mr. Shaw, of Madison, thought the higher studies an injury rather than a benefit to the schools. The curriculum must be cut down rather than extended.

Pres. Albee, of Oshkosh, said the management of the diverse nationalities in our schools was a difficult point in this question. The principle of democracy is not to be carried too far. The township system is the thing.

Mr. Emery, of Ft. Atkinson, thought it was a mistake that the township system was made permissive instead of obligatory when first enacted.

Supt. Searing approved the township system, but considered its adoption almost hopeless; where it has been tried, it has not given entire satisfaction, in some cases.

Pres. Parker, of River Falls, said that the legislation would never solve the problem. The work must begin farther down. There must be personal, persistent effort with the masses of people. Let the superintendents, teachers, and institute conductors do this work.

Mr. Mac Alister, of Milwaukee, thought a committee should be appointed to present this question to the legislature.

Pres. Whitford said he wished to provoke discussion on the subject. He was an earnest friend of the township system, but was not sure it had been successful where tried. An educational basis for suffrage has been proposed, but is not feasible.

Mr. Mac Alister was appointed a committee to confer with the Governor in relation to a room for future sessions of the Association.

Adjourned.

THURSDAY MORNING, Dec. 27,

Pres. Mac Alister reported that it would not be possible to meet at present in either the Senate or the Assembly chamber.

Mr. T. P. Marryatt, of Kenosha, read a paper on "The Question of Compulsory Education."

A discussion followed the reading of this paper.

Supt. Searing thought one of the most hopeful signs of the times is in the growing conviction of the people that an educational qualification for suffrage is necessary. The only objection to a compulsory law is the impossibility of enforcing it. Could it be executed, he would be in favor of such an enactment. As a matter of fact, there is no need in Wisconsin of a compulsory law, as nearly all the children of the state, at some time or other, obtain the instruction contemplated by the law.

Mr. Richardson, of Milwaukee, thought as tax-payers are compelled to maintain public schools, they have a corresponding right to insist that all the children of the state be sent to school. An educational basis for suffrage is the great need of the country.

Mr. Emery asked how a compulsory law that could not be enforced in Michigan or New York, would exert a great moral influence in South Carolina? He would like the gentlemen who are advocating such a measure to answer.

Mr. Hutchins, of Fond du Lac, was not in favor of a compulsory law, but would vote for any law that any teacher will draft, provided it be satisfactory to the author. He has never seen a teacher that could draft such a law. He thought the question of suffrage a political question, which teachers, as such, should not meddle with.

Mr. Clark though that if schools are provided, education should be compulsory. He was willing to pay his taxes, if children are obliged to go to school.

Supt. Searing was sure the whole school system must be reorganized before any compulsory law could be successful.

Mr. Marryatt thought the laws already enacted have been too lenient.

Mr. Walker was not in favor of a suffrage limitation. He asked

how a law can be effective, unless public sentiment will uphold it.

Mr. Walthers, of Milwaukee, said such a law is impossible, and strongly endorsed Supt. Searing. Voluntary association must diffuse public sentiment, and then there will be no necessity for compulsion.

Mr. Chandler, of Sun Prairie, said that the people are not interested in the subject. He hoped all the points of the case would be well considered. The statistics of Wisconsin do not show whether or not an alarming illiteracy exists.

Prof. McGregor, of Platteville, thought that not much would be gained by such a law, considering the inefficient condition of the country schools spoken of by gentlemen in the debate on the condition of those schools. Teachers must do the work by personal effort. Opposes all such legislation.

The "Report on an Exhibitory Department for the Association" was submitted by O. S. Westcott, of Racine. The report favored the establishment of such a department, and contained a scheme for its organization.

After a spirited debate, participated in by Messrs. Salisbury, Westcott, MacAlister, Whitford, Johnson, Parsons, Harvey, Albee, Charlton, Roby, and Bascom, the following resolution, presented by Prof. Thayer, of River Falls, was adopted:

Resolved, That the report on an Exhibitory Department for the Association be referred back to the committee for further consideration, to report at the summer meeting.

The committee was further instructed to prepare and place on exhibition at the summer meeting, such work as may be sent in by the different schools of the state.

Prest. Albee, in behalf of the committee on "Kindergarten Culture," stated that they had no report to make.

The discussion of this subject was made the first order for the evening session.

The president was instructed to pay the expenses of the Association for a place of meeting.

Adjourned to meet at the City Hall, at 7 P. M.

THURSDAY EVENING, Dec. 27.

The discussion on "Kindergarten Culture" was opened by President Albee, of Oshkosh. He said the old system of education was to place a text-book in the child's hands. Only by learning to read could the child begin culture of mind. The training of the childmind was supposed to be attained in no other way. Is this the one way—is it the right, the just way? The kindergarten system says that there is another and a better way—a method of mind-culture to be best carried on without a book. The difficulty in the system is that our teachers should understand child nature. Were this philosophy of child-mind understood by our teachers, this would be the natural beginning of an individual's education.

Mr. Richardson, of Milwaukee, read a paper showing the ends and the means of kindergarten culture, and its adaptability to the public schools. Mr. R. was in favor of the introduction of the elements of the kindergarten into all our schools.

Mr. Walthers, of Milwaukee, gave some of his experience as a teacher of little children. He developed his ideas of this culture from the example of the children themselves. The system must be adapted to the masses.

Pres. Phelps, of Whitewater, read a paper on "The Relation of Normal Schools to the Common School System of the State."

Pres. Whitford and Pres. Phelps were requested to furnish copies of their papers for publication in the Journal of Education.

The committee on "A State Tax for Schools" submitted the foling report through Supt. Searing, chairman.

Your committee respectfully report as follows:

An inspection of our state system of public instruction shows the following facts:

- (1). The income of the school fund is less than one-twelfth of the annual cost of the schools.
- (2). That income has practically reached its maximum amount, and the sum annually distributed for each child of school age (now only 41 cents) must gradually grow less in the future, as the school population increases.
 - (3). The comparatively small amount of the fund is due to the

same inconsiderate manner of selling the public school lands which deprived the university of an adequate endowment, while encouraging immigration to the state.

- (4). The local taxation for the ordinary support of schools is enormously unequal, varying from 1 35-100 mills per dollar of the assessed valuation in Milwaukee, to ten or more per cent. in some of the newer portions of the state.
- (5). In consequence, many schools in country districts are necessarily short in duration and poor in character.
- (6). The state has no easy, economical, and effective means of enforcing such requirements as the good of the school system may demand; such a means as is found in the distribution of public money on conditions imposed by the legislature.
- (7). The greatly and unnecessarily unequal advantages of the schools are a source of weakness to the school system as a whole.
- (8). The small amount of material aid given by the state, rendering oppressive to the people the support of the schools in its poorer and newer sections, tends to prevent its more rapid settlement, and is thereby an injury to the development and progress of the state as a whole.

In view of these facts, it is recommended that a general tax for common school purposes be imposed upon the property of the state in amount sufficient to yield annually at least as much as the income of the school fund.

It is believed that such an increase in the amount of money distributed to the schools, directly from the state treasury, would considerably enhance their efficiency, proving a means of securing better teachers, greater equality in the length of school terms, better attendance, uniformity in books, and other conditions upon which the welfare of the school system and of the whole state largely depends.

The example and experience of many other states fully support the recommendation herein made, as is shown by the last three annual reports of the State Superintendent.

Ordered, that discussion on the report be made the second order for to morrow morning.

The president was instructed to invite Prof. Haskins, of the Northwestern Telegraph company, to address the association on the "Telephone."

Adjourned to meet in the Senate chamber.

FRIDAY MORNING, Dec. 28.

Association met in the Senate Chamber.

Prof. Kerr presented a memorial address on the death of Prof. O. R. Smith, of Sparta.

The thanks of the Association were tendered to Prof. Kerr, and a copy requested for publication.

On motion, the discussion on the subject of a State Tax was postponed.

Prof. Marryatt was asked to furnish a copy of his paper on Compulsory Education for publication in the Journal.

Prof. McGregor read the report of the committee on "The Study of Drawing in Common Schools."

Prof. Haskins, of Milwaukee, gave a lecture on "The Telephone," for which he received a vote of thanks from the Association.

A discussion followed on Prof. McGregor's paper on Drawing in the Public Schools.

Mr. MacAlister and Pres. Albee thought the paper the best ever possented before the Association on this subject.

Prof. Salisbury thought the teachers in the Institutes took great interest in the subject of drawing whenever it was properly presented.

Prof. Thayer has had an experience similar to that of Mr. Salisbury. He thinks that systematic work cannot be done in the common schools.

Mr. Parsons has found teachers using the suggestions given in the institutes.

Ordered, that this paper, with the other proceedings of the session, be referred to the executive committee, which shall consider the advisability of publishing the same, and report to the association.

Supt. Searing read the report of the committee on "A Course of Study for Mixed Schools," as follows:

The committee strongly favor the theory of a uniform course of study for the mixed schools. They see, however, many practical difficulties in the way of the successful adoption and use of such a course. Among these difficulties are:

- (1). The varying lengths of school terms.
- (2). Irregular attendance.
- (3). The constant change of teachers.
- (4). The independence of district boards, and their unfitness to co-operate in securing so large a reform.
 - (5). The absence of uniformity in books.
- (6). The lack of permanence and authority in the supervising power.

While the committee recognize in these, great and embarrassing obstacles, they, after careful reflection, do not consider them, individually or collectively, insuperable; and in view of the undeniable advantages of work uniform in amount, character, and methods, they recommend that the experiment of a uniform course be fairly and thoroughly tried, under the general direction of the State Superintendent.

We recommend that the basis of such a course be the last July report of the committee on "Education for Good Citizenship;" that a committee be appointed to draft such a course; that the course be minute and specific, instead of general and indefinite; that the course contain a supplementary course, suited to schools containing advanced pupils who have successfully finished the previous course; that the Institute Committee print such course in the Institute Syllabus; that special efforts be made to explain and introduce such course through Institutes; that the State Superintendent prepare a circular embodying the course, with suitable comments and explanations.

The committee think no legislation is necessary for carrying out the plan.

Supt. Searing was most decidedly in favor of trying the experiment of a course of study in all of the mixed schools of the state, and wished to be so entered on the record.

Prest. Whitford wished to hear from the superintendents of those counties where some system of study has been tried.

Mr. Walker was strongly in favor of the plan.

Mr. Parsons has established a course of study in Richland county, and finds it of great benefit to the schools.

Mr. Harvey asked how a county superintendent, with a whole county to supervise, could successfully put a course of study in operation, when it requires the whole time of a superintendent and a principal to do the same work in every town employing ten or a dozen teachers?

Mr. Emery thought we could not have much machinery, but could only group studies, and at stated times hold examinations.

Mr. Shaw thought there would be no great difficulty in persuading district boards to adopt a course of study, as they are already dissatisfied with the present lack of system. The fault is with the teachers who have no faith in the matter. The grading can be done reasonably close. We must be satisfied to make small beginnings.

President Bascom would leave each school perfectly free to act its pleasure in regard to the matter.

Mr. Chandler thought the whole merit of the system lay in the possibility of classification. The great diversity of work done makes the manner of its accomplishment inferior. This might do in President Bascom's New England typical district school, but not in our Wisconsin school. He would have a course of study, and would not have one group of studies begun until the next preceding one was finished.

Pres. Phelps said but little can be done for the schools in this direction until they are properly classified. This is not altogether an experiment. In some counties of Illinois the scheme has been in successful operation. In Indiana it is not an experiment but a success.

Supt. Searing said that in New Hampshire such a course of study has been prepared and in operation for some years.

Mr. Lunn is in favor of a course that shall tell, in detail, what to teach in each course and how to teach it.

Pres. Albae thought the teacher would need a great deal of backbone to put such a course in operation.

The report of the committee was adopted.

A committee of five was authorized, with Pres. Whitford as its chairman, to draft such a course of study, and to report to the association at some future time.

Adjourned.

FRIDAY EVENING, Dec. 28.

President MacAlister called the Association to order at 7:45. In the absence of A. A. Miller, Secretary pro tem., Geo. Skewes was appointed to note the minutes of the evening session.

The members of the "Committee to Prepare a Course of Study for Mixed Schools" were then appointed as follows: W. C. Whitford, W. H. Chandler, R. Graham, W. A. Walker, and S. Shaw.

Pres. Phelps called attention to and spoke briefly on the memorial which is to be presented to Congress in behalf of a "National Bureau of Education."

W. H. Chandler presented a paper on the "Supervision of Schools," which was discussed by Messrs. Marryatt, Shaw, Supt. Searing, and Pres. Bascom.

Mr. Beach, of Beloit, read a paper on the "Functions of the High School in the State System of Education."

Supt. C. A. Hutchins, of Fond du Lac, read a paper on the "Course of Study in High Schools."

In the discussion following, Mr. Howland said he felt gratified to find that there was a variety of opinions on this subject, as he had some doubts as to which of various methods should be pursued. He believed a more definite shaping of the High School course was necessary. There were strong reasons for favoring the thorough study of a few of the High School branches—so called—in preference to the taking up of many of them more superficially, though there were also some good reasons for doing the latter.

Prof. Lovewell was glad to see that the tendency to place on school curriculums fewer branches and do the work more thoroughly, was on the gain, but thought it was not necessary that all schools should shape their courses alike; that what works well under some circumstances, should be changed in other conditions.

Mr. Harvey agreed with the paper in most respects, but would give more study to the English in preference to the Latin, in order 16—Supt.

to form a good English style for those who do not propose to take a classical course. He would not omit history, but teach it in a more natural and philosophical manner than bare chronology and detached facts. He would therefore make the English and scientific studies more prominent.

Mr. Westcott said if the High Schools were to fit students for college they must do so by the study of Greek and Latin. He would prefer to drop the study of Greek, but not the Latin. Would omit a part of Geometry, and take in place thereof Trigonometry and Mensuration. More Latin can be learned in two or three years than was generally supposed. If there were one-tenth as much grammar and ten times more reading, good results would follow.

Mr. Beach recommends having some of the natural sciences taught orally in some of the lower grades, and having children taught to use their own powers of observation. He would be sorry to have either Greek or Latin omitted from the High School course. He would have the children begin the study of mathematics at a later age, and thinks as much would be accomplished in them, if they were not taken up so soon by at least two years.

Mr. Kirk said that a course of study should be prepared without reference to fitting the scholars for any particular line of business. He believed in laying down a course that would fit for the highest citizenship.

Mr. Westcott thought that there was one branch not yet specifically named by any of the speakers, viz: double entry book-keeping, which he would add to the course of study, and have taught orally by a competent teacher.

Further discussion by several gentlemen followed, on the propriety of studying Latin over German, and the value of studying the classical languages as a help to the student of mathematics.

Supt. Shaw suggested that the smaller high schools ought to fit pupils for the scientific course at the University; that the next higher schools might prepare pupils for two of the courses of study, and the larger city high schools prepare their pupils for the three courses of the University.

Supt. Hutchins presented the following resolutions, which were unanimously adopted by the association:

Resolved, That we recognize the press as one of the chief means of intelligence, and we hereby tender thanks to editors of state papers for cheerful aid rendered to the work of the Wisconsin Teachers' Association, and we feel especially grateful to the Wisconsin State Journal and to the Madison Democrat for the full reports of the proceedings of this meeting of the Association.

Resolved, That we gratefully acknowledge the courtesies extended by the hotels of Madison, by the superintendent of public property at the capitol, and by Supt. Samuel Shaw and the city clerk of Madison in procuring the city hall for use of the Association; also, for the reduction of rates of railroads, the Association tender thanks to the following named railroad companies: Chicago & Northwestern; West Wisconsin; Chicago, Milwaukee & St Paul; Wisconsin Central; Wisconsin Valley; Milwaukee, Lake Shore and Western, and Sheboygan & Fond du Lac.

On motion of Prof. Salisbury, "Roberts' Rules of Order" was adopted by the Association as its parliamentary guide, instead of "Cushing's Manual."

Supt. Shaw introduced the following resolution, which was adopted:

Resolved, That this convention recognize with great satisfaction the recent departure of the Chicago Evening Journal in introducing into its columns a special department for educational news. We trust this example will soon be followed by the whole press of the country, irrespective of political preference.

Prof. Salisbury presented the report of the Executive Committee with reference to publishing the proceedings of the Association, and moved the following:

Resolved, That the President be empowered to make arrangements with the publishers of the Wisconsin Journal of Education for the publication of the proceedings of the Association, and the papers and reports ordered published, in a single number of the Journal, and to promise such compensation therefor as may be satisfactory to himself and them.

Adopted.

On motion of Supt. Shaw, the papers of Messrs. Hutchins and

Chandler were ordered published in the proceedings of the Association.

Prof. Salisbury presented the following resolutions as being the sense of the Association, and moved their adoption.

The motion was warmly seconded with a few earnest words of commendation by Pres. Phelps, Supt. Hutchins, Pres. Bascom, and W. H. Chandler, and the resolutions were unanimously adopted, by a rising vote:

Resolved, That we, the members of the Wisconsin Teachers' Association, desire to express our full confidence in the State Superintendent elect, Pres. Wm. C. Whitford, and our heartiest wishes for the success of his administration; and we do hereby pledge to him our heartiest co-operation in all efforts looking to the greater efficiency of the educational agencies of the state.

Resolved, That we would convey to the outgoing superintendent, Hon. Edward Searing, now for four years our honored official leader, the assurance of our continued esteem and admiration for him as a man, an educator, and a public officer.

Resolved, That we wish to congratulate him in a particular manner upon the gratifying success of his administration, and to thank him for his conscientious and fearless devotion to the interests of education in Wisconsin.

Resolved, That we do hereby express our sincere wishes for his abundant future prosperity, private and professional, and our hope that he may long remain a co-laborer with us in the cause of sound education.

Supt. Searing made an appropriate response to this expression of the association.

On motion, the association adjourned to meet at the call of the executive committee.

JAMES MAC ALISTER, President.

A. A. MILLER, Secretary.

ANNUAL MEETING.

The Twenty-Sixth Annual Meeting of the Wisconsin Teachers? Association was held in the Opera House, at Geneva Lake, commencing Tuesday evening, July 16, 1878.

The Association was called to order by the president, James MacAlister, of Milwaukee, and in the absence of A. Earthman, the secretary, Albert Salisbury was chosen secretary pro tem.

Hon. J. B. Cassoday, of Janesville, was introdued and gave a lecture before the Association; subject, "Educated Statesmanship."

WEDNESDAY MORNING, July 17.

The exercises were opened with prayer by Pres. A. L. Chapin, of Beloit College. A. A. Miller, of Waukesha, was elected secretary for the session. Messrs. T. F. Frawley, W. J. Brier, and E. Dewey were appointed a committee on the enrollment of members, the chairman to serve as railway clerk.

President MacAlister deferred the reading of his Address, on "The Relations of Education to some Scientific Problems," and instead thereof, discussed the present condition and prospects of the educational interests of the state.

He commenced by laying down two propositions which he regarded as demanding the most careful consideration at the hands of educators: (1) The fact that man is the product of evolution. This was true of man taken individually, as well as when regarded socially, and the great need of the time was, that this law—for such it must be regarded—should be recognized in all education and its work co-ordinated to the successive stages in the development of his nature. (2) That our education should be made more practical. He did not sympathize with the foolish demand, now so rife, that all common education should be reduced to the learning of the three R's. That was not in the direction of practical reform. What he insisted upon was that the schooling of children should be specially adapted to suit them for the actual work of life. This

would require the discarding of some branches now considered as essential, and the introduction of others that did not enjoy that confidence of the public to which they were justly entitled. He mentioned, under the first class, algebra, and under the second, free-hand drawing and music.

Mr. MacAlister then classified the educational institutions of the state under the four heads of (1) common schools, (2) secondary or high schools, (3) normal schools, and (4) colleges and universities. Each of these was passed rapidly in review, and the reforms needed to render them more efficient and satisfactory were indicated in a comprehensive way.

Mr. A. F. North, of Pewaukee, presented a paper on "The Just Limitations and Conditions of the Control and Support of Education by the State."

A discussion of the paper ensued.

Mr. Cornwall, of Albion, said that when a lad can read, write, and cipher, the state has nothing more to do with his education. Beyond that, education is private property; is not opposed to higher schools; thinks there is too much expense connected with higher school system. One man gets more salary than it costs to run a successful academy. It costs more to grease the axle of the Normal School Board, than to run a good school.

Mr. Emery thought the high schools were under the supervision of the state.

Pres. Chapin said that the actual cost of a collegiate education is above the reach of ninth-tenths of the youth of the state—relief must be had. This is what is meant by endowments. Private endowments have relieved the denominational schools. He sees no impropriety in allowing the state to help public education. But should it be free? Europe has hit the spot better. Shall endowments and small fees, as a matter of political economy; he objects to taxing all for the benefit of a few. He declares his entire dissent, base? on thirty years' experience and observation, to any antagonism between the University and private colleges. He wants the work well and thoroughly done in both. He believes in the principle of competition. Let each stand on its own merits. Is more jealous of that influence which sends our young men out to

New England for an education. He believes we can do the work here as well. Graduates will compare favorably. Can graduate at a college here and travel a year in Europe for what it costs at Yale or Harvard. He does not think public support should yet be withdrawn.

Prof. Rockwood — The habit of using the formulas used for centuries for foreign lands are used in criticising home government and its works; our government is another and different thing from those. The government is the people, acting in a certain manner for themselves. It is not a paternal abstraction acting on the people, but the people themselves. This destroys the reasoning of the first half of the paper, and the twenty educated at public expense are deemed an equivalent, by the people, to the one thousand who cannot graduate.

Prof. Kerr — Is the only representative of the University faculty present. He is proud that he is a graduate of Beloit. As a university man he says live and let live. God speed to all. It takes brain power to run a farm. He hopes that his son after his Greek and Latin will try to get honor in agriculture.

Prof. Wood — A fallacy is that an education is private property. An educated man gives back to the state more than he receives. It deprives no one of anything, nor is it generally profitable in dollars and cents to its possessor; but if the state receives the advantages of inventions and progress, the state should pay it back to the poor and needy student.

Supt. Whitford — Deems the paper of Mr. North more a criticism on certain institutions than as an exponent of any great principle. The state does exercise supervision, and a careful one, too. In his statement in regard to extraordinary expenditures of university funds, his figures do not represent the facts. Part is expended in buildings and in other general uses. What the State and United States furnish, are endowments given for these special objects.

The present policy in regard to tuition, is not a policy established, but an experiment. An attack on our higher education is a dangerous experiment, because the argument would destroy our common schools.

Prof. North - The State does not examine the high schools.

The County Superintendent looks at them; the State Superintendent cannot examine them. Colleges have received endowments from voluntary effort, from a sense of duty. But the States will weaken this feeling by assuming this duty.

The question is, What should the people authorize the State to do? We are not inimical to higher education; but we ought not to pay for these advantages. The reward should not be measured by dollars and cents.

Pres. Chapin moved that a committee, consisting of Messrs. Chandler and Salisbury, be appointed, to make arrangements for a trip on the lake in the afternoon. Carried.

Supt. Shaw read the paper of Prof. Carpenter on "Spelling Reform."

A discussion followed.

Prof. H. D. Maxson heartily endorsed the paper. He will speak for the reform association. There is need of harmony, if action is necessary. The association has been under charge of the best philological scholars of the land. Their work cannot be changed for light cause. Let each sacrifice some pet notion for the good of all. He has taken interest in this work of reform in spelling, and hopes it will meet with the support of all.

A. O. Wright—It is not necessary to discuss need of reform. He speaks only to those who believe in reform. Our alphabet is the same as that used by many other countries. We should, therefore, make our reform on a basis of no change in the alphabet, but the spelling of the language should be reduced to few rules, not necessarily phonetic. Let us make the reform as easy as possible. Had we no alphabet; were our alphabet used by no other nation, we could organize on a better basis.

Prof. Rockwood then read a memorial of the Philolgical Association, to congress in behalf of spelling reform, asking a commission to examine into the question, and determine what can be done in the United States to bring about the reform.

Pres. Albee, member of the State Text-Book Commission, was called on.

He said this part of the work had fallen to Senator G. H. Paul, but he could speak as a teacher. If the facts alleged are true, no

more important question can come before us. Thinks the task of putting in all these diacritical marks in our manuscripts, would be a great task. We could learn the new characters of a new alphabet much easier than we could learn and make all these marks. He preferred a new alphabet.

The committee on Excursion reported that they had arranged for a trip around the lake in the afternoon, on the steamer *Lucius Newberry*. Report adopted.

Adjourned.

THURSDAY MORNING, July 18.

The Association was called to order by the president.

The "History of the Association," by Prof. Albert Salisbury, was accepted, to be furnished to paying members free of cost, and to other persons at an expense of ten cents per copy.

Mr. Reynolds moved that a committee of five be named to take charge of the Exhibitory Department next year — also, a committee on Nomination of Officers.

Mr. Salisbury moved that committees be appointed of three each, on Finance, Honorary Members, and Resolutions. Carried.

Mr. Twining moved that a committee on Organization be named. Withdrawn.

Moved that the courtesies of the floor be extended to such strangers present as chose to exercise the privilege. Carried.

Moved that the election of president take place immediately before the close of this session. Carried.

Mr. Cummings, of Sparta, read a paper on "School Discipline." Miss S. A. Stewart read a paper on the "The Relations of the Kindergarten to the Public School."

A discussion followed the reading of this paper.

Mr. Reynolds said the paper was so excellent that we cannot afford to spoil the effect by discussion. He moved the paper of Miss Stewart be requested for publication in the *Journal of Education*. Carried.

Mr. Cornwall thinks our schools are a pyramid on its apex, \$400 for the primary teacher with 100 pupils, and \$1,800 for a principal with 30 pupils.

Mr. North had been to Milwaukee to see the Kindergarten work. The regular teacher was absent and was replaced by a substitute from the Normal. The conditions were favorable to see how the system would work in ordinary schools. He thinks this school was an asylum for the fashionably neglected children, the children of the overworked. The results would not be equal to those wrought out by the mother having the proper feelings and right training. The mother can do the work better. Nor was it fitted for country schools, but a modified form might be introduced in primary departments of city schools.

Mr. Richardson would emphasize some points in the paper of Miss Stewart. The system is based on principles common to all educational methods. The system can be divested of many of its defects, and its form preserved in spirit and adapted to common school work — from the first ten gifts of Froebel, a system may be made to bridge from the concrete to the abstract. This work can be done better at home, but can we therefore leave it out of our schools? We have to take the children as they come, with or without preparation. We must carry out the philosophy of education in every step. Again, if the system is introduced, it will be costly. But modified, it can be brought within the means of all.

Mr. Schilling, of Delavan. The mother cannot do all this work. The state ought to do something to help the mother keep these children out of the street. It is cheaper to do this than to pay \$40,000 a year to the reform school. Parents have to send children to school too early. What shall the teacher do with them?

Mr. MacAlister stated the fees at a private Kindergarten, in the most favorable part of Milwaukee, to be \$30 per year. Even at these advantages, the school lacks adequate support.

W. H. Chandler wishes to say, as a representative of a department of state education, that no department of the educational work is more sensitive to the opinion of this association than Normal School work. The Board have not yet determined to go into Kindergarten work, nor will they, till there is more unanimity in its favor. The Normal Schools derive their support from lands in the sparsely settled and remote parts of the state. But for these parts of the state, Kindergarten is unfitted by confession of its

friends. There is but one point where such a section could be attached to Normal School work, with any hope of success. Any delay on the part of the Board to adopt this experiment would be the result of judgment and not of disrespect to the opinion of this body.

Mr. Albee — Water will not rise above its source. Primary and common schools can not work up material to teach and manage common schools. They must have a higher education. That is, the culture of higher ideals. Graduates of colleges and high schools are often failures in primary work. They have not been at the source of that kind of work. The school drill for teachers should bring the pupil teacher down into close contact with child-nature. Not that he may be a Kindergarten teacher, but that he may be brought to a feeling of brotherhood with children. These teachers must be taught fatherhood and motherhood. Cannot the state do something to secure this help, to bring these young teachers closer to their work? The mechanics of our system would hardly need change.

Miss Stewart — There is always difficulty in moving large bodies. Of this we do not complain. But we do complain that the Board have not made this subject an ultimate object. They have not prepared for it. There will be but little additional expense. This will be but bringing the Normal School down a little nearer the Primary School. Every graduate should be able to reach down to every child and raise it up through all grades.

There is no doubt but the funds spent on reform schools would be better spent on good primary work. Yet in human nature we cannot expect that reform schools should be entirely superseded.

Mr. Brosius being absent, the paper on "Physical Education" was omitted.

Prof. Searing being absent, his paper on "Administrative Reform in Public Education," was deferred.

Prof. Kerr read a paper on "Standards of Admission to College." A discussion followed.

Mr. Shaw — The two years in the classical sub-freshman represents our High School course of three or four years. The two courses are not on a par as to time and study. Less work is required in the general science course. The grammar school student

can go into the scientific sub-freshman. This is an unjust discrimination between the classical and the scientific course. On the other hand, we teachers are apt to talk up what we can teach and decry what we cannot. Not all of us had opportunity to master the classics in the early times of our state. We should be careful to regard the good of the pupils, not our convenience.

Mr. Reynolds—Is glad to hear the plea for classical education by Mr. Shaw. One fallacy west of the Hudson is, that numbers make a school. But this fallacy is weakening. We begin to see that culture makes the school. I am an inflexible friend of the classical course. I am also a friend to the University. I have heard that the examinations for admission to college are not equal to those of the principals of high schools. The high schools will answer the demands of the examination required. Higher standard can be secured by higher demands, if it can be done in no other way. This examination is a supervision of our school work. The standard of education in high schools, in New England, has been elevated just as Harvard and Yale have revised their standard of admission.

Supt. Whitford does not think our high school law in its object and scope has been correctly understood. It is not primarily to fit for college, but for the practical pursuits of life. As an illustration, in our institute work the total number in attendance was over 4,600, and nearly 2,100 were prepared in our high schools for teaching.

Mr. Cornwall opposed higher education by the state.

Mr. Albee asked Mr. Kerr, Do the faculties lay greater stress on those branches which are not to be followed in college, than on Greek, Latin, etc.? Mr. Kerr stated that more students were conditioned in grammar and history, than in all other branches. Those subjects are supposed to be mastered before they come to college. In the others they still have time to make up.

Mr. Kerr — You cannot judge of the character of a college by its entrance examination. It is hard to get into some colleges, but easy staying there. University takes a middle course; students are apt to be dropped during the first year. The one year's scientific

course is severe. More persons break down in that year than in any other year's course.

The following committees were then appointed:

Exhibitory Department — R. W. Burton, Alex. Kerr, M. T. Park, W. H. Richardson, W. A. Walker.

Honorary Members — J. Q. Emery, W. H. Chandler, S. S. Rockwood.

Resolutions - J. B. Thayer, A. F. North, W. H. Beach.

Nomination of Officers — A. J. Hutton, W. A. Walker, D. H. Flett.

Finance - F. W. Isham, J. H. Cummings, C. E. Spinney.

Moved and carried to take an informal ballot for president, and Alex. Kerr and C. A. Hutchins appointed tellers.

Mr. Reynolds nominated Mr. A. O. Wright, and Mr. Frawley nominated Hon. W. H. Chandler; whereupon 114 ballots were cast, of which 100 were for W. H. Chandler.

On motion, this was declared formal, and Mr. Chandler was declared elected.

An invitation was received from the principal of the Lake Geneva Seminary, to attend an evening entertainment at Oakwood Grounds. The president was instructed to express the thanks of the Association for the invitation, and to inform the principal that the invitation would be accepted.

It was voted that the Association finish the programme this afternoon.

Adjourned.

THURSDAY AFTERNOON.

On motion, the rules were suspended and Pres. W. D. Parker was elected permanent Railway Manager of the Association.

The report on "Course of Study for Mixed Schools" was read by Hon. W. C. Whitford, the other member of the committee being W. H. Chandler, R. Graham, W. A. Walker, and Samuel Shaw.

Voted to adopt and publish the report.

A paper on the "Metric System," was read by S. S. Rockwood; and one on the "Signal Service," prepared by Sergt. S. W. Rhode, of Milwaukee, was read by Mr. Richardson.

Mr. MacAlister said the Signal Service had its inception in the brain of that modest man, Dr. I. A. Lapham, of Milwaukee. The application of it to commercial and humane purposes is due to Hon. Halbert E. Paine, late member of congress from Wisconsin.

Short reports on the condition of education in the state followed.

Mr. Wood, of Oshkosh — School matters seem to be going on well. An attempt had been made to throw out the classical and higher branches. This could not be done. The people will support the High School.

Mr. Roby, of La Crosse — There has been some agitation on the High School question. But they are now putting up a High School building at a cost of \$23,000, including site. Are attempting a system of special promotions, in connnection with promotion at annual examination. Attendance of ninety six per cent. Two hundred and twenty-six cases of tardiness, one hundred and seventeen less than last year. Enrolled, 2,200.

Mr. Beach, of Beloit. Are slowly increasing the range of studies. Expect to have a class of girls studying Greek next term.

Mr. Kinney, of Darlington. Interest is high and growing. The value of the school house is greater than that of all the churches. The common schools in the neighborhood are better than often represented, generally, but there are some evils in hiring teachers. A dollar a month will sometimes decide the choice, instead of merit.

Miss Clapp, of St. Croix Co. Our schools are doing good. We have three points: 1st. Visiting schools. 2d. Interesting the people in the work. 3d. Education of teachers.

Mr. Harvey, of Sheboygan. High school consists of young pupils. The best work must be done in the lowest rooms. There are over 3,000 of school age, but only 1,120 in public schools; many are in church schools. Large portion are German, and the work is largely in language.

Mr. Reynolds, of New Lisbon. Is not going so far from the sources of inspiration. He has been in the state for twelve years. Has been well used. He is naturally pugnacious, but is determined to let all alone who would let him alone. He has acted on the principle that all the good of the schools must emanate from the

teachers themselves. Boards are not apt to strike out on a new line of policy. We are not aware of the great influence at our command. When we look at the great progress of education during the years of his stay, it is marvelous. He hopes the association will go on in its work. He was with them in spirit. Minnesota is another state, but not another people. All are one great people. Has been in the field twenty-six years. Has an ardent hope to serve four years more. He wants to serve thirty years in the service of the public schools.

The report of the committee on nominations was presented and adopted, and the following persons were declared elected to the offices named:

Vice Presidents - Rev. A. O. Wright, J. H. Cummings, and Miss Betsy M. Clapp.

Secretary - A. A. Miller.

Treasurer — T. F. Frawley.

Board of Councilors - James MacAlister, G. S. Albee, D. Mc-Gregor, W. A. Walker, and H. C. Howland.

The following persons were elected honorary members: Hon. J. B. Cassoday, Rev. George T. Ladd, C. E. Buell, Esq., Dr. G. E. Catlin, Prof. W. J. Warner, A. F. North, E. H. Sprague, Sergt. S. W. Rhode, Prof. Piper, Sterling, Illinois; Prof. H. Freeman, Rockford; James Hanan, Chicago; Prof. Bridges, Elgin, and Prof. B. L. Dodge.

It was voted that Mr. Cummings, Rev. Mr. Ladd, and Sergt. Rhode be requested to furnish copies of their respective papers for publication in the Journal of Education.

On motion, the remaining copies of the History of the Association were placed in the custody of the treasurer for sale and distribution.

The executive committee were instructed to publish the minutes and papers of this session in the Journal of Education, paying therefor such sum as may be agreed upon.

Mr. MacAlister extended an invitation, in behalf of Dr. Hov, President of the Wisconsin Academy of Sciences and Arts, for the members of the association to attend the annual meeting of the academy, to be held in Milwaukee the present month.

The Finance committee reported the treasurer's account correct, and the report was adopted.

The committee on Resolutions made the following report, which was adopted:

Your committee on Resolutions beg leave to report as follows:

Resolved, That the hearty thanks of The Wisconsin Teachers' Association are due —

- 1. To Dr. G. E. Catlin, C. E. Buell, and W. J. Warner, of the local committee, for their efforts to promote the interests of our meeting; to the citizens of Geneva for their generous hospitality; to the hotels, for reduced rates; to the school district, for the free use of their school building and the Opera House; and to the Geneva Lake Seminary, for the offer of the free use of its building, and its proffered entertainment for this evening.
- 2. To the Chicago & Northwestern, the Chicago, Milwaukee & St. Paul, the Chicago, St. Paul & Minneapolis, the Wisconsin Central, the Milwaukee, Lake Shore & Western, and the Western Union railroads, and to the stage and steamboat lines, for reduced fare.
- 3. To the Hon. J. B. Cassoday, of Janesville, and the Rev. Geo. T. Ladd, of Milwaukee, for their able and instructive lectures.
- 4. To Prof. Albert Salisbury, for his valuable labors in preparing the History of the Wisconsin Teachers' Association, and to Pres. W. D. Parker, for his efficient services in perplexing emergencies.
- 5. To President MacAlister and the other officers of the association, for the prompt and efficient discharge of their duties, rendering the sessions of the association pleasant and profitable.
- 6. To the press generally, for many favors; to the Chicago Tribune, the Milwaukee Sentinel, and especially to the Geneva Herald, for the very full daily reports of our proceedings.
- 7. To Sergeant Rhode, for his valuable paper on Signal Service, and his kind invitation to the teachers of Wisconsin to visit his office in Milwaukee and to receive such other information as they may desire.

The report was adopted.

Prof. Salisbury presented the following resolution, which was adopted:

Resolved, That the sense of the last sentence of Art. II, of the constitution, is hereby declared to be, that persons once elected honorary members may become active members in any year thereafter by the payment of the prescribed fee.

Mr. Emery presented the following resolutions, which were adopted:

Resolved, That the Board of Regents of Normal Schools are hereby respectfully requested to take into consideration the advisability of establishing a Kindergarten in some one or more of the State Normal Schools.

Resolved, That the President of this Association is requested to forward a copy of the above resolution to the President of the Board of Regents of Normal Schools.

The Exhibitory Department was perhaps the most attractive feature of the Association. Although the exhibit was very small, owing to the negligence of the proper officer, yet a beginning was made, which at once removes the experimental character of the department and assures its success. Great credit is due to the gentlemen who took hold of the work at a late day, and pushed it forward. There can be no reasonable doubt but that it will prove of great value to the schools throughout the state.

At six o'clock, the business of the Association being completed, President MacAlister thanked the Association for its kind treatment of himself, and declared it adjourned sine die.

A. A. MILLER.

Secretary.

17 - SUPT.

PRINCIPALS' ASSOCIATION.

Session held at Madison, Dec. 26 and 28, 1877.

Wednesday Afternoon, December 26, 1877.

The Association was called to order by Principal Shaw, of Madison. The President not being present, Prin. J. T. Gould, of Necedah, was appointed Chairman pro tem., and W. G. Clough, of Portage, was chosen Secretary pro tem.

S. Shaw, B. M. Reynolds, of New Lisbon, and J. T. Cummings, of Sparta, were appointed a committee on enrollment.

A paper was then read by Prin. S. Shaw, on the Relation of the University to the High Schools of the State. The subject of the paper was then discussed by B. M. Reynolds, S. T. Cummings, R. Schmidt, of Appleton, and others.

On motion, S. Shaw, B. M. Reynolds, J. T. Lovewell, of Milwaukee, and W. G. Clough were constituted a committee to prepare a report upon the subject of the paper, to be submitted to the Association at a subsequent session.

On motion, J. T. Cummings, B. M. Reynolds, and E. R. Smith, of Burlington, were appointed a committee to draft and report appropriate resolutions on the death of O. R. Smith, of Sparta.

On motion, E. R. Smith, of Burlington, George Skewes, of Racine, and R. Schmidt, of Appleton, were appointed a committee to find the constitution of last year or to prepare a new one.

Adjourned, to meet at the call of the chairman.

W. G. CLOUGH, Sec'y pro tem.

FRIDAY, P. M., December 28.

Association called to order by the chairman pro tem. E. R. Smith presented the following:

Your committee, to whom was referred the subject of the constitution, beg leave to report as follows:

- 1. We are unable to find the original constitution.
- 2. We recommend the following for your consideration:

CONSTITUTION.

- ART. I. This organization shall be known as the Wisconsin Principals' Association.
 - ART. II. Principals of graded and high schools may become members of this association upon the payment of one dollar.
 - ART. III. The officers of the association shall be a president, vice president, secretary, and treasurer, who shall be elected annually, in such a manner as the members present at such election may determine.
 - ART. IV. This constitution may be amended by a two-thirds vote of the members present at any regular meeting.
 - ART. V. The officers shall constitute the executive committee, who shall have power to call meetings of this association and provide a programme of exercises for the same.

Respectfully submitted,

E. R. SMITH,
GEORGE SKEWES,
R. SCHMIDT,
Committee.

On motion, the report was adopted.

A paper on "The Power a Principal has over his Subordinates," was read by Prin. Beach, of Beloit.

Also a paper on the "Course of Study for City and Village High Schools," by Prin. Hardy, of Milwaukee.

Also a paper on "Uniform Reports for the State," by Prin. Harvey, of Sheboygan.

Also a paper by Prin. Emery, of Ft. Atkinson, entitled "A Few Problems Relating to High Schools."

On motion, the time of each speaker in the discussions was limited to five minutes.

J. T. Cummings, for the committee on Resolutions, reported the following, which was adopted:

WHEREAS, Divine Providence has removed from our midst Prof. O. R. Smith; and,

WHEREAS, We remember him as an efficient worker, a genial and large-minded friend, and a powerful force in the educational interests of the state; therefore,

Resolved, That we bear testimony before all, and place on our records, our full appreciation of his great powers as an instructor, of his untiring efforts to secure the best and fullest development of the schools under his charge, and of his great power and unflagging zeal in promoting all educational measures, both of the state and nation.

Resolved, That we tender our deepest sympathy to the bereaved family, and cherish with them the memory of our departed friend and co-laborer.

Prin. Beach, in his paper on the power of a principal over a subordinate, considered that discipline is necessary that there may be uniformity of action; that, while obedience should not be arrogantly required, counsel should be given in order to bring about the best results; that encouragement should be given, inquiry awakened, and an opportunity to strengthen afforded by a new effort; that a principal is never too old to learn.

Prin. Shaw considered that a principal should go directly to the subordinate, and correct faults in kindness, to the end that the teacher may not feel grieved; but feel that care must be taken or her efficiency will be impaired.

Prin. Hardy, in his paper on the Course of Study for Village and City High Schools, considered the matter full of difficulty; that small schools attempt the work of large schools; that, as the present course is a compromise between the scientific and classical courses, the day of complete uniformity is far distant; that the number of studies should be limited; that we should not look to the advantage and convenience of the few to the neglect of the many; that too much stress is laid on the subject matter rather than on method; that we should look to quality, and not to quantity; that political economy and literature should receive more attention.

Prof. I. N. Stewart, of Berlin, found that in several schools the work does not bring culture; that no successive classes can do the same work in the same time. That we need a course of study, not a course of time.

Supt. MacAlister, of Milwaukee, thinks the great trouble attaches to the traditional high school. That the high school has two faces. 1st, toward the University; 2d, toward occupations in life. That

we must adopt both, where we can, but where one only can be had, the latter should be taken. That we should give attention to German rather than to Latin. That mental science should be eliminated, and chemistry reduced to the minimum. More attention should be given to natural philosophy, and general history omitted.

Other teachers took part in the discussion, but their remarks were not recorded.

On motion, the association proceeded to elect officers for the year 1878, with the following result:

President, S. Shaw, of Madison; Vice President, J. H. Chamberlin, Black River Falls; Secretary, E. R. Smith, Burlington; Treasurer, J. Q. Emery, Fort Atkinson.

Principal Shaw read the following:

Your committee, to whom was referred "The relation of the University of Wisconsin to the Graded and High Schools," would respectfully report:

1st. We claim to be thoroughly in sympathy with the idea of University education at public expense, as the legitimate outgrowth of the common school system, and as such, we pledge it our hearty support.

- 2d. We feel that the graded schools of the state are justly entitled to protection at the hands of the Regents of the University, from being obliged to compete with its preparatory work.
- 3d. Under present arrangements, those schools have not such protection, as will appear from the fact that more than one half of the students listed in the last catalogue for the sub-freshman class of the course of general science, are residents of districts compelled to offer parallel instruction in having adopted the Free High School, and having received state aid therefor.
- 4th. If the regents deem it necessary to continue sub-freshman instruction for the assistance of pupils from rural districts, we respectfully ask the adoption of substantially the Minnesota plan of protection.

5th. Should this course be adopted in Wisconsin, we are confident that our University would very soon reap the same advantages as has the Minnesota University, of increasing numbers, popularity, and efficiency.

6th. That this association, by an appropriate committee, forward this report to the regents at their first meeting, and press it upon their consideration. SAMUEL SHAW,

W. G. CLOUGH, J. H. CUMMINGS.

On motion, the report was adopted as the sense of the association, and S. Shaw appointed a committee to present the matter to the regents.

The secretary elect was authorized to procure a suitable record book for the association.

On motion, adjourned.

J. T. GOULD, Chairman pro tem.

W. G. CLOUGH,

Secretary pro tem.

Industrial School for Boys.

CHARITABLE AND REORMATORY INSTITUTIONS.

WISCONSIN INDUSTRIAL SCHOOL FOR BOYS, AT WAU-KESHA.

S. J. M. PUTNAM, SUPERINTENDENT.

[From the Managers' Report.]

This school was not established to make or to waste money, but to disburse it wisely in reformatory work. All its industries are only subordinate helps to the primary work of reformation. They are operated by and on account of the state, because we regard this plan better for the improvement of boys than the contract system. We think that when we receive a boy, committed to our charge because he is so uncontrollable or vicious as to render him unfit to be at large, and after educating him, morally, intellectually, and physically, restore him to his friends and state "clothed in his right mind," prepared to discharge properly the duties of a good citizen, it would be a narrow and sordid calculator who would attempt to eatimate the value of such a change in dollars and cents. * *

The industrial school is regarded by many as a prison, pure and simple, where boys are sent for confinement and punishment. To correct this misapprehension, we take occasion to say that in our educational department proper we have now more than four hundred boys in regular daily attendance, giving careful attention to, and making good progress in, their studies. If these boys were not here, they would be almost all of them truants, and many of them something worse; they would count in the census and in the distribution of the public school money, but others would receive the benefit of it. This school, then, to some extent, supplies the want of a truancy law. Mr. and Mrs. G. W. Howard, who have had

Industrial School for Boys.

charge of the educational department since January, 1877, left us this fall. They left the school in excellent condition. We regretted that they were compelled to leave.

This department of our school is justly entitled to recognition by the educators of the state as a valuable auxiliary in the great work to which they are devoting themselves, and also by all the friends of our public school system. It has not been thus recognized to the extent of its merits. It has been, and will continue to be, of inestimable value in the work of the institution.

It is gratifying to know that the present occupant of the executive chair has been long and familiarly conversant with this school, and has always shown a friendly interest in its welfare, both as a public officer and private citizen. It will not, therefore, be supposed that we expect to enlighten him when we speak of matters connected with our work which are familiar to all who have visited the school, or sought in any way to learn its measures.

[From the Superintendent's Report.]

We have a Sunday School each Sunday forenoon, commencing at half-past ten o'clock, and closing at twelve. In the afternoon, the clergymen of the different denominations alternately preach for us, without cost to the state. These meetings are usually held in the chapel, except in warm weather; then in the grove, where a platform has been erected and seats provided for the accommodation of our own people, as well as for such visitors as may favor us with their presence during these services.

In addition to the labors of our local clergymen, we have been, during the past summer, frequently addressed by distinguished speakers from abroad, among whom were Rev. Mr. Rowlands, Rev. Mr. Martin, and Dr. Storrs, of New York, Rev. Father Spillard, of Texas, Dr. Sumner, of Alabama, and Dr. Irwin, of St. Louis. The latter gentleman, while stopping at our springs, was a frequent caller at the school, and took a deep interest in its workings, as will appear from the following extract from a letter written by him, and published, on the 28th of August, in the Herald and Presbyter. He says: "The Wisconsin Industrial School for Boys, located at Waukesha, is a monument to the intelligence and enterprise of the

Industrial School for Boys.

state. It is a model reform school. Money has not been spared in ornamenting the grounds, erecting the buildings, and improving the farm. * * * * I preached to the boys, and, upon both Sabbaths, a more attentive and more deeply affected audience I never addressed. It would be well for other states to follow the good example of Wisconsin, and exercise parental care over the juvenile delinquents within their borders."

In justice to all concerned, I deem it not inappropriate to insert the following card of Mr. and Mrs. Howard, published in "The Freeman," of the 29th of August last:

"Mr. Editor: As Mrs. Howard and myself have decided to sever our connection with the institution in which we are teaching, we wish to express our regrets at leaving so many well-tried friends, and at the same time allude to the excellent condition of this school as a whole. It requires no close observation to discover the improvements in outside matters connected with the school. In the shops, the managers assure us, the discipline is much more easily maintained, and the stock or material is not wasted or injured in the making.

"In the school department, no one can fail to see a marked improvement within the last eighteen months, not only in deportment, but in carefulness and thoroughness of work, and in the interest manifested by the pupils. While all enjoy greater freedom, a better discipline is mained.

"We are induced to leave our situations, where we have worked so harmoniously for nearly two years, only by the hope of benefit from the change of climate.

Yours respectfully,

"GEO. W. HOWARD,

"M. E. HOWARD."

[From the Teacher' Report.]

The report of the school department of this Institution for the year ending September 30, 1878, is herewith respectfully submitted:

Number under instruction at the commencement of the year	364
Number newly committed during the year	
Number returned during the year	

Industrial School for Girls.

Number left school during the year	108 419
Of the 151 received, could not write	66
Commenced reading from chart	15
Commenced reading from first reader	24
Commenced reading from second reader	56
Commenced reading from third reader	15
Commenced reading from fourth reader	10
Commenced reading from fifth reader	1
· ·	
$-\frac{1}{2}$	51

First department in Correction House is taught by W. H. Hurlbut. The second department in Correction House is taught by Miss H. L. Whitcher.

Our aim in all departments is to do thorough work and to give the boys the best practical education possible.

WISCONSIN INDUSTRIAL SCHOOL FOR GIRLS, AT MILWAUKEE.

[From the Report of the Secretary.]

It is three years since this school was organized, and the charitable women who control it feel that their efforts have been crowned with success. So confident was the State Legislature of their efficiency, and also of their need, in the elevation of neglected, wicked, and degraded young girls, that \$15,000 was appropriated for the purpose of erecting a building, away from the heart of the city, the better to carry on the good influences begun by these humane women. The real estate is valued at \$35,000. The city of Milwaukee gave eight acres of land, valued at \$20,000, situated in a most healthful locality, and commanding a full view of its beautiful bay. The cost of the building is \$15,000, the amount of the appropriation. Personal property is estimated at \$500. The present number of inmates is 43, 38 girls and 5 boys; 40 are native born, 3 of foreign birth. At present there are children in the Institution from six different counties: Milwaukee sends 6, Dane 1

Industrial School for Girls.

Outagamie 4, Winnebago 1, Eau Claire 4, and Jefferson 1; Iowa and Calumet counties have at different times been represented.

During the year, 25 pupils have been received, and since the organization, April, 1875, 160. Have had 17 commitments during the year; since organization, 68. Have had 5 charity inmates during the year; since organization, 53. The average attendance has been 39.7; last year it was 28.

Since the incorporation of the school, twenty-five have been placed in homes; seven of those were apprenticed, and eighteen adopted. The children have manufactured over one thousand pieces of wearing apparel and fancy goods; six hundred pieces, often more, are washed and ironed each week, and from one hundred to one hundred and fifty are patched and darned; one hundred and thirty-seven loaves of bread are made and baked by one pair of hands each week.

We expect to give each scholar a good English education. From the eldest to the youngest, all are expected to contribute by their labor to the general comfort of the household. We hope in the future to be able to give each one, who shows any adaptability for it, some trade, such as dress-making, millinery, tailoring, cooking, etc., so that she may be able to maintain herself honorably and virtuously, when she leaves the school, at the age of twenty-one.

Although the Board of Managers are duly grateful for the appropriation of last year, we cannot forbear to remind the State Board that the Legislature, while it has given more than a million and a quarter for bad boys, has appropriated only sixteen thousand for the reclamation and reformation of girls. With each additional year we gain profitable experience. The benefit to the community is so apparent, the removal of abject poverty and youthful vice from our streets—a blessing for which society is so grateful—that neither the community nor the state can afford to permit us to lessen our endeavors, however weary we may sometimes become in well-doing.

Respectfully,

MRS. A. J. AIKENS,

OFFICERS FOR 1879.

President-Mrs. W. P. Lynde.

Vice Presidents—Mesdames E. P. Allis, A. C. May, and Ed. Sanderson.

Secretary-Mrs. A. J. AIKENS.

Treasurer-Mrs. C. D. Adsit.

Counsellors—Messrs. J. P. C. Cottrill, J. H. Inbusch, A. R. R. Butler, Wm. P. McLaren, J. W. Van Schaick, Geo. H. Paul, D. H. Johnson, T. H. Judd, Wm. H. Metcalf, Judge A. C. May, Dr. Ernst Kramer and Gov. Wm. E. Smith.

INSTITUTE FOR THE EDUCATION OF THE BLIND AT JANESVILLE.

[From the Superintendent's Report.]

The beginning of the year found the school in the commodious building erected to replace the one destroyed by fire in 1874, and the experience of the year has demonstrated its adaptation to the purpose for which it was designed. The plan of the house renders it convenient, the rooms are large and airy, the heating apparatus and water supply are sufficient, and the accommodations ample for the number of pupils now in attendance.

Ninety persons, forty-three males and forty-seven females, have received instruction during the year. Nine have entered the school since the date of the last report. Applications have been received for the admission of several others. Nine have completed their course of instruction here. One, Augusta Zimmerman, who left school last spring on account of ill-health, died in September, at her home in Jefferson county. The average number present during the term is seventy-seven.

Instruction has been given, as heretofore, in three departments, literary, musical, and industrial. * * *

The peculiar condition of the pupils in this school demands special training of a variety of kinds, in order that they may be as far as possible qualified to do their share of the world's work, and bear their portions of the world's responsibilities.

A child blind from infancy has a poorer chance for the acquisition and use of practical knowledge than any other child of equal mental capacity. He is shut out from a large part of the occupations and amusements which serve to induce vigor in children who see. His knowledge of material objects is meager and likely to be inaccurate. Of a large and important class of ideas, he can form only a vague conception. His ear conveys to him the spoken words of his companions, and he may learn to use language fluently, without after all having a correct apprehension of many of the objects and operations that he talks about. He may even have exceptional endowments in certain respects, and still his mental condition be abnormal, because of his lack of extensive and accurate knowledge of the material world. The more his imaginative faculty is developed, the less likely he is to be careful to gain exact ideas of externals, and the less imagination he has, the more the difficult it is for him to obtain any clear conception from a description or from models.

A proper system of education will do much toward supplying the lack of the knowledge that comes through vision. The hearing must be made to do all it can. Touch must be called upon to render its invaluable aid. Its range is limited. It can not go out of the reach of the hands. It can tell little of motion and nothing of light, shade, or color. But it can lay the foundations of knowledge by giving the mind some things known, from which it can proceed to form conceptions of things unknown. With a model in his hand to convey an idea of the outline, the words of the teacher can assist the imagination in forming a mental picture of the machine or animal in motion or in different positions. * * * *

All recognize the value to seeing youth of pictures and models of various kinds, specimens of shells, minerals, etc., and apparatus for illustrating natural philosophy and other sciences. Is it not evident that to the blind youth, the value of apparatus suited to his touch is still greater? Gradually, as the finances of the Institution and of the state will permit, I deem it highly desirable that the requirements of our school in this respect should be supplied.

Blindness is a hindrance to physical vigor and development, which is not always realized. The steps taken always in the dark

are likely to be few, slow, and unsteady. The inducements to and opportunities for active exercise in the open air are much less than for seeing children. This often results in enfeebled constitutions, nngainly movements, and a lack of enterprise and self-reliance.

It is our duty in seeking to prepare our pupils for the duties of life, to train their sluggish muscles, to awaken in their minds an interest in the active pursuits of men and women, to stimulate self-respect, and to develop and encourage self-reliance.

In these respects there is a great difference in blind children, when they first come to school. This arises in part from difference in natural characteristics, and in part from circumstances (some having a degree of vision, and some having become blind after their early childhood was passed), but much depends upon the training of the child at home.

There are many things which a blind child can learn at home just as well as at the Institution, the knowledge of which would enable him to enter upon his pupilage here in a condition to advance rapidly and easily, as, for example, to prepare his toilet, to tie a knot, to handle a knife and fork properly, and in many ways to use his hands readily; to count, to add and subtract small numbers, the points of the compass, the names of the state and town in which he lives. Opportunity should be given him to examine, by handling, as large a number of objects as possible. If there are other children in the family, the blind one might well accompany them to the district school. He can take part in many of the exercises, and get real profit from them, and also from the association with sighted children.

The memory should early be cultivated by committing passages of prose or poetry. Especially should pains be taken to prevent the child's forming any bad habits of posture or rhythmic motions. Such habits are very easy to acquire, and very difficult to be rid of. Abundant occupation for the hands and activity of body are probably the best preventives, as they are the best remedies.

It would, in my judgment, be well to add somewhat to the inducements now offered to our scholars to take active exercise, or make such use of their physical powers as should give them skill and strength. Our boys would enjoy and use parallel bars and

other gymnastic apparatus. Some tools, not too choice to be handled by the smaller boys, would be desirable, and also small wagons or carts, which both boys and girls might use during play hours. An additional swing for the use of the girls is quite a necessity. * * *

In August last, a regular meeting of the American Association of Instructors of the Blind was held at the Institution in Columbus, Ohio. Twenty-five Institutions in the United States, one in Canada, and one in London, England, were represented at the meeting by one or more delegates. Several interesting and instructive papers were read, and valuable reports were presented by committees previously appointed. There were also discussions on various topics relating to the educating and welfare of the blind. * * * *

In closing, I wish to express the hope that the measure of success which has hitherto attended our efforts to ameliorate the condition of the blind of Wisconsin, may be continued and increased; and to this end may we labor unitedly, and rely upon Him by whose aid alone any good work can be accomplished.

Respectfully,

SARAH F. C. LITTLE.

ADMISSION.

Any person wishing to make application for the admission of a pupil into the institution, must address the Superintendent, giving definite and truthful answers to the following questions, viz:

- 1st. What are the names and post-office address of the parents or guardians of the person for whom application is made?
- 2d. Are such parents or guardians legal residents of the state of Wisconsin?
- 3d. What is the name and age of the person for whom application is made?
- 4th. At what age did he or she become blind, and from what cause?
- 5th. Is his or her blindness total or partial? If partial, what is the degree of blindness?
- 6th. Is he or she of sound mind, and susceptible of intellectual culture?

7th. Is he or she free from bodily deformity and all infectious diseases?

8th. What are his or her personal habits and moral character?

If any useful vision exists, the certificate of some physician or teacher should be furnished, stating that the child cannot receive the advantages of common schools for want of sight.

Upon the receipt of such application by the Superintendent, the applicant will be notified as to whether or not the person in question will be admitted, and no one must be sent to the Institution until such notification shall have been received.

No person of imbecile or unsound mind, or of confirmed immoral character will be knowingly received into the Institution; and in case any person shall, after a fair trial, prove incompetent for useful instruction, or disobedient to the wholesome regulations of the Institution, such pupil will be thereupon discharged.

It is believed that a considerable number of blind children are growing up in ignorance, in the state, and the attention of ministers, doctors, teachers, and other persons of extensive acquaintance with the young, is specially invited to the matter, in the hope that they will use their influence to have such children sent to school before it is too late.

Parents of blind children are cordially invited to visit the Institution, that they may decide from their own observation whether it is best to send them here.

All persons are requested to send the names and addresses of blind children of their acquaintance to the Superintendent,

MRS. THOMAS H. LITTLE,
Institution for the Blind, Janesville, Wis.

INSTITUTION FOR THE EDUCATION OF THE DEAF AND DUMB, AT DELAVAN.

[From the Superintendent's Report.]

One hundred and eighty pupils have been registered during the year. The average attendance has been one hundred and forty. Of these, thirty-six are new pupils; a number considerably in advance of that of any previous year, except 1876, when it was thirty-This is in part a result of our efforts in looking up those entitled to admission, and in interesting parents and guardians in their education. There are now on file accepted applications of eighteen others, most of whom will no doubt soon enter. Besides these, there is doubtless a large number still unknown to us. We have used diligence in giving publicity to the information, that the state here provides liberally for the education of every child within her borders, who, by reason of defective hearing, cannot receive instruction in the common schools; and have urged that in case of absence, while the child suffers an irreparable loss, the state also loses in the fact that the appropriated means do not reach the one for whom they were appropriated; and still more seriously, in the fact that there are those among its inhabitants growing into maturity, without the qualifications which will make them good and useful citizens.

THE SCHOOL.

The classification of the pupils, and the arrangement of their studies and exercises, vary very slightly from year to year. The lowest grade is composed, in the main, of those who have just entered. During the year they learn some hundreds of words—nouns, verbs, adjectives, prepositions, and pronouns; and to combine them into simple sentences, descriptive of objects and actions presented. They also learn to count, to add and subtract small numbers, and to write a fair hand. In the second grade, the learning of language is continued to the construction of complex sentence, and connected composition, with exercises in arithmetic, and object lessons. In the third grade, the study of language and arithmetic is continued,

with the addition of geography. In the fourth grade, the common school text books are taken up, and thenceforward the exercises of the school room, and the methods of instruction, are very similar to those in other schools. As far as practicable, all recitations are conducted in written language, and the pupil is constantly required to give and take ideas by means of words. In this way a pupil of ordinary capacity will acquire in the course of seven years, creditable proficiency in arithmetic, geography, grammar, history, elements of physics, astronomy, botany, physiology, geology, rhetoric, literature, and in cases of those of best capacity, algebra, political economy, mental and moral science.

I think it well to repeat what was said in the 25th report: institute is, in the most complete sense, educational in its design and operations; an integral part of the state system of public instruction; peculiar only so far as the misfortune of its beneficiaries creates a necessity;" and to add that we recognize these peculiarities, as a part of their misfortune. We feel it to be our duty to remove them as rapidly and completely as possible. Singularity, and consequent isolation and privation constitute in a great measure the burden of deafness. That condition which renders the child unable to receive oral communication from others, also deprives him of the power to acquire the means of communicating his own thoughts to them, and acts practically as a bar to all ordinary educational efforts and social intercourse. His own crude natural signs, however skillfully used by him, are scarcely comprehended by his few most intimate associates, and rarely, if ever, become a satisfactory means of communication.

We recognize the fact, that whatever tends to remove this bar, and make the interchange of thought practicable, tends to lessen this singularity, and to introduce the deaf mute to social equality with those more favored, in the possession of all their senses. Hence the acquisition of verbal language, articulate or written, is the great purpose of their education; the object to be had in view throughout the whole course. To attain this, the natural language or gesture, which is in reality a foreign language, not only not advantageous, but decidedly harmful, in the efforts to acquire word

language, must be abandoned; and the pupil must be made to think and to express his thoughts in words. A more difficult task can scarcely be conceived. It is seldom completely effected. We work toward perfection, by constantly requiring words to be substituted for signs. This is done, as I have said above, either by articulation or writing.

ARTICULATION.

Late reports from the institutions in the United States show that this method of instruction and communication is receiving increased attention. During the year, almost one-fourth of our pupils have received instruction in articulation and lip-reading. Many of them have made very satisfactory improvement. I respectfully suggest that another teacher be assigned to this department.

INDUSTRIAL DEPARTMENT.

During the year, fifteen boys have been instructed in the use of wood-working tools; learning to perform a variety of work in the line of cabinet making and carpentry.

In the shoe-shop, twenty-seven boys have been employed. All the work made has met with ready sale at fair prices.

Eight pupils—three girls and five boys—have received instruction in the art of type-setting. We have recently purchased two small presses, and have every reason to expect good results from the introduction of this branch of industry.

As the education of the hand and eye, in the direction of securing means of support hereafter, and the cultivation of habits of industry are our objects, we use no machinery in our shops; believing that these results will be more satisfactorily secured in the skillful use of ordinary hand tools.

The smaller boys are employed in keeping the school-rooms, walks and yard in order, and in preparing wood, etc.

The reports of the masters of the shops, accompanying this, will give you statements of their condition.

The work performed by the female pupils, while equally important, and faithfully performed, cannot be so readily represented in dollars and cents. They have taken care of their own and the

boys' dormitories, and performed much of the work in the diningroom and laundry. In the sewing-room, all varieties of sewing are taught. * * * *

VISIT OF THE GOVERNOR.

During the closing exercises last June, the institute was honored by the presence of his Excellency, Gov. William E. Smith, and his lady. The visit, though unexpected, was none the less gratifying and enjoyable to all present, and we have good reason to think, satisfactory to them. It will long be remembered as the first such visit, within the school life of many of our pupils.

VISIT OF THE STATE SUPERINTENDENT OF PUBLIC INSTRUCTION.

In February, Hon. W. C. Whitford made an official visit and inspection of the institute. I am glad to be able to give you his impressions, in his own language, as printed in the Wisconsin Journal of Education, March, 1878 (Editorial).

"Every opportunity which could be desired was given for the inspection of the grounds and buildings. Neatness, good order, and industry were exhibited everywhere. The location on the bluff just outside the village, and near Turtle Creek, is a very beautiful one; and the plat of ground in front of the main building is ornamented tastefully with evergreens and shrubbery. The barns, work-shops, gymnasium, laundry, kitchen, engine-house, cellars, recitation and study rooms, dormitory rooms, office, dining room, and parlors were all examined.

"We became greatly interested in the pupils and in the classwork. These number one hundred and forty-three, about two-thirds boys. They, in the main, appear active, intelligent, and healthy, with inquisitive eyes and contented faces, and respectful in deportment. For the first two years, they are taught chiefly words, phrases, and simple sentences. We witnessed the recitations of young men and young ladies, who have been in the institution five or six years; and their exercises in history, arithmetic, grammar, rhetoric, and elementary physics would do credit to speaking pupils of the same age in our high schools.

"The teaching is necessarily very peculiar and laborious. It is, in many respects, unlike any other instruction which we find in our schools. The majority of the teachers show very plainly the exhaustive nature of their work.

"A small number of the mutes form a class in articulation. As far as we could judge, they are succeeding finely in learning to converse with their teacher, and with strangers. A few boys and girls are learning type-setting. This trade has but lately been introduced, and proves specially adapted to the deaf and dumb."

W. H. DEMOTTE,

Superintendent.

DELAVAN, Wis., October 1, 1878.

EXAMINATION OF TEACHERS FOR STATE CERTIF-ICATES.

Held at Madison, Wis., August 13-17, 1878.

U.S. HISTORY.

- 1. Discuss the purposes and policy of French colonization in America.
- 2. Contrast the social and political origin and development of Virginia with that of Massachusetts.
 - 3. Give a detailed account of the colony of New Sweden.
- 4. What policy does the name of Edmund Andros stand for in American history?
 - 5. Give a full account of the public services of Benjamin Franklin.
- 6. Trace the history of political parties in the U.S. through the several administrations.
- 7. Recount the various stages or crises in the struggle over slavery.
- 8. State accurately how the U. S. acquired possession of the present territory of Utah.
- 9. Recount fully the various results, thus far, of the War of Secession.
- 10. Give an account of the early exploration and settlement of Wisconsin.

ARITHMETIC.

- 1. Given three units of the sixth order on a scale of eight, three units of the fifth order on a scale of seven, and three units of the fourth order on a scale of six; required their sum expressed on a scale of five.
- 2. Multiply $3\frac{1}{3}$ by $4\frac{5}{7}$, and divide the product by $3\frac{2}{11}$. Give the mathematical principles involved.

- 3. Reduce the circulating decimal .857142 to an equivalent common fraction in its lowest terms.
- 4. Explain the ordinary method of finding the greatest common divisor.
- 5. What sum in greenbacks, with gold at \$1.03 $\frac{1}{8}$, will pay a debt in London of £35, s 9, d 11—the pound being worth \$4.8634—with exchange at one per cent?
- 6. A debt was contracted during the war, when gold was quoted at \$1.83; it was paid in 1878, when gold was quoted at \$1.00\mathbb{s}; what amount on the dollar was paid according to the value of the money, when the debt was contracted?
- 7. A, B, C, and D are in partnership, with a capital of \$10,000. A put in $\frac{2}{10}$, B $\frac{1}{10}$, C $\frac{4}{10}$, and D $\frac{3}{10}$; A is guaranteed against loss, B is guaranteed 7 per cent. interest on his investment; the firm loses \$756.21 and closes business at the end of three years; how much does each partner have?
 - 8. Find the square root of .0000144 to six places of decimals.
 - 9. Find the cube root of 2,248.091, and explain the method.
- 10. Give your views as to the best method of teaching Intellec-

GEOGRAPHY.

- 1. Explain the general movements of the air.
- 2. Trace the shortest water route from Madison to Melbourne.
- 3. What states lie on the southern border of the great lakes?
- 4. If a place were situated on the meridian of Greenwich half way between the equator and the north pole, what would be its latitute and longitude?
- 5. Name the five most important countries of Europe, and give the capital of each.
 - 6. Describe the mountain system of Asia.
- 7. Name three animals peculiar to North America; South America; Africa; Australia; Asia.
 - 8. Bound Georgia, Colorado, and Maryland.
 - 9. How are coral islands formed?
 - 10. Describe the trade winds.

CIVIL GOVERNMENT.

- 1. Define government, civil government, law, state, and constitution.
- 2. In what important particulars did the first constitution of the U.S. differ from the present one?
- 3. Give the preamble of the U.S. constitution, and show the exact application of each clause.
 - 4. Enumerate the various powers and duties of the president.
- 5. What was the object and work of the Electoral Commission near the close of Grant's administration?
- 6. State fully the differences between the modes of choosing a U.S. Senator and a Representative.
 - 7. By what process may the U.S. constitution be amended?
- 8. What classes of persons are excluded from U.S. citizenship? Who are citizens of Wisconsin?
 - 9. Outline the judiciary system of Wisconsin, as now constituted.
- 10. What is a town? Describe fully the system of town government prevalent in Wisconsin.

ALGEBRA.

- 1. Add together $\frac{x-y}{x^2+xy+y^2}$, $\frac{1}{x-y}$, and $\frac{(x+y)^2}{x^3-y^3}$.
- 2. Prove that x^n-1 is always divisible by x-1 without a remainder when n is a positive whole number.
- 3. Show from the preceding example that if the sum of the digits of any number be subtracted from the number, the remainder will be divisible by 9.
 - 4. Solve the equation $\frac{1}{a} + \frac{1}{b} + \frac{1}{x} = \frac{1}{a+b+x}$.
- 5. Investigate the expression for the sum of n terms of a series of quantities in geometrical progression.
- 6. Solve the equations $\frac{x}{a} + \frac{y}{b} = 1$ and $\frac{x^2}{a} + \frac{y^2}{b} = \frac{ab}{a+b}$. Also show that $\frac{x^n}{a} + \frac{y^n}{b} = \left(\frac{ab}{a+b}\right)^{n-1}$.

- 7. A and B start from the same point: A travels the diameter of a circle; B travels on the circumference of the same circle: if A's rate be a miles per hour, what must B's rate be that they meet at the opposite pole of the diameter?
 - 8. Solve the equation $x+\sqrt{a^2+x^2}=\frac{2a^2}{\sqrt{a^2+x^2}}$.
- 9. Four numbers are in arithmetical progression: the sum of the squares of the extremes is 50; the sum of the squares of the means is 34: what are the numbers?
- 10. Two numbers are in proportion of 3 to 2; if 6 be added to the greater and subtracted from the less, the quantities will be in proportion of 3 to 1: what are the numbers?

PHYSIOLOGY.

- 1. How is animal heat produced? How distributed? How regulated?
 - 2. Describe the movements of inspiration.
 - 3. Describe the stomach.
 - 4. How is sugar digested? How fat?
 - 5. What is the difference between a lymphatic and a lacteal?
 - 6. Explain the formation of the pulse.
 - 7. Explain reflex action.
 - 8. What are subjective sensations?
 - 9. Name the parts of the eye.
 - 10. (a.) Name and describe the five bones placed before you.
- (b.) What are the bones of the fore-arm?

Please state what practical work, if any, you have done in physiology.

READING.

- 1. What are the two fundamental requisites for good reading? Justify your answer.
 - 2. Why do our schools produce so few good readers?
- 3. What incidental instruction may be given in the reading class without detriment to the main work?

- 4. How far should the work of reading and spelling be combined, and in what manner?
- 5. What physical exercises may profitably be given in the reading class? State the exact object of each.
- 6. Carefully indicate emphasis in the following passage by underscoring:

"Remember March, the ides of March remember. Did not great Julius bleed for justice's sake? What villain touched his body, that did stab, And not for justice? What, shall one of us, That struck the foremost man in all this world But for supporting robbers—shall we now Contaminate our fingers with base bribes, And sell the mighty space of our large honors For so much trash as may be grasped thus? I had rather be a dog and bay the moon Than such a Roman."

- 7. Mark the inflections in the same passage, and give reasons for the occurrence of each.
- 8, 9, and 10. Read aloud, and analyze a paragraph to be assigned by the examiner.

ENGLISH GRAMMAR AND ANALYSIS.

- 1. What is meant by gender, in English Grammar?
- 2. What is an auxiliary verb, and what is its grammatical relation to the so-called principal verb?
- 3. What is the difference in meaning between an adjective and an adverb used in the predicate? e. g., "I feel badly," and "I feel bad."
 - 4. Analyze "He told me what to do."
 - 5. Explain the use of what, in the preceding.
- 6. When is a sentence compound and when complex, and how may it be determined to which class a sentence belongs?
 - 7. Discuss the subjunctive mode in English.
 - 8. Discuss the use of shall and will and can, as auxiliaries.
- 9. Analyze: "To do justice and judgment is more acceptable to the Lord than sacrifice."
 - 10. Analyze: "I hope I have too much regard for justice, and

too much respect for my own character, to attempt either; and, were I to make such attempt, I am sure that in this court nothing can be carried against the law, and that gentlemen, intelligent and just as you are, are not to be hurried beyond the evidence."

PENMANSHIP.

- 1. What constitutes the difference between good and bad penmanship?
- 2. Make, name, and describe the several elements, or principles, in the system of penmanship which you teach.
- 3. What organs and faculties require to be trained in order to successful work in penmanship?
 - 4. What is the utility of analysis in learning to write?
- 5. At what period in school life should the study of systematic permanship begin; and what preliminary training, if any, will facilitate the progress of the pupil?
 - 6. Analyze each of the letters in the word reading.
- 7. Make all the capital letters and classify them according to the principles employed.
- 8. Write five or more lines as a specimen of your best penmanship.

GEOMETRY.

[Select any five questions.]

- 1. Prove that in every parallelogram the squares of the sides are together equivalent to the squares of the diagonals.
- 2. Demonstrate, geometrically, that the product of the sum and difference of two quantities is equal to the difference of their squares.
- 3. Prove that, if from the same point without a circle a tangent and a secant be drawn, the tangent will be a mean proportional between the secant and its external segment.
- 4. If the faces of a square pyramid are equilateral triangles, prove that the height of the pyramid is half one of the diagonals of the base.
 - 5. Demonstrate the measurement of the area of the circle.

6. Find the radius of a circle inscribed in a triangle, the sides of which are given.

PHYSICS.

- 1. What is meant by the conservation and correlation of forces?
- 2. State Newton's Laws of Motion.
- 3. What is sound? Differences between a musical tone and noise? What is pitch?
 - 4. What is latent heat?
 - 5. How would you make a thermometer?
- 6. Name and define the essential properties of matter.
 - 7. How is dew formed?
- 8. What would be the velocity of a body falling under gravity, from a position of rest, at the end of the first, second, and third seconds respectively?
- 9. Why would the boiling point of water vary with the distance above or below the level of the sea?

ORTHOGRAPHY AND ORTHOEPY.

[Webster's Dictionary is taken as the standard.]

- 1. What does orthography include beside spelling?
- 2. Give rules and exceptions for forming derivatives from words ending in y. Illustrate each.
- 3. Spell all the derivatives you can form from the words refer, suffer, dry, mortgage, and force.
 - 4. What is a syllable, and what is the utility of syllabication?
- 5. Set forth the dependency of reading upon orthoepy, and of orthoepy upon physiology.
 - 6. Define carefully vocal, sub-vocal, aspirate, vowel, consonant.
- 7. Represent to the eye, by its regular character only, each of the English vocals, with illustrative word for each.
- 8. Give all rules governing the sound of a before r in monosyllables, and illustrate each.
- 9. Give all rules governing the sound of e in unaccented syllables.

10. Indicate by the exact means employed in the dictionary, the pronunciation of the words, jugular, granary, raspberry, peremptory, stalwart, blatant, glamour, cinchona, despicable, and gondola.

ENGLISH LITERATURE.

- 1. What are the marked Periods in the history of our language, and give the characteristics of each.
- 2. What are the principal component elements of the English language? At what periods and through what causes were they introduced into England?
 - 3. What was the effect of the Reformation upon Literature?
- 4. What was the effect upon Literature of the Restoration of Charles II?
- 5. What were the characteristics of the School of Pope, and who were the leading writers contemporaneous with Pope?
 - 6. Compare Byron and Wordsworth.
 - 7. Give an outline of one of Shakespeare's plays.
- 8. Mention the leading English poets of the first half of the nineteenth century, and give their principal works.
- 9. Mention the leading American writers of the corresponding period, with their chief works.
 - 10. Compare Longfellow and Tennyson.

MENTAL PHILOSOPHY.

- 1. Give an analysis of Intelligence, and state the function of each department.
- 2. What is meant by consciousness, and how is it related to intellectual action?
- 3. Discuss the origin of ideas according to the school of Locke, and according to the school of Kant.
- 4. Define the processes of Perception, Abstraction, and Generalization.
 - 5. What is the relation between the Will and the Intellect?

- 6. How is Freedom of the Will to be harmonized with the Law of Universal Causation?
 - 7. What is meant by Knowledge as distinct from Belief?

GENERAL HISTORY.

- 1. Describe the civilization (religion, art, government, etc.) of the reign of Nebuchadnezzar.
- 2. Sum up briefly the character and career of Miltiades, Pericles, and Alcibiades.
 - 3. Sketch the history of the city of Alexandria.
- 4. What were the distinguishing ideas and characteristics of the Romans?
- 5. What events and influences constituted the transition from Medieval to Modern history?
- 6. Give an account of the policy and doings of Phillip II. of Spain.
- 7. What portions of English history are most essential to an intelligent study of American history?
 - 8. Characterize the Stuart kings of England.
- 9. Give the history of the "Edict of Nantes" and its "Revocation."
 - 10. Review the re-unification of Italy.

GEOLOGY.

- 1. What are equivalent strata? Mention some of the difficulties encountered in determining the age of any stratum.
 - 2. What is dynamical geology?
 - 3. Mention three characteristics of the carboniferous age.
 - 4. What was the plant life of the carboniferous?
- 5. When and where did the State of Wisconsin first rise above the sea?
 - 6. To what is the imperfection of the geological record due?
 - 7. How is geological time estimated?
 - 8. Describe the Appalachian revolution.

- 9. Give a brief account of the life of the tertiary age.
- 10. Give a brief description of the glacial epoch.

POLITICAL ECONOMY.

- 1. What elements determine the rent of land?
- 2. Explain the advantages arising from the division of labor.
- 3. What is capital?
- 4. What are the best remedies for low wages?
- 5. What is money?
- 6. What are the objections to an inconvertible paper currency?
- 7. What effect has the introduction of machinery upon the laboring classes?
- 8. What are the differences between communism and co-operation?

BOTANY.

- 1. What is botany? How would you teach it?
- 2. What is the fruit? The seed?
- 3. Draw a longitudinal section of a complete, perfect, regular, and symmetrical flower.
- 4. Name five differences between a fern and a bean plant, or any other common flowering plant.
- 5. Explain the changes that take place in the ovule from the time of contact with the pollen to the ripening of the fruit.
- 6. Why is more carbonic anhydride given off from a plant during the night than during the day?
 - 7. Draw five different kinds of cells.
 - 8. What relation exists between plants and insects.
 - 9. What are the different kinds of infloresence?
 - 10. Name and describe the five leaves placed before you?

Please state what practical work, if any, you have done in botany.

THEORY OF TEACHING.

- 1. What study of Mental Philosohpy should be made by the teacher, and why?
 - 2. Indicate the proper order of studies for a child, with reasons.
 - 3. What is the grand object of school discipline? Analyze it.
- 4. Discuss recitation with respect to (a) objects, (b) methods, and (c) common faults.
- 5. What will justify punishment of pupils? Discuss modes of punishment, briefly.
 - 6. Discuss the practice of giving prizes in school.
 - 7. What records should be kept by the teacher, and why?
- 8. Discuss the hygiene of the school-room with respect to (a) consequences, (b) means.
 - 9. Discuss the morality of the teacher.
- 10. What duties does the teacher owe (a) to his predecessor, (b) to his successor, (c) to the profession in general?

REPORTS OF UNIVERSITIES AND COLLEGES.

UNIVERSITY OF WISCONSIN.

Annual Report of the President of the University of Wisconsin, for the year ending September 30, 1878.

Corporate name of the institution, University of Wisconsin.
 Name of the place where the institution is located, Madison, Wis.

Year when the institution was founded, July 26, 1848.
 Names of members of the faculty, with their respective salaries:

NAMES.	Departments of Instruction.	Salaries.
John Bascom, D.D., LL. D.	President and Professor of Mental and	
	Moral Philosophy	* \$3,500
John W. Sterling, Рн. D	Vice-Pres. and Prof. of Mathematics	2,200
Wm. F. Allen, A. M	Professor of Latin and History	2,000
S. H. Carpenter, LL. D	Prof. of Logic and English Literature.	2,000
Alexander Kerr, A. M	Prof. of the Greek Lang. and Literat'e.	2,000
D. B. Frankenberger	Prof. of Rhetoric and Oratory	2,000
W. J. L. Nicodemus, A. M.,	Prof. of Military Science and Civil and	0.000
C. E	Mechanical Engineering	2,000
John B. Parkinson, A. M.	Prof. of Civil Polity and Political Ec'y.	2,000
John E Davies, A.M., M.D	Prof. of Astronomy and Physics	2,000
W. W. Daniells, M. S	Prof. of Agriculture and Chemistry	2,000
Roland Irving, A. M., E.M.	Prof. of Geology, Mining and Metal-	0.000
	lurgy, and Curator of Cabinet	2,000
R. B. Anderson, A. M	Prof. of Scandinavian Lang. and Libr'n	
Edward T. Owen	Instructor in German and French	1,500
Gottlob Muhlhauser	Instructor in German and Greek	1,000
A. D. Conover	Instructor in Mathematics	1,000
Hon. Orsamus Cole, LL. D.	Ass Justice of Supreme Court of Wis.	per
D.T. T.T.D.	Prof. of Law	A
Hon. Wm. P. Lyon, LL. D.	Ass. Justice of Supreme Court of Wis.	8 2
D D	Prof. of Law	\$3,000 l fees.
Hon. Romanzo Bunn	Professor of Law	* =
J. H. Carpenter, LL. D	Dean of Law Faculty	p &
Wm. F. Vilas, LL. B	Professor of Law	
I. C. Sloan, Esq	Professor of Law	1 8 8
S. U. Pinney, Esq	Professor of Law	
J. B. Cassoday, Esq	Professor of Law	·
P. L. Spooner, Esq	Professor of Law	1 5
Clark Gapen, M. D	Professor of Law	1)

^{*} And house.

Annual Report of the University of Wisconsin - continued.

Names.	Departments of Instruction.	Salaries.
Edward A. Birge, A. B Everett J. Nichols Charles I. King Henry J. Taylor F. A. Parker Miss S. A. Carver Miss Alice J. Craig	Inst. in Nat. Hist. and Ass. Cur. of Cab. Assistant in Civil Engineering: In charge of the Machine Shop Instructor in Latin Instructor in Vocal and Inst. Music Preceptress and Instructor in French and German Instructor in Elocution	600 1,000 600 1,600

		35.1	773
		Male.	
5.	Total number who have graduated	443	76
6.	Number who graduated at last commencement	36	5
7.	Number of students in the Senior class	28	12
8	Number of students in the Junior class	23	11
ğ.	Number of students in the Sophomore class	51	14
10.	Number of students in the Freshman class	52	12
11	Number of students not in the regular classes	52	26
19	Number of students in the Preparatory department	84	38
ı».	Itumber of students in the Propulation, department		
13.	Number of acres of land owned by the institution. Site and land grants.	balan	ce of
14	Estimated cash value of land owned by the institution		
15	Estimated cash value of buildings owned by the institution		
16	Amount of endowments and funds, except real estate	\$483,5	35 91
17	Amount of income for the current year from all sources, ex-	. ,	
	cept tuition	80.5	67 20
12	Amount received for tuition during the current year		79 00
10.	Rates of tuition in collegiate department per annum, not		
10.	including board	Free 1	to res.
ഹ	Rates of tuition in preparatory department per annum, not		
2 0.	including board	Free	to res.
01	Amount paid on account of expenses of the institution, ex-		
<i>λ</i> 1.	clusive of building and repairs, during the year ending		
	Contambor 20, 1979	\$54 5	758 15
00	September 30, 1878	φυτ, ι	100 10
22.	Amount paid for building, repairs, and improvements during	6.9	95 25
	the year		

JOHN BASCOM,

President.

BELOIT COLLEGE.

Annual Report of the President of the Board of Trustees of Beloit College, for the year ending August 31, 1878.

- 1. Corporate name of the institution, The Board of Trustees of Beloit College.
- 2. Name of the place where the institution is located, Beloit, Rock county, Wisconsin.
- 3. Year when the institution was founded, 1847.
- 4. Names of members of the faculty, with their respective salaries:

NAMES.	Departments of Instruction.	Salaries.
Aaron L. Chapin, D. D., Pres. Rev. Jos. Emerson, M. A Rev. William Porter, M. A James J. Blaisdell, D. D Rev. Henry M. Whitney, M.A. Peter Hendrickson, M. A *Thos. C. Chamberlin, M. A. Ira W. Pettibone, M. A Goodwin D. Sweezy, M. A Thos. A. Smith, Ph. D Robert B. Riggs, B. A	History and Civil Polity	\$1,800 1,500 1,500 1,500 1,500 1,500 1,500 1,000 1,000 800
6. Number who graduated a 7. Number of students in th 8. Number of students in th 9. Number of students in th 10. Number of students in th 11. Number of students not in	t last commencemente senior classe junior classe sophomore classe freshman classe	le. Fem 262 15 15 21 22 85
 14. Estimated cash value of 1 15. Estimated cash value of 1 16. Amount of endowments at except tuition 18. Amount received for tuiti 	buildings owned by the institution and funds, except real estate 15 he current year from all sources,	1,330 00 25,000 00 55,000 00 23,300 00 11,923 45 3,613 20
cluding board 20. Rates of tuition in prepa including board 21. Amount paid on account	ratory department per annum, not	36 00 26 00
clusive of building and gust 31, 1878	repairs, during the year ending Au-	

President of the Board of Trustees.

^{*} Excused from duty for labor on state geological survey.

CARROLL COLLEGE.

Annual Report of the President of the Board of Trustees of Carroll College, for the year ending August 31, 1878.

- 1. Corporate name of the institution, Carroll College.
- 2. Name of the place where the institution is located, Waukesha, Wis.
- 3. Year when the institution was founded, 1846 (reorganized 1873).5. Names of members of the faculty, with their respective salaries:

NAMES.	Departments of Instruction.	Sal	aries.
W. L. Rankin, A. M Miss Alice Perry Hugo Philler, M. D, Assistant Pupils	Principal Grammar Department		
6. Number who graduat 7. Number of students it 8. Number of students it 9. Number of students it 10. Number of students it 11. Number of students it 12. Number of students it 13. Number of acres of le 14. Estimated cash value 15. Estimated cash value 16. Amount of endowmen 17. Amount of income for cept tuition 18. Amount received for 19. Rates of tuition in concluding board 20. Rates of tuition in principle including board 21. Amount paid on acconclusive of building	ve graduated		Fem 14 47 47 48 5,000 250 250 48 4 to 32

VERNON TICHENOR,
President of the Board of Trustees.

Salaries

Universities and Colleges.

LAWRENCE UNIVERSITY.

Annual Report of the President of the Board of Trustees of Lawrence University, for the year ending August 31, 1878.

Corporate name of the institution, The Lawrence University of Wisconsin.

Departments of Instruction.

- 2. Name of the place where the institution is located, Appleton.
- 3. Year when the institution was founded, 1847.

Names.

4. Names of members of the faculty, with their respective salaries:

Geo. M. Steele, D. D., Pres't. Hiram A. Jones, A. M Wesley C. Sawyer, Ph. D James C. Foye, A. M DeForest M. Hyde, C. E Ophelia Forward, M. L. A Sarah S. Fitch Selina A. Clark Ethics and Civil Polity Ancient Languages Coemistry and Physics Mathematics and Civil Engineerin French ard Latin. Music Drawing and Painting	1,000 1,000 1,000 1,000 1,000 700
	Tale. Fem.
5. Total number who have graduated	135 75
6. Number who graduated at last commencement	5 7
7. Number of students in the Senior Class	8 4
8. Number of students in the Junior Class	5 · 5
9. Number of students in the Sophomore Class	15 7
10. Number of students in the Freshman Class	24 10
11. Number of students in the Regular Classes	76 41
12. Number of students in the Preparatory Department	10 41
	0.500
13. Number of acres of land owned by the institution	2,500 \$32,000 00
14. Estimated cash value of land owned by the institution	30,000 00
15. Estimated cash value of buildings owned by the institution.	55,000 00
16. Amount of endowments and funds, except real estate17. Amount of income for the current year from all sources ex-	00,000 00
agent tuition	2,500 00
cept tuition	2 ,000 00
rent year	3,000 00
19. Rates of tuition in collegiate department per annum, not in-	
aluaing hoard*	21 00
20. Rates of tuition in preparatory department per annum, not	
including board*	15 00
including board*	
clusive of building and repairs, during the year ending	
August 31, 1878	$9,575\ 00$
=======================================	

G. M. STEELE,

President of the Board of Trustees.

^{*}Not ir cluding incidentals.

Salaries.

3,946 53

NAMES.

Universities and Colleges.

MÍLTON COLLEGE.

Annual Report of the President of the Board of Trustees of Milton Col-LEGE, for the year ending August 31, 1878.

Departments of Instruction.

- 1. Corporate name of the institution, Milton College. 2. Name of the place where the institution is located, Milton, Wis.
- 3. Year when the institution was founded, 1867. 4. Names of members of the faculty, with their respective salaries:

		_	
Rev. W. C. Whitford, A. M. Albert Whitford, A. M Edward Searing, A. M	Latin and Rhetoric English Department German Euglish Department	***************************************	1,000 1,000 800 800 425 425 425
		Male.	Fem.
F Matalassaches who how	mundunated	70	60
6. Normhon rub o graduated	e graduated		5
6. Number who g addated	the senior class	6	
7. Number of students in	the junior class	5	2
9. Number of students in	the sophomore class	$\tilde{5}$	$\tilde{9}$
10. Number of students in	the freshman class	15	13
11. Number of students in	t in the regular classes		
10. Number of students in t	the preparatory department	94	76
12. Number of students in	the preparatory department		=
19 Number of seres of land	l owned by the institution		173.5
14. Estimated each value of	land owned by the institution	\$3.0	00 00
14. Estimated cash value of	buildings owned by the institution.		00 00
16. Amount of and owners	s and funds, except real estate		379 63
17 Amount of income for	the current year from all sources, ex-	.,-	
acent twition	the current year from an sources, or	:	335 75
12 Amount received for tu	ition during the current year		14 08
10. Rates of tuition in colle	egiate department per annum, not in-		
aluding board		30) to 33
90 Peter of tuition in pro	paratory department per annum, not		
20. Nates of tuttion in pre	paratory department per dandary 200	24	1 to 27

clusive of building and repairs, during the year ending

August 31, 1878.....

ALBERT WHITFORD, Vice-President of the Board of Trustees.

RIPON COLLEGE.

Annual Report of the President of the Board of Trustees of Ripon College, for the year ending August 31, 1878:

Corporate name of the institution, Ripon College.
 Name of the place where the institution is located, Ripon, Wis.

3. Year when the institution was founded, 1863; charter granted 1854, and amended 1864. 4. Names of members of the faculty, with their respective salaries:

NAMES. Departments of Instruction. Sa	laries.
Rev. E. H. Merrell, A. M., President	\$1,200 1,000 1,000 1,000 1,000 900 900 900 1,000 550 600
Male. 5. Total number who have graduated 54 6. Number who graduated at last commencement 3 7. Number of students in the Senior Class 5 8. Number of students in the Junior Class 6 9. Number of students in the Sophomore Class 9 10. Number of students in the Freshman Class 16 11. Number of students not in the Regular Classes 5 12. Number of students in the Preparatory Departments 113	Fem. 33 4 1 1 6 4 6 90
 13. Number of acres of land owned by the institution, 100. 14. Estimated cash value of land owned by the institution. 15. Estimated cash value of buildings owned by the institution. 16. Amount of endowments and funds, except real estate	\$700 65,000 55,000 13,650 2,110
19. Rates of tuition in collegiate department per annum, not in-	24
20. Rates of tuition in preparatory department per annum, not including board	21
sive of building and repairs, during the year ending August 31, 1878	16, 350

E. H. MERRELL, President of the Board of Trustees.

Academies and Seminaries.

REPORTS OF ACADEMIES AND SEMINARIES.

ELROY SEMINARY.

Annual Report of the Board of Trustees of Elroy Seminary, for the year ending August 31, 1878.

- Corporate name of the institution, Elroy Seminary.
 Name of the place where the institution is located, Elroy, Juneau county,
- 3. Year when the institution was founded, A. D. 1873.4. Names of members of the faculty, with their respective salaries:

Names.	Departments of Instruction.	Salaries.
Rev. F. M. Washburn, A. M C. E. Booth, M. D Mrs. M. A. Washbu'n, M. A Miss Mary J. Gifford	Principal	200
6. Number who graduated at l	duated	Female. 9 5 37 49
 Estimated cash value of land Estimated cash value of buil Amount of endowments and Amount of income for the c 	rned by the institution	
 13. Amount received for tuition 14. Rates of tuition in academi including board 15. Rates of tuition in prepara including board 	during the current year cal department per annum, not tory department per annum, not expenses of the institution, exclu-	1,134 40 23 25 23 25
sive of building and re	epairs, during the year ending	1,134 40

JOHN HUTCHINSON, President of the Board of Trustees.

Academies and Seminaries.

JANESVILLE CLASSICAL ACADEMY.

REPORT of the President of the Roard of Trustees of JANESVILLE

ANNUAL REPORT of the President of the Board of Trustees of JANESVILLE
CLASSICAL ACADEMY, for the year ending August 31, 1878.
 Corporate name of the institution, Janesville Classical Academy. Name of the place where the institution is located, Janesville, Wis. Year when the institution was founded, 1875.
A Names of members of the faculty, with their respective salaries:
John P. Haire A. M., Latin, Greek, Mathematics.
Mrs Ellen B. Haire, English Literature and Knetoric.
Miss Susie Jeffries, English branches and Algebra.
Otto Knuesley, German.
Mrs. G. H. Strout, Drawing and Painting.
Mrs. I. W. St. John, Voice Culture.
John C. Fillmore, Piano.
5. Total number who have graduated.
6. Number who graduated at last commencement.
7. Number of students in the Senior class.
8. Number of students in the third year class.
9. Number of students in the second class.
10. Number of students in the first class.
11. Number of students not in the regular classes. 12. Number of students in the preparatory department.
II we not been able to bring himis into regular classes of our caus-
lower Wo take such material as comes, and classify as well as
regible with reference to our regular course. Have sent pupils to
Dalait Milton State University Rinon, Appleton, Mt. Holyoke Schi-
inary, Boston, in various stages of preparation for college. We pro-
noga tá do only academic Work.
19 Amount received for tuition during the current year \$1,000
14 Rates of tuition in academical department per annum, not in-
aluding bound
15 Amount paid on account of expenses of the institution, exclu-
give of building and repairs, dilling the year chang hinguis
108

JAMES SUTHERLAND, President of the Board of Trustees.

Salaries.

NAMES.

Academies and Seminaries.

LAKE GENEVA SEMINARY.

Annual Report of the President of the Board of Trustees of Lake Geneva Seminary, for the year ending August 31, 1878.

- 1. Corporate name of the institution, Lake Geneva Seminary.
- 2. Name of the place where the institution is located, Geneva, Walworth county.

Departments of Instruction.

- 3. Year when the institution was founded, 1869. Incorporated 1871.
- 4. Names of the members of the faculty, with their respective salaries:

Mrs. Julia A. Warner Miss S. T. Warner Mrs. E. W. Adams Wm. Jay Warner Miss H. E. Warner Albert C. Pearson Miss M. I. Warner	Principal, Mental and Moral Philosophy Ancient and Modern Languages Literature and History Natural Sciences and Mathematics Fine Arts Instrumental Music	aries paid
6. Number who graduate 7. Number of students is 8. Number of students is 9. Number of students is 10. Number of students is 11. Number of students	ve graduated	le. Fem 11 1 3 2 8 1 8 12 25 14 38
 14. Estimated cash value 15. Estimated cash value 16. Amount of endowmen 17. Amourt of income for cept tuition 18. Amount received for t 19. Rates of tuition in ac including board 20. Rates of tuition in princluding board 21. Amount paid on ac exclusive of building 	and owned by the institution	\$10,000 40,000 8,000 32 32 4,000

JOHN W. BOYD,

President of the Board Trustees.

Academies and Seminaries.

ROCHESTER SEMINARY.

Annual Report of the President of the Board of Trustees of Rochester Seminary, for the year ending August 31, 1878.

- Corporate name of the institution, Rochester Institute.
 Name of the place where the institution is located, Rochester, Racine county.
- 3. Year when the institution was founded, 1867.4. Names of members of the faculty, with their respective salaries:

NAMES.	Departments of Instruction.	alaries.
Rev. G. H. Hubbard R. F. Pouley, M. S., Prin Mrs. R. F. Pouley, M. S	President of Board of Trustees Mathematics and Sciences Languages, English, and History	\$400 350
6. Number who graduated 7. Number of students in 8. Number of students in 9. Number of students no 10. Number of students in 11. Number of acres of lat 12. Estimated cash value o 13. Estimated cash value o 14. Amount of endowments 15. Amount of income for tuition 16. Amount received for tu 17. Rates of tuition in aca cluding board 18. Rates of tuition in pr cluding board 19. Amount paid on account	graduated	700 . 27 . 24°

REV. G. H. HUBBARD,

President of the Board of Trustees.

Apportionment of School Fund Income.

STATISTICAL TABLES.

The following apportionment was made in June last, on the returns made for the school year ending August 31, 1877. The rate was 39 cents per scholar. The amount received by the independent cities is included:

Table No. I.
APPORTIONMENT OF SCHOOL FUND INCOME IN 1878.

		21, 2010.
Counties.	No. of children.	Apportion- ment.
AdamsAshland	2,540	\$990 60
Barron	$\frac{264}{1,312}$	102 96
Bayfield	282	511 68 109 98
Brown	12, 432	
Buffalo		4,848 48
Burnett	$\substack{5,946\\478}$	2,318 94 186 42
Calumet	6,275	2,447 25
Chippewa	4,250	1,657 50
Clark	2,888	1,126 32
Columbia	11,302	4,407 78
Crawford	6,107	2,381 73
Dane	20,679	8,064 81
Dodge	19,031	7,422 09
Door	3,308	1,290 12
Douglas	277	108 03
Dunn	5,346	2,084 94
Eau Claire	5,133	2,001 87
Fond du Lac	19,551	7,624 89
Grant	15,840	6,177 60
Green	8,130	3,170 70
Green Lake	5,608	2,187 12
Iowa	9,612	3,748 68
Jackson	4,441	1,731 99
Jefferson	13,590	5,300 10
Juneau	5,735	2, 236 65
Kenosha	5,402	2,106 78
Kewaunee	6,349	$2,476\ 11$
La Crosse	8,468	3,301 74
La Fayette	8,747	3,411 33
Lincoln	339	132 21
ManitowocMarathon	16, 697	6,511 83
Marquette	4,187	1,632 93
Milwaukee	3,625	1,413 75
Monroe	44,021	17, 168 19
-control	8,279	3,228 81

Table 1. Apportionment of School Fund Income.

Counties. children. ment Oconto 4,447 \$1,73 Outagamie 10,390 4,05 Ozaukee 7,218 2,81 Pepin 2,357 91 Pierce 6,127 2,38 Polk 2,662 1,03 Portage 10,473 4,08 Racine 7,298 2,84 Richland 14,035 5,47 Rock 6,046 2,35 St. Croix 6,046 2,35 Sauk 2,605 1,01 Shawano 14,128 5,56 Sheboygan 307 11 Taylor 307 11 Taylor 6,375 2,46 Vernoa 9,077 3,56 Walworth 9,991 3,80 Waukesha 7,175 2,75 Waupaca 4,759 1,81 Waushara 15,517 6,00			
Outagamie 10,390 4,05 Ozaukee 7,218 2,81 Pepin 2,357 91 Pierce 6,127 2,38 Polk 2,662 1,03 Portage 10,473 4,08 Racine 7,298 2,84 Richland 14,035 5,47 Rock 6,046 2,35 St. Croix 10,531 4,10 Shawan 10,531 4,10 Sheboygan 307 11 Taylor 307 11 Trempealeau 9,114 3,5 Vernoa 9,077 3,5 Walworth 9,991 3,8 Waukesha 7,175 2,7 Waupaca 4,759 1,8 Winnebago 15,517 6,00	Counties.		Apportion- ment.
Totals	Outagamie Ozaukee Pepin Pierce Polk Portage Racine Richland Rock St. Croix Sauk Shawano Sheboygan Taylor Trempealeau Vernoa Walworth Washington Waukesha Waupaca Waushara Winnebago Wood	10, 390 7, 218 2, 357 6, 127 2, 662 5, 517 10, 473 7, 298 14, 035 6, 046 10, 531 2, 605 14, 128 307 6, 375 9, 114 9, 077 9, 991 11, 072 7, 175 4, 759 15, 517 2, 069	\$1,734 33 4,052 10 2,815 02 919 23 2,889 53 1,038 18 2,151 63 4,084 47 2,846 22 5,473 65 2,357 94 4,107 99 1,015 95 5,509 92 119 73 2,486 25 3,554 63 3,540 03 3,896 49 4,318 08 2,798 25 1,856 01 6,051 68 806 91

Table No. II. DISTRICTS, CHILDREN, AND SCHOOL ATTENDANCE

		DIS	11110	16, 0	ппр	iten, .	and 8	CHOOL	ALIE	MDAN	CE.				
Counties.	Whole number of school-districts in the county.	Number of districts which have reported.	Whole number of parts of districts in the county.	Number of parts of districts which have reported.	Number of joint districts with the school houses in the county.	Number of male children over 4 and under 20 years of age.	Number of femsle children over 4 and under 20 years of age.	Whole number over 4 and under 20 years of age in in the county.	Number over 4 and under 20 y'rs in districts maintaining school 5 or more months.	Number of days school has been taught by qualified teachers during the year.	Number over 4 and under 20 years who have attended school.	Number under 4 years who have attended school.	Number over 20 years who have attended school.	Total number of different pupils who have attended school during the year.	Districts, Children, and
Adams Ashland Barron Bayfield Brown Buffalo Burnett Calumet Chippewa Clark Columbia Crawford Dane Int district	74 63 9 56 94 58 147 67	47 4 55 1 74 63 9 56 9 92 58 146 67	38 	38 	19 8 8 16 2 11 1 13 36 24	1, 393 184 883 113 5,004 3,170 261 3,213 2,394 1,621 4,600 2,747	1, 221 187 809 170 4, 655 3, 040 241 3, 052 2, 229 1, 448 4, 308 2, 547	2, 614 371 1, 692 303 9, 659 6, 212 502 6, 265 4, 623 3, 069 8, 908 5, 294	2,591 371 1,619 303 9,659 6,212 502 6,265 4,623 2,953 8,908 5,275	10,990 760 7,160 200 13,830 10,919 1,022 11,503 11,207 11,547 24,930 14,232	2,125 209 1,101 135 5,194 3,890 310 3,486 3,122 1,764 6,955 3,718	3 4 	25 8 2 4 29 2 14 22 14 118 28	2, 153 209 1, 113 137 5, 246 3, 928 312 3, 502 3, 166 1, 784 7, 082 3, 764	School Attendance.
1st district 2d district	87 84	87 84	101 70	101 70	63 31	4,126 $4,349$	3, 742 4, 107	7,868 8,456	7,868 8,456	24,577 $20,655$	4,977 $5,340$	8	34 58	5,019 5,411	

Dodge —	1	1		1				~ 450	77 ARR	19,716	4,704	16	26	4,746	
1st district	70	70	64	64	31	3,899	3,557	7,456	7,456	15,634	4, 402	12	19	4,433	
2d district	64	63	52	52	28	4,260	4,216	8,476	8,476	5,903	2, 115	17	15	2,147	
Door	40	39	3	3	3	1,793	1,707	3,500	$3,500 \\ 244$	160	167			167	
Douglas	2	2			• • • • • •	138	106	244		12,903	3,974	11	47	4,032	
Dunn	82	81	22	22	11	2,797	2,707	5,504	5,468	8,385	3,847	18	24	3,889	\mathcal{D}
Eau Claire	58	56	9	9	3	2,723	2,683	5,406	5,406	33,808	9,083	19	$5\tilde{2}$	9, 154	is
Fond du Lac	118	118	50	50	31	6,957	6,576	13,533	13,499	32,761	11, 153	15	123	11, 291	Districts,
Grant	159	159	104	104	52	7,994	7,522	15,516	15,516	21,348	6,751	15	69	6,835	č.
Green	96	96	60	35	30	4, 277	4,002	8,279	8,279	12,648	2,786	3	12	2,801	્રેડ
Green Lake	44	44	46	46	27	2, 197	2,060	4,257	4,034	18,876	6,288	14	30	6, 332	
Iowa	112	110	39	39	28	4,466	4,118	8,584	8,561	10,636	3,073	2	16	3,091	ž
Jackson	54	52	33	- 33	18	2,306	2,201	4,507	4,448	24,154	6,468	19	38	6,525	Children,
Jefferson	75	75	96	96	59	5,490	5,118	10,608	$10,608 \\ 5,674$	13,659	4, 237	2	25	4,274	d_{1}
Juneau	91	91	39	39	22	2,901	2,795	5,696	3,358	11,966	1,952		18	1,970	69
Kenosha	46	46	34	34	15	1,724	1,634	3,358	6,667	8,033	3,000	43	7	3,050	
Kewaunee	41	40	21	21	9	3,421	3,246	6,667	4,749	10,111	3,003	5	22	3,030	a
La Crosse	53	53	32	31	13	2,451	2,350	4,801		20, 872	6,413	2	49	6,464	and
La Fayette	99	99	54	54	27	4,443	4,302	8,745	8,745 426	1.815	325			325	
Lincoln	13	13			:	222	206	528		15,787	8,509	33	19	8,561	School
Manitowoc	. 87	87	44	44	19	8,339	8,111	16,450	16, 450	9, 361	2,160			2,160	3
Marathon	64	63	8	8	5	1,789	1,755	3,554	3,544	9,564	2,243	1 -	11	2,260	2
Marquette	42	42	18	18	18	1,784	1,686	3,470	3,456	3,004	2,210			, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	~
Milwaukee —				4.0	10	0.000	0 101	4 404	4 494	8,062	2,073		2	2,075	A
1st district	27	27	16	16	12	2,293	2,131	4,424	4,424	5,423	1,769	2	3	1,774	t.
2d district	32	32	3	3	2	1,972	1,924	3,896	3,896	20,632	5,938	25	65	6,023	en
Monroe	89	88	75	75	36	4,267	3,854	8, 121	8, 121	6,800	1,992		11	2,006	a
Oconto	41	38	4	4	1	1,785	1,646	3,431	3,384	14,793	5, 435	1 13	2	5,450	Attendance
Outagamie	102	102	22	22	16	4,159	3,893	8,052	8,052	9,308	4, 227	7	14	4,248	2
Ozaukee	59	59	12	12	5	3,535	3,489	7,024	6,961	5,589	1,719	3	22	1,744	60
Pepin	29	29	12	12	7	1,214	1, 135	2,349	2,349	16,423	4, 356	5	29	4,390	
Pierce	83	83	42	41	21	3, 290	2,982	6,272	6,272	8,768	2,008		11	2,026	
Polk	62	62	16	14	6	1,611	1,437	3,048	2,940	12.099	2,850	1	8	2,861	
Portage	58	56	39	39	22	2, 369	2,182	4,551	4,358		$\frac{2,630}{3,570}$		1	3,598	!
Racine	57	56	48	47	20	2,973	2,782	5,755	5,727	15,554	5,586]
Richland	97	97	44	44	27	3,706	3,520	7,226	7,226	17,905	0,000	1 10	, ,,	, 0,0.1	i

Districts,

Attendance.

Table No. II.—Districts, Children, and School Attendance — continued.

	TABLE No. 11.—Districts, Unitaren, and School Attendance — continued.													
Counties.	Whole number of school-districts in the county.	Number of districts which have reported.	Whole number of parts of districts in the county.	Number of parts of districts which have reported.	Number of joint districts with school.houses in the county.	Number of male children over 4 and under 20 years of age.	Number of female children over 4 and under 20 years of age.	Whole number over 4 and under 20 years of age in the county.	Number over 4 and under 20 years in districts maintaining school 5 or more months.	Number of days school has been taught by qualified teachers during the year.	Number over 4 and under 20 years who have attended school.	Number under 4 years who have attended school.	Number over 20 years who have attended school.	Total number of different pupils who have attended school during the year.
Rock (1st dist) Rock (2d dist) St. Croix Sauk Shawano Sheboygan Taylor Trempealeau Vernon Walworth Washington Waukesha Waupaca Waushara Winnebago Wood	59 53 79 123 47 101 12 69 115 87 68 119 81 54 65 30	59 53 73 122 46 101 12 67 115 87 68 118 81 54 65 28	58 67 31 84 7 42 30 62 83 68 67 54 85 79	58 65 22 83 7 42 27 62 83 68 67 54 85 79	24 35 17 39 5 24 18 33 35 31 42 25 38 36 7	2,180 2,046 2,750 5,282 1,570 5,841 259 3,358 4,729 4,554 4,971 5,472 3,944 2,522 3,596 1,024	2, 155 1,869 2,604 5,097 1,430 5,578 216 3,002 4,264 4,416 4,814 5,160 3,811 2,399 3,464 992	4, 335 3,915 5,354 10,379 3,000 11,419 475 6,360 8,993 8,970 9,785 10,632 7,755 4,921 7,060 2,016	4, 335 3, 899 5, 230 10, 379 2, 932 11, 419 450 6, 212 8, 956 8, 970 9, 785 10, 632 7, 719 4, 921 7, 060 1,886	16,443 19,333 13,894 20,960 5,600 20,244 1,580 9,950 22,579 25,480 19,224 18,098 15,850 18,655 20,795 4,555	3,433 3,125 3,636 7,186 1,516 6,463 271 3,649 6,281 6,588 5,029 7,007 5,200 3,385 4,928 1,291	15 4 2 6 7 8 1 3 9 3 7 21 1 8 3 2	47 19 22 80 1 29 2 61 68 50 20 22 26 28 35	3,495 3,148 3,660 7,272 1,524 6,500 274 3,713 6,358 6,641 5,066 7,050 5,227 3,421 4,966 1,299
Totals	4,276	4,240	2,441	2,383	1,265	197,723	186,660	384,383	382,666	863,213	249,291	590	1,738	251,519

SCHOOLS, TEACHERS, WAGES, LIBRARIES, Etc..

Table No. III.

ı		t															-	
SUPT.)				Sсноо	ls, Teaci	iers, W	AGES, etc	•					Libe	RARIES.			
:		with	depart-	s re-	nt per- teach- ar.	of male	male 1.		vis-	vis-	s or lec- by him.	county.	s ad-	for for year.	vol- ibra-	ies.	s in	
	Counties.	r of schools epartments.	schools nore de	of teachers to teach	differe	wages per n	wages of female s per month.	wages paid.	schools bunty e year.	of different le.	ered l	in	of volumes ing the year.	pended ng the	umber of district li	e of libraries	vn libraries	Schools,
		Number two der	Number of three or r ments.	Number of quired schools	Number of c sons emplo ers during	Average v	Average w teachers	Highest w	Number of ited by conducting the	Number of its made.	No. of ad tures del	No. districts having libra	Number c	Amount books du	Whole nu umes in ries.	Cash value	No. of town county.	Teachers,
	Adams Ashland Barron Bayfield Brown Buffalo Burnett Calumet Chippewa Clark Columbia Crawford	2 1 4 1 2 1 1 6	2 3	68 5 60 3 91 88 11 73 100 74 165 94	112 5. 90 3 120 124 16 102 155 123 276 149	\$24 55 60 00 28 76 80 00 34 89 41 78 33 00 39 05 35 58 34 45 39 33 32 16	\$19 81 30 00 24 14 32 50 26 10 27 62 27 36 27 36 27 36 27 56 22 25 20 97	\$35 00 60 00 40 00 80 00 88 00 90 00 35 00 100 00 122 00 100 00 88 88 45 00	64 5 53 3 63 79 10 65 92 49 165 53	131 5 80 6 73 128 46 110 165 62 284 65	9 2 2 47	2 4 2 4 3 8 5 9 6 5	28 14 300 89 138 236	\$23 80 15 70 25 00 169 84 82 85 98 72 238 77	83 96 481 370 435 160 500	\$89 14 60 00 135 70 446 00 193 00 569 55 306 15 513 80 48 00	1	, Wages, etc.
	Dane — 1st district 2d district	1 4	2 3	133 132	224 195	33 34 38 48	20 60 24 61	88 88 80 00	126 116	215 236	6	6	60	21 00 84 94	91	162 00 400 94		

Table No. III. — Schools, teachers, wages, libraries, etc. — continued.

		s	Сноог	s, Teaci	HERS, WA	AGES, ET	c.					Libra	ARIES.			
Counties	Number of schools with two departments. Number of schools with three or more depart.	Number of teachers rescholded to teach the schools Number of teach the schools of different nor	Number of unerent persons employed as teachers during the year.	Average wages of male teachers per month.	Average wages of female teachers per month.	Highest wages paid.	Number of schools visited by county superintendent during year.	Number of different visits made. No. of addresses or lec-	tures delivered by him.	Number of volumes add- ed during the year.	Number of districts in county having libraries	Amount expended for books during the year.	Whole number of volumes in dist. libraries.	Cash value of libraries.	Number of town libraries in county.	Teachers, Wages,
Dodge — 1st district. 2d district. Door. Douglas. Dunn. Eau Claire. Fond du Lac. Grant. Green. Green Lake. Iowa. Jackson. Jefferson Juneau Kenosha. Kewaunee La Crosse	1	2 112 2 114 2 47 . 4 1 104 4 87 5 192 9 250 6 154 138 2 81 5 153 4 106 2 56 2 74	180 146 66 4 164 122 320 365 258 135 118 232 163 102 68 110	\$35 00 37 48 36 33 70 00 34 65 40 71 36 41 39 01 35 47 35 43 31 93 31 28 40 96 41 40 35 81 31 85 35 13	\$21\\$12 24 21 27 50 27 50 27 58 27 54 22 61 24 68 23 19 20 56 22 04 26 59 22 34 21 81 26 33 25 44 23 01	\$65 00 120 00 70 00 70 00 144 52 172 22 111 10 127 77 133 00 50 00 150 00 150 00 50 00 70 00 100 00	42 499 599 1655 131 97 64 125 83 59 44	202	42	14 8 5 2 3 12 9 9 4 2 	69 20 249 3 169 139 15	1 80	191 	\$594 50 487 00 200 00 179 56 250 00 207 05 506 00 672 00 80 00 30 00 595 00 588 28 538 00	2 1 2 1 1 2 2	ges, Libraries, etc.

Teachers, Wages, Libraries, Etc.

La Fayette Lincoln	. 1	3 3 1 1	. 15	15	41	47	\$21 28	66	67	00	12	1:	$2 \dots $		2		45				
Manitowoc							32	45	150	00	107	22	$3 \dots$. 9	9 18	3 21	- 00	328	404	00	
Marathon			70			10	26	71		00	50	6	3	. (3	. 54	15	169	224	25	1
Marquette	2						19	25		00	58	11	8 118	3 8	3 26	50	89). 	170	00	l l
Mil'kee, 1st dist.	. 2						28	44	71	00	35	7	7 2	1 8	ol			494	349	10	l
Mil'kee, 2d dist.		. 1					31	81	77	78	31			1 2	3l			83	150	00	
Monroe	5		144		37	65	22	83	126	30	106	15	6	. 1	18	3 20	00	18	20	00	l l
Oconto	2	2	53		51	33	28	22	120	00			5		48	18	00	75	136	00	
Outagamie		1	106		37	70	. 25	98	52	50	102	20	1	. 1		10	00	70	120	00	
Ozaukee	4		67	76	44	03	26	07	140	00				i							
Pepin	2		47			67	25	04	75	00	36	70	6	. 4	24	32	84	151	81	48	
Pierce	1	2		177	36	61	27	89	100	00	91			1 4	80	76	43	665	607	50	
Polk	1 1		67	112	34	24	29	44	55	00	62	98	3	3	183	58	11	345	152	25	
Portage	8	3	83			16	23	51	75	00	77	14	il	. 1				20		00	
Racine	2	1	81	123		30	25	40	100	00	74	122	≥	19	40	100	00	1,013	673	50	
Richland	1	2 2	128	216	31	14	21	26	75	00	127	239	9	4	41	48	56	104	155	00	
Rock, 1st dist	2			157	37	36	23	32	90	31	91	178	3	. 7	1	79	20	683	420	00	
Rock, 2d dist	5		94	169	33		24	38	77	78	85	216	3	17	11	10	00	1,036	492	00	
St. Croix	2		101	156	39	65	29	65	70	00	82	96	3	3	. 			250			
Sauk	4	5	185	289	43	18	25	16	144	67	149	211	1	16	17	60	00	1,238	14	40	
Shawano		1	47	70	29	45	21	24	80	00	37	46	36	1	- 155	100	39	175			
Sheboygan	4	2	124	186	41	96	24	86	100	00	112	170) 1		28	25	00	606	375	00	
Taylor	1		12	16	37	50	28	65	40	00	11	32	28	1	149	43	77	151			:
Trempealeau	1	3		130	35	06	28	22	100	00	82	130)	2				76	60	00	
Vernon	1	- 3	155	242	29	48	20	89	90	00	147	184		1		. 		7		75	1
Walworth	4		164	265	41	51		68	144	44	102	154	l	5	42	158	50	468	742	00	
Washington	4		113	129	43	75		89	100	00	97	. 99		11	18	75	00	216	203	00	
Waukesha	8		143	208	52	25	27	00	110	00	118	373		4	134	205	00	375	390		
Waupaca	7	3	125	199	37	34	25	13	112	50	95	150	1	4	11	32	15	51			
Waushara	4		98	171	30			57	43	00	95	179	179	7	98	80	79	337	241	00	
Winnebago	3		114	184	35			82	90		101	210						•			
Wood	1		38	61	33	83	27	03	50	00	33	60	1	3	162	66	50	220	135	00	
Totals and av.	166	130	5, 997	9,042	\$ 38	45	\$25	33	\$172	22	4,674	7.852	765	328	2,929	1.888	68	17.069	16,180	23	26
				,	,		1		,		,=,==	-,000		0.00	, , , , ,	_,	ا	,,,,,,			

Table No. 1V.
SCHOOL HOUSES, SITES, AND TEXT BOOKS.

		School	ь Но	uses.			Si	ITES.				TEXT-	-Boo	KS.	
Counties.	No. of school houses in the county.	<u>~</u> ∑	No. school houses built of stone or brick.	No. of school houses in good condition.	No. of school houses properly ventilated.	No. of sites containing less than one acre.	No. of sites well enclosed.	No. with out-houses in good condition.	No. sites well selected.	No. of sites improved or ornamented.	No. of districts which have adopted lists of text-books.	No. of districts which purchase text-books.	No. districts which loan text-books to pupils.	No. districts which sell text-books to pupils.	text-book
Adams. Ashland Barron Bayfield Brown Buffalo Burnett Calumet Chippewa Clark Columbia Crawford Dane 1st District 2d District	66 4 56 2 85 79 11 65 104 67 147 91	2,796 200 1,912 125 5,820 4,823 443 4,025 4,078 3,031 8,649 4,131 6,923	 2 5 5 8 1 10 6	62 10 53 72 58 120 51	45 44 43 2 44 55 10 58 64 56 109 63	53 64 29	9 3 4 1 39 22 3 37 31 33 44 13	40 44 38 2 56 50 111 53 56 43 117 84	46 3 54 2 68 54	2 1 3 11 3	30 	26 	19 17 2 4 1 31 33 1	6 13 19 5 10 2 9 16 2	2 2 1 1 8 2

Dodge, 1st district
· 1 1 CO

Table No. IV. — School Houses, Sites, and Text-Books — continued.

		Scноо	ь Но	uses.			Sı	TES.				TEXT-	Boo	KS.	
Counties,	No. of school houses in the county.	No. of pupils school hcuses will accommo- date.	No. of school bouses built of stone or brick.	No. of school houses in good condition.	No. of school houses properly ventilated.	No. of sites containing less than one acre.	No. of sites well in- closed.	No. with out houses in good condition.	No. of sites well selected.	No. sites improved or ornamented.	No. of districts which have adopted lists of text.	No. of districts which purchase text-books.	No. of dist's which loan text-books to pupils.	of dist's w	No. of towns uniform as to text-books.
St. Croix Sauk Shawano Sheboygan Taylor Trempealeau Vernon Walworth Washington Waukesha Waupaca Waushara Winnebago Wood	95 163 50 112 10 87 149 129 99 119 106 93 101 36	8,764 2,470 7,967 466 4,992 7,810 7,592 8,026 8,035	$\begin{array}{ c c c }\hline 144\\ 1\\ 14\\ \hline & 6\\ 3\\ 31\\ 49\\ 44\\ 2\\ 3\\ \end{array}$	118 39 92 10 72	31 78 9 48 106 88 64	14 91 4 39 122 104 88	37	17 76 9 70 77 114 82 84 84 67 80	126 8 83 121 121 98	1 16 16 64 15 	26 53 7 26 52 34 12 52 52 64	21 16 4 26 16 4 6 37 45 66	2 3 2 1 16	13 8 14 3 4 40 31 26	3 1
Totals	5,393	310, 573	708	4,455		3,828	1,886								70

School House Property.

Table No. V. SCHOOL HOUSE PROPERTY.

Counties.	Highest valuation of school house and site.	Cash value of school houses in the county.	Cash value of sites.	Cash value of apparatus.
Adams. Ashland Barron Bayfield Brown. Buffalo Burnett Calumet Chippewa Clark Columbia Crawford Dane (2d district) Douge (2d district) Douge (2d district) Douge (2d district) Cough (2d district) Cough (2d district) Dough (2d di	2,025 00 3,500 00 925 00 3,500 00 3,700 00 7,400 00 1,050 00 3,000 00 16,000 00 16,500 00 2,000 00 10,400 00 2,000 00 2,500 00 2,500 00 2,500 00 2,500 00 2,500 00 2,500 00 2,500 00 2,500 00 2,500 00 2,500 00 3,800 00 2,500 00 3,800 00 4,500 00 22,000 00 3,800 00 4,500 00 1,200 00 7,500 00 7,500 00 4,000 00	16,820 00 7,500 00 16,340 00 3,000 00 43,046 00 3,505 50 34,538 75 28,637 00 45,007 00 80,885 00 20,305 00 66,047 00 64,397 00 37,200 00 59,225 50 12,012 25 6,000 00 46,995 00 68,335 00 92,060 00 149,450 00 86,605 00 33,480 30 45,644 25 51,465 00 119,514 00 38,505 00 29,501 25 29,675 00 32,018 75	788 00 1,500 00 954 00 500 00 15,317 50 4,203 00 245 50 3,607 50 2,415 00 2,804 00 7,811 00 1,548 50 5,662 50 5,663 00 5,137 00 6,015 25 1,704 00 6,855 25 2,798 00 14,174 00 9,786 50 7,178 50 2,555 00 5,314 00 6,575 00 8,431 00 3,128 50 2,348 10 2,618 09 2,997 00	756 00 20 00 1,446 00 2,180 56 3,012 00 2,229 00 2,299 00 2,399 50 3,897 24 3,805 00 2,151 00 2,545 00 2,968 35 1,483 00 2,968 35 1,483 00 125 00 3,145 50 2,195 80 3,881 10 4,907,50 1,898 91 980 50 2,151 00 4,907,50 1,898 91 980 50 2,151 00 4,907,50 1,767 15 1,033 00 2,589 64 1,956 00
La Fayette Lincoln Manitowoc Marathon Marquette	30,000 00 6,500 00 45,000 00 5,000 00 2,500 00	$\begin{array}{c} 94,250 & 00 \\ 8,950 & 00 \\ 106,368 & 65 \\ 37,340 & 00 \\ 19,600 & 00 \\ \end{array}$	9,034 25 622 00 10,832 00 3,419 00 1,035 00	2,898 25 640 00 4,760 50 4,004 50 632 00

Table No. V — School House Property — continued.

Counties.	Highest valuation of school house and site.	Cash value of school houses in the county.	Cash value of sites,	Cash value of apparatus.
Milwaukee (1st dist.) Milwaukee (2d dist.) Monroe Oconto Outagamie Ozaukee. Pepin Pierce Polk. Portage Racine. Richland Rock (1st dist.) Rock (2d dist.) St. Croix Sauk. Shawano Sheboygan Taylor Trempealeau Vernon Walworth Washington Waukesha. Waupaca Waushara Winnebago. Wood		\$32,675 00 25,025 00 66,025 00 31,087 00 43,305 00 34,070 00 21,930 00 36,920 25 21,733 00 27,129 75 42,770 00 36,393 00 59,370 63 53,260 00 41,557 00 97,440 00 13,970 00 62,695 00 4,476 00 33,813 00 56,232 00 100,276 00 77,665 80 101,271 00 51,204 00 30,538 00 60,145 00 18,950 00	\$4, 369 00 2,775 00 5,066 00 3,738 00 5,515 00 4,720 00 1,945 00 4,011 00 1,204 00 1,565 50 4,838 00 3,518 00 3,935 00 5,718 00 4,052 00 10,729 50 1,367 45 6,384 50 695 00 2,835 00 3,340 00 13,007 00 10,341 00 12,942 00 2,258 00 2,255 00 5,856 00 1,300 00	\$1, 273 00 1, 255 50 2, 353 00 2, 494 83 3, 400 00 4, 480 00 674 48 2, 307 50 2, 816 00 1, 333 63 1, 748 75 2, 735 00 1, 449 00 2, 413 50 2, 319 00 3, 889 80 1, 045 00 3, 045 00 2, 570 00 1, 511 00 2, 515 00 5, 188 50 2, 930 00 6, 185 00 2, 288 50 2, 288 50 2, 475 50 612 00
Totals	\$45,000 00	\$2,994,260 83	\$196,029 70	\$143,486 39

Private Schools not Incorporated.

Table No. VI.
PRIVATE SCHOOLS NOT INCORPORATED.

Counties.	Number of such schools in the county.	Number which are denomina- tional or parochial.	Number of teachers engaged in such schools.	Average number of days such schools have been taught.	Number of pupils registered who have not attended district schools during year.	Average number in daily attendance.
A 3						
Adams	1		1	60		25
Barron Bayfield						
Brown	3 4	3 4	6 6	160 143	45 158	78 48
Burnett	7	6	7	148	322	191
Calumet	1	1	1	192	22	19
Clark	2	2	2	136		20
Crawford	2		2	48	24 255	14 30
Dane (1st district)	14 11	13 11	22 13	86 109	268	31
Dane (2d district)	5	5	5	200	75	35
Dodge (2d district)	31	25	32	223	1,143	79
Door	1		1	187		
Douglas	2	2	1 2			
Dunn Eau Claire	6	6	2 8	175	57	94
Fond du Lac	21	20	35	179	751	91 31
Grant	11	9	14	146 100	210 23	20
Green	4 2	2	4 2	120	96	42
Green Lake	l ĩ	1	1	200		35
Jackson	2	2	2	140	36	63
Jefferson	23	20	24	141 138	860 94	24
Juneau	6 3	3	6	210	115	31
Kenosha Kewaunee	6	6	8	140	179	47
La Crosse	8	7	8	92	101	26 77
La Fayette	. 2	. 2	3	172	205	
Lincoln	22	20	22	190	1,043	58
TITULI TO WOO			-	•		

Table No. VI. — Private Schools not Incorporated — continued.

St. Counties. St. Counties	COUNTIES. Section Counties Counties							umueu.
Marquette 1 1 1 1 100 48 Milwaukee (2d dist.) 12 11 20 190 356 27 Monroe 7 6 7 173 253 22 Oconto 2 1 6 9 87 111 25 Outagamie 5 5 6 94 152 41 Ozaukee 14 12 18 130 126 55 Pepin 14 12 18 130 126 55 Polk 4 2 3 3 27 13 Portage 3 3 5 122 52 42 Racine 5 5 9 72 365 92 Richland 5 5 9 72 365 92 Rock (1st dist.) 6 6 6 6 27 11	Marquette 1 1 1 100	Counties.	of such schools nty.	Number which are denomina- tional or parochial.	Number of teachers engaged in such schools.	Average number of days such schools have been taught.	Number of pupils registered who have not attended dis-	ing in
Wotels and	10tals and average	Marquette Milwaukee (1st dist.) Milwaukee (2d dist.) Monroe Oconto Outagamie Ozaukee Pepin Pierce Polk Portage. Racine. Richland Rock (1st dist.) Rock (2d dist.) St. Croix Sauk Shawano Sheboygan Taylor Trempealeau. Vernon Walworth Washington Waukesha Waupaca Waushara Winnebago Wood	12 7 2 5 14 6 4 3 5 6 1 1 8 5 17 10 16 9 17 6 2 8 	11 6 6 1 5 12 3 5 5 15 16 4 16 4 16 3 2	20 7 9 6 6 18 8 3 5 9 6 1 1 8 3 18 10 13 18 17 12 7 10 	190 173 87 125 94 130 85 27 122 72 27 90 106 64 86 128 88 93 138	253 1111 136 152 126 	27 22 25 9 41 55 13 42 92 11 9 12 84 10 63 11 10 63 130 60

Table No. VII.

FINANCIAL STATISTICS—RECEIPTS.

Table No. VII. — $Financial\ Statistics$ — Receipts — continued.

										1 1
Counties.	Money on hand August 31,	From taxes levied for build ing and repairing.	From taxes levied for teachers' wages.	From taxes levied for apparatus and library.	From taxes levied at annual town meetings.	From taxes levied by county supervisors.	fund. me of state school	From all other sources.	Total amount received during the year.	Financial,
Dodge, 1st dist 2d dist Door Douglas Dunn Eau Claire Fond du Lac Grant Green Lake Jowa Jackson Jefferson Juneau Kenosha Kewaunee La Crosse La Fayette Lincoln	\$3,706 22 2,578 37 3,872 58 269 90 7,640 45 10,409 23 9,998 18 12,993 81 6,296 16 2,692 73 4,416 60 4,741 71 6,234 03 4,570 41 3,337 50 4,341 04 4,885 90 5,675 97 1,210 45	\$2,713 04 3,824 33 2,407 29 53 52 4,827 71 3,183 20 4,903 25 4,392 30 3,742 32 1,143 00 3,207 19 418 70 3,113 92 1,433 60 2,476 50 2,476 50 2,580 28 4,481 13 8 17	\$18,333 93 17,881 29 7,173 49 1,213 93 19,339 37 16,756 52 29,051 77 47,155 54 26,886 37 10,982 74 17,639 33 15,651 26 23,876 30 14,206 36 10,388 59 6,324 89 12,601 02 26,341 13 802 10	\$382 76 841 17 41 90 75 00 1,018 47 691 65 147 40 444 03 145 00 188 83 941 78 55 00 427 63 105 68 82 79 75 10 108 20 70 70	\$924 59 1,673 42 1,109 64	\$2,564 31 3,632 35 969 75 	\$2,944 83 3,436 56 1,162 00 107 78 1,975 26 2,160 01 5,588 21 5,950 17 3,514 88 1,634 11 2,999 88 1,658 17 4,518 14 2,175 48 1,118 14 2,226 82 1,876 75 3,162 67 123 73	\$1,040 60 2,285 62 829 45 1,046 03 1,181 84 3,156 05 1,901 63 4,800 07 5,085 91 855 30 1,025 54 3,034 62 4,692 34 2,860 39 988 85 2,631 60 1,992 85 4,299 53 476 89	\$32,709 28 35,653 11 16,758 88 2,766 16 40,903 66 52,480 03 59,485 28 82,123 93 50,112 13 19,032 84 35,591 02 27,963 89 48,046 52 30,516 78 21,547 46 19,064 23 26,417 25 48,848 77 8 879 89	Statistics — Receipts.

Manitowoc	17,714 44	3,564 9	3 19, 437 79	2, 336 25	2,338 57	13, 721 83	7,081 52	3,141 88	75,044 75	No.
Marathon	8,412 33	2,136 2	9, 216 96	1,619 51	2,370 61		1,162 95	5,523 82	29, 177 21	
Marquette	1,554 18	1,190 6	6,565 83	75 00		1,282 66	1,171 41	742 25	12,732 63	<u> </u>
Milwaukee —										6.1
1st district	4,929 80	$3,509 \ 6$	6,603 51		381 51	3,853 71	1,79590	1, 106 70	22,180 62	
2d district	2,750 7	1,672 8				2,819 82	1,593 81	887 05	16,879 14	
Monroe	7,900 7						3,968 20	3,418 69	47,357 16	N V
Oconto	9,331 70						793 18	4,041 96	27,859 52	Superintende
Outagamie	6,075 9					3,935 42	3,095 17	1,154 65	33, 194 68	. 💆
Ozaukee	2,898 0				2, 171 63		2,937.87	762 62	27,096 06	73 22
Pepin	2,022,5							1,284 11	15,949 93	
Pierce	[5,316]						2,049 84	7,043 54	43,389 15	Financial
Polk	6, 209 7					446 29	856 04	6,145 86	$\begin{bmatrix} 24,240&21\\22,652&56 \end{bmatrix}$	20 N
Portage	4,483 2	3,084					1,327 98	1,008 56	26,989 23	ia
Racine								2,736 76	30,664 86	~ z
Richland	6,533 0	3 2,743	11,798 2	198 57	895 64	3, 131 37	2,486 36	3,321 38	50,004 00	S F
Rock —						0.070.10	1 700 60	3,238 07	33,739 23	T OF Pub Statistics
1st district	4,768 7					3,678 18	1,70062 $1,79908$	2,284 22	32, 427 77	is:
2d district	5,599 2		32 17,378 10		0 880 00		1,356 13	6,909 14	38, 146 51	Public
St. Croix						4, 456 39		7,118 17	64,201 53	8
Sauk	8,461 0			432 30				1,157 85		
Shawano			$\frac{16}{9}$ $\frac{3}{929}$ $\frac{9}{9}$	98 40				2,550 97	42,392 06	
Sheboygan		1,880		167 58				1,146 82	6,413 92	R - 1
Taylor								1,869 88	35,985 26	ec Ns
Trempealeau							3,579 50	6,349 71	41,025 06	Instruc Receipts
Vernon								3,283 28	62, 792 09	ot d
Walworth								1,491 77	36, 390 98	. G
Washington			14 29,629 7	110 00				5,634 87	54,470 85	Instruction Receipts.
Waukesha		$[2] \begin{array}{c} 2,674 \\ 2,674 \end{array}$					2,567.87	2,823 83	38,611 70	Ż
Waushara			$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			2,358 92		2,419 11	24, 144 49	.
Winnebago								1,575 88	39,574 81	
Wood		6 1,343	66 6,532 1					4,170 32	16,650 83	
	1						Í			,
Totals	\$346,215 6	9 \$149,632	87 \$944, 163 2	\$17,904 18	\$84,839 50	\$168,588 90	\$144,989 83	\$181,330 96	\$2,037,665 22	ese ese
	, ,	1	1	1	1	1	.			317
	-									. ~

Table No. VIII.

FINANCIAL STATISTICS — DISBURSEMENTS.

No. 1	•••								
Counties.	For building and repair- ing.	For apparatus and libraries.	For services of male teachers.	For services of female teachers.	For old indebtedness.	For furniture, registers, and records.	For all other purposes.	Total amount paid out during the year.	Money on hand August 31, 1878.
Adams Ashland Barron Bayfield Brown Buffalo Burnett Calumet Chippewa Clark Columbia Crawford Dane 1st district 2d district	\$788 80 462 11 2,975 98 140 00 2,562 81 3,441 35 449 80 2,015 06 4,120 88 1,930 91 3,565 51 1,919 76 9,862 23 2,185 11	\$383 54 	\$2,760 75 1,920 00 2,139 34 800 00 11,054 52 13,915 09 66 00 8,804 50 9,484 95 5,324 77 13,373 00 6,181 72 11,530 38 10,166 00	\$5, 397 45 400 00 5,266 06 526 00 11,069 95 6 089 65 1,077 15 8,393 00 12,403 04 9,627 91 17,902 69 7,732 61 12,701 12 15,831 71	\$444 76 	\$59 59 149 24 170 40 68 25 305 91 884 03 21 50 498 14 - 786 84 439 06 729 28 340 80 1,228 35 322 94	\$784 48. 537 12 2,109 27 552 10 3,092 50 3,188 50 77 24 4,031 52 3,583 40 5,345 54 1,676 60 3,887 54 3,466 69		\$1,241 97 1,299 64 3,981 93 691 92 6,762 41 6,092 28 1,658 33 5,613 79 13,280 80 5,565 26 12,346 38 4,619 70 5,597 58 5,130 84

Dodge (1st district) 2,393 30 159 82 10,793 59 10,854 23 393 66 309 43 3,938 52 28,842 55 3,866 73 Dodge (2d district) 2,272 50 193 97 10,474 47 13,270 40 1,045 55 1,661 37 4,002 38 22,920 44 4,218 90 Door 1,864 98 124 88 4,917 87 4,399 45 552 20 222 78 1,408 14 13,862 28 4,355 17 Douglas 62 30 51 00 560 00 636 25 442 60 192 94 1,945 29 820 96 Dunn 2,916 88 837 86 7,386 60 14,319 92 1,014 06 662 23 3,513 94 31,551 49 9,352 17 Eau Claire 4,032 26 211 92 10,618 75 16,199 26 3,889 31 436 90 5,167 40 40,555 80 11,924 23 Fond du Lac 5,253 17 41 15 13,494 75 25,107 09 1,072 98 962 23 4,874 94 50,806 31 8,678 97 Green 3,100 86 179 08 13,300 47 18,392 15	
La Fayette	
Milwaukee (1st dist.) 2,801 73 7 50 5,261 06 7,256 50 22 96 424 56 1,688 64 17,418 00 4,662 62 Milwaukee (2d dist.) 1,254 55 77 00 7,350 00 3,810 50 479 62 261 31 1,513 38 14,666 36 2,212 78 Monroe 2,619 50 328 11 10,707 99 19,677 85 2,569 90 606 92 3,195 61 39,715 88 7,641 28 Oconto 1,732 25 205 25 5,5179 25 9,8 3 55 1,055 01 446 82 3,088 38 21,440 51 6,419 01 Outagamie 2,592 23 160 23 9,495 47 12,824 25 1,060 44 613 83 2,739 05 27,485 50 5,709 18	isbursemen
Pepin 1,719 13 66 97 3,230 00 5,582 15 188 58 1,173 58 1,608 41 13,568 82 2,381 11 Pierce 5,649 56 390 81 10,565 50 12,187 59 1,730 16 715 06 4,042 85 34,024 45 7,444 40 Polk 2,542 31 114 23 4,030 34 7,237 60 1,325 48 730 44 2,604 83 20,784 63 4,892 73 Portage 3,434 78 181 97 4,211 33 8,680 45 600 09 236 34 1,424 58 19,037 98 3,703 53 Racine 934 37 124 09 5,560 12,750 00 447 21 173 75 3,345 19 19,537 43 7,451 80 Richland 2,103 13 318 47	ts.
Rock (2d district) 1,256 78 114 56 7,315 64 13,253 11 769 47 401 02 3,458 71 26,569 29 5,858 48	J

Financial Statistics

TABLE No. VIII.—Financial Statistics—Disbursements—continued.

Counties.	For building and repair- ing.	For apparatus and libraries.	For service of male teachers.	For service of female teachers.	For old indebtededness.	For furniture, register and records.	For all other purposes.	Total amount paid out during the year.	Money on hand August 31, 1876.
St. Croix. Sauk Shawano Sheboygan Taylor Trempealeau Vernon. Walworth Washington Waukesha Waupaca Waushara Winnebago Wood Totals.	6,876 67 1,046 63 1,985 26 623 45 3,448 58 4,246 14 3,632 66 1,762 22 3,115 79 2,594 44 2,302 70 1,816 09 3,363 45	563 80 76 25 190 75 28 38 213 09 206 28 472 24 123 65 326 85 531 72 812 34 87 45 186 97	16,599 71 3,553 76 12,121 48 520 74 9,914 50 10,740 61 15,538 46 15,672 40 14,731 06 8,237 99 5,011 50 9,416 22 2,005 00	23, 165 94 3,092 00 13,678 50 1,630 67 10,013 75 12,307 52 25,672 97 9,731 00 20,430 98 14,510 89 9,472 14 13 932 75 4,502 09	1,329 03 448 30 815 38 280 68 537 07 819 54 569 80 995 00 3,366 65 1,263 21 779 53 427 95 1,625 18	1,565 37 166 28 802 67 85,65 789 83 245 53 821 64 599 10 568 29 306 02 454 62 791 24 583 67	6, 128 63 581 01 3,693 81 5,369 54 5,361 09 7,597 17 3,069 72 6,036 65 3,217 89 2,762 32 3,299 67 2,025 82	56, 229 15 8, 377 03 35, 352 95 4, 043 78 28, 789 71 33, 926 71 54, 731 99 45, 189 91 30, 879 20 21, 595 15 30, 728 90 14, 291 18	\$7,114 61 7,972 38 3,625 29 7,039 11 2,149 05 7,364 77 7,098 35 8,060 10 4,637 89 8,413 70 7,732 50 2,549 34 9,037 95 2,359 65

TABLE No. IX.

TEXT-BOOKS.

22																							ĺ
-Surv.			s	PELI	LERS.					RE	EADE	RS.			1	ARIT	нме′	rics.		AL	GEBE	łA.	
PM.	Counties. (No. Districts using.)	Sanders.	McGuffey.	Sanders' Union.	National.	Swinton.	Willson.	Sanders.	Sanders' Union.	National.	McGuffey.	Willson.	Independent.	New Graded.	Robinson.	Ray.	Davies.	Thompson.	White.	Robinson.	Davies.	Ray.	T ext
	Adams Ashland Barron Bayfield Brown. Buffalo Burnett Calumet Chippewa Clark Columbia Crawford Dane 1st district 2d district	11 16 	1 4 24 1 5 12	 1 5 30 34		1 7 4	9 1 1 3 23 10 2	4 1 5 6 3 1 7 21 60 13 81	1 	1 4 62 2 26 51 10 3 3	1 1 1 9	1 2 15	2 1	1 3 4 3 4 3 2	42 1 19 15 15 16 28 16 101 12	5 1 10 54 2 1 5 4 73 37 51	1 6 54 1 23	 4 15 2	1 7 8	2 3 11 1 1 23 3 6 19	i	2 6 2 1	-DOOKS.
	Dodge — 1st district	81 72			6		5 2		31	12 20	6			1	20 4	46 29	8 10	15 33	15	18 5	4 2	12	

TABLE IX. — Text-Books — continued.

		s	PELI	ERS.					RE	ADEI	RS.				Ariti	HMET	rics.		A	LGEB	RA.
Counties. (No. Districts using.)	Sanders	McGuffey.	Sanders' Union.	National.	Swinton.	Willson.	Sanders.	Sanders' Union.	National.	McGuffey.	Willson.	Independent.	New Graded.	Robinson.	Ray.	Davies.	Thompson.	White.	Robinson.	Davies.	Ray.
Door	9 	122 54 571 2 5 13	10 6 3 13 3 11 8 37 4 6	$\begin{array}{c} 10 \\ 2 \\ 24 \\ \dots \end{array}$	2 1 20 4 7 7 3	4 5 12 1 2 3 1 1	7 7 10 23 9 26	416 85 810 44 	13 6 38 2 8 31 42 5 16		1846 18823	5 30 11 4 1	3 18 3 5 2 8 11 4 1	6 26 39 38 25 9 10 13 16 23 45 14 17 11	18 37 16 13 151 97 1 93 32 28 2 20 26 83	24 15	5 11 8	6 7 13 1 2	5 6 6 2 5	3 1 15 4 1 2 1 6	8 3 1

Text-Books.

Marathon	14	5	7	36		6	7	16	38	 .	2	10		1	9	53		1		2	••••1
Marquette									• • • •						• • • • • • •	;				:	• • • • • • •
Milwaukee, 1st district	10				5 5	3							 -	3		4	3	1	3	1	1
2d district	15			1	5	2	11		2	17	2			13	17	1			2		
Monroe	87		15			<u></u>	69					14	11	43		4		8	7	• • • •	• • • • •
Oconto	7		1	5		9		1	8				3	12				• • • •	1		• • • •
Outagamie	13				1	39			2					71	10						• • • •
Ozaukee	31	8			6	. .	30			12	4		6	14	20	15	2		4		
Pepin	4	l	. .	13	1		3		14	II			1	8	3	5			2		
Pierce	80	1			11				9		58		19	97	1		. .		13	!	
Polk	10			014			2		24			1	12		4	37		1	1	3	1
Portage	32		1	16		5		17	30		1	1		19	8	15			$\frac{1}{2}$	1	
	49		7	10			24		31		1 -	-	3	19	ď	23			5	· . [
Racine	34	9		10	• • • •		(111		3				109	10		1~	~	6		• • • • • • • • • • • • • • • • • • • •
Richland			17				7	27	8			7	4	44	36	4			5		1
Rock, 1-t District							17		0	7					22	5		•••	9		
2d District	28	9	18	1	15	1	17	21	U	4	ь	٥	10	40	22	อ	- 4	• • • • •	9	1	• • • •
St. Croix					•••				:				• • • ;	***	••••				;		• • • •
Sauk	87	• • • •	• • • •	23	28				35		2 4	14	$\frac{4}{2}$	78	9	63		1	4	2	• • • •
Shawano	7		2	5		8		2	2		4	1				4			1		• • • •
Sheboygan	78			13		1	69						4	46	4	78		1	5		• • • •
Taylor	1		6	1		. 1		7	1				. 	7	1	1			2		
Trempealeau	8		9			`2			32		3		5	9		32	2		4	2	1
Vernon	32	64		7		3	27		9	61		3	5			4					10
Walworth			89		16	. 		91	9	1			10					4 2	13		
Washington	83	10	3	. 1			56	12	2	17			2	39	29			2	6	2	1
Waukesha	72	1	5		. 20		55			13		5	12	25	15	$\frac{6}{3}$	47		9		
Waupaca	45		12		4		10	21	8		7		8	29		3	37	2	3		
Waushara	33		0.4		8		21	32	4				14	21	1	1	l. . l	2	5	1	
Winnebago	17				3			72	1	15			1	68	12	8		10	4		
Wood			5		7			3	1	1		2	8	14		ž			1		
11 00u		••••				•••				····	••••	~		17		~					
Totals	2,044	589	532	496	229	182	1,256	784	659	588	223	207	238	1,752	1,479	769	341	101	259	73	70
										<u> </u>	,	1	- 1						w	1	

TABLE No. IX.— Text-Books - continued.

		GE	OGR	APHY	•			G :	RAMN	IAR.			1	U.S.	Hist	FORY		Рну	SIOL	OGY.
Counties. (No. Districts using.)	Monteith.	Mitchell.	Cornell.	Harper.	Swinton.	Guyot.	Kerl.	Clark.	Harvey.	Swinton.	Pinneo.	Green.	Swinton.	Goodrich.	Barnes's Brief.	Quackenbos.	Anderson.	Cutter.	Brown.	Steele.
Adams Ashland Barron Bayfield Brown Buffalo Burnett Calumet Chippewa Clark Columbia Crawford Dane	22 1 22 1 54 3 21 32 24 14	47 1 	1 10 9 4 1 2 1 5 13	1 1 3 2 1 8 29	1 1 3 1 2 17	2	19 15 16 1 1 5 13 11 42 35	 1 34 2 3 4 12	16 27 2 10	12 1 4 1 7 13 2 9 3 22 33 5	19	3 1 2 1 1	16 11 11 17 23 4 11	16 2 2	35 3 1 10 17	2 2	5	1	1	1 1 2
1st dist	$\frac{46}{75}$			7			43 57	11 8	5 8	$\begin{array}{c} 11 \\ 32 \end{array}$	4	12 7	21 35	25 32	16 4 3	14	4	2 1	₃	
1st dist	68 9 13	25 3	13 32 10	3		 	30 12 10	39 37 2		2 12 2		1	9 10			16		6 1 1	6	

Douglas Dunn Eau Claire Fond du Lac Grant Green	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1		
Green Lake	$\begin{bmatrix} 6 & 5 & 6 \\ 74 & 3 & \dots \\ 35 & \dots & 15 \\ 28 & 28 & 8 \end{bmatrix}$	3 2 6 4 3 4 13 6 3 2 13 4	4 8 34 9 7 1 21 10 9 8 25 1 7 37 10 32 6 6	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2 11 1	
Kenosha	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
Manitowoc	30 43	7 5	41 5 11 18 20	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	17 12 1 1 ext Bo	
1st district. 2d district Monroe Oconto Outagamie	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
Ozaukee Pepin Pierce Polk Portage	$\begin{bmatrix} 35 & 4 & 3 \\ 6 & \dots & 2 \\ 47 & \dots & 1 \\ 28 & 1 & \dots \\ 46 & \dots & 9 \end{bmatrix}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$egin{bmatrix} 1 & \dots & & 1 & \dots & 1 \\ 5 & 17 & 4 & \dots & & 1 & 3 \\ \dots & 8 & \dots & \dots & & 1 & \dots \end{bmatrix}$	
Racine Richland Rock — 1st district 2d district	$\begin{bmatrix} 53 & \dots & \\ 75 & 32 \\ 14 & 4 & 43 \\ 15 & 8 & 32 \end{bmatrix}$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	2 28 18 20 2 39 14 8 10 8 27 4 22 27	$egin{array}{ c c c c c c c c c c c c c c c c c c c$	
St. Croix	1		•••••			

Table No. IX. — Text Books — continued.

GEOGRAPHY.								Gı	RAMM	IAR.			1	u. s	Hıs	TORY	:	Physiology.		
Counties. (No. Districts using.)	Monteith.	Mitchell.	Cornell.	Harper.	Swinton.	Guyot.	Kerl.	Clark.	Harvey.	Swinton.	Pinneo.	Green.	Swinton.	Goodrich.	Barnes's Brief.	Quackenbos.	Anderson.	Cutter.	Brown.	Steele.
Sauk Shawano Sheboygan Taylor Trempealeau Vernon Walworth Washington Waukesha Waupaca Waushara Winnebago Wood	84 22 67 1, 299 102 19 61 15 11 12 247 12 1,873	16 19 4 5 50 4 15 18	2 5 2 4 11 56 27 	18 10 18 1 5 1	8 17 36 3 4	13 12	44 55 53 6 2 52 71 20 41 29 39 32 7	31 2 9 12 3 7 29 21 12 8 7 9	2 2 2 1 4 8 1 4 	9 10 15 9 16	27 8 1	3 4 12	31 16 6	2 35 11 8 66 26 19 13 9	9 3 11 14 1 4	2 32 14 3 29 	1 6 5 9	2 1 	1 1 	4

Special Statistics.

Table No. X.
SPECIAL STATISTICS OF SCHOOL ATTENDANCE, ETc.

Province and the second					
Counties.	Number of children be- tween 4 and 15 years of age in the county.	Numb'r of children between 4 and 15 years of age who have attended school.	Number incapacitated for instruction from defect of vision.	Number incapacitated for instruction from defect of hearing.	Number incapacitated for instruction from defect of intellect.
Adams. Ashland. Barron Bayfield Brown Buffalo Burnett Calumet Chippewa Clark Columbia Crawford	1,894 270 1,266 253 6,974 4,550 486 4,624 3,726 2,313 5,858 3,669	1,689 171 983 120 4,550 3,187 334 2,918 2,942 1,651 5,115 2,792	2 1 2 3 7 4	17 4 1 2 10 6 4	10 8 3 3 2 10 3
Crawford Dane— 1st district. 2d district. Dodge — 1st district. 2d district. Door. Douglas. Dunn Eau Claire Fond du Lac Grant Green Green Lake. Lowa Jackson Jefferson Juneau Kenosha Kewaunee La Crosse La Fayette Lincoln Manitowoc	5,009 5,115 5,777 4,762 6,052 2,584 168 4,210 4,062 9,026 10,793 5,680 2,744 5,482 3,171 6,968 3,808 1,917 4,680 3,080 5,397 303 11,731 2,716	3,725 4,226 3,445 3,636 1,776 117 3,249 8,279 6,368 8,462 5,077 2,058 4,281 2,431 4,898 3,185 1,366 2,586 2,255 4,400 293 7,753	1 4 2 3 3 3 4 6 2 1 1 1 7 4 4 3 2 1 1	6 4 4 5 7 2 7 8 24 6 2 4 5 5 15 3 1 1 3 3 10 2 7 11	8 13 10 10 11 11 11 11 11 11 11 11 11 11 11

Table No. X.—Special Statistics—continued.

Counties.	Number of children be- tween 4 and 15 years of age in the county.	No. of children between 4 and 15 years of age who have attended school.	Number incapacitated for instruction from defect of vision.	Number incapacitated for instruction from defect of hearing.	Number incapacitated for instruction from defect of intellect.
Milwaukee, 1st dist. 2d dist. Monroe. Oconto Outagamie Ozaukee Pepin Pierce. Polk Portage Racine Richland Rock, 1st dist. 2d dist. St. Croix Sauk Shawane Sheboygan Taylor Trempealeau Vernon. Walworth Washington Waukesha Waupaca Waushara Winnebago Wood.	2,609 2,919 5,775 2,616 5,944 5,059 1,681 4,319 2,241 3,223 4,140 5,056 3,042 2,679 3,247 7,416 2,194 7,758 379 4,283 6,420 6,011 6,861 7,274 4,863 3,346 4,773 1,465	1,821 1,645 4.660 1,796 4,468 3,345 1,309 3,244 1,676 2,169 2,694 4,253 2,545 2,394 2,701 5,469 1,332 5,546 239 2,941 4,788 5,009 4,304 5,602 3,426 2,600 3,787 1,074	4 4 3 1 1 2 3 1 3 3 1 2 4 2 4	9 10 10 4 8 3 11 15 27 15 4 8 6 6 4 4 12 6 2	2 10 5 12 12 10 4 9 12 4 6 5 19 1 13 18 22 10 9 9 9 11 4 5
Totals	134, 354	98, 452	129	149	234

Certificates Issued.

Table No. XI.

NUMBER OF CERTIFICATES ISSUED.

	MALI	е Теас	CHERS.	FEMA	ALE TE	ACHRS.	
Counties.	1st Grade.	2d Grade.	3d Grade.	1st Grade.	2d Grade.	3d Grade.	Total.
Adams Ashland Barron Bayfield Brown Buffalo Burnett Calumet Chippewa Clark Columbia Crawford	1 1 2 2 2	1 14 18 1 14 2	18 21 1 4 49 2 27 21 15 102 15		3 1 3 5 1 6	60 44 2 7 63 9 51 64 55 241 75	85 2 71 3 12 135 12 81 101 71 876 97
Dane — (1st district) (2d district)	. 4	11 4	46 51	3	10 14	110 85	185 157
Dodge— (1st district) (2d district) Door Douglas Dunn Eau Claire Fond du Lac Grant Green Lake Iowa Jackson Jefferson Juneau Kenosha Kewaunee La Crosse La Fayette Lincoln Manitowoc Marathon Marquette	7 1 6 1 3 9 1 1 5 3 9 6 6 2 2 2 3	28 8 10 17 6 1 1 24 6 5 6 5 2 2 4 1	55 31 27 45 32 31 100 72 7 32 22 70 37 36 35 60 52 6 79 28 15	1 1 	22 8 2 5 2 18 18 10 3 8 7 14 8 4 1 1 1 1 1 1 6	108 92 45 1 121 122 108 257 142 34 83 180 92 56 35 56 142 4 58 67 60	218 147 73 3 179 160 170 403 233 46 136 117 298 151 104 76 125 221 148 100 86
Milwaukee — (1st district) (2d district)	. 1	3	. 12	1	. 7	40 27	66 47

Table No. XI. — Certificates Issued — continued.

	MA	LE TE	ACHERS.	FEM	ALE TE	EACHERS.	
Counties.	1st Grade.	2d Grade.	3d Grade.	1st Grade.	2d Grade.	3d Grade.	Total.
Monroe Oconto Outagamie Ozaukee Pepin Pierce Polk Portage Racine Richland Rock (1st dist.) Rock (2d dist.) St. Croix Sauk Shawano Sheboygan Taylor Trempealeau Vernon Walworth Washington Waukesha Waupaca Waushara Winnebago Wood Totals	4 3 1 3 6 10 2 1 1 1 2 3 2 3 4 7 7 5 7 163	8 1 3 6 16 2 5 7 4 4 6 4 14 1 1 4 5 6 6 4 7 7 4 14 4 5 5 340	53 24 29 48 16 20 25 29 32 41 72 34 36 70 17 19 1 44 50 51 48 16 31 34 8	2 3 3 1 2 1 2 2 3 2 3 2	8 4 1 1 5 9 17 110 4 8 7 9 17 111 4 2 8 2 9 1 1 3 9 875	131 67 92 25 41 140 57 86 112 87 123 109 99 169 37 59 19 71 117 171 70 125 58 121 170 31	204 99 126 87 72 205 99 125 161 141 212 169 151 258 56 80 21 126 175 193 79 176 227 44

Teachers' Institutes.

Table No. XII. TEACHERS' INSTITUTES.

Counties.	Where held.	By Whom Conducted.	When Held.
Adams	Friendship Shetek West Depere Alma Chilton Chippewa Falls	D. McGregor J. B. Thayer Hosea Barns and A. A. Miller J. B. Thayer and F. D. Ensigu Rob't Graham J. B. Thayer	Sept. 30 Oct. 14 Aug. 12 Aug. 5 Aug. 5 Sept. 23
Clark	Neillsville Portage Wauzeka	J. B. Thayer. A. Salisbury. D. McGregor	Sept. 30 Apr. 1 Apr. 15
1st district 2d district 2d district	1	D. McGregor	Apr. 1 Mar. 25 Oct. 14
Dodge — 1st district. 2d district. Door. Dunn Eau Claire Eau Claire Eau Caire Fond du Lac Grant Green Lake Lowa Jackson Jefferson Juneau Kenosha Kewaunee La Crosse La Fayette Manitowoc Marathon	Mayville Sturgeon Bay Menomonee Augusta Eau Claire Fond du Lac Lancaster Brodhead Kingston Mineral Point Black River Falls Fort Atkinson New Lisbon Wilmot Kewaunee Onalaska Darlington Manitowoc	A. Salisbury & J. Q. Emery. B. M. Reynolds & T. F. Frawl'y A. Salisbury. W. A. Walker. J. B. Thayer. Geo. Beck and T. C. Richmond R. Graham and W. A. Walker. Hosea Bains.	Sept. 20 Aug. 19 Aug. 5 Aug. 5 Sept. 2 Sept. 16 Sept. 16 Aug. 19 Aug. 19
Marquette Milwaukee — 1st district. 2d district. Monroe Oconto Outagamie Ozaukee Pepin Pierce Polk Portage Racine Richland	Montello Oak Creek Wau watosa Kendall Oconto Appleton Port Washington Pepin Ellsworth Farmingt'n Cent' Plover Rochester	A. A. Miller and D. H. Flett. J. B. Thayer Rob't Graham Rob't Graham I. N. Stewart and D. H. Flett. J. B. Thayer J. B. Thayer A. Earthman A. Salisbury A. Salisbury	Oct. 14 Aug. 26 Mar. 18 Sept. 30 Apr. 1 Aug. 19 Apr. 22 Apr. 15 Aug. 19

Table No. XII. — Teachers' Institutes — continued.

Counties.	Where held.	By Whom Conducted.	When Held.
Richland. Rock — 1st district. 2d district. St. Croix St. Croix Sauk Shawano Sheboygan Trempealeau Vernon Vernon Walworth Washington Wauyaca Wauyaca Wauyaca Waushara Waushara Waushara Winnebago Wood Wood		B. M. Reynolds & C. H. Nye. D. McGregor A. Salisbury and H. D. Maxson J. B. Thayer L. D. Harvey A. Salisbury N. C. Twining and J. T. Lunn Hosea Barns R. Graham and B. R. Grogan J. B. Thayer & J. H. Cumm'gs A. Salisbury A. J. Hutton and O. B. Wyman J. Q. Emery and J. M. Rait A. Salisbury A. Salisbury Rob't Graham	Aug. 12 Mar. 18 Aug 19 Mar. 21 Aug. 19 Mar. 25 Aug. 19 Apr. 15 Sept. 2 Aug. 19 Apr. 22 Aug. 19 Apr. 22 Aug. 19 Apr. 8 Mar. 18 Apr. 15 Oct. 7 Aug. 19 Apr. 8 Sept. 2

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Table No. XIII.

TEACHERS' INSTITUTES.—SPECIAL REPORTS.

					•													
	T			Onners			rs.	nbers. in monthe ose having but intend-			No.	. На	VING	ATTEN	(DED.	county istrict.	z eac	
Counties.	Male.	Female.	Total.	Number of days institute in session.	1st Grade.	2d Grade.	3d Grade.	Average age of members.	Average experience in inteaching of those taught.	Not having taught, but ing to teach.	Number having previously attended institutes.	Colleges and universities.	Academies.	Normal schools.	High schools.	Common schools only.	Number of schools in or superintendent dis	ners Institutes —
Adams Barron Brown Buffalo Calumet Chippewa Clark Columbia Crawford Dane (1st dist.) Dane (2d dist.) Dodge (1st dist.) Dodge (2d dist.) Dodge (2d dist.)	144 5 199 200 211 133 43 9 399 288 328 422 9		78 24 88 50 76 55 156 42 130 128 110 73	5 10 10 10 6 10 5 5 4 ¹ / ₂ 5 5	1 3 2 2 4 4 15 8 6	2 5 11 20 8 21 23 12	38 18 55 36 • 52 43 28 84 15 55 54 77 36 29 25	19.5 24.0 23.2 19.7 23.0 20.8 20.0 20.7 21.8 21.5 20.0 23.0 23.0	16.0 24.8 22.4 20.1 17.5 21.0 22.0 22.0 20.0 19.0 20.0 20.0	5 6 14 8 15 20 18 44 43 20 13	61 34 52 35 11 120 22 76 72 83 43	11 7 1 4 8 5 33 25 32 18 4	5 3 5 1 10 8 42 15 8	6	18 7 - 41 15 48 10 38 18 4 2 75 51 32 24 10	67 11 27 17 9 31 7 · 24 20 13 5 15 10 2	80 66 95 65 165 95 133 130 	e peciai repons.

Table No. XIII.—Teachers' Institutes — Special Reports — continued.

TABL	E 110.	22111	1 (·	,, o	11100		— <i>D</i> j	eciai	перо	ris —	com	ınue	eu.				
	No.	ATTEN Instit	DING UTE.	ute was			LDING CATES.	ers.	mo's in having	but in-	viously	No). На	VING	ATTE	NDED.	county strict.	
Counties.	Male.	Female.	Total.	Number of days institute in session.	1st Grade.	2d Grade.	3d Grade.	Average age of members	Average experience in teaching of those taught.	Not having taught, tending to teach.	Number having previously attended institutes.	Colleges and universityes.	Academies.	Normal schools.	High schools.	Common schools only.	Number of schools in or superintendent di	Teachers' Institutes
Dunn Eau Claire Eau Claire Fond du Lac Grant. Green Green Lake. Jowa Jackson Jefferson Juneau Kenosha Kewaunee La Crosse La Fayette Manitowoc Marathon	3 14 9 32 29 35 19 37 9 14 10 18 20 27 23 51	28 58 476 56 94 89 50 122 44 53 61 50 -14 18 53	159 58 67 71 68 34 45 70	2 5 9 9 9 9 9 9 10 7 10 5 9 4 4 5 5 5 10 10 10	3 8 1 7 1 9 3 4 2 3 1	7 11 8	37 36 75 81 41 44 97 35 41 40 42 22 33 33 65	21. 0 19.5 22.8 23.2 18.3 18.4 20.0 20.7 21.6 20.0 20.6 21.2 23.0 20.6 20.4	18.3 30.0 21.0 14.0 19.4 18 0 24.0 21.3 14.4 24.0 20.4 18.8 25.0 25.0	26 4 10 37 23 46 5 11 27 24	58 49 68 72 46 41 90 43 50 40 47 30 36 44 67	4 4 5 12 3 8 8 5 8 3 1 1 7 7	3 9 7 8 3 9 3 9 7 1 4	6 9 40 8 11 39	12 57 33 26 44 72 13 65 40 30 53 19 15 23 36 40	8 4 4 48 18 13 31 34 29 5 17 5 12 18 22 4 15	104 60 172 212 130 71 132 84 137 100 61 51 69 119 108	— Special Statistics. 4

Marquette Milwaukee (1st district) Milwaukee (2d district) Monroe Oconto Outagamie Ozaukee Pepin Pierce Polk Portage Racine Richland Richland Richland Rock (1st district) St. Croix St. Croix St. Croix Sauk Shawano Sheboygan Trempealeau Vernon Vernon Walworth Washington Waukesha Waushara Waushara Winnebago Wood Totals	200 88 166 277 111 100 377 133 8 66 333 234 188 277 300 122 188 166 122 177 43 200 144 500 111 1100 4 1,415	67 18 22 69 12 65 33 17 11 32 90 46 48 80 84 89 63 84 84 84 84 85 84 84 85 84 84 85 84 85 86 86 86 86 86 86 86 86 86 86	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 2 2 6 6 1 5 2 5 · · · · · · · · · · · · · · · · ·	9 12 1 3 26 3 10 4 6 6 3 5 4	59 34 33 22	23.1 23.0 24.0 19.0 24.0 19.0 22.5 19.0 20.0 21.0 22.2 23.6 22.5 21.1 22.0 20.5 21.3 20.5 20.5 21.3 20.5 20.0 21.0 20.0 21.3 21.3 20.5 21.3 21.3 20.5 21.0	16.00 35.00 35.00 41.00 12.00 27.60 31.00 29.00 20.66 28.22 22.22 21.66 16.55 15.00 21.00 21.00 22.00 23.00 24.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 26.00 27	37 311 14 	20 73 15 38 40 22 14 48 85 55 55 43 81 38 85 75 24 68 89 71 71 73 90 42 40 25 30	7 11 644 1 4 2 7 7 1 1 3 3 2 2 3 3 10 6 6 6 6 3 7 7 1 1 1 1 1 1 2 2 7 7 1 1 1 1 1 1 1 1	33	111 1 4 4 2 2 5 5 5 5 5 8 0 4 4 16 6 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1	522 66 588 166 584 231 199 566 677 99 845 288 544 399 211 133 655 88 100 622 322	13 77 46 129 8 8 89 34 87 18 90 18 16 49 59 112 8 92 17 150 47 25 164 2 104 40 119 25 120 12 98	Teachers' Institutes — Special Reports.
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Statistics of Cities.

TABLE No. XIV.

STATISTICS OF CITIES.

				51111	10110	3 OF (71111	D.						
			School	L CHILDRE	EN AND	ATTENDA	ANCE.			Spi	ECIAL ST	ATIST	rics.	
CITIES.	No. of male children over 4 and under 20 years of age.	No. female children over 4 and under 20 years of age.	Whole No. children over 4 and under 20 years of age in city.	No. under 4 years who have attended school. No. over 20 years who have attended school.	No. over 4 and under 20 y'rs who have attended school.	Total No. different pupils who have attended school during the year.	No. days school has been taught by qualified teachers.	Per cent. of enrollment on No. resident in the city.	Per cent. of attendance on No. enrolled.	No. of children bet. 4 and 15 years of age in the city.	No. of children bet. 4 and 15 years of age who have attended school.	No. incapacitated for instruction from defect of vision.	No. incapacitated for instruc- tion from defect of hearing.	No. incapacit'd for instruct'n from defect of intellect.
Appleton Beaver Dam Beloit Berlin Columbus Fond du Lac Fort Howard Grand Rapids Green Bay Hudson Janesville Kenosha La Crosse Madison	1, 173 787 793 579 334 2,728 543 204 976 297 1,714 1,018 1,921 1,915	1,305 898 809 580 370 2,985 629 216 1,092 308 1,896 1,140 2,047 2,036	2,478 1,685 1,602 1,159 704 5,713 1,172 420 2,068 605 3,610 2,158 3,968 3,951	8 5 8 2 2	1,572 766 1,098 741 565 2,778 843 310 1,167 561 1,665 2,185 1,650	1,580 766 1,098 746 573 2,778 843 312 1,167 561 1,665 708 2,199 1,650	177 196 200 200 178 200 200 115 185 180 190 185 198 180	63 49 72 64 77 49 72 77 56 92 46 34 55	70 89 96 61 64 86 92 74 63 70 77 68 96	1,761 1,287 1,157 883 418 3,709 856 317 1,539 445 1,893 1,385 3,008 2,775	1,334 670 844 669 470 2,568 784 230 1,120 417 1,348 619 1,977 2,050	1 1 1 1 1 1 1 1	3 1 1 2 1 3	1 2 7 2 1 1 1 2 3 3 3

Statistics of Cities.

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				1,123		• • • •		394	200	35			322			1
	waukee	17,509	18, 545	36,054			16,054	16,054	202	44	57	25,878	15, 466	6	49	21
	neral Point	528	557	1,085		10	716	726	180	66	67	838	749		2	1
	enah	641	653	1,294			739	739	199	57	693/4	1,039	641			3
Oco	onto	675	580	1,255	1		710	710	175	57		1.057	667			2
osh Osh	kosh tage irie du Chien	2,680	2,729	5,409			2,485	2,485	200	46	93	3,676	2,330	4	5	$ \tilde{4} $
g Por	tage	842	828	1,670			875	875	196	52	671/2	1,099	758	1	2	4
i Pra	irie du Chien	500	535	1,035		2	565	567	200	54	64	788	470		1	3
Rac	eine	2,576	2,711	5,287		5	2,297	2,302	200	44	70	3,722	2,114		4	3
		1,409	1,410	2,819			1,239	1,239	200	44	90	2,469	1,178		6	6
		681	707	1,388		4	768	772	199	55	85	999	654		2	1
Wat	tertown	1,835	1,837	3,672			1,247	1,247	200	34	83	2,723	1, 190		2	4
Wai	usau	482	4 43	925		\cdots	827	827	180	90	60	757	647		1	
	Totals	45,879	48,430	94,309		59	45 004	45 000	- 115			07.004	40.000			
	TOTALS	40,019	40,400	9±, 509		อย	45,924	40,983	0, 115	av. 56.5	av. 70.3	67, 291	42,286	19	85	75
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Table No. XV.
STATISTICS OF CITIES—TEACHERS, SALARIES, LIBRARIES.

	ST	ATI	STI	US	OF C	ITIES—	TEAU	HERS, SALE	7.U.1	.во, п	IDIVAL	11170.				
*				1	Теасні	ers, Salari	es, etc	1.				Librar	ies.			
Cities.	No. of teachers required to	le teachers year.	No. female teachers employed during year.	Whole number teachers employed during year.	Highest salary paid to male teachers (per annum).	Average salary paid to male teachers (per annum).	Highest salary paid to female teachers (per annum).	Average salary paid to female teachers (per annum). No. of schools with three or more departments.	No. of schools with two dep'ts.	separate sch. lib.	Total amount expended for library books during the year.	No. of volumes loaned during the year.	the libraries.	Average number of volumes in each library.	Cash value of all the libraries.	Statistics of Cities.
Appleton Beaver Dam Beloit Berlin Columbus Fond du Lac Fort Howard Grand Rapids Green Bay Hudson Janesville Kenosha	. 19 . 14 . 47 . 18 . 18	3 2	4 48 2 11 1 5 2 16 2 16 4 49	28 143 19 10 10 47 13 6 6 18 12 48	1,800 1,000 1,200 1,200 1,000 720 1,300 702 1,500	1,050 00 1,800 00 1,000 00 1,200 00 800 00 720 00 850 00 720 00 1,500 00	450 700 400 500 650 450 480 500 450 650	318 00 2 415 55 3 327 00 2 306 43 1 395 35 6 331 82 2 444 00 1 359 37 2 347 00 6	3	2 24 5 1 35 1 1 1 1			90 100 60 100 300	90 100 60 100	200 75 50 100	

La Crosse Madison Menasha Milwaukee Mineral Point Neenah Oconto Oshkosh Portage Prairie du Chien Racine Sheboygan Stevens Point Watertown Wausau Totals and av'gs.	30 9 232 11 14 11 49 15 8 41 18 10 20 11	2 1 49 2 1 2 6 2 2 5 5 2 1	8 183 9 13 9 43 13 6 38 13 13 17 13	11 1,600 14 1,200 11 668 49 2,000 15 1,200 8 800 43 1,700 15 1,200 1,200 1,200 1,200 1,000	1,425 1,200 1,156 1,010 1,200 593 883 900 643 1,140 450 850 866 1,000	5 00 5 00 6 00 6 00 75 75 00 00 66 00	504 450 1,200 420 550 323 550 450 400 800 600 450 500 360	 6 1 19 2 2 6 3 1 6 3 2 2	2 2 2 3 2 2 2 1 1 2 1 1 1 1 1 2 5	1 1	75 90 (0 0 123	28	120 179 700 36	325 350 200 40 140 1,200 120 179 700 36	150 200 500 150 195 1,100 85	Statistics
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																	Cities.
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No. 16.]

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CITIES.	ic school houses in	Number school houses yet required. Number now building.	Whole number school children resident in city.	umber school house nodate.	Number of school house sites owned by city.	Number sites containing only one lot. Number sites containg more than	Number of sites suitably enclosed.	Number of school houses built of stone or brick.	Highest valuation of school house and site.	Cash value of all the public school houses in the city.	Cash value of sites.	school houses prop	umber of school houses with arate out houses for the sexes.	Number of school nouses with our- houses in good condition.	Statistics of Cities.
Appleton Beaver Dam Beloit Berlin Columbus Fond du Lac Fort Heward Grand Rapids Green Bay Hudson Janesville Kenosha La Crosse	7 4 3 2 19 6 1 6 3 6 4 9	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2,478 1,685 1,602 1,159 704 5,713 1,172 420 2,068 605 3,610 2,158 3,968	1,500 692 1,000 900 450 2,800 1,000 600 980 450 1,780 750 2,100	6 5 3 2 2 17 5 1 5 6 3 9	1 2 3	5 5 3 2 2 2 1 1	3 1 2 3 1 3 6	\$12,000 12,000 35,000 6,000 10,000 30,000 10,000 30,000 10,000 33,000 10,000 24,300	\$40,000 25,600 65,000 47,000 5,000 98,700 15,000 27,500 55,000 15,000 89,000 33,000 68,000	\$10,000 5,000 8,000 7,000 3,000 22,000 4,000 2,500 9,000 20,000 3,600 17,125	2 4 1 2 2	7 4 3 2 2 19 5 1 6 3 6 4 9	7 4 3 2 2 19 2 1 6 3 6 4 9	8.

Statistics of Cities.

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Madison	9			3,951	1,750	8	2	6	9	8	27,000	90,000	10,000	9	9 1	9
Menasha	4	1	1	1,123	400	4	2	2	2	4	6,000	10,500	2,500	4	4	4
Milwaukee	25	1	1	36,054	12,000	24	3	21	20	21	54,000	387, 500	194,000	2	25	25
Mineral Point	2	1		1,085	900	2		2	2	2	10,000	15,000	4,000		2	2
Neenah	7	1		1,294	775	5		5	5	3	6,000	9,000	7,000	1	7	7
Oconto	5	1		1,255	400	5		5	4		1,500	3,500	1,500	5	5	4
Oshkosh	9			5,409	3,500	11		11	9	4	50,000	90,000	25,000	9	9	9
Portage	4	1		1,670	950	4		4	4	3	10,000	25,000	6,000	4	3	4
Prairie du Chien	5			1,035	700	5	2	3	4	3	15,000	20,000	1,500	5	5	1 5
Racine	9	2		5,287	2, 179	7	1	6	6	8	17,000	57,000	17,000	2	9	5
Sheboygan	5	1		2,819	1,140	3	. .	3	3	3	12,000	15,000	4,800	5	5	1 5
Stevens Point				1,388	1,000	4		4	2	1	7,000	13,000	2,500	4	4	4
Watertown	5	1	1	3,672	1,200	- 5		5	5	3	10,000	20,000	11,000	5	5	ō
Wausau	3	3		925	650	2		2		1	20,000	25,000	2,500	1	3	9
Totals	168	17	5	94,309	42,546	156	19	137	132	101	\$54,000	\$1,363,700	\$402,525	81	166	159

Table No. XVII.

STATISTICS OF CITIES—SCHOOL ROOMS, APPARATUS—PRIVATE SCHOOLS.

	S	сно	or E	гоом	s, A1	PAR	ATUS	, ETC.			•	Pri	VATE Sc	HOOLS.		·	
CITIES.	Whole number of school rooms occupied.	Number sufficiently supplied with black-boards.	Whole No. supplied with illustrative charts.	Whole number supplied with outline maps.	Whole number supplied with a globe.		Whole No. adequately supplied with apparatus.	Cash value of all apparatus, including maps and globes.	Number of such schools in the city.	No. of which are denominational or parochial.	er of		pupils ta schools.	Number taught who have not attended the public schools during the year.	Average number of days such schools have been taught.	Average number pupils in daily attendance.	Statistics of
Appleton Beaver Dam Beloit Berlin Columbus Fond du Lac Fort Howard Grand Rapids Green Bay Hudson	26 12 18 14 8 47	26 12 18 14 8 43 10 6 15 8	20 12 6 7 2 15 2 6 15	12 12 12 2 10 6 38 2 6 15 2	8 12 4 3 3 15 6 6 3	6 12 14 1 4 5	1 ::: 12 ::: 1	\$500 150 600 600 200 600 150 275 500 50	3 3 2 2 7 1	2 2 1 1 5	2	3 5 4 2 1	300 300 300 50 500 10	200 275 300 20 300 10 500	175 200 100 60	150 200 40 8	Cities.
Janesville Kenosha La Crosse Madison Menasha	32 14 37 26	32 14 37 26 8	32 4 37 26 8	32 4 37 26 8	24 4 7 26	$\begin{bmatrix} 1 \\ 1 \\ 37 \\ 26 \\ 4 \end{bmatrix}$	3 30 26	500 500 500 900 1,000	5 9 5 2	1 4 6 4 2	3 	8 15 14 14 6	350 550 800 700 350	250 500 700 600 350	200 190 	315 400	

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Milwaukee ..

Mineral Point

Oconto

Oshkosh

Portage Prairie du Chien

Racine.....

Sheboygan

Stevens Point....

Watertown

Wausau

8,319

221 17,739

15,926 av. 184 av. 77

Financial Statistics of

Cities.

Table No. XVIII.

STATISTICS OF CITIES—FINANCIAL STATISTICS—RECEIPTS.

The second secon										1
CITIES.	Money on hand August 31, 1877.	From taxes levied for building and repairing.	From taxes levied for teachers wages.	From taxes levied for apparatus and library.	From taxes levied at annual meeting.	From taxes levied by county supervisors.	From income of state school fund.	From all other sources,	Total amount received during the year.	
Appleton Beaver Dam Beloit Berlin Columbus Fond du Lac Fort Howard Grand Rapids Green Bay Hudson Janesville Kenosha La Crosse Madison	1,737 31 6,909 61 2,847 16 279 59 3,674 35 2,143 18 	75 00 23,500 00 5,510 49	5,300 00	111 75	3,008 26 8,000 00 3,768 00 2,420 00 8,000 00 25,001 00 17,000 00	\$990 93 654 77 1,154 59 464 53 280 44 	243 36 1,472 25 773 76 1,411 80 678,75	\$2,917 56 1,170 96 3,034 79 224 00 492 05 6,056 86 1,260 38 35 00 415 66 830 60 4,223 16	31,934 33	•
Menasha Milwankee Mineral Point	76,008 19				$\begin{array}{c} 4,000 \ 00 \\ 123,056 \ 67 \end{array}$	$600\ 00$ $61,659\ 57$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	15 00	6,843 82 274,662 64	

Financial Statistics of

Cities.

Neenah Oconto Oshkosh Portage Prairie du Chien Racine Sheboygan Stevens Point Watertown Wausau	7, 321 50 920 47 1,236 55 3,417 11 2,190 54 5,801 09	1,500 00 5,000 00			4,794 00 21,020 00 6,139 53 6,000 00 22,000 00 10,159 98 5,092 81 6,880 30	494 87 12,980 00 728 16 600 00 2,000 00 1,200 07 1,009 58 1,507 98	2,125 11 610 74 388 44 1,866 15 983 58 524 55 1,441 83	974 60 681 23 107 22 545 88 620 95 4,398 18 924 46	14,179 46 5,758 04 44,421 21 10,580 12 8,332 21 31,412 05 16,381 69 13,215 66 6,055 55	4 1 3 1 3 6 6
Totals	\$145,115 89	\$38,184 81	\$37,095 50	\$411 75	\$338,774 42	\$95,220 61	\$33, 217 67	\$24,266 06	\$712,286 71	1

Table No. XIX.

STATISTICS OF CITIES—FINANCIAL STATISTICS—PAID.

CITIES.	For building and repair- ing.	For apparatus and libraries.	For services of male teachers.	For services of female teachers.	For old indebtedness.	For furniture, registers, and records.	For all other purposes.	Total amount paid out during the year.	Money on hand August 31, 1878.	Financial Statistics
Appleton Beaver Dam Beloit Berlin Columbus Fond du Lac Fort Howard Grand Rapids Green Bay Hudson Janesville Kenosha La Crosse Madison Menasha Milwaukee Mineral Point	1,398 47 2,419 87 	9 25 9 8 00 25 00 128 84 163 87	\$3,780 00 1,250 00 1,800 00 1,000 00 1,200 00 3,410 00 1,690 00 820 53 1,700 00 1,500 00 1,500 00 2,850 00 1,200 00 56,646 00 1,515 00	3,650 00 1,483 75 5,750 00 2,588 00 11,580 00 4,975 00 11,524 00 11,490 63 2,550 00 95,330 70	1,000 00	77 68 	\$99 23 2,158 85 5,154 84 1,876 86 631 12 4,665 76 1,060 01 502 04 1,009 50 681 50 4,259 00 1,029 12 4,000 00 4,628 59 881 21 27,101 27 719 32	\$19,591 83 8,446 95 18,650 67 7,126 87 4,262 19 27,578 49 6,769 09 4,628 14 8,693 56 3,933 75 19,710 44 8,019 12 47,267 97 28,272 26 4,633 71 180,164 83 5,519 51	\$5,910 22 1,730 86 6,275 83 2,845 63 561 44 5,143 14 1,989 12 4,288 45 1,797 15 477 68 3,934 40 13,830 58 3,662 07 2,210 11 94,487 81 3,820 48	s of Cities — Paid.

347

Financial Statistics of Cities — Paid.

Neenah Oconto Osukosh Portage Prairie du Chien Racine Sheboygan Stevens Point Watertown. Wausau	1,427 1,499 87 9,666 464 5,160 503	69 43 97 65 63 97 47	11 30 195 177	• • • •	1,093 5,000 1,800 1,287 6,000 2,900 1,475 2,600	75 00 00 50 00 00 00	4,970 00 2,677 50 15,795 40 4,100 00 2,370 00 13,209 50 5,450 00 2,616 00 5,950 00 2,385 00	540 00 490 15 687 46 300 00	495 28 127 50 174 70 200 00 457 49 696 24	670 888 5,148 2,008 1,103 1,603 2,991 2,498 2,060 774	35 94 90 40 10 00 00 24	8,704.11 4,659.60 27,867.31 9,948.33 5,466.50 31,352.41 12,335.63 12,402.46 11,987.48 4,315.92	5,475 1,098 16,553 631 2,865 59 4,046 813 4,568 1,739	44 90 80 71 62 06 20 18
Totals	\$62,129	86	\$2,757	32	\$113,869	78	\$255,443 87	\$10,724 88	\$7,391 07	\$80, 204	81	\$532,521 59	\$190,815	86

Statistics of

Table No. XX.
STATISTICS OF CITIES — TEXT-BOOKS.

CITIES.	Spellers.	Readers.	Mental Arithmetic.	Written Arithmetic.	Grammar.	Geographies.
Appleton	Swinton & Patt'sn Swinton Swinton Swinton Sanders National Sanders's Union Swinton American National Union Analytical Swinton	Harvey. Harvey. Union. Independent. New Graded Ser's Independent Sanders. Independent Union. Monroe. Union. Analyt. & Sheldon Independent Independent Sanders McGuffey Harvey. Sanders's Union. Wilson.	White	Arithmetic. White Weite& Robinson Robinson Robinson Robinson Davies Robinson Davies Robinson Walton Hagar Robinson Robinson Robinson Robinson Robinson Robinson Robinson Robinson Robinson Ray White Robinson Robinson Robinson	Harvey	Eclectic. Eclectic. Harper. Monteith.
Oshkosh Portage Prai'e du Chien	Swinton	Sanders	Robinson Robinson	Olney	Swinton	Harper. Eclectic. Eclectic & Mon Mitchell.
Racine Sheboygan Stevens Point Watertown Wausau	Sanders's Union . Swinton	San ers's Union. Independent Webb & Randall.	Stoddard Robinson Davies Rob'n & St'rd Douai	Robinson	Greene	Warren. Swint'n&Harp'. Harper. Guyot, Harper.

Statistics of Cities-

Text-Books.

Table No. XX. — Statistics of Cities — Text-Books — continued.

CITIES.	United States Histories.	Physiology.	Algebra.	Geometry.	Latin Grammars and Readers.	Natural Philosophy.
Appleton Beaver Dam Berlin Beloit Columbus Fond du Lac Ft. Howard Gr'd Rapids Green Bay Hudson Janesville Kenosha La Crosse Madison Milwaukee Milwaukee Milwaukee Mireral Pt Neenah Oconto Oshkosh Portage Pr. du Chien Racine Sheboygan Stevens Pt Watertown Wausau	Anderson Swinton Barnes Quackenbcs Barnes Barnes Barnes Barnes Barnes Swinton Lossing Swinton Lossing Barnes Savinton Scott Lossing Barnes Barnes Barnes Barnes	S eele	Robinson Robinson Robinson Oiney Robinson Robinson Olney Davies Davies Ficklin	Olney Robinson Robinson Robinson Robinson Robinson Olney Evans Davies Evans Davies Robinson Davies Loomis Loomis Robinson Robinson Robinson Olney Robinson Olney Robinson Olney Davies Loomis Davies	Andrews Allen& Greeno'gh Harkness Allen Allen& Greeno'gh Bartholomew Harkness Harkness Allen Brooks & Smith	Norton. Quackenbos. Steele. Rolfe & Gillette. Norton. Norton. Steele. Stewart. Wells. Norton. Steele. Quackenbos. Steele. Steele. Steele. Steele.

Statistics of Cities - Certificates.

Table No. XXI.

STATISTICS OF CITIES — CERTIFICATES.

	MAL	е Теа	CHERS.	FE	MALE TE.	ACHERS.	
CITIES.	1st Grade.	2d Grade.	3d Grade.	1st Grade.	2d Grade.	3d Grade.	Totals.
VatertownVausau	1 1 1 1 1 1 1 1 1 1 2 2 2 1 1 1 1 1 1 1	1 	3 3 3	1 1 2 5 37 1 1 1 3 7 1	2 1 2 1 2 3 1 23 2 54 3 6	28 21 19 16 8 43 12 3 16 3 10 8 87 	27 28 20 10 46 16 6 18 6 16 14 29 9 134 11 14 19 71 11 21 20 26 13
Tota's	39	13	16	62	135	299	675

Summaries.

Table No. XXII. SUMMARIES OF STATISTICS.

Description.	Counties.	Cities.	Totals.
Number of children over four and under twenty years of age	384,383	94,309	478, 692
twenty years of age in districts maintain- ing school five or more months	382,666	94,309	476,975
twenty years of age who have attended school	249,291	45, 924	295, 215
Number of children between four and fifteen years of age	134,354	67, 291	201,645
years of age who have attended school	98, 452	42, 286	140,738
Total number of the different pupils who have attended the public schools during the year.	251, 519	42,983	297,502
Number of days schools has been taught by qualified teachers	863, 213	5,115	868,328
Number of children who have attended private schools only	9,606 166	$15,926 \\ 41$	25,532 207
Number of schools with three or more departments	130	95	225
Number of teachers required to teach the schools	5,997	703	6,700
Number of different persons employed as teachers during the year	9,042 5,393	766 168	9,808 5,561
Number of pupils the school houses will accommodate	310,573	42,546	353,119
Number of school houses built of brick or stone	708	101	809
Number of school houses with out-houses in good condition	3,601	159	3,760

Table No. XXII. — Summaries of Statistics.

AGGREGATE OF EXPENDITURES.

Description.	Counties	s.	Cities	3.	Totals	•
Amount expended for building and repairing	\$173,067	50	\$62, 129	86	\$235,197	36
Amount expended for apparatus and libraries	14,696	51	2,757	32	17,453	83
wages	1,231,938	09	369, 313	65	1,601,251	74
ness	66,069	43	10,724	88	76, 794	31
registers, and records	34, 182	77	7, 391	07	41,573	84
purposes	95,853	65	80, 204	81	176,058	46
Total amount expended	\$1,615,807	95	\$532,521	59	\$2,148,329	54

AGGREGATE OF VALUES.

Description.	Counties.	Cities.	Totals.
Total valuation of school houses Total valuation of sites Total valuation of apparatus	196,029 70	402,525 00	\$4.357,960 83 598,554 70 159,040 39
Totals	\$3,333,776 92	\$1,781,779 00	\$5,115,555 92

Table No. XXIII.

STATISTICS OF FREE HIGH SCHOOLS.

ີ. ດ														
Location.	Whole number of pupils registered.	Average daily attendance.	umber of teache employed.	Number of terms of high school.	Number of weeks of high school.	Number of pupils in common branches only.	Number of pupils in algebra or geometry.	No. in natural sciences, including physiology and phys. geography.	Number in modern languages.	Number in ancient languages.	Amount received for tuition.	Amount actually ex- pended for instruction.	Amount of aid received from the state.	
Appleton	135 22 60 82 142 103 75 30 55 97 92 63 46 114	82 18 44 65 110 63 54 28 38 43 66 36 26 68	312343321221122	භ භ භ භ භ භ භ භ භ භ භ භ භ භ භ භ	36 36 31 40 40 36 38 40 36 40 40 35 36	60 12 4 12 33 15 35	20 10 56 40 102 20 65 15 22 47 53 24 8 42 48	30 29 35 125 50 26 10 22 45 72 24 19 114 47	40 13 5 12 30 26 15 6 52 59 12	17 5 97 17 21 8 85 14 7 1 12 18	\$350 00 24 00 150 00 60 00 527 00 150 00 181 50 50 00 31 70 91 25 83 77 367 00 125 00 125 00	\$2,550 00 900 00 1,150 00 1,700 00 3,560 00 1,750 00 1,650 00 1,150 00 700 00 1,141 67 1,350 00 1,025 00 1,000 00 1,450 00 1,445 25 1,750 00	\$386 30 278 44 329 50 318 55 342 48 316 40 309 38 309 38 309 38 309 38 309 38 309 38 309 38 309 38	8

309 38 284 23 202 73

Location.	Whole number of pupils registered.	verage da ance.	umber of teachers e	ਹ	Number of weeks of high school.	Number of pupils in common branches only.	Number of pupils in algebra or geometry.	Number in nat. science, including physiology and phys. geography.	Number in modern languages.	Number in ancient languages.	Amount received for tuition.	Amount actually expended for instruction.	Amount of aid received from the state.
Durand Eau Claire Elkhorn Evansville Fond du Lac Fort Atkinson Geneva Glenbeulah Grand Rapids Green Bay Hazel Green Hillsborough Horicon Janesville Kenosha Kewaunee La Crosse Lake Mills Lancaster Lodi Lone Rock	49 75 65 60 190 128 80 29 36 175 55 43 99 125 101 35 112 48 66 60 40	22 43 87 80 143 101 55 22 30 94 48 34 51 76 23 83 44 60 44 25	122243212511243141211	න න න න න න න න න න න න න න න න න න න	40 36 36 36 36 36 36 36 37 40 33 40 38 40 38 38 40 38 38 38 38 38 38 38 38 38 38	34 20 19 25 22 29 22 111 16 35 43 	15 48 40 18 150 49 22 21 14 31 28 7 48 106 40 2 106 19 40 38 36	4 48 51 160 92 58 14 43 38 8 28 59 77 10 104 21 15 29	13 5 1 13 34 49	27 31 23 40 20 6 3 25 8 40 4 55 24 60 	\$29 00 24 50 82 70 152 10 170 00 395 50 169 44 57 80 35 00 9 50 217 13 25 00 219 90 20 00 45 00 100 00 63 20 216 92 105 60	\$630 00 1,950 00 1,970 24 1,200 00 3,400 00 2,355 00 709 05 750 00 2,950 00 630 00 1,500 00 1,483 75 2,550 00 700 00 4,210 00 800 00 1,405 00 1,405 00 918 75 655 30	\$194 90 421 57 309 38 309 38 563 22 309 38 309 38 319 36 232 03 413 26 194 90 185 62 309 38 456 12 349 78 216 56 503 04 247 50 309 38 284 23 202 73

Table XXIII. — Statistics of Free High Schools — continued.

Madison	227	206	7	3	36	96	89	227	56	113	\$45 00	\$4,370 00	\$455 66	
Marinette	14	12	1	3	40		14	14		12		1,013 22	309 38	
Mauston	74	40	2	3	38	36	23	24		4		850 00	262 97	
Mayville	64	37	2	3	40	64	21	22	30	30	44 50	950 00	293 91	
Mazomanie	100	55	2	3	35	32	54	44	23		134 00	980 00	303 19	1
Mineral Point	57	39	2	3	36	37	7	15		7	62 80	1,515 00	310 42	
Monroe	154	89	3	3	36		73	82	43	65	71 85	2,100 00	314 05	· }
Montello	56	53	-3	3	36	43	13	13	56		65 40	880 00	272 25	İ
Mount Hope	28	22	1	1	16	26	2				81 00	.200 00	61 87	
Muscoda	54	44	1	2	24	54	2	17			15 00	510 00	157 78	Se
Necedah	81	42	2	3	32	75	2	6		2		1,360 00	309 38	a
Neenah	88	75	3	3	40	54	42	42				1,650 00	330 47	
Neillsville	50	50	1	3	39	6	7	40			90 35	1,000 00	309 38	tatistic
New Lisbon	85	59	2	3	36	34	38	34	26	34	$122 \ 05$	1,360 00	309 38	cs
Omro	93	55	2	3	36	51	33	34	8		56 50	1,170 00	309 38	
Osceola Mills	31	18	2	2	24	18	8	7	. 		12 50	330 00	102 09	of
Oshkosh	351	230	9	3	40		. .					6, 140 00	598 43	7
Pepin	51	25	1	3	36	25	26	26			37 50	675 00	208 83	Free
Pewaukee	101	43	1	2	32	45	56	56			23 00	750 00	232 03	6
Plymouth	57	36	1	3	36	12	25	45	8		172 98	1,000 00	309 38	7
Portage	154	81	2	3	39	40	42	114	12	12	170 63	1,800 00	336 95	High
Port Andrew	31	14	1	3	33	23	5	8	6		32 30	387 46	119 87	97
Prescott	29	9	1	3	32	25	7	9		11		650 00	201 09	
Racine	129	95	4	3	40		112	116		51	315 38	2,700 00	521 27	S
Richland Center	56	42	2	3	35	28	28	28		5	120 00	689 11	213 19	<i>h</i>
Ripon	77	56	2	3.	36	23	20	23	10	6	200 00	1,450 00	316 74	9
Ripon (2d dist.)	32	27	1	2	23		10	32		· • • • • •	19 75	432 75	136 82	chools
Sauk City	37	28	1	3	40	22	10	12	5	· • • • • •	118 29	957 82	296 32	•
Sheboygan	52	49	2	3	40	24	15	13	13		20 00	2,000 00	388 33	
Sheboygan Falls	73	67	1	3	40	16	57	29			231 51	1,000 00	309 38	
Shullsburg	64	47	2	3	40	28	12	27		27	42 00	1,300 00 1	309 38	
Sparta	195	135	4	3	38	19	176	70	51	40	351 40	2,720 00	324 84	
Spring Green	82	49	2	3	34	30	52	19		10	496 50	1,120 00	309 38	1
Stevens Point	85	49	2		40	23	28	40		16	19 25	1,850 00	316 86	
Stockbidge	54	. 35	1	2	24		14	31			68 60	638 00	197 38	
Stoughton	57	36	1	3	36	[•••••]	• • • • • •				25 15	800 00 1	247 -50	

Table No. XXIII. — Statistics of Free High Schools — continued.

Location.	Whole number of pupils registered.	Average daily attendance.	of teachers e	Number of terms of high school.		Number of pupils in common branches only.		Number in nat. science, including physiology and phys. geography.	Number in modern larguages.	Number in ancient languages.	Amount received for tu-	Amount actually expended for instruction.	Amount of aid received from the state.
Sumner Tomah Two Rivers Viroqua. Watertown Waupaca Waupun (Dodge Co.). Waupun (Fond du Lac Co.) Wauwatosa. West Depere West Salem. Wonewoc	21 100 31 59 156 153 65 32 38 38 51	17 69 24 24 110 81 40 30 30 33 31 45	1 2 1 1 4 4 1 1 1 2 1	162666666666666666666666666666666666666	13 36 33 37 40 35 40 40 36 40 36 36	11 15 21 6 41 119 45 26 10 24 20 54	7 25 10 49 109 21 20 4 28 14 28	3 40 31 18 143 25 26 12 28 9 48 6	17 4 107 17 	17 30 98 13	\$5 00 111 50 130 50 183 00 134 36 12 00 212 33 225 79 18 00	\$195 00 1,450 00 750 00 810 00 2,350 00 1,688 50 904 46 850 00 700 00 700 00 1,115 00 800 00	\$60 36 309 38 232 03 250 59 443 93 309 38 279 81 262 97 216 56 216 56 309 38 247 50
Totals	6, 827	54	176	244	3, 044	2,114	2,987	3, 293	1,001	1,237	\$9,097 57	\$115,615 33	\$25,000 00

Distribution of Dictionaries.

Table No. XXIV.

DISTRIBUTION OF DICTIONARIES.

Statement showing the counties, towns, and districts which have been supplied with dictionaries, during the year ending December 10, 1878.

Counties.	Towns.	Depart. ments.	No. of the district.	No. copies.
Adams	Big Flats		2 2 6	1 1 1
Ashland	Ashland		3	1 1
Barron	Clear Lake. Sumuer		5,6 6 10	2 1 1
	Lakeland	2	4 8 7	1 1 2
Brown	Green Bay, city	1 1	1 8	1 1 1
Buffalo	Wrightstown	1	5 10 2	1 1 1
Chippewa	Waumandee	1	1 10	1
	Big BendLa FayetteAuburn		1,2,3,4 12 2	1 1
Clark	Colby Unity and Brighton Mayville		3 1 4	1 1 1
	Weston Thorp Fremont		7 4 3	1 1 1
Columbia	DeKorra		3 10	1 1
Crawford	Prairie du Chien, city		17	1 1
	Bridgeport and Prairie du Chien		5 5	1
Dane	DunkirkB'ack Earth York		1 2 3	1 1 1
Dodge	Middleton	$\begin{bmatrix} 2 \\ \vdots \end{bmatrix}$. 17	1 2 1 1
*	Fox Lake		. 5	1 4

Table No. XXIV.—Distribution of Dictionaries.

Counties.	Towns.	De- part-	No of dist.	No. of copies
Door¹	. Gardiner and Brussels		. 1	1
	Jacksonport		. 2	1
	Union		. 3	1
~	Nasewaupee		. 5	1
Dunn	Weston		. 3	1
	Lucas		. 5	1
	Sherman	• • • • •	. 9	1
	Tainter	• • • • •	. 6	1
	Sheridan	• • • • •	4	1
Tou Olaina	Eau Galle		5	1
Eau Claire	Seymour	• • • • • •	1	1
	Ludington	• • • • • •	2,4	2
Fond du Lac	Washington	• • • • • •	2	1
Grant	Friendship	• • • • •	2 7	1
Grant	Potosi	• • • • • •		1
Croon	Mt. Hope	1	4	1
Green	Mt. Pleasant	• • • • • •	3	1
10wa		• • • • •	7	2
	Moscow and Ridgeway	• • • • • •	8	1 1
Jackson	Moscow and Ridgeway	• • • • • • •		1
o acason	Alma	$\frac{1}{2}$	5	2
Jefferson	Watertown, city	\tilde{z}	9	2
• cherson	Koshkonong	ĩ	6	. 1
Juneau	Wonewoc	1	1	1
o uncau	Kingston		2	1
	Summit and Seven Mile Creek	• • • • •	4	1
Kenosha		····i	4	1
Kewaunee	Kenosha, city Lincoln and Brussels	1	1	1
La Crosse	Farmington		8	i
La Fayette	New Diggings	····i	1	i
24 2 dy 0110	Argyle	i	i	i
Lincoln	Pine River		7	i
Manitowoc	Two Rivers	$\frac{\cdots}{2}$	i	2
	Liberty		6	ĩ
Marathon	Rib Falls		3	i
	Brighton		2,3	2
	Weston		4	ĩ
	Knowlton		3	ī
	Stettin		3	î
Marquette	Mecan		8	ī
1	Springfield		3	ī
	Neshkoro		2	. 1
Milwaukee	Milwaukee, city	18		18
Monroe	Ridgeville	1	3	ĩ
	Glendale		5	ī
	Byron		5	ĩ
Oconto	Langlade		5	ĩ
	Gillett		6	ī
	Peshtigo		7, 10	2
Outagamie	Appleton, city	3	3	$\tilde{3}$
			3	ĭ
	Cicero		5	ī
, .	Black Creek		4	ĩ
Pepin	Albany		• 4	ĩ

Counties.	Towns.	De- part- ments.	No. of distr't.	No. of copies
Pierce	Ellsworth		6 2	1
Polk	Oak Grove Clayton Stevens Point. New Hope.		2,4	2 1 1 1
	Stockton Stevens Point, city Linwood Almond	1	12 1 2	1 1 1
Racine	Hull. Racine, city. Ithaca, Buena Vista, etc. Johnstown. Porter and Dunkirk.	1 1	$egin{array}{c} 1 \ 1 \ 3 \ 9 \end{array}$	1 7 1 1
St. Croix	Milton (Junc.) Fulton Cady and Springfield	1	4 2 2 '1 & 2'	1 1 1 1
O. O	Cylon Richmond and Somerset. St. Joseph Cady		5 6 1,2	1
Shawano	Maple Grove		3,5 1 2 3	1 2 1 2 1 1 1
Sheboygan	Green Valley Maple Grove and Lessor Greenbush Lyndon	2	4 2 7 7	1 1 2 1
Taylor Trempealeau	Michell Little Black Arcadia Lincoln		4 6 1 5	1 1 3 2
Vernon	Arcadia Union Forest, Union, etc Viroqua		14 7 9 9	1 1 1
Walworth	Sharon and Darien. Delafield Little Wolf. Union Fremont. St. Lawrence and Little Wolf.	1	10 3 2 4 1 5	1 1 1 1 1
Waushara	Larrabee. Mukwa, New London, etc Mt. Morris and Wautoma	1	1 5 5 5	1 1 1
Winnebago	Rose Nepeuskun. Menasha, city. Auburndale	. 1	5 2	1 1 1
1,000	Seneca Grand Rapids, City Wood	i	$\begin{bmatrix} z \\ 6 \\ \dots \\ 3 \end{bmatrix}$	1 1 1
Total				200

Dictionaries Sold.

Table No. XXV.

Statement showing the districts to which dictionaries have been sold, during the year ending December 10, 1878.

Counties.	Towns.	Departments	No of the district.	No. copies.
Calumet	Brothertown Stockbridge Lowville	• • • • • •	5 5 2	1 1 1
	Randolph We-t Point Arlington Columbus, city Poynette	2	8 7 6 1	1 1 2 1 1
Crawford Dane	Marietta Eastman Rutland	· · · · · · · ·	1 1 5, 8	1 1 2 1
	Sun Prairie. Dunkirk. Blooming Grove Burke and Windsor. Vienna, Westport, etc		5 7 3 1 7	1 1 1 1
Dodge	Medina and Sun Prairie. Lomira. Williamstown		1 6 2	1 1 1
Door	Egg Harbor Spring Brook Bridge Creek Rosendale		2 3 1 3	1 1 1 1
Grant	Metomen and Alto Oakfield Fennimore. Beetown		4, 10 3 2	1 2 1 1
Green	Potosi Wingville Liberty and Lancaster. Spring Grove. Mt. Pleasant.		2 7 4 5, 6 1	1 1 1 2:
Green Lake	Decatur Decatur Mackford	4	7 4 4	4 1 1
Iowa	Brooklyn		2 11 1	1 1 1
Jefferson	Mifflin Ixonia and Watertown Palmyra, Sullivan, etc. Watertown and Ixonia	2	3 1 2 9	1 1 2
	Hebron		6 1	1 1 1

Table No. XXV — Dictionaries Sold.

COUNTIES.	Towns.	Depart. ments.	No. of the district.	No. of copies.
Juneau Kenosha	Germantown		8 1 3, 9 10	1 1 2 1
Kewaunee La Crosse La Fayette Manitowoc	Kewaunee	2	1 8 3 6	2 1 1 1
Manitowoc	Franklin		1 5 2 2	1 1 1
Marathon Milwaukee	Marathon		2 1 6	1 1 1
Monroe	Glendale		$\begin{array}{c c} & 6 \\ 2, 3 \end{array}$	1 2
Outagamie	Leon	1 1	1 5	
•	Seymour. Dale. Greenville		2 1 2	1 1
Portage	Hortonia		. 8 5 2 3	1 1 1 1 1
Racine	Hull and Stevens Point Waterford Yorkville		3 . 11 . 1,11	1 1 2
Richland	Burlington Forest Milton.	i	$\begin{array}{c c} 1 \\ 10 \\ 4 \end{array}$	1 1
	Bradford		5 1 6 2	1
Sauk	La Prairie		3 2 7	1 1
	Woodland		1 2 3	1 1
Sheboygan	Spring Green Sherman and Lyndon Wilson		. 9	
Vernon Walworth	Mitchell and Greenbush Wheatland and Freeman Linn	i	$\overline{4}$	1 :
	East TroyElkhornGeneva	. 1	1 1	

Table No. XXV — Dictionaries Sold.

Counties.	Towns.	Depart.	ments.	No. of the district.	No. of copies.
Walworth	Sugar Creek			4	1
Waukesha	La Grange and Sugar Creek. Linn and Bloomfield Vernon Pewaukee Delafield. Muskego		2	1 & 3, 1, 5, 7,	1 1 2 1 1 1 2 1
Waushara	Mukwa Wautoma and Dakota	••••	• •	2	1 1
Winnebago	Aurora		3	4	1 3
Total			-		126
7			I		

County Superintendents.

COUNTY AND CITY SUPERINTENDENTS,

In Commission December, 1878.

COUNTY SUPERINTENDENTS.

Counties.	NAME.	Post Office.
Counties. Adams Ashland Barron Bayfield Brown Buffalo Burnett Calumet Cnippewa Clark Columbia Crawford Dane (1st dist.) Dodge (1st dist.) Dodge (2d dist.) Dodge (2d dist.) Douglas Dunn Eau Claire Fond du Lac Grant Green Green Lake Lowa Jackson	Name. Jesse M. Higbee. W. G. Bancroft. H. J. White. Jno. McCloud. Miss Minnie H. Kelleher. J. C. Rathbun. John G. Fleming. P. E. Skahen. John A. McDonald. John S. Dore. Kennedy Scott. M. E. Norris. A. R. Ames. M. S. Frawley. John T. Flavin. Atthur K. Delaney. James Keogh. Geo. L. Brooks. Geo. Shafer. Miss Agnes Hosford. Ed. McLoughlin Charles L. Harper. Thos. C. Richmond. A. W. Millard. Wm. A. Jønes. T. P. Marsh.	Plainville. Ashland. Sumner. Bayfield. Depere. Alma. Grantsburg. Chilton. Chippewa Falls. Nei.lsville. Rio. Prairie du Chien. Door Creek. Black Earth. Watertown. Mayville. Sturgeon Bay. Superior. Menomonie. Eau Claire. E dorado Mills. Hazel Green. Monticello. Manchester. Mineral Point. Hixton.
GrantGreen LakeGreen LakeJacksonJefferson	Charles L. Harper. Thos. C. Richmond. A. W. Millard. Wm. A. Jønes. T. P. Marsh. C. J. Collier.	Monticello. Manchester. Mineral Point. Hixton. Rome.
Juneau Kenosha Kewaunee La Crosse La Fayette Linc ln. Manitowoc	J. W. Wightman Daniel A. Mahoney John M. Read C. S. Stockwell C. G. Thomas. David Finn W. A. Walker	Wonewoc. Salem. Kewaunee. Onalaska. Darlington. Jenny. Manitowoc.
Marathon	Thomas Greene	Wausau. Montello. Oak Creek. Milwaukee.

County Superintendents.

COUNTIES.	NAME.	Post Office.
Monroe	N. H. Holden	Sparta.
Oconto	L. W. Winslow	Peshtigo.
Outagamie	Patrick Flanagan	Appleton.
Ozaukee	Adolph Heidkamp	Ozaukee.
Pepin	J. H. Rounds	Durand.
Pierce	H. S. Baker	River Falls.
\mathbf{P} olk	Marcellus Tozer	Little Falls.
Portage	C. S. Sutherland	Almond.
Racine	Cha les H. Sproat	Waterford.
Richland	David D. Parsons	Richland Center.
Rock, 1st district	John W. West	Evansville.
2d district	J. B. Tracy	Milton.
St. Croix	Miss Betsey M. Clapp	N. w Richmond.
Sauk	James T. Lunn	Ironton.
Shawano	Wm. Sommers	Upham.
Sheboygan	B. R. Grogan	Elkhart Lake.
Taylor	O. N. Lee	Medford.
Trempealeau	Miss M. Brandenburg	Trempealeau.
Vernon	O. B. Wyman	Viroqua.
Walworth	Fred. W. Isham	Elkhorn.
Washington	S. S. Barney	West Bend.
Waukesha	John Howitt	Waukesha.
Waupaca	L. L. Wright	New London.
Waushara	Jas. H. Tobin	Auroraville.
Winnebago	F. A. Morean	Oshkosh.
Wood	G. L. Williams	

City Superintendents.

CITY SUPERINTENDENTS.

CITIES.	NAME.
Appleton Beaver Dam Beloit Berlin Columbus Fond du Lac Fort Howard Grand Rapids Green Bay Hudson Janesville Kenosha La Crosse Madison Menasha. Milwaukee Mineral Point Neenah Oconto Oshkosh Portage. Prairie du Chien Racine Sheboygan Stevens Point Watertown Wausau	A. H. Conkey. James J. Dick. T. L. Wright. D. P. Blackstone. F. C. Eldred. C. A. Hutchins. Dr. Wm. H. Bartran. Thos W. Chittenden. J. D. Williams. Geo. D. Cline. R. W. Burton. H. M. Simmons. C. W. Roby. Sam'l Shaw. Silas Bullard. John J. Somers. Dr. J. B. Moffatt. Dr. J. Barnett. H. H. Woodmansee. Geo. H. Read. A. C. Kellogg. A. C. Wallin. O. S. Westcott. Joseph Bast. J. K. McGregor. Chas. F. Ninman. B. W. James.

University of Wisconsin.

UNIVERSITY OF WISCONSIN.

BOARD OF REGENTS.

W. C. WHITFORD, STATE SUPERINTENDENT, ex-officio Regent.

Term expires first Monday in February, 1880.

1st Co	ong. I	Dist.,		-	J. B. CASSODAY, JANESVILLE.	
3d	do	•	-		W. E. CARTER, PLATTEVILLE.	
6th					THOS. B. CHYNOWETH, - GREEN BAY.	
			Ter	rm	expires first Monday in February, 1881.	

State at large, - - E. W. KEYES, - - - MADISON.

7th	Cong. Di	st., -		-	T. D. STEELE,				_	SPARTA.
5th	do	-	-		HIRAM SMITH,	-	-	-		SHEB'GAN FALLS.
2 d	do				J. C. GREGORY,					
4 th	do	-			GEO. KOEPPEN,	-	-	-		MILWAUKEE.

Term expires first Monday in February, 1882.

State at large,	-	-	C. C. WASHBURN,	-	-	-	MADISON.
4th Cong. Dist.,	-		J. M. BINGHAM, -				CHIPPEWA FALLS.

The Normal Schools.

THE NORMAL SCHOOLS.

BOARD OF REGENTS.

Gov. W. E. SMITH, ex-officio, W. C. WHITFORD, State Supt., ex-officio,	Madison. Madison.
W. O. WHITPOID, State Supt., ex-ogicto, -	MADISON.
Term ending February 1, 1880.	
W. H. CHANDLER,	SUN PRAIRIE.
A. D. ANDREWS,	RIVER FALLS.
T. D. WEEKS,	WHITEWATER.
Term ending February 1, 1881.	
WILLIAM STARR,	Ripon.
J. H EVANS,	PLATTEVILLE.
C. DOERFLINGER,	BURLINGTON.
Term ending February 1, 1882.	
JAS. MACALISTER,	MILWAUKEE.
JOHN PHILLIPS,	STEVENS POINT.
S. M. HAY,	Оѕнкоѕн.



NINTH

ANNUAL REPORT

OF THE

COMMISSIONER OF INSURANCE

OF THE

STATE OF WISCONSIN.

JULY 1, 1878.

PART I.— FIRE AND MARINE INSURANCE.

MADISON, WIS.:

DAVID ATWOOD, PRINTER AND STEREOTYPER.

1878.

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NINTH ANNUAL REPORT

OF THE

COMMISSIONER OF INSURANCE

PART I.—FIRE AND MARINE INSURANCE.

STATE OF WISCONSIN, DEPARTMENT OF INSURANCE, MADISON, June 15th, 1878.

To His Excellency, Wm. E. Smith,

Governor of the State of Wisconsin.

Sir:- The attention of the legislature having been called to the fact that the duties devolving upon the secretary of state had become so multiplied and arduous as to preclude his giving to the insurance department the attention that its importance demanded, an act was passed in March, last, making it a separate and distinct department, to be placed in charge of a "commissioner of insurance," to be appointed by the governor, by and with the advice of the senate, whose term of office should be two years from April 1st. By virtue of appointment under the provisions of this act, I assumed charge thereof on April 1st, and have the honor to submit herewith the ninth annual report of the insurance department (though the first as a separate department), as provided by law. The time for making annual reports seems to have been fixed by my predecessors July 1st. Pressure of other duties doubtless prevented the selection of an earlier date. The reports of the departments of most of the states are made much earlier, and containing as they do similar matter, the value of the Wisconsin report is much lessened appearing, as it does, at so late a date. the statistics in this report are largely taken from reports made to my predecessors, I deemed it proper not to change for this year, the time for reporting, especially so as it seemed advisable to publish therein the insurance laws of the state as revised and adopted by the legislature at its extra session, this month. Hereafter, however, it is hoped that the report may be made as early as May 1st.

COMPANIES TRANSACTING BUSINESS IN THE STATE IN 1877.

During the year 1877 one hundred and forty fire and marine companies representing capital of \$72,192,729, including those of this state, were licensed by this department, of which number, one, the New Hampshire Ins. Co., of Manchester, N. H., was admitted after the publication of the last report, and before the close of the year.

COMPANIES WITHDRAWN.

Of the companies that transacted business in the state in the year 1877, the following, representing capital of \$4,344,220, have not been relicensed the present year, some having reinsured, or winding up, and others having been refused admission:

NAME OF COMPANY.	LOCATION.	CAPITAL.
Arctic	New York	\$200,000
Atlas	Hartford, Conn	200,000
Bangor	Bangor, Me	201, 520
Brewers & Malsters	New York	200,000
Capital City	Albany, N. Y	150,000
Citizens	St. Louis, Mo	200,000
Citizens	Newark, N. J	200,000
Commercial	St. Louis, Mo	500,000
Farragut	New York	200,000
Franklin	St. Louis, Mo	200,000
German American	Pittsburg, Pa	100,000
Germania	New Orleans	200.000
Globe	Boston, Mass	200.000
Guaranty	New York	200,000
Patterson	Patterson, N. J	202, 700
Philadelphia	Philadelphia	200,000
Phœnix	St. Louis, Mo	150,000
Reading	Reading, Pa	200, 000
St. Louis	St. Louis Mo	240,000
Sun Fire	Philadelphia	200,000
Union F & M	Galveston, Texas	200,000

COMPANIES ADMITTED.

The following companies, representing capital of \$854,604, which did not transact business in the state in 1877, have been admitted the present year:

Name of Company.	LOCATION.	CAPITAL.
Newark	Newark, N. J	\$254,60
	New York	200,00
North German	Hamburg, Germany	*200,00
Safeguard	New York	200,00

^{*}Amount of N. Y. state deposit.

COMPANIES TO WHOM CERTIFICATES HAVE BEEN ISSUED FOR 1878.

Up to the 1st of June there had been licensed by this department one hundred and twenty-three companies, representing capital of \$70,958,922, being seventeen less than were licensed during 1877, and representing \$1,233,807 less capital. Of the companies licensed for present year, eight are Wisconsin companies, ninety-nine those of other states and sixteen those of foreign countries, classified as follows:

Wisconsin Joint-Stock Companies,	-		-		-		4
Wisconsin Mutual Companies,		-		_		-	4
Companies of other States - Stock,	-		-				94
Companies of other States - Mutnal,		-		-		-	2
Companies of other Countries,	-		-		-		16
Marine Companies,		-		-		_	3

BUSINESS IN WISCONSIN IN 1877.

The business for the year 1877 compares unfavorably with that of 1876, as it does with every year since 1869, excepting the years 1870 and 1875, in which latter year occurred the great Oshkosh fire involving a loss of \$920,438. Compared with 1876, the premiums show a decrease of \$153,318, and the losses show an increase of \$339,239. The following comparative statement of business from 1869, up to and including 1877, will be found interesting as well as suggestive:

COMPARATIVE STATEMENT.

Companies.		Risks written.	Premiums received.	Losses paid.	Percentage of losses to premiums received.
1869.					
Wisconsin joint stock companies	2	\$5,775,559	\$51,065	\$39,786	
Wisconsin mutual companies	6	31,804,660	316, 561	177, 434	
Companies of other states	74		1,119,719	653, 432	
Companies of foreign countries.	>5		5 3, 455	12,008	
Totals,	87	\$37, 590, 219	\$1,540,800	\$882,660	57.29
1870.					
Wisconsin joint stock companies	2	\$13,450,970	\$97,961	\$36, 192	
Wisconsin mutual companies	8	28, 809, 559	339, 474	234,096	
Companies of other states	74	100,257,448	1,136,170	868,654	
Companies of foreign countries.	4	4, 654, 978	48,727	36, 270	
Totals	88	\$147, 172, 955	\$1,622,332	\$1, 175, 212	72.44
1871					
Wisconsin joint stock companies	3	\$14,942,048	\$138,753	\$37, 236	
Wisconsin mutual companies	8	21,023 '328	272,099	281,023	
Companies of other states	60	75, 054, 421	896, 219	385, 387	
Companies of foreign countries.	6	11,064,674	129, 126	9,434	
Totals	77	\$122, 034, 464	\$1,436,197	\$713,080	49 65
1872.					
Wisconsin joint stock companies	3	\$17,530,664	\$210, 433	\$63,516	
Wisconsin mutual companies	1	25, 204, 801	366, 394	262, 983	
Companies of other states	68	84, 478, 871	Į, 129,565	496, 392	
Companies of foreign countries.	10	15, 137, 040	204,285	99,746	
Totals	88	\$142, 351,376	\$1,910,677	\$922, 637	48.29
1873.					
Wisconsin, joint stock companies	3	\$18, 274, 028	\$236,050	\$119, 177	
Wisconsin mutual companies		26, 481, 816	409,366	208,702	
Companies of other states	88	98, 564, 529	1,332,712	573,510	
Companies of foreign countries	11	14,085,716	196, 803	91,892	
Totals	109	\$157,406,089	\$2, 174, 931	\$993, 281	45.67

Comparative statement — continued.

Companies.	Number of companies.	Risks written.	Premiums received.	Losses paid.	Percentage of losses to premiums received.
1874.					
Wis. joint stock companies	3	\$17, 918, 006	\$260, 186	\$105,590	
Wisconsin mutual companies	7	28,282,467	450, 557	278,587	
Companies of other states	89	95, 739, 674	1, 373, 236	582,845	
Companies of foreign countries.	13	12, 855, 483	187,080	43,001	
Total	114	\$154,795,630	\$2 271,059	\$1,010,023	44 00
1875.					
Wis. joint stock companies	3	\$17,912,018	\$226,422	\$155,667	
Wisconsin mutual companies	6	19, 591, 053	286,951	281,655	
Companies of other states	110	95, 892, 289	1, 395, 232	1, 282, 451	
Companies of foreign countries.	14	14,044,956	201,429	157, 338	
Total	133	\$147,440,316	\$2,110,034	\$1,877,111	89 00
1876.					
Wis. joint stock companies	3	\$13, 2 00, 204	\$165,234	\$49,796	
Wisconsin mutual companies	- 5	14, 314, 348	215, 783	129,484	
Companies of other states	116	91,760,086	223,481	415, 761	
Companies of foreign countries.	15	14, 839, 656	193,930	39, 683	:
Total	139	\$133, 614, 294	\$1,798,428	\$634,674	34_00
1877.					
Wis. joint stock companies	4	\$12,777,953	\$165, 1 57	\$102,475	
Wisconsin mutual companies	5	11,616,047	167, 741	97,487	
Companies of other states	99	107, 528, 010	1, 127, 220	665, 191	
Companies of foreign countries.	16	15,021,794	184, 992	108, 760	
Total	123	\$146, 943, 804	\$1,645,110	\$973, 913	59 00

WISCONSIN COMPANIES.

The reports of Wisconsin companies show them to be in a sound condition, and that they continue worthy of the confidence of the insuring public. The Madison Mutual Insurance Company has, through authority given it by recent law, become a stock company, with a cash capital paid in of \$100,000, and assets of \$226,101. By an act the legislature of present year its name was changed to the Madison Fire Insurance Company.

WHO IS AN AGENT.

Chapter 13, general laws of 1871, reads as follows:

An Act to protect the public against unauthorized insurance agents.

The people of the state of Wisconsin, represented in senate and assembly do enact as follows:

SECTION 1. Whoever solicits insurance on behalf of any fire, marine, inland, life or accident insurance company, or transmits for any person other than himself an application for insurance, or a policy of insurance, to or from said company, or advertises that he will receive or transmit the same, shall be held to be an agent of such company to all intents and purposes, unless it can be shown that he receives no commission or other compensation or consideration for such service.

SECTION 2. No corporation, association, partnership or individual doing business in this state under any charter, compact or agreement involving any insurance, guaranty, contract pledge for the payment of annuities or endowments, or for the payment of moneys to the families or representatives of policy or certificate holders or members, shall make such insurance, guaranty or contract therein or with any resident of this state, except in accordance with and under the conditions and restrictions of the statutes now or hereafter regulating the business of life insurance.

SECTION 3. No officer, agent or sub-agent of any insurance company shall act or aid in any manner in transacting the business of insurance of or with such company, or placing risks, or effecting insurance therein, without first procuring from the commissioner of insurance a certificate of authority so to do for each company for which he proposes to act, which shall state in substance that such company is duly authorized to do business in this state under the laws thereof, and that such agent or other person has duly complied with the laws relating to the agents of such companies. The commissioner of insurance, upon being satisfied of the facts to be stated therein, shall grant

such certificate, which, in case of fire, marine or inland companies, shall continue in force until the thirty-first day of January next after the date thereof, and in case of life or accident companies, until the first day of March next after the date thereof, unless sooner revoked by the commissioner of insurance for noncompliance with the laws aforesaid, and shall be renewed on said days and annually thereafter, so long as the company and its agents continue to comply with said laws.

Section 4. Every agent soliciting insurance shall exhibit his certificate of authority, when requested to by any person, and a refusal or failure so to do shall be presumptive evidence that such agent is doing business contrary to law.

SECTION 5. Whoever violates the provisions of this chapter shall be punished by a fine not exceeding five hundred dollars, nor less than fifty dollars, for each offense, which shall be sued for and recovered in the name of the state by the district attorney of the county in which the company or the agent or agents so violating shall be located or doing business, and one-half of said penalty, when recovered, shall be paid into the treasury of the said county, and the other half to the informer of such violation. In case of the non-payment of such penalty, the party so offending shall be liable to imprisonment for a period not exceeding six months, in the discretion of any court having cognizance thereof; such penalties may also be sued for and recovered in the name of the state by the attorney general, and when sued for and collected by him, shall be paid into the state treasury.

SECTION 6. This act shall take effect and be in force from and after its passage.

Approved February 16, 1871.

Notwithstanding the clearness of the law in defining who is an agent, there are many persons soliciting insurance without certificates of authority from this department, as the law requires. Known as brokers, or solicitors, and claiming to solicit insurance on behalf of the insured and not the company, they have escaped the requirements of the law; but the law seems too plain to except them from its provisions, and they must conform to it. Any person through whom insurance is effected, or who aids in any manner in effecting insurance, except for himself, or without compensation, is an agent, and must have certificate of authority as prescribed by law for each company whose policy through him is issued. If this class of agents should be excepted from the provisions of the law, it should be done by amending the law, and not by ignoring or evading it.

UNAUTHORIZED COMPANIES AND AGENTS.

For years the number of companies and agents doing business without authority has been steadily increasing, until the amount of business so done has become very considerable, the state losing a large sum annually through this source. The law seems sufficiently strong to almost, if not entirely check it, if properly enforced, which should be done in the future to the fullest extent, and parties engaged therein punished accordingly. Companies complying with our laws pay to the state an annual tax of two per cent. on their gross receipts in the state, besides paying a like tax on gross receipts in cities and villages having a fire department. The people should be protected from the incursion of these frauds, and the honest companies relieved from an unjust competition which an escape from taxation by such unauthorized companies subjects them to. Companies, agents, or others interested, should notify the Commissioner of Insurance of violations of this law when coming under their observation.

It would seem short-sighted policy on the part of citizens of the state in placing their insurance with companies unauthorized to do business in the state. The difference in rates generally represents the amount out of which the state is defrauded, and should hardly be considered by the insured as a sufficient inducement to encourage a violation of the law, and as they are, in case of loss, largely at the mercy of such companies it is probable that much of the insurance thus placed is through their misunderstanding of the law. The attention of these companies and agents has been repeatedly called by my predecessors to the law on the subject, but apparently with little effect. It is hoped, however, that the arrest and conviction of numerous persons thus violating the law, upon evidence on file in, and being collected by, this department will prove a more effective notice than has hitherto been given.

DECEPTIVE STATEMENTS.

In March last the legislature passed the following law relative to the making and publication of deceptive statements by fire insurance companies: Section 1. It shall not be lawful for any company, corporation, association, individual or individuals, now transacting, or now or hereafter authorized, under any existing or future laws of this state, to transact the business of fire insurance within this state, to state or represent, either by advertisement in any newspaper, magazine or periodical, or by any sign, circular, card, policy of insurance or certificate of renewal thereof, or otherwise, any funds as assets to be in possession of any such company, corporation, association, individual or individuals, and not actually possessed by such company, corporation, association, individual or individuals, and available for the payment of losses by fire, and held for the protection of holders of policies of fire insurance, and such statement shall also show the amount available and held in the United States.

SECTION 2. Every advertisement or public announcement, and every sign, circular or card hereafter made or issued by any company, corporation, association, individual or individuals, or any officer, agent, manager or legal representative thereof, now or hereafter authorized by any existing or future laws of this state to transact the business of fire insurance within this state, which shall purport to make known the financial standing of any such company, corporation, association, individual or individuals, shall exhibit the capital actualty paid in in cash and the amount of net surplus of assets over all liabilities of such company, corporation, association, individual or individuals, actually available for the payment of losses by fire, and held for the protection of holders of their policies of fire insurance, including in such liabilities capital actually paid in, and the fund reserved for reinsurance of outstanding risks, and shall correspond with the verified statement made by the company, corporation, association, individual or individuals, making or issuing the same to the insurance department of this state next preceding the making or issuing of the same.

SECTION 3. It shall be unlawful for any company, association or corporation transacting the business of fire insurance in this state to publish any statement, by newspaper advertisement, card or otherwise, which shall represent said company as transacting a different business than it in reality is in regard to the nature and class of risks written by said company.

SECTION 4. Any company, association or corporation transacting the business of fire insurance in this state shall cancel any policy of insurance at any time, by request of the party insured or his assignee, and shall return to said party the amount of premium paid, less the customary short rate premium for the expired time of the full term the said policy has been issued.

SECTION 5. Any violation of any provision of this act shall, for the first offense, subject the company, corporation, association, individual or individuals guilty of such violation, to a penalty of five hundred dollars, to be sued for and recovered in the name of the people, with costs and expenses of such prosecution, by the district attorney of any county in which the company, corporation, association, individual or individuals shall be located or may transact business, or in any county where such offense may be committed,

and such penalty, when recovered, shall be paid into the treasury of such county for the benefit of the school fund. Every subsequent violation shall subject the company, corporation, association, individual or individuals guilty of such violation to a penalty of not less than one thousand dollars, which shall be sued for, recovered and disposed of in like manner as for the first offense.

SECTION 6. This act shall take effect and be in force on and after July 1st, 1878.

Approved March 7, 1878.

The companies so differed in their construction of this law that it was deemed best to issue the following circular for their guidance:

STATE OF WISCONSIN,

Department of Insurance

MADISON, April 25th, 1878.

To the Officers and Agents of Fire Insurance Companies:

Many inquiries having been addressed to this department regarding the construction of chapter 90, Laws of Wisconsin for 1878, entitled "An act to prevent the making and publication of false or deceptive statements in relation to the business of Fire Insurance," the commissioner deems it proper to give his views, upon consultation with the attorney-general, as to the requirements of said act.

First The circulation or exhibition of all signs, cards, circulars, or other representations or announcements representing amounts not entirely available, for the payment of fire losses, is prohibited after the first day of July next, except so far as such signs, cards, circulars, etc., may have passed from the hands of the company or its representatives, and from within their control; provided, such signs, cards, circulars, etc., shall not have been permitted to pass from such control for the purpose of evading the requirements of this act.

Second. All signs, cards, circulars, blotters, letter sheets, envelopes, policies, certificates of renewal, advertisements, public announcements, etc., purporting to set forth in any manner the financial condition of the company, and issued or circulated after the 1st day of July next by the company or its representatives, or by and with their knowledge or consent, must contain at least four items, viz.:

Assets available for fire losses.

Assets held in the United States available for fire losses.

Capital stock paid in in cash.

Net surplus (on the basis of total assets, minus total liabilities, including capital and fund reserved for re-insurance).

Third. No additional statement will be required of the company till the time now required by law for making its annual statement, but no portion of the statements heretofore made conflicting with the statement as hereafter required to be made, can be used for publication or advertising in any manner whatever.

PHILIP L. SPOONER, Jr.,

Commissioner of Insurnnce.

Similar laws in other states, except polices and renewals, to the extent of permitting the amount of authorized capital alone to be stated therein. Where such statement is not a mis-representation it seems proper that such exception should be made, as in requiring the other items to be stated, a constant change of policies and renewals would be necessary. The committee on the revision of the statutes therefore, recommended and the legislature adopted the following amendment to section two, "but in polices and renewals thereof, there may be stated a single item showing the amount of authorized capital."

That the amendment and its effect might be properly understood the following circular was issued:

STATE OF WISCONSIN,

Department of Insurance,

MADISON, June 8, 1878.

To Fire Insurance Companies:

The legislature has amended chapter 90, laws of Wisconsin for 1878, entitled, "an act to prevent the making and publication of false or deceptive statements in relation to the business of fire insurance," by adding to section two, the following: "But in policies, or renewals thereof, there may be stated a single item showing the amount of authorized capital." The amendment being to section two, the opinion of the assistant attorney general, Hon. H. W. Chynoweth, is, that the other sections are not effected by it and that companies only whose capital is entirely available for fire losses can avail themselves of it. The amendment does not become a law until November 1st, as the revised statutes, in which it is incorporated, does not take effect until that date. Companies must, therefore, comply with the law as given in circular of April 25th, until the amendment takes effect.

In this connection it is deemed proper to state that the committee on the revision of the statues recommended important amendments to the law of 1874, which makes the amount named in policy on real estate the measure of damage when wholly destroyed, but the legislature failing to adopt them, the law remains unchanged.

PHILIP L. SPOONER JR.,

Commissioner of Insurance.

INSURANCE LAWS.

The insurance laws of the state as they will appear in the revised statutes, will be found on the last pages of this report. A careful study of them will show that they need amending. The commissioner of insurance should have a somewhat discretionary power in the admission of companies to the state, for the use of which he should be held to the strictest accountability. With it the dishonest failure of any company holding his certificate of authority, would be a reflection upon his administration and the insured would feel reasonaably certain that the polices they held were good. This is rendered all the more necessary in view of the reckless competition of companies for business at such rates as must inevitably bring ruin upon a large number of them, including it is feared, many whose statements would show them to be apparently in a safe condition. There are a sufficient number of unquestionably good companies in which all the indemnity the people of the state require can be obtained, without looking to those of questionable standing. Many companies can now meet the requirements of our law, to whom certificates of authority should not be issued, but which under the law have to be. Any company with a cash capital of \$200,000, not impaired 20 per cent., must be admitted to the state, while the management of some companies as partially shown by their reports, is such that they should not be admitted at all. It is believed that the estimate for reinsurance of some companies is entirely too low, and that a proper estimate for reinsurance of outstanding risks, assumed at the rates obtained, would show an impairment of capital and an unsatisfactory condition generally.

VALUED POLICY LAW OF 1874.

The legislature of 1874 passed a law providing that in all cases where any individual or insurance company authorized by law to take risks and issue policies of insurance against fire, shall insure real property, and the property so insured shall be wholly destroyed without criminal fault on the part of insured, the amount written in the policy shall be taken conclusively to be the value of the property when insured, and the measure of damage when destroyed.

The law though passed in 1874, has been virtually a "dead let-

ter," until the decision of the Supreme Court in March, last, sustaining the law as being not only good law, but good policy.

The decision renewed the criticism and discussion of the law which followed its enactment in 1874, which still continues without any sign of diminution. The law was passed doubtless through a desire on the part of the legislature to prevent over-insurance, and with it incendiarism, believing that should the insurance companies be obliged to pay the amount named in policy, they would see to it, either through greater care and discretion in selecting agents, or in some other like, effective way, that the amount named in policy hereafter (thereafter) would not be such as to offer an inducement to burn. The question of over-insurance and its relation to incendiarism is one of great importance to the state, and none the less so to insurance companies. The interests of the state and the companies in this particular, at least, are identical, and from this position should all laws looking to its suppression be discussed and judged, and not from the untenable position that there is an irrepressible conflict between the state and the companies, and that necessarily any legislation of this character must be wise, if contrary to the views of men who have made the subject a study, and unwise and prejudicial to the interests of the state if it meets their approval. The amount of capital represented by fire insurance companies is not less than \$200,000,000.

These companies are not charitable nor benevolent institutions, but are started for the money there is in the business. the greatest sufferers by incendiarism, and the dividends are materially effected by it. From a selfish then, if from no higher motive, it is fair to presume that insurance companies are largely interested in its suppression and would not knowingly encourage it. When prejudice gives way to reason, as it must when the matter is calmly viewed and properly understood, the state and the companies will be found to be mutually interested and working together for the suppression of incendiarism, a crime rapidly increasing, and already so alarmingly prevalent as to threaten the stability of the companies, endanger life as well as property, and resulting not only in an irreparable loss of millions of dollars annually, but worse than all, corrupting the people. Over-insurance is chiefly the cause, but what is the remedy? Is it found in the law referred to? Upon a careful consideration it seems not, mainly for the

reason that it does not reach all the parties who should share the responsibility for over-insurance, these being the agent and insured as well as the company, all of whom should be brought within the provisions of the law. The company, though not knowingly a party, becomes through reckless competition for business less careful than it should be in the selection of its agents, and must to a certain extent be responsible for their acts, and a sufficient penalty should attach to it to compel the exercise by it of the greatest care. The agent upon whose representation the company relies, and by whom is so often deceived, should be held to a still greater accountability, and finally the insured who knows better than the agent or company the value of his property, should at least not be permitted to profit by over-insurance whether obtained through design or otherwise, for insurance is only for protection and not speculation. Doubtless the committee on the revision of the statutes entertained these views in recommending the following amendment to the law of 1874:

"But only three-fourths of the actual cash value of any building at the time of its destruction by fire, shall be paid to the holder of such policy or policies, or any person interested therein, together with the excess of premium paid thereon, which cash value shall be determined by arbitration or otherwise as provided by law. The remainder shall be paid into the treasury of the county wherein said building was situated, for the benefit of the school fund. The commissioner of insurance shall revoke the license or licenses of any agent or agents who shall issue or cause to be issued any policy or renewal of insurance on a building in a sum equal to or greater than the value thereof at the time such policy shall be issued or renewed, or which with the insurance then on such building will equal or exceed the value thereof, and such agent or agents shall not be relicensed for a period of three years."

The amendment was rejected by the senate at the extra session without discussion, and probably for lack of time for its proper consideration. The amendment simply perfected the law of 1874, the principle of which (prevention of over-insurance) is correct, it being the duty of the state to prohibit inducements being held out to its citizens to commit crime. The law itself, however, seems to offer the very inducements which its evident purpose is to prevent. Of all crimes, incendiarism is the most difficult to prove, and it would indeed be strange if many were not tempted to commit it by the law as it now stands, providing as it does, that no matter

how much the amount named in policy may exceed the value of the property, nor in what manner such excessive insurance was obtained, there shall be paid to the insured the whole amount, unless it can be proved that the loss was through his design.

The amount paid by insurance companies for incendiary losses, is estimated as exceeding \$20,000,060 per annum, which large sum is paid by the people in excess of what would, aside from such incendiary losses, be necessary; for companies are certain to take on the average, sufficient in premiums to cover their losses. Could this class of losses be eliminated from the hazards of the business, rates could be materially reduced. The law, if amended, as proposed by the committee on revision of the statutes, would still require the company to pay the amount on which it receives premiums, but only three-fourths of the actual cash value of the property at the time of its destruction, together with the excess of premium would be paid to the insured, the remainder, if any, to be paid as a penalty for having insured for excessive amount, into the school fund of the county where such loss occurred. Any agent who insured property for its full value or more, would have his license revoked by the state, and could not be re-licensed for a period of three years. It is not probable that under such a law, there would be much, if any, over-insurance, as there would be no inducement for the insured to seek it, nor for the company or agent to grant it. It would impose no hardship upon the insured, as threefourths value is as much protection as he should have, for in exceeding that proportion, in very many cases it would cease to be protection and become a matter of speculation, besides being a temptation which no one should have so constantly presented. would be no hardship upon the company, as it would only be vigorously enforcing its instructions to agents, which, if obeyed, would result in no more "salvages" than under this law. It would impose no hardship upon the honest agent, if possessed of fair judgment, as it provides a sufficient margin for error of judgment, and all others should seek employment where an entire want of judgment would not be productive of such serious results. It is through the latter class of agents together with the comparatively few dishonest and utterly reckless ones, that hostility to insurance companies is created, preventing a better feeling between the people and the companies, and a proper appreciation of a business second in the

country in its importance and magnitude. It is hoped that the legislature of 1879 will so perfect the law of 1874, either by adopting the amendments proposed by the committee on revision of the statutes, or others, as to more fully accomplish the purpose for which it was wisely intended, the prevention of over-insurance and incendiarism. Respectfully submitted,

PHILIP L. SPOONER, JR.,

Commissioner of Insurance.

LIST OF FIRE AND FIRE-MARINE INSURANCE COMPANIES TRANSACTING BUSINESS IN WISCONSIN IN 1878.

L		TAI	ELE No. I. — Offi	cers.		
Ne	NAME OF COMPANY.	MPANY. LOCATION.		CERS.	Name of attorney to accept ser-	Commenc'd
			President.	Secretary.	vice of process in Wisconsin.	business.
	Wisconsin Joint Stock Companies.					
	Concordia Fire Hekla Fire Madison Fire Northwestern National	Milwaukee Madison Madison Milwaukee	John H. Buening John A. Johnson David Atwood Alexander Mitchell	Gustav Wollaeger Halle Steensland Buel E. Hutchinson John P. McGregor		Mar., 1870 June, 1871 April, 1851 July, 1869
	Wisconsin Mutual Companies.	·				
	Germantown Farmers' Mutual Herman Farmers' Mutual Milwaukoe Mechanics' Mutual Vernon County Scandinavian Mutual Fire	Germantown Woodland Milwaukee Viroqua	George Naab	Martin Schottler John Steiner Adolf J. Cramer Ole Johnsen		April, 1854 1857 Mar., 1852 ————————————————————————————————————
	Companies of Other States.					
	Ætna. Allemania Fire. Amazon American American American Central	Hartford, Conn Pittsburg, Pa Cincinnati, Ohio Chicago, Ill St. Louis, Mo	Lucius J. Hendee Robert C. Schmertz Gazzam Gano H. Z. Culver Geo. T. Cram	Jotham Goodnow Charles F. Herrosee John H. Beattie Chas. L. Currier James Newman	Charles W. Potter, Milwaukee Jacob O. Myers, Milwaukee Elisha C. Hibbard, Milwaukee. C. P. Whitford, H. G. Heffron. Samuel P. Gary, Oshkosh	Aug., 1819 June, 1868 Oct., 1871 April, 1859 Feb'y, 1853
	American Fire	Philadelphia. Pa New York, N. Y Brooklyn, N. Y Providence, R. I Buffalo, N. Y	Thomas R. Maris Edward Merrftt Jehn D. Cocks J. S. Parish. Pascal P. Pratt	Albert C. L. Crawford. Nathan Harper Wilnam D. Cornell T. W. Hayward, Jr Edward B. Smith	Elisha C. Hibbard, Milwaukee. William T. Durand, Milwaukee. Charles J. Cary, Milwaukee Alexander H. Main, Madison Elisha C. Hibbard, Milwaukee	Mar., 1810 June, 1873 Jan., 1872 June, 1852 July, 1874
	Buffalo German. Commerce Commerce	Albany N V	Adam Van Allen	Oliver J. Eggert Rich'd Varick DeWitt William E. Hoxie	Theodore O. Hartmann, Mil J. A. Helfenstein, Milwaukee William T. Durand, Milwaukee.	Feb'y, 1867 June, 1859 April, 1859

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TABLE No. 1. —continued.

Name of Company.	LOCATION.	OFFI	CERS.	Name of Attorney to accept	Commenc'd
IVARE OF COMPANY	LOCATION.	President.	Secretary.	service of persons in Wisconsin.	business.
Companies of other States -continued.					
Commonwealth Connecticut Fire Continental Detroit Fire and Marine	Boston, Mass	John Hitchcock M. Bennett, Jr. George T. Hope Caleb Van Husan George A. Curtis	Samuel Appleton Charles R. Burt Cyrus Peck James J. Clark Greenleaf C. George	C. J. Cary, Milwaukeee	May, 1879 July, 1850 Jan. 1850 March,1860 Jan., 1870
Equitable Fire and Marine	Providence, R. I New York, N. Y South Norwalk, Conn. Boston, Mass Philadelphia, Pa	Fred W. Arnold R. Carman Combes Winfield S. Hanford K. S. Chaffee Wm. T. Butler	James E. Tillinghast. Geo. W. Montgomery. Henry R. Turner H. D. Bradbury. Jacob H. Lex	David M. Belden, Milwaukee Frank H. Whipp, Milwaukee John A. Rice, Milwaukee John L. Hathaway, Milwaukee E. C. Hibbard, Milwaakee	Sept., 1860 May, 1855 May, 1870 Mar., 1872 Mar., 1820
Firemen's Fund	San Francisco, Cal Newark, N. J Boston, Mase New York, N. Y Philadelphia, Pa	David J. Staples S. R. W. Heath Thomas W. Tucker Charles E. Appleby Alfred G. Baker	George D. Dornin Daniel H. Dunham Henry C. Short W. R. Wadsworth Theodore M. Reger	F. W. Jacobi, Mllwankee	June, 1863 Dec., 1853 Dec., 1873 May, 1853 June, 1823
German	Freeport, Ill New York, N. Y New York, N. Y Philadelphia, Pa Glenns' Falls, N. Y	M. Hettinger	F. Gund James A. Silvey Hugo Schumann Philander C. Royce J. L. Cunningham	Theodore Hurfurth, MadisonAlex. H. Main, MadisonE. G. Halle, MilwaukeeE. S. McBride, MadisonAlex. Cohen, Milwaukee	Oct., 1866 Mar., 1873 Mar., 1855 May, 1855 May, 1650
Hanover Fire	New York, N Y Hartford, Conn Hartford, Conn New York, N. Y Newark, N. J	B. S. Walcott	J. Remson Lane J. D. Browne J. B. Pierce John D. McIntyre Wm. R. Freeman	E. G. Halle, Milwaukee James W. Lusk. Reedsburg S. M. Ogden, Milwaukee Charles J. Cary, Milwaukee Charles E. Crain, Milwaukee	April, 1858 Aug., 1810 Oct., 1866 May, 1864 July, 1873
Home	New York, N. Y Columbus, Ohio New York, N. Y Jersey City, N. J Newark, N. J	Charles J. Martin J. B. Hall Samuel T. Skidmore James Gopsill E. W. McClave	H. N. Henderson Charles A. Huli John F. Jenne	H. S. Durand, Racine	April, 1853 Jan., 1864 April, 1825 Mar., 1842 May, 1870

Insurance Company of North America Insurance Company of the Stute of Penn Irving. Lamar. Lorillard	Philadelphia, Pa Philadelphia, Pa New York, N. Y New York, N. Y New York, N. Y	Henry D. Sherrerd	Mathias Maris Joseph H. Hollinshead James M. Wilson Wm. R. Mac Diarmid John C. Mills	Wm. T. Durand, Milwaukee	
Lycoming Fire Manhattan Fire Manufacturers' Fire and Marine Mechanics' and Traders' Fire Mercantile	Muncy, Pa New York, N. Y. Boston, Mass New York, N. Y. Cleveland, Ohio		James M. Bowman Louis P. Carman James J. Goodrich John M. Tompkins Geo. A. Tisdale	J. O. Myers, Milwaukee	April, 1840 Mar., 1872 Jan., 1873 April, 1853 Dec., 1871
Merchants'. Merchants' Meriden Fire. Millyille Mutual Marine and Fire. Mississippi Valley	Newark, N. J	Silas Merchant	Henry Powles Charles Foster E. B. Cowles Furman L. Muliord H. Gronauer	Alex. Cohen, Milwankee George I Jones, Milwankee W. B. Hibbard, Milwankee Henry C. Payne, Milwankee Morris Weil, Milwankee	April, 1858 June, 1851 Feb., 1872 Jan., 1867 Dec., 1865
National Fire New York Central New York City Newark Fire New Hampshire Fire	Hartford, Conn Union Springs, N. Y New York, N. Y Newark, N. J Nanchester, N. H	Mark Howard W. E. Hughitt Richard L. Franklin C. M. Woodruff E. A. Straw	James Nichols	Sam. M. Ogden, Milwaukee Wm. T. Durand, Milwaukee W. L. Hinsdale, Milwaukee L. S. Tutle, Oshkosh Frank H. Whipp, Milwaukee	Dec., 1871 Jan., 1863 Mar., 1872 May, 1810 Apr., 1870
Nisgara Fire Northern of New York Orient. Pennsylvania Fire Peoples'	New York, N. Y New York, N. Y. Hartford, Conn Philadelphia, Pa Newark, N. J.	Henry A. HoweG. LordSelden C. PrestonJohn DeverenxJohn M. Randail	Peter Notman,	A. H. Main, Madison	Aug., 1850 Mar., 1872 Jan, 1872 April, 1825 Oct., 1867
Phenix Pheenix Prescott Providence Washington Resolute Fire	Brooklyn, N. Y Hartford, Conn Boston, Mass Providence, R. I New York, N. Y	Stephen Crowell H. Kellogg Franklin Greene J. H. DeWolf John Gihon	Wm. R. Crowell	Main & Spooner, Madison Alex. H. Ma'n, Madison J. A. Heifenstein, Milwauke H. S. Durand, Racine William T. Durand, Milwaukee	Sept., 1853 June, 1854 Jan., 1873 1799 July, 1857
Revere Fire	Bosten, Mass Rochester, N. Y Providence, R. I St. Joseph, Mo New York, N. Y	Joseph H. Wellmann. Frederick Cook J. W. Davenport Abbott P. Goff William Winslow	John W. Belches Rudolph Vay Wm. H. Fredericks James H. Rice J. Du Bois	Alexander Cohen, Milwaukee Joseph Phillips, Sr., Milwaukee David M. Beiden, Milwaukee J. H. Cranpton, Milwaukee Jacob O. Myers, Milwaukee	May, 1875 Feb., 1872 Aug., 1848 Jan., 1868 July, 1852
Shawmut	New York, N. Y New Haven, Conn Boston, Mass Boston, Mass	T. C. Doremus Charles Peterson		Alex Cohen, Milwaukee Wm. B. Hibbard, Milwaukee A. H. Main, Madison	May, 1865 Jan., 1872 May, 1841 Sept., 1875 Jan., 1873

^{*} Greenwich Ins. Co., N Y., admitted since compilation of table.

		Offi	CERS.	Name of attorney to accept ser-	Commenc's	
NAME OF COMPANY.	LOCATION.	President.	Secretary.	vice of process in Wisconsin.	business	
Companies of other states - continued.						
Springfield Fire and Marine Standard Fire Standard Fire Standard Fire Star Fire Toledo Fire and Marine	Springfield, Mass Trenton, N. J New York, N. Y New York, N. Y Toledo, Ohio	Dwight R. Smith William Dolton William Cripps Nicholas C. Miller Valentine H. Ketchum	Sanford J. Hall Joseph B. Wright William M. St. John James M. Hadges Frederick B. Dodge	Benjamin M. Weil, Milwaukee. J. H. Dodge, Milwøukee C. J. Cary, Milwaukee C. J. Cary, Milwaukee John P. McGregor, Milwaukee.	185 Feb., 186 Mar., 185 Dec., 186 April, 184	
Trade. Traders Union Washington Fire and Marine. Watertown Fire	Camden, N. J	David L. Taylor Charles Comstock Richard S. Smith Isasc Sweetser Willard Ives	Edmund May Robert J. Smith John B. Craven Benj. Sweetser Jesse M. Adams.	Alexander S. Gray, Milwaukee. David M. Belden, Milwaukee Alex. H. Ma'n, Madison. C. J. Cary, Milwaukee. Chas. G. Mayers, Madison	July, 187 Feb., 186 July, 180 Jan., 187 Dec., 186	
Westchester FireWilliamsburgh City Fire	New Rochelle, N. Y Brooklyn, N. Y	Geo. J. Perfield Edmuud Driggs	Geo. R. Crawford N. W. Meserole	J. O. Myers, Milwaukee C. J. Cary, Milwaukee	Jan., 185 Mar., 185	
Companies of foreign countries.						
British America Assurance Company Commercial Union Assurance Co., U. S. B	Toronto, Can New York, N. Y	Enjah Alliger, Geol.	, ,	Alex. Cohen, Milwadkee		
Hamburg Bremen Fire, U. S. B. Imperial Fire, U. S. B. La Caisse Generale, U. S. B.	New York, N. Y New York, N. Y Chicago Ill	R. D. Alliger, Res. Mat.		W. B. Hibbard, Milwaukee Harlow Pease, Watertown Elisba C. Hibbard, Milwaukee John B. Bacon, Milwaukee	Jan., 185	
Lancashire, U. S. B	New York, N. Y		Wm Warren Book	No. Cohon Wilmonkoo	Tuna 10t	
Liverpool and London and Globe, U. S. B	Chicago, Ill	James E. Fulsford, Resident Manager	dent Secretary,	Alex Cohen, Milwaukee Robert Eliot, Milwaukee	June, 185 U. S., 185	
London Assurance Corporation, U.S.B	New York, N. Y			Samuel M. Ogden, Milwaukee		
North British and Mercantile, U. S. B	New York, N. Y	White & Blagden,				
Northern Assurance Bo. of London, U. S. B.	New York, N. Y	R.D. Alliger, Manager	• • • • • • • • • • • • • • • • • • •	Elisha C. Hibbard	U. S., 18	

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North German Fire, U. S. B. Queen, U. S. B. Royal, U. S. B. Royal Canadian Scottish Commercial, U. S. B.	New York, N. Y Chicago, Iil Montreal, Can New York, N. Y	Wm. H. Ross, Manager Chas, H. Case, Mana- ger and Attorney John Ostell E. W. Crowell and W. T. Reed, Jt. Manag'rs	Arthur Gagnou	C. J. Cary, Milwaukee	June, 1845 Aug. 1873 U. S., 1873	6 5 3
Western Assurance Company	New York, N. Y New York, N. Y		C. J. Despard Charles Irving	W. B. Hibbard, Milwaukee	April, 1842 Mar., 1854	24

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NAME OF COMPANY.	Real[estate.	Loans on Bonds and mortgages.	Stock Bonds and Securities.	Loans on Collat. erals, and other Loans.	Cash in Office and in Banks.	Interest due and Accrued.	Premiums unpsid.	Miscellaneous.	Deduction for doubtful Assets.	Total assets admitted by department.	Total Assets, as claimed in Reports.
Wisconsin Joint Stock Companies.					•						
Concordia Fire Hekla Fire Northwestern National Madison Fire	\$12,300	156,794 151,000 90,970	\$586,625	\$9,860	\$39,823 40,612 86,183 9,822	5,000 2,453	3,406 23,618	\$1,550 12,247 3,575 38,652	730	220, 484 852, 665	\$104, 341 225, 921 853, 395 226, 101
Total	\$12,300	\$452, 689	\$651,825	\$9,860	\$176, 440	\$10,953	\$43,718	\$56,024	\$38,852	\$1,870,481	\$1,409,758
Wisconsin Mutual Companies.											
Germantown Farmers' Mutual Herman Farmers' Mutual Milwaukee Mecbanics' Mutual Vernon County Scandinavian Mutual Fire		20,000	\$372, 567	\$13, 254 7,434 6,000 2,413	\$9,741 1,863 44,110 100		\$18, 052 3, 323 21, 697 75	\$1, 821 33, 295 1 9 9, 792	\$800 33, 295 193, 277	233, 672	\$109, 420 66, 967 724, 695 2, 688
Total	\$49,920	\$109,738	\$372, 567	\$29,101	\$55,814	\$9,250	\$13,114	\$234,908	\$227, 372		\$903, 761
Companies of other States.											
Ætna, Conn. Allemania Fire, Pa. Amazon, Ohio. American, Ili. American Central, Mo.	\$365, 000 86, 600 256, 660 7, 500	70, 648	\$5,211,640 94,190 141,330 50,760 717,000	17, 210	\$605,246 14,728 2,330 59,391 32,556	\$16,898 5,305 21.996 12,382	\$486,021 14,200 29,656 41,279 47,384	\$22, 108 21, 672 97,652	\$15,349 13,467 55,704	\$6,783,867 292,430 658 674 848,520 796,941	\$6,783,867 307,779 672,141 904,224 796,941
American Fire, Pa. Amity, N. Y. Atlentic, N. Y. Atlantic Fire and Marine, R. I. Buffalo, N. Y.	4,500	8,000 94,500	486,806 179,950 221,562 101,636 212,000		85, 082 4, 504 45, 889 155 71, 125		22,747 8,038 20,301 10,194 6,440	41, 417 9, 423 5. 076 20, 312	41, 417 8, 823 581 5, 026 9, 789	1, 252, 243 213, 542 436, 216 257, 816 301, 940	1, 293, 661 222, 365 436, 747 262, 842 311, 579

Buffalo German, N. Y	40,000	35, 150 36, 000 173, 000 141,000	298,210 326,850 200,686 357,754 1,031,915	19,750 11,900 59,175 74,837	49, 271 24, 439 1, 010 23, 682 97, 576	2,126 833 180 5,178	28, 200	294 173		701.840 407,124 240,379 646,990 1.388,313	702, 074 407, 297 240, 379 646, 990 1, 388, 313
Continental, N. Y. Detroit Fire and Marine, Mich. Eliot, Mass. Equitable Fire and Marine, R I. Exchange Fire, N. Y.	609,800 18,012	633, 000 374, 551 108, 000 15, 000 135, 450	1,072,692 32,787 262,382 174,100 164,325	402, 460 5, 000 2, 500 3, 705 46, 125	183,411 22,734 6,962 13,960 17,599	5,691	147, 237 10, 462 8, 285 13, 675 14, 009	12, 500 18, 224 833 4, 539 541	12,902	487, 051 394, 654 340, 431	3, 173, 933 499, 969 394, 654 344, 970 383, 901
Fairfield Fire, N. Y. Fancuil Hall, Mass. Fire Association, Pa. Fireman's Fund, Cal. Firemen's, N. J.	60,389 20,160 66,920 225,000	113, 225 142, 950 1, 321, 711 152, 364 666, 819	75, 728 285, 733 2, 118, 979 169, 685 195, 606	58,450	20, 653 10, 076 125, 049 55, 612 23, 040	8 587 7, 919 26, 590 2, 259 19, 014	17, 253 50, 642 136, 720 45, 258 6, 503	2,503 5,535 113 30,007 1,442	617,813 9,167	311 365 516, 517 3,178, 272 728, 870 1,031,883	313, 018 516, 517 3, 796, 085 738, 637 1, 033, 325
Firemen's Fire, Mass Firemen's Fund, N. Y. Franklin Fire, Pa. German, Ill	171.250	181, 500 21, 200 2, 419, 089 275, 519	444,247 155,015 436,205 51,039 1,798,200	32,000 7,510 34,175 286,200	7,973 10,837 210 250 59,603 170,489	10.727	10, 210 12, 974 46,443 20,621 69,819	853 356 27, 366		207. 824 3,363,445	684, 817 208, 224 3 363, 445 455, 877 2, 324, 709
Germania Fire, N. Y. Girard Fire and Marine, Pa. Glens Falls, N. Y. Greenwich, N. Y. Hanover Fire, N. Y.	60,838 275,000 14,200	560, 500	741, 650 313, 311 364, 575 389, 700 1, 156, 098	350 11,000 66,980	85, 529 65, 780 74, 699 28, 436 91, 454	10,358 4,741 2,989	74,500 30,853 18,212 20,312 41,806	9, 700 10, 153 443 43, 571		1,092,020 850,321 625,412	1,631,820 1,096,673 850,764 625,412 1,621,698
Hartford Fire, Conu Hartford Steam Boller Insp. and Ins. Co. Hoffman Fire, N. Y. Home, N. J. Home, N. Y.	363, 175	71,050 171,493 104,725	1, 451, 682 173, 500 172, 737 83, 957 3, 395, 893	4,050 2,100	192, 600 13, 213 14, 413 11, 470 161, 727	6,004 4,535 3,633	16,898		2,400	377, 345 281, 608	3, 292, 913 245, 711 377, 345 281, 608 6, 109, 526
Home, Ohio Howard, N. Y. Hudson, N. J. Humboldi, N. J. Insurance Company of North America, Pa.	34,500 115,000 15,336 46,913	88, 571 41, 950 59, 500 173, 317	154, 000 549, 821 95, 423 3, 376, 697	10,498 2,250 56,056 300	37, 628 16, 036 15,002 14,532	3 959 5,794 9,167	47,450 15 518 4,891 16,354 333,698	3, 218 32, 295 2, 750	3,218 25,259 2,750	744, 535 259, 041	414, 833 747, 753 284, 800 262, 834 6, 461, 729
Insurance Company of the State of Pa	16, 495	160,850	212,906	6,000	2,017	365	24, 406 5, 933 10, 390			282, 822	608,525 282,822 398,305

¹ Not including \$30,119 premium notes.

Not including \$32,736 premium notes.

³ Not including \$191,287 premium notes.

						4041					
NAME OF COMPANY.	Real estate.	Loans on bonds and mortgages.	Stocks, bonds and securities.	Loans on collatteral and other loans.	Cash in office and in bank.	Interest due and accrued.	Premiums unpaid.	Miscellaneous.	Deduction for doubtful assets.	Total assets admitted by department.	Total assets as claimed in re-
Companies of other states - continued.									 	·	
Lorillard, N. Y. Lycoming Fire, Pa. Manhattan Fire, N. Y. Manufacturers' Fire and Marine, Mass. Mechanics and Traders' Fire, N. Y.	\$50,000 11,515 80,000 35,000	7, 837 190, 723 82, 400 292, 900	16,700 367,925	24, 925	77,643	\$5,143 1,328 7,775 9,108 2,683	\$12,577 115,970 77,102 22,739 11,542	\$4,834,155 18,130 79,269 1,727	\$4834155	1280, 203 786, 999 1, 147, 380	5, 114, 358 793, 239 1, 159, 030
Mercantile, Ohio Merchants', N. J. Merchants', R. 1 Meriden Fire, Conn. Milville Mutual Marine and Fire, N. J.	110, 820	91, 586 391, 355 40, 323 1, 800 4, 000	188, 425 387, 601 249, 990 213, 358 42, 153	8,500 53,825 42,900 5,806	38, 842 46, 694 55, 563 32, 559 17, 759	5, 133 21, 354 4, 017 1, 935 1, 195	3, 002 33, 416 16, 413 26, 964 28, 869	29, 335 225	3, 796 225	360,632 1,045,066 366,308	3 6 4, 428 1,045, 291 366, 308 323, 517
Mississippi Valley, Tenn. National Fire, Conn. New York Central, N. Y. New York City, N. Y Newark Fire, N. J	15, 000 10, 775 1, 600 57, 000	11,506 412,500		96, 088 600 6,105	20, 017 72, 396 34, 639 11,485 40,441	2,336 24,756 4,100	18,679 17,710 11,028 11,274	10, 163	10, 163	255, 035 1, 040, 722 241, 079 245, 919	1, 454, 936 265, 863 1,040, 722 241,079 245, 919
New Hampshire Fire, N. H. Niagara Fire, N. Y. Northern of N. Y. Orient, Conn. Pennsylvania Fire, Pa.	22, 500 33, 400 26, 767 96, 700	114, 950 169,478 144, 800 417, 007	365, 025 930, 495 83, 712 515, 851 1, 086, 619	77, 896 175, 900 23, 545 28, 980 1, 000	27, 033 26,010 32,662 19,120 34,679	4, 953 14, 092 10, 661 14, 174 15, 364	7,173 84,632 21,844 28,585	889	889 177	482, 08 1, 368, 579	671, 762 482, 971 1, 368, 579 375, 481 778, 279 1, 724, 481
People's, N. J. Phenix, N. Y. Phenix, Conn. Prescott, Mass. Providence Washington, R. I	280,000 135,000	139, 208 250, 125 53, 000 80, 000	116, 525 1, 540, 968 1, 644, 612 272, 527 490, 550	40, 024 87, 962 173, 523 6, 000	44,743 428,019 320,132 21,314 57,547	6,431 14,476 3,592 3,868 3,109	11, 462 214, 389 155, 450 13,872 21, 143	11, 160 74, 744 883 34, 615	10, 182 25, 993 883	510,919 2,733,008 2,485,311 397,571	521, 101 2,759,001 2,486,194 397,571
Resolute Fire, N. Y.	.,,,	12,000		,	3, 451	1, 195	6,809	1	,,,,	606, 965 189, 797	606, 965 189, 79 7

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Revere Fire, Mass	1,961 23,993	67, 000 142, 920 75, 000 100, 309 63, 750	171, 862 127, 062 191, 285 182,042 199,727	40, 867	13, 948 81, 315 26, 682 52,533 7, 109	5,627	10, 216 56, 624			274, 243 369, 103 385,059 442, 760 285,049	274, 243 369, 103 385, 059 442, 760 289, 372
St. Paul Fire and Marine, Minn Safeguard, N. Y. Security, Conn. Shawmut, Mass. Shoe and Leather, Mass.		117, 981 31, 000 14, 900 50, 500 45, 000			54,639 19,167 36,609 11,673 39,636	22,629 1,029 1,378 4,810 6,356	68,315 12,777 23,266 33,189 19,525	18,842 2,100 19,275 28,225 73,226	1,995	851, 810 393, 189 384, 035 639, 964 673, 751	858, 056 393, 189 886, 030 639, 964 673, 751
Springfield Fire and Marine, Mass. Standard Fire, N. J. Standard Fire, N. Y. Star Fire, N. Y. Toledo Fire and Marine, Ohio.	16,000	394, 599 171, 104 50, 500 121, 100 103,800	851, 900 60, 120 334, 800 181, 256 13, 440	23,170 13,840 2,000 59,825 28,375	105, 392 20, 462 14, 572 22, 046 74, 301	29, 658 7, 964 830 3, 830 7, 869	95, 095 30, 802 5 , 544 14, 215 10, 873	400	400		1,636,029 306,625 408,248 418,423 251,389
Trade, N. J. Traders' Ill. Union, Pa. Washington Fire and Marine, Mass. Watertown Fire, N. Y	11,432	105, 883 	95, 690 678, 912 219, 790 517, 464 106, 000	3,823 52,000 78,986	8,856 63,493 20,253 11,731 64,202	813 7, 3 11 4, 101	17, 669 36, 033 15, 818 8, 945 88, 525	18,805 99,440	6,000	809, 321 327, 162	284,342 812,321 833,162 809,030 741,268
Westchester Fire. N. Y	28, 000 78, 201	177, 350 246, 920	539,681 395,395			8,489 12,284	87,058 36,140	100	100	872,736	903, 14 1 87 2 , 836
Totals	\$5,505, 2 98	\$22,623,950	\$4°,041,583	\$4,409,281	\$6,814,228	\$890,008	\$4, 257, 71 3	\$7,500,128	7, 217,967	90,295,660	\$97,513,627
Companies of Foreign Countries.									-		
British America Assurance Co, Can			963, 781 610, 226		75, 357 72, 2 10 20, 046	\$7,136	\$41,537 92,740 33,473 7,427 61,709		49,698	855, 823	1,159,534 715,910 855,823
Lancashire, G. B	555,000	924, 719 7, 044	1,725,587 854,906 1,540,403		364,430 75, 282 117,093	34, 120	18,906 278,819 13,422 51,785 7,427	74,223	140, 428	3,819,473 950,656 1,710,964	950, 656 1,710, 964
North German Fire, Germany	#F	Sition.	287, 131		865	i	6,028			294,025	294, 025

¹ Not including \$4,651,257 premium notes, nor \$131,785 assessments due on premium notes.

² Not including \$1,236,780 premium notes.

TABLE No. II — Assets — continued.

NAME OF COMPANY.	Real Estate.	Loans on Bonds and Mortgages.	Stocks, Bonds and Securities.	Loans on Collaterals and Securities.	Cash in Office and in Bond.	Interest due and Accrued.	Premiums Un- paid.	Miscellaneous.	Deduction for doubtful Assets.	Total assets admit- ted by depart- ment.	Total Assets as Claimed in re- ports.
Companies of Foreign Countries—con. Queen, G. B. Royal, G. B. Royal Canadian, Canada Scottish Commercial, G. B. Western Assurance Company, Canada Totals		\$45,500 48,635 \$1,060,642		\$2,579	278, 001 32, 186	\$45, 915 3, 203 1, 268 7, 514	91,783 84,250 109,742	\$15,621 122,575 6,997 34,695	\$64,690 6,997 8,398	883, 305 682, 984	947, 995 689, 981 1, 188, 377
Marine Companies. Mercantile Mutual, N. Y. Orient Mutual, N. Y. Pacific Mutual, N. Y. Totals.	\$249,455			\$9, 0 00	\$40,634 254,729 150,355	\$4, 32? 404	\$128, 712 114, 628 23, 944	\$277, 396 359,205 126, 204	\$96, 679 187, 136 50, 7 73	\$810, 603 1374, 815	\$907,282 1,561,951 808,740

¹ Not including \$195,218 subscription notes.

² Not including \$27,578 subscription notes.

		REINSUR	ANCE FUND.	zů.		t .	llabili-	capital.	over l or ency n.
NAME OF COMPANY.	Net claims for losses.	Fire and Inland.	a. Marine. b. Reclaimable on perpetual fire policies.	Dividends.	Borrowed money.	All other claims.	Total II ties.	Cash ca	Surplus capital deficies therein
Wisconsin Joint Stock Companies.									440 40
Concordia Fire	\$2,000 17,045 3,210	\$50, 581 47, 969 150, 317 45, 031				\$1,214 2,698 4,721 86	\$51, 795 52, 667 172, 083 48, 327	\$11, 910 152, 622 600, 000 100, 000	\$40, 635 20, 631 81, 311 47, 654
Total	\$22,255	\$293,898				\$8,719	\$324,872	:864,532	\$190,231
Total									
Wisconsin Mutual Companies.							*** ***		\$47, 191
Germantown Farmers Mutual	5, 928	\$62, 229 12, 492 223, 689 725				665	\$62, 229 13, 157 229, 617 725		21, 074 303, 791 1, 963
Total	\$5,928	\$299, 135				\$665	\$305,728		\$374,019
2002									
Companies of other States.					1		#2 044 00W	\$3,000,000	\$1,771,869
Etna, Conn. Allemania Fire, Pa. Amazon, Ohio. American, Ill. American Central, Mo.	62,207 62,319	\$1,729,529 62,044 96,651 363,378 213,591		\$1,388		\$66, 973 2, 205 19, 773 8,222 6, 635	\$2,011,997 79,099 180,019 433,919 289,107	200,000 300,000 200,000 300,000	28, 680 192, 121 270, 305 207, 833
American Fire, Pa	19, 081 3, 503 27, 539 9, 039	175, 129 25.856 96,635 36,297	b. \$272,376 α. 486	151	12,007	5,985 913 3,002 2,461	473, 427 30, 272 127, 176 60, 441 64, 798	400,000 200,000 200,000 200,000 200,000	420, 233 —7, 907 109, 571 2, 401 46, 780
Buffalo, N. Y Buffalo German, N. Y	10,165	46,613 106,148		1	1	3,411	120, 277	200,000	381,796

Table No. III — Liabilities — continued.

	19 3868.	Reinsu	RANCE FUND.		10y.	l se	. e	al.	over or defi- therein
NAME OF COMPANY.	Net Claims for Losses.	Fire and Inland.	a Marine. b Reclaimable on Perpetual Fire Policies.	Dividends.	Borrowed Money.	All other Claims.	Total Liabilities.	Cash Capital.	Surplus o capital or ciency then
Companies of other States-continued.						. 			
Commerce, N. Y. Commerce Fire, N. Y. Commonwesith, Mass. Connecticut Fire Conn Continental, N. Y.	\$6, 950 4, 500 7, 518 22, 925 138, 372	\$47,774 21,318 105,521 216,956 983,069			\$11.500	\$76 453 3,057 55,405	\$54,800 38,371 116,096 239,881 1,177,452	\$200,000 200,000 500,000 1,000,000 1,000,000	\$152, 496 2, 008 30, 893 148, 431 996, 501
Detroit Fire and Marine, Mich. Eliot, Mass. Equitable Fire and Marine, R. I. Exchange Fire, N. Y. Fairfield Fire, Conn	3 984 6,186 9,168 19,700 6,277	61, 219 53, 448 60, 729 47, 087 64, 054	a 1, 181	550 423		633 2,786 3,000 3,903 3,049	65,836 62,420 74,628 71,113 74,530	250,000 200,000 200,000 200,000 200,000	184, 123 132, 234 70, 342 112,777 38,487
Faneuil Hall, Masa Fire Association, Pa Firemen's Fund, Cal Firemen's, N. J Firemen's Fire, Mass	16, 786 90,133 34,554 9, 085 7, 703	128, 901 542, 254 223, 013 119, 407 107, 681	b 1, 649, 999 a 48, 491 b 289	474	•••••	5,000 48,193 2,935 4,485 1,573	151, 492 2, 331, 830 309, 467 133, 266 117, 062	400,000 500,000 300,000 400,000 300,000	-134, 975 964, 254 129, 170 500, 059 267, 754
Firemen's Fund, N. Y. Franklin Fire, Pa German, Ill German American, N. Y. Germania Fire, N. Y	17, 515 82, 082 12, 900 99, 229 68, 699	50,532 571,350 123,652 524,767 410,083	b 1, 454, 358	576		1,883 3,640 10,140 13,762	70, 430 2, 112, 006 146, 682 637, 758 478, 782	150,000 400,000 200,000 1,000,000 500,000	-13,006 85!,439 109,189 686,950 653,038
Girard Fire and Marine, Pa. Jiens Falls, N. Y. Jreenwich, N. Y. Hanover, Fire, N. Y. Hartford Fire, Conn.	21, 410 27, 446 13, 890 85, 678 173, 163	248, 461 286, 578 106, 022 473, 093 894, 374	b 63,009	4,893	••••••	14,893 2,914 14 9,5°9 24,450	347, 773 316, 938 119, 926 568, 300 1, 096, 880	300,000 200,000 200,000 500,000 1,250,600	448, 900 533, 826 305, 485 553, 398 946, 032
Hartford Steam Boiler Insp. and Ins.,Co Hoffman Fire, N. Y Home, N. J	2,775 7,780 12,333	57, 139 70, 673 32,434	a 13,002	1	- 1	375 636 1.687	60, 289 79, 089 79, 456	200,000 200,000 200,000	25. 421 98, 256 2, 151

Home, N. Y. Home, Ohio Howard, N. Y. Hudson, N. J. Humboldt, N. J.	254, 396 18, 500 15, 646 9, 688 14, 694	1, 836, 432 76, 246 99, 801 66, 634 37, 931				5 1,156 500	2, 092, 823 94,746 115, 452 77, 478 60, 125	3, 000,000 250,000 500,000 200,000 200,000	1,016,703 70,087 132,301 6,822 2,709
Insurance Company of North America, Pa Insurance Company of the State of Pa Irving, N. Y Lamar, N. Y Lorillard, N. Y	300,000 27,216 3,256 4,900 5,260	984, 966 72, 756 38, 542 65, 433 53, 577	ab 750,138 ab 108,730			2, 126 1, 554 1, 053 1, 968	2, 035, 104 211, 344 43, 352 71, 386 60, 805	2.000, 000 200, 000 200, 000 200, 000 300, 000	2, 426, 625 197, 163 39, 469 126, 919 80, 493
Lycoming Fire, Pa Manhattan Fire, N. Y. Manufacturers' Fire and Marine, Mass Mechanics and Traders' Fire, N. Y. Mercantile, Ohio	164, 492 56, 252 57, 000 14, 590 13, 169	213, 163 269, 275 163, 733 76, 098 41,441	a 178,822	550	500	2,500 9,707 4,740 807 8,703	380, 155 335, 234 404, 845 91, 995 63,313	250,000 500,000 200,000 200,000	99,958 208,004 254,185 269,631 101.114
Merchants', N. J	23, 629 20, 676 21, 386 22, 930 10, 017	238, 190 89,447 85, 538 53,306 26,079	ab 44,302		•••••	2,800	289,392 115,485 109,277 123,338 39,496	400,000 200,000 200,000 (2) 200,000	355, 899 50, 873 14, 240 94, 817 26, 367
National Fire, Conn New York Central, N. Y. New York City, N. Y Newark Fire, N. J. New Hampshire Fire, N. H.	8,714	167, 521 105, 371 42, 456 50, 604 98, 866		7,474		3,063	192,416 135,843 54,232 60,469 119,493	500, 000 100, 000 200, 000 254, 604 250, 000	348, 306 5, 236 — 8, 313 356, 689 113, 478
Niagara Fire, N. Y. Northern of N. Y. Orient, Conn. Pennsylvania Fire, Pa. People's, N. J.	9, 022 9, 289	340,435 74 705 144,937 322,021 133,938	<i>b</i> 397, 304			6,408	418,249 90,135 154,226 779,325 165,816	500,000 250,000 500,000 400,000 300,000	450, 330 35, 344 124, 052 545, 155 55, 285
Phenix, N. Y Phenix, Conn Prescott, Mass. Providence, Washington, R. I. Resolute Fire, N. Y.	9,635 45,952	732, 193 797, 884 95,811 97, 329	a 43, 683	2,053		2,081	969, 389 912, 590 107, 527 189, 017 7, 946	1,000,000 1,000,000 200,000 400,000 200,000	789, 611 573, 604 90, 043 17, 947 — 18, 149
Revere Fire, Mass Rochester German, N. Y. Roger Williams, R. I	1,765 2,898	59, 512 97,004 101, 655	a 17, 478			6, 765	64, 857 99, 902 . 172,471	200,000 200,000 200,000	9,385 69,201 12,588

¹ Since reception of this report, the company has reduced its capital to \$300,000. This reduces its liabilities below its assets and leaves a surplus. 2 Mutual.

Table No. III -- Liabilities -- continued.

TABLE No. 111 Liuoninties continued.											
	ms bsses.	REINSUI	RANCE FUND.	, i	ney.	ims.	ties.	lal.	over r de- here-		
NAME OF COMPANY.	REINSUF 100 100 100 100 100 101 101 10		a Marine. b Reclaimable on perpetual fire policies.	Dividends.	Borrowed	All other Claims.	Total Liabilities.	Cash capital.	Surplus of capital or ficiency the		
Companies of other States-continued.											
St. Joseph Fire and Marine, Mo. St. Nicholas, N. Y. St. Paul Fire and Marine, Minn. Safeguard. N. Y. Security, Conn.	13,554 16,980 14 134	\$79,118 58,766 280,906 59,196 104,586	a 19,936	,,,,,,		1,798 7,994 2,916	\$99,371 74,118 305,880 76,246 158,398	\$240,000 200,000 400,000 200,000 200,000	\$103, 38 15, 25 152, 17 116, 94		
Shawmut, Mass Shoe and Leather, Mass. Springfield Fire and Marine, Mass Standard Fire, N. Y. Standard Fire, N. Y.	35, 574	120,565 98,670 513,787 78,399 46,370	a 76,063			4,821 1,043 14,264	137, 922 211, 351 596, 389 98, 232 48, 203	500,000 300,000 750,000 200,000 200,600	27, 68; 2, 04; 162, 39; 289, 63; 8, 39;		
Star Fire, N. Y. Toledo Fire and Marine, Ohio Trade, N. J. Traders', Ill. Union, Pa.	21,666 5,068 7,862 9,717 19,820	65,756 40,612 43,734 157,156 29,670	a b 14, 763 a b 44, 333			1,719 620 2,105 7,206 1,685	89, 141 46, 295 68, 759 174, 079 97, 209	200,000 200,000 200,000 200,000 500,000 200,000	160, 044 129, 281 5, 084 15, 588 138, 244		
Washington Fire and Marine, Mass Watertown Fire, N. Y Westchester Fire, N. Y Wullamsburgh City Fire, N. Y	43, 050 25, 663 29, 265 14, 540	56,781 446,834 343,749 191,845	a 90,473	150	i	1,462 9,125 7,887	206, 766 472, 497 382, 139 214, 422	400,000 200,000 300,000 250,000	35, 952 202, 264 68, 771 221,002 408, 413		
Total	\$ 3, 626, 572	\$20,541,620	\$5,337,501	\$30,075	\$66,007	\$517,398	\$30,058,470	\$38,044.604	\$23, 823, 065		
Companies of Foreign Countries,											
British America Assurance Co., Can	\$84,719 84,609 24,540 38,090 51,703	\$314, 231 454,680 177,780 220,739 138,338	a 22,174		•••••	1 740	\$457, 155 566, 238 202, 320 260, 572 209, 765	\$513,032 1,250,000 323,400 3,500,000 1,458,072			

Lancashire, G. B. Liverpool and London and Globe, G. B. London Assurance Corporation, G. B. North British and Mercantile, G. B. Northern Assurance Co. of London, G. B. North German Fire, Germ. Queen, G. B. Royal, G. B. Royal, G. B. Scottish Commercial, G. B. Western Assurance Co., Canada. Totals.	85, 555 111, 747 89, 094 35, 214	\$270,967 1,542,986 241,795 702,318 182,987 6,745 439,215 1,173,164 410,135 308,124 388,046	b \$280,699	¹\$105,659 ¹119,550	 1,742	\$318,147 2,191,769 256,795 765,558 203,115 6,7,281 1,464,085 506,461 368,577 482,324 \$5,886,907	\$1,000,000 1,228,200 2,241,376 1,363,636 750,000 225,000 900,175 1,447,725 300,000 625,000 412,000 \$17,537,615	rplus not given, as the entire ial of the company is given, e only liabilities in the United es are shown, except Canadian panies.
Marine Companies. Mercantile Mutual, N. Y Orient Mutual, N. Y Pacific Mutual, N. Y Totals	111,780	\$119,786 130,707 81,376 \$381,869		\$14, 367 210, 645 2, 000 \$27, 012	 \$12,383 3,020 57,886 \$73,289	\$249, 591 256, 157 263, 562 \$769, 310	\$500 000 \$1,031,800 \$584,017 \$2,085,817	Ranga Capital

¹ Life reinsurance reserve.

² Unearned portion of subscription notes.

^{*} Outstanding scrip.

NAME OF COMPANY.	Net Cash Premi- ums.	Interest and Dividends.	From all other Sources.	Total cash Income.	Cash Income over Expendita's.	Expenditures over Cash Income.	Bills and Notes received for Premiums unpaid.	Received from Stockholders
Tri	•							
Wisconsin Joint Stock Companies.								
Oncordia Fire dekla Fire Northwestern National Madison Fire	\$46,442 40,908 286,053 16,382	\$5,986 13,997 46,752 4,494	\$13 805	\$52, 428 54, 918 332, 805 21, 681	\$7,341 11,338 13,197	\$23,583		¹\$52, 629
Total	\$389,785	\$71,229	\$818	\$461,832	\$31,876	\$23,583		\$52,629
Wisconsin Mutual Companies.								φ32,027
dermantown Farmers' Mutual derman Farmers' Mutual dilwaukee Mechanics' Mutual dernon County Scandinavian Mutual Fire	\$34,623 5,491 221,816 269	\$6,515 2,072 937 99	\$1,790	\$41,138 7,563 224,543 368	\$1,446 4,621 7,290 241	***************************************	\$1,021 6,289 21,697	*****************
Total	\$262, 199	\$9,623	\$1,799	\$273,612	\$13,598		***************************************	
Companies of other States.				7113131	410,000		\$29,007	
Etna, Conn llemania Fire, Pa mazon, Ohio merican, Ill merican Central, Mo.	\$2, 914, 713 105, 589 204, 306 693, 464 385, 592	\$338, 267 14, 512 24, 719 49, 588 37, 702	\$7,415 3,203 1,431	\$3, 260, 395 123, 304 230, 456 743, 052 423, 294	\$68,738 55,274	\$195, 263 39, 651 181, 012	\$4,974 409,893	*************
merican Fire, Pa. mity, N. Y tiantic, N. Y tlantic Fire and Marine, R. I. uffalo, N. Y	333, 667 74, 722 311, 316 69, 203 166, 145	56,726 11,694 22,852 4.971 13,844	4, 474 164 9, 940 367	394, 868 86, 590 334, 168	34,574	6, 751 6, 608 15, 471 14, 400	609 50 17,014	······································
uffalo German, N. Yommerce, N. Yommerce Fire, N. Y	199, 542 85,221 43, 642	20, 158 18, 881 12, 746	13, 185 2, 817	232,885 106,919 56,388	30,925 6,109	3,771	26	•••••••••••

•	١	•
•	•	١
•	ľ	1

4-	Common wealth, Mass Connecticut Fire, Conn Continental, N. Y Detroit Fire and Marine, Mich Eliot, Mass.	356, 915 1, 465, 578 116, 024 77, 331	19,819 76,461 120,352 39,373 22,749	38,179 2,565	176,006 433,376 1,624,109 157,962 100,080	74,065 210,993 16,812	2, 720 2, 506		
ZS.	Equitable Fire and Marine, R. I Exchange Fire, N. Y	116, 436 138, 558 211, 369 1, 187, 261	11, 837 22, 913 18, 940 26, 249 186, 601	9, 104 3, 250 4, 289 1, 546 9, 249	133, 692 142, 599 156, 787 239, 164 1, 383, 111	7,800 20,504 34,232 177,831	1,332	4, 261	
:	Fireman's Fund, Cal	210, 088 117, 645 104,063 738, 110	28, 238 59, 456 38, 763 10, 464 164, 582	20, 633 3, 426 25 11, 066	552, 711 272, 970 156, 433 114, 527 913, 758	34, 159 67,636 21, 947 5, 711 26, 245		19,974	
į	German, III German American, N. Y. Sermania Fire, N. Y. Firard Fire and Marine, Pa Rens Falls, N. Y.	933, 049 682,819	19, 659 115, 619 88, 848 44, 742 42, 624	382 10, 121 387	185,348 1,048,668 771,667 378,401 348,574	29,408 174,687 12,412 55,102	19,887		
j	Greenwich, N. Y. Janover Fire, N. Y. Lartford Fire, Conn. Jartford Steam Boiler Insp. and Ins., Conn. Joffman Fire, N. Y.	712,601	33, 472 88, 593 153, 274 15, 944 20, 629	934 10, 926 51, 838	325,833 801,194 794,021 179,621 151,171	2,480 63,548 72,798 21,618	*************		² 250, 000
า์	iome, N. J. Iome, N. Y. Iome, Ohio Ioward, N. Y. Iudson, N. J.	0 791 190	12, 860 344, 714 20, 703 34, 616 11, 075	839 2,800	141,920 3,076,252 266,577 214,308 100,879	824 191, 851	· · · · · · · · · · · · · · · · · · ·		
1	Iumboldt, N. J. nsurance Company of North America, Pa nsurance Company of the State of Pa rving, N. Y. amar, N. Y.	88, 983 3,102,125 183,210 75, 975 168, 311	10, 328 297, 084 30, 902 15, 368 22, 088	229 268 1,898	99, 540 3, 399, 479 216, 010 91, 343 190, 400	6,947	84, 391 37, 956 630 13,535	11,317	***************************************
I	orillard, N.Yycoming Fire, Pa	114,603 400,956	23, 261 2, 637	308,891	137, 864 712, 485	48,171	7, 162		•
	1 Increase of capital					0.7			

¹ Increase of capital.

² Increase of capital by stock dividends.

- TABLE No. IV. — Income — continued.

NAME OF COMPANY.	Net Cash Premiums.	Interest s nd Dividends.	From all other Sources.	Total Cash Income.	Cash Income over Ex- penditures.	Expenditures over Cash Income.	Bills and Notes received for Premiums unpaid.	Received from Stock- holders.
Companies of other states - continued.							•	
Manhattan Fire, N. Y	\$688, 721 \$77, 259 166, 450 92, 871 396, 539	\$31,500 47,298 31,683 20,960 52,429	\$1,100 6,776 2,034 2,744	\$721,321 431,338 200,167 113,831 451,712	\$54,474	\$17, 217 52, 158 27, 363 11, 615	\$7,130	
Merchants', R. I	163, 573 184, 496 197, 454 74, 550 257, 866	19, 497 15, 615 2, 968 11, 095 65, 245	1,078 1,050 662	183,070 201,189 201,472 86,307 323,111	1,100 5,075	9, 995 7, 481 5, 049		
New York Central, N. Y. New York City, N. Y. Newark Fire, N. J. New Hampshire Fire, N. H. Niagara Fire, N. Y.	163, 696 96, 608 80, 644 171, 091 550, 627	10, 481 11, 902 87, 275 32, 534 65, 078	1,179 288	174, 177 111, 510 119, 098 203, 913 615, 705	44, 306 38, 663	2,731		
Northern of N. Y	145, 157 242, 151 540,856 309, 129 1, 653, 218	15, 476 47, 790 84, 128 16, 909 114,867	1,463 468 6,957 3,638	162,096 289,941 625,452 332,995 1,771,723	11, 954 16,744 119,085 42,778 41,504		23, 287	
Phœnix, Conn	1, 325, 556 140, 711 322, 781 35, 599 89, 965	112, 336 21, 767 29, 119 12, 293 12, 954	3, 939 928	1,441,831 163,401 351,900 47,892 102,919	164, 119 23, 083 7, 050 7, 275	43, 374	36, 240	
Rochester German, N. Y	171, 972 276, 995 176, 399 127, 251 574, 203	19,316 17,530 33,865 16,084 64,189	90 26, 513 3, 370 123 5, 778	191, 378 321, 038 213, 634 143, 458 644, 170	9,215 4,160 43,258			

						40.099	l _. ,		
Safeguard, N. Y	135,019	20, 959	1,995	157, 973		12,200		••• •••••	
Security, Conn	303,942	16,645		320,587					
Shawmut, Mass	260,694			290,806		• • • • • • • • • • • • • • • • • • • •			
Shoe and Leather, Mass	244 237	29, 625		273, 889				•••••	
Springfield Fire and Marine, Mass	736,818	84, 481	3,255	824, 554	153,771				
Springhold I it o and I in a in	*******	,	-,	,	1		į į		
Standard Fire, N. J	153, 926	15, 930		169,856	1				
Standard Fire, N. Y.	86, 505	21, 854		108, 359		12, 910			
Star Fire, N. Y.	121, 938	23, 894	935	146, 767		15, 682	[
Diar Fire, N. 1 Ohio	109, 634	10, 629		120, 263		11,494	10, 190		
Toledo Fire and Marine, Ohio			94	110, 203		28,739	12,551		
Trade, N. J	95. 355	15, 516	94	110, 965		20,100	2.0,000		
	000 405	00.050	20 700	070 040	94 507				
Traders', Ill	322, 407	36,059	20,580	379,046					
Union, Pa	126,956	14,401		141,357		06 500	60, 190		
Washington Fire and Marine, Mass	270,867	37, 447		258, 314		30, 339	69, 120		
Watertown Fire, N. Y	436, 800	34, 907		471,707	57, 247				
Westchester Fire, N	609,387	38, 909		648, 2 96	62, 157			••••	
							l		
Williamsburg City Fire, N. Y	349,118	40, 155	1,614	390, 887	46,035			••••	
Totals	\$38,010,276	\$4, 463, 227	\$634,492	\$43, 110, 999	\$2,726,333	\$1,133,512	\$757,870		
100010111111111111111111111111111111111	744714111								
							l .	-	
Companies of Foreign Countries.			i i				1		
Companies of a constant			1				***	9.010.441	
British America Assurance Co., Can	\$687,627	\$64,350	\$1,098	\$753,075	\$58,286		\$26, 250	2 \$18,441	
Commercial Union Assurance Co., G. B	902,011	29,063		931,074	174,093		1		
Hamburg Bremen Fire, Germ	253, 720	25, 912		379, 635	113,047	l			
Imperial Fire, G. B	327, 253	36, 498		363, 751	71, 972	l			
La Caisse Generale. France	301.898	8,928	23, 286	334, 112	111, 168	l			
La Caisse Generale. France	301,050	0,720	20, 200	551, 112	111,100	1			
Towardine C D	481, 183	5, 265	1	486,448	52, 118	I			
Lancashire, G. B			44, 155	2, 713, 059	1, 109, 143				
Liverpool and London and Globe, G. B	2, 553, 709	115, 195	44, 100	414, 366	77,884				
London Assurance Corporation, G. B	387, 365	27,001	0.000						
North British and Mercantile, G. B	1, 239, 777	79,081	3, 200	1,322,058	340, 447			1	
Northern Assurance Co. of London, G. B	327,973	27, 308		355 , 2 81	95, 475		1		
	l		1	40 840	4 000	1		ł ·	
North German Fire, Germ	7,669	3,101		10,770	4, 350				
Queen, G. B	901,672	60, 344		962, 016	249, 639		.		
Royal G. B	1,669,272	101,608	551	1,771,431	533, 372			************	
Royal Canadian, Canada	801,347	37,876		839,223		\$645,423		• 500,000	
Scottish Commercial, G. B		30, 410	3,690	543,064	88,994				
Souther Commercial of Street,	1	,	1					1 400	
Western Assurance Company, Canada	775, 978	54,883		830, 861	44,542		. 30,867	4 463	
Websell Mesulance Company, Canada	1,0,010	31,003					-		
Totals	\$12, 227,418	\$616,823	\$75,980	\$13,010,224	\$3, 124, 560	\$645, 423	\$57, 117	\$518,904	
LULAIS	Ψ12, 201, 710	Ψ010,000	Ψ10,1/00	7-0,010,001	-1	<u> </u>			
4 (falls on capital									

¹ Increase of capital.

² Increase of capital, \$14,418; calls on capital, \$4,022.

⁸ Assessment call

⁴ Calls on capital.

TABLE No. IV. — Income — continued.

Name of Company.	Net Cash Premiums.	Interest and Dividends.	From all other sources.	Total cash Income.	Cash income over expenditures.	Expenditures over cash income.	Bills and notes received for premiums un- paid.	Received from stockholders.
Marine Companies,								
Mercantile, Mutual, N. Y	\$791,354 618,321 426,771	\$30,982 28,936 31,955	\$18,841 5,227	\$841,177 652,484 458,726	\$50,829 1,816	\$19,374	\$189,534	
Totals	\$1,836,446	\$91,873	\$24 , 068	\$1,952,387	\$52,645	\$19,374	\$189,534	

TABLE NO V.—EXPENDITURES.

NAME OF COMPANY.	Losses Paid.	Dividends.	Commissions and Brokerage.	Salaries of Officers and Employees.	Taxes, State and National.	All other Payments.	Total Expenditur's.
Wisconsin Joint Stock Companies.		,					
Concordia Fire Hekla Fire Northwestern National Madison Fire	\$29, 939 15, 391 180, 729 29, 191	\$11,836 30,000 11,051	\$8,727 8,502 43.068 4,403	\$3,384 3,800 27,332 6,379	\$1,30 6 940 12,282 666	\$1,728 3,110 26,197 3,573	\$45,086 43,579 319,608 45,264
Total	\$255, 250	\$42,887	\$64,700	\$40,895	\$15, 194	\$34,608	\$453,537
Wisconsin Mutual Companies.							
Germantown Farmers' Mutual Herman Farmers' Mutual Milwankee Mechanics' Mutual Vernon County Scandinavian Mutual Fire	\$22, 918 1,088 128, 370 30		\$5,419 1,123 45,470	\$4,400 330 2 1,055 90	\$945 158 7,727 7	\$6,010 242 14,631	\$39,692 2,941 217,253 127
Total	\$152,406		\$52,012	\$25,875	\$8,837	\$20,883	\$260,013
Companies of other States.							
Ætna, Conn Allemania Fire, Pa Amazon, Ohio American, Ill American Central, Mo	\$1, 986, 065 90, 465 282, 023 274, 977 185, 439	\$660,000 10,000 100,000 39,664	\$442, 891 20, 261 44, 102 113, 152 66, 233	\$163, 469 10, 913 49, 311 109, 958 28, 848	\$57, 802 3, 899 12, 482 19, 542 8, 619	\$145, 431 18, 417 23, 550 66, 685 39, 217	\$3,455,658 162,955 411,468 684,314 368,020
American Fire, Pa. Amity, N. Y. Atlantic, N. Y. Atlantic Fire and Marine, R. I. Buffalo, N. Y	202, 056 47, 838 214, 216 59, 542 113, 956	39, 800 8, 000 20, 000 9, 129 20, 000	134 14,898 44,711 11,195 30,406	97,348 9,750 24,554 12,245 12,341	13,328 97 9,363 2,916 4,053	7, 629 12, 758 27, 932 4, 558 14, 000	360, 294 93, 341 340, 776 99, 585 194, 756

¹ Paid for policies purchased to reduce amount of risk.

Table No. V. - Expenditures - continued.

NAME OF COMPANY.	NAME OF COMPANY. Losses paid.		Commissions and brokerage.	Salaries of officers and employees.	Taxes — state and national.	All other payments.	Total expen- ditures.
Companies of other States — continued. Ruffalo German, N. Y.	\$106,127	\$30,000	\$32,875	\$12,735	\$3 , 378	\$ 16,845	\$201,960
Commerce, N Y Commerce Fire, N Y Commonweath, Mass. Connecticut Frre, Conn.	33, 945	32,000 10,000 30,000 60,000	12, 210 3, 936 25, 114 57, 528	11,619 13,850 16,588 21,323	3, 297 1, 619 5, 587 8, 455	7,739 11,392 18,463 34,071	100, 810 60, 159 178, 726 359, 310
Continental, N. Y. Detroit Fire and Marine, Mich Eiot, Mass Equitable Fire and Marine. Exchange Fire, N. Y.	49,838 58,899	1126, 443 25, 000 20, 000 23, 690 30, 001	244, 161 12, 517 11, 535 19, 232 16,604	184,649 15,044 11,250 16,216 30,188	34, 129 4, 264 4, 685 5, 143 4, 133	128, 321 11,076 5,278 2,712 9,425	1, 413, 116 141, 150 105, 286 125, 892 143, 981
Fairfield Fire, Conn. Faneuii Hall. Mass. Fire Association, Pa. Fireman's Fund, Cal Firemen's, N. J.	120, 211 634, 976 275, 723	20,000 66,768 248,529	24, 321 46, 875 267, 785 57, 423 23, 471	16, 220 4, 715 49, 508 40,700 16, 777	3, 404 7, 898 30, 189 9, 242 4, 023	11, 947 25, 233 22, 822 68,696 22, 448	136, 283 204, 932 1, 205, 280 518, 552 205, 334
Firemen's Fire, Mass Firemen's Fund. N. Y. Franklin Fire, Pa German, Ill German American, N. Y.	48,751 394,389 66,990	30, 295 14, 500 128, 352 221, 010 100, 000	13,512 20,809 112,974 139,354	12, 175 13,247 • 86,683 40, 498 94,621	7, 913 1,852 35, 488 24 , 253 24 , 809	7,358 9,657 129,627 3,279 98,645	134, 486 108, 816 887, 513 155, 948 873, 981
Germania Fire. N. Y	166,752	150,000 75,000 20,000 80,000 50,000	116, 885 50, 407 53, 333 37, 105 116, 109	74, 252 36, 241 19, 271 28,382 46, 905	16, 528 15,324 5,282 17,742	106,711 22,264 18,713 12,534 130,296	791, 554 365, 988 293, 472 233, 353 737, 646
Hartford Fire, Conn	1,019,989 3,466 77,776	200, 062 20, 000 20, 000 14, 000 299, 380	237,007 42,821 22,235 18,690 531,378	113, 273 11, 700 20, 940 8, 750 252, 478	25, 911 2, 431 4, 285 1, 495 68, 509	114, 981 77,595 16, 125 11, 326 208, 123	1,721,223 158,013 161,361 141,096 2,884,401

Home, Ohio Howard, N. Y Hudson, N. J Humboldt, N. J Insurance Company of North America, Pa	164, 578 76, 417 45, 454 96, 672 2, 299, 254	25, 000 60, 378 10, 000 400, 000	47, 695 23, 106 15, 635 18, 183 389, 759	21,962 36,245 24,130 18,934 127,443	12, 125 7, 215 3, 464 3, 142 87, 370	4 55, 198 27, 014 14,569	326, 558 230, 375 113, 252 133, 931 3, 437, 435
Insurance Company of the State of Pa	144, 262 42, 333 107, 390 53, 526 491, 535	24, 228 26, 000 20, 000 30, 000	18, 888 10, 496 18, 752 17, 589 70, 398	11, 300 14, 100 18, 342 20, 830 9, 480	3, 854 661 1, 933 8, 361 6, 462	14, 108 11, 288 17, 036 14, 720 86, 439	216, 640 104, 878 183, 453 145, 026 664, 314
Manhattan Fire, N. Y. Manufacturers' Fire and Marine, Mass. Mechanics and Traders' Fire, N. Y. Mercantile, Ohio Merchants' N. J.	457, 575	50,000	98,659	50, 423	16, 614	65, 267	738, 538
	340, 802	49,450	10,022	41, 301	11, 489	3 0 , 427	483, 491
	109, 201	60,000	19,944	25, 187	6, 350	6, 848	227, 530
	62, 446	30,000	10,911	12, 575	2, 879	6, 635	125, 446
	191,078	55,526	71,106	29, 549	7, 559	42, 320	397, 238
Merchants 'R. I. Meriden Fire, Conn. Millville Mutual Marine and Fire, N. J. Mississippi Valley, Tenn. National Fire, Conn.	111, 213 115, 116 162, 999 49, 486 154, 577	24,000 24,000 75,000	36, 878 28, 795 17, 502 16, 996 37, 711	14,873 9,900 22,840 5,984 26,447	6, 101 4, 705 5, 612 4, 170 8, 127	17, 573 14, 720 16, 174	193, 065 200, 089 208, 953 91, 356 318,036
New York Central, N. Y New York City, N. Y Newark Fire, N. J New Hampshire Fire, N. H Niagara Fire, N. Y	£132, 294	9,000	30, 283	4, 234	2, 121	7, 326	185, 258
	46, 274	20,000	17, 205	13, 453	250	17, 059	114, 241
	19, 777	6 24,023	12, 976	8, 186	2, 021	7, 809	74, 792
	95, 630	20,000	27, 571	7, 233	4,697	10, 019	165, 250
	327, 860	60,047	89, 633	61, 238	17,130	74, 152	630, 060
Northern of N. Y. Orient, Conn Pennsylvania Fire, Pa People's, N. J. Phenix, N. Y.	80, 253	10,000	28, 373	13, 138	4,723	13, 655	150, 141
	147,058	38,500	36, 962	22, 064	6,420	22, 192	273, 196
	280, 429	40,000	72, 975	78, 618	14,750	19, 595	506, 367
	172, 179	7 20,789	65, 416	18, 195	9,130	4, 508	290, 217
	981, 519	200,00J	245, 416	148, 843	25,703	128, 744	1,730, 219
Phenix, Conn. Prescott, Conn Providence, Washington, R. I. Resolute Fire, N. Y Revere, Fire, Mass.	645,340	200,000	212, 017	65, 195	39, 409	115, 755	1, 277, 716
	72,008	20,000	23, 838	9, 812	2, 561	12, 099	140, 318
	241,977	27,387	41, 996	11, 843	5, 809	15, 838	344, 850
	59,311	11	5, 002	19,048	199	7 695	91, 266
	41,639	10,000	17, 188	11,025	4,166	11,626	95, 644
¹ Including \$1,023 paid to scrip-holders. ² Including \$529 paid scrip-holders. ⁸ Paid scrip-holders.	7 Including \$	789 paid to scrip-	5 Including 6 Scrip or ce	\$32,400 charged (\$19,526 paid to se ertificates of profi	erip noiders.	ount.	

Including \$1,023 paid to scrip-holders.
 Including \$529 paid scrip-holders.
 Paid scrip-holders.

Table No. V. — Expenditures — continued.

NAME OF COMPANY.	Losses paid.	Dividends.	Commissions and brokerage	Salaries of offi- cers and employes.	Taxes — state and national.	All other payments.	Total expenditures.
Companies of other States - continued.		•	-				
Rochester Garman N V		i					
Rochester German, N. Y	108, 692	20,000	29, 255 38, 239	\$7,780	\$4,672	\$11,764	\$182, 165
St. Joseph Fire and Marine Mo	239, 084	3, 959	38, 239	29,197	6,399	φ11, (U±	316, 878
St. Joseph Fire and Marine, Mo. St. Nicholas, N. Y. St. Paul Fire and Marine Mine	83,649	25, 200	35,480	13,443	8,606	4,007	170, 376
St. Paul Fire and Marine, Minn	97,717	20,000	23, 553	17, 370	1,444	13, 527	173,61
		66,696	83, 963	32, 321	15, 901	34, 986	722, 92
Safeguard, N. Y	80, 349	32,000	00 570	4			1,200,020
Security, Conn	206, 687	20,000	22, 579 47, 888	17,550	2,555	15, 178	170, 21
shawmut, Mass	139,717	20,000	47, 888 32, 240	24,088	1,998		300, 66
nue and Leather, Mass	112, 483	30 000	27, 327	19,794	11,422	15, 526	218, 69
Shawmut, Mass. Shoe and Leether, Mass. Springfield Fire and Marine, Mass.	351,445	75,000	113, 219	14,180 37,286	3,901	12,745	200,63
Standard Fire N T		10,000	110, 219	57,280	23,300	70, 533	670,785
Standard Fire, N. J	114, 180		36, 821	5, 632	1,630	10.000	
Star Fire N V	51, 124	24,710	10,977	21,779	2, 136	12,262	170, 52
tar Fire, N. Y. Coledo Fire and Marine, Ohio	69, 288	35,000	5, 129	20,299	5, 147	10, 538 27, 586	121,26
frade, N. J.	88, 703	10,000	20,888	3,100	2, 940	6,126	162, 44
		16,024	16,205	4, 458	2,930	7,752	131, 757 139, 704
Traders', Iil	165, 944	40.000		, 1	~,550	1,102	159, 704
Juton, Pa. Vashington Fire and Marine, Mass. Vatertown Fire, N. V.	100,030	60,000	55, 562	24,071	6,864	32,003	344, 449
Vashington Fire and Marine, Mass.	203,603	22,615	17,614	11,800	1,285	10,278	163, 629
Vactington Fire and Marine, Mass. Vatertown Fire, N. Y. Vest chester Fire, N.Y.	228, 888	40,000	15, 950	16,775	7,179	11,440	294, 847
Westchester Fire, N.Y	328,710	20,000 29,955	88, 755	29,628	11,010	36,179	414, 460
William - bern Gir en	0.0,110	20,000	112,659	29,800	15,839	69, 176	586, 139
Williamsburg City Fire, N. Y	142, 829	49,900	60,131	44, 973	1,515	45 504	,
Totals				44, 010	1, 515	45, 504	344,852
	. \$22, 938, 653	\$4,944,671	\$5,956,493	\$3, 298, 739	\$1,009,424	\$3, 213, 005	\$41, 530, 884
	i						
Companies of Foreign Countries.							
			1				
lommercial Union Assurance Co., Can	416, 969	50,691	121.056	31, 763	11 682	62.662	
British America Assurance Co., Can	475, 830		196, 209	30, 403	19,635	62, 628	694, 789
lamburg Bremen Fire, Germ.	. 153, 154		67, 087	15,584	5,544	34,904	756. 981
			,	20,001	u, 544	25, 219	266, 588

Imperial Fire, G. B. La Caissae Generale, France Laneashire, G. B. Liverpool and London and Globe London Assurance Corporation, G. B. North British and Mercantile, G. B. North German Fire, Germ. Queen, G. B. Royal, G. B. Royal, G. B. Royal Canadian, Canada Scottish Commercial, G. B. Western Assurance Company, Canada	118, 470 288, 880 954, 467 185, 698 628, 075 172, 286 471, 392 727, 703 1, 145, 872 280, 731 515, 518	62,115	\$49, 337 96, 229 83, 506 312, 552 52, 563 167, 414 49, 196 3, 108 128, 906 307, 115 133, 417 89, 833 118, 508	47, 872 154, 307 25, 920 80, 594 24, 598 1, 246 41, 293 102, 279 54, 468 30, 220 17, 296	\$15,417 14,072 50,216 18,097 29,799 13,726 153 21,446 39,306 24,576 16,644 18,211	132, 374 54, 204 80, 699 1, 286 49, 340 61, 656 126, 313 36, 642 59, 671	\$291,779 222,944 434,330 1,603,916 336,452 981,581 259,806 6,420 712,377 1,238,059 1,484,646 454,070 786,319
Totals	\$6,733,028	\$112,806	\$1,975,036	\$690,757	\$293, 524	\$724,936	\$10,531,087
- Marine Companies. Mercantile Mutual, N. Y	\$620,970 572,493 288,364 \$1,481,827	\$42,500 700 1 40,469 \$53,669	\$52, 151 28,754 31,613 \$112,518	\$42, 143 50, 615 42, 617 \$135, 375	\$9,562 6,933 8,543 \$25,038	\$23,022 12,363 45,304 \$80,689	\$790, 348 671, 858 456, 910 \$1, 919, 116

¹ Scrip redeemed and interest paid to scrip-holders.

TABLE No. VI.

NAME OF COMPANY.	Net Assets.	Surplus as regards Policy Holders.	Net Risks in force Dec. 31, 1876.	Risks Written during the Year.	Net Risks in force Dec. 31, 1877.	Losses incurred during the Year.	Losses Paid during the Year.
Wisconsin Joint Stock Companies.							. *
Concordia Fire Hekla Fire Northwestern National Madison Fire	\$103, 327 221, 223 831, 629 1 192, 686	\$52, 545 173, 254 681, 311 117, 535	\$6, 314, 259 5, 513, 232 25, 160, 229 16,078, 283	\$3, 452, 150 2, 651, 382 26, 304, 251 1, 717, 967	\$6,956,958 5,596,540 25,343,595 11.171,693	\$28, 439 15, 270 171, 184 23, 496	\$2, 93 15, 39 180, 72 29, 19
Total	\$1,348,865	\$924, 645	\$53,066,003	\$34, 125, 750	\$49,068,786	\$238, 389	\$255,24
Wisconsin Mutual Companies.				,		-	
Germantown Farmers' Mutual Herman Farmers' Mutual Mutwalkee Mechanics' Mutual Vernon County Scandinavian Mutual Fire	² \$109, 420 ³ 33, 566 ⁴ 525, 380 2, 668	\$47,191 21,074 303,791 1,963	\$9, 689, 317 2, 268, 131 30, 290, 059 129, 171	\$2, 353, 527 446, 160 16, 642, 058 57, 713	\$9,378,238 2,243,900 29,203,543 222,480	\$22, 918 1, 087 128, 738 30	\$22, 91 1,08 128, 37 3
Total	\$671,034	\$374,019	\$42, 376, 668	\$19,499,458	\$41,048,161	\$152, 773	\$152,40
Companies of other States.	•				-		
Ætna, Conn Allemania Fire, Pa Amazon, Ohio American, Ill American Central, Mo	\$6,501,899 290,724 606,573 833,683 721,725	\$4,771,869 228,680 492,121 470,305 507,833	\$252, 904, 907 15, 593, 704 43, 252, 426 160, 182, 021 25, 256, 605	\$283,806,396 10,720,110 20,380,679 142,356,689 31,499,742	\$278, 247, 213 9, 494, 101 13, 213, 534 143, 938, 860 27, 785, 584	\$1,850,161 96,065 246,622 267,619 180,454	\$1, 986, 06 99, 46 282, 02 274, 970 185, 43
American Fire, Pa. Amitv, N. Y. Atlantic, N. Y. Atlantic Fire and Marine, R. I. Buffalo, N. Y.	996, 013 217, 949 406, 202 239, 184 293, 394	420, 233 230, 272 309, 571 202, 401 246, 780	3 5, 589, 434 6, 253, 317 23 , 257, 089 5, 587, 018 8, 416, 704	39, 288, 207 7, 5 05, 420 35, 473, 738 7, 213, 507 34 , 741, 058	31, 634, 822 5, 567, 498 23, 504, 261 5, 185, 761 8, 032, 773	195, 638 50, 065 206, 068 60, 949 127, 997	202, 05 47, 83 214, 21 59, 54 113, 95
Buffalo German, N. Y.	687,945	581,796	22, 901, 596	24, 341, 722	21, 901, 579	96, 629	166, 12

H	-

			40 40 8 000	10, 623, 141	9,939,594	36,830	33,945
Commerce, N. Y	400, 271	352,496	10, 185, 928		5,554,488	22,462	19, 362
Commerce Fire, N. Y	223, 826	202,008	6, 275, 382	7,412,693	17,716,879	87,688	82, 974
Commerce Fire, N. 1	636, 415	530, 893	43, 129, 303	20, 041, 432	36, 339, 226	171,354	177, 932
Commonweal h, Mass	1,365,388	1, 148, 431	25, 305, 400	34, 654, 428	200, 200, 200	641, 285	695,413
Connecticut Fire, Conn	2, 979, 570	1,996,501	207, 216, 620	218,314,760	238, 959, 160	011.000	,
Continental, N. Y	2, 310, 510	2,000,000	,	1	10 004 054	72,684	73, 249
	495, 342	434,123	10,227,551	11, 492, 310	10, 374, 854	55,724	49, 838
Detroit Fire and Marine, Mich	3.5,682	332, 234	8, 939, 697	8, 332, 667	8,486,402		58, 899
Think Mass		270 342	8 , 693, 173	11,826,856	9, 312, 494	59,538	53, 580
Wanitable Fire and Marine, R. L	332, 252	312, 787	17, 224, 150	17, 912, 432	15, 317, 974	69.703	61,540
Exchange Fire, N. Y.	359, 875			14, 184, 519	12, 102, 607	59,654	01,540
Fairfield Fire, Conn	302,542	238, 487	9, 225, 369	14,104,020			100 011
Patricia Proj Committe	1		1	16, 651, 340	17,045,944	114, 475	120, 211
Faneuil Hall, Mass	493, 926	365,025		112,843,317	173, 7:8, 328	634,780	634, 975
Fire Association, Pa	1, 388, 809	1,464,254	159, 063, 830		31, 951, 025	274,820	275,722
Fire Association, 1a Fireman's Fund, Cal	702, 872	429, 170	26, 986, 268	40, 408, 762	28, 314, 959	81,993	90,086
Fireman's Fund, Cal	1, 019, 466	900, 059	29,061,877	29, 067, 229	19,026,411	63, 310	63, 233
Firemen's, N. J.	675,436	567,754	20,299,769	12, 854, 294	19,020,411	00,020	
Fireman's Fire, Mass	0,0,200	,	1 '' 1		0 504 405	62, 565	48, 751
	187, 526	136,994	8, 214, 567	12, 301, 358	9,574,495	394, 388	394, 388
Firemen's Fund, N. Y	1, 822, 789	1,251,439	154,333,870	72,709,146	149, 173, 678	70, 691	66, 990
Franklin Fire, Pa	432, 837	209, 189	16, 236, 100	10 658,948	17,691,352		416, 552
German, Ill	902,001	1,686,950	86, 745, 313	121, 115, 117	106, 586, 972	454,797	327, 178
German, Ill. German American, N. Y.	2,211,718		80, 721, 949	78, 551, 434	78,167,235	321, 272	021,110
Germania Fire. N. Y	1,563,121	1,153,038	00, 121, 040	10,002,			166, 751
=		*40.000	48, 046, 342	36, 406, 766	43, 552, 760	122,724	
Girard Fire and Marine, P	997, 361	748, 900		35, 143, 770	62, 816, 634	187,772	176,872
Glens Falls, N. Y	820, 404	533, 826	64, 924, 856	47, 095, 410	42, 998, 595	64, 988	75, 331
Greenwich, N. Y.	611,503	505,485	39, 089, 321		89, 517, 686	375,674	376, 593
Hanover Fire, N. Y	1,526,491	1,053,398	94,585,524	86,193,862	137,975,968	975, 413	1,019,989
Hartford Fire, Conn	3,090,404	2,196,032	134, 251, 386	145, 215, 532	101,510,500	****	
Harmord Fire, Count	-, ,			40 400 440	12, 955, 908	5, 541	3,466
Deilou Inon and Ing Conn	282,561	225, 421	13,958,269	13, 482, 149	14, 091, 250	76,974	77,775
Hartford Steam Boiler Insp. and Ins., Conn.	368,929	29s, 256	14,396,822	16, 336, 149		93, 622	86,834
Hoffman Fire, N. Y.	247, 588	202, 151	5,768,611	15, 915, 587	6,959,554	1,536,902	1,524,533
Home, N. J	5,853,135	4, 016, 703	346,154,310	350, 717, 945	341,433,940	1,000,004	164, 577
Home, N. Y		320,087	14, 943, 0∪5	22,355,340	13, 983, 309	155,552	101,011
Home, Ohio	376,081	J., 001	1. 22,020,000	' '		06.469	76, 417
	MOD 100	632, 301	22, 610, 215	26, 724, 682	23, 238, 720	87, 463	45, 453
Koward, N. Y	732, 102	206,832	17, 686, 920	12, 172, 525	14, 329, 342	45, 453	93, 67 2
Hndson, N. J	273,416		8,508,657	7, 934, 407	5, 839, 408	92,847	
Umboldt N.d.	240, 64 0	202, 709	175, 012, 651	322, 988, 336	174, 482, 841	2, 478, 767	2,299,254
Insurance Company of North America, Pa	5,689,379	4, 426, 625		22,692,216	18, 371, 355	146,610	144,262
Insurance Company of the State of Pa	498, 456	397,163	18,937,877	\$2,000,210	20,5,500	,	
Insurance Company of the State of Laterton	•		0.040.004	0 000 569	7.917.414	43,971	42,332
Irving, N. Y	278,012	239, 469	8.313,201	8,829,568	11,874,450	100, 474	107,390
Lamar, N. Y	392, 352	326, 919	12, 167, 168	24, 984, 119	11,012,100	,	l
Lamar, N. I	,	1	1		1		
					00 F0C	tog	

¹ Not including \$30,119, premium notes. ² Not including \$156,397, premium notes.

³ Not including \$32,736, premium notes.
4 Not including \$191,287, premium notes.

TABLE No. VI. — continued.

	1		T COMULA				
NAME OF COMPANY.	Net Assets.	Surplus as regards Policy Holders.	Net Risks in force Dec. 31, 1874.	Risks Written during the year.	Net Risks in force Dec. 31, 1877.	Losses Incurred during the year.	Losses Paid during the year.
Companies of other States - continued.							
Lorillard, N. Y. Lycoming Fre, Pa. Manhattan Fire, N. Y. Manufacturers' Fire and Marine, Mass Mechanics' and Traders' Fire, N. Y.	\$434, 130 1118, 212 727, 280 1, 096, 740 545, 729	\$380, 493 99, 958 458,004 754,185 469, 631	\$13 275, 537 67,245, 228 32, 737, 954 34, 257, 926 21, 406, 306	\$20, 581, 328 37, 797, 105 76, 111, 625 46, 129, 138 27, 256, 953	\$14,036,613 62,653,145 40,895,385 40,494,796 18,979,945	\$54, 750 512, 869 489, 827 308, 601 98, 760	\$53, 525 491, 534 457, 575 340, 801 109, 201
Mercantile, Obio. Merchants', N. J. Merchants', R. I. Meriden Fire, Conn. Millville Mutual Marine and Fire, N. J.	342, 556 994,089 240,320 299, 778 2191, 484	301, 114 755, 899 250, 873 214, 240 394,817	7, 421, 464 44, 245, 715 12, 624, 679 10, 899, 576 6, 154, 551	10, 605, 774 55, 672, 199 14, 833, 342 17, 266, 129 9, 341, 947	7,264,275 52,816,099 13,591,891 13,293,273 5,570,587	64, 207 187, 598 113, 510 118, 945 167, 779	62, 446 191,078 111,212 115,116 162,999
Mississippi Valley, Tenn National Fire, Conn New York Central, N. Y New York City, N. Y Newark Fire, N. J	252, 446 1, 015, 927 210, 608 203, 143 661,897	226, 367 848, 306 105, 236 191, 687 3611, 293	4,537,335 28,280,260 25,391,828 11,730,613 14,171,287	5, 016, 924 22, 220, 123 15, 246, 229 14, 376, 152 13, 683, 417	2,540,970 27,905,804 2',5'2,796 10,552,762 14,055,335	46, 503 146, 795 136, 852 52, 989 15, 923	49, 486 154, 577 132, 294 46, 273 19, 777
New Hampshire Fire, N. H. Nagara Fire, N. Y. Northern of N. Y. Orient, Conn Pennsylvania Fire, Pa.	$\begin{array}{c} 462,344 \\ 1,290,705 \\ 360,051 \\ 768,990 \\ 1,305,177 \end{array}$	363, 478 950, 330 285, 345 624, 052 945, 155	17 642, 944 62, 294, 698 7, 204, 984 22, 723, 628 45, 819, 983	16, 889, 647 64, 192, 581 12, 891, 328 22, 327, 996 51, 399, 085	18, 237, 758 62, 947, 538 9, 945, 756 22, 891, 212 47, 053, 864	101, 509 313, 454 78, 641 133, 611 282, 125	95, 630 327, 860 80, 252 147, 058 280, 429
People's, N. J. Phænix, N. Y. Phænix, Conn. Prescott. Mass. Providence, Washington, R. I.	489, 223 2, 581, 530 2, 371, 428 385, 855 558, 950	355, 285 1, 789, 611 1, 573, 604 290, 043 417, 947	18, 156, 137 140, 850, 980 107, 262, 557 13, 869, 137 15, 518, 061	37 166, 736 228, 561, 913 105, 435, 650 15, 120, 412 54, 570, 300	22, 784, 304 148, 827, 659 119, 498, 239 14, 897, 081 17, 092, 769	168,475 1,016,141 656,410 79,850 260,354	172, 179 981, 518 645, 340 72,007 241, 976
Resolute Fire, N. Y Revere Fire, Mass Rochester German, N. Y Roger Williams, R. 1. St. Joseph Fire and Marine, Mo.	181, 851 268, 899 366, 205 331, 728 422, 507	181.851 209.385 269.103 212,588 343,389	7, 697, 813 6, 375 389 19, 543, 888 15, 729, 488 9, 920, 332	9, 166, 619 10, 537, 211 19, 848, 946 37, 204, 636 14,410, 298	9, 034, 440 18, 544, 355 14, 943, 140 10, 378, 794	60,914 43,418 108,288 247,164 87,882	59, 311 41, 639 108, 691 239, 084 83, 640

St. Nicholas, N. Y	274,021	215, 254	18,344,617	25,122,014	20, 916, 027	102,362	97,716
	833,082	562, 176	33,855,866	56,026,272	35, 444, 386	461,431	489,056
	376,139	316, 942	17,591,101	22,940.013	18, 403, 417	90,350	80,349
	352,154	227, 632	13,729,500	31,989,076	14, 889, 779	209,843	206,686
	622,613	502,041	10,540,807	29,444,620	17, 341, 366	137,061	139,717
Shoe and Leather, Mess. Springfield Fire and Marine, Mass. Standard Fire, N. J. Standard Fire, N. Y. Star Fire, N. Y.	637, 134	462, 399	15, 533, 156	18 834, 658	16, 789, 375	134, 383	112, 488
	1, 553, 427	1, 039, 639	69, 021, 634	71, 367, 287	81, 364, 791	363,081	351, 444
	286, 792	208, 392	10, 616, 330	10, 249, 572	9, 623, 772	107, 424	114, 180
	406, 415	360, 044	13, 563, 110	16,058,040	12, 782, 700	47, 954	51, 129
	395, 871	329, 281	18, 323, 186	20, 285, 582	16, 675, 114	82, 427	69, 287
Toledo Fire and Marine, Ohio Trade, N. J. Traders' Ill. Union, Pa. Washington Fire and Marine, Mass	245, 697	205,084	4, 301, 612	8,998,242	4,743,337	100, 952	88, 703
	273, 209	215,583	5,071, 446	6,456,977	5,420,428	85, 195	92, 335
	795, 398	638,242	14, 718, 056	27,236,587	19,858,129	167, 022	165, 949
	283, 704	235,952	5, 902, 160	10,704,057	6,541,716	101, 741	100, 029
	749, 518	602,264	14,973, 506	17,437,459	13,480,683	170, 927	203, 603
Watertown Fire, N. Y	715, 605	268,771	105, 668, 893	53, 840, 171	103, 427, 069	229, 377	228, 887
	864, 751	521,002	66, 012, 790	78, 280, 790	69, 736, 942	341, 225	328, 710
	850, 259	658,413	50, 867, 442	56, 464, 233	51, 319, 041	140,114	142, 828
Totals	\$82,041,347	\$50, 108, 492	\$3,970,261,165	\$4,842,059,204	\$3,986,248,855	\$23,046,244	<u>\$23,025,414</u>
Companies of Foreign Countries. (5)			*				
British American Assurance Co Can	\$981,806	\$645, 401	\$47, 338, 300	\$74, 982, 305	\$53, 347, 733	\$512, 131	\$416, 969
Commercial Union Assurance Co., G. B	1,047,976	593, 296	58, 957, 945	82, 924, 045	73, 926, 474		475, 830
Hamburg Bremen Fire, Germ. Imperial Fire, G. B. La Caisse Generale, France Lancashire, G. B. Liverpool and London and Globe, G. B.	350,831	513, 590 595, 251 218, 482 425, 580 1, 768, 132	27, 516, 635 81, 505, 819 10, 063, 743 32, 672, 252 195, 931, 879	43, 236, 097 38, 433, 869 25, 664, 433 57, 965, 167 351, 883, 743	32,245,045 31,956,348 20,201,636 48,128,519 258,061,165	144, 074 147, 540 282, 002 976, 519	153, 154 2, 2, 355 118, 470 288, 880 954, 466
London Assurance Corporation, G. B	935, 656 1, 647, 724 554, 542 294, 025 1, 416, 102	693, 860 945, 406 371, 555 287, 280 979, 887	44, 808, 526 103, 510, 074 24, 359, 666 65, 461, 544	56, 187, 723 145, 690, 610 38, 433, 864 1, 536, 228 118, 066, 900	50. 015,109 119,898,523 28, 230, 105 1, 434, 236 68,709,577	607, 501 135, 720 466, 292	185,698 623,075 172,286 627 471,392

Exclusive of \$4,838,155 Premium notes. of which amout \$182,897 is due on assessment or in process of collection.
 Including \$254,604 scrip outstanding.

² Exclusive of \$1,236,780 premium notes.
⁴ Risks re-insured.
⁵ Business in United States.

TABLE No VI - continued.

NAME OF COMPANY.	Net assets.	Surplus as regards policy holders.	Net rieks in force Dec. 31, 1876.	Risks written during the year.	Net risks in force Dec. 31, 1877.	Losses incurred during the year.	
Companies of Foreign Countries—con.]		
Royal, G. B. Royal Canadian, Canada Scottish Commercial, G. B. Western Assurance Company, Canada	\$2,390,971 851,669 629,528 1,094,099	\$1, 217, 807 441, 533 321, 404 706, 052	\$145, 707, 674 96, 426, 097 31,515, 724 44,071, 410	\$221, 743, 032 85,897, 691 77, 648, 128 78, 810, 346	\$182,767,432 60,789,608 60,600,542 54,999,310	\$1,050,211 293,076	\$727, 703 1,145,873 280, 730 515, 518
Totals	\$17,702,955	\$10,724,516	\$959, 847, 290	\$1,498,104,181	\$1,145,311,362	\$4,615,066	\$6, 733, 025
Marine Companies.							
Mercantile Mutual, N. Y Orient Mutual, N. Y Pacific Mutual, N. Y	\$77 7 , 477 1, 436, 501 626, 554	\$657, 691 11, 305, 794 2545, 178	\$579, 121 16, 790, 349 5, 307, 151	\$66, 980, 099 75, 900, 193 88, 144, 766	\$4,251,883 17,310,813 5,199,115	\$691,076	\$620, 969 572, 493 288, 363
Totals	\$2,840,532	\$2,508,663	\$22,676,621	\$231, 025, 058	\$26, 761, 811	\$691,076	\$1,481,875

¹ Including \$1,031,800 outstanding scrip.

² Including \$584,017 outstanding scrip,

					PECENT	AGE OF
NAME OF COMPANY.	Premiums received.	Cash income.	Expenses.	Losses paid.	Expenses to income.	Losses to premiums received.
					-	
Wisconsin Joint Stock Companies.	•					***
Concordia Fire	\$46,442 40,908	\$52, 428 54, 918	\$15, 147 16, 352	\$29, 939 15, 390 180, 728	28 90 29 99 32 72	\$64 25 37 62 63 18
Hekia Fire Northwestern National Madison Fire	286, 05 2 16, 382	332, 805 21,681	108,879 16,074	29, 190	74 13	178 18
Total	\$389,784	\$461,832	\$156, 452	\$255,247	33 87	\$65 48
Total						
Wisconsin Mutval Companies.					40 76	\$66 19
Germantown Farmers' Mutual	\$34, 62 3 5, 491	\$41,138 7,563	\$16,773 1,853	\$22,918 1,087	24 50 39 53	16 13 57 87
Herman Farmers' Mutual Milwaukee Mechanics' Mutual Vernon County Scandinavian Mutual Fire.	221, 816 209	224 , 543 368	88,882 97	128, 370 30	26 39	11 16
Total	\$262, 199	\$273,612	\$107,605	\$1: 2, 405	39 32	58 22
Total.						
Companies of other States.	٠				!	
_	\$2, 914, 713	\$3,260,\$95	\$809,593	\$1,986,065 99,464	24 83 43 38	\$68 14 94 20
Ætna, Conn	105, 589	123. 304	53,490 129,446	282, 022	56 12	138 03
	204, 305	230,456 743,052	309, 338	274, 976	40 28	39 65 48 09
American, Ill. American Central, Mo	693, 464 385, 592	423,294	142, 917	185, 439	33 76	
		394, 868	118, 437	202,056 47,838	29 99 43 31	60 56
American Fire, Pa	74, 732	86,590	37, 503 106, 560	214, 216	31 89	68 81
		334, 168 84, 114	30, 914	59,541	36 75	86 03
Atlantic, Fire and Marine	69, 202 166, 144	180,356	46,800	113,955	25 95	68 59

TABLE No. VII - continued.

·	Premiums.	Cash income.			PERCENT	AGE OF
NAME OF COMPANY.	received.		Expenses.	Losses paid.	Expenses to income.	Losses to premiums received.
Companies of other States - continued.						
Buffalo German, N. Y. Commerce, N. Y. Commerce Fire, N. Y. Commonwealth, Mass. Connecticut Fire, Conn.	199,541 85, 221 43, 642 156,187 356, 915	232, 885 106, 919 56, 388 176,006 433, 376	65, 833 34, 865 30, 797 65, 752 121, 377	106, 126 33, 945 19, 362 82, 974 177, 932	28 27 32 61 54 62 37 36 28 01	33 18 39 83 44 34 53 12
Continental, N. Y Detroit Fire and Marine, Mich Eliot, Mass. Equitable Fire and Marine, R. I Exchange Fire, N. Y	1, 465, 578 116, 024 77, 330 112, 751 116, 436	1, 624, 109 157, 962 100, 080 133, 692 142, 599	591, 260 42, 900 32, 748 43, 303 60, 349	694, 413 73, 249 49, 838 58, 899 53, 580	36 41 27 16 32 72 32 39 42 35	49 86 47 45 63 13 64 45 52 24 46 02
rairfield Fire, Conn 'anen'il Hall, Mass. 'Ire A-sociation, Pa 'Iremen's Fund, Cal. 'iremen's N. J	138, 558 211, 368 1, 187, 260 503, 840 210, 088	156, 787 239, 164 1,383, 111 552,711 272, 970	55,892 84,721 370,305 176,062 66,718	61, 540 120, 211 634, 975 275, 722 90, 086	35 65 35 42 26 77 31 85 24 44	44 42 56 87 53 48 54 72 42 88
iremen's Fire, Mass. iremen's Fund, N. Y ranklin Fire, Pa. erman, Ill erman American, N. Y	117, 644 104, 062 738, 110 165, 307 933, 049	156, 433 114, 527 913, 758 185, 348 1, 048, 668	40, 958 45, 564 361, 772 67, 940 357, 428	63,233 48,751 394,388 66,990 416,552	26 19 39, 79 39 20 36 65 34 09	53 74 46 85 53 43 40 52 44 64
ermania Fire, N. Y. irard Fire and Marine, Pa. lens Falls, N. Y. reenwich, N. Y. anover Fire, N. Y.	682, 819 323, 538 305, 563 201, 426 712, 601	771, 667 378, 401 348, 574 235, 833 801, 194	314, 376 124, 236 96, 599 78, 021 311, 052	327, 178 166, 751 176, 872 75, 331 376, 593	40 74 32 83 27 43 33 08 38 82	47 92 51 54 57 85 37 45 52 85
lartford Fire, Conn	1,629,821 111,839	1,794,021 179,621	501, 171 134, 547	1,019,989 3,466	27 94 74 90	62 58 0 39

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	Hoffman Fire, N. Y. Home, N. J. Home, N. Y. Home, Ohto	130,541 129,060 2,731,538	151,171 141,920 3,076,252	63, 586 40, 261 1, 060, 488	77,775 86,834 1,524,533	42 06 28 37 34 47 58 38	59 58 67 28 55 81 67 16
	Howard, N. Y	245,035 176,892 \$9,804	266, 577 214, 308 100, 879	136, 980 93.580 57, 798 40, 259	164,577 76,417 45,453 93,672	43 66 57 29 40 44	43 20 50 60 105 27
ING.	Humboldt, N. J. Insurance Company of North America, Pa. Insurance Company of the State of Penn. Irving, N. Y.	88, 982 3, 102, 125 183, 210 75, 975	99,440 3,399,479 216,010 91,343	738, 181 48, 150 86,545	2, 299, 254 144, 262 42, 333	21 71 22 29 40 01	74 12 78 74 55 72
	Lamar, N. Y. Lorillard, N. Y. Lycoming Fire, Pa. Manhattan Fire, N. Y. Manufacturers' Fire and Marine, Mass.	168, 311 114,603 400,956 688,720 377, 259	190, 400 137, 864 712, 485 721, 321 431, 333	56. 063 61, 500 172, 780 230, 962 93, 239	107,390 53,525 491,534 457,775 340,801	29 44 44 61 24 25 32 02 21 62	63 88 46 00 122 58 66 44 90 34
	Mechanics and Traders' Fire, N. Y. Mercantile, Ohio. Merchants', N. J. Merchants', R. I. Merdan Fire, Conn.	166, 450 92, 871 396, 538 163, 573 184, 496	200, 167 113,831 451,712 183,070 201,189	58,328 33,000 150,634 57,852 60,973	109, 201 62, 446 191, 078 111, 212 115, 116	29 14 28 99 33 35 31 60 30 31	65 67 67 24 48 19 67 99 62 39
	M.l'ville Mutual Marine and Fire, N. J. Mississippi Valley, Tenn National Fire, Conn. New York Central, N. Y New York City, N. Y	197, 453 74, 54 1 257, 865 163, 696 99, 608	201, 472 86,307 323,111 174,177 111,510	45, 954 41, 870 88, 458 43, 964 47, 967	162, 999 49, 486 154, 577 132, 294 46, 273	47 85 48 51 27 38 25 24 43 02	82 55 66 38 59 94 80 82 46 46
	Newark Fire, N. J	80,644 171,091 550,627 145,157 242,150	119,098 203,913 615,705 162,096 289,941	30,992 49,620 242,153 59,889 87,638	19, 777 95, 630 327, 860 80, 252 147, 058	26 02 24 33 39 33 55 28 30 23	24 52 55 89 59 54 86 95 60 73
	Pennsylvania Fire, Pa. People's, N. J. Phenix, N. Y Phenix, Conn Prescott, Mase.	540, 855 309, 129 1, 653, 217 1, 325, 555 140, 710	625, 452 332, 995 1, 771, 723 1, 441, 831 163, 401	185, 938 97, 248 548, 700 432, 376 48, 310	280,429 172,179 981,518 645,240 72,007	29 73 29 20 30 97 29 99 29 57	51 85 55 70 59 37 48 68 51 17
	Providence Washington, R. I. Resolute Fire, N. Y. Revere Fire, Mass Rochester German N. Y. Roger Williams, R., I.	322,781 35,598 89,965 171,971 276,995	351, 900 47,892 102, 919 191, 378 294, 538	75, 486 31, 944 44, 005 53, 471 73, 834	241, 976 59, 311 41, 639 108, 691 239, 084	21 45 66 70 42 76 27 94 25 07	75 00 166 61 46 28 63 20 86 31

TABLE No. VII — continued.

					Percent	FAGE OF
NAME OF COMPANY.	Premiums received	Cash income.	Expenses.	Losses paid.	Expenses to income.	Losses to premiums received.
Companies of other States—continued.						
St. Joseph Fire and Marine, Mo. St. Nicholas, N. Y. St. Paul Fire and Marine, Minn Safeguard, N. Y. Security, Conn.	\$176, 398	\$213,634	\$61,536	\$83,640	\$28 80	\$47 42
	127, 251	143,458	55,894	97,716	38 96	76 79
	574, 203	644,170	167,170	489,056	25 29	85 17
	135, 019	157,973	57,861	80,349	36 63	59 51
	303, 942	320 587	73,974	206,686	23 07	68 00
Shawmut, Mass. Shoe and Leather, Mass. Springfield Fire and Marine, Mass. Standard Fire, N. J. Standard Fire, N. Y.	260, 693	290, 806	78, 982	139, 717	27 16	53 50
	244,236	273, 889	58, 153	112, 483	21 23	45 05
	736, 818	824, 554	244, 338	351, 444	29 63	47 70
	153,926	169, 856	56, 344	114, 180	33 17	74 18
	86,505	108, 359	45, 430	51, 129	41 93	59 11
Star Fire, N. Y Toledo Fire and Marine, Ohio Trade, N. J. Traders', Iii. Union, Pa.	121, 937	146, 767	58,161	69, 287	39 63	56 82
	109, 633	120, 263	33,054	88, 703	27 48	80 91
	95, 354	110, 965	31,345	92, 335	28 24	97 72
	322, 406	379, 046	118,499	165, 949	31 26	51 47
	126, 956	141, 357	40,976	100, 029	28 99	78 79
Washington Fire and Marine, Mass. Watertown Fire, N. Y. Westchestr r Fire, N. Y. Williamsburgh City Fire, N. Y.	220, 867	258,314	51,243	203, 603	19 84	92 18
	436, 799	471,707	165,573	228, 887	35 10	52 40
	609, 386	648,296	227,474	328, 710	35 09	53 94
	349, 117	390,887	152,124	142, 828	38 92	40 91
Totals	\$38,013,243	\$41,118,905	\$13,463,651	\$22, 935, 817	\$32 74	\$60 33
Companies of Foreign Countries,						
British America Assurance Co., Can	\$687, 626	\$753, 075	\$227, 129	\$426,969	\$30 16	\$60 64
	902,011	931, 074	281, 151	475,830	30 20	52 75
	353, 723	379, 635	113, 434	153,154	29 88	43 30
	327,253	863, 751	89, 423	202,355	24 58	61 83

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La Caisse Generale, France Lancashire, G. B. Liverpool and London and Globe, G. B. London Assurance Corporation, G. B. North British and Mercantile, G. B. North German Fire, Germ. Queen, G. B. Royal, G. B. Royal, G. B. Royal Canadian, Canada. Scottish Commercial, G. B. Western Assurance Co., Canada.	481,183 2,553,709 387,364 1,239,776 327,973 7,669 901,672 1,669,272 801,347 508,963 775 978	334, 112 486, 448 2, 713, 059 414, 366 1, 322, 058 355, 281 10, 770 962, 770 962, 771, 431 839, 223 543, 064 830, 861	104.474 145.450 649.449 140,110 358,506 87,520 5,792 240,985 510,356 338,744 173,340 144,906	118, 470 288, 880 954, 466 185, 698 623, 075 172, 286 627 471, 392 727, 703 1, 145, 872 280, 730 515, 518	31 26 29 90 23 94 33 78 27 12 24 63 55 78 25 05 28 81 40 36 31 92 17 40	39 24 60 04 37 38 47 93 50 26 52 63 8 18 52 28 43 59 142 99 55 16 66 43
Totals,	\$12, 227,417	\$13,010,224	\$3,610,769	\$6, 733, 025	27 75	. 55 06
Marine Companies.						
Mercantile Mutual. N. Y. Orient Mutual, N. Y. Pacific Mutual, N. Y.	618 390	\$841, 177 652, 484 458, 726	\$126,878 98,664 128,078	\$620, 969 572, 498 288, 363	15 08 15 12 27 92	78 47 92 58 67 57
Totals	\$1,836,445	\$1,952,387	\$3 53, 620	\$1,481,825	18 11	80 68

Table No. VIII.

Showing the Premiums received and Losses paid by the companies named, from their organization to date.

NAME OF COMPANY.	Premiums received.	Losses paid.	Name of Company.	Premiums re-	Losses paid.
Wisconsin Joint Stock Companies.	\$233, 88 <u>5</u>	\$92,67 7	Commonwealth, Mass Connecticut Fire. Conn. Continental, N. Y Detroit Fire and Marine, Mich. Eliot. Mass.	442,957 2,039,979 17,511,554 2,053,252 522,198	136,405 952,112 9,442,603 1,205,057 158,654
Hekla Fire Northwestern National Madison Fire Totals	3,029,632	\$1,884,299	Equitable Fire and Marine, R. I. Exchange Fire, N. Y Fairfield Fire, Conn. Faneuil Hall, Mass. Fire Association, Pa.	2, 338, 023	1, 091, 958 1, 383, 549 592, 223 575, 305 3, 009, 326
Wisconsin Mutual Companies. Germantown Farmers' Mutual Herman Farmers' Mutual Milwaukee Mechanics' Mutual	2,031,042	\$14,521 \$85,922	Fire Association, Ta Firemen's Fund, Cal Firemen's, N. J Firemen's Fire, Mass Firemen's Fund, N. Y Franklin Fire, Pa	5, 025, 401 2, 355, 107 824, 933 1, 385, 884	3, 365, 237 702,807 305, 179 815, 237 10, 758, 673
Vernon County Scandinavian Mutual Fire. Totals	3,030	900, 903	German, Ill	963, 321 5, 420, 798 10, 148, 007 4, 365, 729	284,142 2,229,570 4,818,537 1,845,030 1,875,753
Companies of other States. Ætna, Conu	4,689,385 4,230,052	\$48, 515, 509 859, 864 2, 577, 285 1, 489, 640 2, 603, 705	Glens Falls, N. Y. Greenwich, N. Y. Hanover, Fire, N. Y. Hartford Fire, Conn. Hartford Steam Boiler Insp. and Ins., Co. Hoffman Fire, N. Y.	3,008 132 8,875,666 32,693,811 1,292,453	1, 226, 678 4, 651, 824 21 '197, 848 86, 327 1, 174, 359
American Fire, Pa. Amity, N. Y. Atlantic, N. Y. Atlantic Fire and Marine, R. I. Buffalo, N. Y.	5,904,960 302,107 2,005,969 2,906,469	3, 932, 006 108, 734 1,050, 942 2, 249, 878 317, 541	Home, N J	312,797 43,520,870	141,590 27,279,691 2,694,038 14,248,218 333,199
Buffalo German, N. Y	\$2,090,000	\$2,050,053 560,785	Humboldt, N. J	964, 990	562,780 43,568,356

		/	Springfield Fire and Marine, Mass	9,616,618	6,530,359
Insurance Company of the State of Pa			Standard Fire, N. J	577.440	327, 869
		337, 135	Standard Fire, N. Y	2,055,715	1,211,490
Irving, N. YLamar, N. Y	1,078,542	577, 326		1,951,933	1,047,459
Lamar, N. Y Lorillard, N. Y	,062,883	451, 595	Toledo Fire and Marine, Ohio		
Lorillard, N. Y	9,794,889	7,119,558	Toledo Fire and Marine, Onto		
Lycoming Fire, Pa		11	Trade, N. J	465, 195	272 , 916
-7 37	3, 599, 144	1,973,861	Trade, N. J	2,078,213	1,101,813
Manhattan Fire, N. Y Marine, Mass	2,615,324	1,328,511	Traders' Ill	13,363,415	9, 936, 562
Manhattan Fire, N. 1 Manufacturers' Fire and Marine, Mass Manufacturers' Fire N. Y	3, 301, 353	1,851,732	Union, Pa	1,558,770	800, 811
Manufacturers' Fire and Marino, Marino, Mechanics and Traders' Fire, N. Y	1, 110, 783	563,586	Washington Fire and Marine, mass	2,233,596	989, 812
Mechanics and Tradels First, 2	2, 902, 349	1, 124, 519	Watertown Fire, N. Y	2, 200,000	
Mercantile, Ohio Merchants', N. J	4,000,010			5, 610, 345	2,983,974
BIOTORULA	3, 973, 626	2,711,211	Westchester, Fire, N. Y	5, 224, 004	2,831,961
	875, 946	462, 105	Williamsburg City Fire, N. Y	5, 221, 001	.,,001,001
Merchants', R. 1	1, 188,002	666, 007		\$543,348,742	\$319,788,001
Meriden Fire, Collin. Millville Mutual Marine and Fire, N. J	1, 146, 977	555, 830	Totals	\$345, 340, 142	4010,100,001
		1,014,727			
Mississippi Valley, Tenn National Fire, Conn	2,228,385	1,014,121	Companies of Foreign Countries.	1	
National Pite, out-		1,103,616	British American Assurance Co., Can		
	1,709,154		Commercial Union Assurance Co., G. B	\$5,461,284	\$2,830,903
New York Central, N. 1 New York City, N. Y	694,552	354, 303	Commercial Union Assurance Con, C. 2	1 ''' 1	
New York City, N. J. Newark Fire, N. J.	1,245,645	212,476	ar a Danson Wine Corm	l	
New Humpshire Fire, N. H.	910,663	414, 221	Hamburg Bremen Fire, Germ	6,651,695	4,673,557
New Hampshire Fire, N. H. Niagara Fire, N. Y	0,242,452	5, 804, 105	Imperial Fire, G. B.		
Niagara Fire, N. 1			La Caisse Generale, France	2,908,009	1,512,030
Northern of N. Y	863,041	596,656	Lancashire, G. B.		22,910,649
Northern of N. 1.	2, 081, 233	1,092,863	L verpool and London and Globs, G. B	90,010,101	,,-
Orient, Conn	6,741,878	4, 959, 064			
Orient, Comn. Pennsylvania Fire, Pa. People's, N. J. Phenix, N. Y.	1,866,542	840, 422	London Assurance Corporation, G. B	13,064,381	9, 173, 230
People's, N. J	24, 315, 098	12, 621, 027	Nowth British and McCalllille, G. D	10,000,000	246, 236
Phenix, N. Y	., 525, 5				210,250
	20, 463, 940	12,441,173	I Brookh Comman Fire Ger M		4,618,352
	700,583	254, 360	Queen, G. B	7,592,101	4,010,000
Phoenix, Conn	100,000			I .	
Prescott, Mass. Providence, Washington, R. I.	2, 146, 629	1, 435, 794	Royal, G. B.		2,913,852
	204, 364	52,645			695, 683
Resolute Fire, N. 1	204, 504	0.0,010			090,000
	917, 204	405, 989	Western Assurance Company, Canada		
Rochester German, N. Y		2,296,088	11		
	3,213,953	638, 551	Totals.	\$81,208,980	\$49, 574, 492
	1,347,576	1, 344, 452	Totals		
St. Nicholas, N. Y	2,331,330	2,193,946	Marine Companies.		\$29,004,987
St. Nicholas, N. 1. St. Paul Fire and Marine, Minn	3,399,298	2,195,940	Mercantile Mutual, N. Y	. \$38, 324, 078	\$29,004,901
St. Paul File and Mariate,	0.40 22.0	סמיין אינסס	Uniont Mutual N V		0.000
Safeguard, N.'Y	848,572	327, 578	Pacific Mutual, N. Y	15,837,276	9, 325, 524
Safeguard, N.Y. Security, Conn	2,035,491	1,366,252	Lacine mineral, 11. T.		
Security, Conn	545, 278	208,345	Totals	\$54, 161, 354	s38,330,511
	1, 134, 575	421,238	T078,8		
Shoe and Leather, Mass					

¹ From March 14, 1836.

TABLE No. IX. - ASSETS AND LIABILITIES.

For the years 1875, 1876 and 1877.

NAME OF COMPANY.	LOCATION.	18	75.	18	76.	18	77.
That of Court Art.	HOURITOK.	Assets.	Liabilities.	Assets.	Liabilities.	Assets.	Liabilities.
Wisconsin Joint Stock Companies.							
Concordia Fire Hekla Fire Northwestern National Madison Fire	Milwaukee	\$72, 861 143, 500 347, 780 275, 383	\$47,080 35,045 243,761 124,157	\$98, 228 160, 232 877, 193 200, 184	\$50, 729 51,328 206,680 80,187	\$104, 341 225, 921 853, 395 1195, 928	\$51,795 52,667 172,083 48,327
Total	••••	\$1,339,524	\$450,043	\$1,335,838	\$388, 924	\$1, 379, 585	\$324,872
Wisconsin Mutual Companies.							
Germantown Farmers Mutual Hermsn Farmers' Mutual Milwaukee Mechanics' Mutual Vernon County Scandinavian Mutual Fire.	Woodland	\$266, 665 58, 768 712, 795 2, 226	\$68,111 15,291 247,018 714	\$272, 196 62, 705 769, 529 2, 417	\$74, 115 11, 565 250, 394 650	1\$109, 420 134, 231 1531, 408 2, 688	\$62, 229 13, 157 229, 617 725
Total		\$1,040,454	\$331,134	\$1,106,847	\$336,724	\$677,747	\$305,728
Companies of other States.		VI SANTANA TANÀNA TANÀN					
Ætna. Allemania Fire. Amazon American American Central	Hartford, Conn	\$6, 878, 127 378, 21 9 975, 282 905, 376 715, 338	\$2, 143, 034 153, 241 413, 761 611, 767 296, 547	\$7, 115, 624 348, 272 935, 162 882, 027 747, 467	\$2,170,388 109,930 416,551 449,969 244,622	\$6, 783, 867 307, 779 672, 141 904, 224 796, 941	\$2,011,997 79,099 180,019 433,919 289,107
American Fire Amity Atlantic Atlantic Fire and Marine Buffalo.	Brooklyn, N. Y	1, 220, 544 239, 269 503, 021 269, 411 291, 344	571. 215 26,021 169,971 55,639 68,547	1, 280, 976 231, 717 457, 966 267, 246 320, 188	509, 915 26,471 148, 779 50, 064 53, 070	1, 293, 661 222, 365 436, 747 262, 842 311, 579	473, 427 20, 272 127, 176 60, 441 64, 798

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Buffalo German, Commerce, Commerce Fire, Commonwealth, Connecticut Fire,	Buffalo, N. Y	647, 460 413, 261 266, 107 370, 064 942, 224	126, 203 65,446 30, 226 66, 803 195, 888	684,799 421,238 240,160 435,833 1,362,843	146, 730 57, 734 26, 784 80, 603 178, 869	702,074 407,297 240,379 646,990 1,388,313	120, 277 54, 800 38, 371 116, 096 239, 881
Continental, Detroit Fire and Marine, Ellot,! Equitable Fire and Marine, Exchange Fire,	New York, N. Y Detroit, Mich Boston, Mass Providence, R. I New York, N. Y	2,845,165 456,586 364,425 336,252 424,327	1,189,152 86,040 68,666 83,313 89,959	3,040,085 484,905 399,601 245,369 398,547	$\begin{array}{c} 1,196,069\\72,434\\68,511\\71,883\\65,078\end{array}$	3,173,933 499,959 394,654 344,970 383,901	1,177,432 65,836 62,420 74,628 71,113
Fairfield Fire, Fanculi Hall, Fire Association, Fireman's Fand, Firemen's,	South Norwalk, Conn. Boston, Mass Philadelphia, Pa San Francisco, Cal Newark, N. J	380, 610 547, 542 3,56 2 ,332 753, 467 900, 105	88, 060 126, 179 2, 196, 269 397, 688 141, 392	305, 314 519, 702 3,778, 651 703, 621 977, 437	70, 390 117, 635 2, 273, 672 301, 429 148, 384	313,018 516,517 3,796,085 738,637 1,083,325	74,530 151,492 2,331,830 209,467 133,266
Firemen's Fire,	Boston, Mass	617,782	172, 984	669, 407	146,188	684,817	117, 062
Firemen's Fand,		230,099	46, 536	210, 225	43,036	207,424	70, 430
Franklin Fire,		3,308,824	2, 239, 297	3, 352, 865	2,186,134	3,363,445	2, 112, 006
German,		369,030	106, 096	416, 371	116,369	455,877	146, 682
German American,		2,065,009	555, 304	2, 226, 552	574,715	2,321,709	637, 758
Germania Fire, Girard Fire and Marine, Glens Falls, Greenwich, Hanover Fire,	New York, N. Y Philadelphia, Pa Glens' Falls. N. Y New York, N. Y New York, N. Y	1,710,151 1,016,010 747,063	593, 991 385, 769 318, 511 700, 016	1,717,848 1,112,276 823,740 1,642,882	523, 048 391, 788 314, 260 633, 489	1, 631,820 1, 096, 673 850,764 625,412 1,621,698	478,782 347,773 316,938 119,926 568,300
Hartford Fire, Hartford Steam Boiler Insp. and Ins. Co Hoffman Fire, Home Home,	Hartford, Conn	3,032,184	1, 241, 115	3, 273, 868	1,173,319	3, 292, 913	1, 096, 880
	Hartford, Conn	245,847	36, 685	265, 594	31,055	285, 711	60, 289
	New York, N. Y	411,992	116, 539	387, 992	82,306	377, 345	79, 089
	Newark, N. J	251,759	33, 970	255, 836	41,564	281, 608	79, 456
	New York, N. Y	6,047,021	2, 147, 299	6, 104, 650	2,101,866	6, 109, 526	2, 092, 823
Home, Howard, Hudson, Humboldi, Insurance Company of North America,	Columbus, Ohio	504,605	184, 220	484, 922	120, 851	414,833	94, 746
	New York, N. Y	815,099	116, 529	793, 913	103, 290	747,753	115, 452
	Jersey City, N. J	332,559	121, 967	308, 726	101, 846	284,300	77, 478
	Newark, N. J	310,900	106, 574	294, 697	82, 543	262,834	60, 125
	Philadelphia, Pa	5,167,547	2, 245, 539	6, 601, 883	2, 235, 511	6,461,729	2,035, 104
Insurance Company of the State of Pa. Irving, Lamar,	Philadelphi, Pa	614, 950	294, 085	621, 974	240, 387	608,507	211, 344
	New York, N. Y	309, 629	68, 637	310,867	* 49, 233	282,822	43, 352
	New York, N. Y	408,092	90, 583	411,268	* 78, 496	398,305	71, 386

¹ Not including premium notes.

Table No. IX — Assets and Liabilities — continued.

		18	75.	18	76.	187	77.
NAME OF COMPANY.	LOCATION.	Assets.	Liabilities.	Assets.	Liabilities.	Assets.	Liabilities.
Companies of Other States — continued.							
Lorillard . Lycoming Fire . Manhattan Fire . Manufacturers' Fire and Marine Mechanics' and Traders' Fire .	New York, N. Y Muncy, Pa New York, N. Y Boston, Mass New York, N. Y	\$481, 423 506, 070 8C1, 092 1, 209, 419 660, 508	\$78,140 418,549 272,603 467,924 139,610	\$476, 286 5, 338, 977 850, 658 1, 229, 032 620, 337	\$65, 959 390, 211 293, 516 431, 223 104, 431	\$441, 298 1 280, 204 793, 239 1, 159, 030 561, 626	\$60, 805 380,155 335, 234 404, 845 95, 995
Mercantile	Cleveland, Ohio Newark, N. J Providence, R. I Meriden, Conn Millville, N. J	390, 843 901, 002 430, 368 335, 0£5 1, 377, 886	63, 691 285, 965 132, 158 99, 004 139, 920	393, 283 1, 003, 083 398, 828 321, 688 1, 442, 987	67, 055 302, 186 115, 612 91, 533 147, 190	364, 428 1, 045, 291 366, 308 323, 517 1 218, 156	63, 313 289, 392 115, 435 109, 277 123, 338
Mississippi Valley National Fire New York Central New York City Newark Fire	Memphis, Tenn Hartford, Conn Union Springs, N. Y New York, N. Y Newark, N. J	319, 802 1, 003, 201 270, 528 285, 206	62,949 247,110 159,277 48,669	275, 052 1, 040, 523 262, 081 265, 767	61,895 215,247 146,461 43,136	265, 863 1, 040, 722 241, 079 245, 919 671, 762	39, 496 192, 416 135, 843 54, 232 60, 469
New Hampshire Fire Niagara Fire Northern of New York. Orlent Pennsylvania Fire	Nanchester, N. H New York, N. Y New York, N. Y Hartford, Conn Philadelphia, Pa	1,473,211 332,639 766,622 1,559,853	515, 943 70, 511 197, 147 722, 115	471,855 1,442,445 366,468 776,179 1,675,694	114, 5 19 435, 508 72, 901 172, 641 762, 910	482, 971 1, 368, 579 375, 481 778, 279 1, 724, 482	119, 49 3 418, 249 90, 135 154, 226 779, 325
Peoples' Phenix Phemix Prescott Providence Washington.	Newark, N. J	429, 052 2, 549, 958 1,950, 304 369, 802 588, 669	169, 784 764, 623 964, 623 110, 418 142, 602	433, 482 2, 792, 902 2, 407, 531 385, 804 602, 122	135, 386 906, 556 875, 279 100, 810 16 1, 638	521,101 2,759,001 2,486,194 397,571 606,965	165,816 969,389 912,590 107,527 189,017

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Revere Fire. Rochester German Roger Williams A Barbara Marine	Boston, Mass Rochester, N. Y Providence, R. I St. Joseph, Mo New York, N. Y	\$229, 296 343, 780 406, 299 406, 569 322, 981	\$27,106 96,390 193,687 112,055 73,036	\$268, 374 367, 174 393, 226 420, 245 329, 537	\$48,670 110,118 188,109 93,465 69,976	\$274, 248 369, 103 385, 059 442, 760 289, 373	\$64,857 99,902 172,471 99,371 74,118
St. Nicholas. St. Paul Fire and Marine Safeguard. Security.	St. Paul, Minn New York, N. Y New Haven, Conn Boston, Mass	908, 881 353, 363 538, 170 564, 354	337, 226 109, 878 36, 445 174, 639	934, 660 384, 058 580, 150 642, 033	325,664 133, 265 97, 349 210, 095	858, 056 893, 189 386, C30 639, 964 673, 751	305, 880 76, 246 158, 393 137, 922 211, 3 51
Shoe and Leatner Springfield Fire and Marine Standard Fire Standard Fire Standard Fire	Springfield, Mass Trenton, N. J New York, N. Y New York, N. Y Toledo, Ohio	1, 290, 965 323, 739 421, 774 429, 343 234, 266	475, 784 96, 954 70, 040 104, 099 27, 059	1,515,672 324,901 427,132 450,713 252,391	513, 538 122, 240 58, 862 92, 714 44,130	1,636,029 306,625 408,248 418,423 251,380	596, 389 98, 232 48, 203 89, 141 46, 295
Star Fire Toledo Fire and Marine Trade Traders Union Washington Fire and Marine	Camden, N. J	264, 981 823, 479 294, 068 813, 873 694, 075	89, 806 164, 507 101, 444 270, 350 449, 382	213, 202 827, 359 359, 051 879, 604 725, 819	84, 686 145, 408 106, 380 267, 146 461, 064	284,342 812,321 333,162 809,030 741,268	68, 75 9 174, 079 97, 209 206, 766 472, 497
Washington Fire and Market Watertown Fire	New Rochelle, N. Y Brooklyn	\$59,700 828,151 \$86,689,251	429, 214 204, 045 \$31, 408, 219	861, 409 848, 510 \$96, 470, 99 0	359,909 191,687 \$30,355,919	903,141 872,836 \$93,639,214	\$82, 126 214, 422 \$30, 069, 480
Companies of Foreign Countries. British America Assurance Co	Toronto, Can London, G. B Hamburg, Germ	790, 593 614, 155	\$345, 584 430, 987 185, 372 283, 6 60	\$1, 107, 371 813, 389 667, 787 908, 529	\$431,421 389,494 184,938 267,971	\$1,102,556 1,159,534 715, 9 10 855,823	\$457, 155 566, 238 202, 320 260, 572 209, 765
Imperial Fire. La Caisse Generale Lancashire Liverpool and London and Globe	Paris, France Manchester, G. B. Liveerpool, G. B. London, G. B.	509, 562 3, 824,316 837, 867 1,719,062	282, 285 1, 927, 196 240, 015 924, 355	\$21, 936 495,109 3, 652, 063 905, 878 1, 767, 276	79, 437 282, 162 1, 837, 396 227, 393 780, 518 161, 354	428, 247 743, 727 3, 959, 901 950, 656 1, 710, 964 574, 670	318,147 2,191,769 256,795 765,558 203,115
North British and Mercantile Northern of London North German Fire. Queen	London, G. B Hamburg, Germ	359,538	517,682	1,422,571	527, 198	294,025 1,507,168	6, 745 527, 281

Not including premium notes,

TABLE No. IX. - Assets and Liabilities for the years 1875, 1876 and 1877 - continued.

NAME OF COMPANY.	LOCATION.	18	375.	18	1876.		1877.	
	LOCATION.	Assets.	Liabilities.	Assets.	Liabilities.	Assets.	Liab: lities.	
Companies of Foreign Countries - continued.		-						
Scottish Commercial, G. B. Western Assurance Company, Canada	Liveepool, G. B	577, 818	\$1,260,846 459,961 222,765 223,755	\$2,552,304 833,629 661,293 671,683	\$1,371,142 464,141 251,881 237,302	\$2,681,892 947,995 689,981 1,188,377	\$1,464,085 506,461 368,577 482,324	
Totals	• • • • • • • • • • • • • • • • • • • •	\$16, 236, 421	\$7,434,463	\$17, 342, 125	\$7, 493, 748	\$17,511,426	\$8, 786, 917	
Marine Companies.			-					
dercantile Mutnal, N. Y. Prient Mutval, N. Y. Pacific Mutual, N. Y.		\$1,028,525 1,851,062 1,002,390	\$323, 230 318, 313 309, 500	\$965, 479 1,476, 937 901, 726	\$271, 756 352, 338 277,211	\$907,282 1,561,951 808,740	\$249, 591 256, 157 263, 562	
Totals		\$3,881,977	\$951,043	\$3,344,142	\$901,305	\$3,277,973	\$769, 310	

		Premiums	Loss	ES
NAME OF COMPANY.	Risks written.	received.	Paid.	Incurred.
Wisconsin Joint Stock Companies.				
Concordia Fire Hekla Fire Northwestern National Madison Fire	\$3, 452, 150 2, 326, 298 5, 281, 538 1, 717, 967	\$46,704 34,655 61,881 21,917	\$29 '939 14, 833 28, 513 29, 190	\$28, 439 14, 713 26, 033 23, 496
Totals	\$12,777,953	\$165, 157	\$102,475	\$92,681
Wisconsin Mutual Companies. Germantown Farmers' Mutual Herman Farmers' Mutual Milwaukee Mechanics' Mutual Vernon County Scandinavian Mutual Fire Totals	\$2,353,527 446,160 8,758,647 57,713	\$36,126 5,169 126,177 269	\$22, 918 1, 087 73, 452 30 \$97, 447	\$22,918 1,087 73,452 30 \$97,487
Companies of other States.				
Ætna, Conn. Allemania Fire, Pa. Amazon, Ohio. American, Ill. American Central, Mo.	\$4, 184, 819 404, 700 581, 965 16, 278, 143 327, 535	\$58, 928 6, 041 6, 766 79, 055 6, 181	\$27, 854 3, 500 5, 715 48, 992 7, 629	\$34, 401 5, 100 7 765 53, 060 7, 879
American Fire, Pa. Amity, N. Y Atlantic, N. Y Atlantic Fire and Marine, R. I Buffalo, N. Y	\$1,097,918 80,517 447,250 152,275 860,885	11,547 839 6,302 1,184 7,513	5, 419 996 1,761 3, 661 6, 011	7, 419 996 1, 761 - 4, 065 9, 211
Buffalo German, N. Y	308, 525 129, 435	2,775 953	2,761 150	2,761 150

Table No. X. - Business in Wisconsin - continued.

•		Premiums	Lossus.	
NAME OF COMPANY.	Risks written.	received.	Paid.	Incurred.
Companies of other states — continued.				
ommerce Fire, N. Y	\$72,060 278,175 552,442 8,270,612 296,860	\$558 3,883 6,838 63,169 2,412	\$11 1,770 6,547 39,693 1,885	\$11 1,770 5,327 39,106 1,885
llot, Mass quitable Fire and Marine, R. I xchange Fire, N. Y. airfield Fire, Conn aneuil Itall, Mass	10%, 200	1, 112 1, 184 137 1, 921 5, 043	1,056 3,661 898 2,468	1,056 4,065 898 2,468
ire Association, Pa. ireman's Fund, Cal. iremen's, N. J. ireman's Fire, Mass. iremen's Fund, N. Y.	1, 768, 191 769, 155 407, 828 127, 700 182, 475	22, 659 10, 647 3, 653 963 3, 252	7,816 3,476 466 1,034	7, 922 3, 698 466 1, 034
ranklin Fire, Pa erman, Ill. erman American, N. Y ermania Fire. N. Y frard Fire and Marine, Pa.	1,073,781 979,794 2,168,273 1,387,128 1,249,878	14, 165 14, 004 29, 134 21, 856 12,533	6,582 6,451 14,178 18,£84 4,982	6, 582 6, 836 14, 581 21, 505 3, 671
lens Falls, N. Y reenwich, N. Y anover Fire, N. Y artford Fire, Coun artford Steam Boiler Insp. and Ins., Conn	4, 286, 685	8,762 21,856 57,657 2,382	3, 293 18, 584 29, 409 66	6,893 21,505 32,920 6,600
offman Fire, N. Y	01,000	947 322 96, 932	57,848	61,438

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		\$5,073 i	\$5,960	\$5,960
Home, Ohio	\$407,144	993	340	340
Home, Ohio Howard, N. Y	227, 210		3,282	3, 282
Howard N. Y.	239, 525	2,832		953
Howard, N. Y	98, 102	2,288	953	
Hudson, N. J. Humboldt, N. J.	4, 229, 908	67,789	34, 259	32,759
Humboldt, N. J. Insurance Company of North America, Pa.	4,229,900	01,100	i	
Insurance Company of North America, Tarritan		3,874		114
Insurance Company of the State of Pa	391,569	3,014	58	58
Insurance Company of the State of Pa. Irving, N. \underline{Y}	175,100	2,087		323
Inving N. Y	320, 817	3,810	23	11
Irving, N. Y Lamer, N. Y	377,650	2,944	11	
Lamar, N. Y. Lorillard, N. Y.	575,148	9, 371	2,196	6, 722
Lorillard, N.Y Lycoming Fire, Pa	3(3,140	0,010		
Lycoming Fire, Fa		10,118	7, 134	7, 134
Manhattan Fire, N. Y.	548, 803		7, 29	29
Manhattan Fire. N. Y	575,400	4,971	437	1, 331
Manhattan Fire. N. Y. Manufacturers' Fire and Marine, Mass	600,126	5,698		1, 98
Manufacturers' Fire and Marine, Mass. Mechanics and Traders' Fire, N. Y.	209, 559	1, 239	41	
Mechanics and Traders' Fire, N. Y. Mercantile, Ohio	887,332	10,918	6,945	6,542
Mercantile, Ohio Merchants', N. J.	001,002	20,000		
Merchants, N. 9	140 000	1,187	3, 661	4,065
Merchants', R. I	152, 275	2,101	478	478
Merchants', R. I	317, 158	3,964	10, 175	13, 237
Merchants', R. I Meriden Fire, Conn	734, 151	15,051		1,983
Meriden Fire, Conn	152,539	2,825	1,983	
	553, 321	6, 325	3, 227	5, 2 8 8
Missiesippi Valley, Tenn National Fire, Conn	555, 571			
National Fire, Cond	440 707	1,285	2,609	2,609
New York Central, N. Y	112, 505	1,280	,	
New York Central, N. 1	29,900	200		
New York Central, N. Y. New York City, N. Y. Newark Fire, N. J.				200
Newark Fire, N. J	61, 900	942		11, 145
Newark Fire, N. J. New Hampshire Fire, N. H.	1.094,375	13, 192	11,145	11, 140
New Hampshire Fire, N. H				
	-,,	· · · · · · · · · · · · · · · · · · ·	1	
Magara File, M. I		4 945	17	767
	139,095	4,945		767 7,569
Northern of N. Y	139, 095 727, 718	8,665	7, 569	7,569
Northern of N. Y	139, 095 727, 718	8,665 24,416	7, 569 16, 090	7,569 15,693
Northern of N. Y	139, 095 727, 718 1, 305, 556	8, 665 24, 416 6, 309	7, 569 16, 090 3, 313	7,569 15,693 4,807
Northern of N. Y Orient, Conn Pennsylvania Fire, Pa	139, 095 727, 718 1, 305, 556 499, 572	8,665 24,416	7, 569 16, 090	7,569 15,693
Northern of N. Y Orient, Conn Pennsylvania Fire, Pa	139, 095 727, 718 1, 305, 556 499, 572	8, 665 24, 416 6, 309	7, 569 16, 090 3, 313 25, 634	7,569 15,693 4,807 27,487
Northern of N. Y. Orient, Conn Pennsylvania Fire, Pa. People's, N. J. Phonix, N. Y.	139, 095 727, 718 1, 305, 556 499, 572 7, 164, 384	8, 665 24, 416 6, 309 64, 545	7, 569 16, 090 3, 313 25, 634 35, 236	7,569 15,693 4,807 27,487 31,486
Northern of N. Y Orient, Conn Pennsylvania Fire, Pa People's, N. J. Phenix, N. Y	139, 095 727, 718 1, 305, 556 499, 572 7, 164, 384 2, 658, 273	8, 665 24, 416 6, 309 64, 545 46, 796	7, 569 16, 090 3, 313 25, 634	7,569 15,693 4,807 27,487 81,486 1,948
Northern of N. Y Orient, Conn Pennsylvania Fire, Pa People's, N. J. Phenix, N. Y Phœnix, Conn.	139, 095 727, 718 1, 305, 556 499, 572 7, 164, 384 2, 658, 273 289, 570	8, 665 24, 416 6, 309 64, 545 46, 796 2, 375	7, 569 16, 090 3, 313 25, 634 35, 236 1, 948	7,569 15,693 4,807 27,487 31,486
Northern of N. Y Orient, Conn Pennsylvania Fire, Pa People's, N. J. Phenix, N. Y Phescot, Mass	139, 095 727, 718 1, 305, 556 499, 572 7, 164, 384 2, 658, 273 289, 570 1, 627, 346	8, 665 24, 416 6, 309 64, 545 46, 796 2, 375 12, 007	7, 569 16, 090 3, 313 25, 634 35, 236 1, 948 11, 431	7,569 15,693 4,807 27,487 81,486 1,948
Northern of N. Y Orient, Conn Pennsylvania Fire, Pa People's, N. J. Phenix, N. Y Phescot, Mass	139, 095 727, 718 1, 305, 556 499, 572 7, 164, 384 2, 658, 273 289, 570 1, 627, 346	8, 665 24, 416 6, 309 64, 545 46, 796 2, 375 12, 007 1, 166	7, 569 16, 090 3, 313 25, 634 35, 236 1, 948	7,569 15,693 4,807 27,487 81,486 1,948 11,886
Northern of N. Y Orient, Conn Pennsylvania Fire, Pa People's, N. J Phenix, N. Y Phœnix, Conn Prescot, Mass. Providence, Washington, R. I.	139, 095 727, 718 1, 305, 556 499, 572 7, 164, 384 2, 658, 273 289, 570 1, 627, 346 97, 275	8, 665 24, 416 6, 309 64, 545 46, 796 2, 375 12, 007	7, 569 16, 090 3, 313 25, 634 35, 236 1, 948 11, 431	7,569 15,693 4,807 27,487 81,486 1,948 11,886
Northern of N. Y Orient, Conn Pennsylvania Fire, Pa People's, N. J Phenix, N. Y Phœnix, Conn Prescot, Mass. Providence, Washington, R. I.	139, 095 727, 718 1, 305, 556 499, 572 7, 164, 384 2, 658, 273 289, 570 1, 627, 346 97, 275	8, 665 24, 116 6, 309 64, 545 46, 796 2, 375 12, 007 1, 166 1, 535	7, 569 16, 990 3, 313 25, 634 35, 236 1, 948 11, 431 11	7,569 15,693 4,807 27,487 31,486 1,948 11,836 261
Northern of N. Y Orient, Conn Pennsylvania Fire, Pa People's, N. J Phenix, N. Y Phenix, Conn Prescoti, Mass Providence, Washington, R. I Resolute Fire, N. Y Revere Fire, Mass	139, 095 727, 718 1, 305, 556 499, 572 7, 164, 384 2, 658, 273 289, 570 1, 627, 346 97, 275 146, 252	8, 665 24, 416 6, 309 64, 545 46, 796 2, 375 12, 007 1, 166 1, 535	7,569 16,090 3,313 25,634 35,236 1,948 11,431 11	7,569 15,693 4,807 27,487 81,486 1,948 11,836 261
Northern of N. Y Orient, Conn. Pennsylvania Fire, Pa People's, N. J. Phenix, N. Y Phœnix, Conn. Prescoti, Mass. Providence, Washington, R. I. Resolute Fire, N. Y Revere Fire, Mass.	139, 095 727, 718 1, 305, 556 499, 572 7, 164, 384 2, 658, 273 289, 570 1, 627, 346 97, 275 146, 252 325, 204	8, 665 24, 416 6, 309 64, 545 46, 796 2, 375 12, 007 1, 166 1, 535	7,569 18,090 3,313 25,634 35,236 1,948 11,431 11 	7, 569 15, 689 14, 807 27, 487 31, 486 1, 948 11, 836 261 2, 102 2, 102 2, 316
Northern of N. Y Orient, Conn Pennsylvania Fire, Pa People's, N. J. Phenix, N. Y Phenix, Conn Prescoti, Mass. Providence, Washington, R. I. Resolute Fire, N. Y Revere Fire, Mass. Rochester German, N. Y	139, 095 727, 718 1, 305, 556 499, 572 7, 164, 384 2, 658, 273 289, 570 1, 627, 346 97, 275 146, 252 325, 204 330, 165	8, 665 24, 416 6, 309 64, 545 46, 796 2, 375 12, 007 1, 166 1, 585 3, 366 6, 079	7,569 18,090 3,313 25,634 35,236 1,948 11,431 11 	7,569 15,693 4,807 27,487 31,486 1,948 11,836 261
Northern of N. Y Orient, Conn Pennsylvania Fire, Pa People's, N. J. Phenix, N. Y Phœnix, Conn Prescot, Mass. Providence, Washington, R. I. Resolute Fire, N. Y Revere Fire, Mass. Rochester German, N. Y Roger Williams, R. I.	139, 095 727, 718 1, 305, 556 499, 572 7, 164, 384 2, 658, 273 289, 570 1, 627, 346 97, 275 146, 252 325, 204 330, 165 227, 285	8, 665 24, 116 6, 309 64, 545 46, 796 2, 375 12, 007 1, 166 1, 535 3, 366 6, 079 2, 887	7, 569 16, 990 3, 313 25, 634 35, 236 1, 948 11, 948 11, 411 11 	7, 569 15, 689 14, 807 27, 487 31, 486 1, 948 11, 836 261 2, 102 2, 102 2, 316
Northern of N. Y Orient, Conn Pennsylvania Fire, Pa People's, N. J. Phenix, N. Y Phœnix, Conn Prescot, Mass. Providence, Washington, R. I. Resolute Fire, N. Y Revere Fire, Mass. Rochester German, N. Y Roger Williams, R. I.	139, 095 727, 718 1, 305, 556 499, 572 7, 164, 384 2, 658, 273 289, 570 1, 627, 346 97, 275 146, 252 325, 204 330, 165 227, 285	8, 665 24, 416 6, 309 64, 545 46, 796 2, 375 12, 007 1, 166 1, 585 3, 366 6, 079 2, 837 1, 289	7,569 16,090 3,313 25,634 33,236 1,948 11,431 11 2,102 3,896 2,462 655	7,569 15,693 4,807 27,487 81,486 11,948 11,836 261
Northern of N. Y Orient, Conn Pennsylvania Fire, Pa People's, N. J Phenix, N. Y Phenix, Conn Prescott, Mass Providence, Washington, R. I. Resolute Fire, N. Y Revere Fire, Mass. Rochester German, N. Y Roger Williams, R. I. St. Joseph Fire and Marine, Mo.	139, 095 727, 718 1, 305, 556 499, 572 7, 164, 384 2, 658, 273 289, 570 1, 627, 346 97, 275 146, 252 325, 204 330, 165 227, 235	8, 665 24, 116 6, 309 64, 545 46, 796 2, 375 12, 007 1, 166 1, 535 3, 366 6, 079 2, 887	7, 569 16, 990 3, 313 25, 634 35, 236 1, 948 11, 948 11, 411 11 	7,569 15,693 4,807 27,487 31,486 1,948 11,836 261
Northern of N. Y Orient, Conn Pennsylvania Fire, Pa People's, N. J. Phenix, N. Y Phenix, Conn Prescoti, Mass. Providence, Washington, R. I. Resolute Fire, N. Y Revere Fire, Mass. Rochester German, N. Y	139, 095 727, 718 1, 305, 556 499, 572 7, 164, 384 2, 658, 273 289, 570 1, 627, 346 97, 275 146, 252 325, 204 330, 165 227, 235	8, 665 24, 416 6, 309 64, 545 46, 796 2, 375 12, 007 1, 166 1, 585 3, 366 6, 079 2, 837 1, 289	7,569 16,090 3,313 25,634 33,236 1,948 11,431 11 2,102 3,896 2,462 655	7,569 15,693 4,807 27,487 81,486 11,948 11,836 261

Name of Company.	Risks Written.	Premiums Re-	Loss	ES.	
	TUSKS WILLED.	ceived.	Paid.	Incurred.	
Companies of other States - continued.					
Safeguard, N. Y	\$102,665	\$879	\$1	\$1	
Security, Conn. Shawmut, Mass. Shoe and Leather, Mass. Springfield Fire and Marine, Mass. Standard Fire, N. J.	880,500 272,672 409,735 1,377,577 179,386	8,539 2,912 3,646 24,365 3,776	5,667 2,007 1,203 17,028 1,825	5,677 2,007 19,382 1,825	
Standard Fire, N. Y Star Fire, N. Y Toledo Fire and Marine, Ohio Trade, N. J Traders', Ili	299, 450 157, 400 171, 551 54, 435 444, 079	2, 315 1, 394 1, 260 974 6, 801	889 685 34 1, 505 11, 011	889 685 106 1,656 11,391	
Union, Pa Washington Fire and Marine, Mass. Watertown Fire, N. Y Westchester Fire, N. Y Williamsburg City Fire, N. Y	153, 475 122, 699 2, 484, 693 994, 170 183, 650	1,415 958 21,987 10,947 1,584	403 397 10,548 4,957	403 397 10, 848 4,957	
Totals	\$100, 904, 163	\$1,094,240	\$642,604	\$753,905	
Companies of Foreign Countries.					
British America Assurance Co., Can. Commercial Union Assurance Co., G. B. Hamburg Bremen Fire, Germ. Imperial Fire, G. B. La Caisse Generale, France.	\$1,357,987 1,556,174 516,220 524,728 207,691	\$18, 158 15, 203 4, 545 7, 483 2,751	11, 827 8. 932 4, 759 1, 559 60	\$13, 827 8, 973 4, 759 1,559 60	
Lancashire, G. B. Liverpool and London and Globe, G. B. Liverpool and G. Liverpool an	743, 747 1, 524, 790	8, 978 16, 768	10, 924 3, 495	11,842 3,495	

London Assurance Corporation, G. B. North British and Mercantile, G. B. Northern Assurance Co. of London, G. B. North German Fire, Germ. Queen, G. B.	1,311,240	5, 505 33, 608 7, 483 15,276 21, 640	20, 901 833 17, 469 7,471	21, 989 833 17, 462 9, 021
Royal, G. B. Royal Canadian, Canada. Scottish Commercial, G. B. Western Assurance Company, Canada	477, 714 627, 862 82 1, 905	8,003 10,284 8,807 \$184,992	11, 272 7, 375 1, 879 \$108, 760	11, 491 7, 169 1, 879 \$114, 359
Totals	\$10,0M1,10T	7.02,000		
Mercantile Mutual, N. Y. Orient Mutual, N. Y. Pacific Mutual, N. Y.	\$3,700,361 907,268 2,107,714	\$25, 234 4, 533 7, 672	\$17,736 286 6,990	\$18,034 486 6,990
Totals	\$6,715,343	\$37,439	\$25,012	\$25, 510

TABLE No. XI. — AMOUNT OF STATE TAX PAID.*

Wisconsin Joint Stock Companies.

Wisconstit Gottle Stock Companies.		
Concordia Fire	\$924	15
Walto Dian	960	
Hekla Fire Northwestern National	1, 222	08
Madison Fire	279	43
Management File		
Total	\$3,385	22
10tal	φυ,υου (-
in the control of the		=
Wisconsin Mutual Companies.		
Westonette Mattace Companies.		
Germantown Farmers' Mutual	\$634 9	99
Tarmen Kanneare' Mutuel	265 (
Willyan box Mochanics Mutual	1,904	
Wilwankee Mechanics' Mutual Vernon County Scandinavian Mutual Fire.	10	
Vernon County Scandinavian Entition Fire		
Total	\$2,815	37
LULAI	4.0,020	
-		
Companies of other States.		
Ætna, Conn	\$1,178	56
Allamania Viva Da	120 8	84
Amoron Ohio	135	
American, [1]	1,581	
American, Ill. American Central, Mo.	123	63
American Fire, Pa. Amity, N. Y. Atlantic, N. Y. Atlantic Fire and Marine, R. I. Buffalo, N. Y	2 30 9	94
Amity N V	16 7	78
Atlantic N Y	126 (
Atlantic Fire and Marine R. I.	23 (68
Ruffalo N V	150 8	27
Ruffalo German, N. Y. Commerce, N. Y. Commerce Fire, N. Y.	55 5	52
Commerce N Y	19 (06
duammerca Fire N V	11 1	
Commonwealth, Mass. Connecticut Fire, Conn.	77 E	
den necticut Fire Conn	136 7	
Continental, N. Y. Detroit Fire and Marine, Mich. Eliot, Mass.	1,263 3	39
Statroit Fire and Marina Mich	72 2	
Evice Moss	23 2	
Estate, Mass	23 6	
Equitable, Fire and Marine. Exchange Fire, N. Y.	2 7	74
Fairfield Fire, Conn. Faneuil Hall, Mass. Fire Association, Pa. Firemen's Fund, Cal. Firemen's N. J.	38 4	14
Evanorit Hall Mass	100 8	
Wire Association Pa	453 1	í8
Wireman's Fund Cal	212 9	95
Wireman's N I	73 0	
E REGIGN B 11. 0		, •
Wireman's Fire Mass	19 %	26
Wiramen's Fund N V	65 (
Firemen's Fire, Mass Firemen's Fund. N. Y Franklin Fire, Pa German, Ill German American, N. Y	424	
Marmen III	280 0	
Garman American N V	582 6	
Wermania Fire N. Y	437 1	12
Germania Fire, N. Y	950 6	69
Glens Falls, N. Y. Green wich, N. Y. Manover Fire, N. Y.	175 3	
Freenwich N. V		
Wanover Fire, N. Y.	437 1	12
Wartford Fire. Conn	1,153 1	15
Heartford Steam Boiler Irsp. and Ins. Conn	70 6	54
Hoffman Fire, N. Y	18 9	95
Home, N. J.	6 4	46
Hartford Fire, Conn. Hartford Steam Boller Icsp. and Ins. Conn. Hoffman Fire, N. Y Home, N. J. Home, N. Y.	1,938 €	65
Flowerd, N. Y. Fludson, N. J.	101 4	
Feoward, N. Y	19 8	
Wudson, N. J.	56 6	
Humboldt, N. J	45 7	76
Humboldt, N. J. Insurance Company of North America, Pa.	1,355	79
437 4 10 3 310 0 0 0 0 3 0 0 0 0 0 0 0 0 0 0		

^{*} Not including fees paid, nor fire department tax.

Table No. XI — Amount of State Tax Paid — continued.

· · · · · · · · · · · · · · · · · · ·	
Insurance Company of the State of Pa. Irving, N. Y Lamar, N. Y Lorillard, N. Y Lycoming Fire, Pa	77 48 41 75 76 22 59 89 281 14
Manhattan Fire, N. Y. Manufacturers' Fire and Marine, Mass. Mechanics and Traders' Fire, N. Y. Mercantile, Ohio. Merchants' N. J.	202 38 99 43 113 96 24 79 218 37
Merchants', R. I Meriden Fire, Conn Millville Mutual Marine and Fire, N. J Mississippi Valley, Tenn National Fire, Conn	23 78 79 29 301 04 70 65 126 51
New York Central, N. Y. New York City. N. Y. Newark Fire, N. J. New Hampshire Fire, N. H. Niagara Fire, N. Y	25 70 5 60
New Hampshire Fire, N. H. Niagara Fire, N. Y	18 84 263 84
Northern of N. Y. Orient, Conn Pennsylvania Fire, Pa People's, N. J. Phenix, N. Y.	98 99 173 30 488 33 126 18 1,290 90
Phœnix, Coun. Prescott, Conn. Providence, Washington, R. I. Resolute Fire, N. Y. Revere, Fire, Mass.	935 93 47 52 240 15 23 33 30 71
Rochester German, N. Y Roger Willisms, R. I St. Joseph Fire and Marine, Mo St. Nicholas, N. Y St. Paul Fire and Marine, Minn.	67 33 121 58 56 74 25 08 780 16
Safeguard, N. Y. Security, Conn. Shawmut, Mass. Shoe and Leather, Mass. Springfield Fire and Marine, Mass.	17 59 170 78 58 24 72 92 487 32
Standard Fire, N. J. Standard Fire, N. Y. Star Fire, N. Y Toledo Fire and Marine, Obio Trade, N. J.	75 53 46 32 27 89 25 22 19 40
Traders', Ill. Union. Pa Washington Fire and Marine, Mass. Watertown Fire, N. Y. Westchester Fire, N. Y.	136 04 42 48 19 16 439 75 218 95
Williamsburg City Fire, N. Y	\$22, 196 03
Totals	φ22, 190 03
Companies of Foreign Countries.	000 ***
British America Assurance Co., Can. Commercial Union Assurance Co., G. B.	363 73 304 07
Hamburg Bremen Fire, Germ. Imperial Fire, G. B. La Caisse Generale, France Lancashire, G. B. Liverpool and London and Globe.	90 90 149 66 55 03 179 56 335 38
London Assurance Corporation, G. B North British and Mercantile, G. B Northern Assurance Co. of London, G. B C. — Inc.	116 11 676 17 149 66

Table No. XI — Amount of State Tax Paid — continued.

North German Fire, Germ		
Queen, G. B.	305 5	4
Royal, G. B. Royal Canadian, Canada. Scottish Commercial, G. B. Western Assurance Company, Canada.	205 68	8
Total	\$3,700 55	3
Marine Companies.		=
in the conspanies.		
Mercantile, Mutual, N. Y. Orient Mutual, N. Y. Pacific Mutual, N. Y.	\$504 68 90 66 1 5 3 48	6
Total	\$748,79	9
Miscellaneous Companies.		_
Arctic, N. Y Citizens', St. Louis, Mo German American, Pa Farragu', N. Y Frankliu, St. Louis, Mo.	48 79 34 67	2: 7 9:
Reading, Pa	7 86	6
Total	\$199 58	8
Recapitulation		•
Wisconsin joint stock companies	\$3,385 83 2,815 37 22,196 03	7
Companies of fereign countries	3,700 53 748 79 199 48	9
Grand total	\$33,046 13	3
· · · · · · · · · · · · · · · · · · ·		-

NOTE.

The computation of net assets given in table No. VI is (except in a few instances) made on figures as given in statements, and not on those constituting "Assets admitted by department."

STATEMENTS

OF

Fire & Marine Insurance Companies.

WISCONSIN JOINT STOCK COMPANIES.

CONCORDIA FIRE INSURANCE COMPANY,

MILWAUKEE, WISCONSIN.

(Incorporated in 1870. Commenced business in 1870.)

JOBST H. BUENING, President. GUSTAV WOLLAEGER, Secretary.

I. — CAPITAL.

Capital authorized	\$500,000 00
Capital actually paid up in cash	11,910 00
II.—ASSETS.	
Loans on bond and mortgage, first liens	\$53,925 00
Interest due on bond and mortgage loans	1,334 39
Value of lands mortgaged	
Value of buildings mortgaged	• • • • • • • • • • • • • • • • • • • •
Total value of said mortgaged premises	188,850 00
Cash in the company's principal office, in currency \$823 49	**********
Cash belonging to the company, deposited in bank	•••••
Total amount of cash items	\$39,823 49
Gross premiums in due course of collection	7,707 91
Bills receivable, not matured, taken for fire, marine and inland risks	1,050 88
All other property belonging to the company, office furniture	500 00
Aggregate of all the assets of the company, stated at their actual value \dots	104, 341 67

III. - LIABILITIES.

Reinsurance at 50 per cent. of premium, on fire risks under one year	\$50,581 72 1,214 15 \$51,795 87 11,910 00 40,635 80 \$104,841 67
IV.—INCOME DURING THE YEAR.	
	\$46,442 24 5,986 51 \$52,428 75
T DYDDANDIGUIDEG DUDING MUE VEAD	
V.—EXPENDITURES DURING THE YEAR.	
Net amount paid during the year for losses	\$29,939 17
Paid for commissions and brokerage	8,727 05 3,386 00
Paid for state national and local taxes	1,306,13
All other payments, viz.: office rents. traveling expenses, printing, stationery, advertising, and all other incidental expenses.	1,728 60
Aggregate amount of expenditures during the year, in cash	\$45,086 95
VIMISCELLANEOUS.	
In force December 31, 1876. \$6,314,259 00 Written during 1877. 3, 452, 150 00 Total 9,766,409 00 Deduct those expired and marked as terminated 2, 809, 451 00 Net amount in force December 31, 1877. 6,956, 958 00 In force, having not more than one year to run 1,458, 340 00 Having more than one year and not more than three years to run 4, 403, 691 00 Having more than three years to run 1,094, 927 00 Net amount in force 6,956,958 00	Prem's thereon. \$93, 950 91 46, 704 71 140, 655 62 42, 878 21 97,777 41 20, 015 57 61, 132 78 16, 629 06 97,777 41
GENERAL INTERROGATORIES.	
Total premiums received from the organization of the company to date	\$233,885 42
Total losses paid from the organization of the company to date	92,677 46
Total amount of losses incurred during the year	•
Total amount of the company's stock owned by the directors, at par value	,
Total dividends payable in stock	
Total amount loaned to officers and directors, secured by mortgage	•
Total amount loaned to stockholders, not officers, secured by mortgage	4,000 00

HEKLA FIRE INSURANCE COMPANY.

(Incorporated in 1871. Commenced business in 1871.)

J. A. JOHNSON, President.

HALLE STEENSLAND, Secretary.

I. — CAPITAL.	
Capital authorized	\$500,000 00
Capital actually paid up in cash	152, 622 75
II. — ASSETS.	
11 11001110.	
Loans on bond and mortgage (first liens)	\$156,794 95
Loans on collaterals	9,860 07 5,000 00
Cash in company's principal office, in currency	3,000 00
Cash belonging to the company, deposited in bank	
	40,612 63
Net premiums in due course of collection	3,406 33
Bills receivable, taken for fire risks	7,810 87
All other property belonging to the company, viz.: due from agents, \$3,863.28; tax certificates, \$200.83; office furniture (cost \$770.10), \$400.00	4,437 11
Gross amount of all the assets of the company	\$227,921 96
and doubtful debts and securities.	2,000 00
Aggregate of all the assets of the company, stated at their actual value	\$225,921 96
riggregate of all the assets of the company, stated at their actual value	
III LIABILITIES.	
Losses unadjusted, including all reported and supposed losses \$1,600 00	•••••
Losses resisted, including interest, cost and expenses	
Total gross amount of claims for losses	\$2,000 0 0
Re insurance at 50 per cent. of premium, on fire risks, under one year	•••••
Re-insurance, pro rata, on fire-risks running more than one year. 36,638 87	
	47,969 52
Due on account	1,147 73
Due to agents (net)	1,550 45
Total liabilities, except capital stock	\$52,667 70
Capital stock actually paid up in cash	152,622 75
Surplus beyond capital stock	20,631 51
Total	\$225,921 96
IV INCOME DURING THE YEAR.	
Gross cash received for premiums	· · · · · · · · · · · · · · · · · · ·
Deduct re insurance, rebate and returned premiums	
Net cash received for premiums	\$40,908 30
Received for interest on bonds and mortgages	13,997 40
Income received for recording fees	13 00
Increased capital	52, 622 75
Aggregate amount of income received during the year in cash	\$107,541 45

V.—EXPENDITURES DURING THE YEAR.

V. Mari Bright Delving Till 1.	m111.	
Net amount paid during the year for losses		\$15,390 87
Cash dividends paid		11,836 53
Paid for commissions and brokerage		•
Salaries and all other charges of officers, clerks, agents, and all o		-
Paid for state, national and local taxes		
All other payments, viz.: office rents, traveling expenses, print advertising, and all other incidental expenses		
- '		
Aggregate amount of expenditures during to year, in cash		\$43,579 91
. VI. — MISCELLANEOUS.		
VI.— MISCEPHANEOUS.	Fire	Premiums
In force December 31, 1876.	Risks. \$5,513,232 00	Thereon. \$85,797 17
In force December 31, 1876	\$5,513,232 00 2,651,382 00	\$85,797 17 45,076 56
Totals	\$8,164,614 00	\$180,873 73
Deduct those expired and marked off as terminated	2,537,224 00	33,516 08
In force December 31, 1877	5,627,390 00	97, 357 65
Deduct amount re-insured	30,850 00	476 51
Net amount in force December 31, 1877	\$5,596,540 00	\$96,881 14
In force, having not more than one year to run	\$1,259,818 00	\$22,661 30
Having more than one year and not more than three years to run	1,649,147 00	24,892 40
Having more than three years to run	2,687,575 00	49, 327 44
Net amount in force	\$5,596,540 00	\$96,881 14
GENERAL INTERROGATORIES.		
Total premiums received from the organization of the company to		\$164,018 95
Total losses paid since the organization of the company to date.		44,380 34
Total dividends declared since the company commenced business Total amount of losses incurred during the year		25,801 88 15,270 87
Total amount of the company's stock owned by the directors, at p	•	76,800 00
Total amount loaned to directors.		7,250 00
Total amount loaned to stockholders, not officers		3,806 11
Amount deposited in the state of Wisconsin for the security of p		51,300 00
	- 10	
,		
MADISON FIRE INSURANCE CO	AMDANÚ	
MADISON FIRE INSURANCE OF	JMITAIN I.	
(Incorporated in 1851. Commenced business	in 1851.) 💰	
DAVID ATWOOD, President. BUEL E. HUT	CHINSON,	Secretary.
·		·
CAPITAL.		
Whole amount of guaranty capital authorized		\$250,000 00
Whole amount of guaranty capital actually paid up		100,000 00
II ASSETS.		
Value of real estate owned by company, less incumbrances		\$12,300 00
Loans on bonds and mortgages (first liens)		\$1,400 00

Loans on bond and mortgage (first liens) upon which i	more than one	year's in	-
terest is due			
Interest due and accrued on bond and mortgage loans.			
Stocks and bonds owned by the company:	Par value.	Market value.	
U. S. 5:20 registered bonds	\$15,000 00	\$16,200 0	0
Madison city bonds	20,500 00	20,500 0	0
Town of Sparta bonds	10,000 00	10,000 0	
Town of Lodi bonds	3,000 00	3.000 0	
Town of Excelsior bonds	5,000 00	5,000 0	
"In Guaranty Fund," Madison city bonds	10,500 00	10,500 0	0
Bonds and mortgages in "Gnaranty Fund,"			
Cash in the company's principal office, in currency		\$947 5	
Cash belonging to the company, deposited in bank		8,875 2	5
Total amount of cash items			- 9,822 84
Interest due and accrued on bills receivable in notes.			. 1,070 00
Net premiums in due course of collection			9,053 26
Bills receivable, matured and not matured, taken f			
loaned			
All other property belonging to the company, viz., turn			
rents due and accrued, \$218 83	••••••••••		
Total cash assets			
Premium notes	••••••	•••••	30,119 78
Gross amount of all the assets of the company			\$228, 167 76
Amount which should be deducted from the above ass	ets on accour	nt of bad an	
doubtful debts and securities	 .		2,066 08
doubling dobbs and bootstates.			
			\$226, 101 68
Aggregate of all the assets of the company, stated			
	at their actu		\$226, 101 68
Aggregate of all the assets of the company, stated	as their actu		\$226, 101 68
Aggregate of all the assets of the company, stated $IIILIABILITI$	at their actu ES. ed losses	al value	\$226, 101 68 00
Aggregate of all the assets of the company, stated III. — LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses Net amount of unpaid losses	ES. sed losses	al value	\$226, 101 68
Aggregate of all the assets of the company, stated III. — LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses Net amount of unpaid losses	ed losses	\$1,770 (\$226,101 68 00
Aggregate of all the assets of the company, stated III. — LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses Net amount of unpaid losses. Reinsurance at 50 per cent. of premium, on fire risk year.	ed losses	\$1,770 (1,440) \$4,205	\$226,101 68 00
Aggregate of all the assets of the company, stated III.—LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses Net amount of unpaid losses	ES. sed losses ss, under one	\$1,770 (\$226,101 68 00
Aggregate of all the assets of the company, stated III.—LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses Net amount of unpaid losses	ES. sed losses s, under one n one year	\$1,770 (1,440 : \$4,205 40,825	\$226,101 68 000
Aggregate of all the assets of the company, stated III.—LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses Net amount of unpaid losses	ES. sed losses s, under one n one year iskes.	\$1,770 (1,440) \$4,205 40,825	\$226,101 68
Aggregate of all the assets of the company, stated III.—LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses Net amount of unpaid losses	ES. sed losses s, under one n one year ske	\$1,770 (1,440) \$4,205 40,825	\$226,101 68 00
Aggregate of all the assets of the company, stated III.—LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses Net amount of unpaid losses	ES. sed losses s, under one n one year ske	\$1,770 (1,440) \$4,205 40,825	\$226, 101 68
Aggregate of all the assets of the company, stated III.—LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses Net amount of unpaid losses	ES. sed losses s, under one n one year ske	\$1,770 1,440 \$4,205 40,825	\$226, 101 68 \$226, 101 68 3, 210 30 3, 210 30 45, 031 04 22 30 63 49 \$48, 327 13 100,000 00
Aggregate of all the assets of the company, stated III.—LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses Net amount of unpaid losses	ES. sed losses s, under one n one year ske	\$1,770 1,440 \$4,205 40,825	\$226,101 68 300 3,210 30 49 45,031 04 22 30 63 49 \$48,327 13 100,000 00 47,654 08
Aggregate of all the assets of the company, stated III.—LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses Net amount of unpaid losses	ES. sed losses s, under one n one year ske	\$1,770 1,440 \$4,205 40,825	\$226, 101 68 300 330 3, 210 30 49 45, 031 04 22 30 63 49 \$48, 327 13 100, 000 00 47, 654 08 30, 119 73
Aggregate of all the assets of the company, stated III.—LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses Net amount of unpaid losses	ES. sed losses s, under one n one year ske	\$1,770 1,440 \$4,205 40,825	\$226,101 68 300 3,210 30 49 45,031 04 22 30 63 49 \$48,327 13 100,000 00 47,654 08
Aggregate of all the assets of the company, stated III.—LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses. Reinsurance at 50 per cent. of premium, on fire risk year Reinsurance, pro rata, on fire risks running more that Amount required to safely reinsure all outstanding ridue and accrued for salaries, rent and other expenses all other demands against the company. Total liabilities, except guaranty fund. Guaranty fund. Surplus beyond capital stock. Premium notes.	ES. sed losses s, under one n one year ske s.	\$1,770 1,440 \$4,205 40,825	\$226, 101 68 \$226, 101 68 3, 210 30 45, 031 04 22 30 63 49 \$48, 327 13 100, 000 00 47, 654 08 30, 119 73 \$226, 101 68
Aggregate of all the assets of the company, stated III. — LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses Net amount of unpaid losses	ES. sed losses s, under one n one year iske THE YEAR.	\$1,770 1,440 \$4,205 40,825	\$226, 101 68 00
Aggregate of all the assets of the company, stated III.—LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses. Net amount of unpaid losses. Reinsurance at 50 per cent. of premium, on fire risk year. Reinsurance, pro rata, on fire risks running more that Amount required to safely reinsure all outstanding ridue and accrued for salaries, rent and other expenses all other demands against the company. Total liabilities, except guaranty fund. Guaranty fund. Surplus beyond capital stock. Premium notes. IV.—INCOME DURING. Gross premiums received in cash Gross cash received on bills and notes taken for premium states.	ES. sed losses s, under one n one year ske THE YEAR	\$1,770 1,440 \$4,205 40,825 \$17,272 2,401	\$226, 101 68 00
Aggregate of all the assets of the company, stated III. — LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses. Net amount of unpaid losses. Reinsurance at 50 per cent. of premium, on fire risk year. Reinsurance, pro rata, on fire risks running more that Amount required to safely reinsure all outstanding rid Due and accrued for salaries, rent and other expenses All other demands against the company. Total liabilities, except guaranty fund. Guaranty fund. Surplus beyond capital stock Premium notes. IV. — INCOME DURING Gross premiums received in cash Gross cash received on bills and notes taken for premiums.	ES. sed losses s, under one n one year ske THE YEAR	\$1,770 1,440 \$4,205 40,825	\$226, 101 68 \$226, 101 68 3, 210 30 3, 210 30 45, 031 04 22 30 63 49 \$48, 327 13 100, 000 00 47, 654 08 30, 119 73 \$2226, 101 68
Aggregate of all the assets of the company, stated III.—LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses. Net amount of unpaid losses. Reinsurance at 50 per cent. of premium, on fire risk year. Reinsurance, pro rata, on fire risks running more that Amount required to safely reinsure all outstanding ridue and accrued for salaries, rent and other expenses all other demands against the company. Total liabilities, except guaranty fund. Guaranty fund. Surplus beyond capital stock. Premium notes. IV.—INCOME DURING. Gross premiums received in cash Gross cash received on bills and notes taken for premium states.	ES. sed losses s, under one n one year iske THE YEAR	\$1,770 1,440 \$4,205 40,825 \$17,272 2,401 \$19,674	\$226, 101 68 \$226, 101 68 3, 210 30 3, 210 30 45, 031 04 22 30 63 49 \$48, 327 13 100, 000 00 47, 654 08 30, 119 73 \$2226, 101 68
Aggregate of all the assets of the company, stated III. — LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses. Net amount of unpaid losses	ES. sed losses s, under one n one year ske THE YEAR	\$1,770 1,440 \$4,205 40,825 \$17,272 2,401 \$19,674	\$226, 101 68 000
Aggregate of all the assets of the company, stated III. — LIABILITI Losses unadjusted, including all reported and suppose Losses resisted, including interest, cost and expenses. Net amount of unpaid losses. Reinsurance at 50 per cent. of premium, on fire risk year. Reinsurance, pro rata, on fire risks running more that Amount required to safely reinsure all outstanding ride and accrued for salaries, rent and other expenses All other demands against the company Total liabilities, except guaranty fund. Guaranty fund. Surplus beyond capital stock. Premium notes. IV.— INCOME DURING Gross premiums received in cash. Gross cash received for premiums. Deduct reinsurance, rebate and returned premiums. Net cash received for premiums.	ES. sed losses s, under one n one year ske THE YEAR niums	\$1,770 1,440 \$4,205 40,825 \$17,272 2,401 \$19,674	\$226, 101 68 \$226, 101 68 3, 210 30 3, 210 30 45, 031 04 22 30 63 49 \$45, 327 13 100, 000 00 47, 654 08 30, 119 73 \$226, 101 68 67 54 22 \$16, 382 32

Received for interest and dividends on stocks and bonds, collaterals, loans, and from all other sources	3, 926 99
Income received from all other sources, viz.: rents, \$776.35; recording fees, \$29.00	805 35
Aggregate amount of income received during the year, in cash	\$21,681 33
V EXPENDITURES DURING THE YEAR.	
Net amount paid during the year for losses	\$29, 190 6 7
Cash paid for purchased policies to reduce amount of risks	1,051 55
Paid for commissions or brokerage	4,403 33
Salaries and all other charges of officers, clerks, agents, and all other employes.	6, 379 37
Paid for state, national and local taxes	666 11
All other payments, advertising, \$333.05; exchange, \$82.25; traveling expenses,	
\$1,817.34; office expenses, \$176.52; postage, \$248.52; printing and stationery,	
\$921.50	3,573 18
Aggregate amount of expenditures during the year, in cash	\$45, 264 21
VI. — MISCELLANEOUS. Fire risks. Pre	m's thereon.
In force December 31, 1876\$16,078,283 00	\$228, 159 40
Written during 1877	21,917 48
Total	\$250,076 83
Deduct those expired and marked off as terminated 6,612,557 00	88,990 28
In force December 31, 1877	161,086 60
Deduct amount reinsured	169, 27
Net amount in force	\$160,917 33
In force, having not more than one year to run 645, 151 00	8,410 99
Having more than one year and not more than three years to run. 2,981,353 00	38,352 44
Having more than three years to run	114,323 17
Net amount in force	\$161,086 60
GENERAL INTERROGATORIES.	
Total amount of losses incurred during the year	\$23,496 81
Amount deposited in state treasury of Wisconsin for security of policy holders.	63,000 00
,	
NORTHWESTERN NATIONAL INSURANCE COMPA	NY.
2, OZYZZZ JI ZNEZISZE Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	
(Incorporated in 1869. Commenced business in 1869.)	

ALEXANDER MITCHELL, President. JOHN P. McGREGOR, Secretary.

·	•
I. — CAPITAL.	
Capital authorized	
II.—ASSETS.	
Loans on bond and mortgage (first liens),	

. •		
Value of land mortgaged	00	••••••
\$436 500	00	
Total value of said mortgaged premises	e. Market value.	
Stock and bonds owned by company.		
1). S. Bonds, 08 01 1001		••••••
11. S. Bonds, 58 01 1001		
II. S. Bonds, 5-20 01 1005		
1) S. Bonds, 5-20 of 1001		
11. S. Dunus, 05		•••••
Milwaukee & St. Paul Railway bonds 15,000		
Milwaukee City Water bonds		
Chicago, Mil. & St. Paul first mortgage bonds 40,000	00 10,000 00	
Milwaukee Iron Co.'s bond	00 == 1	
Total par and market value \$547,000	00 \$586,625 00	\$586,625 00
Cash in the company's principal office, in currency	\$1,502 16	
Cash belonging to the company deposited in bank		•••••
Cash belonging to the company deposited in bank		\$86,183 40
Total amount of cash items. Interest due and accrued, not included in market value		500 00
Interest due and accrued, not included in market value		23,618 01
Gross premiums in due course of collection	rieks	631 50
Bills receivable not matured, taken for fire, marine and inland	n losses already	
All other property belonging to the company, viz.: salvage of	ilwaykaa Roards	
paid, \$2, 153 67; certificates of membership of Chicago and M	IIWaukee Doulds	2,884 11
of Trade, \$455 00; due from insurance companies, \$275 44	• • • • • • • • • • • • • • • • • • • •	
Aggregate of all the assets of the company, stated at their	actual value	\$853,395 35
III. — LIABILITIES.		
	** ***	
Losses adjusted and unpaid		•••••
Losses unadjusted, including all reported and supposed losse	s 14,021 40	• • • • • • • • • • • • • • • • • • • •
Losses resisted, including interest, cost and expenses	2,000 00	
Net amount of unpaid losses and claims		17,045 25
Do incurance at 50 per cent, of premium, on fire risks unde	r one	
VAST	\$100,970 50	••••
Re-insurance pro rata, on fire risks running more than one yes	ar 45,947 03	
De incurance on marine risks	3,400 00	150,317 59
All other demands against the company, viz.: commissions a	nd brokerage due	
agents		4,72085
agenus		\$172,083 69
Total liabilities, except capital stock		600,000 00
Capital stock actually paid up in cash	••••••	81,311 66
Surplus beyond capital stock		
		\$853,395 3 5 =======
IV INCOME DURING THE Y	EAR.	
Fire	Marine and	
	Infant.	
Gross premiums received in cash	2 17 \$42,526 74	••••
Deduct re-insurance, rebate and return premiums 34,50	3 95 722 35	
8944 94	8 22 \$41,804 39	\$286,052 61
Net cash received for premiums \$244,24		11,440 00
Received for interest on bonds and mortgages	and from all other	•
Received for interest and dividends on stock and bonds, a	mu nom an outor	35,312 43
sources		
Aggregate amount of income received during the year in	cash	\$332,805 04 =======

V.—EXPENDITURES DURING THE YEAR.

Fire.

Marine and Inland.

Gross amount paid for losses	\$149,772 14	\$33,386 09	
Deduct salvage and reinsurance	. 2,221 25	, ,	
Net amount paid during the year for losses		\$33,178 06	\$180,728 97
Cash dividends paid			30,000,00
Paid for commissions and brokerage			49 067 90
Salaries, and all other charges of officers, clerks, age	nts and all otl	her employees	27,332 80
Paid for state, national and local taxes			12 282 64
All other payments, viz.: office rent, traveling ext	enses, printir	g, stationery	,
advertising, and all other incidental expenses	•••••••		26, 196 49
Aggregate amount of expenditures during the y			\$319,608 80
VI. — MISCELLAI	NEOUS.		
Fire Risks.	Premium		
In force December, 1876	thereon. \$334,464 55	inland risk \$153,000 00	
Written during 1877 26, 304, 251 00	278,752 17		\$2,300 00 42,526 74
Totals \$51,464,480 00			
Deduct those expired and marked of	\$613,216 72	\$5, 323, 500 00	\$44,826 74
as terminated	817, 112 83	5, 153, 500 00	41, 426 74
In force December 31, 1877 \$25,631,445 00	\$296, 103 89	\$170,000 00	\$3,400 00
Deduct amount reinsured 287, 850 00	2,035 59		• • • • • • • • • • • • • • • • • • • •
Net amount in force Dec. 31, 1877. \$25, 343, 595 00	\$294,068 30	\$170,000 00	\$3,400 00
In force, not having more than one			
year to run \$17,989,892 00	\$201,941 13	\$170,000 00	\$3,400 00
Having more than one year, and not			
more than three years to run 5,947,367 00	71,281 13	••••••	
Having more than three years to run. 1,406,336 00	20,846 04	••••	
Net amount in force	\$294,068 30	\$170,000 00	\$3,400 00
GENERAL INTERROGA	TORIES.		
Total premiums received from the organization of the	company to	late	\$3 029 632 93
Total losses paid from the organization of the compar	av to date		1,747,242 35
Total dividends declared since the company commen	ced business.		180,000 09
Total amount of losses incurred during the year			171, 184 31
Total amount of the company's stock owned by the	lirectors, at no	ır value	327,600 00
Total dividends payable in stock	•••••	• • • • • • • • • • • • • • • • • • • •	174,000 00
BUSINESS IN THE STATE OF WISCONSIN	DEEDVALG MANN		
THE STATE OF WISCONSIN			
Pietra tetron	Fire.		Aggregate.
Risks taken			\$5, 281, 538 00
Losses paid on risks taken	59, 435 44	2,445 83	61,881 32
Losses incurred during the year in Wisconsin	28, 497 67	15 44	28, 513 11
Taxes on premiums paid to the state of Wisconsin	26,017 89	15 44	••••
Taxes on premiums paid to fire departments in Wis-	1,742 94	•••••	••••
consin	490 98		

WISCONSIN MUTUAL COMPANIES.

GERMANTOWN FARMERS' MUTUAL INSURANCE COM-PANY.

(Incorporated 1854. Commenced business in 1854.)

GEORGE NAAB, President.

MARTIN SCHOTTLER, Secretary.

I. — CAPITAL.		
Capital authorized		Mutual.
II ASSETS.		
Value of real estate owned by the company, less incumbrances		\$6,500 00
Loans on bond and mortgage (first liens)	•••	50, 725 43
Loans on bond and mortgage (first liens), upon which more than on	e year's in-	
terest due	•••••	3,650 00
Interest due on bond and mortgage loans	\$2,144 84	•••••
Interest accrued on bond and mortgage loans	2,446 90	
• • • • • • • • • • • • • • • • • • •		4,591 74
Loans on collaterals		13,254 28
Cash in company s principal omee in carrency	\$7,941 58	
Cash in banks	1,800 00	
•		9,741 58
Interest due and accrued on collateral loans	· · · · · · · · · · · · · · · · · · ·	1,084 67
Net premiums in due conrse of collection	•••••	18,052 00
Bills receivable for fire risks		1,021 80
All other property belonging to the company, viz.: office furniture.	• • • • • • • • • • • • • • • • • • • •	890 00
Gross amount of all the assets of the company Premium notes	••••••	\$109,420 70 156,397 32
Aggregate of all the assets of the company, stated at their actua	l value	\$265,818 02
III.—LIABILITIES.		
Re-insurance at 50 per cent. of premiums on fire risks, under one		
year	\$5,150 00	•••••
Re-insurance, pro rata, on fire risks running more than one year.	57,079 39	
		\$62 , 229 3 9
Amount required to safely reinsure all outstanding risks		62, 229 39
Total liabilities, except premium notes		\$62,229 39
Premium notes		156, 397 32
Surplus beyond premiums notes		47, 191 31
		\$265,818 02

IV. - INCOME DURING THE YEAR.

	Gross cash received for premiums	•••••
	Deduct re-insurance, rebate and return premiums	•••••
	Net cash for premiums.	\$34,623 46
	Bills and notes received during the year for premiums remaining	
	unpaid\$1,021 30	
	Received for interest on bonds	6,515 37
	Aggregate amount of income received during the year in cash	41,138 83
	V EXPENDITURES DURING THE YEAR.	
	Net amount paid during the year for losses	\$22,918 77
	Paid for commissions and brokerage	5,418 90
	Salaries and all other charges of officers, clerks, agents, and all other employes	4,400 00
	Paid for state national and local taxes	944 32
	All other payments, viz.: office expenditures	6,010 39
	Aggregate amount of expenditures during the year, in cash	
	and the desired of outperferences during the year, in cash	\$39,692 38
	VI MISCELLANEOUS.	
	Fire	Premiums thereon.
	In force December 31, 1876	\$137,767 07
	Written during 1877	36, 126 07
	Total\$12,042,844 00	\$173,893 14
	Deduct those expired and marked off as terminated 2,664,606 00	48, 936 76
	Net amount in force December 31, 1877	\$125,956 38
	In force, having not more than one year to run	10,300 00
•:	Having more than one year and not more than three years to run. 2,323,518 00	34, 145, 17
	Having more than three years to run	80,511 21
	Net amount in force \$9,378,238 00	\$124,956 38
	Ψυ, υ, υ, ωυ υ	φ124, 950 56
	BUSINESS IN THE STATE OF WISCONSIN DURING THE YEAR 1877.	
	Risks talon	0.950 505 00
	Premiums received	2, 353, 527 00
	Losses paid on risks taken	36, 126 07 22, 918 77
	Losses incurred.	22,918 77
	Taxes on premiums paid to the state of Wisconsin	767 91
	Taxes on premiums to fire departments in Wisconsin	145 00
		140 00
	· · · · · · · · · · · · · · · · · · ·	

HERMAN FARMERS' MUTUAL INSURANCE COMPANY.

(Incorporated in 1856. Commenced business in 1857.)

JOHN ZIRBEL, President.

JOHN STEINER, Secretary.

I. -CAPITAL.

II.-ASSETS.

Loans on bond and mortgage (first liens)	\$20,000 00
Interest due on bonds and mortgage loans	
Interest accrued on bond and mortgage loans 844 65	
	908 65
Value of lands mortgaged 59,500 00	•••••
Value of buildings mortgaged 10,000 00	••••
\$69,500 00	••••
Personal notes with sufficient sureties	8,434 64
Cash in the company's principal office, in currency	1,863 48
Interest due and accrued on collateral loans	272 03
Gross premiums in course of collection	3,323 32
Bills receivable, taken for fire, marine and inland risks, past due	259 29
All other property belonging to company, viz.: office furniture	300 00
Premium notes	32,736 29
Gross amount of all the assets of the company	\$67,097 70
Amount which should be deducted from the above assets, on account of bad	
and doubtful debts and securities	130 18
Aggregate of all the assets of the company, stated at their actual value	\$66,967 52
III.—LIABILITIES.	
Re.insurance at 50 per cent of premium on fire risks, under one	
year \$80 26	
Re-insurance. pro rata, on fire risks running more than one year 12,412 22	
Amount required to safely re-insure all outstanding risks	\$12,492 48
All other demands against the company, viz.: commissions and brokerage	664 66
Makel Makilities, except promism notes	\$13, 157 14
Total liabilities, except premium notes	32,736 29
	21,074 09
Surplus beyond premium notes	×1,01± 00
•	\$66, 967 52
IV.—INCOME DURING THE YEAR.	
Gross premiums received in cash	•••••
Deduct re-insurance, rebate and return premiums	
Net cash received for premiums	\$5,491 70
Received for interest on bonds and mortgages	1,432 00
Received for interest on notes	639 54
Aggregate amount of income received during the year, in cash	\$7,563 24
R.— EXPENDITURES DURING THE YEAR.	
Net amount paid during the year for losses	\$1,087 90
Paid for commissions and brokerage	1,123 46
Salaries and all other charges of officers, clerks; agents and other employees.	330 1 5
Paid for state, national and local taxes	158 20
All other payments, viz.: traveling expenses, printing, stationery, advertising,	
and all other incidental expenses	241 85
Aggregate amount of expenses during the year, in cash	\$2,941 56
VIMISCELLANEOUS.	Durantan :
Fire Risks.	Premiums Thereon.
In force December 31, 1876	\$25,941 62
Written during 1877 446, 160 00	5, 169 47
Totals	\$31,111 09

Deduct those expired and marked off as terminated	470,391 00	5, 542	62
Net amount in force December 31, 1877	\$2,243,900 00	\$25, 568	4'7
In force, having not more than one year to run	\$14,835 00	\$160	53
Having more than one year and not more than three years to run.	215,749 00	3,332	
Having more than three years to run	2,013,316 00	22,075	
Net amount in force	\$2,243,900 00	\$25, 568	
GENERAL INTERROGATORIES.			_
Total premiums received from the organization of the company t	o date	\$46,839	92:
Total losses paid from the organization of the company to date	••••••	14, 521	
Total amount of losses incurred during the year	•••••	1,087	
Total amount loaned to officers and directors	• • • • • • • • • • • • • • • • • • • •	8,013	
BUSINESS IN THE STATE OF WISCONSIN DURING THE	YEAR 1877.		=
Risks taken		\$446,160	00
Premiums received		5, 169	
Losses paid on risks taken		1,087	
Losses incurred		1,087	
	:	_,001	=

MILWAUKEE MECHANICS' MUTUAL INSURANCE COM-PANY.

(Incorporated in 1852. Commenced business in 1852.)

CHRISTIAN PREUSSER, President. ADOLPH J. CRAMER, Secretary.

I .- CAPITAL. Capital authorized..... Mutual. 11.-ASSETS. Value of real estate owned by the company, less incumbrances..... \$43,420 00 Loans on bond and mortgage (first liens)..... 30,310 52 Loans on bond and mortgage (first liens), upon which more than one year's interest is due..... 5,052 63 Interest due on bond and mortgage loans..... \$795 00 Interest accrued on bond and mortgage loans..... 969 00 1,764 00 Value of lands mortgaged..... \$60,800 00 Value of buildings mortgaged (insured for \$19,400 as collateral)... 40,300 90 Total value of said mortgaged premises.... \$101,100 00 Par Market Stocks and bonds owned by the company: value. U. S. Government bonds, 6s of '81..... \$254,900 00 \$274,017 00 Milwaukee City water bonds..... 60,000 00 66,000 00 Brown County bonds... 20,000 00 19,000 00 Milwaukee County bonds..... 10,000 00 10,500 00 German American Bank, Chicago, stock.... 1,000 00 1,000 00 Cream City Railway Co., Milwaukee, stock. 2,100 00 2,050 00 Total par and market value..... \$348,000 00 \$372,567 00 \$372,567 00-

• ·	
Cash loans secured by collaterals	6,000 00
Cash in the company's principal office, in currency 2,218 18	•••••
Cash belonging to the company, deposited in bank 41,892 59	44,110 77
Interest due and accrued on collateral loans	480 00
Net cash premiums in due course of sollection	21,697 90
All other property belonging to the company, viz.: due from other companies	
for reinsurance, \$1,750; interest bearing notes, \$4,755.11; office furniture,	
\$2, 000	8,505 11
Premium notes	191,287 71
Gross amount of all the assets of the company	\$725, 195 64
Amount which should be deducted from the above assets, on account of bad	•
and doubtful debts and securities	500 00
Aggregate of all the assets of the company, stated at their actual value	\$724,695 64
Aggregate of all the assets of the company, stated at their actual value	φ124, 0π5 04
TIT TIADITIMINA	
III.—LIABILITIES.	
Losses adjusted and unpaid	•
Losses unadjusted, including all reported and supposed losses 979 00	
Losses resisted, including interest, cost and expenses 2,000 00	
Net amount of unpaid losses	\$5,928 00
Reinsurance at 50 per cent. of premium, on fire risks under one	
year	••••
Reinsurance, pro rata, on fire risks running more than one year. 143, 478 78	
Amount required to safely reinsure all outstanding risks	223,689 77
Total liabilities, except premium notes	\$229,617 77
Premium notes and office furniture	193, 287 71
Surplus beyond premium notes and all other liabilities	301,790 16
Total	\$724,695 64
IV INCOME DURING THE YEAR.	
Gross premiums received in cash	**********
Gross cash received on bills and notes taken for premiums 22,015 58	••••
Gross cash received for premiums\$233,736 07	
Deduct re-insurance, rebate and return premiums	•••••
Net cash received for premiums	\$221,816 03
Received for interest on bonds and mortgages	937 24
Received from rents	1,790 00
Aggregate amount of income received during the year in cash	\$224,543 27
Bills and notes received during the year, for premiums remaining	,,
unpaid\$21,697 90	
TO THE PROPERTY OF THE PROPERT	
V.—EXPENDITURES DURING THE YEAR.	
Net amount paid during the year for losses	\$128, 370 79
Paid for commissions and brokerage	45,470 05
Salaries and all other charges of officers, clerks, agents, and all other employes	21,055 52
Paid for state, national and local taxes	7,726 78
All other payments, viz.: traveling expenses, printing, stationery, advertising	•
and all other incidental expenses	14,630 63
Aggregate amount of expenditures during the year, in cash	\$217, 253 77
Magic Base amount of expenditures during the Jear, in cash	4411,400 11

TIT MICCUITANUOTIC		
VI. — MISCELLANEOUS.	Fire risks.	Prem's thereon.
In force December 31, 1876	\$30, 290, 059	00 492,811 30
Written during 1877	16, 642, 058	00 233,418 39
Total	\$46, 932, 117	00 726, 229 69
Deduct those expired and marked off as terminated	17, 728, 574	00 267,080 48
In force December 31, 1877	\$29, 203, 543	00 459, 149 24
In force, having not more than one year to run	\$10,740,706	00 160, 421 98
Having more than one year and not more than three years to run	11, 161, 117	00 177, 344 54
Having more than three years to run	7,301,720	00 121,382 75
Net amount in force.	\$29, 203, 543	00 459, 149 24
GENERAL INTERROGATORIES.		
Total premiums received from the organization of the company t	o date	\$2,031,042 61
Total losses paid from the organization of the company to date		
Total amount of losses incurred during the year		
Total amount loaned directors on mortgage		
Losses incurred		73,452 76
	MUTUA	73,452 76
	MUTUA	78,452 76
VERNON COUNTY SCANDINAVIAN INSURANCE COMPANY (Incorporated in 1867. Commenced business	MUTUA	<u>78,452 76</u>
VERNON COUNTY SCANDINAVIAN INSURANCE COMPANY (Incorporated in 1867. Commenced business	MUTUA	<u>78,452 76</u>
VERNON COUNTY SCANDINAVIAN INSURANCE COMPANY (Incorporated in 1867. Commenced business L. C. STEENBERG, President. OLE	MUTUA 7. in 1870.) JOHNSO	
VERNON COUNTY SCANDINAVIAN INSURANCE COMPANY (Incorporated in 1867. Commenced business L. C. STEENBERG, President. OLE I.—CAPITAL.	MUTUA 7. in 1870.) JOHNSO	78,452 76 L FIRE N, Secretary.
VERNON COUNTY SCANDINAVIAN INSURANCE COMPANY (Incorporated in 1867. Commenced business L. C. STEENBERG, President. I.—CAPITAL. Capital authorized.	MUTUA in 1870.) JOHNSO	
VERNON COUNTY SCANDINAVIAN INSURANCE COMPANY (Incorporated in 1867. Commenced business L. C. STEENBERG, President. I.—CAPITAL. Capital authorized. II.—ASSETS.	MUTUA in 1870.) JOHNSO	
VERNON COUNTY SCANDINAVIAN INSURANCE COMPANY (Incorporated in 1867. Commenced business L. C. STEENBERG, President. I.—CAPITAL. Capital authorized. II.—ASSETS. Cash loans on personal security	MUTUA in 1870.) JOHNSO	
VERNON COUNTY SCANDINAVIAN INSURANCE COMPANY (Incorporated in 1867. Commenced business L. C. STEENBERG, President. I.—CAPITAL. Capital authorized.	MUTUA 7. in 1870.) JOHNSO	73,452 76 L FIRE N, Secretary. Mutual \$2,413 43 100 00 150 00

Deduct for doubtful assets

50 00

\$2,698 43

III. - LIABILITIES.

Reinsurance at 50 per cent. of premium, on fire risks, under one year Reinsurance, pro rata, on fire risks running more than one year Amount required to safely reinsure all outstanding risks	550 00	\$725 0 0
Total liabilities		
Surplus		\$725 00 1,963 43
		2,688 43
IV INCOME DUDING TWO TYPES		
IV.—INCOME DURING THE YEAR.		
Net cash received for premiums		\$269 54 99 14
Aggregate amount of income received during the year in cash		\$368 68
V EXPENDITURES DURING THE YEA	AR.	
P aid for osses:		\$30 00
Salaries and all other charges of officers, clerks, agents, and all other	er employes	90 19
Paid for state, national and local taxes		6 84
Aggregate amount of expenditures during the year in cash		127 03
VI MISCELLANEOUS.		
	Fire	Premiums
In force December 31, 1876	risks.	
TTT- 2-4 - 3 - 4 - 4 Owns	9127. I/I 00	thereon. \$650.00
Written during 1877	\$127, 171 00 57, 713 00	\$650 00 269 54
	57,713 00	\$650 00 269 54
Total	\$186,884 00	\$650 00 269 54 \$919 54
Total Deduct those expired and marked off as terminated	\$186,884 00 64,412 00	\$650 00 269 54 \$919 54 194 54
Total Deduct those expired and marked off as terminated In force December 31, 1877	57,713 00 \$186,884 00 64,412 00 \$122,472 00	\$650 00 269 54 \$919 54 194 54 \$725 00
Total Deduct those expired and marked off as terminated In force December 31, 1877 In force, having not more than one year to run	\$186, 884 00 64, 412 00 \$122, 472 00 70,133 00	\$650 00 269 54 \$919 54 194 54 \$725 00 145 00
Total Deduct those expired and marked off as terminated In force December 31, 1877 In force, having not more than one year to run Having more than one and not more than three years to run.	\$186, 884 00 64, 412 00 \$122, 472 00 70,133 00 4,000 00	\$650 00 269 54 \$919 54 194 54 \$725 00 145 00 50 00
Total Deduct those expired and marked off as terminated In force December 31, 1877 In force, having not more than one year to run	\$186, 884 00 64, 412 00 \$122, 472 00 70,133 00	\$650 00 269 54 \$919 54 194 54 \$725 00 145 00
Total Deduct those expired and marked off as terminated In force December 31, 1877 In force, having not more than one year to run Having more than one and not more than three years to run. Having more than three years to run	\$7,713 00 \$186,884 00 64,412 00 \$122,472 00 70,133 00 4,000 00 148,347 00	\$650 00 269 54 \$919 54 194 54 \$725 00 145 00 50 00 530 00
Total Deduct those expired and marked off as terminated In force December 31, 1877 In force, having not more than one year to run Having more than one and not more than three years to run. Having more than three years to run	\$7,713 00 \$186,884 00 64,412 00 \$122,472 00 70,133 00 4,000 00 148,347 00	\$650 00 269 54 \$919 54 194 54 \$725 00 145 00 50 00 530 00
Total Deduct those expired and marked off as terminated In force December 31, 1877 In force, having not more than one year to run Having more than one and not more than three years to run. Net amount in force. GENERAL INTERROGATORIES. Total premiums received from the organization of the company to design of the company to design.	57, 713 00 \$186, 884 00 64, 412 00 \$122,472 00 70,133 00 4,000 00 148,347 00 \$222,480 00	\$650 00 269 54 \$919 54 194 54 \$725 00 145 00 50 00 530 00 \$725 00
Total Deduct those expired and marked off as terminated In force December 31, 1877 In force, having not more than one year to run Having more than one and not more than three years to run. Net amount in force. GENERAL INTERROGATORIES. Total premiums received from the organization of the company to date	57, 713 00 \$186, 884 00 64, 412 00 \$122,472 00 70,133 00 4,000 00 148,347 00 \$222,480 00	\$650 00 269 54 \$919 54 194 54 \$725 00 145 00 50 00 530 00
Total Deduct those expired and marked off as terminated In force December 31, 1877 In force, having not more than one year to run Having more than one and not more than three years to run. Net amount in force. GENERAL INTERROGATORIES.	57, 713 00 \$186, 884 00 64, 412 00 \$122, 472 00 70, 133 00 4, 000 00 148, 347 00 \$222, 480 00	\$650 00 269 54 \$919 54 194 54 \$725 00 145 00 50 00 530 00 \$725 00 \$3,038 82

7 - Ins.

WISCONSIN MUTUAL HAIL INS. COMPANY.

MUTUAL HAIL INSURANCE COMPANY.

MILWAUKEE, WISCONSIN.

SAMUEL RINDSKOPF, President. CARL MIEDING, Secretary.

Net assets January 1, 1877		\$29, 922 72
RECEIPTS OF THE YEAR 1877:		
Cash premiums	\$14,824 07	
Premium notes	2,963 33	
Interest	139 80	
TitleTest		17,927 20
Total		\$47,849 92
DISBUESEMENTS FOR THE YEAR 1877:		
Losses by hail paid	\$2,277 96	
Cash premiums refunded	25 97	
Premium notes canceled	5,575 98	
Commissions to agents	3,047 97	
Salaries to officers	4,777 00	
Traveling expenses	804 90	
Appraisers' fees and expenses	410 90	
Postal and revenue stamps	224 58	
General expenses	2,652 24	
Losses by bad notes	94 51	••••
Hobbits of the manner of the m		\$19,892 01
Net assets January 1 1878		27,957 91
CONSISTING OF: Premium notes	\$7,322 02	
Office furniture	,	
Mortgages		
Cash on hand and in bank		
	•	••••
Due from agents		\$27,957 91
Number of policies issued in 1877		2, 497
Amount of risks thereon		\$1,424,308 83
Amount of risks written in Wisconsin during the year		1,092,087 51

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ANNUAL REPORT

OF THE

COMMISSIONER OF INSURANCE

OF THE

STATE OF WISCONSIN.

JULY 1, 1878.

PART II. - LIFE AND ACCIDENT INSURANCE.

MADISON, WIS.:

DAVID ATWOOD, PRINTER AND STEREOTYPER.

1878.

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NINTH ANNUAL REPORT

OF THE

COMMISSIONER OF INSURANCE

PART II.—LIFE AND ACCIDENT INSURANCE.

STATE OF WISCONSIN, DEPARTMENT OF INSURANCE,
MADISON, June 15th, 1878.

To His Excellency, Wm. E. SMITH,

Governor of the State of Wisconsin.

Sir:—I have the honor to submit, as required by law, the ninth annual report of this department, pertaining to the life and accident insurance companies transacting business in the state during the past year.

In view of the recent failures among life insurance companies, it is not strange that the people have so far lost confidence in them that the business shows a marked falling off in premiums and number of policies in force. Of the twenty-one companies now transacting business in the state, only three show an increase in number of policies issued during the year 1877. But as these failures have in nearly, if not every instance, been due to dishonest management, this distrust should only extend to the management of the companies, and not to life insurance itself. The conviction, already secured, of many of the officers whose reckless and dishonest management has brought ruin upon certain companies, with the prospect of the conviction of many more of the offenders, and the thorough examinations made, and being made, of life insurance companies, should go far towards restoring confidence in them.

This distrust of life insurance companies has caused the forma-

ation of "Aid Societies," "Relief Societies," "Royal Templars," etc., which, under different cloaks, take advantage of the popularity of similar local institutions and do a thriving business. This class of companies make no pretense of complying with the laws regulating the business of life insurance, claiming not to be life insurance companies within the meaning of the law. If this claim could be maintained it would make the people of the state a prey to all conceivable frauds, gotten up under various disguises, which can only be guarded against by bringing them within the scope of our life-insurance laws, and the strict enforcement of them. It would seem that section 2 of chapter 13, general laws of 1871, which reads as follows:

"No corporation, association, partnership or individual, doing business in this state under any charter, compact or agreement involving any insurance, guaranty, contract pledge for the payment of annuities or endowments, or for the payment of moneys to the families or representatives of policy or certificate holders or members, shall make such insurance, guaranty or contract therein, or with any resident of this state, except in accordance with and under the conditions and restrictions of the statutes now or hereafter regulating the business of life insurance,"

clearly makes this class of companies amenable to the life insurance laws. That the question may be settled, however, beyond dispute, a test case has been arranged for trial at an early date. No disparagement is intended of our Masonic, Good Templars, or other societies organized to give their members the benefit of insurance at a low cost; the enforcement of the law will tend to protect them as well as the people of the state.

COMPANIES TRANSACTING BUSINESS IN THE STATE IN 1877.

During the year 1877, twenty-five life and accident insurance companies were licensed by this department. The Universal Life Insurance Company, of N. Y., having become insolvent, its license to transact busines in this state was revoked July 18, 1877.

COMPANIES WITHDRAWN

The following companies that transacted business in the state in 1877, have not been licensed for the current year:

Charter Oak Life, of Hartford, Conn. Globe Mutual Life, of New York. Metropolitan Life, of New York.

COMPANIES NOW TRANSACTING BUSINESS IN THE STATE.

Twenty-one companies have been licensed for the present year as follows:

NAME OF COMPANY,	LOCATION.	Paid Capital.	Commenced Business.
Northwestern Mutual	Milwaukee	Mutual	. 1858
Ætna	Hartford	\$1 50, 000	* 1850
Connecticut Mutual	Hartford	Mutual	1846
Continental	Hartford	300,000	1864
Equitable Life Assurance Society	New York	100,000	1859
Germania	New York	200,000	1860
Home	Brooklyn	125, 000	1860
Manhattan	New York	100,000	1850
Massachusetts Mutual	Springfield, Mass	Mutual	1851
Mutual Benefit	Newark	Mutual	1845
Mutual	New York	Mutual	1843
National of U.S.A	Chicago	1,000,000	1868
New England Mutual	Boston	Mutual	1843
New York	New York	Mutual	1845
Penn Mutual	Philadelphia	Mutual	1847
Phenix Mutual	Hartford	100,000	1851
Railway Passengers' Assurance	Hartford	300,000	1866
Travelers'	Hartford	600,000	1866
United States	New York	250,000	1850
Union Mutual	Augusta, Me	Mutual	1849
Washington	New York	125,000	1860

From their statements made to this department, it appears that these companies had on the 31st of December, 1877, admitted assets amounting to \$367,436,680; liabilities, exclusive of capital, \$309,078,687; capital stock, \$3,250,000; net surplus, \$55,381,143; total income, \$79,098,502; total expenditures including losses, \$67,738,803. The excess of income over expenditures was \$11,961,824. The total number of policies issued during the year was 69,184, insuring \$177,066,948; number of policies in force at the end of the year, 563,693; amount insured, \$1,413,956,108, The number of policies terminating during the year was 84,720, insuring \$222,782,168. Of the items of most importance the following: comparative tables will show:

ADMITTED ASSETS, LIABILITIES, INCOMES, SURPLUS, CAPI TAL, ETC.

		1	
	1875.	1876.	1877.
Total admitted assets.	\$363,818,149	\$372, 290, 579	\$368, 136, 671
Total liabilities exclusive of capital	309, 105, 359	315, 034, 616	310, 3 66, 939
Surplus as regards policy holders	54,712,696	58, 2 55, 9 93	58, 358, 089
Capital stock	4, 438, 622	4,050,000	3, 250, 000
Net surplus	50,404,202	54,366,098	55, 281, 143
Cash income	98,965,543	85, 205, 722	55, 553, 805
Note income	4, 417, 214	2, 909, 939	2, 307, 934
Cash expenditures	64,868,867	63, 371, 132)	0# #0 0 00 0
Note disbursements	7, 204, 423	5, 319, 089	67,738,803
Net premium reserve	301, 597, 003	307, 270, 085	301, 701, 226
Number of companies	29	24	21

COMPOSITION OF ASSETS.

	1875.	1876.	1877.
Loans on bond and mortgage	\$202,572,882	\$202,098,910	\$189,739,772
Loans on collaterals	4, 955, 160	5, 386, 026	6,024,496
Premium notes and loans on policies	41,235,165	35, 489, 808	29, 827, 953
Real estate	20,623,564	26, 999, 403	27, 904, 316
Stocks and loans	66,829,125	78, 612, 156	92,060,831
Cash in office and bank	13, 300, 817	11,633,309	9, 306, 553
Interests and rents	7,299,068	7, 928, 659	8, 409, 464
Unpaid and deferred premiums	6,882,706	5,040,437	3, 975, 629
All other admitted assets	134, 159	101,871	97,666
Total admitted ass:ts	\$363,818,149	*\$373,290,579	\$368,136,671
Total unadmitted assets	\$2,181,313	\$1,341,314	\$1,079,549
Number of companies	29	24	21
			Ψ1,015,0

ADMITTED ASSETS, LIABILITIES AND PREMIUM RESERVE.

Year.	Total admitted assets.	Total liabilities.	Premium reserve.
1872	\$285,087,195	\$259, 570, 167	\$244, 293, 331
1873	1	270, 242, 792	255, 800, 768
1874		300, 456, 226	288, 159, 560
1875		313, 543, 981	301, 597, 033
1876	373,290,579	315,034,616	307, 270, 085
1877	368, 136, 671	309,078,685	301,701,226

INCOME, EXPENDITURES, CASH PREMIUMS AND LOSSES.

YEAR.	Income.	Expenditures.	Premiums received.	Losses paid.
1872	\$97,235,897	\$64, 131, 532	\$72,023,110	\$20, 663, 181
1873	98, 949, 253	69, 500, 788	72, 656, 572	21, 351, 785
1874	101,350,934	73, 555, 632	73, 128, 065	22,774,164
1865	98, 382, 757	72,072,285	71,252,214	23,962,135
1876	88,115,661	69, 288, 220	65, 720, 604	23, 524, 472
1877	79, 098, 502	67,738,803	57,861,739	23,751,33 5

INCOME.

	1875	1876	1877
Cash premiums	\$71,918,578 21,890,776 822,035 4,417,214	\$32,810,655 22,103,213 291,844 2,909,939	\$55, 552, 805 21, 157, 315 96, 439 2, 307, 934
Note income		\$88,115,661	\$79,098,503

EXPENDITURES.

	1875	1876	1877
Cash for losses and claims	\$23,962,135	\$22,735,013	\$22,775,257
Lapsed, surrendered and purchased policies	13, 702, 586	15, 597, 954	14, 138, 995
Dividends to policy holders	14, 433, 114	13, 312, 090	12,672,172
Dividends to stockholders	357, 510	350, 308	398, 354
Commissions and salaties to agents	4,798,833	4, 244, 870	3,465,348
Medical examiners' fees Salaries of officers, etc	3, 282, 894	2,903,649	2,661,867
All other cash payments	4, 331, 790	4, 225, 247	5,903,572
Note disbursements	7, 204, 423	5, 919, 089	5, 722, 228
Total	\$72,073,285	\$69, 288, 220	\$67,738,803

BUSINESS IN WISCONSIN IN 1877.

The total amount of premiums received in the state during the year was \$1,025,633; losses paid, \$507,564; number of life policies issued, 2,045; number of life policies in force at the end of the year, 20,155; compared with 1876, there is a falling off in premiums of \$196,095; an increase in losses of \$98,625; a decrease in number of policies issued of 1,134; in number of policies in force, a dercease of 3,188. The following table shows the premiums received and losses paid by life and accident insurance in this state from 1872 to present time:

YRAR.	Premiums Received.	Losses paid.	Per- centage.
1871	\$1,834,838	\$315, 337	17.1
1872	1,669,252	349,557	20,9
1873	1,535,662	430, 322	28.0
1874	1, 437, 153	482, 269	33 5
1875	1,340,766	.528, 653	39.4
876	1,211,728	408, 939	33.9
877	1,025,633	507, 564	49.0

NORTHWESTERN MUMTUAL LIFE INSURANCE COMPANY.

The condition of this company has been, is now, and promises to be, such as to justify the state pride that is felt in it, and it should be encouraged and fostered in all reasonable ways.

INSOLVENT COMPANIES.

Of insolvent companies the Universal Life Ins. Co. of N. Y., and the Continental Life Ins. Co. of N. Y., had quite a large number of policy holders in this state. Of the former, no definite information can be given. Of the latter, the receiver's statement is as follows:

Continenal Life Insurance Company.

(Incorporated in 1866.)

JOHN P. O'NEIL, Receiver, 20 Nassau street, N. Y. city. Appointed March 31, 1877.

Bonds and mortgages	\$20,000	
U. S. Bonds	81,950	00
		- .
ASSETS.		
U. S. Bonds (par value \$270,000)	\$274,725	
Yonkers water bonds (par, \$10,000)	10,000	
Note secured by Metropolitan Steamship Co. stock	33,500	
Premium notes and loans	1,449,094	
Company's building	325,000	00
Real estate in Brooklyn	4,000	00
Furniture and fixtures	1,150	00
Bonds and mortgages (face value)	752,469	50
Total	\$2,849,939	18
10141		=
able to state. LIABILITIES.		
LIABILITIES.	\$5, 36 5 , 61 4	00
LIABILITIES. Reserve on outstanding policies October 25, 1876	\$5, 36 5 , 61 4 746, 763	00 78
LIABILITIES. Reserve on outstanding policies October 25, 1876	\$5, 36 5 , 61 4 746, 763 20, 287	78
LIABILITIES. Reserve on outstanding policies October 25, 1876	746,763 20,287	78 70
LIABILITIES. Reserve on outstanding policies October 25, 1876	746,763 20,287	78 70
LIABILITIES. Reserve on outstanding policies October 25, 1876	746,763 20,287 \$6,132,665	78 70 48
LIABILITIES. Reserve on outstanding policies October 25, 1876	746,763 20,287	78 70 48
LIABILITIES. Reserve on outstanding policies October 25, 1876 Claims for losses and matured endowments. Sundry claims other than those made by policy holders. Total RECEIPTS. Interest and rents.	746,763 20,287 \$6,132,665	78 70 48
LIABILITIES. Reserve on outstanding policies October 25, 1876	746, 763 20, 287 \$6, 132, 665 \$21, 212	78 70 48 = 42
LIABILITIES. Reserve on outstanding policies October 25, 1876	746,768 20,287 \$6,132,665 \$21,212 \$8,086	78 70 48 = 42 = 80
LIABILITIES. Reserve on outstanding policies October 25, 1876	\$20, 287 \$6, 132, 665 \$21, 212 \$8, 086 37, 820	78 70 48 42 80 09
LIABILITIES. Reserve on outstanding policies October 25, 1876	\$20, 287 \$6, 132, 665 \$21, 212 \$8, 086 37, 820 13, 528	78 70 48 42 42 80 9 73
LIABILITIES. Reserve on outstanding policies October 25, 1876	746, 763 20, 287 \$6, 132, 665 \$21, 212 \$8, 086 37, 820 13, 528 580	78 70 48 42 80 97 73 94
LIABILITIES. Reserve on outstanding policies October 25, 1876	\$20, 287 \$6, 132, 665 \$21, 212 \$8, 086 37, 820 13, 528	78 70 48 42 80 97 73 94

The deposit of the Empire Matual Life Insurance Company, which company was reinsured by the "Continental," remains with the N. Y. Insurance Department (\$23,500 bonds and mortgages and \$75,900 U. S. bonds).

It cannot now be stated how much more time will be required to wind up the affairs of this company, but it is to be feared that the dividends to policy holders will be exceedingly small.

CHARTER OAK LIFE INSURANCE CO., OF HARTFORD.

The policy holders of this company have been so constantly informed by circular and the press as to its condition, that it seems unnecessary to speak of it at length in this report. It is now pay, ing claims at maturity, in 60 per cent. cash and 40 per cent. certificate. It is hoped a fair percentage on the certificates will eventually be paid. The new business the company will obtain will probably not be large. The present management of the company is able and honest, and the nterests of policy holders will be well subserved.

Respectfully submitted,

PHILIP L. SPOONER, Jr., Commissioner of Insurance.

LIST OF LIFE INSURANCE COMPANIES TRANSACTING BUSINESS IN WISCONSIN.

TABLE No. I. —OFFICERS.

		Officers.		Name of Attorney to accept service of process in Wisconsin.
NAME OF COMPANY.	Location.	President.	Secretary.	
Wisconsin Company.			Willord Marrill	
Northwestern Mutual Companies of other Stales.	Milwaukee	H. L. Palmer		F. T. & T. C. Day, Milwaukec.
ÆtnaConnecticut Mutual Continental, Equitable Life Ass'nce Soc. of the U. S. Germania.	Hartford, Conn* Hartford, Conn Hartford, Conn New York, N. Y New York, N. Y	T. O. Enders James Goodwin James S. Parsons Henry B. Hyde Hugo Wesendonck.	J. L. English. Jacob L. Greenc. Robt. E. Beccher. Samuel Burrowe. Cornelius Doremus.	Nathan Pereles, Milwankee. W. W. Field, Madison. Joseph Hamilton, Milwankee. Louis Auer, Milwankee.
Manhattan Massachusetts Mutual Mutual Mutual Benefit	Brooklyn, N. Yj New York. N. Y Springfield, Mass New York, N. Y Newark, N. J	George C. Ripley Henry Stokes E. W. Bond F. S. Winston Lewis C. Grover	Joseph C. Holbrook	Samuel M. Ozden, Milwaukee. Henry Nichols, Milwaukee.
National Softhe U. S. of A	Chicago, Ill	Emerson W. Peet Benjamin F. Stevens Morris Franklin Samuel C. Huey Aaron C. Goodman	John M. Butler	L S. Hanks, Madleon. Edwin O. Ladd. Milwaukee. L. S. Kellogg, Fort Atkinsou. Albert G. Peabody. Jr., Milwaukee. John H. Walrath, Milwaukee.
Railway Passenger. Travelers' Union Mutual United States Washington.	Hartford, Conn Hartford, Conn Augusta, Me New York, N. Y	J. G. Batterson	Jas. P. Carpenter Chas. P. Fraleigh	Harry Bradford, Milwankee. D. M. Belden, Milwankee. David Atwood, Madison. Leopold R. Roeder, Milwankee. John G. White, Milwankee.

Name of Company.	Real Estate.	Loans on Bond and Mortgage.	Loans on Collaterals	Premium Notes and Loans on Policies.		Cash in Office and in Bank.	Interest and Rents.	Unpaid and De- ferred Premi'ms	All other admitted assets.	Total admitted assets.	Unadmit- ted assets.
Wisconsin Company.											ļ
Northwestern Mutual	\$678,861	\$12, 308, 253		1	\$736,262	\$264,679	9 \$615,853	\$226,433		\$18,093,299	\$79,957
Companies of other States.									-		
Ætna, Conn Connecticut Mutual, Conn Continental, Conn Equitable Life Ass. Soc. of U. S., N. Y Germania, N. Y.	\$263,772 4,067,909 258,202 6,286,745 697,284	28, 335, 745	130,730 100,030 1,953,206	5,605,486	5,880,384 431,299 9,067,482	1,190,676 176,529	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	34,560 91,957 526,622		47, 496, 151 2, 994, 842 33, 057, 999	43, 852 180, 8-2 343, 999
Home, N. Y. Manhattan, N. Y. Mansachusetts Mutual, Mass. Mutual, N. Y. Mutual Benefit, N. J.	192, 687 738, 974 511, 258 5, 725, 035 294, 372	1, 476, 566 4.339, 169 3, 509, 091 58, 152, 734 12, 410, 094	1.481,076 216,324	1,839,319	1, 208, 696 650, 496 16, 909, 611	67,716 32,574 143,161 1,769,593 642,977	50, 338 224, 899 213, 995 1, 438, 648	75, 890 140, 647 156, 956 754, 186	291	4,778,163 10,005,645 6,220,030	8, 489 1, 111 27, 837 32, 115
National of U. S. of A., Ill New England Muttai, Mass New York, N. Y. Penn Mutual, Pa. Phænix Mutual, Conn.	588, 580 1, 398, 251 3, 568, 362 322, 004 365, 339	1, 901, 200 2, £84, 483 15, 161, 108 2, 484, 121 6, 699, 332	328, 420 377, 602 239, 688 36, 050	56, 399 1,865, 248 695, 285 766, 529 2, 646,819	13,379,931 2,069,343	159,721 280,872 1,216,301 173,375 241,496	232, 367 315,895 88, 137	92,845 123,091 450,778 105, 222	48.789	4,003,116 14,889,427 34,787,610 6 248 410	,
Railway Passenger, Conn Pravelers', Conn Juited Staies, N. Y Juion Mutual, Me. Vashington, N. Y	369, 086 75, 134 1, 274, 910 227, 551	86,000 2,290,916 2,320,872 3,622,073 2,345,367	25,000 339,100 32,858	1,520,003 15,408	1, 335, 515 1, 605, 115 693, 475 2, 321, 125	21, 785 86, 564 130, 594 280, 765 270, 756	107, 811 55, 805 258, 200 55, 595	101, 639 153, 915 161, 420 117, 448	19, 554 11, 121	441, 380 4, 316, 531 4, 836, 444 7, 854, 825 5, 353, 250	4,410 9,588 36,845 17,778
Totals	\$27, 904, 316	189, 739, 772	\$6,024,496	\$29, 827, 953	\$92,060,831	9, 306, 553	\$8, 409, 461	3, 975, 529	\$97,666	\$367, 436, 680	\$1,079,549

TABLE No. III.—LIABILITIES.

X NAME OF COMPANY.	Losses and Policy claims.	Net premium reserve at 4½ per cent.	Dividends to policy holders.	All other claims.	Total liabili- ties except capital.	Surplus as to policy holders.	Capital stock.	Net sur- plus.	Defi- ciency.
Wisconsin Company.	\$198,708	\$14,092,201	\$5,000	\$32,707	\$14, 328, 616	\$3,764,682		\$3,764,682	
Companies of other States.			75,000	ψον, 101	φ14, 023, 010	ψ, 101, 002		φ3, 104, 002	
Ætna, Conn Connecticut Mutual, Conn Continental, Conu Equitable Life Assurance Society of U. S. Germania, N. Y	\$417, 458 855, 035 32, 437 525, 540 87, 642	\$19, 2 10, 023 39, 266, 081 2 , 706, 676 26, 533, 775 6, 853, 9 78	\$96, 614 291, 041 79, 476 36, 6 19	\$59,794 328,353 162,347 17,036	\$19,783,888 40,740,510 2,739,113 27,301,138 6,995,276	\$4,246,690 6,755,639 255,728 5,756,861 1,026,668	\$150,000 300,000 100,000 200,000	\$4,096,690 6,755,639 5,656,861 826,668	44,272
Home, N. Y. Manhattan, N. Y. Massachusetts Mutual, Mass. Mutual N. Y. Mutual Benefit.		3, 633, 176 7,852, 752 5, 248, 000 73, 256, 123 27,902, 856	2, 495 78, 258 20, 417 206, 207	11, 000 2, 247 217, 551 16, 196	3,653,171 8,164,133 5,045,269 74,106,607 28,618,410	1,124,992 1,841,511 824,661 10,643,200 5,680,634	125,000 100,000	824,661	
National of U. S. of A New England Mutual, Mass. New York, N. Y. Penn Mutual, Pa Phœnix Mutual, Conn.		3, 059, 453 11,672,280 28, 034, 381 4, 898, 470 9 ,581, 525	157, 399 13, 711	76, 495 1, 826 17, 421 21, 006 95, 115	3, 231, 899 11, 958, 520 28, 512, 769 5,046, 546 10,005, 714	771, 218 2, 930, 907 6, 274, 841 1, 201, 873 942, 562	1,000,000	2, 930, 907 6, 274, 841 1, 201, 873 842, 562	
Railway Passenger, Ronn	20, 000 105, 425 103, 960 225, 196 32, 729	15, 000 2, 499, 758 3, 960, 776 7, 028, 799 4, 395, 143	26, 615 79	5,000 28,823 27,644 12,161	35,000 2,610,183 4,093,559 7,308,254 4,440,112	406, 380 1, 706, 348 742, 885 546, 671 913, 138	300,000 600,000 150,000	1,106,348 592,885 546,671	
Totals	\$ 5, 230, 797	\$301,701,226	\$1,013,931	\$1, 132, 732	\$309,078,687	\$58,358,089,	\$3,250,000	\$55, 381,143	\$273,054

TABLE No. IV — INCOME.

	PREM	IUMS.	Interest div-		Total	Excess of income	Excess of expendi-
NAME OF COMPANY.	Cash.	Notes.	dends and rents.	other sources.	Income.	over ex- penditures.	tures over income.
Wisconsin Company. Northwestern Mutual	\$1,768,869	\$523, 472	\$1,418,746		\$3,711,087	\$339,616	
Etna, Conn. Connecticut Mutual, Conn. Continental, Conn. Equitable Life Assurance Society of the U. S. Germania, N. Y.		311,722 51,566 46,321	1, 513, 389 2, 674, 997 133, 779 1, 837, 784 532, 905 286, 961	815 22,366 1,050 16,594 143	4,728,075 9,192,281 601,915 8,921,028 1,833,675 839,162	744, 040 1, 051, 937 2, 061, 272 348, 687 45, 794	197, 957
Home, N. Y. Manhattan. Massachusetts Mutual, Mass. Mutual, N. Y. Mutual Benefit, N, J.	1, 169, 389	171,054	606, 137 321, 518 4, 863, 803 1, 698, 648	5,379 18,504	1,780,905 1,279,612 18,912,460 6,206,963	2,828,777 934,309	39,408
National of U. S. of A., Ill. New England Mutual, Mass. New York, N. Y. Penn Mutual, Pa. Phœnix Mutual, Conn.	718,337 1,437,354	13, 217 564, 686 146, 525 166, 178	207,627 860,242 1,852,120 378,615 607,868	1,008 4,400 2,635	940,189 2,862,282 7,574,384 1,542,169 2,189,606	160;249 350,848 1,700,920 480,636 167,896	
Railway Passenger, Conn	82,242 1,214,126 885,341		275, 550 287, 985 478, 618	3,889 18,171 1,254	108, 302 1, 493, 565 1, 173, 326 1, 927, 238 1, 280, 278	428, 108	
Totals		\$2,307,934	\$21, 157, 315	\$96,430	\$79,098,502	\$11,961,824	\$612, 126

Table No. V — EXPENDITURES.

Name of Company.	Losses an	d Claims.	Lapsed, and purcha	surrendered, ased policies	Dividence Ho	ls to Policy ders.	Divid'nd to stock	. Commis-	Salaries, medi'l fees and other		Total ex-
	Cash.	Notes.	Cash.	Notes.	Cash:	Notes.	holders.		charges of employes.	expendi- tures.	penditures.
Wisconsin Company,											<u> </u>
Northwestern Mutual	\$1,030,693	\$151,888	\$175,863	\$353,498	\$312,906	\$566, 820		. \$145,571	\$166, 489	\$167,743	\$3, 371, 471
Companies of other States.						, ,		1220,012	φ100, 103	\$101,140	φο, στι, ττι
Ætna, Conn	1,576,816 3,201,529 153,158	162,741 105,195 25,079	778, 201 981, 542 219, 343	340,237 324,241 144,509	288, 15 2 2, 177, 239 43, 556	272,743 324,537	\$45,000	140, 400	79,306 105,673 63,088	211, 498 496, 668 92, 141	3, 984, 035 8, 140, 344 799, 872
U. S Germania, N. Y.	2,099, £96 650,850				1,745,106) 20,480	169,681	7,000 24 ,000	344,846 104,487	346,179 114,0 74	927 ,45 5 74,965	6,859,756 1,484,988
Home, N. Y. Manhattan, Massachusetts Mutual, Mass Mutual, N. Y. Mutual Benefit, N. Y.	422,935 4,744,280 1,903,495	27,751 59,895 26,878	116, 193 177, 137 122, 152 5, 636, 659 802, 379	132, 791 161, 562 116, 631 302, 367	31,024 271,261 111,747 3,568,161 1,453,480	88,980 19,177 109,143 86,985	15,000 55,000	47, 041 102, 056 55, 237 379, 874 301, 612	41,285 88,919 103,004 428,501 108,991	31,637 109,112 251,293 1,326,208 188,079	783,368 1,663,241 1,319,020 16,083,683 5,272,654
National of U.S of A., Ill New England Mutual, Mass New York, N. Y Penn Mutual, Pa Phœnix Mutual, Conn	208,911 981,224 1,928,199 362,872 689,495	797 92, 642 ' 17, 723 16, 535 64, 354	1 243, 946 430, 799 928, 101 133, 854 82, 885	6, 315 106, 339 52, 811 69, 424 378, 156	377, 300 1, 420, 547 156, 374 336, 477	140, 169 20, 389 74, 579 53, 606	100,000	47, 044 91, 588 358, 861 77, 724 97, 898	72, 119 73, 382 268, 860 70, 573 112, 737	100, 808 217, 991 877, 973 99, 598 200, 102	779, 940 2, 511, 434 5, 873, 464 1,061, 533 2, 021, 710
Railway Passenger, Conn	324, 014 725,527 395,391	99, 335	586,597 297,178	229,127	97, 442 90, 674 170, 246	91, 332	97 000	25, 494 195, 180 159, 298 188, 525 52, 953	20, 809 174, 279 76, 837 85, 729 61, 033	28, 705 145, 290 127, 536 135, 913 92, 857	144, 459 1, 065, 457 1, 206, 409 2, 332, 759 1, 079, 206
Totals	22,775,227	\$976,079	\$14,138,995	\$2,718,003	812, 67 2, 172	\$2,028,141	\$398, 364	\$3,465,348	\$2,661,867	\$5,903,572	\$67,738,803

¹ Including \$166,053 as charged to paid up policies.

Table No. VI.—ASSETS AND LIABILITIES,

On 31st day of December, 1877, and income and expenditures for the year ending December 31, 1877.

NAME OF COMPANY.	Assets.	Liabilities except capital.	Income.	Expenditures.
Wisconsin Company.	\$18,093,299	\$14,328,616	\$3,711,087	\$3,371,471
Companies of other States. Ætna, Conn. Connecticut Mutual. Continental, Conn. Equitable Life Assurance Society of U. S. Germania, N. Y. Home, N. Y. Manhattan Massachusetts Mutual, Mass. Mutual, N. Y. Mutual Benefit, N. J.	24, 030, 578 47, 496, 151 2, 994, 842 33, 057, 999 8, 021, 943 4, 778, 163 10, 005, 645 6, 229, 930 84, 749, 807 34, 299, 044	19, 783, 889 40, 740, 710 2, 739, 113 27, 301, 188 6, 995, 276 3, 653, 171 8, 164, 133 5, 405, 269 74, 106, 607 28, 618, 410	4, 728, 075 9, 192, 231 601, 915 8, 921, 028 1, 833, 675 839, 162 1, 780, 905 1, 279, 612 18, 912, 460 6, 206, 963	3, 984, 035 8, 140, 344 799, 872 6, 859, 756 1, 484, 988 783, 368 1, 663, 241 1, 319, 020 16, 083, 683 5, 272, 654
National of U. S. of America New England Mutual, Mass New York, N. 'Y Penn Mutual, Pa. Phœnix Mutual, 'Conn Railway Passengers', Conn Travelers', Conn United States N. Y	4,003,116 14,889,427 34,787,610 6,248,419 10,948,277 441,880 4,316,531 4,836,444	3, 231, 899 11, 958, 520 28, 512, 769 5, 046, 546 10, 005, 714 35, 000 2, 610, 183 4, 093, 559	940, 189 2, 862, 282 7, 574, 384 1, 542, 169 2, 189, 606 108, 302 1, 493, 565 1, 173, 326 1, 927, 238	779, 940 2, 511, 434 5, 873, 464 1, 061, 533 2, 021, 710 144, 459 1, 065, 457 1, 206, 409 2, 232, 759
Union Mutual, Me Washington, N. Y	5, 353, 250	7, 308, 254 4, 440, 112 \$309, 078, 687	1,927,238 1,280,278 \$79,098,502	\$67,738,805

Table No. VII. — Ratio of Net Assets to Computed Premium Reserve of 4½ per cent., Dec. 31, 1877 and 1876.

		Net assets.	Net assets less capital.	PERCENT	AGE TO CO	MPUTED I	REMIUM
NAME OF COMPANY.	Computed premium reserve.			Net assets.		Net as se	
				1877.	1876.	1877.	1876.
Wisconsin Company.							
Northwestern Mutual	\$14,092,201	\$17,856,894	\$17,856,894	126.71	126.28	126.71	126.28
Companies of other States.							
Ætna, Conn. Connecticut Mutual Conn. Continental, Conn Equitable Life Assurance Society of the United States, N. Y. Germania, N. Y.	19, 210, 023 39, 266, 081 2, 706, 676 26, 533, 775 6, 853, 978	23, 456, 712 46, 021, 720 2, 962, 404 32, 290, 636 7, 880, 645	23, 306, 712 46, 021, 720 2, 662, 404 32, 190, 636 7, 680, 645	122.10 111.86 109.35 121.32 114.96	120.89 118.67 110.78 119.71 116.00	121.32 111.86 98.26 121.31 110.60	120.01 118.67 100.85 119.32 113.00
Home, N. Y. Manbattan, N. Y. Massachusetts Mutual, Mass. Mutual, New York Mutual Benefit, N. J.	3, 633, 176 7, 852, 752 5, 248, 000 73, 256, 123 27, 902, 856	4, 758, 168 9, 694, 262 6,072, 661 83, 899, 323 33, 583, 490	4, 633, 168 9, 594, 262 6, 072, 661 83, 899, 323 33, 583, 490	130.96 123.45 115.52 114.39 120.36	123.39 124.39 121.37 114.44 120.28	125.87 122.05 115.52 114.39 120.36	120.11 123.49 121.37 114.44 120.28
Nationat of United States of America, Ill. New England Mutual, Mass. New York, N. Y. Penn Mutual, Pa. Phœnix Mutual, Conn	3, 059, 453 11, 672, 280 28, 034, 381 4, 898, 470 9, 581, 525	3, 830, 670 14, 603, 187 34, 309, 222 6, 100, 343 10, 524, 087	2,830,670 14,603,187 34,309,222 6,100,343 10,424,087	125.21 125.11 122.38 124.51 109.83	128.07 122.86 123.37 124.42 109.19	92.49 125.11 122.38 124.51 108.79	94.64 122.86 123.86 124.42 108.14
Railway Passengers, Conn Travelers', Conn., (Life and Accident) United States, N. Y. Union Mutual, Me. Washington, N. Y.	2,499,758 3,960,776 7,028,799	421, 380 4, 206, 106 4, 703, 661 7, 575, 370 5, 308, 281	121, 380 3, 606, 106 4, 553, 661 7, 575, 370 5, 183, 281	168.26 118.75 106.35 120.77	157.52 122.40 119.25	144.26 114.97 106.35 117.93	133.36 115.85
Totals	\$301,701,226	\$360, 059, 222	\$356,809,222	119.40	119.90	118.26	118.26

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Table No. VIII. — Ratio of Premium Notes and Loans to Net Assets.

		·	PERCEN	TAGE.
NAME OF COMPANY.	Net Assets.	Premium Notes and Loans.	1877.	1876.
Wisconsin Company.	\$17,856,894	\$3, 262, 958	18.27	21.26
Companies of other States. Etna, Conn	23, 456, 712 46, 021, 720 2, 962, 404 4, 738, 168 9, 694, 262	3, 318, 063 5,605,486 980, 840 960, 470 1,839,318	14.14 12.18 30.08 20.19 18.86	16.75 14.02 33.27 22.94 20.75
Mass. Mutual, Mass. Mutual Benefit, N. J. National of U. S. of Americo, Ill. New England Mutual, Mass. New York, N. Y.	6, 072, 661 33, 583, 490 3, 830, 670 14, 603, 187 34, 309, 222	848, 649 5, 310, 178 56, 398 1, 637, 778 695, 234	13.98 15.81 1.47 11.21 2.03	14.36 17.44 1.55 14.50 2.39
Penn Mutual, Pa Pheonix Mutual, Conn United States, N. Y. Union Mutual, Me.	6, 100, 343 10,524, 087 4, 703, 661 7, 575, 370	766,529 2,646,819 136,354 1,520,003	12.56 25.15 2.89 2.00	12.86 28.62 3.03
Total	\$226,052,851	\$29, 585, 072	13.09	17.41

Table No. IX. — Ratio of Deferred and Uncollected Premiums to Net Assets and Premium Receipts.

	Net -	Total premium	Deferred and un-	PERCEN	TAGE TO
NAME OF COMPANY.	assets.	receipts.	collected pre-	Net assets.	Total pre- mium re- ceipts.
Wisconsin Company.					
Northwestern Mutual	\$17,856 894	\$2, 292, 341	\$226, 432	\$1 27	\$9 87
Companies of other States.					-
Ætna, Conn Connecticut Mutual, Conn. Continental, Conn. Equitable Life Ass. Soc. of U. S., N. Y. Germania, N. Y.	23, 456, 712 46, 021, 720 2, 962, 404 32, 290, 636 7,880, 645	3, 213, 871 6, 494, 919 467, 068 7, 066, 650 1, 300, 627	211, 285 34, 560 91, 957 526, 622 231, 580	90 08 3 07 1 55 2 93	6 57 53 19 66 7 31 17 80
Home, N. Y. Manhattan, N. Y. Massachusetts Mutual, Mass Mutual, N. Y. Mutual Benefit, N. J.	4,758,168 9,694,262 6,072,661 83,899,323 33,588,490	570, 201 1, 169, 389 958, 094 14, 030, 153 4, 508, 315	75, 890 140, 646 136, 956 754, 186 170, 182	1 59 1 45 2 25 90 51	13, 30 12 02 14 29 5 30 3 77
National of U. S. of A., Ill. New England Mutual, Mass. New York, N. Y Penn Mutual, Pa. Phœnix Mutual, Conn.	3, 830, 670 14, 603, 187 34, 309, 222 6, 100, 343 10, 524, 087	731,554 2,002,040 5,722,264 1,159,154 1,579,103	92, 844 123, 091 450, 778 105, 221 68, 873	2 42 84 1 31 1 72 65	12 55 6 14 7 87 9 07 4 36
Railway Passengers, Conn. Travelers, Conn. (life and accident). United States, N. Y. Union Mutual, Me. Washington, N. Y.	421, 380 4, 206, 106 4, 703, 661 7, 575, 370 5, 308, 281	82, 242 1, 214, 125 885, 341 1, 430, 449 983, 839	101,639 153,914 161,419 117,448	2 41 3 27 2 13 2 21	8 37 17 38 11 28 11 93
Totals	\$360, 059, 222	\$57,861,759	\$3, 975, 5 23	\$1 10	\$16 87

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Table No. X. — Ratio of Expenses, Excluding Dividends to Stockholders, to Premium Receipts.

	Gross Premium		Percen	TAGE.
NAME OF COMPANY.	Receipts.	Expenses.	1877.	1876.
Wisconsin Company.				
Northwestern Mutual	\$2,292,341	\$479,803	20.93	21.16
Companies of other States.		•		
Ætns, Conn. Connecticut Mutual, Conn. Continental, Conn. Equitable Life Ass. Soc. of U. S., N. Y. Germania, N. Y.	3,225,791 6,494,918 468,049 7,067,288 1,300,627	520, 145 1, 016, 060 202, 227 1, 618, 479 293, 526	13.02 15.64 43.20 17.22 22.56	14.12 15 49 36.95 17.64 21.31
Home, N. Y. Manahattan, N. Y. Massachusetts Mutual, Mass. Mutual, N. Y. Mutual Benefit, N. J.	570, 201 1, 169, 389 964, 497 14, 030, 153 4,508, 315	119,963 300,087 409,534 2,134,582 598,681	21.04 24.31 42.46 15.21 13.27	19.59 19.33 18.99 9.23 13.99
National of United States of America, Ill Mew England Mutual, Mass. New York, N. Y Penn Mutual, Pa. Phœnix Mutual, Conn.	745, 787 2,002, 040 5, 793, 949 1, 175, 392 1, 581,570	219,971 382,960 1,505,694 247,894 410,737	29, 49 19,12 25, 98 21, 09 25,89	34.04 12.43 16.16 19.88 19.95
Railway Passenger, Conn. Travelers', Conn. United States, N. Y. Union Mutual, Me. Washington, N. Y.	1,218,668 898,651	75, 007 514, 749 363, 671 410, 166 206, 843	91, 22 42, 23 40, 47 28, 65 21, 02	70.28 45.27 29.89
Totals	\$58,005,346	\$12,030,779	20.77	16.24

Table No. XI. — Ratio of Expenses, Including Dividends to Stockholders to Total Income.

•			PERCENT.	AGE.
NAME OF COMPANY.	Total Income.	Expenses.	1877.	1876.
Wisconsin Company.	\$3,711,087	\$479,804	\$12.90	\$13.83
#Etna, Conn. Connecticat Mutual, Conn. Continental, Conn Equitable Life Assurance Society of U. S., N. Y. Germania, N. Y.	4,728,075 9,192,281 601,915 8,921,028 1,833,675	565,145 1,016,061 214,228 1,625,479 317,527	11.94 11.05 35 58 18.22 17.31	11.07 10.83 32.88 14.15 17.53
Home, N. Y Manhattan, N. Y. Massachusetts Mutual, Mass. Mutual, N. Y. Mutual Benefit, N. J.	839, 162 1, 780, 905 1, 279, 612 18, 912, 460 6, 206, 963	134, 963 355, 087 409, 534 2, 134, 583 598, 682	16.08 19.95 31.22 11.23 9.64	15.82 16.74 14.22 6.98 9.74
National of U. S. of A., Ills New England Mutual, Mass. New York, N. Y Penn Mutual, Pa. Phoenix Mutual, Conn	940, 189 2, 862, 282 7, 574, 384 1, 542, 169	319, 971 382, 960 1, 505, 695 247, 894 416, 737	34.03 13.37 19.88 16.07 19.03	27.25 12.43 12,30 15.9 15.13
Railway Passengers' Conn	1, 173, 326 1, 927, 238	102,007 586,749 390,487 410,166 216,391	94.18 39.28 33.27 21.23 16.82	73.6 43.1 25.1 9.6
Totals	\$79,098,502	\$12,430,150	15.71	12.4

Table No. XII.—Ratio of Losses and Claims paid, to Mean Amount at Risk.

Name of Company.	ness.	Mean amount	Losses and	Percer	NTAGE.
NAME OF COMPANI.	Commenc's	at risk.	claims paid	1877.	1876.
Wisconsin Company.					
Northwestern Mutual	1858	\$65,955,019	\$1, 182, 580	1.79	1.43
Companies of other States.			*		
Ætna, Conn Connecticut Mutual, Conn Continental, Conn Equitable Life Assurance Society of U. S., N. Y Germania, N. Y	1850 1846 1864 1859 1860	85, 052, 315 180, 847, 522 12, 799, 157 166, 936, 953 33, 436, 804	1, 739, 557 3, 306, 724 178, 237 2, 999, 895 650, 850	2.04 1.82 1.35 1.25 1.94	1.81 1.41 1.12 1.26 1.41
Home, N. Y Manhattan, N. Y Massachusetts Mutual, Mass Mutual, N. Y Mutual Benefit, N. J	1860 1850 1851 1843 1845	18, 351, 576 37, 638, 829 32, 836, 805 285, 330, 113 129, 020, 015	279, 417 679,017 449,813 4,744,279 2,028,761	1.52 1.80 1.36 1.31 1.57	1.29 1.96 1.09 1.51 1.58
National of U. S. of America, Ill. New England Mutual, Mass. New York, N. Y. Penn Mutual, Pa. Phœnix Mutual, Conn	1868 1843 1845 1847 1851	20, 480, 935 58, 689, 201 127, 825, 180 30, 905, 186 96, 242, 948	209, 708 1,073, 866 1,945, 922 379, 408 753, 849	1.02 1.82 1.52 1.22	1.82 1.36 1.23 1.35
Railway Passengers', Conn. Pravelers', Conn. United States, N. Y. Juion Mutual, Me. Washington, N. Y.	1866 1866 1850 1849 1860	21, 012, 926 37, 680, 511 23, 337, 185	42, 452 462, 733 324, 014 824, €62 395, 381	1.54 2.18 1.69	1.28
Totals		\$1,464,378,280	\$23,751,335	1.61	1.43

Table No. XIII .-- Ratio of Various Items, Composing the Total Expenditures, to Total Income.

		8 0	7 d i i		÷5	±	je.		т. то тот		
Name of Company.	Total Income.	Amount for losses and claims.	Amount paid for lapsed, surrendered and purchased policies.	Dividends to pol- icy holders.	Expenses, including dividends to stockholders.	To tal expenditures.	Excess of Income.	Amount paid for losses and claims.	Am't paid for lapsed surrendered and purchas'd polities.	Dividends to policy holders.	Expenses, in- cludi'g dividn's to stockholders
Wisconsin Company.										20.50	10.00
Northwestern Mutual	\$3,711,087	\$1,182,580	\$829, 359	\$879,727	\$179,804	\$3,371,471	\$339,616	31 27	22 34	23 78	12 90
Companies of other States.									20.44	44.00	11 04
Ætna, Conn Connecticut Mutual, Conn Continental, Conn Equitable Life Ass. Soc. of U. S., N. Y. Germania, N. Y.	4,728,075 9,192,281 601,915 8,921,028 1,833,675	1,739,557 3,306,724 178,237 2,099,895 650,850	1,118,438 1,305,783 363,851 1,389,275 326,451	560, 895 2, 511,776 43, 556 1, 745, 106 190, 160	565,145 1,016,061 214,228 1,625,479 317,527	3,984,036 8,140,344 799,872 6,859,755 1,484,938	744,039 1,051,937 1197,957 2,061,273 348,687	36 78 35 97 29 61 23 53 35 48	23 44 14 20 60 44 15 57 17 80	11 86 27 32 7 23 19 53 10 31	11 94 11 05 35 58 18 22 17 31
Home, N. Y. Manhattan, N. Y. Mass. Mutual, Mass Mutual, N. Y. Mutual Benefit, N. J.	1	279, 417 679, 017 449, 813 4, 744, 279 2, 028, 761	248, 984 338, 699 238, 783 5, 636, 659 1, 104, 746	120,004 290,438 220,890 3,568,162 1,540,465	134, 963 355, 087 409, 5 34 2, 134, 583 598, 682	783, 368 1, 663, 241 1, 319, 020 16, 083, 683 5, 272, 654	55,794 117,664 139,408 2,828,777 934,309	33 28 38 24 35 15 25 08 32 68	29 66 19 01 18 66 29 80 17 79	14 30 16 30 17 26 18 86 24 81	16 08 19 95 31 22 11 28 9 64
National, of U. S. of A., Ills New England Mutual, Nass New York, N. Y. Penn Mutual, Pa. Pheenx Mutual, Conn		209,708 1,073,866 1,945, 9 22 379,408 753,849	250, 261 537, 139 980, 911 203, 278 515, 143	517,469 1,440,936 230,953 335,981	319,971 382,960 1,505,695 247,894 416,737	779, 940 2,511, 434 5, 873, 464 1,061, 533 2,021, 710	160,249 350,848 1,700,920 480,636 167,896	22 30 37 51 25 68 24 60 34 42	26 61 18 76 11 61 13 11 23 52	18 07 19 02 14 32 15 34	16 07 19 03
Railway Passenger, Conn		42, 452 462, 733 324,014 824,862 395, 391	15, 975 394, 466 815,725 297, 178	97, 442 182,006 170, 246	102,007 586,749 390,487 410,166 216,391	144,459 1,065,457 1,206,409 2,232,759 1,079,206	136, 157 428, 108 133, 083 1305, 521 201, 072	40 31 30 98 27 61 42 80 30 88	1 06 34 47 42 32 23 21	8 30 9 44 13 29	21 28 16 82
Totals	\$79,098,502	\$23,751,335	\$16,911,104	\$14,646,212	\$12,430,150	\$67,738,803	2\$11,961,824	30 00	21 38	18 01	15 71

¹ Deficiency.

Net amount of excess of income.

TABLE No. XIV.—EXHIBIT OF POLICIES.

Names of Company.	Pol Decei	icies in force mber 31, 1876.		cies issued	Police ted ar	ies termina- id decreased	R	einsured.	Polic Decer	cies in force mber 31, 1877.	In	Increase. Decre		ecrease.
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
Wisconsin Company.														
Northwestern Mutual	36, 456	\$67, 493, 191	4,078	\$9, 266, 264	5, 768	\$12, 342, 608		······································	34.766	\$64,416,847			1,690	\$3,076, 3 44
Companies of other states.														
Ætna, Conn Connecticut Mutual, Conn Continental, Conn Equitable Life Ass. Soc. U. S. N.Y. Germania, N. Y	56, 987 66, 618 10, 803 48, 736 20, 296	183,414,408 13,898,537 173,050,690	6,213 2,138 6,609	15,301,735 2,795,172 18,726,118	6,579 3,347 8,596			\$49,801	55, 698 66, 252 9, 594 46, 749 19, 650	178, 280, 635 11, 499,777 100, 821, 416			1,289 366 1,209 1,987	5,133,773 2,398,760 12,229,274
Home, N. Y. Mauhattan, N. Y. Mass. Mutual, Mass. Mutual, N. Y. Mutual Benefit, N. J.	12,614 14,458	19, 902, 744 38, 959, 108 33, 803, 463 276, 171, 915 131, 846, 985	1,261 1,289	1,408,533 3,009,120 3,114,004 45,598,042 7,016,891	1,844 1,764	4,510,800		944 905	8, 425 12, 031	16, 800, 407 36, 318, 549 31, 872, 147 294, 488, 311	•••••		1,521 583 475 572 511	3, 102, 337 2, 640, 559 1, 931, 316 18, 316, 396 5, 653, 940
New England Mntual, Mass New York, N. Y. Penn Mutual, Pa. Phænix Mutual, Conn.	27,775	58, 940, 326 127, 748, 473 31, 05 3 , 301	1,802 2,371 6,597 2,202 3,449	6,725,350 20,156,639	2,540 6,413 1,940	5, 593, 741 7, 227, 599 20, 003, 225 5, 668, 070 12, 544, 626	137 	782, 645	9, 716 20, 043 45, 605 10, 905	19, 342, 869 58, 438, 077 127, 901, 887 30, 757, 079	184	\$153,414	627 169	2, 276, 132 502, 249 296, 229 8, 445, 016
United States, N. Y. Union Mutual, Me Washington, N. Y.	10,303 20,444 10,899	40, 979, 204 23, 546, 827	4,197 3,006 1, 408	8, 676, 955 4, 789, 417 2, 615, 870	3,420 5,319 2,078	4, 283, 979 8, 322, 427 11, 386, 803 4, 617, 395	••••	140, 375 383, 700 40, 000	11,080 18,131 10,229	18, 690, 183 21, 190, 190 34, 381, 818 23, 127, 543	175 777	354, 528	2,313 670	456, 208 6, 597, 386 419, 284
Totals	579,219	\$1,456,196,076	69, 184	\$177,066,948	84,720	\$222, 782, 168	418	\$2,437,216	563,693	\$1,413,956,108	1,136	\$507,942	17,286	\$79,380,702

TABLE No. XV. — TERMINATION OF POLICIES.

	Ву	By death. By expiry.		By death. By expir		expiry. By surrender. By lapse. By change.		By expiry.		By surrender. By lapse. By change. Not taken.		By surrender. By lapse.		Not taken.		Total t	erminated.
Name of Company.	No.	Amou	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.			
			-									,					
Wisconsin Company.	2.00	@W40_445	323	0±00 90m	1 450	90 500 57/4	9 106	\$6,785,877		\$610 , 867	420	1,065,462	5,768	\$12,342,608			
Northwestern Mutual	373	\$719, 441	5%5	\$305, 501	1,450	φο, υπο, υτα	3,130	φο, του, στ		, ,							
Companies of other States.	655	1, 179, 609	5	6, 500	2,482	4, 745, 684	2,579	4, 940, 024	1492	627, 409	646	1,245,429 1,763,950	6,859	12,744,649 20,435,508			
Ætna, Conn Connecticut Mutual, Conn Continental, Conn Equitable Life Ass. Soc. of U. S., N. Y	932	2,593,088 183,963	7		2,397 1,358 2,671	7,854,762 1,773,672 11,191,415	2,411 973 $4,327$	1,739,100 14,200,240	148	663, 316 140, 210	877 1,016	809, 380	3,347	32, 942, 067			
Germania, N. Y	54~	578, 917	41	84,074	1,258	1,993,108	846	' '	1		220	465, 700	2,318	4,510,870			
Home, N. Y	116 201 204	615,539 420,915	644	158, 114 1, 803, 900	860 370	2,558,427 1,043,859	236 2 304	4728, 56 972, 73	1 3 32 3 1		189 5 241	602,55	5 9,066	27,281,640			
Mutual, N. Y	938 524	3,075,700 1,723,266		104, 535	619	1,895,07	1,270	3, 258, 73	7 1,091	5,059,84	1 249	629, 37	5 3, 781 6 2, 439	12,670,831			
National of U. S. of A., Ill		776,049	134	256,205	587	1,802,18	1,22	3, 368, 03 8, 063, 79	6	44,00 503,81	0 335 5 74	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$2 \mid 2,540 \\ 1 \mid 6,413$	7,227,599 $20,003,225$			
New York, N. Y Penn Mutual, Pa Phœnix Mutual, Conn	566 136 354	370, 354	1 10	43,700	334	1,003,30	1 1,15	$2 \mid 3,095,57$	31 - 21	5 320, 29	2 28 0 53		0 1,940 2 5,74				
	1	143,74	10		60		9 1,17	8 2, 283, 60 8 5, 156, 49	 0 48 0 2	1,052,05 7 1,052,05 207,84	 0 39 0 63	7 1,475,00	5 2,20 0 3,42	0 8,322,42			
Railway Passenger, Conn	137 254 113	287, 585 583, 50 292, 57	24 ⁴ 5 40	282, 903 64, 463	1,518	3,248,45 2,055,66	$\begin{bmatrix} 2,79 \\ 0 \end{bmatrix}$	2 5,614,35 5 1,716,80	00	723, 66	8 51 27	1 933, 98 2 487, 89	5,31	4,617,39			
Totals		\$18, 430, 72	2,02	\$4,737,24	28, 83	\$78,013,71	1 32,73	0 \$78,758,80	4,72	\$18,093,90	9,22	8 \$24, 078, 30)2 84, 71	0 \$222,782,16			

¹ Maturity.

² Including \$2 106,460 additions.

³ Including 1,000 matured endowment.

⁴ Including purchased policies.

NAME OF COMPANY.	Polic Dec	les in force c. 31, 1876.	Policies	issued during he year.	Policies in force Dec. 31, 1877.		Premiums	Losses
	No.	Amount.	No.	Amount.	No.	Amount.	received.	
Wisconsin Company.								-
Northwestern Mutual	9, 341	\$13,001,461	481	\$710, 942	8,889	\$12, 386, 672	\$348,760	\$223,441
Companies of other States.			İ					
Ætna, Conn. Connecticut Mutual, Conn. Continental, Conn. Equitable Life Ass. Soc. of U. S., N. Y. Germania, N. Y.	1,236 73	1, 832, 824 2, 518, 365 105, 000 1, 606, 915 677, 168	134 126 152 50 22	135, 971 315 525 225, 000 91, 870 23, 778	1,539 1,261 101 734 341	1,742,4°0 2,597,740 147,000 1,435,600	57, 070 73, 934 6, 257 55, 653	23, 402 25, 603 21,100
Home, N. Y. Manhattan, N. Y. Massachusetts Mutual, N. Y. Mutual, N. Y. Mutual Benefit, N. J.	527 41 221 2, 440 251	1, 226, 700 89, 792 395, 624 5, 308, 056 553, 100	84 47 30 163 41	165,000 108,355 53,110 282,625 78,760	479 63 192 2, 393	588,921 1,162,650 142,158 324,567 5,162,747	25,940 37,341 3,803 12,908 187,256	9,000 7,318 11,000 73,954
National of U. S. of A , I:l. New England Mutual, Mass. New York, N. Y. Penn Mutual, Pa. Phœnix Mutual, Conn.	370 921 99 813	456, 565 547,218 1,558, 865 171,000 918,372	124 27 185 45 56	189, 725 40,000 392, 535 94, 000 48, 595	276 311 354 974 108 760	585,343 474,852 533,344 1,719,675 204,500 835,753	13, 834 10,037 24,190 34,159 6,972 29,530	12,300 1,872 27,307 13,537 2,000 11,599
Railway Passengers, Conn. Travelers, Conn. United States, N. Y Union Mutual, Me Washington, N. Y.	1,852	4, 993, 991 36, 650 1, 177, 615	1,722 90 22 138	4, 977, 835 200,000 48, 833 168, 695	1,871 63 15 871	4,751,718 133,150 34,833 1,102,285	1,760 46,955 4,354 3,762 41,158	18, 959 4, 000 4, 744
Totals	22, 123	\$37, 177, 781	3,739	\$8,351,154	21,595	\$36,065,918	\$1,025,633	\$507,564

TABLE XVII.—AMOUNT OF LICENSE TAX PAID NOT INCLUDING FEES.

Ætna Life Insurance Co., Hartford, Conn	\$300 00	
Connecticut Mutual Life Insurance Co., Hartford, Conn	300 00	d.
Continental Life Insurance Co., Hartford, Conn	300 00	1
Equitable Life Assurance Society of the U. S., N. Y	200 00	ķ.
Equitable Life Assurance Society of the O. S., 14.	300 00	,
Germania Life Insurance Co., N. Y		
	300 00	
Home Life Insurance Co., N. Y	300 00	
Manhattan Life Insurance Co., N. Y	300 00	
Massachusetts Mutual Life Ins. Co., Springfield, Mass		
Mutual Life Insurance Co., N. Y.	800 00	
Mutual Benefit Life Ins. Co., Newark, N. J	300 OO	,
Mutual Bonone Bus 2200 con, and		
National Life Ins. Co. of the U.S., Chicago, Ill	300 00	
New York Life Insurance Co., N. Y	300 00)
New England Mutual Life Ins. Co., Boston, Mass	300 00)
New England Mutual Life Ins. Co., Doston, Mass	2,546 98	ò
Northwestern Mutual Life Ins. Co., Milwaukee, Wis	300 00	
Penn Mutual Life Ins. Co., Philadelphia, Pa	300	
	300 00	æ
Phœnix Mutual Life Ins. Co., Hartford, Conn	300 00	-
Reilway Passenger Assurance Co., Hartford, Conn		
Travelers' Insurance Co., Hartford, Conn	300 00	
United States Life Ins. Co., N. Y	300 00	
Union Mutual Life Ins. Co., Augusta, Me	300 00	0
Union Mutuat Bile ins. co., 220gasta,		
Washington Life Ins. Co., N. Y	300 00	0
Washington Life ins. Co., R. 1	90 E46 0	-
Total	\$8,540 9	-
•		-

STATEMENTS

OF

Life & Accident Ins. Companies.

NORTHWESTERN MUTUAL LIFE INSURANCE COMPANY.

LOCATED IN MILWAUKEE, WISCONSIN.

(Organized November 25, 1858.)

H. L. PALMER, President.

WILLARD MERRILL, Secretary.

II. - INCOME DURING 1877. Notes and loans taken for premiums..... 523,472 24 Premiums paid by dividends, including reconverted additions. \$203,741.21; by surrendered policies, \$73,132.51..... 276,873 72 Total premium income (new, \$282,687.01; renewal, \$2,009,654.43)..... \$2, 292, 341 35 Interest on mortgage loans..... 1,070,679 93 Interest on bonds and dividends on stock 27, 102 54 Enterest on premium notes, loans or liens 276,520 41 Enterest on other debts due the company..... 36,970 18 Discount on claims paid in advance 20 80 Rents from company's property..... 7,451 90 Total income during the year..... \$3,711,087 11 Salance of net or ledger assets December 31, 1876..... 17, 177, 137 54 \$20,888,224 05 II. DISBURSEMENTS DURING 1877. 53,645 84 Premium notes and loans used in payment of the same...... Cash paid for matured endowments and additions..... 320,453 93 Fremium notes and loans used in payment of the same..... 98,242 03 Total amount actually paid \$1,182,580 82 Cash paid for surrendered policies 401,710 92 Premium notes and loans used in purchase of surrendered policies [and voided by lapse..... 353, 497 15 Cash surrender values, including reconverted addition applied in payment of gremiums 74,151 84

Cash dividends paid to policyholders (applied in pa	yment of pre	miums' inter-	
est and tax \$253,679.54)	· · · · <i>·</i> · · · · · · · · · ·		312,906 46
Premium notes and loans used in payment of divid	lends	• • • • • • • • • • • • • • • • • • • •	566, 820 38
Total paid policyholders		.\$2,891,667.57	
Paid for commissions to agents	•••	••••••	145, 584 36
Paid for salaries and traveling expenses of agents	• • • • • • • • • • • • • • • •	•••••	46,584 36
Paid for medical examiners' fees	••••••		10, 141 43
Paid for salaries and other compensation of offi ployes	cers and oth	ier office em-	
Paid for taxes, licenses, fines and fees		••••••	109,763 33
Paid for rent, less \$518 received under sublease			25, 168 13 9,514 64
Paid for commuting commissions	••••		13,520 00
Paid for furniture and fixtures and safes for home a	nd agency of	ices	1,417 89
Paid for advertising	•••••		13, 259, 16
Paid for the following items, viz: Supplies and exp	press, \$13,906	35; law, loan	20,000 10
and claim expenses and official examinations a	nd appraisal	s, \$43, 201.99;	
pay and expenses of trustees and executive con	n m ittee, \$8,29	3.82; postage	
and exchange, \$15,707.88; other expenses, \$8,773.70	v 	• • • • • • • • • • • • • • • • • • • •	89,883 74
Debit balance, profit and loss	••••••	0.4-0	\$14,979 85
Total miscellaneous expenses			
Total disbursements during the year			\$3,371,471 32
Balance December 31, 1877	•••••		\$17,516,753 33
Invested in the following:		:	
III. — ASSETS AS PER LEI	OGER ACCO	UNTS.	•
Real estate, unincumbered, cost value			@080 100 F0
Loans secured by mortgages on real estate, first lies	18		\$868, 189 58 12, 308, 252 83
Premium notes and loans on policies in force			3, 262, 958 39
			0, 200, 200 03
Stocks, Bonds, etc owned b	by the Compa	ny.	
	Market value.	Cost value.	
United State bonds	\$595,924 14	\$582,076 65	
Missouri State bonds	53,750 00	52,497 50	
Kansas City, Mo., bonds	75,810 40	71,250 00	•••••
Green Bay City, Wis., bonds		21,892 00	•••••
Town of Gale, Trempealeau Co., Wis., bonds	5,436 99	5,000 00	
Total (carried out at cost value)		\$732,716 15	732, 716 15
Cash in Company's office, \$106,482.62; deposited in	banks, \$158,	195.99	264,678 61
Blis receivable, \$14,761.54; agents' ledger balance	8, \$57, 696, 23.		72,457 77
Office furniture		• • • • • • • • • • • • • • • • • • • •	7,500 00
Total net or ledger assets as per balance	· • • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·	\$17,516,753 33
Deduct depreciation from cost of assets	••••	•••••	189,328 00
Total net or ledger assets less depreciation	•••••		\$17 ,3 27,425 33
Other Assets			
Interest due and accrued on bonds and mortgages	•		
		•	P400 WOW OC
Bond and stocks owned	•••••		\$479,727 90
Bond and stocks owned	••••••		16,824 67
Premium notes, loans or liens.	•••••		16, 824 67 118, 904 11
Bond and stocks owned		• • • • • • • • • • • • • • • • • • • •	16,824 67

Gross premiums due and unreported on policies in force \$81,973 00
Gross deferred premiums on policies in force. 219, 937 25
Total \$301, 910 25
Deduct average loading on above gross amount (25 per cent.) 75,477 55
Net amount of uncollected and deferred premiums 226, 432 70
Total of other assets
Total sesets
Deduct items not admitted
Total admitted assets
Items not Admitted:
Furniture, fixtures and safes
Agent's balances and other ledger balances
Bills receivable
Total items not admitted
IV. — LIABILITIES.
Net present value of all the outstanding policies in force on the 31st day of De-
cember, 1877, computed by the Wisconsin State Insurance Department accord-
ing to the American Experience table of Mortality, with 4½ per cent. interest. \$14,092, 201 00
Claims for death losses and matured endowments not due \$150,208 09
Claims for death losses and other policy claims resisted 48,500 00
Total policy claims
Dividends of surplus or other description of profits due policy holders 5,000 00
Amount of any other liability of the company, viz.: premiums paid in advance,
Amount of any other flatifity of the company, viz.: promitting part in a series of the company, viz.: promitting part in a series of the company, viz.: promitting part in a series of the company, viz.: promitting part in a series of the company, viz.: promitting part in a series of the company, viz.: promitting part in a series of the company, viz.: promitting part in a series of the company, viz.: promitting part in a series of the company, viz.: promitting part in a series of the company, viz.: promitting part in a series of the company, viz.: promitting part in a series of the company, viz.: promitting part in a series of the company, viz.: promitting part in a series of the company of the company, viz.: promitting part in a series of the company of the comp
\$14,885.29; accrued commissions, \$2,000, Telectro on impost posterior, \$4,000 file 38
Liabilities on policyholders' account
Gross surplus on policyholders' account
Total liabilities\$18,098,299 13
V PREMIUM NOTE ACCOUNT.
Premium notes, loans or liens on hand Dec. 31 of previous year \$3,825,551 16
Premium notes, loans or liens received during the year 537, 370 88
Total \$4,302,922 04
Deductions during the year as follows, viz.: notes, loans or liens
used in —
Payment of losses or claims
Purchase of surrendered policies and canceled by lapse 353, 497 15
Payment of dividends to policyholders
Redeemed by maker in cash
Total reduction of premium note account
Balance of note assets at end of year
• • • • • • • • • • • • • • • • • • •
VII.—EXHIBIT OF POLICIES.
VII. — EXHIBIT OF POLICIES. NUMBER AND AMOUNT OF POLICIES AND ADDITIONS, CLASSIFIED.
NUMBER AND AMOUNT OF POLICIES AND ADDITIONS, CLASSIFIED. Policies in force at the commencement of the year:
NUMBER AND AMOUNT OF POLICIES AND ADDITIONS, CLASSIFIED. Policies in force at the commencement of the year: Number. Amount.
NUMBER AND AMOUNT OF POLICIES AND ADDITIONS, CLASSIFIED. Policies in force at the commencement of the year:

Endowment policies

All other policies.....

1,526,041

690

New policees issued during the year:		
Whole life policies	3, 149	7,021,763
Endowment policies	376	•
All other policies	125	232,409
Old policies revived during the year:		
Whole life policies	327	738, 463
Endowment polices	81	
All other policies		,
Possess Possess		0,000
Old policies increased in amount:		
Whole life policies		
Endowment policies	11	
All other policies	1	2,439
Additions by dividends during the year:		
Whole life policies	••••	24, 160
Endowment policies	•••••	7,457
All other policies		503, 156
Total number and amount		
	5,768	12,342,608
Total policies in force at the end of the year	34,766	\$64,416,847
Policies in force at the end of the year, including additi	ions:	
The state of the s	Tu mb er.	Amount.
Whole life policies	26 , 099	
Endowment policies	7,990	
All other policies	677	
Policies in force at the end of the year	34,766	\$64, 416, 847
,	====	ΨΟΣ, ΣΙΟ, ΌΞΙ
Th. 27.1 to 21.7 to 21		
Policies which have csased to be in force during the year, with the mode		
	Number.	
Terminated by death	373	
By expiry By surrender	323	,
By lapse	1,456	
By change and decrease	3, 196	6, 785, 877 610, 867
Not taken	210	
Totals	5,768	\$12,342,608
MISCELLANEOUS.		•
Business in Wisconsin for 1877.		
Number and amount of policies on the lives of citizens of Wisconsin	umber.	Amount.
in force December 31, of previous year	0.241	\$19 004 4 61 00
Number and amount of policies on the lives of citizens of Wisconsin	9,041	\$13,004,461 00
issued during the year	481	710,942 00
Totals	9,822	\$13,715,403 0 0
Deduct total number and amount which have ceased to be in force	000	1 000 804 00
during the year, including removals from the state	933	1,328,731 00
Total number and amount of policies in force in Wisconsin, De-		
cember 31, 1877	8,889	\$12,386,672 00

Amount of losses and claims on policies in Wisconsin, unpaid December 31, of previous year	17	\$26,722 03
Amount of losses and claims on policies in Wisconsin, incurred during the year	171	218,445 74
Totals	188	\$245, 167 77
the year	172	223, 441 46
Amount of premiums collected or secured in Wisconsin, during the year, in cash and notes, or credits, without any deduction for losses,		
dividends (except the deduction \$38,471.87 dividends, used to pay premiums), commissions or other expenses; cash \$254,698.49; notes		
or credits, \$94,061.85; total	••••	\$348,760 34

ÆTNA LIFE INSURANCE COMPANY.

LOCATED IN HARTFORD, CONN.

(Commenced business in 1850.)

T. O. ENDERS, President.

J. L. ENGLISH, Secretary.

Attorneys for service of process in the state of Wisconsin, F. T. & T. C. DAY, Milwaukee.

ASSETS AS PER LEDGER ACCOUNTS.

Real estate, unincumbered, cost value Loans secured by mortgage on real est	\$263,771 88 10,709,966 92			
Loans				
	Par	Market	Amount	
	value.	value.	loaned.	
Willimantic Linen Co. stock	\$2,50 0 00	\$7,100 00]		
United States Trust Co. stock	1,300 00	1,196 00		• • • • • • • • • • • • • • • • • • • •
Hartford City Coal and Salt Co. stk.	2,500 00	2,500 00 }	\$46,300 00	• • • • • • • • • • • • • • • • • • • •
United States Trust Co. stock	12,500 00	11,500 00 [440, 300 OO	
Ætna Fire Insurance Co. stock	8,000 00	16,800 00		
Willimantic Linen Co. stock	7,500 00	21,300 00]		
United States Trust Co. stack	15,000 00	13,800 00]		
Ætna Fire Insurance Co. stock	4,000 00	8,400 00 {	54,267 31	• • • • • • • • • • • • • • • • • • • •
Hartford Carpet Co. stock	5,000 00	11,250 00 f	01,000	
Willimantic Linen Co. stock	10,000 00	28,4 00 00 J		• • • • • • • • • • • • • • • • • • • •
Keithsburgh Township bond	1,500 00	1,500 00)		• • • • • • • • • • • • • • • • • • • •
Town of Dayton bond	1,000 00	1,000 60 }	2,6 80 0 0	• • • • • • • • • • • • • • • • • • • •
Mt. Pulaski township bond	1,000 00	1,000 00)		
United States Trust Co. stock	5,000 00	4,600 00	4,000 00	• • • • • • • • • • • • • • • • • • • •
Union Salt Co. stock	42,500 00	42,500 00	25,000 00	
Wheeler & Wilson Mfg. Co. stock	13,000 0 0	39,000 00 {	56,068 75	• • • • • • • • • • • • • • • • • • • •
Ætna Fire Insurance Co. Stock	16,800 00	35, 280 00 ∫		• • • • • • • • • • • • • • • • • • • •
Willimantic Linen Ca. stock	10, 6 25 00	30, 175 00	13,300 00	• • • • • • • • • • • • • • • • • • • •
Willimantic Linen Co. stock	8,750,00	24 , 850 00	16,500 00	••••
American Screw Co. stock	800 00	1,600 00)	4 400 00	***********
Agawam Canal Co. stock	1,200 00	600 00 }	1,130 00	• • • • • • • • • • • • • • • • • • • •
Travelers Insurance Co. stock	800 00	1,280 00)	0 800 00	•••••
Assignment of mortgage	4,000 00	4,000 00	3,500 00	••••
Assignment of mortgage	1,000 00	1,900 00	384 00	•••••
Ætna Fire Insurance Co. stock	4,400 00	9,240 00	3,500 00	•••••
Phenix Fire Insurance Co. stock	1,000 00	1,800 00	736 00	•••••
Hartford Carpet Co. stock	2,500 00	5,625 00	3,800 00	••••
Ætna Fire Insurance Co. stock	2,500 00	5,250 00	4,096 00	••••
Hartford Carpet Co. stock	3,000 00	6,750 00	4,000 00	•••••
Hartford Carpet Co. stock	1,600 00	3,600 00	2,700.00	• • • • • • • • • • • • • • • • • • • •
Total amount	\$191,275 00	\$342,896 00	\$241,962 06	044 000 08
				241, 962 06
Premium notes and loans on policies	in force			3,318 063 97

Stocks, Bonds, etc., owned by the Company.

	Cost	Market	
Compostiont Divon Banking Co. steels	value.	value.	
Connecticut River Banking Co., stock	\$17,545 00	\$8,930 00	••••••
Metropolitan Bank, New York, stock	10,812 50	9,750 00	
Phænix National Bank, Hartford, stock	124,285 50	137,700 00	• · · · · · · · · · · · · · · · · · · ·
Mercantile National Bank, Hartford, stock	42,885 25	45,200 00	••••••••
City National Bank, Hartford, stock	60,900 75	50,960 00	•••••
Hartford National Bank, Hartford, stock	107,720 25	116, 250 00	• • • • • • • • • • • • • • • • • • • •
First National Bank, Hartford, stock	92,060 66	67,249 90	••••
National Exchange Bank, Hartford, stock	93,729 80	97,776 00	•••••
American National Bank, Hartford, stock	93,576 87	101,304 00	•••••
Farmers and Mechanics' Bank, Hartford, stock	102,462 25	64, 975 00	•••••
Suffield National Bank, Suffield, stock	15,100 00	13,566 00	•••••
New Britain Nat. Bank, New Britain, stock	28,450 00	30,000 00	••••••
Charter Oak National Bank, Hartford, stock	97,572 25	104,500 00	• • • • • • • • • • • • • • • • • • • •
Ætna National Bank, Hartford, stock	79, 969 46	83,300 00	•••••
Hartford Trust Company, Hartford, stock	20,825 00	18,400 00	•••••
U. S. Trust Company, Hartford, stock	5,262 50	4,600 00	•••••
Rockville National Bank, Rockville, stock	20,000 00	20,000 00	•••••••
Security Company, Hartford, stock	10,000 00	10,000 00	••••
U.S. Government registered bonds	356, 350 63	346,862 50	•••••
District of Columbia bonds, 3.65s	217,126 38	228,000 0 0	• · · · · · · · · · · · · · · · · · · ·
Connecticut River Railroad stock	39, 372 25	45, 264 00	•••••
Ætna Fire Insurance stock	17,136 68	13,230 00	
N. Y., New Haven and Hartford R. R. stock	140,051 75	147,070 00	
Indianapolis and Cincinnati railroad bonds	47,380 00	44,500 00	
Columbus and Indianapolis railroad bonds	45,000 00	42,000 00	
Cincinnati and Indiana railroad bonds	20,675 00	21,840 00	
Cleveland, Paine and Ashtabula R. R. bonds.	25,671 25	26,520 00	
Dayton and Michigan railroad bonds	13,950 00	15, 500 00	
Little Miami railroad bonds	800 00	930 00	
New York Central railroad bonds	3,810 00	4,160 00	•••••••
Union Pacific railroad bonds	30, 690 0 0	31,200 00	• • • • • • • • • • • • • • • • • • • •
Harlem and Port Chester R. R. bonds	99,500 00	112,0 00 00	
N. Y. Central and Hudson River R. R. bonds.	100,000 00	118,000 00	
Keokuk and Des Moines Valley R. R. bonds	21,950 00	12,420 00	
Indiana Central R. R. bonds	9,225 00	9,000 00	
Cleveland and l'ittsburg R. R. bonds	747 50	· 1,000 00	
Southern Minnesota R. R. bonds	57,360 00	25, 482 50	
Atlantic Dock bonds	23,750 00	26, 000 00	
South Carolina state bonds	26,545 00	17,500 00	
Virginia state bonds	20,986 00	11,395 80	
Tennessee state bonds	31,301 00	12,920 00	
Mississippi state warrants	8,786 05	8,786 05	
Kansas state warrants	99,750 00	100,000 00	
Terre Haute city bonds	61,400 00	67,000 00	
Richmond city bonds	5 0, 500 00	55,000 00	
Mobile city bonds	120,000 00	120,000 00	
Hartford city bonds	400,285 00	455,720 00	
Cleveland city bonds	229, 230 00	242,550 00	
Louisville city bonds	89,750 00	104,000 00	
Kansas city bonds	90,500 00	99,000 00	
New Britain city bonds	130,689 00	136,500 00	
Chicago city bonds	50,000 00	53,500 00	

	Cost value.	Market v a lue.	
Springfield, Ill., city bonds	87, 205 00	95,170 00 .	
Elizabeth city bonds	149,580 00	158,400 00 .	
Grand Rapids city bonds	34,581 83	39,000 00 1	
Hartford city bonds	18,710 00	19,000 00 .	
Peoria city bonds	100,200 00	107,060 00 .	
Ottawa city bonds	10,000 00	10,000 CO .	
Beardstown city bonds	2,980 00	3,500 00 .	• • • • • • • • • • • • • • • • • • • •
Peoria city bonds	16,000 00	16,160 00 .	
New Boston city bonds	9,750 00	9,750 00 .	
Cleveland city bonds	52, 390 00	54,600 00 .	
Jersey City bonds	122,900 00	141,700 00 .	
Newark city bonds	1 72,015 0 5	189,660 00 .	••••
Buffalo city bonds	99,75 0 00	108,000 00 .	
Des Moines city bonds	40,000 00	41,200 00	
Fort Wayne city bonds	40,305 00	45,900 00 .	
Indianapolis city bonds	487,570 00	498,700 00 .	
Quincy city bonds	37,564 00	37,564 00 .	
Milwaukee city bonds	97,500 00	107,000 00 .	
Cincinnati city bonds	100,000 00	105,000 00 .	
New York city bonds	104,000 00	112,000 00 .	
Hartford city bonds	4,151 75	4,080 00 .	
Logansport city bonds	61,200 00	61,200 00	
St. Paul city bonds	52,350 00	52,350 00 .	
Edgar county bonds	53,600 00	53,600 00 .	
Warren covnty bonds	9 30 0 0	930 00 .	
Marion county bonds	99,500 00	105,000 00 .	•••••
Monroe county bonds	35,000 00	35,000 00 .	
Macon county bonds	46,475 00	46,475 🕏 .	
Ford county bonds	58, 000 00	58,000 00 .	
Adams county bonds	37, 937 5 0	45,000 00	
Christian county bonds	18,800 00	18,800 00	
Cook county bonds	22, 750 00	26,500 00	
Sangamon county bonds	39,250 00	41,800.00	
Green county bonds	18, 200 CO	18, 200 C O .	
Kankakee county bonds	24,687 50	24,687 50	
Macoupin county bonds	43,400 00	12,900 00	• • • • • • • • • • • • • • • • • • • •
Sangamon county bonds	46,000 00	50,000 60	
White county bonds	10 , 860 00	10,860 00	• • • • • • • • • • • • • • • • • • • •
Gallatin county bonds	10,400 00	10,400 00	•••••
Moultrie county bonds	45, 240 00	•	•••••••
Randolph county bonds	51,330 00	51,330 00	
De Witt county bonds	30,850 00	30,850 00	• • • • • • • • • • • • • • • • • • • •
Wabash county bonds	26,100 00	,	· · · · · · · · · · · · · · · · · · ·
Hudson county bonds	49,843 75	52,500 00	• • • • • • • • • • • • • • • • • • • •
Hartford county bonds	70,000 00	70,000 00	
Iroquois county bonds	54,221 50	54, 221 50	•••••
Ramsey county bonds	32,000 0 0	32,000 00	
Marion county bonds	200,250 00	210,000 0 0	• • • • • • • • • • • • • • • • • • • •
Paris town bonds	12,000 00		• • • • • • • • • • • • • • • • • • • •
Georgetown town bonds	30,000 00	30,000 00	•••••
Newman Town bonds	\$11,700 00		· · · · · · · · · · · · · · · · · · ·
Camarga Town bonds	14,625 00		
Garrett Town bonds	12,675 00		
Elwood Town bonds	32,000 00	32,000 00	• • • • • • • • • • • • • • • • • • • •

	Cost value.	Market value.	
D - 11 - Marris hands	46,750 00		
Brooklyn Town bonds	30,000 00		
Mt. Pulaski Town bonds	20,453 22	•	· · · · · · · · · · · · · · · · · · ·
Grant Town bonds	18,525 00		
Penn Town bonds	19,750 00	•	
Moline Town bonds	8,850 00	8,850 00	
Edgewood Town bonds	15,000 00		
West Hartford Town bonds	41, 125 00	41, 125 00	
Rock Island Town bonds	8,400 00	8,400 00	
Lennox Town bonds	18,050 00	18,050 00	
Danbury Town bonds	4,500 00	4,500 00	
Astoria Town bonds	4,500 00	4,500 00	
Woodland Town bonds	4,500 00	4,500 00	
Browning Town bonds	•	21,875 00	
Bushnell Town bonds	21,875 90	2,000 00	
Virginia Town bonds	2,000 00	•	
Ricks Town bonds	6,980 00	6,980 00	••••••
Mattoon Town bonds	20, 250 00	20,250 00	••••••
Winchester Town bonds	9,600 00	9,600 00	•••••
Middleport Town bonds	14,700 00	14,700 00	••••••
Belmont Town bonds	14,700 00	14,700 00	••••••
Galva Town bonds	14,700 00	14,700 00	•••••
Milford Town bonds	12,204 80	12,204 80	•••••
Keitsburgh Town bonds	23,000 00	23,000 00	
DeWitt Town bonds	9,950 00	9,950 00	•••••
Ross Town bonds	28,802 70	28, 802 70	
Aurora Town bonds	11,860 00	11,860 00	
Evans Town bonds	2,895 00	2 ,895 00	
East Windsor Town bonds	29,700 00	29,700 00	
Brooklyn Town bonds	29,700 00	27,000 00	• • • • • • • • • • • • • • • • • • • •
Brooklyn Town bonds	1,000 00	1,000 00	
Sprague Town bonds	40,133 83	40,133 33	
Total (carried out at cost value)	\$7,347,098 41	\$7,504,452 90	
	. !!	=======================================	\$7,347,098 41
Cash in company's office, \$10,395.83; deposited i	n hanks \$978 41	6.32	988,812 15
Bills receivable, \$55,937.61; agents' ledger balan	nces \$1 838 36	.0.0	57,775 97
Total net ledger assets, as per balance	••••••	• • • • • • • • • • • • • • • • • • • •	\$22, 927, 451 36
Other A	ssets :		•
Interest due and accrued on bonds and mortgag	res		\$660,061 48
Bonds and stocks owned			117,201 77
Market value of bonds and stocks over cost			157, 354 49
Due from other companies for losses or claims			15,000 00
Gross premiums due and reported on policies in			•
Gross deferred premiums on policies in force.	1 10100	194 635 62	
Total	(90 par cent)	\$264,106 60 52,821 32	
Deduct average loading on above gross amount			211, 285 28
Net amount of uncollected and deferred pr			
Total of other assets			1,160,903 02 57,775 97
Total admitted Assets	••••••••		\$24,030,578 41
the control of the co			

Items not admitted:

Dillegenier	
(Data) :	
VLIABILITIES.	
Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the Connecticut Insurance department, according to the American Experience table	
The direct most most more and a second most most more and a second most more and a second most more and a second most more and a second most more and a second most more and a second more and a	•••••
Premium obligations in excess of the net value of their policies	9,210,023 00 1,674 11
Total policy claims Dividends of surplus, or other description of profits due policy holders Amount of any other liability of the company, viz.: Bills unpaid, \$2, 125.10; other liabilities, \$7,668.66; special reserve to cover possible depreciation in real estate, \$50,000	417, 458 00 96, 614 52 59, 793 76
Liabilities on policyholder's account	9,78 5 ,563 39 4,245,015 02
	4,030,578 41

CONNECTICUT MUTUAL LIFE INSURANCE COMPANY.

LOCATED IN HARTFORD, CONN.

(Organized December 15, 1846.)

JAMES GOODWIN, President.

JACOB L. GREENE, Secretary

Attorney for service of process in the state of Wisconsin, NATHAN PERELES, Milwaukee.

III. - ASSETS, AS PER LEDGER ACCOUNTS.

Real estate, unincumbered, cost value	\$4,067,908 90
Loans secured by mortgages on real estate, first liens	28, 335, 744 97

Loans on Stock Collaterals:

	Par value.	Market value.	Amount loaned.	
United States bonds	\$500 00	\$5 3 3 13)		
St. Louis City bonds	2,000 00	2,000 00	eo oon oo	
Ohio Canal stock	5, 000 00	5,500 00	\$9,003 28	**********
Little Miami R. R. stock	2,500 00	2,000 00 J		
Pettis County, Mo., bonds	3,000 00	2,500 00	2,250 00	
Kansas Pacific R. R. bonds	3,000 00	1,500 00)		
Connecticnt Trust and Safe Deposit Co. stock	2,000 00	1,700 00	2,500 00	

United States bonds	1,000 (00 1,190 (00 1,000 0	0
Mortgage bond on property in Louis-				
ville, Ky	5,000 (00 10,000 (00 3,000 0	0
Mortgage bond on property in Evans-				
ville, Ind	2,000 (
Ætna Fire Inaurance Co. stock	10,000 0			
N. Y., N. H. and Hartford R. R. stock .	1,400 (
Merch. Nat. Bank, Toledo, O., stock	25, 000 0			
First Nat. Bank, Indianapolis, stock	50,000 (00 70,000	00 50 ,00 0 0	0
Mortgage bond of Wm. P. Goembel,				
Germantown, Ill	500	00 1,000	00 400 0	0
Scotia Iron Co., St. Louis, stock Mortgage notes of Frank G. Porter, St.	10,000	00 20,000	ر 00	
Louis Louis	6,531	14 6,531	14 / 18,777 0	00 00
Promissory notes of Geo. L. Wright, St.	•		1	
Lonis	12, 245		-	00
Rockville R. R. bonds	25,000	00 25 ,000	00 10,000 0	<u> </u>
Total amount	\$166,677	00 \$207,212	13 \$130,730 2	28 = 130,73 0 28
Premium notes and loans on poficies in	force, the	reserve in e	xcess of all in	n-
debtedness			•••••	5,605,486,14
Stocks, Bonds,	etc., owned	t by the com	pany:	
		Cost value.	Market valu	ie.
United States bonds		\$2,448,359 12		
Connecticut State bonds (untaxable)		600,000 00		
Tennessee State bonds		19,900 00		
		103,500 00		
Indiana State bonds		61,200 00	•	
Toledo City bonds		75,000 00		
Fort Wayne City, Ind., bond		99,000 00		
Jackson City, Mich., bonds		302,310 00		
Evansville City bonds		275,000 00		
Louisville City, Ky., bonds		208,700 00		
Quincy City, Iil., bonds				
Milwaukee City, Wis., bonds		625,000 00 182,500 00		
Kansas City, Mo., bonds		•		
Mobile City, Ala., bonds		78,200 00		
Cleveland City bonds		81,810 00	· ·	
St. Louis Chamber of Commerce bonds.		435,000 00	•	
First National Bank, Hartford, stock		13,000 0		
City National Bank, Hartford, stock		10,725 00		
Ætna National Bank, Hartford, stock		2,500 00		
Phoenix National Bank, Hartford, stock		1,650 00		
Charter Oak National Bank, Hartford,		1,055 00		
State Bank, Hartford, stock		1,275 0		
Fourth National Bank, N. Y., stock		16,000 00		
Connecticut Trust and Safe Deposit Co		30,000 0		
N. Y., N. H. and Hartford R. R. stock.		21,000 00		
Connecticut River R. R. Co. stock		5,000 0	.,	
Total (carried out at cost value)		\$5,697,684 1	2 \$5,880,382	
				= \$5,697,684 12
Cash in company's office, \$8,956.02; de	posited in	banks, \$1,18	1,720.60	1, 190,676 62
Bills receivable, \$4,372.21; agents ledg	er balance	s, \$39,480.33.		43,852 54
Total net or ledger assets as per b				
Total Hot of leader assers as bet n				

Other Assets:

Interest due and and accrued on bonds and mortgages	\$1,866,379 87
Bonds and stocks owned	71,855 83
Premium notes, loans or liens	302,425 43
Rents due and accrued on company's property or lease	
Market value of bonds and stocks over cost	182,698 38
Gross deferred premiums on policies in force	
Deduct average loading on above gross amount (20 per cent.) 17,280 00	••••
Net amount of uncollected and deferred premiums	34,560 02
Total of other assets	\$2,467,919 53
Total assets	\$47,540,003 10
Deduct items not admitted	43,852 54
Total admitted assets	\$47, 496, 150 56
Items not admitted:	
Agents' balances	
Total items not admitted\$43,852 54	
IV. $-$ LIABILITIES.	
Net present value of all outstanding policies in force on the 31st day of December, 1877, computed by the Connecticut Insurance Department, according	
to the American Experience Table of Mortality, with 4½ per cent. interest. Premium obligation in excess of the net value of their policies:	\$39,276,081 00
Claims for death losses, and matured endowments not due \$580,935 00	
Claims for death losses and other policy claims resisted 274,100 00	•••••
Total policy claims	855,035 00
Dividends of surplus, or other description of profits due policyholders	291,041 95
Contingent reserve on lapsed policies	328,353 00
Liabilities on policyholders' account	\$40,740,510 95
Gross surplus on policyholders' account	6,755,639 61
Total liabilities	\$47,496,150 56

CONTINENTAL LIFE INSURANCE COMPANY.

(LOCATED IN HARTFORD, CONN.)

(Commenced Business I864.)

FAMES PARSONS, President.

ROBT. E. BEECHER, Secretary

Attorney for service of process in the state of Wisconsin, W. W. Field, Madison.

ASSETS AS PER LEDGER ACCOUNTS.

Real estate unincumbered, cost value	\$268, 136 29
Loans secur ed by mortgages of real estate, first liens.	789, 310 89

STOCKS, BONDS AND OTHER SECURITIES HELD AS COLLATERAL FOR CASH LOANS.

	$egin{array}{c} Par \ Value. \end{array}$	Market . Value.	Am't Loan'd Thereon.	
Hartford Steam Boiler Ins. Co. stock	\$5,000 00	\$6,000 00	\$3,550 00	• • • • • •
Mortgage notes assigned to Co First National Bank Kansas City stock	8,000 00	8,000 00	*17777 20	
First National Bank Kansas City stock	10,000 00 3,500 00	$12,000 00 \\ 3,500 00$	3,500 00	
Mortgage note assigned to Co	3,600 00	3,600 00		
10 per cent, mortgege farm bonus	2,000 00 6,000 00	2,000 00 6,000 00		
Mortgage notes assigned to Co	2,800 00	3 080 00	750 00	
Orient Fire Ins. Co. stock	5,000 00	5,000 00		• • • • • • •
	9,000 00	840 00 10,800 00		• • • • • • •
Adam's Nickel Co. stock	400 00	480 00 {		
Phonix National Bank stock	260 00	250 00 (
National Bank of Commerce stock	1,000 00 3,000 00	1,260 00 4,980 00		
Bank of America stock	4,000 0 0	3,200 00	9,500 00	
Connecticut General Life Ins. Co. Stock	4 000 00	3,200 00 4,000 00		
Union National Bank Stock	3,000 00 3,000 00	4,260 00 3,600 00	 	
Gallatin National Bank stock	3.000 00	3,420 00		
City National Bank Stock	4.000 00	8,000 00	26,570 00	
Notional Bank of Commerce Stock	4,000 00 3,900 0)	5,040 00 4,680 0 0	1	•
Adam's Nickel Co. stock	1,000 00	1.000 00		
Willimontle Linen Co. stock	500 00	1,400 00	Į	
10 per cent. mortgage farm bonds	2,500 00	2,500 00 4,800 00	7,100 00	
Adam's Nickel Co. stock	4,000 00 1,000 00	800 00	1	•
	1,000 00	1.000.00	2,000 00	
Chicago & Alton R. R. Co. Stock	2,700 00 1,000 00	2,214 00 1,200 00	600 00	
Adom's Nielzol Co Stock	1.000 00	1.000 00	1,000 00	
Judgment note secured by real estate Mortgage note assigned to Co	7,395 00	7,395 00	5,000 00	
loomed	\$110,955 00	\$127,299 00	\$99,080 00 \$9	99,080 00
Totals (carried out at amount loaned)				
Totals (carried out at amount loaned)	company's	policies		950 00
Loons made in cash to policyholders on this	company's	policies		950 UU
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i	company's n force, the	reserve in	excess of all	950 00 80,840 66
Loons made in cash to policyholders on this	company's n force, the	reserve in	excess of all	
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i	n force, the	reserve in	excess of all	
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness	n force, the	reserve in	excess of all 9 NY. Market	
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness	n force, the	reserve in the Compa	excess of all 9	
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness	n force, the	reserve in the Compa	excess of all 9 NY. Market Value.	
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness	company's n force, the	reserve in control Cost Value.	Market Value. \$121,325 00	80,840 66
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness	company's n force, the	THE COMPA Cost Value. 5131, 296 25 7,575 00	Market Value. \$121,325 00 8,500 00	80,840 66
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness Stocks and Bonds Owned Abso United States registered bonds Fort Wayne City bonds Middletown Water bonds	company's n force, the	THE COMPA Cost Value. 6131, 296 25 7,575 00 6,772 50	Market Value. \$121,325 00 8,500 00 7,400 00	80,840 66
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness Stocks and Bonds Owned Abso United States registered bonds Fort Wayne City bonds Middletown Water bonds Hartford City bonds	company's n force, the	THE COMPA Cost Value. 3131, 296 25 7,575 00 6,772 50 8,410 00	Market Value. \$121,325 00 \$,500 00 7,400 00 8,925 00	80,840 66
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness Stocks and Bonds Owned Abso United States registered bonds Fort Wayne City bonds Middletown Water bonds Hartford City bonds Macoupin County bonds	s company's n force, the	THE COMPA Cost Value. 5131, 296 25 7,575 00 6,772 50 8,410 00 10,000 00	Market Value. \$121,325 00 \$,500 00 \$,925 00 \$,500 00	80,840 66
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness	company's n force, the	THE COMPA Cost Value. 1311, 296 25 7,575 00 6,772 50 8,410 00 10,000 00 8,500 00	Market Value. \$121,325 00 \$,500 00 7,400 00 \$,925 00 7,500 00 10,000 00	80,840 66
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness Stocks and Bonds Owned Abso United States registered bonds Fort Wayne City bonds Middletown Water bonds Hartford City bonds Macoupin County bonds	company's n force, the	THE COMPA Cost Value. 131, 296 25 7,575 00 6,772 50 8,410 00 10,000 00 8,500 00 8,000 00	Market Value. \$121,325 00 \$,500 00 \$,925 00 \$,500 00 \$,500 00 \$,500 00 \$,000 00	80,840 66
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness Stocks and Bonds Owned Abso United States registered bonds. Fort Wayne City bonds. Middletown Water bonds. Hartford City bonds. Macoupin County bonds. Jefferson County bonds. Leavenworth County bonds. Utica Town bonds.	company's n force, the	THE COMPA Cost Value. 3131, 296 25 7,575 00 6,772 50 8,410 00 10,000 00 8,500 00 12,000 00	Market Value. \$121,325 00 \$,500 00 \$,925 00 \$,500 00 \$,500 00 \$,000 00 \$,000 00 \$,000 00	80,840 66
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness Stocks and Bonds Owned Abso United States registered bonds. Fort Wayne City bonds. Middletown Water bonds. Hartford City bonds. Macoupin County bonds. Jefferson County bonds. Leavenworth County bonds. Utica Town bonds.	company's n force, the	THE COMPA Cost Value. 131, 296 25 7,575 00 6,772 50 8,410 00 10,000 00 8,500 00 8,000 00	Market Value. \$121,325 00 \$,500 00 7,500 00 10,000 00 5,000 00 12,000 00 14,000 00	80,840 66
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness	s company's n force, the LUTELY BY	THE COMPA Cost Value. 3131, 296 25 7,575 00 6,772 50 8,410 00 10,000 00 8,500 00 12,000 00	Market Value. \$121,325 00 \$,500 00 7,500 00 10,000 00 5,000 00 12,000 00 14,000 00	80,840 66
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Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness Stocks and Bonds Owned Abso United States registered bonds Fort Wayne City bonds Middletown Water bonds Hartford City bonds Jefferson County bonds Leavenworth County bonds Utica Town bonds Middletown, Unionville & W. G. R. R. bon Quincy City bonds Windham Town orders	ds	THE COMPA Cost Value. 1311, 296 25 7,575 00 6,772 50 8,410 00 10,000 00 8,500 00 12,000 00 7,000 00 7,400 00 10,000 00	Market Value. \$121,325 00 \$,500 00 7,400 00 \$,925 00 7,500 00 10,000 00 12,000 00 14,000 00 8,050 00 10,000 00	80,840 66
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness Stocks and Bonds Owned Abso United States registered bonds Fort Wayne City bonds Middletown Water bonds Macoupin County bonds Jefferson County bonds Leavenworth County bonds Utica Town bonds Middletown, Unionville & W. G. R. R. bon Quincy City bonds Windham Town orders N. J. Midland R. R. receivers certificate	ds	THE COMPA Cost Yalue. 5131, 296 25 7,575 00 6,772 50 8,410 00 10,000 00 8,500 00 12,000 00 7,000 00 7,000 00 10,000 00 10,000 00 10,000 00 10,400 00 10,407 43	Market Value	80,840 66
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness	ds	THE COMPA Cost Value. 1311, 296 25 7, 575 00 6, 772 50 8, 410 00 10, 000 00 8, 500 00 12, 000 00 7, 000 00 7, 400 00 10, 000 00 1, 947 43 37, 251 14	Market Value	80,840 66
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness	ds	THE COMPA Cost Value. 3131, 296 25 7,575 00 6,772 50 8,410 00 10,000 00 8,500 00 8,000 00 12,000 00 7,400 00 10,000 00 1,947 43 37,251 14 7,750 00	Market Value. \$121,325 00 \$,500 00 7,400 00 \$,925 00 7,500 00 10,000 00 12,000 00 14,000 00 14,000 00 10,000 00 10,000 00 10,000 00 1,947 43 32,417 50 6,375 00	80,840 66
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness Stocks and Bonds Owned Abso United States registered bonds Fort Wayne City bonds Middletown Water bonds Hartford City bonds Macoupin County bonds Jefferson County bonds Leavenworth County bonds Utica Town bonds Middletown, Unionville & W. G. R. R. bon Quincy City bonds Windham Town orders N. J. Midland R. R. receivers certificate Farmers' and Mechanics' National Bank at Conn. Trust & Safe Dep. Co. stock	ds	THE COMPA Cost Value. 3131, 296 25 7,575 00 6,772 50 8,410 00 10,000 00 8,500 00 12,000 00 7,000 00 7,400 00 10,000 00 11,947 43 37,251 14 7,750 00 2,000 00	Market Value. \$121,325 00 \$,500 00 7,400 00 \$,925 00 7,500 00 10,000 00 12,000 00 14,000 00 10,000 00 10,000 00 10,900 00 10,900 00 10,900 00 1,947 43 32,417 50 6,375 00 2,500 00	80,840 66
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Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness Stocks and Bonds Owned Abso United States registered bonds Fort Wayne City bonds Middletown Water bonds Macoupin County bonds Jefferson County bonds Leavenworth County bonds Utica Town bonds Middletown, Unionville & W. G. R. R. bon Quincy City bonds Windham Town orders N. J. Midland R. R. receivers certificate Farmers' and Mechanics' National Bsnk st Conn, Trust & Safe Dep. Co. stock Security Co. stock Hartford Steam Boiler Ins. Co. stock	ds	THE COMPA Cost Value. 3131, 296 25 7,575 00 6,772 50 8,410 00 10,000 00 8,500 00 12,000 00 7,000 00 7,400 00 10,000 00 11,947 43 37,251 14 7,750 00 2,000 00	Market Value. \$121,325 00 \$,500 00 \$,500 00 \$,000 00 \$,000 00 \$,000 00 \$,050 00	80,840 66
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness Stocks and Bonds Owned Abso United States registered bonds Fort Wayne City bonds Middletown Water bonds Hartford City bonds Macoupin County bonds Jefferson County bonds Utica Town bonds Middletown, Unionville & W. G. R. R. bon Quincy City bonds Windham Town orders N. J. Midland R. R. receivers certificate Farmers' and Mechanics' National Bsnk st Conn. Trust & Safe Dep. Co. stock Hartford Steam Boiler Ins. Co. stock Merchants' Loan and Trust Co. stock	ds	THE COMPA Cost Value. 131, 296 25 7,575 00 6,772 50 8,410 00 10,000 00 8,500 00 12,000 00 7,000 00 7,000 00 1,400 00 1,947 43 37,251 14 7,750 00 2,000 00 1,471 58	Market Value. \$121,325 00 \$,500 00 7,400 00 \$,925 00 7,500 00 10,000 00 12,000 00 14,000 00 8,050 00 14,000 00 19,47 43 32,417 50 6,375 00 2,500 00 1,500 00 1,500 00 1,500 00 2,500 00	80,840 66
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness	ds	THE COMPA Cost Value. 131, 296 25 7,575 00 6,772 50 8,410 00 10,000 00 8,500 00 12,000 00 7,000 00 7,400 00 10,000 00 1,947 43 37,251 14 7,750 00 2,000 00 1,471 58 14,560 00	Market Value. \$121,325 00 \$,500 00 7,400 00 \$,925 00 7,500 00 10,000 00 14,000 00 14,000 00 14,000 00 1,947 43 32,417 50 6,375 00 2,500 00 1,500 00 1,500 00 1,500 00 2,500 00	80,840 66
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness	ds	THE COMPA Cost Value. 1311, 296 25 7,575 00 6,772 50 8,410 00 10,000 00 8,500 00 12,000 00 7,000 00 7,000 00 1,947 43 37,251 14 7,750 00 2,000 00 1,471 58 14,560 00 2,500 00	Market Value. \$121,325 00 \$,500 00 7,400 00 \$,925 00 7,500 00 10,000 00 12,000 00 14,000 00 10,000 00 1,947 43 32,417 50 6,375 00 2,500 00 14,500 00 14,500 00 14,500 00 1,500 00 1,500 00 1,500 00 1,500 00 1,500 00 1,500 00 1,500 00 1,500 00 1,500 00 1,000 00	80,840 66
Loans made in cash to policyholders on this Premium notes, loans, or liens on policies i indebtedness	ds	THE COMPA Cost Value. 1811, 296 25 7,575 00 6,772 50 8,410 00 10,000 00 8,500 00 12,000 00 7,400 00 10,000 00 1,947 43 37,251 14 7,750 00 2,000 00 1,471 58 14,560 00 2,500 00 1,000 00	Market Value	80,840 66

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Total assets Deduct items not admitted Total admitted assets	• • • • • • • • •	180,812	99
Items not admitted.			
Furniture, fixtures, and safe	24,776 83 138,765 92		99
LIABILITIES.			
Net present value of all the outstanding policies in force on the 31st ber, 1877, computed by the Connecticut Insurance Department, a the American Experience Table of Mortality, with 4½ per cent. in Claims for death losses, and matured endowments, in process of adjustment, or adjusted and not due. Claims for death losses, and other policy claims, resisted by the company Total policy claims. Total liabilities (except capital stock).	\$30,937 00	\$2,706,676 32,437	
Surplus as regards policyholders, \$255,728.92, on the basis of admitt	ed assets.		•

EQUITABLE LIFE ASSURANCE SOCIETY OF THE UNITED STATES.

LOCATED IN NEW YORK CITY.

(Organized July 28, 1859.)

HENRY B. HYDE, President.

SAMUEL BORROWE, Secretary.

Attorney for service of process in the state of Wisconsin, JOSEPH HAMILTON, Milwaukee.

•				
ASSETS, AS	PER LEDG	ER ACCOUN	r.	
Real estate, unincumbered, cost and book value				\$6,286,744 94 13,723,218 44
Loans	on Stock Col	latdrals:		
	Par value.	Market value.	Amount loaned.	
Brooklyn City stock	\$8,000 00	\$9,2 80 00	\$7,000 00	·
United States bonds	3,000 00	3,128 75	3,000 00	••••
United States bonds	1,000 00	1,056 25	1,000 00	
United States bonds	1,000 00	1,056 25	1,000 00	
Mercantile Safe Deposit Co. stock	260,000 00	325,000 00	175,000 00	•••••
United States bonds	2,000 00	2,110 00	2,000 00	
United States bonds	50,000 00	53,437 50	50,000 0 0	•••••
United States bonds	100,300 00	103,191 87	100,000 00	•••••••••••••••••••••••••••••••••••••••

United States bonds	150, 500	00	154, 840	62	150,000 00	·
United States bonds	100,000	00	103,000	00	100,000 00)
United States bonds	50,200	00	51,648	75	50,000 00)
United States bonds	7,000	00	7,463	75	7,000 00	
United States bonds	100,000	co	102,875	00	100,000 00	
United States bonds	300,000	00	309,000	00	302,206 00	
United States bonds	202,000	00	206,653		200,000 00	
United States bonds	250,000		257, 187		250,000 00	
United States bonds	250,000		264,062		250,000 00	
United States bonds	105,000		106, 181		100,000 00	
United States bonds	80,000		82,400		80,000 00	
United States bonds	25,000		26, 406		25,000 00	
'Total amount	\$2,040,000,	,00			\$1,953,206 00	1,953,206 00
Stocks Dona			242 (C.			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Stocks. Bond	s, etc., own	iea	-	mp		
, i			Cost value.		Market value.	
United States bonds		\$5.	829,413 47	,	\$5,721,745 00	
New York City stock			439,831 25		1,474,250 00	•••••
Brooklyn City stock			137,045 00		162,520 00	
Rochester City stock.			55,500 00		58, 250 00	
Buffalo City stock.			59,549 82		61,009 19	
Sharon Town. N. Y., bonds			11,500 00		11,902 50	•••••••••
Yonkers Town, N. Y., bonds			4,712 00		•	
Little Valley Town, N. Y., bonds			5,000 00		5,175 00	•••••
					5,320 83	
Greenburgh Town, N. Y., bonds			8,000 00		8,311 45	
Virginia bonds			13,050 00		17,470 91	
South Carolina bonds		_	16,250 00		17,250 00	• • • • • • • • • • • • • • • • • • • •
Merchantile Trust Co., N. Y., stock	• • • • • • • • • • • • • • • • • • •	1	,487,630 84	ŀ 	1,524,277 50	
Total (carried out at cost value)		\$9	067,482 38	3 : =	\$9,067, 482,3 8	8,067,492 38
Cash in company's office, \$61,861.53;	dep osi ted i	n b	anks, \$899	2, 18	5.87: cash in	
course of transmission (since receive	ed), \$152, 2	293.	12; total		· · · · · · · · · · · · · · · · · · ·	1,106,340 52
Agents' ledger balance						237, 247 85
Commuted commissions						103,753 74
Total net or ledger assets as per l						\$32,477,991 87
			•			
Totalest due on second hands and me	Other A					8056 F02 00
Interest due on accrued bonds and mo						
Bonds and stocks owned						
Collateral loans						,
Rents due and accrued on company's						76,448 42
Gross premiums due and unreported						
miums paid in advance)						
Gross deferred premiums on policies i	n iorce	• • •	• • • • • • • • • • • • • • • • • • • •	•••	. 578,850 00)
Total	· · · · · · · · · · · · · · · · · · ·	٠	• • • • • • • • •		. \$658,278 00)
Deduct average loading on above	gross ame	uni	(20 per ce	nt)	. 131,656 00	·
Net amount of uncollected and de	eferred pre	miı	ıms			526,622 00
Premium on gold on hand	-					•
Total of other assets						
Total assets						\$33,398,999 20
Deduct items not admitted						340, 999 59
Total admitted assets	•••	• • • •	• • • • • • • • • • • • • • • • • • •	•••	•••••	\$33,057,999 61

Items not admitted.	
Commuted commissions	\$103, 751 74
Agents' balances	237, 247 85
Total items not admitted	\$340,999 59
V.—LIABILITIES.	
Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance Department according to the American Experience Table of Mortality, with 4½ per cent interest	\$26 ,533,7 75 6 ~
Total policy claims. Dividends of surplus, or other description of profits due policy holders Amount of any other liability of the company, viz.: three months' clause	525, 540 00 79, 476 00 162,347 00
Liabilities on policy holders' account	\$27, 301, 138 00 5, 756, 861 61
Total liabilities	\$33,057,999 61
Estimated surplus (included above) accrued on Tontine or other policies where the profits are specially reserved for that class of policies	

GERMANIA LIFE INSURANCE COMPANY.

LOCATED IN NEW YORK CITY.

(Organized July 16, 1860.)

COTTE	MEGENTOONOK	President.	

CORNELIUS DOREMUS, Secretary.

Attorney for service of process in the state of Wisconsin, LOUIS AUER, Milwaukee.

Attorney for service of process in the state	of Wisconsin, LC	OUIS AUEB, M	ilwaukee.
ASSETS, AS PER LE	EDGER ACCOUN	ITS.	
Real estate, unincumbered, cost value			\$782,527 66
Loans secured by mortgages on real estate, firs	t liens	•••••	4,790,242 13
Lons on Stock	Collater als:		
Par value		Amount loaned.	
United States bonds \$160,000	9 00 \$166, 147 50	\$160,000 00	\$160,000 00
Stocks, Bonds, etc., Or	oned by the Comp	any.	
	Par value.	Market value.	
United States bonds	\$1,164,000 00	\$1,215,110 00	
Virginia State bonds		9,000 00	
Mississippi warrants		7,500 00	
New York City bonds		57 2, 2 60 0 0	
New York County bonds		27, 250 00	
Brooklyn City loan		169,500 0 0	••••
Total (carried out at cost value)		\$2,000,620 00	1,995,577 59

Cash in company's office, \$593.16; deposited in banks and with Bavarian government, \$60,672.67; total	61, 265 83
Total net or ledger assets as per balance Deduct depreciation from cost of assets	\$7,789,613 21
Total net or ledger assets, less depreciation	
Other Assets.	
Interest due and accrued on bonds and mortgages	\$60, 217 16
Bonds and stocks owned	20, 263 87
Collateral loans	470 00
Market value of bonds and stocks over cost	5,042 41
Gross premiums due and unreported on policies in force \$31,905 42	
Gross deferred premiums on policies in force 228, 292 95	•••••
Total	
Deduct average leading on above gross amount (20 per cent.). 52,039 68	••••••
Net amount of uncollected and deferred premiums	208, 158 69
Cash in course of transmission	23, 421 90
Total of other assets	\$317,574 03
Total admitted assets	
V.—LIABILITIES.	
Net preent value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance Department according to the American Experience Table of Mortality, with 4½ per cent.	
interest	\$6,853,978 00
Claims for death losses and other policy claims resisted	••••••
Total policy claims	87,642 59
Dividends of surplus or other description of profits due policy holders	36,619 59
National, state or other taxes due	580 00
Amount due on account of salaries, rents and office expenses	\$1,666 67
Reserve for extra risks and policies lapseld, table to be surrendered	14,789 51
Liabilities on policy holder's account	\$6,995,276 36
Gross surplus on policy holder's account	1,026,667 49
Total liabilities	\$8,021,943 85
Estimated surplus (included above) accrued on Tontine or other policies where the profits are specially reserved for that class of policies	

HOME LIFE INSURANCE COMPANY,

LOCATED IN BROOKLYN, N. Y.

[Organized May 1, 1860.]

GEORGE C. RIPLEY, President.

10 - Ins.

WILLIAM J. COFFIN, Secretary.

Attorney for the service of process in the state of Wisconsin, E. H. KELLOGG, Milwaukee.

ASSETS AS	PER LEDGE	ACCOUN	TS.	•			
Real estate, unincumbered, cost value				\$192,687 13			
Loans secured by mortgages on real est	ake, first liens			1,476,566 00			
Loans	on stock colle	iterals :					
	Par	Marke					
Brooklyn City Railroad stock	value.	value					
Nassau National Bank stock	\$5.110 00 2,000 00	\$9,709 (00			
Brooklyn National Bank stock	1,500 00	2,800 (1,950 (na.			
Brooklyn City Gas Co. stock	1,250 00	2,000 (00 \ 1,750 (00			
Union Trust Co. stock	10,000 00	10,500 0	M i	20			
Home Fire Ins. Co. stock	3,000 00	3,180 (00 } 9,400 \				
New York Gas Co. stock	2,350 00	2,820 (2,500	00			
Nassau Gas Co. stock	1,200 00 600 00	1,920 (20			
Nassau Gas Co. certificates	350 00	450 C		JU			
Manufacturers National Bank stock	3,000 00	3,060 (00			
United States bonds	2,500 00	2,628 0					
Nassau National Bank stock	2,500 00	3,500 0	00 2,000 (
Central Trust Co stock. Del. and Hud. Canal Co. bonds	50,000 00	50,000 0		00			
Brooklyn City Gas Co. stock	50,000 00 32,100 00	47,250 0 51,360 0		,			
German American Ing Co stork	5,000 00	5,000 0	50,000	00			
Brooklyn Trust Co. stock	10,000 00	8,000 0	0 (,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Central Trust Co. stock	15,000 00	15,000 0	0 12,500 (00 00			
National Shoe and Leather Bank stock	3,500 00	3,250 0					
Home Fire Ins. Co. stock*. Mechanics' Bank Brooklyn stock	13,500 00 9,250 00	13,250 0					
Mechanics' Bank, Brooklyn, stock Central National Bank stock	90,800 00	9,063 0 90,800 0	0.)				
Fourth National Bank stock	28,500 00	28,500 0	0 { 100,000 C	0			
Nassau National Bank stock	2,300 00	2,300 0	ம் 1	^			
National Shoe and Leather Bank stock	2,500 00	3,125 0					
Merchants' Bank, Brooklyn, stock	2,000 00 4,000 00	2,290 0		0			
Albany and Susquehanna R. R. bonds United States bonds	26,500 00	4,320 0 27,984 0		10			
Certified gold check	9,000 00	9, 180 0		0			
Brooklyn City bonds	1,000 00	1,060 0		0			
	2,250 00	3,600 0	0 1,200 0	0			
United States bonds	2 000 00	2,103 0					
C Intel States bonds	30 000 00	30,300 0	0 30,000 0	0			
Total amount	\$418,760 00	\$452,602 0	0 \$361,150 0	in			
				- 361 150 00			
Premium potes and loans on posicies in	force			. 960,470 82			
Stocks, Bonds,	A. Contract of the Contract of						
		Cost value.	Market value.				
United States bonds		36, 380 6 0	\$853,065 00				
Brooklyn City bonds	••••••••••••••••••••••••••••••••••••••						
Wines County bonds		6,997 50	571,280 00	• • • • • • • • • • • • • • • • • • • •			
Kings County bonds	15	51,03 7 50	169,000 00				
			\$1,593,345 00				
Total (carried out at cost value)				01 FAN 11F 00			
Cash denosited in hanks			• • • • • • • • • • • • • • • • • • • •	\$1,547,115 60			
Cash deposited in banks	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	67,715 88			
Agents' ledger balances	• • • • • • • • • • • • • • • • • • • •	•••••	• • • • • • • • • • • • • • • • • • • •	8.489 12			
Total net or ledger assets as per bal	ance	•••••		\$4,614,194 5 5			

Other Assets:

Interest and rents due and accrued	• • • • • • • • • • • • • • • • • • • •	\$50,3 3 8 58
Market value of bonds and stocks over cost	••••	46, 229 40
Groos premiums due and unreported on policies in force	\$70,737 59	• • • • • • • • • • • • • • • • • • • •
Gross deferred premiums on policies in force	24, 125 14	•••••
Total	\$94,862 73	
Deduct average loading on above gross amount (20 per cent.)	. 18,971 55	
Net amount of uncollected and deferred premiums		75,890 18
Total of other assets		\$172,458 16
Total assets		\$4,786,652 86
Deduct items not admitted		8,489 12
Total admitted assets		\$4,778,163 59
Items not admitted:	\$3,489) 12
	\$3,489) 12
Agents' balances	e 31st day of Department,	
Agents' balances LIABILITIES. Net present value of all the outstanding policies in force on th December, 1877, computed by the New York State Insurance according to the American Experience table of Mortality, wigh interest.	e 31st day of Department, 4½ per cent.	\$3, 6 3 3, 176 00
Agents' balances LIABILITIES. Net present value of all the outstanding policies in force on th December, 1877, computed by the New York State Insurance according to the American Experience table of Mortality, wigh interest.	e 31st day of Department, 4½ per cent.	\$3, 6 3 3, 176 00
Agents' balances LIABILITIES. Net present value of all the outstanding policies in force on th December, 1877, computed by the New York State Insurance according to the American Experience table of Mortality, wigh	e 31st day of Department, 4½ per cent.	\$3,683,176 00
Agents' balances. LIABILITIES. Net present value of all the outstanding policies in force on th December, 1877, computed by the New York State Insurance according to the American Experience table of Mortality, wigh interest. Claims for death losses, and matured endowments not due	e 31st day of Department, 4½ per cent. . \$4,500 00	\$3,683,176 00
Agents' balances LIABILITIES. Net present value of all the outstanding policies in force on th December, 1877, computed by the New York State Insurance according to the American Experience table of Mortality, wigh interest	e 31st day of Department, 4½ per cent \$4,500 00	\$3,683,176 00
Agents' balances. LIABILITIES. Net present value of all the outstanding policies in force on th December, 1877, computed by the New York State Insurance according to the American Experience table of Mortality, wigh interest. Claims for death losses, and matured endowments not due	e 31st day of Department, 4½ per cent. . \$4,500 00 . 13,000 00	\$3,683,176 00
Agents' balances. LIABILITIES. Net present value of all the outstanding policies in force on th December, 1877, computed by the New York State Insurance according to the American Experience table of Mortality, wigh interest. Claims for death losses, and matured endowments not due	e 31st day of Department, 4½ per cent. . \$4,500 00 . 13,000 00	\$3,633,176 00 17,500 00 2,495 52 \$3,653,171 52

MANHATTAN LIFE INSURANCE COMPANY.

LOCATED IN NEW YORK CITY.

(Organized August 1, 1850.)

HENRY STOKES, President. JACOB

JACOB L. HALSEY, Secretary.

Attorney for service of process in the State of Wisconsin, ROBERT A. BAKER, Fond du Lac.

ASSETS, AS PER LEDGER ACCOUNTS.

,	
Real estate, unincumbered, cost value	\$780,555 2 5
Loans secured by mortgages on real estate, first liens	4,339,168 77

Loans on stock collaterals:

2547.	Par value.	Market value.	Amount loaned.	
Citizens Fire Ins. Co. stock	\$8,100 00	\$14,985 00	\$4,000 00	
Broadway Bank stock Peoples' Bank stock	4,500 00	9,045 00	5,000 00	• • • • • • • • • • • • • • • • • • • •
Peoples' Bank stock	2,500 00	3, 150 00	2,500 00 750 00	******
Third Avenue R. R. bonds Lake Shore R. R. stock	1,000 00 50,000 00	1,010 00		
N. Y. C. and Hud. R. R. R. stock	30,000 00	30,500 00 } 31,875 00 } 61,000 00	50,000 00	•••••
Lake Shore R. R. stock	30,000 00 100,000 00 150,000 00	61,000 00	50, 000 00	• • • • • • • • • • • • • • • • • • • •
Western Union stock	150,000 00	115,875 00	150,000 00	
Lake Shore R. R. stock	60,000 00 10,000 00	63,750 00 }	150,000 00	• • • • • • • • • • • • • • • • • • • •
United States bonds	14,000 0 0	14,770 00 \\ 14,872 00 \\ 1,055 00 \\ 1,05	25,000 00	
Harlem preferred stock	10,400 00 1,000 00	14,872 00 \$	20,000 00	••••••••••
Harlem preferred stock	1,000 00	1,055 00 (1,800 00	
Panama R. R. stock N. Y. C. and Hud. R. R. R. stock N. Y. C. and Hud. R. R. R. stock	1,000 00 50,000 00	1,260 00 f 53,125 00	40,000 00	
N. V. C. and Hud. R. B. B. Stock	20,000 00	21,250 00	16,000 00 5,000 00 7,000 00	
Harlem Gas stock	6,500 00	6.500 00	5,000 00	
N. Y. C. and Hud. R. R. R. stock	8,000 9 0 60,000 00	8, 280 00 63, 750 00)	7,000 00	•••••
N. Y. C. and Hud. R. R. R. stock	90,000 00	69, 520 00 (65,000 00	
Western Union stock N. Y. C. and Hud. R. R. R. stock	20,000 00	21, 250 00	17,000 CO	
Merchants' Exchange Bank stock	800 00	744 00 1		
Metropolitan Bank stock	1,500 00 3,300 00	$2,110 00 \\ 3,217 50$	5,883 17	•••••
Bank of the Republic stock	3, 300 00	3, 217 30)		
Lake Shore and Michigan Southern	270,000 00	275,400 00	200,000 00	
R. R. second mortgage bonds Lake Shore R. R. stock	10,000 00	6 100 00 1	•	
Metropolitan Gas Co. stock	1,000 00	1,330 00 2,330 00	10.000.00	
Union Trust Co. stock	2,000 00	1,080 00	10,000 00	••••
Citizens' Bank stock	1,000 00 1,000 00 2,500 00	942 50		
Peoples' Bank stock	2,500 00	3.150 00)		
Peoples' Bank stock	4,450 00	6,052 00 }	9,882 00	
Bank of Commerce stock	2,000 00	2,540 00)	260,000 00	
Western Union stock New York City bonds	400,000 00	2,540 00 \(\) 309,000 00 200,000 00 6,240 00 \(\) 15,900 00	200,000 00	
Westchester Town bonds	200,000 00 6,000 00 15,000 00	6,240 00 }	,	
Westchester County bonds	15,000 00	15,900 00 (54,000 00	
Butchers' and Drovers' Bank stock Citizens' Bank stock	26,625 00	28,755 00 (20,250 00)	01,000	***************************************
	18,750 0 0 15,000 00	21,450 00 {	45 004 04	
N. Y. Guar. and Indem. Co. stock N. Y. C. and Hud. R. R. R. stock	1,000 00 150,000 00 49,500 00	1,000 00 (159,375 00)	15,661,04	
N. Y. C. and Hud. R. R. R. stock	150,000 00	159, 375 00)	200 000 00	
Harlem common stock	49,500 00	70, 166 25	- 200,000 00	• • • • • • • • • • • • • • • • • • • •
N. 1., N. H. and Hartford R. R. stk.	20,000 00 27,500 00	30,700 00) 42,212 50	30,000 00	
Harlem R. R. common stock	5,000,00	4,252 50 21,000 00 9,075 00	3,500 00 17,500 00	
Shoe and Leather Bank	17,500 00 5,500 00 2,000 00	21,000 00	17,500 00	••••
Brooklyn Gas stock	5,500 00	9,075 00 2,200 00	6,000 00 1,800 00	
Erie Long Dock bonds	9,750 00	10 530 00 1	44 000 00	
Eighth Avenue R. R. stock	3 400 00	5 440 60 (11,000 00	•••••••
Third Avenue R. R. stock	10 ,000 0 0	13,000 00 { 2,700 00 } 2,784 00	12,800 00	
Citizens' Bank stock	2,500 00 2,900 00	2,700 00)	2,500 00	
N. Y. Nat. Exchange Bank stock Metropolitan Gas stock	1,500 00	1,995 00	1,500 00	
•				
Total amount	\$1,983,975 00	\$1,895,843 25	\$1,481,076 21	
* **				1,481,076 21
Premium notes and loans on policies	in force		. 	1,839,318 99
<u>-</u>				
Stocks, Bonds	s, etc., owned	by the Compo	iny:	
		Cost	Market	
		value.	value.	
United States Bonds		\$1,027,484 33	\$964,929 25	
New York City Bounty bonds		8,613 00	9,222 00	
		100,500 00	116,500 00	
Brooklyn Public Park loan		•	•	
Virginia State bonds		4,500 00	4,493 50	••••
Westchester County bonds		63,138 56	65,720 0 0	
Bank of Commerce, N. Y., stock		4,460 00	6,250 00	
		et 000 cot 00	01 107 114 PE	
Total (carried out at cost value).	· · · · · · · · · · · · · · · · · · ·			1 908 605 80
				1,208,695 89

Cash in company's office, \$3,000.40; deposited in banks, \$29,573.73 "The Independent" newspaper		\$32,574 13 1,111 85
Total net or ledger assets as per balance	• • • • • • • •	\$9,682,501 09
Deduct depreciation from costs of assets	• • • • • • • • • • • • • • • • • • •	41,581 14
Total net or ledger assets less depreciation		\$9,640,919 95
Other Assets.		
Interest due and accrued on bonds and mortgages		\$197,965 94
Bonds and stocks owned		4, 168 16
Collateral loans		12, 315 62
Premium notes, loans and leins.		9,895 97
Rents due and accrued on Company's property or lease		583 31
	5,331 50	
	2,197 66	*************
Total		
Deduct average loading on above gross amount (20 per cent.) 46	5,88 2 29	•••••
Net amount of uncollected and deferred premiums		140,646 87
Postage stamps		. 290 85
Total of other assets	• . • . • •	\$365,836 72
Total assets		\$10,006,756 67
Deduct items not admitted		1, 111, 85
Total admitted assets		\$10,005,644 82
Items not admitted:		
"The Independent" newspaper \$1	,111 85	
LIABILITIES.		
Net present value of all outstanding policies in force on the 31st day of	of Dec	
1877, computed by the New York Insurance Department, according		
American Experience Table of Mortality, with 41/2 per cent. interest.		\$7,852,752 00
	,971 89	••••
Claims for death lo4ses and other policy claims resisted 51	,152 00	
Total policy claims		222,123 89
Dividends of surplus, or other description of profits due policyholders		78, 258 03
Amount of any other liabilities of the company		11,000 00
Liabilities on policyholders' account		\$8,164,133 92
Gross surplus on policyholders' account		1,841,510 90
Total liabilities	•••••	\$10,005,644 82
Estimated surplus (included above) accrued on Toutine or other		
policies where the profits are specially reserved for that class		
of policies \$13	,929 49	•••••
######################################		

MASSACHUSETTS MUTUAL LIFE INSURANCE COM-PANY.

LOCATED IN SPRINGFIELD, MASS.

(Organized August 1, 1851.)

E.	W.	BC	ND.	President.

AVERY J. SMITH, Secretary.

Amount

Attorney for service of process in the state of Wisconsin, CHARLES C. ROGERS, Milwaukee.

ASSETS, AS PER LEDGER ACCOUNTS.

Eeal estate, unincumbered cost value	\$511,258 00
Loans secured by mortgage on real estate, first liens	3,598,880 30

Loans on Siock Collaterals: Par

Market

	T a r	Market.	Amount	
	value.	value.	loaned.	
Sdringfield Gas-light Co. stock	\$1,900 00	\$2,375 00	\$1,900 00	
Union Paper Manuf. Co. stock	1,500 00	1,500 00	1,500 00	
Cocheco Nat. Bank, Dover, stock	3,000 00	3,180 00	3,000 00	
Hampden Paint & Chem. Co. stock	5,100 00	8,500 00	7,000 00	
United States bonds	500 00	525 00	500 00	
Union Paper Manuf. Co. stock	15,000 00	15, 000 00	10,000 00	
Pynchon Nat. Bank stock	2,500 00	4,125 00	2,500 00	
Union Parer Manuf. Co. stock	2,000 00	2,000 00 }	5,000 00	
Worthy Paper Co. stock	5,000 00	5,000 00 5	5,000 00	
Ætna Fire Ins. Co. stock	2,000 00	4,280 00 (3,400 00	
N. Y., N. H. & Hartford R. R. Co. stock	1,400 00	2,156 00 (3, 400 00	
Chicago & III. River Railroad bonds	45, U 00 00	22,50 0 00)	90 000 00	
Assignment of judgment	15,000 00	15,000 00 (30,000 0 0	• • • • • • • • • • • • • • • • • • • •
Farm. & Mech. Nat. Bank, Hart., stock	1,900 00	2,090 00	1,500 00	
Ætna Nat. Bank, Hartford, stock	600 00	708 00	550 00	
Phenix Nat. Bank, Hartford, stock	500 00	740 00	375 00	
Pyncheon Nat. Bank, Springfield, stock	1,300 00	2,145 00)		
John Hancock Nat. B'k, Springfielp, stk	500 00	600 00	× 000 00	
Leicester Nat. Bank, Leicester, stock	800 00	960 00	5,000 00	
Mortgage recorded in Hampden county.	5,000 00	5,000 00		
N. Y., N. H. & Hartford R. R. stock	3,800 00	5,852 00	5,000 00	
Council Bluffs & St. Joe R. R. bonds	8,000 00	7,600 00 }	•	
Kansas City, St. Joe & C. Bl. R. R. bds.	5,300 00	4,028 00 (10,000 00	••••••
Pettis County, Mo., bonds	1.000 00	1,000 00	798 00	
Cocheco Nat. Bank, Dover, stock	10,000 00	10,600 00	10,000 00	
Union Paper Manuf. Co. stock	45,500 00	45,500 00	40,000 00	
Union Paper Manuf. Co. stock	15,000 00	15,000 00 }	•	**********
Kansas City, St. Joe & C. Bl. R. R. bds.	30,000 00	22,800 00	32, 500 00	
Union Paper Manuf. Co. stock	4,000 00	4,000 00	2,700 00	
Kansas City, St. Joe & C. Bl. R. R. bds.	59,000 00	44,840 00	34,000 00	
N. Y., N. H. & Hartford R. R. stock	2,500 00	3,850 00)	01,000 00	
National, New Haven, Bank stock	1,000 00	1,500 00	5,100 00	
Boston and Albany Railroad stock	1,000 00	1,245 00	0,100 00	••••••
Personal security	,		4,000 00	
rersonal security	••••	•••••	4,000 00	
Total amount	\$296,600,00	\$261,199 00	\$216,323,51	
A COMP MANORANCE TO THE STATE OF THE STATE O	φωσος 300 00	Ψ	\$ 10,000 OI	\$216,323 51
Loans made in cash to policy halders on the company's policies				37,690 00
Premium notes and loans on policies in	torce			810,959 59

Stocks, Bonds, etc., owned by the Company:

	Cost value.	Market value.	
United States bonds	\$330,010 51	\$326,401 75	
Springfield City bonds	2,942 00	3,180 00	• • • • • • • • • • • • • • • • • • • •
Boston and Albany Railroad stock	92.693 88	85, 282 50	
New York, New Haven & Hartford Railroad stock	15,149 50	15.246 00	
New York Central and H. R. R. R. stock	9,750 00	10,650 00	

Chicago and R. Island Railroad stock	8,925 00	10,050 6 0	
Burlington, C. R. and Northern Railroad stock	2,200 00	1,050 00	
Council Bluffs and St. Joe Railroad stock	49,154 25	55, 100 00	••••
St. Louis, Alton and Terre Haute Railroad stock	30,026 25	34, 200 00	•••••
Buffalo, New York and Erie Raileoad stock	10,500 00	10,500 00	• • • • • • • • • • • • • • • • • • • •
Kansas Pacific Railroad stock	24,82 3 49	13,000 00	•••••
Indianapolis, Bloomington & Western R. R. stock.	32, 000 00	12,000 0 0	•••••
Burlington, C. Rapids & Northern R. R. stock	6,800 00	4,800 00	••••
Kansas and Nebraska Railroad and scrip	4,000 00	4,000 00	•••••
Agawam National Bank, Springfield, stock	515 00	600 00	••••
Pynchon National Bank, Springfield, stock	1,975 00	3,300 00	••••
First National Bank, Springfield, stock	13,850 00	16, 120 00	
Second National Bank, Springfield, stock	9,930 00	14,175 00	••••
Chicopee NItional Bank, Springfield, stock	5, 120 00	5,425 00	•••••
John Hancock National Bank, Springfield stock	1,220 00	1,200 00	••••
First National Bank, Chicopee, stock	2,586 00	3,480 00	• • • • • • • • • • • • • • • • • • • •
First National Bank, Northampton, stock	3,455 50	4,658 00	••••
Eliot National Bank, Boston, stock	1,522 50	1,650 00	••••
Webster National Bank, Boston, stock	2,625 00	2,525 00	••••
Merchonts' National Bank, Boston, stock	1,844 57	1,980 00	• • • • • • • • • • • • • • • • • • • •
National Bank of Commerce, Boston, stock	4,862 25	4,982 00	••••
Metropolitan National Bank, New York, stock	5,454 50	4,940 00	•••••
Total (carried out at cost value)	\$673,960 20	\$650, 495 25	
			\$673,960 20
Cash in Company's office, \$10,847.25; deposited in t	anks. \$132.314	.61	143,161 86
Bills receivable			5,081 03
Total net or ledger assets as per balance			\$5,997 314 49
Total net or ledger assets as per balance		•••••	\$5,997 314 49 113,254 90 \$5,884,059 53
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation		•••••	\$5,997 314 49 113,254 90
Total net or ledger assets as per balance Deduct depreciation from cost of assets		•••••	\$5,997 314 49 113,254 90 \$5,884,059 53
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset Interest due and accrued on bonds and mortgages	ts.		\$5,997 314 49 113,254 90 \$5,884,059 53 \$173,400 77
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset	ts.		\$5,997 314 49 113,254 90 \$5,884,059 53 \$173,400 77 6,435 33
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset Interest due and accrued on bonds and mortgages. Bonds and stocks owned Collateral loans	ts.		\$5,997 314 49 113,254 90 \$5,884,059 5J \$173,400 77 6,435 33 4,872 22
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset Interest due and accrued on bonds and mortgages Bonds and stocks owned Collateral loans Premium notes, loans and liens	ts.		\$5,997 314 49 113,254 90 \$5,884,059 53 \$173,400 77 6,435 33 4,872 22 27,818 88
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset Interest due and accrued on bonds and mortgages Bonds and stocks owned Collateral loans Premium notes, loans and liens	ts.		\$5,997 314 49 113,254 90 \$5,884,059 53 \$173,400 77 6,435 33 4,872 22 27,818 88 1,468 33
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset Interest due and accrued on bonds and mortgages Bonds and stocks owned Collateral loans Premium notes, loans and liens	ts.	\$63,350 93	\$5,997 314 49 113,254 90 \$5,884,059 5J \$173,400 77 6,435 33 4,872 22 27,818 88 1,468 33
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset Interest due and accrued on bonds and mortgages Bonds and stocks owned Collateral loans Premium notes, loans and liens	ts.		\$5,997 314 49 113,254 90 \$5,884,059 53 \$173,400 77 6,435 33 4,872 22 27,818 88 1,468 33
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset Interest due and accrued on bonds and mortgages. Bonds and stocks owned Collateral loans Premium notes, loans and liens Rents due and accrued on company's property or legross premiums due and unreported on policies in Gross deferred premiums on policies in force	ase force	\$63,350 93	\$5,997 314 49 113,254 90 \$5,884,059 5J \$173,400 77 6,435 33 4,872 22 27,818 88 1,468 33
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset Interest due and accrued on bonds and mortgages. Bonds and stocks owned Collateral loans Premium notes, loans and liens Rents due and accrued on company's property or legross premiums due and unreported on policies in Gross deferred preminms on policies in force Total	ts.	\$63,350 93 99,692 03	\$5,997 314 49 113,254 90 \$5,884,059 5J \$173,400 77 6,425 33 4,872 22 27,818 88 1,468 33
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset Interest due and accrued on bonds and mortgages. Bonds and stocks owned Collateral loans Premium notes, loans and liens Rents due and accrued on company's property or le Gross premiums due and unreported on policies in Gross deferred preminms en policies in force Total Deduct average loading on above gross amount (16)	ts.	\$63,350 93 99,692 03 163,042 96 26,087 87	\$5,997 314 49 113,254 90 \$5,884,059 5J \$173,400 77 6,425 33 4,872 22 27,818 88 1,468 33
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset Interest due and accrued on bonds and mortgages. Bonds and stocks owned	ase force per cemt.)	\$63,350 93 99,692 03 163,042 96 26,087 87	\$5,997 314 49 113,254 90 \$5,884,059 53 \$173,400 77 6,435 33 4,872 22 27,818 88 1,468 33
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset Interest due and accrued on bonds and mortgages. Bonds and stocks owned	ase	\$63,350 93 99,692 03 163,042 96 26,087 87 \$17,398.04	\$5,997 314 49 113,254 90 \$5,884,059 5J \$173,400 77 6,425 33 4,872 22 27,818 88 1,468 33
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset Interest due and accrued on bonds and mortgages. Bonds and stocks owned	ase	\$63,350 93 99,692 03 163,042 96 26,087 87 \$17,398.04	\$5,997 314 49 113,254 90 \$5,884,059 53 \$173,400 77 6,435 33 4,872 22 27,818 88 1,468 33
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset Interest due and accrued on bonds and mortgages. Bonds and stocks owned	aseforceper cemt.)ms	\$63,350 93 99,692 03 163,042 96 26,087 87 \$17,398.04	\$5,997 314 49 113,254 90 \$5,884,059 5J \$173,400 77 6,425 33 4,872 22 27,818 88 1,468 33
Total net or ledger assets as per balance Deduct depreciation from cost of assets	ase	\$63,350 93 99,692 03 163,042 96 26,087 87 \$17,398.04	\$5,997 314 49 113,234 90 \$5,884,059 5J \$173,400 77 6,435 33 4,872 22 27,818 88 1,468 33
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset Interest due and accrued on bonds and mortgages. Bonds and stocks owned Collateral loans Premium notes, loans and liens Rents due and accrued on company's property or le Gross premiums due and unreported on policies in Gross deferred preminms on policies in force Total Deduct average loading on above gross amount (16 Net amonnt of uncollected and deferred premiu Furniture, fixtures and safes, \$5,357.96; cash in har Total of other assets Total assets Deduct items not admitted	aseforceper cemt.)ms	\$63,350 93 99,692 03 163,042 96 26,087 87 \$17,398.04	\$5,997 314 49 113,254 90 \$5,884,059 5J \$173,400 77 6,435 33 4,872 22 27,818 88 1,468 33
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset Interest due and accrued on bonds and mortgages. Bonds and stocks owned Collateral loans Premium notes, loans and liens Rents due and accrued on company's property or leters of the stocks of	ase force per cemt.)msads of agents,	\$63,350 93 99,692 03 163,042 96 26,087 87 \$17,398.04	\$5,997 314 49 113,234 90 \$5,884,059 5J \$173,400 77 6,435 33 4,872 22 27,818 88 1,468 33
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset Interest due and accrued on bonds and mortgages Bonds and stocks owned Collateral loans Premium notes, loans and liens Rents due and accrued on company's property or leters of the stocks o	ase	\$63,350 93 99,692 03 163,042 96 26,087 87 \$17,398.04	\$5,997 314 49 113,254 90 \$5,884,059 5J \$173,400 77 6,425 33 4,872 22 27,818 88 1,468 33 136,956 09 22,756 00 \$373,707 62 \$6,257,767 21 27,837 03 \$6,229,930 18
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset Interest due and accrued on bonds and mortgages. Bonds and stocks owned Collateral loans Premium notes, loans and liens Rents due and accrued on company's property or le Gross premiums due and unreported on policies in Gross deferred preminms en policies in force Total Deduct average loading on above gross amount (16 Net amonnt of uncollected and deferred premium Furniture, fixtures and safes, \$5,357.96; cash in har Total of other assets Deduct items not admitted Total admitted assets. Items not Adm Furniture, fixtures and safes	ase force per cemt.) ads of agents,	\$63,350 93 99,692 03 163,042 96 26,087 87 \$17,398.04	\$5,997 314 49 113,254 90 \$5,884,059 5J \$173,400 77 6,435 33 4,872 22 27,818 88 1,468 33
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asse. Interest due and accrued on bonds and mortgages. Bonds and stocks owned Collateral loans Premium notes, loans and liens Rents due and accrued on company's property or le Gross premiums due and unreported on policies in Gross deferred preminms on policies in force Total Deduct average loading on above gross amount (16 Net amonnt of uncollected and deferred premium Furniture, fixtures and safes, \$5,357.96; cash in har Total of other assets Total assets Deduct items not admitted Total admitted assets Items not Adm Furniture, fixtures and safes Cash in the hands of agents	aseforce	\$63,350 93 99,692 03 163,042 96 26,087 87 \$17,398.04 \$5,357 96 17,398 04	\$5,997 314 49 113,254 90 \$5,884,059 5J \$173,400 77 6,435 33 4,872 22 27,818 88 1,468 33 136,956 09 22,756 00 \$373,707 62 \$6,257,767 21 27,837 03 \$6,229,930 18
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asset Interest due and accrued on bonds and mortgages. Bonds and stocks owned Collateral loans Premium notes, loans and liens Rents due and accrued on company's property or le Gross premiums due and unreported on policies in Gross deferred preminms en policies in force Total Deduct average loading on above gross amount (16 Net amonnt of uncollected and deferred premium Furniture, fixtures and safes, \$5,357.96; cash in har Total of other assets Deduct items not admitted Total admitted assets. Items not Adm Furniture, fixtures and safes	aseforce	\$63,350 93 99,692 03 163,042 96 26,087 87 \$17,398.04	\$5,997 314 49 113,254 90 \$5,884,059 5J \$173,400 77 6,425 33 4,872 22 27,818 88 1,468 33 136,956 09 22,756 00 \$373,707 62 \$6,257,767 21 27,837 03 \$6,229,930 18
Total net or ledger assets as per balance Deduct depreciation from cost of assets Total or net ledger assets less depreciation Other Asse. Interest due and accrued on bonds and mortgages. Bonds and stocks owned Collateral loans Premium notes, loans and liens Rents due and accrued on company's property or le Gross premiums due and unreported on policies in Gross deferred preminms on policies in force Total Deduct average loading on above gross amount (16 Net amonnt of uncollected and deferred premium Furniture, fixtures and safes, \$5,357.96; cash in har Total of other assets Total assets Deduct items not admitted Total admitted assets Items not Adm Furniture, fixtures and safes Cash in the hands of agents	aseforce	\$63,350 93 99,692 03 163,042 96 26,087 87 \$17,398.04 \$5,357 96 17,398 04	\$5,997 314 49 113,254 90 \$5,884,059 5J \$173,400 77 6,435 33 4,872 22 27,818 88 1,468 33 136,956 09 22,756 00 \$373,707 62 \$6,257,767 21 27,837 03 \$6,229,930 18

IV. - LIABILITIES.

Net present value of all the ontstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance Department, according to the American Experience Table of Mortality, with 4½ per cent. interest	
Net reinsurance reserve	\$5,243,464 00
Total policy claims	134, 605 00 20, 417 29 2, 246 79
Liabilities on policyholders' account	\$5,400,733 08 829,197 10 \$6,229,930 18

MUTUAL LIFE INSURANCE COMPANY.

LOCATED IN NEW YORK CITY.

[Organized February 1, 1843.]

FREDERICK S. WINSTON, President. ISA

ISAAC F. LLOYD, Secretary.

Attorney for service of process in the state of Wisconsin, SAM'L M. OGDEN, Milwaukee.

ASSETS, AS PER LEDGER ACCOUNTS.

Real estate, unincumbered, cost value, less sum charged to guarantee account,	\$5, 72 5, 035 65
Real estate, unincumbolou, cost value, and lines	58, 152, 733 88
Loans secured by mortgages on real estate, first liens	00,100,100 00

Stocks, Bonds, etc., owned by the Company.

	Cost value.	Market value.	
United States Bonds	\$8,518,099 25 {	\$7,714,087 12 872,480 00	
Cherry Valley bonds	50, 000 00	52, 315 95	
Yonkers bonds	128,250 00	133, 274 90	************
New York City and County Bonds	2,412,587 50	2,603,000 00	•••••
Buffalo city bonds	140,500 00	,	•••••
Elmira city bonds	56,666 25	57,680 80	
Missouri state bonds	225 ,0 2 5 00	230,587 50	
Boston water bonds	1,111,250 00	1,095,000 00	•••
San Francisco city bonds	637, 528 71	631 241 00	•••••
Providence city bonds	537,500 00	532, 500 00	•••••
Union County, N. J. bonds	56, 463 00	58,277 00	
No. Plainfield, N. J., bonds	5,500 00	5,500 00 164,250 00	
Massachusetts state bonds	170,025 00	300,000 00	
Indianapolis time warrants	300,000 00	1,224,960 00	
Brooklyn city bonds	1,234,612 60	1, 224, 500 00	

Newark City, N. J., bonds	544,896 00	541,756 0	0
Texas state bonds	525,000 00	530,000 0	0
New Brunswick, N. J., bonds	6,747 50	6,747 50) <i>.</i>
Middlesex county, N. J., bonds	5,450 00	5,550 O	······
Total (carried out at cost value)	\$16,676,200 81	\$16, 909, 611 1	7
Cash in companyla office described			= 16,676,200 81
Cash in company's office, deposited in banks an Agents' ledger balances	id in transit (sin	ce received)	
Total net or ledger assets as per balance	•••••••••••	••••••	\$82,355,678 27
Other A	88et8.		
Interest due and accrued on bonds and mort			
owned	gages, and bond	is and stocks	
Market value of bonds and stocks over cost	•••••••	•••••	\$1,438,647 92 233,410 36
Gross premiums due and unreported on policies	in force	\$153 768 13	•
Gross deferred premiums on policies in force	••••	851,813 52	**************
Total		\$1 005 591 65	***************************************
Deduct average loading on above gross amount	(20 per cent)	251, 395, 41	*************
Net amount of uncollected and deferred pres	minme	102,000 11	
Total of other assets			\$754, 186 24
			\$2,426,244 52
Total assets Deduct items not admitted	••••••	••••••	\$84,781,922 79
Total admitted annuts	•••••••••••••••••	•••••	32,115 14
Total admitted assets	• • • • • • • • • • • • • • • • • • • •	•••••	\$84,749,807 65
Items not 2	Admitted.		
Agents' balances			000 4444
	•••••••••••	• • • • • • • • • • • • • • • • • • • •	\$32,115 14
LIABII	ITIES.		
Net present value of all the outstanding policie	es in force on th	e 31st day of	
December, 1877, computed by the New York	State Insurance	Department	
according to the American Experience Table o	f Mortality, with	$4\frac{1}{2}$ per cent	
interest		•••••••	\$73 ,2 56 ,12 3 00
Claims for death losses and matured endowment Claims for death losses and other policy claims	s not due	\$486,787 00	••••••••••••
Total policy claims	resisted	146,136 00	•••••
Total policy claims		•••••	632,923 00
Amount of any other liability of the company vance	, viz.: premiums	paid in ad-	
			217,561 00
Liabilities on policy holders' account	••••••	• • • • • • • • • • • • • • • • • • • •	\$74,106,607 00
Gross surplus on policy holders' account	•••••••••••	••••••	10, 643, 200 65
Total liabilities	••••••	• • • • • • • • • • • • • • • • • • • •	\$84,749,807 65
Estimated surplus (included above)			
Estimated surplus (included above) on Tontine profits are specially reserved for that class of p	or other policies	where the	
2 are are class of p	outcles	•••••	97, 085 00
		•	

MUTUAL BENEFIT LIFE INSURANCE COMPANY.

LOCATED IN NEWARK, N. J.

(Organized April, 1845.)

LEWIS C. GROVER, President.

EDWARD A. STRONG, Secretary.

\$294,372 23

Attorney for service of process in the state of Wisconsin, HENRY NICHOLS, Milwaukee.

ASSETS, AS PER LEDGER ACCOUNT.

Real estate, unencumbered, cost value.....

Loans secured by mortgages on real estate, firs	12,410,094 09		
Premium notes and loans on policies in force,			
indebtedness	5, 310, 178 64		
Stocks, Bonds, etc., owned by	the Company:		
	Cost value.	Market value.	
United States bonds	\$5,011,500 00	\$5,606,633 75	
Brooklyn City, N. Y., bonds	65,000 00	69,875 00	
Newark City, N. J., bonds	3,390,000 00	3,729,000 00	
Elizabeth City, N. J., bonds	550,000 00	550,000 00	
Rahway City, N. J., bonds	97,000 00	97,000 00	
Utica City, N. Y., bonds	145,000 00	145,000 00	
Springfield City, Ill., bonds	89,000 00	89,000 00	
Orange City, N. J., bonds	80,000 00	£0,000 00	
Auburn City, N. Y., bonds	150,000 00	150,000 00	
Jersey City, N. J., bonds	50,000 00	54,000 00	
Dayton City, Ohio, bonds	130,000 00	130,000 00	
Cleveland City, Ohio, bouds	556, 500 00	611,820 00	
New Brunswick City, N. J., bonds	14,000 00	14,000 00	
Erie City, Pa., bonds	152,000 00	152,000 00	
Toledo City, Ohio, bonds	173,000 00	173,000 00	
South Bend City, Ind., bonds	61,500 00	61,500 00	
Lafayette City, Ind., bonds	160,000 00	·160,000 00	
Sandusky City, Ohio, bonds	100,000 00	100,000 00	
Dover City, N. J., bonds	16,000 00	16,000 00	
Essex County, N. J., bonds	2,148,000 00	2,362,860 00	
Union County, N. J., bonds.	132,000 00	132,000 00	
West Orange Township, N. J., bonds	123,000 0 0	123,000 00	
East Orange Township, N. J., bonds	146,841 73	146,841 73	
Massachusetts State annuity bonds	800 00	800 00	
Total (carried out at par value)	\$13,551,141 73	\$14,754,270 48	13,551,141 73
Cash in company's office, \$9,851.08; deposited in	n banks, 559.918	3.32	569,769 40
Cash in transit, since received			73,207.08
Agents' ledger balances			43,366 79
Total net or ledger assets, as per balance			\$32, 252, 129 96

Other Assets:

Interest due and accrued on bonds and mortgages	\$444,794 29
Bonds and stocks owned	139,426 30
Premium notes, loans or liens	132,750 00
Market value of bonds and stocks over par	1,203,128 75
Gross premiums due and unreported on policies in force \$92,780 34	
•Gross deferred premiums on policies in force	
Total \$212,727 94	
Deduct average loading on above gross amount (20 per cent) 42,545 59	• • • • • • • • • • • • • • • • • • • •
Net amount of uncollected and deferred premiums	170,182 35
Total of other assets	\$2,090,281 69
Total assets	\$34, 342, 411 65
Deduct items not admitted	43,366 79
Total admitted assets	\$34,299,044 86
· Items not Admitted:	
Agents' balances	
Agents balances	
LIABILITIES.	
Net present value of all the outstanding policies in force on the 31st day of	
Net present value of all the outstanding policies in force on the 31st day of	
Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance Department,	\$27,902,856 00
Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance Department, according to the American Experience Table of Mortality, with 4½ per cent.	\$27,902 ,8 56 00
Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance Department, according to the American Experience Table of Mortality, with 4½ per cent. interest.	\$27,902,856 00
Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance Department, according to the American Experience Table of Mortality, with 4½ per cent. interest	\$27,902,856 00
Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance Department, according to the American Experience Table of Mortality, with 4½ per cent. interest	\$27,902,856 00 \$493,151 00
Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance Department, according to the American Experience Table of Mortality, with 4½ per cent. interest. **Premium Obligations in Excess of the net value of their policies:** Claims for death losses, and matured endowments not due\$443,151 00 Claims for death losses and other policy claims resisted	
Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance Department, according to the American Experience Table of Mortality, with 4½ per cent. interest. **Premium Obligations in Excess of the net value of their policies:** Claims for death losses, and matured endowments not due\$443,151 00 Claims for death losses and other policy claims resisted	\$493 , 151 00
Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance Department, according to the American Experience Table of Mortality, with 4½ per cent. interest **Premium Obligations in Excess of the net value of their policies:** Claims for death losses, and matured endowments not due	\$493 , 151 00
Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance Department, according to the American Experience Table of Mortality, with 4½ per cent. interest Premium Obligations in Excess of the net value of their policies: Claims for death losses, and matured endowments not due	\$493, 151 00 206 , 2 07 16
Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance Department, according to the American Experience Table of Mortality, with 4½ per cent. interest. **Premium Obligations in Excess of the net value of their policies:* Claims for death losses, and matured endowments not due	\$493,151 00 206,207 16 16,195 95
Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance Department, according to the American Experience Table of Mortality, with 4½ per cent. interest **Premium Obligations in Excess of the net value of their policies:* Claims for death losses, and matured endowments not due	\$493,151 00 206,207 16 16,195 95 \$28,618,410 11

NATIONAL LIFE INSURANCE COMPANY OF THE UNITED STATES OF AMERICA.

(LOCATED IN CHICAGO, ILL.)

(Organized August 1, 1868.)

EMERSON W. PEET, President.

JOHN M. BUTLER, Secretary.

Attorney for service of process in the state of Wisconsin, L. S. HANKS, Madison.

ASSETS, AS PER LEDGER ACCOUNT.

Real estate, unincumbered, cost value	\$588,580 18
Loans secured by mortgages on real estate, first liens	1,901,200 49

Loans on Stock Collatdeals:

	Par value.	Market value.	Amount loaned.	
First Nat. Bank, Nashville, Tenn., st'k.	\$2,000 00	\$2,000 00)		
Stone River Nat. Bank, Murfreesboro,		}	\$1,800 00	
stock	400 00	رٰ 400 00 ٰ		
First National Bank, Chicago, stook	40,000 00	70,000 0 0	50,000 00	
West Chicago Land Co. stock	144,000 00	100,000 00	50,000 00	
Westinghouse Air Brake Co. stock	10,000 00	10,000 00	10,000 00	
Kirby Carpenter Co., Chicago, stock	40,000 00	40,000 00	20,000 00	
Assignment of trust deeds on property				
in Minneapolis, Minn	2,392 38	2,392 38	773 92	
First Nat. Bank, Chicago, stock	40,000 00	70,000 00	50,000 00	
Union Savings Bank, Cedar Rapids, stk.	800 0 0	720 00	400 00	
Assiggnment of notes secured by trust				
deeds on property in Kankakee county,				
Ill	52,556 00	52,556 00	25,000 00	
Assignment of mortgages	448,000 00	200,000 00	50,000 00	••••••
First Nat. Bank, Chicago, stock	10,000 00	17,5 00 0 0	10,000 00	
Assignment of notes secured by trust				
deeds on property in Lake county, Ill.	75,000 00	75,000 00	15,000 00	•••••
First Nat. Bank, Belvidere, Ill., stock	2,500 00	2,500 00	1,000 00	•••••
West Chicago Land Co. stock	21,600 00	15,000 00	7,500 00	
Assignment of note secured by trust				
deed on property in Jacksonville, Ill.	9,000 00	9,000 00	946 00	•••••
West Chicago Park bonds	10,000 00	10,000 00	9,000 00	
Peninsular Iron aud Lumber Co., Mich.,				
stock	100,000 00	50,000 00	27,000 00	•••••
Assignment of insurance policies	84,717 00	•••••	43,986 67	•••••
Assignment of insurance policies	35,024 00	•••••	4,802 29	******
Total amount\$	1,128.089 38	\$727,168 38	\$377, 208 88	377, 208 88
			-	
Loans made in cash to dolicy holders on	the company	y's policies	•••••	7, 263 49
Premium notes and loans on poficies in	force		•••••	49, 135 41
Stocks. Bonds, e	tc., owned b	y the Compar	ny:	
		Cost value.	Market value.	
United States bonds		\$456,454 75	\$448,866 50	
Chicago South Park bonds		14,112 50	15,000 00	
Chicago Lincoln Park bonds		120, 565 00	129,000 00	
Cedar Rapids, Iowa, bridge bonds		1,000 00	1,000 00	
Arapahoe Co., Col., bonds		750 00	750 0 0	
Fond dv. Lac City, Wis., bonds		25,000 00	25,000 0 0	
Chicago certificates of indebtedness		50,000 00	50,000 00	
Town of Cicero, Cook county, bonds		4,180 00	4,200 00	
Clinton City, Iowa, bonds		9,000 00	9,000 00	••••••
Mt. Pulaski School bonds, Ills		12,360 00	12,360 00	
C. & N. W, R'y Co. bonds		20,000 00	22, 250 00	
Excelsior Life Ins. Co., stock		15,000 00	25,000 00	
Detroit Car Loan Co., stock		1,500 00	750 00	• • • • • • • • • • • • • • • • • • • •
Total (carried out at cost value)		\$729,922 25	\$733,176 50	\$729,92 2 2 5

Cash in company's office, \$1,049.69; deposited in banks, \$154,114.16: cash in hands of New York State Insurance Department, \$532; in hands of attor-	
neys, \$4,025.18	159, 721 03
Bill receivable, \$2,282.75; agents' kedger balances, \$3,773.67	6,056 42
Commuted commissions, \$11,190; office furniture, \$3,000.00	14,190 00
Total net or ledger assets as per balance	\$3,833.278 15
Other Assets:	
Interest due and accrued on bonds and mortgages	\$88,490, 29
Collateral loans	2,067 78
Premium notes, loans or liens	252 92
Rents due and accrued on company's property or lease.	3,174 98
Market value of bonds and stocks over cost	$3,254\ 25$
Gross premiums due and unreported on policies in force \$41 439 84	• • • • • • • • • • • • • • • • • • • •
Gross deferred preminms on policies in force 59,588 35	••••••
Total	
Deduct expense of collecting 8, 132 62	
Net amount of uncollected and deferred premiums	\$92,844 57
Total of other assets	\$190,084 79
Total assets	\$4,023,362 94
Deduct items not admitted	20, 246 42
Total admitted assets	\$4,003.116 52
Items not Admitted:	
Furniture, fixtures and safes	
Furniture, fixtures and safes	••••
Furniture, fixtures and safes \$3,000 00 Commuted commissions 11,190 00 Agents' balances 3,773 67	
Furniture, fixtures and safes \$3,000 00 Commuted commissions 11,190 00 Agents' balances 3,773 67 Bills receivable 2,282 75	
Furniture, fixtures and safes \$3,000 00 Commuted commissions 11,190 00 Agents' balances 3,773 67	•••••
Furniture, fixtures and safes \$3,000 00 Commuted commissions 11,190 00 Agents' balances 3,773 67 Bills receivable 2,282 75 Total items not admitted \$20,246 42	
Furniture, fixtures and safes \$3,000 00 Commuted commissions 11,190 00 Agents' balances 3,773 67 Bills receivable. 2,282 75 Total items not admitted \$20,246 42	
Furniture, fixtures and safes \$3,000 00 Commuted commissions 11,190 00 Agents' balances 3,773 67 Bills receivable. 2,282 75 Total items not admitted \$20,246 42 LIABILITIES. Net present value of all the outstanding policies in force on the 31st day of	
Furniture, fixtures and safes \$3,000 00	
Furniture, fixtures and safes \$3,000 00 Commuted commissions 11,190 00 Agents' balances 3,773 67 Bills receivable 2,282 75 Total items not admitted \$20,246 42 LIABILITIES. Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the Illinois State Insurance Department according to the American Experience Table of Mortality, with 4½ per cent.	
Furniture, fixtures and safes \$3,000 00 Commuted commissions. 11,190 00 Agents' balances 3,773 67 Bills receivable. 2,282 75 Total items not admitted. \$20,246 42 LIABILITIES. Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the Illinois State Insurance Department according to the American Experience Table of Mortality, with 4½ per cent interest (with 6 per cent. interest, \$2,540,342.30.)	\$3,059,453 00
Furniture, fixtures and safes \$3,000 00 Commuted commissions 111,190 00 Agents' balances 3,773 67 Bills receivable 2,282 75 Total items not admitted \$20,246 42 LIABILITIES. Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the Illinois State Insurance Department according to the American Experience Table of Mortality, with 4½ per cent interest (with 6 per cent. interest, \$2,540,342.30.) Premium obligations in excess of the net value of their policies	\$3,059,453 00 240 79
State Stat	\$3,059,453 00 240 79
Furniture, fixtures and safes \$3,000 00 Commuted commissions 111,190 00 Agents' balances 3,773 67 Bills receivable \$2,282 75 Total items not admitted \$20,246 42 LIABILITIES. Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the Illinois State Insurance Department according to the American Experience Table of Mortality, with 4½ per cent interest (with 6 per cent. interest, \$2,540,342,30.) Premium obligations in excess of the net value of their policies. Claims for death losses and matured endowments not due \$70,710 00 Claims for death losses and other policy claims resisted 25,000 00	\$3,059,453 00 240 79
Furniture, fixtures and safes \$3,000 00 Commuted commissions. 11,190 00 Agents' balances 3,773 67 Bills receivable. 2,282 75 Total items not admitted. \$20,246 42 LIABILITIES. Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the Illinois State Insurance Department according to the American Experience Table of Mortality, with 4½ per cent interest (with 6 per cent interest, \$2,540,342.30.) Premium obligations in excess of the net value of their policies Claims for death losses and matured endowments not due. \$70,710 00 Claims for death losses and other policy claims resisted. 25,000 00 Total policy claims. Amount of any other liability of the company, viz.: Premiums paid in ad-	\$3,059,453 00 240 79
Furniture, fixtures and safes \$3,000 00 Commuted commissions. 11,190 00 Agents' balances 3,773 67 Bills receivable. 2,282 75 Total items not admitted. \$20,246 42 LIABILITIES. Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the Illinois State Insurance Department according to the American Experience Table of Mortality, with 4½ per cent interest (with 6 per cent. interest, \$2,540,342.30.) Premium obligations in excess of the net value of their policies. Claims for death losses and matured endowments not due. \$70,710 00 Claims for death losses and other policy claims resisted. 25,000 00 Total policy claims. Amount of any other liability of the company, viz.: Premiums paid in advance.	\$3,059,453 00 240 79 95,710 00
Furniture, fixtures and safes \$3,000 00 Commuted commissions 111,190 00 Agents' balances 3,773 67 Bills receivable 2,282 75 Total items not admitted \$20,246 42 LIABILITIES. Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the Illinois State Insurance Department according to the American Experience Table of Mortality, with 4½ per cent interest (with 6 per cent. interest, \$2,540,342.30.) Premium obligations in excess of the net value of their policies Claims for death losses and matured endowments not due \$70,710 00 Claims for death losses and other policy claims resisted 25,000 00 Total policy claims.	\$3,059,453 00 240 79
Furniture, fixtures and safes \$3,000 00 Commuted commissions. 111,190 00 Agents' balances 3,773 67 Bills receivable. 2,282 75 Total items not admitted. \$20,246 42 LIABILITIES. Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the Illinois State Insurance Department according to the American Experience Table of Mortality, with 4½ per cent interest (with 6 per cent. interest, \$2,540,342.30.). Premtum obligations in excess of the net value of their policies. Claims for death losses and matured endowments not due. \$70,710 00 Claims for death losses and other policy claims resisted. 25,000 00 Total policy claims. Amount of any other liability of the company, viz.: Premiums paid in advance. Present value of policies lapsed and liable to restoration.	\$3,059,453 00 240 79 95,710 00 67,696 08 8,799 73
Furniture, fixtures and safes \$3,000 00 Commuted commissions. 11,190 00 Agents' balances 3,773 67 Bills receivable. 2,282 75 Total items not admitted. \$20,246 42 LIABILITIES. Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the Illinois State Insurance Department according to the American Experience Table of Mortality, with 4½ per cent interest (with 6 per cent interest, \$2,540,342.30.) Premium obligations in excess of the net value of their policies. Claims for death losses and matured endowments not due. \$70,710 00 Claims for death losses and other policy claims resisted. 25,000 00 Total policy claims. Amount of any other liability of the company, viz.: Premiums paid in advance. Present valse of policies lapsed and liable to restoration Liabilities on policyholder's account.	\$3,059,453 00 240 79 95,710 00 67,696 08 8,799 73 \$3,231,899 60
Furniture, fixtures and safes \$3,000 00 Commuted commissions. 111,190 00 Agents' balances 3,773 67 Bills receivable. 2,282 75 Total items not admitted. \$20,246 42 LIABILITIES. Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the Illinois State Insurance Department according to the American Experience Table of Mortality, with 4½ per cent interest (with 6 per cent. interest, \$2,540,342.30.). Premtum obligations in excess of the net value of their policies. Claims for death losses and matured endowments not due. \$70,710 00 Claims for death losses and other policy claims resisted. 25,000 00 Total policy claims. Amount of any other liability of the company, viz.: Premiums paid in advance. Present value of policies lapsed and liable to restoration.	\$3,059,453 00 240 79 95,710 00 67,696 08 8,799 73

NEW ENGLAND MUTUAL LIFE INSURANCE COMPANY.

LOCATED IN BOSTON, MASS.

(Organized December 1, 1843.)

BENJAMIN F. STEVENS, President.

JOS. M. GIBBONS, Secretary.

Attorney for service of process in this state, EDWIN O. LADD, Milwaukee.

ASSETS AS PER LEDGER ACCOUNTS.

Real estate, unincumbered. cost value				
Loans	on Stock Colle	aterals :		
	Par value.	Market value.	Amount loaned.	•
Fitchb. and Worcester R. R. bonds Fitchb. and Worcester R. R. bonds	\$60 0 00 20 0 00	{\$800 00 {	\$500 00 .	
	68, 100 00	64,014 00	42,000 00	
Great Falls Manufg. Co. stock	34,000 0 0	6,800 00	27, 271 62	
Kans. City and C. B. R. R. Co. bds.	40,000 00	2,000 00	15,000 00	***********
Ch. and Mich. L. S. R. R. Co. bds	30 ,00 0 00	29,100 00	22,500 00	•••••
Cabbot Manning. Co. stock		27, 730 00	22,500 00	
Great Falls Manufg. stock	29,500 00		AA 1000 00	• • • • • • • • • • • • • • • • • • • •
Northern R. R. Co. stock	25,000 00	18,062 50) 6,750 00 (
Conn. and Passumpsic R. R. Co. stk.	15,000 00	0,700 00 [35,000 00	• • • • • • • • • • • • • • • • • • • •
Massawippi Valley R. R. Co. stock	7,500 00	3,375 00		
N. Y. Prov. and B. R. Co. stock	13,000 00	15,600 00 J	5,000 00	
Philadelphia renewals	20,000 00	20,000 00		•••••
Mo. R. Ft. S. and Gulf R. R. bonds	7,000 00	5, 250 00	5,000 00	• • • • • • • • • • • • • • • • • • • •
Phil. and Read. C. and I. Co. bonds.	5,000 00	2,700 00 1	4,000 00	• • • • • • • • • • • • • • • • • • • •
Jefferson R. R. Co. bonds	2,000 00	1,560 00 5	0 500 00	•••••
Saratoga County Bank stock	2,500 Ou	3,000 00	2,500 00	• • • • • • • • • • • • • • • • • • • •
Portland City loan	500 00	535 00)		• • • • • • • •
Dexter Town loan	100 00	105 00 (800 00	• • • • • • • • • • • • • • • • • • • •
Calais National Bank stock	208 00	260 00 [•• •••••
U. S. bonds.	100 00	105 00 J	5,000 00	•••••
Lancaster Mills stock	4,800 00	7,500 00	8,250 00	•••••
Ch. and M. L. S. R. R. Co. bonds	30,000 00	1,500 00	4,500 00	•••••
Lancaster Mills stock	4,000 00 200 00	6, 250 00 230 00 1	4,500 00	••••••
National City Bank stock	500 00	100 00 (40 00	
Boston and Sandwich Glass Co. stock	3,600 00	5,904 00 1		
Natl. Market Bank, Brighton, stock. Union Market Nat. Bank stock	1,500 00	750 00		*****************
Newton Nat. Bank stock	900 00	1,044 00	5,540 00	••••
Nat. Bank of Brighton stock	960 00	960 00		
Roxbury Gas-light Co. stock	60.000 00	93,000 00	60,000 00	
Phil., Wil. and Balt. R. R. Co. stk	3,000 00	3,630 00 1		
Bur. and Mo. R. R. in Neb. bds	2,000 00	2, 160 00 (5,000 00	
Boston and Albany R. R. stock	2,000 00	2,490 00	500 00	
Mortgage	2,500 00	2,500 00	1,500 00	
Exchange Bank of St. Louis stock	47,800 00	37,240 00)	-,	
Mechanics Bank of St. Louis stock	32,000 00	14,400 00		*********
St. Louis Nat. Bank stock	15,000 00	16,800 00 }	100,000 00	********
Third Nat. Bank of St. Louis stock.	20,000 00	15,000 00	,	
Bank of Commerce, St. Louis, stock.	5,000 00	16,000 00]		
Glendon Iron Co. stock	10,000 00	6,540 00	5,000 00	
Total amount	\$546,960 00	\$442,744 50	\$377,601 62	377,601 62
Loans made in cash to policy holders on company's policies. 9,288 50 Premium notes and loans on policies in force. 1,855 959 66				

Stocks, Bonds, etc., owned by the Company.

	Cost value.	Market value.	
Atlantic National Bank stock	\$7,101 00	\$9,576 0 0	
Bay State National Bank stock	7,500 00	7,500 00	
Boston National Bank stock	23,300 00	33,630 00	

	**		
Continental National Bank stock	10,000 00	10,000 00	•••••
First National Bank Cambridge, stock	5,000 00	8, 250 00	•••••
Massachusetts National Bank stock	5,250 00	5,880.00	***************************************
Merchants' National Bank stock	9,100 00	12,103 00	• • • • • • • • • • • • • • • • • • • •
National City Bank Lynn, stock	16,000 00	21,600 00	•••••
National Revere Bank stock	20,000 00	21,650 00	•••••
National Hyde and Leather Bank stock	15,000 00	16,125 00	• • • • • • • • • • • • • • • • • • • •
National Eagle Bank stock	24,000 00	25,920 00	
State National Bank stock	10,273 10	13,080 00	•••••
Tremont National Bank stock	31,951 25	34,560 00	
National Webster Bank stock	20,000 00	20,200 00	
Boston Safe Deposit and Trust Co., stock	25,000 00	25,000 00	
Merchandise National Bank stock	50,000 00	50,000 0 0	
Boston and Albany R. R. Co., stock	74,400 00	92,62 8 00	
Boston and Providence R. R. Co., stock	29,95 0 00	33,075 00	
Chicago, Burlington and Quincy R. R. Co., stock	80,000 00	81,600 00	
Connecticut and Fassumpsic R. R. Co., stock	69,363 25	36,000 00	
Eastern R. R. Co., stock	30,000 00	1,350 00	
Philadelphia, Wilm. and Balt. R. R. Co., stock	15,000 00	18,150 00	• • • • • • • • • • • • • • • • • • • •
Fitchburg R. R. Co., stock	11,752 00	13,560 00	• • • • • • • • • • • • • • • • • • • •
New York and New Haven R. R. Co., stock	15,000 00	23,025 00	
Norwich and Worcester R. R. Co., stock	84,925 25	107, 100 00	
Northern R. R. Co., stock	10,000 00	7, 225 00	
Connecticut River R. R. Co., stock	20,000 00	24,600 00	
Chicago and Alton R. R. Co., stock	22,000 00	17,160 00	
Pertsm., Great Falls & Conway R. R. Co., stock	40,000 00	1,200 00	
Portland, Saco and Portsmouth R. R. Co., stock	20,000 00	13,000 00	
Eastern R. R. Co. of New Hampshire, stock	10,475 00	3,150 00	••••••
Eastern R. R. Co., bonds	237,548 34	140,032 78	••••
Philadelphia, Wilm. and Balt. R. R. Co., bonds.	75,871 67	83,200 00	
Agricultural branch R. R. Co., bonds	14,895 00	14,400 00	****************
Michigan Central R. R. Co., bonds	73,000 00	67,525 00	
Boston and Lowell R. R. Co., bonds	9,926 66	10,000 00	
Boston, Concord and Montreal	598, 230 00	6 30,000 00	
C., B. & Q. R. R. Co., bonds	120,000 00	130,800 00	
Worcester and Nashua R. R. Co., bonds	75,000 00	78,750 00	
New Haven and Derby R. R. Co., bonds	14,250 00	17, 250 00	
Nashua and Rochester R. R. Co., bonds	116, 191 66	112,500 00	
Albany city loan	23,256 00	26,400 00	
Boston city loan	414,736 12	452,230 00	
Charleston city loan	72,716 67	76,500 00	
Chicago sewerage loan	70,350 00	80, 250 00	
New Hampshire loan	26,000 00	29, 120 00	•••
Hartford loan	100,000 00	110,000 00	
Chelsea loan	231,504 17	260,700 00	
Lawrence loan	186, 210 83	206, 800 00	
Lynn loan	1,000 00	1,100 00	
Dorchester loan	93,000 00	98,020 00	
Nashua loan	15,020 00	15,000 00	
Massachusetts loan	124,172 35	140,600 00	••••••••••
Rhode Island loan	60,000 00	67, 200 00	
Cincinnati loan	95,000 00	91,750 00	• • • • • • • • • • • • • • • • • • • •
	280,000 00	•	
Beverly loan	110,000 00	296,300 00	•••••••••••
Eastern R. R. Co. loan	9,758 00	119, 900 00 5 200 00	••••••••
manicin It. Iv. Co. Ivan	e, 100 UU	5, 500 OU i	•••••

Lowell loan	56,533 33		••••••		
Brookline loan	475, 100 00	,	•••••		
Worcester loan	495,000 00	,			
Somerville loan	80,000 00		•••••		
Fitchburg loan	125, 485 17		•••••		
Springfield loan	126,000 00	148,680 00	•••••		
Providence loan	146,403 06	,	•••••		
Loar to Providence and Worcester R. R. Co	100,000 00	105,000 CO			
Norwich loan	94,000 00	104, 320 00	•••••		
Meriden loan	100,000 00	110,000 00	•••••		
Fall River loan	203,000 00	223,300 00			
Cambridge loan	2,000 00	2,200 00	•••••		
Maine loan	1 7,500 00	19,250 00	• • • • • • • • • • • • • • • • • • • •		
Holyoke loan	5,000 00	5,300 00	•••••••		
Newton loan	70,000 00	77,500 00	•••••		
Haverhill loan	5,000 00	5,350 00	••••		
New York loan	300,000 00	321,000 0 0			
Mercantile Trust Co. loan	50,000 00	51 , 5 00 00			
New Eng. Mortgage Security Co. loan	100,000 00	111,000 00	• • • • • • • • • • • • • • • • • • • •		
New Bedford loan	10,000 00	10,300 00	••••		
Salem loan	10,000 00	10,300 0 0			
Taunton loan	39,000 00	43, 290 00	••••		
Norwalk loan	50,000 00	54,000 00			
Boston Gas-light Co. stock	27,500 00	44,825 00			
Dwight Manufacturing Co. stock	5,000 00	2,125 00			
Massachusetts Cotton Mills stock	5,000 00	5,450 00			
United States bonds	1,035,335 00	1,095,055 00			
Total (carried out at cost value)	\$7,802,814 88	\$8, 227, 512 78			
Total (carried out at cost value)	======	75,	\$7,802,814 88		
Cash deposited in banks			274, 372 17		
Notes receivable			4,000 00		
Notes receivable			6,500 00		
Cash on special deposit	• • • • • • • • • • • • • • • •				
Total net or ledger assets as per balance		•••••••••••••••••••••••••••••••••••••••	\$14,113,271 43		
017 40	arta t				
Other As					
Interest due, and accrued on bonds and mortgage	es	• • • • • • • • • • • • • • • • • • • •	\$51,782 64		
Bonds and stocks owned	106,886 39 9,810 14				
Collateral loans					
Premium notes, loans or liens		••• • • • • • • • • • • • • • • • • • •	52, 250 00		
Rents due and accrued on company's property of	r lease		11,638 21		
Market value of bonds and stocks over cost			424, 697 90		
Gross deferred premiums on policies in force		\$136,768 07	••••••		
Deduct average loading on above gross amount.		13,677 00	123,091 07		
Net amount of uncollected and deferred pren	niums		125,091 07		
Total of other assets			\$780,156 35		
Total assets			\$14,893,427 78		
Total assets Deduct items not admitted			4,000 00		
Total admitted assets		· · · · · · · · · · · · · · · · · · ·	\$14,889,427 78		
TI					
Items not adn					
Notes receivable		\$4,000 00			
Total items not admitted					
A COME INCHIO MOD WANTED					

LIABILITIES.

Net present value of all outstanding policies in force on the 31st day of December, 1877, computed by the New York Insurance Department, according to the American Experience Table of Mortality, with 4½ per cent. interest. Claims for death losses, and matured endowments not due	\$11,672,280,00
Liabilities on policyholders' account Gross surplus on policyholders' account Total liabilities	\$11, 958, 5 20 47 2, 930, 907 31 \$14, 889, 427 78

NEW YORK LIFE INSURANCE COMPANY.

LOCATED IN NEW YORK CITY.

(Organized 1845.)

MORRIS FRANKLIN, President.

WILLIAM H. BEERS, Actuary.

\$3,600,268 07

15, 379, 202 23

Attorney for service of process in this state, L. H. KELLOGG, Fort Atkinson.

ASSETS, AS PER LEDGER ACCOUNTS. Real estate, unincumbered, cost value ...

Loans secured by mortgages on real estate, first liens.....

Premium notes and loans on policies in force, t	15, 379, 202 23		
debtedness			695, 234 74
Stocks, Bonds, etc., Own	ned by the Com	pany.	
·	Cost value.	Market value.	
Merchants' Bank stock	\$15,758 75	\$15,960 00	••••••
Bank of America stock	8,484 00	10,626 00	
Bank of Republic stock	935 00	935 00	**************
American Exchange Bank stock	10,125 00	10,600 00	
Metropolitan Bank stock	3,753 75	4,736 00	
Del. and Hudson Canal Co. stock	33,680 00	33,680 00	
N. Y. Central and H. R. R. R. bonds	1,019,382 50	1,182,500 00	*************
N. Y. and Harlem R. R. bonds	1,074,075 60	1,178,333 33	
Del. and Hudson Canal Co. bonds	250,000 00	250,000 00	
Eastchester bonds	31,390 00	31,665 00	
Brooklyn City bonds	1,655,919 80	1,691,730 00	••••••
Flushing Water bonds	77,600 00	80,000 00	•••••
Rensselaer and Sar. R. R. bonds	9,519 92		•••••
Jersey City bonds		10,035 00	••••••
Yonkers Town bonds	551,425 00	553,830 00	•••••
United States bonds	178, 479 16	190,850 00	••••
New York City and County bonds	4, 440, 938 75	4,499,260 00	•••••
Newark City hands	2,885,737 35	2,977,122 50	••••
Newark City bonds	300, 975 00	300,975 00	•••••

Richmond City bonds	46,250 00	59,000 00	·
Georgia bonds	2,730 00	3,780 00	
Alabama bonds	15,840 00	20,400 00	
South Carolina bonds	9,200 00	15,812 50	
Mississippi warrants	15, 285 71	20,000 00	•••••
Missouri bonds	104,000 00	104,000 60	• • • • • • • • • • • • • • • • • • • •
Buffalo City bonds	126, 50 0 00	126,500 00	
Tennessee bonds	7,600 00	7,600 00	
Total (carried out at cost value)	\$12,875,584 69	\$13,379,930 33	••••••
Cash in company's affice \$14,000 to 7			12,875,584 69
Cash in company's office, \$14,929.42; deposited in Agents' ledger balances	in banks, \$1,20	1,372.19	1,216,301 61
Total not ladger aggets, as nor halons	••••••••••••••••••••••••••••••••••••••	•••	56, 945 97
Total net ledger assets, as per balance Deduct depreciation from cost of assets	••••••••		
		• • • • • • • • • • • • • • • • • • • •	250,000 00
Total net or ledger assets less depreciation.	• • • • • • • • • • • • • • • • • • • •	••••••	\$33,573,537 31
Other A	lssets.		=======================================
Interest due and accrued on bonds and mortgag	ges	••••••	\$222,447 53
Bonds and stocks owned			60,936 17
Premium rotes loans, loans or liens			22,540 84
Rents due and accrued on company's property	or lease		9,970 81
Market value of bonds and stocks over cost			504, 345 64
Gross premiums due and unreported on policies	in force	\$167 183 37	*******
Gross deferred premiums on policies in force		396, 289 26	•••••
Total		\$563 479 63	
Deduct average loading on above gross amount ((20 per cent.)	119 694 59	•••••
Net amount of uncollected and deferred pren	minuma		•••••
Total of other assets	niums	•••••••••••	450,778 10
			\$1,271,019 09
Total assets		•••••	\$34,844,556 40
Deduct items not admitted			56, 945 97
Total admitted assets	•••••••	••••••	\$34,787,610 43
Items not admitted:	•		
Agents' balances	• • • • • • • • • • • • • • • • • • • •	\$56,945 97	••••
V.—LIABII			••••
Net preent value of all the outstanding policies i	n force on the 3	let day of De-	
cember, 1877, computed by the New York State	te Insurance D	epartment ac-	
cording to the American Experience Table of	Mortality, with	4½ per cent.	*
Interest	• • • • • • • • • • • • • • • • • • • •	•••••	\$28, 187, 898 00
Deduct net value of risks insured	• • • • • • • • • • • • • • • • • • • •	••••••	153,517 00
Net reinsurance reserve	· · · · · · · · · · · · · · · · · · ·	••••••	\$28,034,381 00
Claims for death losses and matured endowment	s not due	. \$417 867 29	***************************************
Claims for death losses and other policy claims r	esisted	43,100 00	•••••
Total policy claims		•••••	460,967 32
Amount of any other liability of the company, viz	.: premiums pa	id in advance	17,420 91
Liabilities on policy holder's account	-		
Gross surplus on policy holder's account	• • • • • • • • • • • • • • • • • • • •	•••••••	\$28, 512, 769 33 6, 274, 841 20
Total liabilities	·····	•••••	\$34, 787, 610 43
Estimated surplus (included above) accrued on			792, 101, 010 43
nolicies where the profits are appointed on	contine or other	er	_
policies where the profits are specially reserved	1 for that class	o f	
policies	• • • • • • • • • • • • • • • • • • • •	\$792,302 22	
11 Tara			

PENN MUTUAL LIFE INSURANCE COMPANY.

LOCATED IN PHILADELAHIA, PENN.

(Organized May 25, 1847.)

SAMUEL C. HUEY, President.

HENRY AUSTIE, Secretary.

Attorney for service of process in the state of Wisconsin, ALBERT G. PEABODY, Jr., Milwaukee.

ASSETS, AS PE	R LEDG	ER ACCOUN	TS.	
Real estate, unincumbered, cost value				\$367,026 61
Loans secured by mortgages on real estate	e, first lie	ns		2,484,121 17
Loans on	Stock Col	l a te r als :		
,	Par value.	Market value.	Amount loaned.	
Philadelphia City bonds \$6	65 ,00 0 00	\$72,800 00	\$50,561 35	••• ••••
Bonds and mortgages			189,126 36	
Total amount			\$239,687 71	239,687 71
Total amount				•
Loans made in cash to policyholders on th	is compai	y's policies	•••••	55,971 11
Premium notes, loans, or liens on policie	s in force	, the reserve	in excess of	
all indebtedness				710,558 78
Stocks, Bonds, et	cowned	by the ${\it Compa}$	ny.	
		Market value.	Cost value.	
United State bonds		\$650,482 67	\$633,118 37	
Harrisburg Water Loan bonds		50,150 00	59,000 00	
Allegheny Water loan		9,000 00	10,800 00	
Louisville bonds		140,812 50	153, C 00 00	
Louisville and Naskville R. R. bonds		7,141 40	10,000 00	
Pennsylvania R. R. Genl. Mortg1. and Re-		100, 150 00	115,010 00	
Reading R. R. Genl. Mortge. and Reg. bo		103,000 00	106,375 00	
St. Louis bonds		25,030 00	30,000 60	••••
Canton City Water bonds		30,000 00	33,000 00	
Lehigh Valley R. R. bonds		50,000 00	57,000 00	
United Canal and R. R. bonds		46,250 00	51,250 00	
West Chester R. R. bonds		75, 127 60	84,000 00	
North Pennsylvania R. R. bonds		103,625 00	111,775 00	
Susquehanna Canal Priority bonds		48,000 00	48,000.00	••••
American Steamship Company bonds		25,000 00	18,750 00	••••••
Stony Creek R. R. bonds		49,000 00	49,000 00	
Phenix Iron Co. bonds		49,500 00	47,500 00	
Del. and Bound Brook R. R. bonds		100,000 00	97,000.00	
Illinois and St. Louis R. R. bonds		100,000 00	100,000 00	
Masonic Redemption loan		100,000 00	108,000 00	• • • • • • • • • • • • • • • • • • • •
Northern Central R. R. stock		21,923 25	8,250 00	· · · · · · · · · · · · · · · · · · ·
Western National Bank stock	· · · · · · · · · · · · · · · · · · ·	$6,862\ 50$	6,750 00	
Commercial National Bank stock		11,035 25	11,599 50	••••
Girard National Bank stock	• • • • • • • •	2,000 00	2,950 00	

Corn Exchange National Bank stock	5,000 00	F 700 00	
Merchant's Bank, St. Louis, stock	•	5,700 00	
Delaware Mutual Ins. Co. stock.	4,950 50 6,250 00	5,000 00 7, 2 50 00	•••••
Girard Life Ins. Annuity and Trust Co. stock	5,575 38	10,600 00	· · · · · · · · · · · · · · · · · · ·
Bank of North America stock	10,168 00	19,000 00	•••••••••••
Railway Passengers Assurance stock	52,500 00	57,750 00	
Philadelphia City warrants	11,914 88	11,914 88	•••••••
			
Total (carried out at cost value) \$3	,000,438 93	\$2,067,342 75	\$2,000,448 93
Cash in Company's office, \$477.96; deposited in ba	nks. \$172.896	67	172,374 63
Bills receivable, \$1,013.22; agents' ledger balance			22,304 28
Furniture at office and agencies			10,000 00
Total net or ledger assets as per balance			\$6,063,503 22
Deduct depreciation from cost of assets			45,032 61
Total net or ledger assets less depreciation			\$6,018,470 61
Total not of loagot assets loss depreciation	••••••	••••••	φυ, 010, 410 01
Other Asse	ts.		
Interest due on accrued bonds and mortgages		· · · · · · · · · · · · · · · · · · ·	\$68,085 49
Bonds and stocks owned			11,804 97
Collateral loans			3,815 07
Rents due and accrued on company's property or l	ease		4,431 85
Market value of bonds and stocks over cost			68,893 82
Gross premiums due and unreported on policies in	force	\$68,084,13	
Gross deferred premiums on policies in force	•••••	55,706 17	••••
Total		\$123,790 30	
Deduct average loading on above gross amount	; 	. 18,568 65	• • • • • • • • • • • • • • • • • • • •
Net amount of uncollected and deferred premi	ums		105, 221 65
Total of other assets			\$262,252 85
Total assets			\$6,280,723 46
Deduct items not admitted			32, 304 2
Total admitted assets	• • • • • • • • • • • • • • • • • • • •		\$6,248,419 18
		•	——————————————————————————————————————
Items not adn			
Furniture, fixtures, and safe			o
Agents' balances		21, 291 00	3
Bills receivable	• • • • • • • • • • • • • • • • • • • •	1,013,25	· · · · · · · · · · · · · · · · · · ·
Total items not admitted	• • • • • • • • • • • • • • • • • • • •		- \$32,304 28
LIABILI1			
Net present value of all the outstanding policies in	force on the	31st of Decem-	
ber, 1877, computed by the Pennsylvania Insurar	ce Departme	nt, according to)
the American Experience Table of Mortality, with	h $4\frac{1}{2}$ per cent	. interest	\$4,898,470 00
Claims for death losses, and matured endowments i	ot due	\$99,859 61	
Claims for death losses, and other policy claims	resisted	13,500 00	1
Total policy claims	• • • • • • • • • • • • • • • • • • • •	—	113,359 61
Dividends of surplus, or other description of profits	due policy h	olders	13,710 19
Amount of any other liability of the company, viz.	Premiums p	aid in advance.	
\$6,898,96; arcumulations on endowments, \$14,100			
Liabilities ou policy holders' account	• • • • • • • • • • • • • • • • • • • •		\$5,046,546 26
Gross surplus on policy holders' account	· · · · · · · · · · · · · · · · · · ·	•••••••	1,201,872 92
Total liabilities	···	•••••	\$6,248,419 18

PHŒNIX MUTUAL LIFE INSURANCE COMPANY.

LOCATED IN HARTFORD, CONN.

(Organized May 1851.)

AARON C. GOOODMAN, President. JNO. M. HOLCOMBE, Secretary.

Attorney for services of process in the state of Wisconsin, JNO. H. WALRATH, Milwaukee.

ASSETS AS	PER LEDG	ER ACCOUNT	rs.	
Real estate unincumbered, cost value				\$367,758 00
Loans secured by mortgages of real est	ate, first lier	18	• • • • • • • • • • •	6,699,332 50
Lons on	Stock Colla	terals:		
2000 000	Par	Market	Amount	
Quincy, Pacific and Missouri R. R. Co.	value.	value.	loaned.	
guaranteed bonds	\$50,000 00	\$35,000 00	35,000 00	
Assignment of mortgage notes	1,200 00	1,200 00	1,050 00	••••••
Total amount	\$51,200 00	\$36,200 00	\$36,050 00	
Total amount	φυι, ευσ ου	φ30, 200 00	φου, 000 00	\$36,05 0 00
Premium notes and loans on policies in	force			2,646,819 13
Tremtum notes and loans on poncies in	1 10100	•••••	• • • • • • • • • • • • • • • • • • • •	2,040,019 10
Stocks, Bonds,	etc., owned	by the Compa		
		Cost value.	Market value.	
United States bonds	· · · · · · · · · · · · · · · ·	\$264, 160 00	\$259,037 50	
West Middle School District, Hartford	bouds	107,500 00	107,500 00	
Indiana Central R. R. bonds		7,600 00	8,000 00	
Valley Falls Township bonds		14,835 00	14,835 00	
Mattoon City bonds		37,970 00	39, 000 00	
Trustees' certificates, So. Minn. R. R.		35,000 00	10,000 00	• • • • • • • • • • • • • • • • • • • •
Benton Harbol and St. Joseph School l		12,000 00	12,000 00	•••••
Charter Osk National Bank, Hartford,		19, 662 00	25,400 00	•••••
First National Bank, Hartford, stock		22, 255 0 0	19,000 0 0	
Ætna National Bank, Hartford, stock.		3,500 00	4,235 00	••••••
Mercantile National Bank, Hartjord, sto		6,950 00	11,500 00	• • • • • • • • • • • • • • • • • • • •
American National Bank, Hartford, sto		21,293 00	26,000 00	•••••
Farmers' and Mechanics National Bank		5,300 00	5,537 00	•••••
Phoenix National Bank, Hartford, stock		26,000 00	30,800 00	•••••
First National Bank, Masillion, O., stoc Toledo National Bank, Toledo, O., stoc		10,000 00 9,960 00	12,000 00 9,960 00	•••••
U. S. Trust Co., Hartford, stock		5,000 00 5,000 00	5,000 00 5,000 00	
Hartford City Gaslight Co. stock		7,350 00	14,200 00	
Security Co., Hartford, stock		10,000 00	10,000 00	
• •			<u>-</u>	
Total (carried out at cost value)	••••••••	\$626 , 425 00	\$624,004 50	## 40 M 00
				\$62 6 , 42 5 00
Cash in company's office, \$1,254.38; dep				241, 496 42
Bills receivable, \$48, 129.43; agents' ledg	ger bala nce s,	\$23,184.48	•••••	71,313 91
Total net or ledger assets as per bal				\$10,689,194 9 6
Deduct depreciation from cost of assets				2,420 50
Total net or ledger assets, less dep	reciation		••••	\$10,686,774 46

Other Assets:

Interest due and accrued on bonds and mortgages	\$258, 541 09
Bonds and stocks owned	5,401 94
Gross premiums due and unreported on policies in force	••••••
Gross deferred premiums on policies in force	• • • • • • • • • • • • • • • • • • • •
Total\$86,091 77	•••••
Deduct average loading on above gross amount (20 per cent.) 17,218 35	*************
Net amount of uncollected and deferred premiums	68,873 42
Furniture, fixtures and safes	9,805 64
Total of other assets	\$342,622 09
Total assets	\$11,029,396 55
Deduct items not admitted	81,119 55
Total admitted Assets	\$10,948,277 00
Items not admitted:	
Furniture, fixtures and safes	. \$9,805 64
Agent's balances	
Bills receivable	. 48,129 43
Total items not admitted	. \$81, 119 55
Total Roll administration of the second of t	. 401, 119 55
TV TIADIFYMYDG	
IV. — LIABILITIES.	
Net present value of all the outstanding policies in force on the	•
31st day of December, 1877, computed by the Connecticut Insur- ance department, according to the American Experience table	
of mortality, with 4½ per cent interest	
Deduct net value of risks reinsured	
Net reinsurance reserve	\$9, 581, 525 00
Claims for death losses and matured endowments not due \$268, 574 0	
Claims for death losses and other policy claims resisted 60,500 00	• • • • • • • • • • • • • • • • • • • •
Total policy claims.	329,074 00
Amount due on account of salaries, rents and office expenses	2,501 59
Amount due to officers and others	42,614 04
Amount of any other liability of the company, viz.: Premiums paid in ad-	
vance, special reserve	50,090 00
Liabilities on policy holders' account	\$10,005,714 63
Gross surplus on policy holders' account	942,562 37
Total liabilitles	\$10,948,277 00

RAILWAY PASSENGER ASSURANCE COMPANY.

LOCATED IN HARTFORD, CONN.

(Organized May, 1865. Commenced business February, 1866.)

JAMES E. BATTERSON, President. CHARLES E. WILLARD, Secretary.

Attorney for service of process in the state of Wisconsin, Harry Bradford, Milwaukee.

III. - ASSETS AS PER LEDGER ACCOUNTS.

\$86,000 00

Loans secured by mortgages on real estate, first liens.....

Tax due from nonresident stockholders	1,300 00			
Stocks, Bonds, etc., owned by the Company:				
	Cost value.	Market value.		
United States bonds	\$65,625 94	\$66,757 50		
Connecticut registered bonds	39,050 50	47,400 00		
	9,746 25	10,700 00		
Norwich, Conn., city bonds	10,300 00	10,300 00		
Chicago Water Loan bonds	9,800 00	10,000 00		
Southern Minnesota R. R. bonds	9,234 66	7,000 00		
North Missouri R. R. bonds	8,362 50	10,350 0 0		
Mil. and St. Paul R. R. bonds	9,312 50	10,700 00		
Lake Shore R. R. bonds	1,000 00	1,080 00		
Dub. and Sioux City R. R. bonds	9,600 00	10,300 0 0		
Hart., Prov. and Fishkill R. R. bonds	4,970 14	5,400 00	•••••	
Buffalo, N. Y. and Erie R. R. bonds	21,000 00	21,650 00		
Shoe and Leather National Bank, N. Y., stock	7,560 67	7,788 00	······································	
American Exchange National Bank, N. Y., stock.	11,414 00	10,550 00		
Merchants Exchange National Bank, N. Y., stock.	11,125 00	6,400 00		
Fourth National Bank, N. Y., stock	8,312 50	7,840 00	• • • • • • • • • • • • • • • • • • • •	
City National Bank, Hartford, stock	20,716 75	18, 200 00	•••	
Hartford Trust Company stock	12,056 20	9,605 00		
Connecticut Trust Company stock	15,000 OU	12,000 00		
N. Y., N. H. and H. R. R. R. stock	34,799 00	38,250 00	•••••	
C., R. I. and P. R. R. stock	11,110 25	10,025 00	•••••	
Total (carried out at cost value	\$330,096 86	\$332,295 50		
			\$330,096 86	
Cash in company's office, \$401.61; cash deposited in	n ba nks, \$21, 3	83.19	21,784 80	
Total net or ledger assets as per balance	\$439, 181 66			
Other Assets:				
Market value of bonds and stocks over cost			\$2,198 64	
Total Assets	\$441,380 30			

LIABILITIES.

Net reinsurance reserve estimated (estimated)	\$15,000 00
	•••••
Total policy claims	20,000 00
Liabilities on policy holders' account	\$35,000 00
Gross surplus on policy holders' account	
Total liabilities	\$441,380 30

TRAVELERS' INSURANCE COMPANY.

(Life Statement.)

LOCATED AT HARTFORD, CONN.

(Organized July, 1866.)

JAMES G. BATTERSON, President. RODNEY DENNIS, Secretary.

Attorney for service of process in the state of Wisconsin, D. M. BELDEN, Milwaukee.

ASSETS, AS PER LEDGER ACCOUNTS.

Real estate, unincumbered, cost value	\$447,925 18
Loans secrued by mortgage on real estate, first lien	2,033,883 23
STOCKS, BONDS, ETC., OWNED BY THE COMPANY.	
Cost Market	

Value.	Value.	
\$11,675 00	\$10,975 00	••••
7,766 66	10,000 00	
30,586 84	30,000 0 0	
10,639 72	10,400 00	
15,290 00	15,000 00	
9,462 50	10,600 00	
4,655 00	5,879 00	
9,59722	11,500 00	
I,0 00 00	1,080 00	
21,432 17	21,400 00	•••••
32, 106 67	32,100 00	
60,265 25	63,600 00	
8,711 25	8,763 00	
23, 324 50	22,750 00	
29,068 00	28,200 00	
14,397 50	10,283 90	
10,200 00	11,500 00	
40,946 00	39,000 00	
5,024 88	4,500 00	
6,287 50	6,600 00	
11,413 00	10,500 00	
	\$11,675 00 7,766 66 30,586 84 10,639 72 15,290 00 9,462 50 4,655 00 9,597 22 1,000 00 21,432 17 32,106 67 60,265 25 8,711 25 23,324 50 29,068 00 14,397 50 10,200 00 40,946 00 5,024 88 6,287 50	\$11,675 00 \$10,975 00 7,766 66 10,000 00 30,586 84 30,000 00 10,639 72 10,400 00 15,290 00 15,000 00 4,655 00 5,879 00 9,597 22 11,500 00 1,000 00 1,080 00 21,432 17 21,400 00 32,106 67 32,100 00 60,265 25 63,600 00 8,711 25 8,763 00 23,324 50 22,750 00 29,068 00 28,200 00 14,397 50 10,283 90 10,200 00 11,500 00 40,946 00 39,000 00 5,024 88 4,500 00 6,287 50 6,600 00

Merchants Exchange National Bank stock	11, 156 25	6,400 00	•••
Metropolitan Exchange National Bank stock	10,209 20	10,125 00	
National Bank of the Commanwealth stock	11,21275	10,500 00	
Thames National Bank stock	24,600 00	28,000 00	
First National Bank stock.	12,700 00	15,000 00	
Connecticut Trust and Safe Deposit Co., stock	20,400 00	16,00 0 00	• • • • • • • • • • • • • • • • • • • •
Security Company stock	5,000 00	5,000 00	•••••
Railway Passenger Assurance Company stock	93,789 50	95,600 00	•••••••••
Total (carried out at cost value)	\$552,917 54	\$5 51, 25 5 00	•••••
Cash in company's office, \$925.93; deposited in bank			552,917 54
Agents' ledger balances		••••••	\$59,522 8 302 28
Total net or ledger assets as per balance			\$3,094,551 03
Deduct depreciation from costs of assets	************		84, 972 72
Total net or ledger assets, less depreciation			
and the second second depreciation	••••••	• • • • • • • • • • • • • • • • • • • •	\$3,009,578 31
Other Asset			
Interest due and accrued on bonds and mortgage	s		\$96,167 25
Gross premiums due and unreported on policies in f	orce	\$58 216 75	
Gross deferred premiums on policies in force	•••••••	62, 182 25	**********
Total		\$115,499 00	
Deduct average loading on above gross amounts (20	per cent)	17,325 00	
Net amount of uncollected and deferred premiums			98,174 00
Total of other assets			\$194,341 25
Total assets			
Deduct items not admitted	· · · · · · · · · · · · · · · · · · ·	• • • • • • • • • • • • • • • • • • • •	\$3, 203, 919 56 30 2 2 8
Total admitted assets	•••••	· · · · · · · · · · · · · · · ·	\$3,203,617 28
Items not admit		=	
Agents' balances	••• ••••••	······-	\$302 28
LIABILITIE	10	_	
Net present value of all the outstanding policies in f	orce on the		
31st day of December, 1877, computed by the Conne Insurance Department according to the American	cticut State		
Table of Mortality, with 4½ per cent. interest	Experience	************	
Deduct net value of risks reinsured	·· ···· •	2,529,160 00	
Net reinsurance reserve			\$2,507,258 00
Claims for death losses and other policy claims resist	t due	\$39,425 00	
Total policy claims			41,925 00
Liabilities on policy holders' account	• • • • • • • • • • • • • • • • • • • •	•	\$2,549,183 00
Gross surplus on policyholders' account			654, 434 28
Total liabilities	••••••	• • • • • • • • • • · · ·	\$3, 203, 617 28

UNION MUTUAL LIFE INSURANCE COMPANY.

LOCATED AT AUGUSTA, ME.

(Organized October 1, 1849.)

JOHN E. DE WITT, Presidedt.

Lowell & Andover R. R. bonds

Total (carried out at cash value)

JAMES P. CARPENTER, Secertary.

Attorney for service of process in the state of Wiscon3in, DAVID ATWOOD, Madison.

Loans secured by mortgages on real estate,				3,738,580 73
Loans on Slock Collaterals:				
	Par value.	Market value.	Amount loaned.	
United States bonds	\$10,000 00	\$10,337 00	\$10,000 00	
United States bonds	10,000 00	10,537 50	10,000 00	
Norway Plains Co. stock	3,500 00	10,850 00	1,006 00	
Third Ave. R. R., N. Y. city, stock Chicago, Colum. & Ind. R. R. stock	5,100 00 3,000 0 0	7,140 00	7,451 44	
Assignment of mortgage of real estate in				
La Fayette county, Wis	10,700 00	10,700 00	4,400 00	
Total amount	\$42,300 00	\$49,565 00	\$32,857 44	
				32,857 44
Loans made in cash to policy holders on the	company's	policies		1,808 69
Premium notes and loans on policies in for	ce	••••		1,518,194 59
Stocks, Bonds, etc., Owned by the Company:				
Stocks, Bonas, etc	., Ownea o	_	-	
Stocks, Bonas, etc	, Ownea o	Par value.	ny: Market value.	
United States bonds	\$	Par value.	Market	
	\$	Par value.	Market value.	
United States bonds	\$	Par value. 230,000 00	Market value. \$242,487 50	
United States bonds	\$	Par value. 230,000 00	Market value. \$242,487 50 112,000 00	
United States bonds	\$	Par value. 230,000 00 100,006 00 10,000 00	Market value. \$242,487 50 112,000 00 11,050 00	••••••
United States bonds	\$	Par value. 230,000 00 100,006 00 10,000 00 10,000 00	Market value. \$242,487 50 112,000 00 11,050 00 10,600 00	
United States bonds. State of Maine bonds. State of Pennsylvania bonds. State of Connecticut bonds Bangor City, Me., bonds Lewiston City, Me., bonds. Portland City, Me., bonds.	\$	Par value. 230,000 00 100,006 00 10,000 00 10,000 00 100,000 00	Market value. \$242,487 50 112,000 00 11,050 00 10,600 00 106,000 00	
United States bonds	\$	Par value. 230,000 00 100,006 00 10,000 00 10,000 00 100,000 00 20,000 00	Market value. \$242,487 50 112,000 00 11,050 00 10,600 00 106,000 00 21,100 00	
United States bonds	\$	Par value. 230,000 00 100,006 00 10,000 00 10,000 00 10,000 00 20,000 00 20,000 00 25,000 00 25,000 00	Market value. \$242,487 50 112,000 00 11,050 00 106,000 00 21,100 00 53,000 00 25,750 00 26,625 00	
United States bonds. State of Maine bonds. State of Pennsylvania bonds. State of Connecticut bonds Bangor City, Me., bonds Lewiston City, Me., bonds. Portland City, Me., bonds. New Bedford City, Mass., bonds.	\$	Par value. 230,000 00 100,006 00 10,000 00 10,000 00 10,000 00 20,000 00 25,000 00 5,000 00	Market value. \$242,487 50 112,000 00 11,050 00 10,600 00 21,100 00 23,750 00 26,625 00 5,050 00	
United States bonds	\$	Par value. 230,000 00 100,006 00 10,000 00 10,000 00 20,000 00 25,000 00 25,000 00 5,000 00 5,000 00	Market value. \$242,487 50 112,000 00 11,050 00 10,600 00 106,000 00 21,100 00 53,000 00 25,750 00 26,625 00 5,050 00 5,100 00	
United States bonds	\$	Par value. 230,000 00 100,006 00 10,000 00 10,000 00 20,000 00 20,000 00 25,000 00 5,000 00 5,000 00 10,000 00	Market value. \$242,487 50 112,000 00 11,050 00 10,600 00 21,100 00 25,750 00 26,625 00 5,050 00 12,000 00	
United States bonds State of Maine bonds State of Pennsylvania bonds. State of Connecticut bonds Bangor City, Me., bonds. Lewiston City, Me., bonds Portland City, Me., bonds New Bedford City, Mass., bonds Providence City, R. I., bonds Portsmouth City, N. H., bonds Wilmington City, Del., bonds Richmond City, Va., bonds Toledo City, Ohio, bonds	***************************************	Par value. 230,000 00 100,006 00 10,000 00 10,000 00 20,000 00 20,000 00 25,000 00 25,000 00 5,000 00 5,000 00 10,000 00 34,000 00	Market value. \$242,487 50 112,000 00 11,050 00 10,600 00 106,000 00 21,100 00 53,000 00 25,750 00 26,625 00 5,050 00 5,100 00 12,000 00 34,000 00	
United States bonds	\$	Par value. 230,000 00 100,006 00 10,000 00 10,000 00 20,000 00 20,000 00 25,000 00 5,000 00 5,000 00 10,000 00	Market value. \$242,487 50 112,000 00 11,050 00 10,600 00 21,100 00 25,750 00 26,625 00 5,050 00 12,000 00	

20,000 00 \$655,000 00

\$696,247 50

\$707,172 50

Cash in company's office, \$195.51; deposited in bank, \$276, 991.71; cash in tran-	
sit, \$3, 578.35	280,765 57
Bills receivable, \$9,324.07; agents' ledger balances, \$27,521.74	36,845 81
Accrued interest on bonds purchased, \$2,771.52; judgment paid, \$8,349.16	11,120 68
Total net or ledger assets, as per balance	\$7,555,327 78
Deduct depreciation from costs of assets	83,275 5
Total net or ledger assets, less depreciation	\$7,472,052 21
Other Assets:	
Interest due and accrued on bonds and mortgages	\$185,859 70
Bonds and stocks owned	9,452 51
Premium notes, loans or liens	62,789 30
Collateral loans	98 05
Gross premiums due and unreported on policies in force \$54,524 57	************
Gross deferred premiums on policies in force	•••••
Total	•••••
Deduct average loading on above gross amount	******
Net amount of uncollected and deferred premiums	161,419 90
Total of other assets	\$419,619 46
Total assets	\$7,891,671 67
Deduct items not admitted	36,845 81
Total admitted assets	\$7,854,825 86
Items not Admitted:	
Agents' balances	*******
Bills receivable	•••••
Total items not admitted	
LIABILITIES.	
Net present value of all the outstanding policies in force on the	
31st day of December, 1877, computed by the Maine State In-	
surance Department according to the American Experience	
Table of Mortality, with 41/2 per cent. interest \$7,030,269 00	•••••
Deduct net value of risks reinsured	•••••
Net reinsurance reserve.	\$7,028.799 00
Claims for death losses and matured endowments not due	225, 195 75
Dividends of surplus or other description of profits due policy holders	26.615 06
Amount of any other liability of the company, viz.: Premiums paid in ad-	
vance, \$15,084.77; surrender values due and unpaid, \$2,323.35; unrepresented	0 ** 0 44 0 0
accounts, \$10, 236.21	27,644 33
Liabilities on policy holders' account	\$7,308,254 14
Gross surplus on policy holders' account	546,571 42
Total liabilities.	\$7.854,825 86

UNITED STATES LIFE INSURANCE COMPANY.

LOCATED IN NEW YORK CITY.

(Organized March 4, 1850.)

JAMES BUELL, President.

CHARLES P. FRALEIGH, Secretary

Attorney for service of process in this state, LEOPOLD R. ROEDER, Milwaukee.

ASSETS, AS	PER LEDG	ER ACCOUNT	rs.	
Real estate, unincumbered, cost value				\$79,587 84
Loans secured by mortgages on real e				2, 320, 871 44
Loans	on Stock Co	ollaterals:		
1100000	Par	Market	Amount	
	value.	value.	loaned.	
Brewers' and Grocers' Bank stock	\$3, 0 00 00	\$2,700 00	\$2,000 00	• • • • • • • • • • • • • • • • • • • •
Imp. and Traders' Nat. Bank stock	1,000 00	2,050 00	1 ,600 0 0	• • • • • • • • • • • • • • • • • • • •
Assignment of real estate mortgage.	50,000 00	50,0 0 0 0 0	30,000 00	••••
United States bonds	4,000 00	4,275 00	4,000 00	• • • • • • • • • • • • • • • • • • • •
Dime Savings Bank, Chicago, stock.	3,000 00	•••••	1,500 00	
United States bonds	295,000 00	312, 331 25	300,000 00	•••••••
'Total amount	\$356,000 00	\$371,356 25	\$339,100 00	800 100 00
•				339,100 00
Loans on policies in force, the reserve	s in excess of	f all indebtedn	ess	136, 354 84
Stocks, Bonds	. etc., owned	by the Comp	any:	
	, ,	Cost value.	Market value.	
United States bonds		\$211,845 88	\$192,980 81	
New York city bonds		196,776 67	207,500 00	
New York County bonds		321,875 00	341,160 00	
Brooklyn City bonds		204,370 43	230, 280 00	
Chicago City bonds		50,000 00	53,500 00	
South Norwalk, Conn., water fund		100,000 00	105,000 00	
Buffalo City bonds		140,000 00	147,600 00	
Erie County bonds		25,000 00	27,500 00	
Jersey City bonds		104,000 00	110,250 00	
District of Columbia 3-65 bonds		105, 132 49	114,375 00	••••
Kings County bonds		56, 562 50	57,750 00	
East Chester Town (Westchester cour		14,970 00	14,645 00	
Richmond County (N. Y.) bonds		2,562 50	2,575 00	
Total (carried out at cost value)		\$1,533,095 47	\$1,605,115 81	1,533,095 47
Cash in Company's office, \$301 40; dep	nositad in har	nka \$120 900 S	5	130, 594 25
Bills receivable, \$9,588.51; agents' led	ger balances.	\$19,553.60		29, 142 11
Total net or ledger assets as per b				\$4,568,745 95
Deduct depreciation from cost of asset	ets			4,453 44
Total net or ledger assets less der				\$4,564,292 51
· ·				

OTHER ASSETS.

Market value of bonds and stocks over cost. 72,020 3c Gross premiums due and unreported on policies in force. \$57,005 98 Gross deferred premiums on policies in force. 114,410 24 Total. \$171,016 22 Deduct average loading on above gross amount. 17,101 62 Not amount of uncollected and deferred premiums. 153,914 60 Total of other assets. \$251,740 13 Total assets. \$4,848,032 64 Deduct items not admitted. 9,588 51		
Market value of bonds and stocks over cost. 72,020 3c	Interest due and accrued on bonds and mortgoges; bonds and stocks owned;	
Gross premiums due and unreported on policies in force	collateral loans and premium notes, loans or liens	\$55,805 19
Total	Market value of bonds and stocks over cost	72,020 34
Total	Gross premiums due and unreported on policies in force \$57,005 98	
Deduct average loading on above gross amount.	Gross deferred premiums on policies in force	
Deduct average loading on above gross amount.	Total	
Not amount of uncollected and deferred premiums 153, 914 60	Deduct average loading on above gross amount	
Total of other assets	Not amount of uncollected and deferred premiums	
Total assets		
Deduct items not admitted		
Total admitted assets. \$4,836,444 13	Deduct items not admitted	
Items not admitted: Sy, 588 51 V.—LIABILITIES. Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance department according to the American Experience Table of Mortality, with 4½ per cent. interest. Deduct net value of risks reinsured. Net reinsurance reserve. S3, 978, 126 00 17, 850 00 Net reinsurance reserve. \$3,960,776 00 Total policy claims. Amount of any other liability of the Company, vil.: Premiums paid in advance, \$4,270 26; liabilities on lapsed policies, \$19,830; bills payable, \$4,722.91. Liabilities on policyholders' account. Gross surplus on policyholders' account. Total liabilities.		
Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance department according to the American Experience Table of Mortality, with 4½ per cent. interest. \$3,978,126 00 Deduct net value of risks reinsured 17,850 00 Net reinsurance reserve \$3,960,776 00 Total policy claims 103,960 e0 Amount of any other liability of the Company, vil.: Premiums paid in advance, \$4,270 26; liabilities on lapsed policies, \$19,830; bills payable, \$4,722.91. \$28,823 17 Liabilities on policyholders' account. \$4,093,559 17 Gross surplus on policyholders' account. \$44,093,559 17 742,884 96	Total admitted assets	\$4,836,444 13
Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance department according to the American Experience Table of Mortality, with 4½ per cent. interest. \$3,978,126 00 Deduct net value of risks reinsured 17,850 00 Net reinsurance reserve \$3,960,776 00 Total policy claims 103,960 e0 Amount of any other liability of the Company, vil.: Premiums paid in advance, \$4,270 26; liabilities on lapsed policies, \$19,830; bills payable, \$4,722.91. \$28,823 17 Liabilities on policyholders' account. \$4,093,559 17 Gross surplus on policyholders' account. \$44,093,559 17 742,884 96	Items not admitted:	
V.—LIABILITIES. Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance department according to the American Experience Table of Mortality, with 4½ per cent. interest. Deduct net value of risks reinsured. Net reinsurance reserve. Total policy claims. Amount of any other liability of the Company, vil.: Premiums paid in advance, \$4,270.26; liabilities on lapsed policies, \$19,830; bills payable, \$4,722.91. Liabilities on policyholders' account. Gross surplus on policyholders' account. Total liabilities.		
Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance department according to the American Experience Table of Mortality, with 4½ per cent. interest. \$3,978,126 00 Deduct net value of risks reinsured. \$3,960,776 00 Net reinsurance reserve. \$3,960,776 00 Total policy claims. 103,960 00 Amount of any other liability of the Company, vil.: Premiums paid in advance, \$4,270 26; liabilities on lapsed policies, \$19,830; bills payable, \$4,722.91. \$28,823 17 Liabilities on policyholders' account. \$4,093,559 17 Gross surplus on policyholders' account. \$4,093,559 17 742,884 96	Bills receivable \$9,588 51	
Net present value of all the outstanding policies in force on the 31st day of December, 1877, computed by the New York State Insurance department according to the American Experience Table of Mortality, with 4½ per cent. interest. \$3,978,126 00 Deduct net value of risks reinsured. \$3,960,776 00 Net reinsurance reserve. \$3,960,776 00 Total policy claims. 103,960 00 Amount of any other liability of the Company, vil.: Premiums paid in advance, \$4,270 26; liabilities on lapsed policies, \$19,830; bills payable, \$4,722.91. \$28,823 17 Liabilities on policyholders' account. \$4,093,559 17 Gross surplus on policyholders' account. \$4,093,559 17 742,884 96	Annual transport	
December, 1877, computed by the New York State Insurance department according to the American Experience Table of Mortality, with 4½ per cent. interest. Deduct net value of risks reinsured. Net reinsurance reserve. Total policy claims. Amount of any other liability of the Company, vil.: Premiums paid in advance, \$4,270 26; liabilities on lapsed policies, \$19,830; bills payable, \$4,722.91. Liabilities on policyholders' account. Gross surplus on policyholders' account. Total liabilities.	V.—LIABILITIES.	
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17,850 00 Net reinsurance reserve	interest	
Net reinsurance reserve	Deduct net value of risks reinsured.	
Total policy claims. 103, 960 e0 Amount of any other liability of the Company, vil.: Premiums paid in advance, \$4,270 26; liabilities on lapsed policies, \$19,830; bills payable, \$4,722.91. 28,823 17 Liabilities on policyholders' account. \$4,093,559 17 Gross surplus on policyholders' account. 742,884 96		
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\$4,722.91 28,823 17 Liabilities on policyholders' account. \$4,093,559 17 Gross surplus on policyholders' account. 742,884 96	vance \$4 970 96: Habilities on learned well-learner at 6 990 111	
Liabilities on policyholders' account. \$4,093,559 17 Gross surplus on policyholders' account. 742,884 96	\$4.792.91	
Total liabilities		28,823 17
Total lightities	Liabilities on policyholders' account	\$4,093,559 17
\$4,836,444 13 =====		742,884 96
Person National Addition for the Control of the Con	Total Haddiffies	\$4,836,444 13

WASHINGTON LIFE INSURANCE COMPANY.

LOCATED IN NEW YORK CITY.

(Organized February 2, 1860.)

CYRUS	CHRTIS	President.
·	CCICIO,	A 1000000000.

WILLIAM HAXTUN, Secretary.

Attorney for service of process in the state of Wisconsin, JOHN G. WHITE, Milwaukee.

ASSETS, AS PER LEDGER ACCOUNTS.

Real estate, unincumbered, cost value	\$227,551 1 5
Loans secured by mortgages on real real estate, first liens	2, 245, 366 79
Loans made in cash to policyholders on the Company's policies	15 400 04

Stocks, Bonds, etc., owned by the Company:

	Cost value.	Market value.	
Unitee States bonds	\$559,920 00	\$543,150 00	
New York City bonds	1,235,742 29	1,362,975 00	
Brooklyn City bonds	391,998 63	406,000 00	
Kingston bonds	8,055 38	9,000,00	••••
5			
Total (carried out at cost value)	\$2,195,716 30	\$2,321,125 00 	\$2,195,716 30
Cash in Company's office, \$4,548.94; deposited i	n banks, \$266, 2	207.12	\$270,756 06
Agents' ledger balances			17,77762
Total net or ledger assets as per balance		••••••	\$5,072,576 16
Other A	lssets.		
Interest due and accrued on bonds and mortgag	es		\$42,629 72
Bonds and stocks owned			11,332 50
Collateral loans			1,632 55
Market value of bonds and stocks over cost			125, 408 70
Gross premiums due and unreported on poli-	cies in force	\$37,353 69	• • • • • • • • • • • • • • • • • • • •
Gross deferred premiums on policies in force,		109,456 96	•••••
Total		\$146.810 65	
Deduct average loading on above gross amount			
Net amount of uncollected and deferred pro			117,448 52
Total of other assets			\$298,451 99
Total assets			\$5, 371, 028 15
Deduct items not admitted			17,777 62
Total admitted assets	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	\$5, 353, 250 5 3
	ot Admitted.		
Agents' balances		•••••••••••••••••••••••••••••••••••••••	\$17,777 62
LIABILI			
Net present value of all the outstanding polici			
December, 1877, computed by the New York	State Insurance	e Department,	
according to the American Experience Table of			84 90% 149 00
interest			\$4, 395, 143 00
Claims for death losses, and matured endowned			
Claims for death losses and other policy claims			2
Total policy claims	• • • • • • • • • • • • • • • • • • •	•••••	32,729 48
Unpaid dividends to stockholders		•••••	78 75
Amount due on account of salaries, rents and o			3,250 00
Amount of any other liability of the company			0 010 07
vance			8,910 97
Liabilities on policyholders' account			\$4,440,112 20
Gross surplus on policyholders' account	•••••	••••	913, 138 33
Total liabilities			\$5, 353, 250 53

INSURANCE LAWS

OF THE

STATE OF WISCONSIN,

AS REVISED BY THE REVISERS OF THE STATUTES, AND THE COM-MITTEE ON THE REVISION OF THE STATUTES, AND ADOPTED BY THE LEGISLETURE AT THE JUNE SESSION,

To take effect November 1, 1878.

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NOTE.

Attention is specially called to the fact that these laws, as revised, do not take effect till November 1st next. It is not deemed necessary to note the changes in the laws which the revision makes, as copies of the laws now in force are in very general circulation, and additional copies may be had on application to the department of insurance.

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Chapter 89, Revised Statutes 1878.

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INSURANCE LAWS.

Chapter LXXXIX.—Statutes 1878.

WISCONSIN COMPANÎES.

Section 1896. Any number of persons, not less than fifteen, may, in the manner hereinafter prescribed, form a corporation for the purpose of insuring dwellings, stores, buildings of any kind, and any kind of personal property, against loss or damage by fire, and when such purpose shall have been expressed in their articles of organization and patent, may insure vessels, boats, cargoes, goods, merchandise, freights, and other property against loss or damage by all or any of the risks of lake, river, canal and inland navigation and transportation.

Section 1897. Such persons shall make, sign and file in the office of the commissioner of insurance, written articles of organization, containing a declaration in which shall be stated:

- 1. That they associate for the purpose of forming a corporation under this chapter to transact the business of insurance, stating the nature and kind thereof.
- 2. The name of the corporation and the place where the principal office for the transacting of business shall be located.
- 3. The capital stock, the number of shares thereof, and the amount of each share.
- 4. The designation of the general officers, and the number of directors or trustees.
- 5. The mode and manner of electing directors or trustees, filling vacancies in their number, and their term of office.
- 6. The period for the commencement and termination of their fiscal year.
- 7. The time for which such corporation shall continue, which shall not in any case exceed fifty years.
- 8. Such other provisions or articles not inconsistent with law, as they may deem proper to be therein inserted for the interest of

such corporation or the accomplishment of the purposes thereof, or to define the manner in which the corporate powers granted in this chapter shall be exercised; and shall thereupon publish a notice of such intention, once in each week for at least four weeks, in all the public newspapers published in the county where such insurance company is proposed to be located.

Section 1898. No such stock corporation with a less capital than one hundred thousand dollars, actually paid in in cash, shall be organized under this chapter in any city, nor establish an agency for the transaction of business therein, or elsewhere in the state, with a capital of less than fifty thousand dollars actually paid in in cash; nor shall any corporation so organized for the purpose of doing the business of fire and inland navigation or transportation insurance on the plan of mutual insurance, commence business until agreements have been entered into for insurance with at least three hundred applicants, the premiums on which shall amount to not less than one hundred and fifty thousand dollars, of which at least thirty thousand dollars shall have been paid in, in cash, and notes of solvent parties founded on actual and bona fide applications for insurance shall have been received for the remainder; nor shall any corporation so organized for the purpose of doing the business of fire insurance only, on the plan of mutual insurance, commence business until agreements have been entered into for insurance, with at least one hundred and fifty applicants, the premiums on which shall amount to not less than one hundred thousand dollars, of which twenty five thousand dollars at least shall have been paid in, in cash, and notes of solvent parties founded on actual and bona fide applications for insurance for the remainder shall have been received. No one of the notes received as above shall amount to more than five hundred dollars, and no two shall be given for the same risk or be made by the same person or firm, except where the whole amount of such notes shall not exceed five hundred dollars, nor shall any such note be represented as capital stock unless a policy be received upon the same within thirty days after the organization of the corporation, upon a risk which shall be for no shorter period than twelve months. Each of said notes shall be payable in parts or in whole, at any time when the directors shall deem the same requisite for the payment of losses by fire or inland navigation, and such incidental expenses as may be necessary for

the transaction of the business of the corporation; and no note shall shall be accepted as part of such capital stock unless the same shall be accompanied by a certificate of the county judge of the county where the person making such note shall reside, that the person making the same is, in his opinion, pecuniarly good and resnonsible for the same, and no such note shall be surrendered during the life of the policy for which it was given.

Section 1899. The persons associated for the purpose of organizing any such corporation, after having filed the articles of organization and published notice as aforesaid, and after filing in the office of the commissioner of insurance proof of such publication, by the affidavits of the publishers of such newspapers, shall have power to open books for subscription to the capital stock of such proposed corporation, and keep the same open until the whole amount thereof is subscribed, and in case the business is proposed to be conducted on the plan of mutual insurance, then to open books to receive propositions and enter into agreements in the manner and to the extent specified in the next preceding section.

Section 1900. The articles of organization, notices and proofs of publication so filed shall be examined by the attorney general, and if found in conformity with this chapter and not in conflict with the constitution or laws, he shall so certify to the commissioner of insurance, who shall thereupon himself examine or cause an examination to be made by a disinterested person specially appointed by him for that purpose, and if he shall find, or the person so appointed shall certify after such examination, under oath, that the proper capital of such corporatian, according to the nature of its proposed business, has been paid in and is possessed by it in money, or in such stocks, bonds and mortgages as are required by section nineteen hundred and three; or if a mutual corporation, that it has received and is in the actual possession of the capital, premiums and bona fide engagements for insurance, or securities to the full extent and of the value required by section eighteen hundred and ninety-eight, and the name of the residence of the maker of each such premium note, the amount being stated in such certificate, and file such certificate in the office of the commissioner of insurance, and the corporators or officers of such corporation shall also file with said commissioner a certificate under oath, that the capital exhibited to such examiner is bona fide the property of the corporation, thereupon said commissioner of insurance shall deliver to such corporation a patent reciting the articles of organization and declaring such corporation duly organized and empowered to transact accordingly the business of insurance therein defined. Said commissioner shall have the right to reject any name or title of any corporation applied for when he shall deem the name too similar to one already appropriated, or likely to mislead the public in any respect. The name of every corporation doing business on the mutual plan shall contain the word "mutual." Thereupon such corporation shall be deemed and taken to be duly organized as a corporation, and shall have all the powers and be subject to all the provisions of law relating to corporations, so far as the same are applicable.

SECTION 1901. Each director or trustee of any such stock corporation shall be the owner of at least five hundred dollars of the stock of the corporation of its par value. The directors, trustees, and corporators, and those empowered to participate in the profits of any corporation organized under the provisions of this chapter, shall be jointly and severally liable for all debts and responsibilities of such corporation, until the whole amount of the capital shall have been paid in, and a certificate thereof filed, as hereinbefore provided.

Section 1902. No fire or inland navigation or transportation insurance corporation, organized under any law of this state shall directly or indirectly deal or trade in buying or selling any goods, wares, merchandise or other commodities whatever, excepting such goods or articles as may have been insured by such corporation, and are claimed to be damaged by fire or water; nor hold or convey real estate, excepting for the purposes and in the manner herein set forth to wit: Such as as shall be necessary for its convenient accommodation in the transaction of its business, or such as may have been conveyed or mortgaged to it in good faith by way of surety for loans, or for debts or money due in its legitimate business, or such as have been purchased at sales upon judgments, or mortgages obtained or made for such debts; but all such real estate as may be so acquired, which shall not be necessary for the accommodation of such corporation in the transaction of its business, shall be sold or disposed of within four years after such corporation shall have acquired the same, unless such corporation shall procure a certificate from the commsssioner of insurance that it will suffer materially from a forced sale thereof, in which event the sale may be postponed for such period as said commissioner may therein direct.

Section 1903. Any insurance corporation may from time to time invest its capital and its accumulated funds in bonds and mortgages on improved unincumbered real estate within this state, worth at least fifty per cent. more than the sum loaned thereon, exclusive of buildings, unless such buildings are kept insured and the policy held by said corporation, or in the lawfully authorized stocks of this state, or any city, county, town or village therein, or of the United States, or lend the same on the surety thereof, and may change and reinvest the same from time to time; and any surplus money over and above the capital stock may be invested or loaned upon the pledge of the like stocks or bonds of any one of the states, or on the stock, bonds or other evidences of indebtedness of any solvent dividend corporation, incoporated under the laws of this state or of the United States, except their own stock, provided the market value of such stocks, bonds or other evidences of debt shall be at all times during the continuance of such loans at least ten per cent. more than the sum loaned thereon.

Section 1904. Any insurance corporation may have a lien upon the stock or certificate of profits owned by any member, for any debt due or to become due the corporation for premiums, by providing therefor by the by laws, and by stating on the face of the certificate of stock or profits, that the same is subject to any such lien, and such lien may be waived in writing by the consent of the president of such corporation upon the transfer of any such stock.

Section 1905. Every corporation shall have the power to effect reinsurance of any risks taken by it, and to reinsure the risks taken by any other such corporation. But no stock fire insurance corporation shall expose itself to any loss on any fire or inland navigation risk or hazard to an amount exceeding ten per cent. of its paid up capital, exclusive of any guaranty, surplus, or special reserve fund.

Sectron 1906. The directors, trustees or managers of any fire insurance corporation shall not make any dividend, except from

the surplus profits arising from their business, and in estimating such profits there shall be reserved therefrom a sum equal to the whole amount of premiums on unexpired risks and policies, which are hereby declared to be unearned premiums, and also there shall be reserved all sums due the corporation on bonds and mortgages, stocks and book accounts, of which no part of the interest or principal thereon has been paid during the last year, and for which no suit or foreclosure has been commenced for collection, or which, after judgment thereon obtained, shall have remained more than two years unsatisfied, and on which interest shall not have been paid, and also there shall be reserved all interest due or accrued, and remaining unpaid; provided, however, that any corporation may declare dividends not exceeding ten per cent. on its capital stock in any one year that shall have accumulated and be in possession of a fund in addition to the amount of its capital stock and of such dividend and all actual outstanding liabilities equal to one half of all premiums on risks not terminated at the time of making such dividend. Any corporation making any dividend contrary to the foregoing provisions, shall be liable to a forfeiture of its charter, and each stockholder receiving it shall be liable to the creditors of such corporation to the extent of the dividen d received, as well as to the penalties in such cases made and provided. section shall not apply to the declaration of scrip dividends by participating companies; but no such scrip dividends shall be paid, except from surplus profits, after reserving all sums above provided, including the whole amount of premiums on unexpired risks. The word "year," wherever used in this section, shall mean the calendar year.

Section 1907. All notes deposited with any mutual insurance corporation at the time of its organization, according to section eighteen hundred and ninety-eight, shall remain as security for all losses and claims until the accumulation of profits invested as aforesaid shall equal the amount of cash capital required to be possessed by stock corporations organized under this chapter, the liability of each note decreasing proportionately as the profits are accumulated; but any note which may have been deposited subsequent to its organization, in addition to the cash premium on any insurance effected with such corporation may, at the expiration of

the time of such insurance, be relinquished to the maker thereof or his representative, upon his paying his proportion of all losses. and expenses which may have accrued thereon during the term. The directors or trustees of any such corporation may determine the amount of the note to be given, in addition to the cash premium, by any person insured; but in no case shall the note be more than twice the whole amount of the cash premium. And any person effecting insurance in a mutual corporation, and their heirs. executors, administrators or assigns, continuing to be insured, shall thereby become members of such corporation during the period of insurance, and bound to pay for all losses and necessary expenses as aforesaid, in proportion to the amount of their deposit notes, but not exceeding in all the amount of their respective notes. The directors or trustees shall, as often as they deem necessary, after receiving notice of any loss or damage by fire, sustained by any member, and ascertaining the same, or after the rendition of any judgment against the corporation, determine and assess the sums to be paid by the several members thereof, as their respective portions, and serve notice thereof, personally or by mail or by publication as prescribed in the by-laws, and payment shall be made thereof within thirty days after the service or publication of such notice; and if any member shall, after that period and after demand for payment shall have been made, neglect or refuse to pay the sum so assessed upon him, the directors may recover the whole amount of his deposit note or notes, with costs of suit, but execution shall issue only for assessments and costs as they accrue, and every such execution shall be accompanied by a certificate of the secretary of the assessment so made. If the whole amount of deposit notes shall be insufficient to pay the loss occasioned by any fires, the sufferers insured shall receive a proportional share of the whole amount of such notes, according to the sums by them respectively insured.

Section 1908. Every fire insurance corporation may increase its capital stock with the written consent of three-fourths in amount of its stockholders, unless otherwise provided in its charter, after notice given once a week for four weeks in some newspaper of the county where the corporation is located of such intention, by filing in the office of the commissioner of insurance a duly certified copy of a resolution of the directors or trustees to that effect, and proof

of such consent of the stockholders, and upon the same examinations and proceedings as prescribed in section nineteen hundred.

GUARANTY SURPLUS FUNDS AND SPECIAL RESERVE FUNDS.

SECTION 1909. Any fire insurance corporation now or hereafter organized may create the funds to be known as the guaranty surplus fund and the special reserve fund, by the adoption of a resolution of its board of directors at a regular meeting thereof, and by filing a copy thereof with the commissioner of insurance, declaring the desire and intention of such corporation to create such funds and do business under the provisions of this chapter therefor. Thereupon the commissioner shall make, or cause to be made, an examination of such corporation, and make a certificate of the result thereof, which shall particularly set forth the amount of its surplus funds at that time, which may, under the provision of the next section, be equally divided between, and set apart to constitute such funds, which certificate shall be recorded in the insurance department. After the date of the recording of such certificate, all policies and renewals issued by such corporation shall have printed thereon a notice that they are issued subject to the provisions of sections nineteen hundred and nine and nineteen hundred and thirteen, inclusive, of these statutes.

Section 1910. Thereafter no such corporation shall declare or pay in any form any dividend exceeding seven per cent. per annum upon its capital stock until after its guaranty surplus fund and its special reserve fund shall have together accumulated to an amount equal to its said capital stock; and the entire surplus profits of such corporation above such annual dividend, shall be equally divided between, and be set apart to constitute the said funds, which shall be held and used as hereinafter provided, and not otherwise; and any such corporation which shall declare or pay any dividend contrary to the provisions of this section, shall be liable to be proceeded against by the attorney general for its dissolution. In estimating such surplus profits for the purpose of making a division thereof between said funds, there shall be deducted from the gross assets of the corporation, including for this purpose the amount of the special reserve fund, the sum of the following items:

- 1. The amount of all outstanding claims;
- 2. An amount sufficient to meet its liability for the unearned

premiums received on policies having less than one year to run from date of policy, and a pro rata proportion of the premiums received on the policies having more than one year to run from date of policy, which shall be known as the reinsurance liability;

- 3. The amount of its guaranty surplus fund, and of its special reserve fund;
 - 4. The amount of the capital of the corporation;
- 5. Interest at the rate of seven per cent. per annum upon the amount of the capital for whatever time shall have elapsed since the last preceding cash dividend; and the balance shall constitute such divisible surplus.

Section 1911. The said guaranty surplus fund shall be invested in the same manner as capital on surplus accumulations may be, and shall be held liable and applicable in the same manner as the capital stock to the payment of the losses generally, and such special reserve fund shall be invested only as capital stock may be, and shall be deposited from time to time as the same shall accumulate and be invested with the state treasurer, who shall permit said corporation to collect and receive the interest or dividends upon such securities as the same may accrue, but no such securities so deposited shall be withdrawn unless others of equal amount and value are substituted therefor; and such special reserve fund shall be deemed a fund contributed by the stockholders to protect such corporation and its policy holders other than claimants, for losses already existing, or then incurred in case of such extraordinary conflagrations as are mentioned in the next section; and said fund shall not be regarded as any part of the assets of said corporaration so as to be liable for any claims for losses, except as hereinafter provided.

Section 1912. In the event of any extensive conflagration, whereby the claims upon any such corporation shall exceed the amount of the capital stock and of its guaranty surplus fund, the corporation shall notify the commissioner of insurance thereof, who shall then make, or cause to be made, an examination of the corporation, and shall issue his certificate of the result, in duplicate, showing the amounts of capital, of guaranty surplus fund, of special reserve fund, of re-insurance liability, and of other assets, one copy to be given to the corporation and one to be recorded in the insurance department; thereupon the said special reserve fund shall be

immediately held to protect all policyholders other than such as are claimants upon it at the time, or such as become claimants in consequence of such conflagration; and the amount of such special reserve fund and an amount equal to the unearned premiums of such corporation to be ascertained as provided in section nineteen hundred and ten, shall constitute the capital and assets of such corporation for the protection of policy holders other than such claimants. and for the further conduct of its business; and such certificate of the commissioner shall be binding and conclusive upon all parties interested, whether as stockholders, creditors or policy holders, and upon payment to the claimants for losses or otherwise, existing at the time of, or caused by such general conflagration, of the amount to which they are respectively entitled in proportion to their several claims, of the full sum of the capital of such corporation, its guaranty surplus fund, and its assets, excepting only such special reserve fund and an amount of its assets equal to its liability for unearned premiums as so certified, such corporation shall be forever discharged from any and all further liability to such claimants and to each of them; and the state treasurer shall, after issuing such certificate by the commissioner, upon the demand of such corporation, transfer to it all such securities as it shall have deposited with him as such special reserve fund; and if the amount of such special reserve fund be less than fifty per cent. of the full amount of the capital of the corporation, a requisition shall be issued by the commissioner of insurance upon the stockholders to make up such capital to that proportion of its full amount in the manner provided by law in the case of corporations with impaired capitals; and any capital so impaired shall be made up to at least the sum of two hundred thousand dollars, and in case such corporation, after such requisition, shall fail to make up its capital to at least said amount of two hundred thousand dollars, as therein directed, said special reserve fund shall still be held as security and liable for any and all losses occurring upon policies of such corporation after such conflagration.

Section 1913. If at any time after said special reserve fund shall have been set apart by any corporation, it shall appear upon examination by the commissioner of insurance that the capital of such corporation has, without the occurrence of any such extensive conflagration, become impaired, so that he shall order a call upon

the stockholders to make up such impairment, the board of directors may either require the necessary payment by the stockholders, or at their option apply for that purpose so much of said special reserve fund as will make such impairment good.

Section 1914. All fire or fire and inland navigation or transportation insurance corporations, organized under any law of this state, shall be subject to all the provisions of this chapter properly applicable thereto, except their capitals may continue of the amount and character provided by their respective charters, during the term authorized by such charters, and their investments may remain as prescribed by their charters, and they shall enjoy any peculiar privileges and powers given in their charters, not inconsistent with this chapter.

OF INSURANCE CORPORATIONS OF OTHER STATES AND COUNTRIES.

Section 1915. No fire or fire and inland navigation or transportation corporation, incorporated under the laws of any other state of the United States, or of any foreign governments, shall directly or indirectly take risks or transact any business of insurance in this state, except upon compliance with and maintenance of the following requirements:

- 1. It shall be possessed of, if a stock corporation, an actual paid up, in cash, capital of two hundred thousand dollars; but mutual corporations of other states may be admitted, in case the state where such corporations are located admit the mutual corporations of this state, by complying in all respects with the conditions and obligations imposed by such states on the mutual corporations of this state.
- 2. It shall first file a written instrument duly signed by the president and secretary thereof, with the corporate seal affixed, declaring that it desires to transact the business of insurance in this state, and that it will accept a license therefor according to the laws of this state, which shall cease and terminate in case such corporation shall remove or make application to remove into any court of the United States any action or proceeding commenced in any court of this state, upon a claim or cause of action arising out of any business or transaction done in this state, or in case it shall violate or fail to comply with any provision of law applicable to such corporation, or in case its capital shall be impaired to the extent of

twenty per cent., and shall not be made good within such time as the commissioner of insurance shall require; if the commissioner of insurance shall in either case declare its license revoked therefor, and it shall therein appoint an attorney to reside in this state, specifying his place of residence, on whom and where any summons, notice or process of any court of this state may be served, and stipulate that any service of any such summons, notice or process upon such attorney in any action brought upon any cause arising out of any business or transaction in this state during the term of such license, shall be accepted irrevocably as a valid service upon said corporation, unless some other attorney shall be subsequently appointed with like authority in his stead.

- 3. It shall file in the office of the commissioner of insurance a copy of its charter, duly certified by its secretary, together with a statement, verified by the oath of the president, vice president or other chief officer, and of the secretary, containing the name of the corporation, place where located, amount of its capital stock, and a detailed statement of its assets, showing the amount of cash on hand and in bank, the amount of real estate, and how much of the same is encumbered by mortgage or otherwise, the number of shares of stock of every kind owned by it, the par and market value of the same, the amount loaned, on bond and mortgage, the amount loaned on other securities, stating the amount and kind loaned on each, the estimated value of the whole amount of such securities, and all the other assets or property, and the value thereof; also showing the amount of its indebtedness, the amount of losses adjusted and unpaid, the amount incurred and in process of adjustment, the amount resisted as illegal or fraudulent, and all other claims existing against it; also a copy of the last report, if any, made under any law of the state by which it was incorporated.
 - 4. Every such corporation organized under the laws of any foreign government, shall, in addition to the foregoing, file in the office of the commissioner of insurance a statement, verified by the oath of the president, secretary or manager, residing in the United States, showing to the satisfaction of the commissioner of insurance that such corporation has invested in the stocks or bonds of the United States, of the states of New York or Wisconsin, such stocks or bonds to be in all cases equal to a stock producing six per centum per annum, or in bonds and mortgages on unincumbered real es-

tate worth fifty per cent. more than the amount loaned thereon, the sum of at least two hundred thousand dollars, and that such stocks or bonds are deposited with the superintendent of the insurance department, state treasurer or other proper state officer of some one of the states of the United States or are held by citizens of the United States, as trustees, and that such securities are not pledged or incumbered, but are held and remain for the benefit and security of the policy holders of such corporation residing in the United States; or in default of such statement, shall deposit with the state treasurer for the benefit and security of policy holders residing in the United States, a sum not less than fifty thousand dollars, on stocks of the United States or of the state of Wisconsin, in all cases to be equal to a stock producing six per cent. per annum, said stocks not to be received by said treasurer at a rate above their par value, or above their current market value, or in bonds and mortgages on improved unincumbered real estate in the state of Wisconsin, worth 50 per cent. more than the amount loaned thereon. The stocks and securities so deposited may be exchanged from time to time for other securities receivable as aforesaid; and so long as the corporation so depositing shall continue solvent and comply with the laws of this state, such corporation may be permitted by the state treasurer to collect the interest or dividends on said deposit, and where deposit is made of bonds or mortgages accompanied by full abstracts of titles, the fees for an examination of title by counsel, to be paid by the party making the deposit, shall not exceed twenty dollars for each mortgage, and the fees for an appraisal of property shall be five dollars to each appraiser, not exceeding two, besides expenses for each mortgage.

- 5. It shall renew from year to year, in such manner and form as may be required by the commissioner of insurance, the statements and evidences of investments and deposits above required, and shall make and file the annual statement and report required by the provisions of section nineteen hundred and twenty, so long as it shall transact business in this state.
- 6. It shall first procure from the treasurer a certificate for the deposit so made when required by the foregoing provisions; and from the commissioner of insurance a certificate of authority, stating that such corporation has complied with all the provisions of this chapter applicable to it.

7. It shall pay to the state treasurer the license fees required to be paid by section twelve hundred and nineteen, at the time and in the manner therein prescribed.

Section 1916. The commissioner of insurance shall, upon being satisfied that any such insurance corporation has fully complied with the requirements of the preceding section, and all other provisions of law applicable thereto, deliver to such corporation a license to transact business in this state, as prescribed in these statutes, and shall renew the same from year to year so long as such corporation shall desire to do business in this state, and its capital, securities and investments remain secure, and shall give to every agent of such corporation a certificate that such corporation has complied with all the provisions of law, and is authorized to transact business in this state, which shall continue in force unless sooner revoked, in case of fire, marine or inland navigation or transportation and mutual hail corporations, until the thirty-first day of January next after the date thereof, and in case of life or accident corporations, until the first day of March next after the date thereof, and shall be annually renewed.

REMOVAL OF CASES TO UNITED STATES COURT PROHIBITED.

Section 1917. No fire or fire and inland navigation insurance corporation shall transact any insurance business in this state without first having paid the license fees prescribed therefor by section twelve hundred and nineteen, and obtained a license therefor as provided in the preceding section, and if any such corporation shall remove or make application to remove into any court of the United States any action or proceeding commenced in any court of this state, upon a claim or cause of action arising out of any business or transaction done in this state, or if it shall violate or fail to comply with any provision of law applicable thereto, or in case its capital shall be impaired to the extent of twenty per cent., and shall not be made good within such time as the commissioner of insurance shall require, according to section nineteen hundred and sixty-eight, it shall be the imperative duty of the commissioner to revoke any and every authority, license or certificate granted to such corporation, or any agent thereof, to transact any business in this state, and no such corporation, or agent thereof, shall thereafter transact any business of insurance in this state, till again duly licensed; in case

such revocation shall be made because of the removal of any action to any court of the United States, no renewal, license or certificate of authority shall be granted to such corporation for three years after such revocation. Whenever any such license shall be revoked, the commissioner shall give notice of such revocation, by mail, to every agent of such corporation who shall have obtained any certificate of authority therefor, and shall also publish notice thereof in the official state paper.

Section 1918. Whenever any such foreign corporation shall elect to discontinue business in this state, and shall have risks unexpired on property insured therein, it shall, before withdrawing its bonds or other securities deposited with the treasurer, re-insure in some good and solvent corporation authorized to transact business in this state, all such unexpired risks to the satisfaction of the insured and the commissioner of insurance, and when so re-insured, the said commissioner shall certify the fact to the treasurer, who shall thereupon, and not otherwise surrender and deliver its bonds and other securities in his custody.

Section 1919. If the license of any such corporation not organized under any law of this state, shall be revoked, or if it shall cease to transact business in this state, the attorney last appointed, and the agents last designated as acting as such for it, shall continue attorney and agents for the purpose of serving process for commencing actions upon any policy or liability incurred or contracted in this state while it transacted business therein, so long as any such liability shall exist.

REPORTS.

Section 1920. The president, or vice president, and secretary of each fire, inland navigation or transportation insurance corporation, except town corporations, doing business in this state, shall annually, within the month of January, prepare and deposit in the office of the commissioner of insurance, a statement verified by their oaths, of the business of the corporation during the year, and of the condition thereof on the thirty-first day of December, then next preceding, exhibiting the following items:

First. The amount of the capital stock of the corporation.

Second. The property or assets of the corporation, specifying—

1. The value, as near as may be, of the real estate held by such corporation.

- 2. The amount of cash on hand in such corporation's office, and also the amount deposited in bank to the credit of such corporation, and specifying in what bank or banks the same is deposited.
- 3. The amount of loans secured by bonds or mortgages, constiing the first lien on real estate, on which there shall be less than one years' interest due or owing.
- 4. The amount of loans on which interest shall not have been paid within one year previous to such statement.
- 5. The amount due the corporation on which judgments have been obtained.

The amount of stocks of this state, of the United States, of any incorporated city of this state, and of any other stocks owned by the corporation, specifying the amount, number of shares, and the par and market value of each kind of stocks held.

- 7. The amount of stocks held thereby as collateral security for loans, with the amount loaned an each kind of stock, its par value and market value.
- 8. The amount of the assessments on stocks and premium notes, paid and unpaid.
 - 9. The amount of interest actually due and unpaid.
- 10. The amount of premium notes on hand, on which policies are in force.
- 11. The amount and manner of the investment of its guaranty surplus fund, if any.
- 12. The amount and manner of the investment of the special reserve fund, if any.

Third. The liabilities of such corporation, specifying:

- 1. The amount of losses due and unpaid.
- 2. The amount of claims for losses resisted by the corporation.
- 3, The amount of losses incurred during the year, including those claimed and not yet due, and those reported to the corporation upon which no action has been taken.
 - 4. The amount of dividends declared due and unpaid.
- 5. The amount of dividends, either cash or scrip, declared but not yet due.
- 6. The amount of money borrowed and security given for the payment thereof.
 - 7. The amount required to reinsure all outstanding risks.
 - 8. The amount of all other existing claims against the corporation.

Fourth. The income of the corporation during the preceding year, specifying:

- 1. The amount of interest money received.
- 2. The amount of cash premiums received.
- 3. The amount of notes received for premiums.
- 4. The amount of income received from other sources.
- 5. The amount received in cash premiums for insuring property in this state.
- 6. The amount received in premium notes, in cash notes, and the amount received from other sources in this state.

Fifth. The expenditures during the preceding year, specifying:

- 1. The amount of losses paid during the year, stating how much accrued prior, and how much subsequent to the date of the preceding statement.
 - 2. The amount of dividends paid during the year.
- 3. The amount of expenses during the year, stating the amount paid officers' salary and fees; the amount paid agents, commission and fees, and the amount paid for office expenses and reut, the amount paid for taxes, and the amount of all other payments and expenditures.
- 4. The amount paid in this sate for salaries, commissions to agents, and for losses.

Sixth. Any other items or facts which the commissioner of insurance may require.

The statement of every such corporation whose capital is composed in whole or in part of notes, shall show the amount of notes originally forming such capital, and what portion of them is still held by such corporation and considered capital.

The statement of any such foreign corporation shall set forth its business and affairs in the United States, duly verified by its resident manager in the United States. For any failure to make and deposit such annual statement, or to promptly reply in writing to any inquiry addressed by the commissioner of insurance in relation to the business of any such corporation, or for willfully making any false statement therein, every such corporation or officer so failing or making such false statement, shall forfeit five hundred dollars, and for neglecting to file such annual statement, an additional five hundred dollars for every month that such corporation shall continue thereafter to transact any insurance business in this state until such statement, he filed.

Section 1921. All receivers and trustees of any such insurance corporation shall, in the month of January in each year, and at any other time when required by the commissioner of insurance, make and file annual and other statements of their assets and liabilities, and of their income and expenditures, in the same manner and form as the officers of such corporations are required by law to do, and under the same penalties for a failure or neglect so to do.

BOARDS OF FIRE UNDERWRITERS AND FIRE PATROL.

Section 1922. Any three or more agents or underwriters, lawfully doing the business of fire insurance in any state of this state, may be incorporated as a board of underwriters in such city, under the provisions of chapter eighty-six, for the usual purposes for which such boards are established.

Section 1923. Any incorporated board of fire underwriters may establish a fire patrol in any city wherein it is located, and for that purpose may appoint and remove at pleasure a superintendent and such number of patrols as they shall deem proper, and provide suitable accommodations and apparatus for each patrol, and from time to time make all needful rules and regulations for the government and direction thereof; the duty of each patrol shall be to discover and prevent fires, and to save and preserve life and property at and after fires, and for that purpose full power is given to such superintendent and patrol to enter any building on fire or which may be exposed to or be in danger of taking fire from other burning buildings, subject to the control of the chief of the fire department of the city, and to remove such property, or any part thereof, at or immediately after a fire, and to guard and protect the same.

Section 1924. For the purpose of establishing and defraying the necessary expenses of such fire patrol, there shall be a meeting of the said board of fire underwriters in the month of March in each year; prior notice of such meeting, specifying the time and place at which it will be held, shall be inserted for at least ten days in one daily newspaper published in the city where such board is located; at such meeting each insurance corporation, agent or person doing a fire insurance business in such city, shall have the right to be present, and each corporation represented shall be entitled to one vote. Such meeting may determine whether such fire pa-

trol shall be established, or continued, if established, and fix the maximum amount of expenses which shall be incurred therefor during the ensuing year; but such maximum amount shall not in any one year exceed two per centum of the aggregate amount of premiums for fire insurance received in such city during such year.

SECTION 1925. On the first days of April and October in each year, each insurance corporation, underwriter or agent doing any fire insurance business in such city, shall furnish to said board a statement, verified by affidavit, of the aggregate amount of premiums received for insuring property in such city during the six months next preceding the said first days of April and October. Upon the statements so furnished, said board shall assess one-half the amount fixed as aforesaid, for the expenses of said fire patrol for the current year, upon the several corporations, underwriters or agents, in proportion to the amount of the premiums returned as received by each, and such assessments may be recovered by action in the name of such board. If any such statements shall not be made as above required, said board shall cause a demand, in writing, to be served on the corporation, underwriter or agent so failing to make such sworn statement. Such demand shall be served by leaving the same during business hours at its or his office, with the person in charge thereof, and every such corporation, underwriter or agent who shall willfully make false statement, or who shall, for fifteen days after such demand neglect to render such statement, shall forfeit fifty dollars for each day's neglect after the expiration of said fifteen days, one-half to the use of said board when it shall prosecute therefor.

Section 1926. There shall be paid on the first day of February in each year to the treasurer of any fire department of any city or village, whether such village be incorporated or organized under any law of this state or not, having one regularly organized, by every underwriter who shall effect any fire insurance, and by every person who shall act as agent for any fire insurance corporation or underwriter whatever, in such city or village, a duty of two per centum upon the amount of all premiums which, during the year or a part of a year ending on the next preceding first day of January, shall have been received by such underwriter or agent. or by any other person for him, or shall have been agreed to be paid for any

insurance effected, or agreed to be effected, or promised by him as such agent, or otherwise, against loss or injury by fire in any such city or village. No person shall, in any such city or village, as underwriter, agent, or otherwise, effect, or agree to effect, or procure to be effected, any insurance upon which the above duty is required to be paid, until he shall have executed and delivered to such treasurer a bond in the sum of one thousand dollars, with such sureties as such treasurer shall approve, conditioned that he will annually render to such treasurer, on the first day of February in each year, a just and true account, verified by his affidavit, of all premiums which, during the year ending on the first day of January preceding such report shall have been received by him or any other person for him, or agreed to be paid for any insurance against loss or injury by fire in any such city or village, which shall have been effected or agreed to be effected by him, and that he will annally, on the first day of February in each year, pay to the said treasurer two per centum upon the full amount of such premiums. Every person who shall effect, or agree to effect, any fire insurance in any such city or village, without having executed and delivered such bond, or who shall willfully omit to pay such duty, shall, for each offense, forfeit one hundred dollars, one-half to the use of such fire department. In case the fire department of any such city or village shall have no such officer as treasurer, the foregoing provisions shall apply to the treasurer of such city, or village, or town which such village may be located, having no treasurer, and the treasurer of such city, village or town shall pay over all moneys received or recovered by him under this section to the fire department of such city, village or town shall pay over all moneys received or recovered by him under this section to the fire department of such city or village. No fire department shall be entitled to such duty unless it shall consist of at least one fire engine company, with not less than thirty active members, having at least one good fire engine, and not less than five hundred feet of sound rubber or leather hose, kept in an engine house, fit and ready at all times for actual service, and at least one hook and ladder company, with not less than fifteen active members, having a good hook and ladder truck, and such companies shall hold meetings at least once a month.

TOWN INSURANCE COMPANIES.

Section 1927. Any number of persons, not less than twenty-five, residing in the same town or adjoining towns, not exceeding fifteen in number, who collectively shall own property of not less than twenty-five thousand dollars in value, which they desire to have insured, may form themselves into a corporation for mutual insurance against loss or damage by fire or lightning, by complying with the following conditions, namely:

They shall sign articles of organization which shall be substantially in the following form:

The undersigned, residents of the towns below named, and owners of more than twenty-five thousand dollars worth of property, which we desire to insure, do hereby associate for the purpose of forming a mutual fire insurance corporation, to do such insurance in the towns of (here insert the name of each town in which such corporation proposes to do business, and the names of the counties in which they are situated) under the provisions of sections nineteen hundred and twenty-seven to nineteen hundred and forty-one, inclusive, of the revised statutes of this state. The name of such corporation shall be: The —— (give the name at length). The officers shall be a board of directors of --- (insert the number, not less than five nor more than nine), a president and secretary, and such others as may be provided for in the by-laws of such corporation, and the office of such corporation shall be in the town of -, in the county of -. The following named persons shall constitute the first board of directors, and shall hold their respective offices for one year, and until their successors are elected (here insert the names.).

In witness whereof we have hereunto subscribed our names, this —— day of ——, A. D. 18—.

Such articles of organization shall be subscribed by at least twenty-five persons, residents of the towns therein named, and who are owners of at least twenty-five thousand dollars worth of property which shall be insured by such corporation. And when so signed shall be filed and recorded in the office of the town clerk of the town in which the office of such corporation is to be or is situated, and a copy of the by-laws of such corporation shall at the same time be filed in said office, with the names of the officers of said corporation; and thereupon the persons subscribing said arti-

cles, and such as shall afterwards become insured thereby, shall be a corporation by the name mentioned in said articles, with the usual powers and subject to the usual duties and liabilities of a corporation for the purposes hereinafter mentioned. The name of every such corporation shall embrace the name of the town in which the office of the corporation is located, but in case any of the towns embraced in such corporation shall adjoin a city or village, the office thereof may be located in such city or village; and in such case the name shall embrace the name of one or more of such adjoining towns.

Section 1928. The directors, subsequent to the first board shall be chosen by ballot, at the annual meeting of the corporation, which shall be held on the first Tuesday after the first Monday of January of each year, unless some other day be fixed for such annual meeting by a majority of the voters of such corporation, and every person insured by such corporation shall have one vote for each two hundred dollars for which he is insured, at such election, and in the transaction of any other business of the corporation, but no person shall vote by proxy except women.

Section 1929. The directors shall hold their offices for one year, and until their successors are elected; they shall choose one of their number president, and one secretary, and from the members of the corporation a treasurer, keep a record of their proceedings in a book kept for that purpose, together with the names and places of residence of all persons insured, and the amount for which each is insured, which shall be kept open for the inspection of all the members of such corporation from the hour of nine o'clock A. M. to four o'clock P. M. of each day, Sundays and legal holidays excepted.

Section 1930. The treasurer before entering upon the duties of his office shall execute to such corporation and file with the secretary, a bond conditioned for the faithful discharge of the duties of his office, with two or more sureties, in such sum, not less than five thousand dollars, as the directors may order, such bond and sureties to be approved by the president and a majority of the directors.

Section 1931. No such corporation shall insure any property out of the town or towns in which said corporation is located; provided, that any such corporation at its annual meeting may, by a majority vote of the members present, authorize its directors to insure any farm property or detached dwelling houses and contents in any adjoining town or towns, or in any incorporated city or village, which is located in any adjoining town in which such town insurance corporation is located: provided, such farm property or dwelling and contents shall be detached at least two hundred feet from exposure. No such corporation shall insure any property other than detached dwellings and their contents, farm buildings and their contents, live stock on the premises or running at large, farm products in the stack or bin, and farming implements; but such corporation, at its annual meeting, may, by a majority of all the votes by law entitled to be cast by its members, authorize its directors to insure country stores and their contents, school houses, churches, town and society halls, but such risks shall not exceed fifteen hundred dollars in any one case.

Section 1932. The board of directors may issue policies of insurance, signed by the president and secretary, agreeing in the name of the corporation to pay to the insured, all loss or damage, of and to the property mentioned and described therein, which may be occasioned by fire or lightning, for a term not exceeding five-years, and not exceeding the sum named in such policy, and the said board of directors or the corporation may classify the property insured at the time of issuing policies thereon under different rates, corresponding as near as may be, to the greater or less risks from fire and loss, which may attach to the several buildings or personal property insured.

Section 1933. Every person to whom any such policy is issued, shall be deemed a member of such corporation, and shall give his undertaking, bearing even date with the policy so issued to him, binding himself, his heirs and assigns, to pay his pro rata share to the corporation of all losses or damages by fire or lightning, which may be sustained by any number thereof, and every such undertaking shall, within ten days after its acceptance, be filed in the office of the secretary, and shall remain on file in such office, except when required to be produced in court as evidence. He shall also, at the time of effecting such insurance, pay such percentage in cash, and such reasonable sums for a policy as may be required by the rules or by-laws.

Section 1934. Every member of such corporation who may

sustain loss or damage by fire or lightning, shall immediately notify the president of such corporation or, in his absence, the secretary thereof, who shall forthwith convene the directors of said corporation, whose duty it shall be, when so convened to appoint a committee of not less than three nor more than five members of such corporation, except in case the loss is supposed to be less than three hundred dollars, then the president and secretary to appoint such committee to ascertain the amount of such loss or damage: and in case of the inability of the parties to agree upon the amount of such loss or damage, the claimant may appoint one disinterested person on his part, and upon receiving notice from such claimant of such appointment, and the name of the person so appointed, the president of the corporation shall forthwith appoint a member of such corporation, and the two persons so appointed shall forthwith proceed to appoint a third person, who shall be disinterested, and the three persons so appointed shall constitute a committee of reference, who shall have full authority to examine witnesses and to determine all matters in dispute, who shall make their award in writing to the president or, in his absence, to the secretary of such corporation, which award thereon shall be final. The said committee of reference shall each be allowed the sum of two dollars per day for each day's service so rendered, and the sum of five cents per mile necessarily traveled in the discharge of such duties, which shall be paid by the claimant, unless the award of said committees shall exceed the sum offered by the corporation in liquidation of such loss or damage, in which case said expense shall be paid by such corporation.

Section 1935. Whenever the amount of any loss so ascertained shall exceed the amount of the cash funds of the corporation, the president shall convene the board of directors, who shall make an assessment upon all property insured by such corporation, in proportion to the amount thereof, and the rate under which it may have been classified, sufficient at least to pay such loss, and when such assessment shall have been completed, the secretary shall immediately notify every member of such corporation, by letter sent to his usual postoffice address, of the amount of such loss, and the sum due from him as his share thereof, and the time when, and to whom payment thereof is to be made, which time shall be not less than sixty days nor more than ninety days from the date of such

notice; and the treasurer, or person designated to receive such money, may demand and receive two per cent. in addition to the amount of each such assessment, for his fees in receiving and paying over the same. Such assessment, when collected, shall be paid to the person entitled thereto according to the terms of the policy issued to him; provided, that if any loss shall occur during the first eight months of any year, the board of directors at the time of making the assessment therefor may borrow money sufficient to pay such loss, at a rate of interest not exceeding eight per cent., and shall therein include the interest in the assessment, and direct payment of such assessment to be made not later than the thirty-first day of December next following.

Section 1936. An action at law may be brought against any member of such corporation who shall refuse or neglect to pay any such assessment made upon his insured property. The directors of any such corporation who shall willfully neglect or refuse for thirty days to perform the duties imposed upon them, either in this or the next preceding section, shall be jointly and severally liable, in their individual capacity, to the person sustaining such loss.

Section 1937. Any member of such corporation may withdraw therefrom at any time by giving notice in writing to the president, or, in his absence, to the secretary thereof, and paying his share of all claims then existing against said corporation; and the directors, or a majority thereof, shall have power to annul any policy, by giving notice in writing to that effect, to the holder thereof.

Section 1938. The secretary of every such corporation shall annually prepare a statement, showing its condition on the day preceding its annual meeting, which shall contain the names of all persons then insured, the amount insured by each policy, the whole number of policies issued, the whole number then in force, the aggregate amount then insured, and the aggregate amount of each class of insured property, the amount of losses paid during the year, the whole amount of losses paid by the corporation since its organization, the whole amount insured since its organization, the amount of losses sustained and unpaid, if any, and all such other matters pertaining to the interest of such corporation, as by the by-laws, he may be required to report upon. Such statement shall be read to the members of such corporation at their annual meeting, and entered at length upon its records; and within fifteen days after such

annual meeting, shall be filed in the office of the town clerk of the town in which such corporation has its office, and a certified copy thereof transmitted to the commissioner of insurance.

SECTION 1939. A non-resident of any town owning property therein may become a member of any such corporation authorized to insure property in such town, and shall be entitled to all the rights and privileges of such member, except that he shall not be a director.

Section 1940. Any such corporation and any town insurance corporation heretofore organized, and now existing under any law of this state, relating to town insurance corporations, may attach any adjoining town or towns as a part of its territory, and in which it may thereafter do business, provided the town or towns so attached, together with those already within its jurisdiction, shall not exceed fifteen towns. No town or towns shall be so attached except by a resolution adopted by a vote of two-thirds of all the shares of stock present and voting thereon at some annual meeting thereof, and by filing a copy of such resolution, duly certified by its secretary, in the office of the town clerk of the town in which its office is located.

Section 1941. All town insurance corporations heretofore organized under any law shall be deemed to be organized under and governed by the provisions of this chapter; and such existing corporations shall, without reorganization, be authorized to insure in such town or towns, as they may have heretofore effected insurance in, not exceeding in all fifteen adjoining towns; but each such corporation desiring to extend its territory beyond the town or towns in which it was originally organized, shall, within six months after the adoption of these statutes, file in the office of the town clerk of the town in which its office is located, a declaration, signed by its president and secretary, and duly acknowledged by them, naming the town or towns in which it has heretofore transacted the business of insurance, and declaring its intention to continue its business in such towns thereafter.

OF MILLERS' AND MANUFACTURERS' MUTUAL INSURANCE CORPORA-TIONS.

Section 1941 α . Any number of persons, not less than nine, being actual residents of this state, and engaged in the business of

milling or manufacturing therein, and owning in the aggregate property within this state, of the value of not less than one hundred thousand dollars, may, in the manner prescribed in section one thousand eight hundred and ninety-seven, and hereinafter prescribed, form a corporation for the purpose of insuring, upon the plan of mutual insurance, mills and manufactories against loss or damage by fire or lightning. The first nine persons signing the articles of organization shall be the directors of the corporation until the first annual meeting. The articles of association having been filed with the commissioner, with proof of publication of notice, and proof that policies in the requisite number and amount have been applied for, shall be examined by the attorney general, and if found in conformity with law, the commissioner shall issue his certificate that said corporation is duly organized and is entitled to do business under the laws of this state.

Section 1941 b. Every such corporation, in addition to the powers granted by chapter eighty-five, shall have power:

- 1. To make contracts of insurance in this state and elsewhere with any person against loss and damage by either fire or lightning, of mills and manufactories, and the property contained in or about them, for such premiums or consideration, and under such regulations or restrictions, as such corporation in its by-laws may provide.
- 2. To purchase, receive, hold, possess and convey all such real estate and personal property as shall be necessary for its accommodation and the convenient transaction of its business, or in the cases when a general fire insurance corporation may take and hold the same.
- 3. To prescribe the manner and form for the admission of members and the withdrawal of the same.
- 4. To make all necessary rules and regulations concerning insurance on property, and the appraisement and payment of losses, and alter and amend the same at pleasure, subject to the restrictions hereinafter prescribed.
- 5. To fix the compensation of its officers, and their duties and obligations, and to require bonds for the faithful performance of their duties.
- 6. To exercise such other powers as shall be necessary to effect the objects of such corporation.

Section 1941 c. Such corporation, when duly organized, and

on receiving the certificate of the commissioner, may issue policies on mills, manufactories and the property contained in and about such mills and manufactories for any time not exceeding five years. and not to extend beyond the time such corporation is to continue, and for an amount not to exceed ten thousand dollars on any one Any such corporation may classify the property insured therein at the time of issuing policies thereon, under different rates, corresponding as nearly as may be to the greater or less risk from fire and loss which may attach to each of the several buildings insured. All persons so insured shall give their obligations to the company, binding themselves, their heirs and assigns to pay their pro rata to the corporation of the necessary expenses and losses by fire which may be sustained by any member thereof during the time for which their respective policies are written, and they shall also, at the time of effecting the insurance, pay such percentage in cash, and such other charges as may be required by the by-laws of the corporation; but no policy shall be issued until at least twentyfive applications for insurance, of at least one thousand dollars each, have been obtained; and, if at any time after such corporation shall have been organized and begun business, the number of policies in force shall become less than twenty-five, of one thousand dollars or more each, the secretary shall at once notify the commissioner of insurance, and said corporation shall wind up its affairs in the manner provided by law. Such corporation may be proceeded against and dissolved as provided by law in case of other insurance corporations organized in this state.

Section 1941 d. The president or vice president and secretary of each such corporation, shall annually within the month of January prepare and deposit in the office of the commissioner of insurance, a statement, verified by their oaths, of the business of the corporation during the year, and of its condition on the thirty-first day of December then next preceding, in such form and containing such items or facts in regard to its business or condition as the commissioner may require.

Section 1941 e. Every member of such corporation who may sustain loss by fire, shall immediately notifiy the secretary, who shall proceed at once to determine the amount of loss or damage, and, if possible, make settlement. If the party sustaining loss shall not acquiesce in the decision, the claim shall be submitted to

referees, mutually agreed upon, whose award shall be final. If the amount awarded by the referees shall be greater than the amount awarded by the corporation, the corporation shall bear the expense of the reference, if less, the party procuring the reference shall bear the expense. Whenever the amount of any loss has been ascertained, which requires an assessment to be made, then the president and the officers of the corporation shall make an assessment, sufficient to pay such loss, upon all the property insured, according to the amount for which each several piece of property is insured, taken in consideration with the rate of premiums under which it may have been classified. The secretary, when any such assessment shall have been completed, shall immediately notify every person composing such corporation, by letter sent to his usual post office address, of the fact of a loss, the amount thereof, and the sum due from him as his share thereof, and of the time when and to whom such payment is to be made, but such time of payment shall not be less than thirty nor more than sixty days from the date of such notice. If the assured neglect payment of any assessment within sixty days from date of notice, then his policy shall be null and void until such assessment is paid, and also the assessments which may be levied during the suspension of the policy on account of the nonpayment of a previous assessment. Actions may be brought against any member of such corporation who shall refuse or neglect to pay an assessment made upon him by the provisions hereof; and the directors of any corporation who shall willfully neglect or refuse to perform the duties imposed upon them by the provisions hereof, shall be liable individually to the persons sustaining such loss.

Section 1941 f. Any member of any such corporation may withdraw therefrom by giving notice in writing to the secretary thereof, and paying all dues, and his ratable share of all loss or damage by fire or lightning suffered by the corporation up to the date of his withdrawal. The officers shall have power to annul any policy by giving notice in writing to that effect to the holder thereof, and paying any sums which may be due from the association to such member.

MISCELLANEOUS PROVISIONS RELATING TO FIRE INSURANCE.

Section 1942. Every insurance corporation, if doing business on

the mutual plan, shall contain in its name, which shall be upon the first page in every policy or renewal receipt the word "mutual," and if doing business as a cash stock corporation, it shall, upon the face of its policies, express that it is a stock policy.

Section 1943. Whenever any policy of insurance shall be written to insure any real property, and the property insured shall be wholly destroyed, without criminal fault on the part of the insured or his assigns, the amount of the insurance written in such policy shall be taken conclusively to be the true value of the property when insured, and the true amount of loss and measure of damages when destroyed.

Section 1944. Every promissory note or obligation, except ordinary notes received in payment of premiums for policies issued on the cash basis, taken by any fire insurance corporation doing business in this state, or by any agent thereof, for which the consideration in whole or in part shall be the issuing of a policy of insurance, shall have written in the body thereof the words "given in payment for a policy of insurance, and if transferred either before or after maturity, shall remain subject to all defenses." Such notes or obligations shall be subject to all defenses the maker thereof may or could have against the original promisee in whosesoever hands the same may be; and if any such corporation or agent thereof shall take any such note or obligation not so written, such corporation shall forfeit its license to do business in this state.

Section 1945. Every note or obligation given in payment of any premium for any policy of insurance issued by any fire insurance corporation shall, if before the expiration of such policy such corporation shall become insolvent or bankrupt, become utterly void, in whosesoever hands the same may be, so far as the premiums for which the same was given was unearned at the time of such insolvency or bankruptcy.

Section 1945 a. All fire insurance corporations, except town insurance corporations, shall, upon the issue or renewal of any policy, attach to such policy, or indorse thereon, a true copy of any application or representations of the assured which, by the terms of such policy, are made a part thereof, or of the contract of insurance, or referred to therein, or which may in any manner affect the validity of such policy. The omission so to do shall not render the policy invalid, but if any corporation neglects to comply with the

requirements of this section, it shall forever be precluded from pleading, alleging or proving such application or representations, or any part thereof, or the falsity thereof, or any part thereof, in any action upon such policy; and the plaintiff in any such action shall not be required, in order to recover against such corporation, either to plead or prove such application or representations, but may do so at his option.

Section 1946. Every person who shall, in the city of Milwaukee, as agent or otherwise for any fire insurance corporation, effect or agree to effect any insurance, shall on or before the tenth day of February in each year, and whenever he shall change his place of doing business in said city, report in writing to the treasurer of the fire department of such city the street and number of his place of doing business, specifying for what corporation he acts as agent; and for every default in any of these patriculars such person shall forfeit one hundred dollars.

PENALTIES FOR MAKING DECEPTIVE REPRESENTATIONS AS TO CAPITAL, ETC.

Section 1946 α . It shall not be lawful for any company, corporation, association, individual or individuals now transacting or now or hereafter authorized, under any existing or future laws of this state, to transact the business of fire insurance within this state, to state or represent, either by advertisement in any newspaper, magazine or periodical, or by any sign, circular, card, policy of insurance or certificate of renewal thereof, or otherwise, any funds as assets to be in possession of any such company, corporation, association, individual or individuals, and not actually possessed by such company, corporation, association, individual or individuals, and available for the payment of losses by fire, and held for the protection of the holders of policies of fire insurance; and such statement shall also show the amount available and held in the United States.

Section 1946 b. Every advertisement or public announcement, and every sign, circular or card hereafter made or issued by any company, corporation, association, individual or individuals, or any officer, agent, manager of legal representative thereof, now or hereafter authorized by any existing or future laws of this state to transact the business of fire insurance within this state, which shall

purport to make known the financial standing of any such company, corporation, association. individual or individuals, shall exhibit the capital actually paid in in cash and the amount of net surplus of assets over all liabilities of such company, corporation, association, individual or individuals actually available for the payment of losses by fire, and held for the protection of holders of their policies of fire insurance, including in such liabilities capital actually paid in and the fund reserved for reinsurance of outstanding risks, and shall correspond with the verified statement made by the company, corporation, association, individual or individuals making or issuing the same to the insurance department of this state next preceding the making or issuing of the same; but in policies or renewals thereof there may be stated a single item showing the amount of authorized capital.

Section 1946 c. It shall be unlawful for any company, association or corporation transacting the business of fire insurance in this state to publish any statement, by newspaper advertisement, card or otherwise, which shall represent said company as transacting a different business than it in reality is, in regard to the nature and class of risks written by said company.

Section 1946 d. Any company, association or corporation transacting the business of fire insurance in this state shall cancel any policy of insurance at any time, by request of the party insured or his assignee, and shall return to said party the amount of premium paid, less the customary short rate premium for the expired time of the full term the said policy has been issued.

Section 1946 e. Any violation of any provision of the four preceding sections shall, for the first offense, subject the company, corporation, association or individual so violating, to a penalty of five hundred dollars, to be sued for and recovered in the name of the state, with costs and expenses of such prosecution, by the district attorney of any county in which the company, corporation, association, individual or individuals shall be located or may transact business, or in any county where [such foffense may be committed, and such penalty, when recovered, shall be paid into the treasury of such county for the benefit of the school fund. Every subsequent violation shall subject the company, corporation, association, individual or individuals guilty of such violation to a penalty of not less than one thousand dollars, which shall be sued for, recovered and disposed of in like manner as for the first offense.

LIFE AND ACCIDENT INSURANCE CORPORATIONS.

Section 1947. No life or accident insurance corporation whatever shall do any business in this state, nor shall any person act as agent or otherwise within this state, in receiving or procuring applications for life or accident insurance, or in any manner aid in transacting such business for any such corporation, unless it shall have a guaranty capital paid in, in money, of at least one hundred thousand dollars, and invested as hereinafter provided, or actual assets to the like amount invested in stocks or bonds of the United States or of this state, estimated at their market value, or in such other stocks or securities as may be approved by the commissioner of insurance, or in mortgages, being first liens upon real estate, worth at least twice the amount of money loaned thereon, with abstract showing a good and sufficient title, and the affidavit of two respectable freeholders to the value of such property; nor until it shall have first procured a license from the commissioner of insurance, authorizing it to issue policies of insurance in this state, and have paid therefor the license fee required to be paid by section one thousand two hundred and twenty.

Section 1948. Whenever any such corporation shall apply for a license to transact business in this state, the commissioner of insurance, or some person authorized by him, shall examine its capital and assets, and when satisfied that it has complied with the requirements of the preceding section, and all other requirements of law, he shall issue his license, and not otherwise.

Section 1949. Whenever the actual funds of any life or accident insurance corporation doing business in this state are not of a net value equal to the net value of its policies, according to the "American Experience Table of Mortality," with interest at four and a half per cent. per annum, the commissioner of insurance shall give notice to such corporation and its agents to discontinue issuing new policies within this state, until such time as its funds have become equal to its liabilities, valuing its policies as aforesaid. Any officer or agent who, after such notice has been given, issues or delivers a new policy for and on behalf of such corporation before its funds shall have been examined by the commissioner of insurance, and a new certificate of authority issued, shall forfeit for each offense, not less than one hundred nor more than one thousand dollars.

Section 1950. If the policies of any such life or accident insurance corporation shall not be valued by the insurance department or proper officers of either the state under whose laws it is organized, or of New York or Massachusetts, and a certified copy thereof filed in his office, the commissioner of insurance shall calculate the existing value of all its outstanding policies, and the corporation shall pay annually to the commissioner of insurance, by way of compensation, one cent on every thousand dollars for the valuation of its policies issued on lives.

Section 1951.—Every such corporation organized under the laws of this state may invest its funds and accumulations in stock or bonds of the United States, or of this state, or of any incorporated city or town in this state, or in mortgages, being first liens on real estate, worth at least twice the money loaned thereon, and it may also loan to its policy holders sums not exceeding one-half the annual premiums on their policies, upon notes to be secured by the policy of the persons to whom the loans may be made, and when such corporation shall transact business in any other state, it may invest its surplus funds, in such state, on like security and under the same restrictions as in this state. No life insurance corporation organized under the laws of this state shall issue policies, insuring fire, marine, accident or live stock risks, nor do any banking business.

Section 1952. Every life or accident insurance corporation doing business in this state which does business upon the principal of mutual insurance, or the members of which are entitled to share in the surplus funds thereof, may make distribution of such surplus as they may have accumulated, annually, or once in two, three, four or five years, as the directors thereof may from time to time determine. In determining the amount of the surplus to be distributed, there shall be reserved an amount not less than the aggregate net value of all the outstanding policies; said value to be computed by the "American experience table of mortality," with interest not exceeding four and one-half per cent.

Section 1953. Every life or accident insurance corporation not organized under the laws of this state shall, before doing business therein, deposit with the commissioner of insurance a copy of its charter, and a statement, signed and verified by the affidavit of the president or vice president, and of the secretary, in the form here-

inafter prescribed for its annual statement; and also a written instrument duly signed by the president and secretary thereof, with the corporate seal affixed, and therein appoint an attorney to reside in this state, specifying his place of residence, upon whom and where any summons, notice or process of any court of this state may be served, and stipulate that any service of any such summons notice or process upon any such attorney in any action brought upon any cause of action arising out of any business or transaction in this state shall be accepted irrevocably as a valid service upon such corporation; unless another attorney shall be subsequently appointed with like authority in his stead, such authority shall be continued unrevoked while any liability remains outstanding against the corporation in this state, and such an appointment shall not be revoked until another be made, and a like letter of attorney deposited.

REPORTS.

Section 1954. Every life or accident insurance corporation doing business in this state shall, on or before the first day of March in each year, file in the office of the commissioner of insurance a statement of its business, standing and affairs, signed and verified by the affidavits of the president or vice president, and of the secretary (but in case of a foreign corporation, it may be signed and verified by the resident managing officer thereof in the United States), and covering the year ending on the preceding thirty-first day of December, and exhibiting the following facts and items:

- 1. Name of corporation.
- 2. When chartered.
- 3 For what period.
- 4. Where located.
- 5. State in full the assets of the corporation.
- 6. Number of shares owned in any bank; state par value, cost and market value per share.
- 7. Number of shares owned in any railroad; stating the corporate name of each, and money invested in each at cost, on its books; state the par value and market value of each share.
- 8. Amount owned in railroad bonds; state par value, cost and market value per share.
- 9. Amount invested in real estate at cost, on the books of the corporation.

- 10. Amount loaned on mortgages of real estate, and estimated value of said real estate.
- 11. Anount loaned on notes secured by collaterals of personal property.
 - 12. Amount loaned on notes without collaterals.
 - 13. State in full all other investments.
- 14. How much, included in the foregoing statement of assets, consists of premium notes on policies not returned as now in force.
- 15. Number, date, kind and amount of each outstanding policy and age of the insured, excepting in case of corporations whose policies have been valued by the proper officers in some other state, which valuation shall be shown by certificate from the insurance department of such state.
- 16. Number and amount of each class or kind of policies which have, within the year, ceased to be in force; how terminated; what has been paid to the legal holders of the policies.
 - 17. Amount of losses ascertained and unpaid.
- 18. Amount of losses claimed against the corporation, whether acknowledged as due or not by the corporation.
- 19. Amount due from the corporation on its declared, promised or acknowledged indebtedness or other claims, including dividends, bonuses or distribution of surplus, or as profits.
 - 20. Amount received for premiums the past year.
 - 21. Amount received for premiums in cash.
- 22. Amount received for premiums in promissory notes or securities.
 - 23. Amount received for interest the past year.
 - 24. Amount paid for interest the past year.
- 25. Amount of guaranty funds; and state particularly whether the same are in cash or subscription notes.
- 26. How are dividends, distribution of surplus funds, bonuses or estimated profits paid? Whether in cash, scrip or otherwise, on credit, and whether on demand; or if on credit, for what length of time, and whether payable at a specific time or indefinitely, at the discretion of the corporation.
- 27. Amount paid for expenses, taxes and commissions the past year, classified.
- 28. Amount of dividends paid, specifying the amount paid to stock holders and the amount paid to policy holders.

For any failure to make and deposit such annual statement, or to promptly reply in writing to any inquiry addressed by the commissioner of insurance in relation to the business of such corporation, or for willfully making any false statement therein, every such corporation, or officer, so failing, or making such false statement shall forfeit five hundred dollars, and for every neglect to file such statement an additional five hundred dollars for every month that such corporation shall continue thereafter to transact any insurance business in this state, until such statement be filed.

Section 1955. If any such corporation shall violate or fail to comply with any provision of law applicable thereto, or in case its capital shall be imparied and shall not be made good within such time as the commissioner of iusurance shall require, according to section nineteen hundred and sixty-eight, it shall be the imperative duty of said commissioner to revoke any and every authority, license or certificate granted to such corporation, or any agent thereof, to transact business in this state, and no such corporation or agent thereof shall thereafter transact any business of insurance in this state till again duly licensed, and shall give notice thereof as required in the case of fire insurance corporations.

OF THE FORMATION OF INSURANCE CORPORATIONS AGAINST LOSS OR DAMAGE BY HAIL.

SECTION 1956. Any number of persons not less than five, residing in this state, may file in the office of the commissioner of insurance, a declaration signed and acknowledged by them, expressing their desire to form a corporation for the purpose of transacting the business of mutual insurance against loss or damage by hail of and to all kinds of grain, fruits, hops and legumen. Such declaration shall set forth the name of the corporation, the place where the principal office for the transaction of its business shall be located, the name of at least five persons who shall constitute its first board of directors; but the commissioner of insurance may reject the name so given in such declaration, when he shall deem the same similar to one already appropriated, or likely to mislead the public in any respect. Every such corporation shall possess the usual powers of a corporation for the purposes hereinafter mentioned. The persons named in such declaration as its first board of directors shall manage the affairs of such corporation, and hold their offices until the first annual meeting and until others are elected, and shall prepare and present by-laws for adoption at the first annual meeting.

Section 1957. All persons who shall become insured in any such corporation, and their heirs, assigns and personal representatives continuing to be insured therein, as hereinafter mentioned, shall be members thereof during the current year in which they have insured, and until and including the second Monday of March thereafter.

Section 1958. The members of every such corporation shall hold an annual meeting on the last Monday of March, at its principal office, for the transaction of business. At the first annual meeting five directors shall be chosen by ballot, and the directors so chosen shall divide themselves by lot into five classes, whose terms of office shall expire respectively at the end of one, two, three, four and five years, and thereafter, at every annual meeting, one director shall be elected from the members for five years, and any director elected, who shall cease to be a member of such corporation, shall forfeit his office as director, and every vacancy in the board occurring before the expiration of a term from any cause, shall be filled by the board until the next annual election, when the same shall be filled by election for the residue of the term; notice of the time and place of holding every annual meeting, except the first, shall be published at least two weeks prior thereto, in two newspapers having a general circulation in the district where the members of such corporation reside. There shall also be a meeting on the first secular day of December in each year after the first annual meeting, for the purpose of reviewing the affairs of the corporation, financially and otherwise; and each member shall be allowed one vote at all meetings of the corporation.

Section 1959. The directors shall choose one of their number president, who shall also act as treasurer, and one a societary; they shall manage generally the affairs of the corporation, and perform all other duties required of them by law or the by-laws of such corporation.

Section 1960. The president and secretary, before entering upon the duties of their respective offices, shall execute and file in the principal office of such corporation a bond in such sum as shall be fixed by the board of directors, with good and sufficient sureties to be approved by such board, conditioned for the faithful perform-

ance of the duties of their respective offices, and that they will faithfully and truly account for and pay over all moneys coming into their hands belonging to such corporation.

Section 1961. Every such corporation, in addition to the powers granted by chapter eighty-five, shall have power:

- 1. To make contracts of insurance in this state and elsewhere, with any person against loss and damage by hail of and to all kinds of grain, fruit, hops and legumen, at such times in the year, for such amounts, for such premiums or consideration, and under such regulations or restrictions, as such corporation in its by-laws may provide; but all policies for such insurance shall expire with the harvesting of the crops or the gathering of the fruits so insured.
- 2. To purchase, receive, hold, possess and convey all such real estate and personal property as shall be necessary for its accommodation and the convenient transaction of its business, or in the cases when a fire insurance corporation may take and hold the same.
- 3. To prescribe the manner and form for the admission of members, and the withdrawal of the same.
- 4. To make all necessary rules and regulations concerning insurance on property, and the appraisement and payment of losses, and alter and amend the same at pleasure.
- 5. To fix the compensation of its officers, and their duties and obligations, and to require bonds for the faithful performance of their duties.
- 6. To invest such portion of its reserve fund as shall not be used for the payment of losses or dividends in notes or bonds secured by mortgage on unencumbered real estate in this state, or in the public stocks of the United States, and the interest received from such investments shall also be placed to the credit of the reserve fund.
- 7. To exercise such other powers as shall be necessary to effect the objects of such corporation.

Section 1962. If the amount of premiums received for insurance by any such corporation in any one year shall be insufficient to pay the losses, such corporation may levy an assessment upon each member thereof, in proportion to the amount insured, to cover such deficiency. All notes or obligations taken by such corporation shall be subject to the provisions of sections nineteen hundred and forty-four and nineteen hundred and forty-five.

Section 1963. The net profits of any such corporation shall constitute a reserve fund of which not more than one-half shall ever be drawn for the payment of losses; and if such reserve fund shall at any time exceed five per cent. of the aggregate amount at risk on all its policies, such excess shall be divided between the members of such corporation in proportion to the amounts of their respective insurance, but such dividend to any member shall in no case exceed one-half of the amount of the premium of his insurance.

Section 1964. The president of every such corporation shall, at each annual meeting, show what moneys have been received and what paid out, and the vouchers for the same, attested by the secretary. The secretary shall also prepare a statement showing the condition of the corporation on the day preceding the annual meeting, which shall contain the number of policies issued, and to whom, the amount insured by each, and the aggregate amount thereof, and all other matters pertaining to the interest of such corporation, and such statement shall be read to the members of such corporation at their annual meeting.

Section 1965. Every such corporation shall make an annual report to the commissioner of insurance, in like manner as mutual fire insurance corporations doing a general business in this state are required to make, and every such corporation and every agent thereof shall be subject to the provisions of law applicable to mutual fire insurance corporations doing business in this state.

Section 1966. No resolution for the dissolution of any such corporation shall be adopted or take effect, unless three-fourths of the members present shall vote for its adoption.

THE DEPARTMENT OF INSURANCE.

Section 1967. For the purpose of a thorough supervision and examination of the affairs of all insurance corporations doing business in this state there is hereby established a distinct department of insurance under the charge of an officer to be styled "the commissioner of insurance." The commissioner now in office shall hold for the term of his appointment unless sooner removed for cause. In the month of February, in the year one thousand eight hundred and eighty, and biennially thereafter, the governor by and with the consent of the senate, shall appoint a commissioner of insurance

who shall hold his office for the term of two years from the first Monday of April in the year in which he shall be appointed, and until his successor is appointed and qualified, unless sooner removed for cause by the governor. Before entering upon his duties, such commissioner of insurance shall take and subscribe an oath of office to be filed with the secretary of state, and he shall also execute a bond to the state of Wisconsin in the penal sum of twenty thousand dollars with two or more sufficient sureties, conditioned for the faithful performance of his duties, which bond when approved by the governor, shall be deposited with the state treasurer. The commissioner of insurance shall have an official seal and shall employ such clerical and other assistance at such expense as he shall deem necessary to maintain and keep such department, and to enable him to take charge of and conduct or cause to be conducted, all examinations of the affairs of insurance corporations that are or may be required by law; and generally shall exercise such supervision and control over insurance companies doing business in this state as the law may require. The whole amount of expenses of such department, in each year, shall not exceed the amount of fees paid by insurance companies during such year, and including compensation of commissioner, in no one year shall exceed the sum of thirty-five hundred dollars; and the amount of all fees over and above thirty-five hundred dollars, received from fire and life insurance companies, by virtue of any law of this state,, shall be paid over by the commissioner of insurance to the state treasurer and go into the general fund. A statement of the receipts and disbursements of his office shall be included in the annual report of said commissioner of insurance. Said commissioner shall hold his office in the capitol and be provided with suitable. room and acccommodations therefor; and all books and papers relating to the subject of insurance heretofore kept by the secretary of state shall be by him delivered to, and hereafter kept and possessed by said commissioner in his office. He shall perform the duties relating to insurance imposed by law; all fees required heretofore to be paid to the secretary of state shall hereafter be paid to and accounted for by said commissioner; all reports required to be made by any insurance corporation shall be made to said commissioner; and he shall on or before the first day of July in each year, make a report to the governor of all the transactions of his office,

including a statement of the fee s received by him as such commissioner, and such other matters as have been heretofore included in such report, or as he may be required to make report of by law.

SECTION 1968. The commissioner may address inquiries to any insurance corporation doing business in this state, or officer thereof, in relation to its doings or condition, or any other matter connected with its transactions; and it shall be the dnty of every corporation or officer so addressed, to promptly reply in writing, to such inquiries; and whenever he shall deem it expedient so to do, or when any responsible person shall file with him written charges against any such insurance corporation, alleging that any return or statement filed by it with such commissioner, or heretofore with the secretary of state, is false, or that its affairs are in an unsound condition, he shall, in person, or by one or more persons to be appointed by him for that purpose, not officers or agents of, or in any manner interested in, any insurance corporation doing business in this state except as policy holders, examine into its affairs and condition; and it shall be the duty of the corporation, its officers or agents, to cause their books to be opened for inspection, and otherwise to facilitate such examination, and to pay all reasonable expenses incurred in such examination, upon the certificate and requisition therefor of the said commissioner. Whenever examinations shall be made of any insurance corporation by the commissioner of insurance, personally, or by one or more of the clerks of said department, no charge shall be made on such examination but for necessary traveling and other actual expenses, and all charges for making examinations of any insurance corporation, and all charges against any company by an attorney or appraiser of this department shall be presented in the form of an itemized bill, which shall first be approved by the said commissioner and then audited by the secretary of state, and paid on his warrant, upon the state treasurer, to the person or persons making such examination; and the corporation examined, on receiving a certified copy of said bill of charges, as audited, and paid as aforesaid, shall repay the amount of the same to the state treasurer to replace the money so paid, and no corporation examined shall either directly or indirectly pay, by way of gift, gratuity or otherwise, any other or further sum, to said commissioner or examiners for services, extra services, or for purposes of legislation, or on any other pretense whatever. Any commissioner,

examiner, or any officer, clerk or other employe, of any insurance company, violating the provisions of this section, shall be guilty of a misdemeanor. The commissioner or person so appointed by him, shall have power to examine, under oath, the officers and agents of such corporation, relative to the business thereof, and whenever he shall deem it best, shall publish the result of said investigation in one or more papers in this state, and whenever it shall appear to him from such examination that the assets of any such corporation of this state are insufficient to justify its continuance in business, he shall either direct the officers thereof to require the stockholders to pay in the amount of such deficiency, within such period as he may designate, or communicate the fact to the attorney general, who shall then apply to the circuit court of the county where the principal office of such corporation shall be located, for an order requiring it to show cause why its business should not be closed, and the court shall thereupon proceed to hear the allegations and proofs of the respective parties; and if the court shall find that its assets and funds are not sufficient, as aforesaid, or that the interests of the public so require, such court shall decree a dissolution of such corporation, and a distribution of its effects. Such court may order a reference to ascertain the facts, but no examination shall be ordered or required of any corporation organized under the laws of any other state, the laws of which require a similar supervision thereof as is required by the laws of this state, if the officer in charge of such supervision shall furnish, whenever required by the commissioner of insurance, a certificate and statement exhibiting the solvency of such corporation. Said commissioner shall not be required to make an examination of such corporations organized outside of this state, in states where, under the laws thereof, they are similarly supervised by and under the proper officer, as in such laws provided; and such officer shall furnish, whenever required to do so by the commissioner of insurance, a certificate and statement exhibiting the solvency of such corporation.

Section 1969. Any insurance corporation which shall have been directed to require its capital to be made good, as required in the preceding section, shall forthwith call upon its stockholders for the necessary amount, and in case any stockholder of such corporation, organized under the laws of this state, shall refuse to pay the amount so called for, after notice personally given, or by advertise-

ment, in such time and manner as the commissioner of insurance shall prescribe, such corporation may require the return of the original certificate of stock held by him, and in lieu thereof issue new certificates for such number of shares as the said stockholders may be entitled to, in the proportion that the ascertained value of the funds of such corporation may be found to bear to the original capital; the value of such shares for which new certificates shall be issued, to be ascertained under the direction of said commissioner, the corporation paying for the fractional parts of shares; and the directors may create new stock, and dispose of the same to an amount sufficient to make up the original capital, and in the event of any additional losses accruing from new risks taken after the expiration of the period limited by said commissioner for the filling up of the deficiency in the capital, and before such deficiency shall have been made up, the directors or trustees shall be individually liable to the extent thereof. The transfer of the stock of any such corporation, made during the pending of such investigation, shall not release the party making the transfer from his liability for losses which may have occurred previous to such transfer.

Section 1970. Whenever it shall appear to the commissioner of insurance from an examination thereof, that the capital stock of any stock insurance corporation, organized under any law of this state, is impaired to an amount exceeding twenty-five per cent. thereof, and he shall be of opinion that the interests of the public will not be prejudiced by permitting such corporation to continue with a reduced capital, such corporation may with his permission, reduce its capital and the par value of the shares thereof to such amount as he shall certify to be, in his opinion, justified by the assets and property of such corporation; but no part of such assets and property shall be distributed to the stockholders, nor shall the capital stock of such corporation be reduced in any case to an amount less than the sum required by law for the organization of a new corporation for the transaction of the same kind of business at the place where such corporation is located. Such a reduction of the capital stock shall only be made by adoption of a resolution by its directors, approved and signed by at least two-thirds of the directors, and by its president, with the corporate seal affixed, and filed in the office of the commissioner of insurance. filing of such resolution, the commissioner of insurance shall execute a new patent to such corporation to conform with such reduced capital, and the articles of organization shall be deemed to be amended accordingly in respect to the amount of its capital, and of the par value of its shares so as to conform to such reduction. Such corporation may require the return of the original certificate of stock held by each stockholder, and in lieu thereof issue new certificates of such number of shares as each stockholder may be entitled to.

Section 1971. The commissioner of insurance shall prepare and furnish to each insurance corporation organized under the laws of the state, and to the attorneys of corporations incorporated in other states and countries doing any kind of insurance in this state, printed form of annual and other statements required by the laws of this state to be made by such corporations, and he may make such changes in such forms as shall seem best adapted to elicit from them a true exhibit of their condition, in respect to the matters required by law to be reported to the commissioner of insurance; and all such corporations are required to make their annual and other statements as required by said commissioner of insurance; and he may, for such reasons as he shall deem sufficient, extend the time for filing such annual statements, not exceeding sixty days. He shall cause the information contained in such annual statements to be arranged in tabular form, and publish the same with his annual report as commissioner of insurance; and he shall also cause all such annual statements to be published in the official state paper for one week, and for a like period in a newspaper having a general circulation published in the city of Milwaukee, at the expense of such corporation.

Section 1972. There shall be paid to the commissioner of insurance, by every insurance corporation, person or agent to whom this chapter applies, except millers' and manufacturers' mutual insurance corporations, the following fees: For filing the first declaration or statement, with certified copy of charter, twenty-five dollars; for filing the annual statement of any insurance corporation, other than life or accident corporations, twenty-five dollars; for filing such annual statement of any life or accident insurance corporation, twenty-five dollars; for each certificate of authority to agents of all corporations doing business in this state, one dollar; for every copy of paper filed in his office, fifteen cents per folio, and for cer-

tifying and affixing seal, fifty cents. Millers' and manufacturers' mutual insurance corporations organized under the provisions of sections one thousand nine hundred and forty-one, a, b, c, d, e and f, shall pay the following fees: For filing first declaration or statement, and issuing certificate thereon, ten dollars; for filing annual statement, and issuing certificate thereon, three dollars. In case two or more corporations shall combine to effect insurance under a joint policy or policies, each and every such corporation so combining shall pay the fees above provided, the same as if each and every one wrote separate policies.

Section 1219. Every company transacting the business of insurance against fire, or by the risks of inland navigation and transportation, shall pay to the state treasurer, on or before the first day of February, in each year, as a license fee for transacting such business, two per centum of the amount of the gross income, including all notes taken for premiums, received by such company during the preceding year in this state, as shown by the annual statement of its business, required to be made by law, but for the purpose of estimating the amount of such license fee to be paid by companies organized under the laws of this state, the sum paid for officers' salaries and office expenditures, shall be deducted from the total amount of such gross income, and the license fee shall be two per centum of the remainder, after such reduction. Such license, when granted, shall authorize the company to whom it is issued to transact its business until the last day of January, in the ensuing year, unless sooner revoked or forfeited according to law.

Section 1220. Every company transacting the business of life or accidental insurance in this state shall, on or before the first day of March in each year, pay to the state treasurer, as an annual license fee for transacting such business, the sum of three hundred dollars, and if, addition, each such company, organized under the laws of this state, shall pay two per centum of its cash receipts for premiums by it received in this state, during the calendar year preceding, as shown by its reports required to be made by law. Such license, when granted, shall authorize the company to whom it is issued to transact business until the first day of March in the ensuing year, unless sooner revoked or forfeited according to law. The payment of such sum shall be in lieu of all taxes for any purpose authorized by the laws of this state, except taxes on such real estate as may be owned by such corporation.

MISCELLANEOUS PROVISIONS.

SECTION 1973. The state treasurer, in his official capacity, shall take and hold on deposit the securities of any life insurance corporation, incorporated under the laws of this state, which are deposited by it for the purpose of securing policy holders, and complying with the laws of any other state, in order to enable such corporation to transact business in such state, and also to receive and hold in trust, for the policy holders of any other insurance corporation of this state, such bonds, stocks or other securities as may be offered by such corporation; and upon the application of such corporation, to give such a certificate, from year to year, of such deposit, as may be required by the laws of other states in order to the transaction of the business of insurance therein; every corporation depositing such securities shall have the right to receive the income thereof, and to exchange the same from time to time, according to the laws of the state in which it may be doing business, and to withdraw the same when it no longer desires to maintain such deposit.

Section 1974. No insurance corporation doing any kind of insurance in this state, against which a final judgment shall have been recorded in any court in this state, shall, after sixty days from the rendition of such judgment, and whilst the same remains unpaid, issue any new policy of insurance in this state; and in case any such insurance corporation, or its officers or agents shall violate the provisions of this section, it shall forfeit the sum of one thousand dollars. And any agent of any such corporation who shall knowingly so violate the same, shall forfeit not less than one hundred nor more than five hundred dollars.

Section 1975. No insurance corporation, underwriter or agent shall incorporate in any contract, mortgage, note, bond, obligation or policy of insurance, any condition or provision prescribing in what court any action may be brought thereon, or that no action or suit shall be brought thereon, or brought in any of the courts of this state, and all and every such condition and provision, if so incorporated, shall be null and void; and any renewal of any policy of insurance, containing any such provision or condition, shall not be a renewal of such conditions or provisions therein, but shall be deemed a renewal thereof without such conditions and provisions.

A violation of this section shall be cause of forfeiture of any license to do business in this state.

Section 1976. No officer, agent or sub-agent of any insurance corporation of any kind, doing business in this state, except town insurance corporations, shall act or aid in any manner in transacting the business of insurance of or with such corporation, in placing risks or effecting incurance therein, without first procuring from the commissioner of insurance a certificate of authority as provided by law, nor after the period named in such certificate shall have expired. Every person violating the provisions of this section shall forfeit not less than fifty nor more than five hundred dollars for each offense.

Section 1977. Whoever solicits insurance on behalf of any insurance corporation, or transmits an application for insurance or a policy of insurance to or from any such corporation, or who makes any contract of insurance or collects or receives any premium for insurance, or in any manner aids or assists in doing either, or in transacting any business for any insurance corporation, or advertises to do any such thing, shall be held an agent of such corporation to all intents and purposes, and the word "agent," whenever used in this chapter, shall be construed to include all such persons.

Section 1978. No corporation, association, partnership, or individual shall do any business of insurance of any kind, or make any guaranty, contract or pledge for the payment of annuities or endowments or money to the families or representatives of any policy or certificate holder, or the like, in this state, or with any resident of this state, except according to the conditions and restrictions of these statutes. And the term insurance corporation, as used in this chapter, may be taken to embrace every corporation, association, partnership or individual engaging in any such business.

ANNUAL REPORTS

OF THE

ADJUTANT AND QUARTERMASTER GENERALS

OF THE

STATE OF WISCONSIN,

FOR THE

FISCAL YEAR ENDING SEPTEMBER 30, 1878.

MADISON, WIS.:

DAVID ATWOOD, STATE PRINTER.

1879.

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REPORT

OF THE

ADJUTANT GENERAL OF WISCONSIN,

FOR THE

FISCAL YEAR ENDING SEPTEMBER 30, 1878.

Madison, Wis., September 30, 1878.

To his Excellency, WILLIAM E. SMITH,

Governor of Wisconsin:

GOVERNOR: I have the honor to report the transactions and expenditures of this department for the year ending this day.

The business of the office of Adjutant General for the past year has been, as in the years hitherto, since the war, mainly the conducting a considerable correspondence with those who desire information and certified abstracts from the military records.

The importance of the military records as time progress becomes more manifest. The records are far from perfect, and in their present condition, are rapidly becoming by use and exposure incident to use, old and worn. Some of the records are incomplete, so that it is impossible to give the military history of some of the companies and regiments which did good service for the country in the war of the rebellion. If any legislative action is needed, it should be given so far as to provide for the expense of perfecting the records. A capable clerk could, in probably one year, accomplish all that is

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Adjutant-General's Report.

at present necessary to bring up the records, re-copy those old and worn, and re-arrange those never yet in orderly arrangement. I presume an urgent request from your Excellency to the Secretary of War, would bring such of the rolls as we need copies of, without expense to the state; this office having at all times furnished transcripts or any information called for by the departments of the Federal Government.

The expenditures of the military department, all told, are given and classified in schedule "A." herewith submitted, which is compiled from the report of the secretary of state. From that report and the schedule it will be seen that the expenses of this office are but trifling; less so than any state in the Union of any where near the rank of Wisconsin. Being myself occupied with private avocations, I have been able to give but little time to the supervision of military affairs. The affairs of the office, and its correspondence, under my limited supervision, have been very creditably conducted by Capt. A. H. Bright, aide-de-camp in charge. For this, certainly the strongest advocate for low salaries will admit that he has been moderately paid. My own stinted services have, with the exception of one occasion, when absent a week under your orders, been given without compensation.

The theory of the present order of things is, that the mileage allowed to the inspector shall be a suitable compensation for the adjutant general, but as details of other officers have been made for that service it can certainly be claimed for the office which I have the honor to hold, that it is, at least, not an expensive supernumerary. I speak of this, not by way of complaint, but as an argument for more liberal support to the companies of militia in the state, which with inadequate help from the state are, with great public spirit, struggling to maintain an existence. The most of them deserve more encouragement, and, I am sure, a more liberal provision for them, granted for proved efficiency, would be money well expended.

The strength, condition, etc., of the several companies of organized militia are shown in Schedule "B," herewith submitted. The result of inspections of each for the year is therein tabulated.

The following companies have been organized during the year: The Randall Guards, of Darlington; the Janesville Guards and Janesville Veterans, of Janesville; the La Crosse Light Guard, of La Crosse; the Sherman Guard, of Neillsville.

The following companies have been disbanded, and have turned in their arms:

The Milwaukee Light Artillery.
The Monroe Guards, of Tomah.
The Clark County Zouaves, of Neillsville; and
The Juneau Badgers, of Juneau.

The changes in officers which have taken place during the year, in companies previously organized, are given in the subjoined table.

DATE OF CHANGE.	Name of Company.	Resignations.	Promotions.	Commissions.
Nov. 27, 1877 Dec. 1, 1877 April 4, 1878 April 11, 1878 April 27, 1878 Dec. 1, 1877 Aug. 23, 1878 Jan'y 11, 1878 July 25, 1878	Bay City Light Guards. Bayfield Rifles Custer Rifles Gov. G'ds, of La Crosse. Germania Guard	1st Lieut. J. C. Comstock 1st Lieut. A. Libby 2d Lieut. D. Boutin 2d Lieut. A. L. Arey 1st Lieut. John Grams 1st Lt. Frank Weigel 2d Lt. Womzul Smesch. August Schultz	C. H. Parmley, 1st Lieut., vice Comstock, resigned. O. L. Kendall, 1st Lieut., vice Libby, resigned. 1st Lieut. Frank Weigel, vice Grams, resigned. Wm. Krueger, 1st Lieut., vice Schultz, resigned.	Holdman, resigned. John Henday, 2d Lieut., vice Parme'y promoted. A. C. Neville, 2d Lieut., vice Libby, promoted. B. B. Wade, 2d Lieut., vice Boulin, resigened.

One great difficulty in the organization of militia companies here-tofore, has been that they were too often hastily organized from mere enthusiasm, and of unstable or transient material, and the companies so formed fell to pieces and disbanded as soon as the novelty of parade and drill had ceased. Happily, the law as changed in the revision, has placed the matter of organization where it should be—in the discretion of the governor. I respectfully recommend that hereafter, under the present law, the utmost strictness be observed in admitting new companies to organize. They should be permitted to form and receive state aid, only when they give promise of a stable, durable organization, composed of members of fixed residence and good repute, and officered by men of force and dignity of character.

The state has been put to much expense in organizing and equipping companies, which have soon been broken up by petty intrigues among officers and men, and quarrels engendered in small-minded rivalry and jealousies. The creation of any more of these ephemeral, troublesome companies, should be carefully guarded against. As a rule, every company in the state officered by an able, efficient commander, possessing force and stability of character, has been a success; while every one officered by men not calculated to retain the respect and command of the members, has failed to keep up its organization.

On the whole the condition of the militia is greatly improved. The legislation giving three hundred dollars to each company complying with the conditions of organization, has borne good fruit. So marked has been the improvement as to warrant the state in giving a little more to each company, and permitting the organization of a larger number of companies. This subject has occupied legislative attention for two or three years past, and will, I presume, be brought before the next legislature.

Very respectfully, your obedient servant, EDWIN E. BRYANT, Adjutant General.

Classification of Expenditures.

SCHEDULE A.

Showing amount and classification of expenditures of the military department for year ending September 30, 1878:

tung stepart and generalized to grant on the grant of the		
Amount paid to companies for armory rent, etc	\$5,400	00
Salary of military secretary	401	10
Services and expenses of Ed. E. Bryant, Adj. Gen., in Burnett Co	154	21
Geo. E. Bryant, Q. M. G., inspecting militia	256	50
G. G. Lindeman, Q. M. G., inspecting militia	103	40
John Kelley, Q. M. G., inspecting militia	5	00
EXPENSES GF ADJUTANT GENERAL'S OFFICE.		
Clerk hire	900	00
Postage	54	50
Expenses of Q. M. Gen.'s office (for itemized statement, see report		
Sec'y of State, page 78)	2,094	
Total	\$9,368	

SCHEDULE B.

Showing Roster of the Wisconsin Volunteer Militia.

GENERAL STAFF.

Rank.	Name.	Residence.	. Office.	When commissioned.
	Geo. E. Bryant E. B. Wolcott Geo. W. Burchard Florian J. Ries Pliny Norcross J.A. Watrous L. B. Sale John C. Huggins David W. Curtis B. F. Bryant George Tonnar	Madison Milwaukee. Ft. Atk nson. Milwaukee Janesville Fond du Lac Green Bay Racine Ft. Atkinson La Crosse Menomonie	Adjutant General. Quartermaster General. Surgeen General. Aid de Camp and Military Sec'y. Aid de Camp. do do do. do do do. do do do. Aid do do. Aid do do. Aid do do. Aid do do. Aid do do. Aid do do. Aid do do. Aid de Camp to Adj. Gen.	Jan. 7, 1878 Jan. 7, 1878 Jan. 7, 1878 Jan. 7, 1878 Jan. 7, 1879 Jan. 7, 1878 Jan. 7, 1878 Jan. 7, 1878 Jan. 7, 1878 Jan. 7, 1878 Jan. 7, 1878

Name of company.	Where located.	When organ-ized.	How armed.	How By last muster.	Commissioned officers.	Rank.	When commissioned.
Bay City Light Guard.	Green Bay, Brown Dec. 1, S. B. L. county.	Dec. 1, 1874.	S. B. L. Cal. 45.	69	J. H. Elmore O. L. Kendall Arthur Neville	Captain Dec. 2, 1874. First Lieut April 4, 1878. Second Lieut April 4, 1878.	Dec. 2, 1874. April 4, 1878. April 4, 1878.

REPORT OF INSPECTION FOR 1878.

Green Bay, December 19, 1878. To His Excellency, William E. Smith, Commander-in-Chief:

Governor:—In obedience to special order no 33, I have inspected the Bay City Light Guard of Green Bay. There were paraded and inspected in the uniform of the company, commissioned officers, 2; non-commissioned officers, 14; privates, 25. Total, 41. (The short notice of inspection accounts partly for small number in line.) The uniform of the company is of light blue cloth, and is in good condition. I was much pleased with the discipline and instruction of this company. Their drill was most gratifying, and it is evident that great thoroughness in the discipline of the company has been practiced. The company has sixty stand of arms and accourtements, and two thousand rounds of cartridges, in good condition. The company has a large and fine armory, which is kept in a style of neatness and order most gratifying to see. I am satisfied that the company has complied with the law, orders and regulations.

Very respectfully yours, L. B. SALE, Col. & A. D. C.

		TATLE		Otwom orth	1		Whon Com
Name of Company.	Where Located.	organ-	organ- Armed by ized m.	by last muster.	Commissioned Officers.	Rank.	missioned.
Bayfield Riffes	Bayfield, Bayf'd Co Feb. 5, S. B. L. 1873. Cal. 50.	Feb. 5, 1873.	S. B. L. Cal. 50.	99	R. D. Pike J. T. Gargnon B. B. Wade	Captain March 14, "73. First Lieut March 14, "73. Second Lieut April 11, "78.	March 14, '73. March 14, '73. April 11, '78.
	v						

REPORT OF INSPECTION FOR 1878.

Madison, December 14, 1878.

To His Excellency, WILLIAM E. SMITH, Commander-in-Chief.

GOVERNOR: —

In pursuance of special order No. 30, I inspected the Bayfield Rifles, of Bayfield, on the 4th inst., and in compliance with the order, I submit to your excellency the following report in accordance with sec. 634, R. S. 1878: Twenty-six officers and men appeared in uniform for inspection. The company is uniformed in gray cap, jacket and trousers, in fair condition. The company drills only during the winter months, with an occasional muster at other times, and consequently is not very well disci-plined or instructed. Sixty B. L. muskets, cal. 50, with accoutrements complete, three non-commissioned swords, and one copy of Tactics, were exhibited. The last return list agrees with exhibit, except that it shows three copies Tactics. The arms and accourrements were in very The company uses a rented room twenty fine condition. by thirty, well fitted up with gun racks, for an armory. Drills are held in a warehouse. The company, so far as I know, has complied with the law and with all orders and regulations of the governor.

I need scarcely say to your excellency that it is not possible to maintain a first class military company at Bayfield, owing to the sparse population and the nature of their employment. Many of the company are fishermen. Eight or ten were absent fishing on the night of inspection, and during eight months in the year nearly half are The comliable to be away on that or other business. pany numbers about 45, who meet to drill during the winter once a week. Of these, 20 or 25 could be depended on at any time. The muster rolls of the company have shown 66 names, but I am satisfied that many of those could hardly be called actual members. By a little greater effort on the part of Capt. Pike and his subordinates, I believe that the company could be kept up to 45 strong, and made as effective as could be expected from the nature of things - sufficiently so at any rate to meet any demand likely to be made upon it.

Very respectfully, your obedient servant,

A. H. BRIGHT, Capt. and A.-de C. to Adj. Gen.

Name of company.	Where located.	When organ- ized.	How armed.	When How Strength organ- armed, muster.	Commissioned officers.	Rank.	When com- missioned.
Beloit City Guards Beloit, Rock Co Aug. 31, S. B. L. 1877. Cal. 45.	Beloit, Rock Co	Aug. 31, 1877.	S. B. L. Cal. 45.	26	H. H. McLenegan Captain Nov. 18, 1878. C. H. Parmely First Lieut Dec. 1, 1877. H. S. Hendee Second Lieut Dec. 1, 1877.	Captain First Lieut Second Lieut	Nov. 18, 1878. Dec. 1, 1877. Dec. 1, 1877.

REPORT OF INSPECTION FOR 1878

Madison, Nov. 19, 1878.

To His Excellency, WILLIAM E. SMITH,

Commander in-Chief:

Governor: — In pursuance of special order No. 25, I have inspected the Beloit city Guard. This is now a No. 1, company. The beneficial effect of the visit of tramps at Beloit is very marked upon the company. Few companies in the state are its equal. The number of many in line for inspection approximated 60 men in line for inspection approximated 60.

Your obediant servant,

GEO. E. BRYANT, Q. M. Gen.

Name of Company.	Where located	When organ- ized.	Hοw armed.	Strength, by last muster.	Commissioned Offi- cers.	Rank.	When commissioned.
Custer Rifles.	Whitewater, Wal. July 7, S. B. L. worth county.	July 7, 1877.	S. B. L. Cal. 45.	47	J. A. Partridge J. J. Downey J. A. Ammon	Captain Oct. 2, 1878. First Lieut Oct. 2, 1878. Second Lieut Oct. 2, 1878.	Oct. 2, 1878. Oct. 2, 1878. Oct. 2, 1878.

REPORT OF INSPECTION FOR 1878.

To His Excellency, Wm. E. Smith, Commander-in-Chief:

GOVERNOR; — In pursuance of special order No. 21, I have inspected the Custer Rifles of Whitewater, a fine company, with new uniforms and composed of the best young men of the place. The company mustered 42 men for inspection.

Your obedient servant,

GEO. E. BRYANT,

Q. M. Gen.

Madison, October 29, 1874.

Name of Company.	Where located.	When organ-ized.	$egin{array}{c c} How & St \\ armed. & L \\ & L \end{array}$	Strength by last muster	Commissioned officers.	Rank.	When commissioned.
Evergeen City Guard Sheboygan, Sheboy. Nov. 4, L. B. L., gan county 1877 Cal. 45	Sheboygan, Sheboy-gan county	Nov. 4, 1877	L. B. L., Cal. 45	56	C. A. Born F. A. Kaiser H. W. Trester	Captain Feb. 6, 1877. Furst Lieut May 3, 1877. Second Lieut	Feb. 6, 1877. May 3, 1877. May 3, 1877.

REPORT OF INSPECTION FOR 1879.

To His Excellency, Wm. E. Smith, Commander-in.Chief:

Governor—I have the honor to inform you that I have inspected the Everygreen City Guards of Sheboygan, in pursuance of orders. This is one of the best companies in the state. Every member of the company, 56 strong, save one, was in line. Much credit is due the three goung men who are the commissioned officers of the company, for their zeal in making the company what it is. This is one of the companies which participated in your inauguration, and they all feel that that encampment was productive of much good to them.

of much good to them.
Your obebient servant,
GEO. E. BRYANT,
Q. M. Gen.

N. Control of the Con		-					
Name of Company.	Where located.	When organ-ized.	How armed.	When How by last ized.	Commissioned officers.	Rank.	When commissioned.
Eau Claire City Light Guard.	Eau Claire, Eau Claire county.	Feb. 11, 1875.	Feb. 11, S. B. L. 1875. Cal. 50.	64	D. C. Whipple M. E. O'Connell E. W. Allen	Captain Rirst Lieut Second Lieut	Feb. 16, 1877. Feb. 16, 1877. Feb. 16, 1877.

REPORT OF INSPECTION FOR 1878.

MADISON, Nov. 8, 1878.

MADISON, Nov. 8, 1878.

To His Excellency, W. E. Smith, Commandea-in-Chief:
GOVERNOR: In pursuance of Special Order No. 22,
I proceeded to Eau Claire, and inspected the Eau Claire
City Guard. The officers of this company all saw service in the 16th Wisconsin regiment in the war of the
rebellion. Forty-seven men were in line. Their uniform is army regulation blue. The company has a good
armory, and seems to me to be a very healthy company.

Your obedient servant,
GEO. E. BRYANT,

Q. M. General.

Where located. Organ. armed. armed. muster. Officers. Madison, Dane Co. 24, 1875. Cal. 45.
Where located. organ. How by last ized. muster. Madison, Dane Co. 24, 1875. Cal. 45.
Where located. organ-ized. Madison, Dane Co. 24, 1875. Cal. 45
Where located. organ-ized. Madison, Dane Co. 24, 1875
Where located. Madison, Dane Co.

REPORT OF INSPECTION FOR 1878.

MADISON, January 20, 1878. To His Excellency, WILLIAM E. SMITH,

Commander in Chief:

GOVERNOR: In persuance of special order No. 11, I this day inspected the Governor's Guard, of Madison. Their arms and accoutrements were in good condition. The men looked well. I enclose returns furnished me by the commander, Lieutenant Heinkel, and recommend that they be allowed to draw their \$300. Forty one mustered for inspection.

Your obedient servant, GEORGE E. BRYANT, Q. M. Gen.

Name of Company.	Where located.	When corgan-ized.	How armed.	When How Strength organ. ized. muster.	Commissioned Officers.	Rank.	When commissioned.
Governor's Guard.	La Crosse.	Aug. 1, 1873.	Aug. 1, S. B. L. 1873. Col. 50.	50.	C. M. Muller Captain Oct. 18, 1. Joseph Tausch First Lieut Aug. 23, 19 Wenzel Herlitzka Second Lieut Aug. 23, 1	Captain First Lieut Second Lieut	Oct. 18, 1873. Aug. 23, 1875. Aug. 23, 1878.

REPORT OF INSPECTION FOR 1878.

To His Excellency, Wm. E. Smith, Commander in Chief:

GOVERNOR: — In pursuance of special order No. 21, I have inspected the Governors Guard of La Crosse which is one of the best drilled companies in the state. There were thirty-seven men in line, absent accounted for; quite a number had left on the day of inspection for the pineries.

Your obedient servant,

GEO. E. BRYANT, Q. M. Gen.

Name of company.	Where located.	When organ- a ized.	How armed.	Strength by last muster.	Commissioned officers.	Rank.	When commissioned.
Guppy Guard.	Portage, Columbia June 23, S. B. L. county.	June 23, 1877.	S. B. L. Cal. 45.	74	A. H. Russell H. S. Goss G. S. Race	Captain First Lieut	Aug. 2, 1878 Aug. 2, 1878 Aug. 2, 1878

REPORT OF INSPECTION FOR 1878.

Madison, Sept. 14, 1878.

To His Excellency, Wm. E. Smith, Commander-in-Chief:

Governor — I have the honor to report that, in pursuance of law, I have this day duly inspected the Guppy Guards, of Portage. The company paraded fifty officers and men in uniform. The company is well uniformed, in gray uniform, in new and excellent condition. The arms are in very good condition—Discipline and instruction commencable, showing improvement and an ambition to rank as a first class company. The company has complied with the law, and with all existing laws and regulations and in my judgment is entitled to the \$300 under the law, and I shall so certify.

Very respectfully your obedient servan', ED. E. BRYANT, Adjutant and Inspector General.

Name of company.	Where located.	When organ- ized.	How armed	Strength by last muster.	Commissioned officers.	Rank.	When commissioned.
Germania Guard.	Wausau, Marathon Jan. 10, S. B. L. county.	Jan. 10, 1875.	S. B. L. Cal. 50.	09	H. Young Wm. Krueger	Captain May 9.1877. First Lieut Jan. 11, 1878.	May 9, 1877. Jan. 11, 1878. Jan. 11, 1878.

REPORT OF INSPECTION FOR 1878.

MADISON, September 21, 1878.
Commander in Chief:

GOVERNOR:—In pursuance of special order No. 14, I have the honor to report that I have inspected the Germania Gua d of Wausau, and find them a weil drilled and disciplined company, with arms, armory, accourtements and uniforms in good condition. The company is fully alive to the duties of a citizen soldiery. I is fully any recommend that their allowand five mustered for inspection.

Your obedient servant,

GEO. E. BRYANT,

Q.-M. Gen. recommend that their allowance of \$300 be paid. Forty-

Name of company.	Where located.	When organ- ized.	How armed.	When How Strength organ-armed by last muster.	Commissioned officers.	Rank.	When Commis- stoned.
Janesville Veterans. Janesville, Rock Co. Aug. 18, S. B. L. 1878. Cal. 50.	anesville, Rock Co.	Aug. 18, 1878.	S B L. Cal. 50.	1.1.	C. W. Baker Captain W. H. Tousley First Lieut J. B. La Grange Second Licut	Captain First Lieut Second Lieut	Aug. 23, 1878. Aug. 23, 1878. Aug. 23, 1878.

R&PORT OF INSPECTION FOR 1878.

MADISON, WIS., Nov. 19, 1878. To His Excellency, Wm. E. Smith, Commander in Chief: To His Excellency, Wm. E. Smith, Commander-in-Chief:
GOVERNOR: In pursuance of orders, I have inspected
the Janesville Veterans. It is to be regretted that two
companies should be formed in a city of the population
of Janesville. The companies there are now living on
emulation. The company made a good appearance, but
I have doubts as to their ability to keep up to their
present condition. The company mustered 42 for inspection.

Your obedient servant, GEO. E. BRYANT, Q. M. General.

Name of Company	Where located.	When organ-ized.	Ηοw armed.	How Strength, by last muster.	Commissioned officers.	Rank.	When com- missioned.
Janesville Guards Janesville, Rock Co. Aug. 5, S. B. L. 1878. Cal. 45.	Janesville, Rock Co.	Aug. 5, 1878.	S. B. L. Cal. 45.		57 T. T. Croft Captain August 8, '78 H. A. Smith First Lieut August 8, '78 Melvin A. Newman Second Lieut August 8, '78	Captain First Lieut Second Lieut	August 8, '78 August 8, '78 August 8, '78
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REPORT OF INSPECTION FOR 1878.

To His Excellency, Wm. E. SMITH,

Commander in Chief: GONERNOR — I have the honor to report that, in pursuance of orders, I have inspected the Janesville Guards, which I found to be a very fine company, under the command of energetic officers. The company has faith in the future, and the citizens seem to take much interest in its welfare. There were 54 pany mas...
take much interest in ...
men in line at inspection.
Your obedient servant,
GEO. E. BRYANT,
Q. M. Ge

Q. M. Gen.

-	
When Com- missioned.	Dec. 27, 1877. Dec. 27, 1877. Dec. 27, 1877.
Rank.	Captain Dec. 27, 1877. First Lieut Dec. 27, 1877. Second Lieut Dec. 27, 1877.
Commissioned Officers.	E. F. Henderson
Strength by last muster.	53
When Organ- ized. Armed.	S. B. L. Cal. 50.
When Organ- ized.	Feb. 12, 1876.
Where Located.	Ft. Howard, Brown Feb. 12, S. B. L. county. Call. 50.
Name of Company.	Kalmbach Rifles

REPORT OF INSPECTION FOR 1878.

GREEN BAY, December 19, 1878. To His Excellency, WILLIAM E. SMITH,

Governor:—In pursuance of special order No. 33, I have inspected the Kalmbach Rifles of Ft. Howard. There were paraded and inspected in the uniform of the company, 3 commissioned officers, 11 non-commissioned officers, and 26 privates; total, 40. The uniform of the company is dark blue cloth coats and caps, and light blue pants, in good condition. The company meets for drill once in each week, and its discipline and state of instruction are good. The company has 60 stand of arms and accoutrements complete, 250 rounds cartridges, in good condition. The company has a good armony, and use a larger hall for practice and drill. The company has complied with the laws and with the orders and regulations of the governor. The short notice of inspection prevented many from being present who otherwise would. The company numbers 61 men.

Very respectfully yours, I. B. SALE, Col and A. de-C.

Name of company.	Where located.	When organ-ized.	How armed.	How by last muster.	Commissioned officers.	Rank.	When commissioned:
Kosciousko Guard Milwaukee, Milwau- Sept. 2, S. B. L., kee county 1874 Cal. 50	. Milwaukee, Milwau- kee county	Sept. 2, 1874	S. B. L., Cal. 50	56	F. J. Borchardt Captain Aug. 27, 1877. Jacob Nowak First Lieut Aug. 27, 1877. Martin Zubert Second Lieut Dec. 18, 1878.	Captain First Lieut Second Lieut	Aug. 27, 1877. Aug. 27, 1877. Dec. 18, 1878.

REPORT OF INSPECTION FOR 1878.

Madison, Wis., Oct. 28, 1878.
To His Excellency WM. E. SMITH,

Commander-in-Chief:

Governor—In pursuance of special order No. 18, I have inspected the Kosciusko Guard, of Milwaukee. This is a very fine company, much improved since last year. It is composed of men from Poland exclusively. The company have new uniforms, blue dress coats, etc., which cost them \$1,200. There were over fifty men in line at inspection. Your obedient servaet,

GEO. E. BRYANT,

Q. M. Gen.

Name of company.	Where located.	When organized.	How armed.	When How by last armed muster ret.	Commissioned officers.	[Rank.	When com- missioned.
La Crosse Light Guard.	La Crosse, La Crosse sounty.	Aug. 13, 1878.	Aug. 13, S. B. L. 1878. Cal. 45.	74	L. Rossiter M. T. Moore John M. Holly	Captain First Lieut	Aug. 14, 1878 Aug. 14, 1878 Aug. 14, 1878

REPORT OF INSPECTION FOR 1878.

To His Excellency, WM. E. SMITH,

Commander in-Chief:

GOVERNOR— In pursuance of special order No. 29, I
have inspected the La Crosse Light Guard, of La Crosse.

There were 67 men in line. This is the youngest company in the state, and will undoubtedly be one of the best another year.

Your obedient servant,

GEO. E. BRYANT,

Q. M. Gen.

Q. M. Gen.

Where	Where located.	When organ-ized.	How armed.	Strength by last muster.	How by last officers.	Rank.	When commissioned.
on On	Menomonie, Dunn Nov. 21, S. B. L. county.	(ον. 21, 1876.	S. B. L. carbine, Cal. 45.	99	T. J. George Captain Jan. 16, 1877. Simon Marugg First Lieut Jan. 16, 1877. W. D. Yeung Second Lieut Jan. 16, 1877.	Captain First Lieut	Jan. 16, 1877. Jan. 16, 1877. Jan. 16, 1877.

REPORT OF INSPECTION FOR 1878.

To His Excellency, Governor Wm. E. Smith,

Commander-tn-Chief of the Wisconsin State Militia:
Sir:—In pursuance of a special order issued at
Durand, Wis., September 5, 1878, directing me to hold
inspection of the Ludington Guard, duly mustered at
that place, and commanded by Capt. T. J. George, I
have the honor to report, that such inspection being
made, there were found to be present forty-five, including officers, non-commissioned officers and privates. The commanding officer reporting eighteen members in good standing abs. It. The condition of those present as to drill, soldierly bearing and discipline, and of the arms, accoutrements, uniforms and camp equipage, also of saddles, bridles and other appurtenances, was such as to deserve most favorable report. The evolutions of the company at drill, and their conduct while off duty, speaks highly, not only for themselves, but also for their captain and subordinate officers.

Respectfully submitting the above report, I have the honor to be, Your obedient serva t, JOHN C. HUGGINS.

Col. & A. D. C., Aeting Inspecting Officer.

	Section 1						
Name of Company.	Where located.	When organ-ized.	How armed.	When organ- organ-armed. Strength by last ized. muster.	Commissioned officers.	Rank.	When Commissioned
Manitowoc V. M. Co. Manitowoc, Man-itowoc county.	Manitowoc, Manitowoc county.	July 18, 1869.	July 18, S. B. L. 1869. Cal 50.	45	F. Becker C. C. R. Schweitzer F. W. Menge. S. Schweitzer S. S. Schweitzer F. S. W. Menge. S.	Captain Jan. 12, 1877. Second Lieut. Jan. 12, 1877.	Jan. 12, 1877. Jan. 12, 1877.

REPORT OF INSPECTION FOR 1878.

To His Excellency, Wm. E. Smith, Commander-in-Chief:

GOVERNOR: — In compliance with special order No. 32, A. G. O., I have inspected the Manitowoc V. M. Company, and herewith report as follows: Number of officers, non-commissioned officers and privates in uniform of company, on parade, 37; absentees properly accounted for. Uniform consists of U. S. Infantry uniform, with red trimmings and is in good condit on. The discipline and state of instruction is satisfactory. Number of B. L. Muskets held by company, 50, and 75 sets of accourtements, all in good condition. The company has its armory in a large hall well suited for the purpose. The company is well officered and has complied with all laws, orders and regulations, and is in my opinion entitled to the benefits of chapter 34 of the revised statutes.

I have the honor to be Your obedient servant, FLORIAN J. RIES, Col. and A. D. C.

MILWAUKEE, Dec. 17, 1878.

Name of Company.	Whe e located.	when organ- ized.	How armed.	When How by lart ized. armed, mus er.	Commissioned officers.	Rank.	When commissioned.	
Oshkosh Guard	Oshkosh, Winne- March S. B. L., bago county. 25, 1876. Cal. 50.	March 25, 1876.	S. B. L., Cal. 50.	99	Gabe Bouck Captain June 15, 1875. Geo. Bauman First Lieut Mar. 7, 1876. W. H. Patton Second Lieut Mar. 7, 1876.	Captain First Lieut Second Lieut	June 15, 1875. Mar. 7, 1876. Mar. 7, 1876.	

REPORT OF INSPECTION FOR 1878.

MADISON, WIS., Nov. 23, 1878.

To His Excellency, Wm. E. Smith, Commander in Chief:
GOVERNOR: I have inspected the Oshkosh Guard,
Capt. Bouck commanding. This is a splendid company, well uniformed in blue. All arms and accountenance in good condition. There were 57 men in line at inspection.

I have the honor to be,

Your obedient servant, GEO. E. BRYANT, Q. M. General.

Name of company.	Where located.	When organized.	$egin{array}{c} When & H \circ \mathbf{w} & \mathbf{v} \\ \text{organ-} & \operatorname{armed.} & \\ \text{ized.} & \end{array}$	Strength by 1-st muster.	Commissioned officers.	Rank,	When commissioned.
Mauston Light Guard.	Mauston, Juneau county.		1869. Cal. 45.	55 53	W. N. Remington Captain Nov. 20, 1875. B. F. Parker First Lieut Nov. 20, 1875. William Towers Second Lieut Nov. 20, 1875.	Captain First Lieut Second Lieut	Nov. 20, 1875. Nov. 20, 1875. Nov. 20, 1875.

REPORT OF INSPECTION FOR 1878.

Madison, December 17, 1878.

To His Excellency, WILLIAM E. SMITH,

Commander in Chief:

GOVERNOR: I have the honor to report that in pursuance of special order No. 34, I inspected the Maus-Light Guards, of Mauston, on the evening of the 16th inst., with the following result:

1. There were thirty-four officers and men in uniform

for inspection.

2. The company has a zuave uniform, which is in fair condition.

3. The discipline and instruction of the company are excellent.

4. There were exhibited to me fifty B. L. muskets Cal., 45, with accountrements complete, three noncommission swords and three gun chests-which corresponds with the return.

5. The arms, etc., with the exception of a few mus-

kets, out of repair, were in good condition.
6. The company uses a large hall, with a small room off fitted with gubracks, for an armory.

7. The company has complied with the law and with

all orders and regulations of the Governor. In concluse on I would say, that except as to size, this company is first-class. In all their movements they show thorough training. In number the company falls below the standard. Their last muster return shows forty five men. This, no doubt represents their true strength as the absence of enough members, including the captain, from the inspection, to make good that number, was satisfactorily explained. I was informed by the officers that they had hard work to maintain the organization in first-class condition. They are certainly entitled to much credit for their efforts in that behalf.

Very respectfully, your obedient servant A. H. BRIGH I. Capt. and A.-de-C. to the Adj. Gen.

		2					
Name of company.	Where located,	When organ- organ-ar	How armed.	When How Strength organ- ized armed muster.	Commissioned officers.	Rank.	When commission.
Randall Guard.	Darlington, LaFay. May 11, S. B. L. Maria B. B. R. Stew ette county. Gal. 50. Was 1878. Oal. 50. Was 1878. Oal. 50. West and H. E. Mcl.	May 11, 1878.	S. B. L. Cal. 50.	94 when organiz'd. No mus- ter returns made.	S. F. Stewart Captain June 10, 1878.	Captain First Lieut Second Lieut	June 10, 1878. June 10, 1878. June 10, 1878.
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REPORT OF INSPECTION FOR 1878.

This company has not been uniformed so that no inspection was held. It is more than probable that the organization will so down owing to internal dissensions, added to the difficulty of raising money for uniforms.

		WL					
Name of Company.	Where Located.	Organ- ized.	How Armed.	Organ- Armed. by last ized.	Commissioned Officers.	Rank.	When Com- missioned.
Ripon Rifles	Ripon, Green Lake Mch. 28 S. B. L. county 1877. Cal. 50.	Mch. 28 1877.	S. B. L. Cal. 50.	50	Hugo Schultz C Ferd. Filli F Ed. Katt.	Captain July 25, 1878. First Lieut. April 18, 1878. Second Lieut. April 18, 1878.	July 25, 1878. April 18, 1878.
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REPORT OF INSPECTION FOR 1878.

MADISON, WIS., December 2, 1878.
To His Excellency, WILLIAM E. SMITH,

Commander in-Chief.

Governor: — In pursuance of special o der No. 28, I have inspected the Ripon R fles. This is a strong c mpany, composed exclusively of Germans. The ewere fitty-nine men in line. The company male a fine apparentment. pearance.

Your obedient servant,
GEO. E. BRYARN,
Q.M. Gen.

Name of company.	Where located.	When organ-ized.	How armed.	When How Strength organ- armed. muster.	Commissioned officers.	Rank.	When
Sheridan Guard	Milwaukee, Milwau June 23, S. B. L., kee county June 23, Cal. 45	June 23, 1869.	S. B. L., Cal. 45	7.0	W. P. O'Conor Gaptain Aug. 18, 1876. Joseph Dunn Second Lieut July 6, 1877. John E. Coogan Second Lieut Oct. 7, 1878.	Captain First Lieut Second Lieut	Aug. 18, 1876. July 6, 1877. Oct. 7, 1878.

REPORT OF INSPECTION FOR 1878.

Madison, Oct. 29, 1878.

To His Excellency W. E. SMITH,

Commander-in-Chief:

GOVERNOR—In pursuance of special order No. 22, I have inspected the Sheridan Guard, of Milwaukee.

This is probably the most efficient military company in the state. There were 57 men in line.

Your obedient segment

Your obedient servant. GEO. E. BRYANT, Q. M. Gen.

Name of Company.	Where located.	When organ- a ized.	How armed.	How by last muster.	Commissioned officers.	Rank.	When
Sherman Guard.	Neillsville, Clark county.	May 15, 1875.	May 15, S. B. L. 1875. Cal. 50.	65	J. W. Ferguson First Lieut Feb. 19, 1878. Geo. A. Ludington Second Lieut Feb. 19, 1878.	Captain First Lieut Second Lieut	Feb. 19, 1878. Feb. 19, 1878. Feb. 19, 1878.

REPORT OF INSPECTION FOR 1878.

To His Excellency, WM. E. SMITH, Communder-in-Chief:

Governor — I have the honor to report that I have in pursuance of orders, inspected the Sherman Guard of Neillsville. I found a good company, well drilled and well behaved. There are many old soldiers of the last war in Clark county, and they do much to encourage the company to keep up the efficiency it enjoys. Over seven hundred people were present at the inspection, some 60 of whom were old soldie s. Capt. Ferguson was a member of Co. "I," 14th Inf. Wis. Vols., and was every inch a hero. 48 men mustered for inspection.

Your obedient servant,

GEO. E. BRYANT, Q. M. Gen.

TOTAL.

Number companies disbanded during year	4
Number companies organized	4
Whole number now existing	23
Aggregate strength of all companies as shown by last mus-	
ter return	1,402

3 — A. J.

REPORT

OF THE

Quartermaster General of Wisconsin

FOR THE

FISCAL YEAR ENDING SEPTEMBER 30, 1878.

To his Excellency, William E. Smith,

Governor of the State of Wisconsin:

Governor — I have the honor to report the transactions and expenditures of this department for the year ending September 30, 1878:

The business of the office of Quartermaster General during the past year has been confined for the most part to drawing arms and military stores from the Federal Government receiving arms, etc., from companies disbanded and from other companies in exchange for newer arms, and issuing arms, etc., to companies newly organized or to old companies in exchange for those which they already had. The stores drawn from the Federal Government were partly in exchange for ordnance and ordnance stores issued to troops during the war, partly for unservicable stores returned and partly on account of the annual appropriation made to the state by the United States. The balance to the credit of the state with the United States on account of the annual appropriation for arming the militia is \$4,321.25. All the above particulars as well as the expenditures of the department are made to appear by schedules annexed as follows:

Schedule A. which shows arms etc. now held by the military companies of the state.

Quartermaster General's Report.

Schedule B, which shows arms, etc., issued to and now in possession of parties other than the militia.

Schedule C, which shows amount of arms, etc., received from the federal government.

Schedule D, which shows arms, etc., received from military companies of the state.

Schedule E, which shows all arms, etc., now in state armory, and general totals.

Schedule F, which gives an itemized statement of the expenditures of the office for the year ending September 30, 1878.

Very respectfully, your obedient servant,

GEO. E. BRYANT,

Quartermaster-General.

SCHEDULE A.
Showing Arms and Military Stores issued to and now held by Military Companies of the State.

To whom issued.	Where located.	Captain commanding.	Style and quantity of mus- kets with accoutrements	OTHER AR	MS, ETC.
•		- Tomburde	complete, issued.	Swords.	Tactics.
Bay City Light Guard Bayfield Rifies Beloit City Guard Custer Rifles Evergreen City Guard Eau Claire City Guard Governors Guard Governors Guard Guppy Guard Germania Guard Janesville Guards Janesville Weterans Kalmback Rifles Kosciusko Guard Lu Cro-se Light Guard Ludington Guard* Manitowoc V. M. Co Mauston Light Guard Ripon Rifles Randall Guards	Bayfield Beloit Whitewater Sheboygan Est Claire Madison La Crosse Portage Wausau Janesville Janesville Ft. Howard Milwaukee La Crosse Menomonie Manitowoc Mauston Oshkosh Ripon Darlington	J. A, Partridge C. A. Born D. C. Whipple. Phillip Heinkel C. M. Mueller A. H. Russel H. Young T. T. Croft C. W. Baker M. F. Kalmback T. J. Borchardt L. Rossiter T. J. George F. Becker W. W. Remingtom Gabe Bouck Hugo Schultz S. F. Stewart	60 B. L. Cal. 50 50 B. L. Cal. 45 60 B. L. Cal. 45 50 B. L. Cal. 45 65 B. L. Cal. 45 60 B. L. Cal. 50 40 B. L. Cal. 50 60 B. L. Cal. 45 50 B. L. Cal. 45 50 B. L. Cal. 50 60 B. L. Cal. 50	4 N. C. 3 Cavalry. 3. N. C. 5 N. C. 1 N. C. 2 N. C. 1 N. C. 2 N. C. 2 N. C. 50 Cavalry. 5 N. C. 5 N. C.	3 copies 1 copy 3 copies 3 copies 3 copies 2 copies 1 copies 2 copies 1 copy 2 copies 1 copy 2 copies 1 copy 1 copy 2 copies 1 copy 1 copy 1 copy 1 copy 1 copy 1 copy 1 copy 1 copy 1 copy 1 copy 1 copy 1 copy
Sneridan Guard	Milwaukee Neillsville	W. P. O'Conor J. W. Ferguson	60 B. L. Cal. 45 60 B. L. Cal. 50	1 N. C	

Totals — S. B. L. Cal. 50, 715; S. B. L. Cal., 45, 550; S. B. L. Carbines, 50; Saddles and bridles, 50; Swords, 90; Tactics, 34.

*50 saddles and bridles.

Arms and Military Stores Issued.

SCHEDULE B.

Showing Arms and Military Stores is ued to and now held by private parties.

To Waom Issued.	Style and Quantity.	Remarks.		
Miletus Knight Durand, Wis.	1 6 lb. brass cannon 50 cavalry carbines 500 muzzle loading mus- kets, accoutrements complete, 85 swords, 75 A. tents.	Loaned for the re-union held at Durand, Sept. 4, 5 and 6, 1878. Bond given.		
Ephraim Blakeslee Ironton.	40 old muskets with accoutrem'ts complete.	Loaned for 4th of July celebration. Bond given.		
P. J. Rooney Kewaunee.	20 old muskets with accoutrem'ts complete.	Loaned for 4th of July celebration. Bond given.		
L. B. Caswell and citizens of Ft. Atkinson.	1 six lb. cannon with accoutrem'ts complete.	Bond given.		
Richard Guenther and citizens of Oshkosh.	1 six lb. cannon with ac- coutrem'ts complete.	Bond given.		
J. D. Witter and citizens of Grand Rapids;	1 six lb. cannon with accoutrem'ts complete.	Bond given.		
University of Wisconsin.	100 B. L. musk'ts (cal. 50) with accout'mts com- plete, and 8 cavalry sabers and belts.			

Ordnance, Arms and Military Stores.

SCHEDULE "E." Showing Ordnaance, Arms and Military Stores, now in State Armory.

Artillery.	Muskets with with accoutrements complete.	Extra accoutrements — (old).	Swords.	Quarmaster's Stores.
Six 6 pound brass cannon,	530 B. L. Cal. 50. 250 old muzzle loaders.	Bayonet scabbards. 5, 340 Cross belts 1, 629 Gun slings 390 Cartridge boxes 2, 884 Cap pouches 3, 795 Waist belts 3, 456 Waist belt plates 1,738		Canteens 3,800 Ammunition — Ball cartidges 13,500 Blank do 300

Arms, stores, etc., received.

SCHEDULE "C."

Showing all arms and military stores received during the year from the federal government.

One battery of 6 Gatling guns, with accoutrements complete.

360 Springfield B. L. muskets, cal. 45.

10,000 ball cartridges, cal. 50.

5,000 ball cartridges, cal. 45.

5,000 blank cartridges, cal. 45.

SCHEDUDE "D."

Showing arms, accountrements, etc., received from military companies during the year.

Milwaukee Light Artillery (disbanded) -

3 6-pound brass cannon, carriages and limbers, with all accoutrements complete.

Monroe Guards (disbanded) --

60 B. L. and 22 muzzle L. muskets, accoutrements complete.

Clark County Zouaves (disbanded) -

60 S. B. L. muskets, accoutrements complete.

Juneau Badgers (disbanded) -

60 S. B. L. muskets, accourrements complete.

Beloit City Guard -

50 S. B. L. muskets, accoutrements complete (in exchange).

Custer Rifles -

60 S. B. L. muskets, accoutrements complete (in exchange).

Evergreen City Guard -

60 S. B. L. muskets, accoutrements complete (in exchange).

Guppy Guard -

64 S. B. L. muskets, accoutrements complete (in exchange).

Mauston Light Guard -

80 S. B. L. muskets, accoutrements complete (in exchange).

Governor's Guard, of Madison -

40 S. B. L. muskets, accourrements complete (in exchange).

Expenditures during the Year, etc.

SCHEDULE F.

Showing expenditures during the year by items taken from report of Secretary of State.

American Express Co., charges on military goods	1	50
H. Bowdentein, sheep skins	3	45
C., M. & St. Paul R'y Co., freight on arms		20
C. & N. W. R'y Co., freight on arms		77
Peter B. Fields work in armory	845	
Fred Memhard, freight and cartage on military stores	402	
Charles May, cleaning artillery harness	132	
Charles May, repairing cannon, etc., Mil. Light Artillery		00
J. S. Webster, painting gun carriages	5	00
A. Cheney, subsistence for militia	177	
Dunning & Sumner, snpplies for armory	2	92
Klauber & Adler, use of beds for militia		00
J. E. Fisher, cot bed for militia	3	00
Dennis Foley, firing salute Feb. 22		00
Charles Merrick, subsistence for militia		,
Wm. J. Jones, subsistence for militia		00
John McFarland, firing salute Feb. 22		00
Matthews Bros., cots for malitia		00
H. B. Sherman, cots for militia	12	00
Jord in Tillman, carting military stores	2	00
Vilas House, subsistence for militia	16	00
A. H. West, subsistence for militia	21	00
F. J. Borchardt, transporting state arms		30
Peter B. Fields, shipping artillery harness	11	00
Klauber & Adler, repairing flags	13	95
Ludington Guards, freight on arms	28	34
A. McGovern, ammunition.	3	75
John Cory firing salute July 4	10	00
Wilhelm Flohr, friction primers	2	50
Vroman, Frank & Ramsay, powder	64	58
Total		11

Totals.

TOTALS.

Number of arms in possession of companies (Springfield B. L.) Number of arms in possession of private parties (Old Style) Number of arms in possession of QM. G. (570 S. B. L.)	1,313 660 830
Whole number of arms in possession of state	2,703 ====
Number of cannon held by private parties	8
Whole number Gattling guns in possession of state	6
Swords all told	270 75

ANNUAL REPORT

OF THE

BOARD OF TRUSTEES

OF THE

SOLDIERS' ORPHANS' HOME

OF THE

STATE OF WISCONSIN,

FOR THE

YEAR ENDING DECEMBER 31, 1878.

MADISON, WIS.:
DAVID ATWOOD, STATE PRINTER.
1879.

TRUSTEES OF THE HOME.

GEN. AMES BINTLIFF,	-		É		-		•	DARLINGTON.
Col. C. K. PIER,				9		-		FOND DU LAC.
Col. W. F. VILAS, Z-	-	-	*				•	Madison.

OFFICERS OF THE BOARD

JAMES BINTLIFF,
PRESIDENT.

C. K. PIER, VICE PRESIDENT.

W. F. VILAS, SECRETARY.

RICHARD GUENTHER, TREASURER.

TRUSTEES' REPORT.

To his Excellency, WILLIAM E. SMITH,

Governor of the State of Wisconsin:

The law instituting this charity requires those persons to whom its administration is entrusted, to report annually their doings to the governor; and, in obedience thereto, we present the thirteenth The legislature of 1874 made provision for the discontinuance of the Soldiers' Orphans' Home, at Madison, by authorizing the board of trustees of said Home to pay to mother, legal guardian or other person, to whom the care of any of the orphans, then in said Home, might be committed, the sum of five dollars per month for each child, until such child should attain the age of fourteen years. Because a few of these children entitled to this pension of five dollars per month, from the time when the Home was abandoned in 1874 to the date of our last report, had not made application for the same, and the money having accumulated in the treasury, we determined to use this money to pay the pensions for the year, and consequently did not ask for any appropriation for the year 1878. But this money is now so nearly exhausted that, after paying the pensions for the quarter ending October 1st, there will be left a sum insufficient to meet those due January 1, 1879. This defficiency, with the pensions for the coming year, will require an appropriation by the legislature of nine hundred dollars.

At the date of our last report there were thirty children on our rolls entitled to the pension. Of these, ten have arrived at the age of fourteen years during the past year, leaving twenty who have a claim upon the appropriation. Of these, eight have never applied for the benefit of this provision, leaving twelve to be provided for. Of these twelve, five will expire, by reason of age, during

Trustess' Report.

the coming year, leaving seven still on the roll. Inasmuch as, during the coming year, fourteen years will have elapsed since the war closed, the question may reasonably be asked: Why do not all these pensions cease? The answer is, that during the continuance of the Home several orphans were admitted who, under a strict construction of the law, were not entitled to admission. For instance, two children, born after the war closed, whose mother was dead, and whose father had become insane as the result of a sunstroke received while doing his duty as a soldier during the war, were admitted.

These seven orphans who will remain on the list after the close of the coming year, are cases all of which, perhaps, are as meritorious as the above; but, unless the board of trustees shall have special instructions by the legislature with regard to these exceptional cases, they will not deem it their duty to ask for further appropriation under the law of 1874; and, at the close of the coming year, will notify the guardians or persons who have the charge of these children that no further pensions will be paid. There is always a tendency, from sympathy or other kindly influences, to extend these beneficial provisions beyond the limits fixed by the law; and these children, having had the benefit of the Home, the pension since 1874, and a share of \$55.00 each assigned them in the Ward and Smith bequests, the members of the Board of Trustees feel that neither the letter nor the spirit of the law will justify them in doing more.

The law prescribes that these pensions shall cease when the orphans shall become fourteen years of age; and, although special circumstances which, in the judgment of the members of the Board, warranted them in receiving these orphans in the Home, yet when, at the end of the next year, fourteen years shall have elapsed since the war closed, they are of the opinion that these pensions should cease.

To the beneficiaries of the Ward and Smith bequests there have been but two additional certificates of both series, issued during the past year, making a total of 542. There has been paid by the state treasurer in redemption of these certificates as they became due, during the year 1876, \$6,165.85; during 1877, \$4,733.34; dur-

Trustees' Report.

at the close of the present fiscal year, \$18,050.49. Notwithstanding the fact that at each of the two distributions made by the trustees of this fund, a considerably larger amount was awarded to each orphan than the amount of money belonging to the fund seemed to justify, yet the fact that the certificates are not transferable and not paid until the girls become 18 years of age and the boys 21, gives the fund the advantage of the deaths that occur between the time of issuing the certificates and when they become due, and from this cause and accruing interest more than the certificates bear, quite a surplus will probably accrue, besides covering the excess of the allotment over the amount in the fund.

The last of the payments from these bequests will not be made before 1889.

Just before giving this report to the printers, we ascertained that after concluding to repeal only so much of the law referring to the administration of the trust known as the Soldiers' Orphans' Home as had become obsolute, the revisers inadvertently repealed the whole; so that the trustees have now no legal existence. Additional legislation will therefore be necessary to enable such authorities as the Governor may see fit to entrust with this matter to redeem the contract made with the orphans by the authority of the legislature of 1874; and to continue and complete the distribution of the Ward and Smith bequests.

JAMES BINTLIFF,

President.

WM. F. VILAS,

Secretary.

Superintendent's Report.

SUPERINTENDENT'S REPORT.

To the Board of Trustees of the Soldiers' Orphans' Home:

Gentlemen: In compliance with the requirements of the law regulating our state charities, I respectfully report the transactions of this office on behalf of the soldiers' orphans, for the year ending September 30, 1878, it being the thirteenth annual report of the Soldiers' Orphans' Home.

In the matter of pensions, our list of children entitled to aid contains but twenty names. Of these, eight are non-applicants, having hitherto received no benefit of the law of 1874 discontinuing the "Home." Inasmuch as the parties, up to date, have failed to apply for said benefits, it is reasonable to suppose that they will not present their claims based upon the act of the legislature, chapter 72, laws of 1874. At the close of the present fiscal year, these claims aggregate ten hundred and twenty dollars. Disregarding these non-claimants, only twelve pensioners, drawing sixty dollars annually, are to be provided for. For this purpose, and current expenses, nine hundred dollars will be needed.

Our correspondence with the children in the payment of quarterly pensions, and in giving direction for the collection of the Ward and Smith fund shares, has revealed nothing new concerning the well-being of the former inmates of the Home. Its tone, however, has been such as to verify the statements pertaining to them made in our last report, viz.: the social status of the recipients of this state charity is, as a whole, such as to reflect credit upon all who have been honorably connected with the Soldiers' Orphans' Home management. During the year more personal interviews than usual have been had with the children. These have in nowise tended to modify the views already expressed relative to their usefulness and respectability.

Superintendent's Report.

The distribution of the Ward and Smith fund has continued throughout the year, and so much of the treasurer's report as pertains to this fund has, by the permission of the Hon. Richard Guenther, been incorporated into this report, with a list of all parties that, up to date, have received a share of this liberal bequest.

Very respectfully,

R. W. BURTON.

Financial Statistics.

FINANCIAL STATEMENT.

The following are the receipts and expenditures on behalf of the soldiers' orphans of Wisconsin, from October 1, 1877, to September 30, 1878, inclusive:

			4
1877	RECEIPTS.		
Oct. 1 Nov. 23	Balance on hand	500	00
	Total	\$1,932	61
	EXPENDITURES.		
Sept. 30	To orders paid, Nos. 469 to 553	\$1,599 833	
	Total	\$1,932	61

The following is a detailed statement of receipts and expenditures for the year ending September 30, 1878.*

^{*}Detailed statements of receipts and disbursements omitted from printed report, in accordance with chapter 32, laws of 1872.

Financial Statistics.

FINANCIAL STATEMENT.

The following is list of vouchers for expenditures on behalf of soldiers" orphans of Wisconsin, from October 1, 1877, to September 30, 1878, inclusive:

Oct. 3	469	R. W. Phillips, pension.	\$ 15 0 0
Oct. 3	470	C. K. Pier, pension.	15 00
Oct. 3	471	F. W. Menkey, pension.	15 00
Oct. 3	472	M. Becker, pension	15 00
Oct. 3	473	C. Cooper, pension	15 00
Oct. 4	474	R. M. Kellison, pension	15 00
Oct. 5	475	C. S. Piercy, pension	30 00
Oct. 5	476	R. W. Burton, salary	40 00
Oct. 5	477	E. Wolcott, pension	15 00
Oct. 5	478	M. A. Parker, pension	8 67
Oct. 8	479	M. Harmer, pension	30 00
Oct. 9	480	M. J. Harriman, pension	15 00
Oct. 9	481	E. Leffingwell, pension	3 00
Oct. 9	482	E. Ramsey, pension	15 00
Oct. 9	483	E. Dhyne, pension	15 00
Oct. 10	484	R. A. Barker, pension	15 00
Oct. 10	485	M. Baker, pension	15 00
Oct. 11	486	C. Matthews, pension	15 00
Oct. 11	487	John Neil, pension	30 00
Oct. 16	488	S. Mountford, pension	30 00
Oct. 18	489	E. Mumm, pension	15 00
Oct. 31	490	R. W. Burton, expenses	9 50
Nov. 6	491	Wm. F. Vilas, aid for orphan	50 00
Nov. 30	492	R. W. Burton, expenses	44 00
Dec. 31	493	R. W. Burton, salary and expenses	40 00
1878	100	The W. Burton, satury and expenses	40 00
Jan. 1	494	R. W. Burton, expenses	15 00
Jan. 7	495	M. Baker, pension	15 00
Jan. 7	496	M. Becker, pension	15 00
Jan. 7	497	C. Cooper, pension.	15 00
Jan. 8	498	E. Dhyne, pension	15 00
Jan. 9	499	C. K. Pier, pension	15 00
Jan. 9	500	E. Ramsey, pension	15 00
Jan. 9	501	F. W. Menkey, pension.	15 33
Jan. 9	502	R. M. Kellison, pension	13 33
Jan. 10	503	E. Wolcott, pension	10 50
Jan. 10	504	R. W. Phillips, pension	15 00
Jan. 11	505	C. S. Piercy, pension.	30 00
Jan. 11	506	C. Matthews, pension	15 00
Jan. 11	507	R. A. Barker, pension	15 00
Jan. 12	508	E. Mumm, pension	10 00
5 IN	, 500	an anama, pomocomitiva de la comita del la comita del la comita del la comita de la comita del la comita de la comita de la comita del la comita de la comita de la comita de la comita del l	10 00

Financial Statistics.

* 0*0			
1878	509	M I Hamiman	#1E 00
Jan. 14 Jan. 15	510	M. J. Harriman	\$15 00 8 25
Jan. 15	511	S. Mountford, pension	30 00
Jan. 21	512	Jno. Neil, pension	30 00
Jan. 25	513	M. Harmer, pension	16 66
Jan. 25	514	R. W. Burton, salary	25 00
Feb. 28	515	R. W. Burton, salary	25 00
Feb. 28	516	R. W. Burton, expenses	2 50
Mar. 31	517	R. W. Burton, salary	20 00
Apr. 3	518	M. Becker, pension	15 00
A pr. 5	519	R. A. Barker, pension	15 00
A pr. 6	520	C. K. Pier, pension	15 00
Apr. 6	521	M. Baker, pension	15 00
Apr. 6	522	M. Harmer, pension	15 00
Apr. 6	523	C. S. Piercy, pension	30 00
Apr. 6	524	S. Mountford, pension	30 00
Apr. 6	525	R. W. Burton, expenses	22 00
Apr. 6	526	C. S. Cooper, pension	15 00
Apr. 10	527	E. Ramsey, pension	15 00
Apr. 10	528	C. Matthews, pension	15 00
Apr. 10	529	R. W. Phillips, pension E. Dhyne, pension	15 00
Apr. 10	530	L. Dhyne, pension	15 00
Apr 13	531	Jno. Neil, pension	30 00 20 00
Apr. 13	532	R. W. Burton, rent, fuel and light	9 00
May 5	533	R. W. Burton, expenses	. 30 00
May 18	534	R. Butterfield, pension R. W. Burton, expenses	20 00
May 31	535 536	R. W. Burton, expenses	20 00
June 30 July 3	537	R. W. Burton, expenses	7 50
July 5	538	M. Becker, pension	15 00
July 5	539	C. Matthews, pension.	15 00
July 8	540	E. Ramsey, pension	13 00
July 8	541	C. S. Piercy, pension	30 00
July 8	542	E. Dhyne, pension	6 00
July 9	543	S. Mountford, pension	30 CO
July 10	544	R. W. Phillips, pension	15 00
July 12	545	R. Butterfield, pension	30 00
July 12	546	R. A. Barker, pension	15 00
July 13	547	M. Harmer, pension	15 00
July 15	548	C. K. Pier, pension	15 00
July 15	549	Jno. Neil, pension	30 00
July 20	550	M. Baker, pen ion	15 00
July 31	551	M. Baker, pen ion	20 00
Aug. 12	552	R. W. Burton, expenses	20 00
Sept. 4	553	R. W. Burton, expenses	20 00
			1 200 04
		Total	1,599 24
		THE AND CHIMIT DECLIERS	•
		WARD AND SMITH BEQUEST.	
City of 1	Milwo	vkee readjustment bonds	88,000 00
City of	Pitteh	urch railread compromise bonds	4,000 00
Milwanl	kee ci	ty registered water work bonds	5,000 00
21111 au			
Tota	1	, 	7,000 00
		WARD AND SMITH FUND.	
Balance	in bor	nds:	7,000 00

STATEMENT OF CERTIFICATES OF WARD AND SMITH BEQUEST TO WISCONSIN SOLDIERS' ORPHANS' HOME,

Paid to September 1, 1878.

	ı	
Clara R. O. Richardson	\$45 00	
Benj. F. Curtis		
Francis F. H. daman	75. 52 1	
Sadie S. She'don	4 00	
M ria E. L. Hogoboom	45 00	
Ella Saunders	45 00	
Manager Considers	45 00	
Marga et Saunders	45 00	
Laura P. Dutcher	45 00	
John Becker	45 00	
Sa ah Ashel		· · · · · · · · · · · · · · ·
Harris S. Hitchcock	45 00	· · · · · · · · · · · · · · · ·
Alice L. Frissell	45 00	· · · · · · · · · · · · · · · ·
Theresa C. Place	45 00	• • • • • • • •
Lottie E. Robinson	45 00	,
Agnes Thane	45 00	 .
Mary C. Marcum	45 00	
Caroline Pfeiffer	. 45 00	
Eva L. Richey	45 00	
Mary O'Connor	45 00	
Mary A. Rood	45 00	
Jane E. Hale	45 00	
Mary Marsh	45 00	
Rosetta Jones	45 00	
Bertha A. Gear	45 00	
Walter Hill	45 00	
Horace Hatfield	45 00	
Mendel Blakesly	45 00	
Della Vandusen	45 00	
Anna E. Randall	45 00	
Alice Walker	45 00	
Nina Sigglekair	45 00	
Caroline Calkins	45 00	
Annie Newell	45 00	
Agnes E. McDonald	45 00	
Emma Ballenger	45 00	l
Wm. F. Stilwell	45 00	1
Martha L. Norton	45 00	
Margaret E. Baker	45 00	
Warren Corse	45 00	
Mary A Haward	45 00	
Viola Mark	45 00	
Laura M. Blunt	45 00	
Mary A. Lasselyoeing		
Ida Ingersoll	45 00	
Wm. H. Langdon	45 00	
Kate E. Stalker	45 00	
Watson H. Hitchcock	45 00	
Alice Wilkins		
Affect Wilkins	-1 40 00	1

WARD AND SMITH BEQUEST - continued.		
Emma I Dan		
Emma J. Ray	\$45 00	
Caroline Milem	45 18	• • • • • • • • • •
Mary C. Massingale	45 00	
James H. Stillwell	45 16	
Wm.#H. Smith	45 29	• • • • • • • • •
Ora Nichols	45 35	• • • • • • • • •
Hattie ThornGeorge Eason	45 55	• • • • • • • • •
Umeda Hollenbeck.	45 55 45 55	• • • • • • • • • •
Alvin Neyhardt	$\begin{array}{cccc} 45 & 55 \\ 45 & 52 \end{array}$	• • • • • • • • • • •
Mary E. Tracy	45 52	• • • • • • • • • •
Sarah M. Floyd.	$\frac{45}{45} \frac{52}{42}$	• • • • • • • • • • • • • • • • • • • •
Caroline Cummings	45 59	• • • • • • • • •
Margaret E. Skinner.	45 45	• • • • • • • • •
Adelia Skinner	45 55	
Julia Skinner	45 45	
Harriet E. Blanchard	45 55	••••
Mary E. Delap.	45 45	• • • • • • • • • • •
Calesta Kellogg	15 50	
Mira Stetson	45 44	• • • • • • • • • •
Ida Brockway	45 45	
Ida McDonald	45 45	
Frank W. Howard	45 79	
Clara E. Care	45 00	
Losona M. Brooks	45 00	• • • • • • • •
Effie J. Olin	45 85	
Sarah S. Merrill	45 85	
Mary Skinner	45 00	
Mary E. Wakeman	45 85	
Kittie L. Baker	45 00	• • • • • • • • • • • • • • • • • • • •
Wm. S. Grau.		• • • • • • • •
Nannie Lalor		• • • • • • • •
Florence Pritchard	45 00	•••••
Kate William		• • • • • • • •
Tim. P. Lewis.		•••••
Sarah Kellogg.	45 99 45 00	• • • • • • • •
Evelyn E. Gray	45 53	•••••
Hattie Winebunner	75 00 1	• • • • • • • • • •
Mary E. Proctor	45 00	• • • • • • • • •
Mary Mathew	45 00	•••••••
Margaret Richardson	46 02	
Wm. V. Falley	40 00	
John Hatfield	46 12	
Chas. E. Care	46 12	
Hannah Neyhardt	46 17	
Wm. Jones	46 20	••••••
Warren Angel	46 32	
Kate Mathews	46 50	• • • • • • • • •
Martha E. Vangoeden	46 43	
Burton Walker		•••••
John R. Baker	46 37	
George Burt	46 40	•••••
David Winebrenner	46 40	•••••
Lillie Boyd	46 40	• • • • • • • •
Mary C. Nash	46 40 1.	• • • • • • • •

Ward and Smith Bequest — continued.		
Emerett Wood	\$46 63	
Edwin H. Crane	46 59	
Abbie W. Frissell	46 60	
George F. Lall	46 60	
Wm. H. Brown	46 70	
Ella C. Ballenger	46 75	
Barton E. Boyce	$\begin{array}{c} 46 & 75 \\ 46 & 75 \end{array}$	
Lizzie Gammage	46 85	
Frederica Hughes	46 85	
Lillie Gear	45 00	
Carrie E. Bibbings.	47 15	
Wm. H. McDermott	45 00	
Sarah E. McDonald	47 29	
Saran E. Sheeks	47 25	
Carrie E. Newell.	47 25	
Sarah F. Sanders.	46 91	
Kate McIlvaine	46 93	
George B. Nash	47 34	
Frank Maleo	47 25	
Frank Brockway	47 44	
Lottie C. Hopkins	45 10	
Hattie E. Robinson	47 60	
Olive M. Delap	47 50	
Dewitt C. Riley	45 00	
Ida F. Hitchcock	47 73	
Hiram Gray	$47 69 \\ 48 12$	
Minnie Stalker	45 00	
James McGowan	48 18	
Alfred W. Sipperly	48 18	
itemy vanueroni		\$6,165 85
William Abels	48 70	
Rosetta Beckwith	48 51	
Eva L. B iggs	48 91	
James Burt	49 03	
Oda Brown	$49 \ 37$	
Alex. D. Colburn	49 13	
Alfred Collar	$50 \ 03$	
Anna_C. Ellis	49.09	
Wm. B. Faith	48 13	· · · · · · · · · · · · · · · · · · ·
Charles Fanning	49 50	
Lennie Gifford	49 87	
Ella J. Glines	48 05	
Geo. C. Glines	49 60	
John L. Hadman	$\frac{48}{48} \frac{54}{77}$	
Effice A. Hood	48 94	
Edwin HillGeorge Lusk	48 98	
Margaret Lusk	50 02	
Lowella Lockwood	49 73	
Josephine McManus	49 03	
James McDermott	49 13	1
Alice Major	49 78	
Martha B. Nash	45 00	
Geo. W. Norton	48 37	1

Ward and Smith Bequest — continued.		
Johanna H. Nash	\$47 58	
Ora A. Osborn	47 23	
Albert J. Ormsby	48 80	
Matilda S. Owrey	49 04	
Alice B. Partridge	48 82	
Harriet J. Partridge	45 00	
Geo. W. Partridge.	45 00	
Ida Pritchard	49 65	
Alice E. Proctor	58 65	
Mary I. Place	50 42	
Mary L. Place		
Sophy Pfeiffer	49 30	
Fannie F. Roy	48 64	
Henry F. L. Roohr	45 00	}
Charles G. Roohr	45 75	
Juliette Reckford	48 53	
Jameson Richardson	47, 44	
Elizabeth Richardson	48 88	
Alonzo W. Riley	48 94	
Charles Specht.	46 36	
Florence E. Stillwell	48 65	
Charles B. Stevens	49 05	
Charles A. Smith	49 03	
Alice J. Skinger	45 00	
Lydia Skinner	50 02	
Ella L. Stoddard	49 88	
Rosa Tonnard	48 80	
Permella J. Tuttle	45 00	
Nettie M. Tubbs	49 84	
John W. Thay r	48 00	
Daniel W. Wilkins	48 83	
William Welsh	48 62	
Georgia A. Young	45 00	
Ida A. Young	46 18	
Fred W. Aufderheide.	49 89	
Eva L. Baker	50 06	
Jason A. Cressey	49 13	
Sarah A. Drake	50 30	
Leafy Fansler	50 25	
Sophy G. Johnson	50 25	
Wm. F. Johnson	50 16	
Georgianna Milleam	47 81	
Christina M. Nash	50 02	
Leonard D. Hall	49 88	
Alice Milem	50 24	
Sarah Astel	10 00	
Warren Angell	10 00	
Carrie E. Bibbings	10 00	
Batton E. Boyd	10 00	
Lillie Boyd	10 00	
Ida Brockway	10 00	
Frankie Brockway	10 00	
Mendle Blakesley	10 00	
John Becker	10 00	
Caroline Calkins	10 00	
Edwin H. Crane	10 00	
Clara E. Carl	10 00	F

WARD AND SMITH BEQUEST—continued.		
Charles E. Carl	\$10 00	
Benj. F. Cartis.	10 00	
Warren Corse	10 00	
Olive M. Delap	10 00	
Sarah A. Drake	10 00	
Leafy Fansler	10 00	
	10 00	
Jane E Faith	$10 00 \\ 10 00$	
Ella J Glines	10 00	
Evelyn E. Gray.	10 00	
Hiram Gray.	10 00	
Francis F. Haldaman	10 00	
Ellen A. Hughes	10 00	
Frederica A. Hughes	10 00	
Almeda Hollenbeck	10 00	
Ida F. Hitchcock	10 00	
Watson H. Hitchcock	10 00	
Harriet J. Hitchcock	10 00	
Edwin Hill	10 00	
Jane E. Hall	10 00	
Effie A. Hood.	10 00	
Maria E. L. Hogoboom	10 00	
Sophy G. Johnson	10 00	
Eugene Ingersoll	10 00	
Calista Keliogg. Timothy P. Lewis.	10 00 10 00	
El a Lockwood.	10 00	
Nannie La or	10 00	
James A. McGowan	10 00	
Agnes E. McDonald	10 00	
Ida McDonald	10 00	
James McDe mott	10 00	
Ge rgianna Milleam	10 00	
Sarah S. Milleam	10 00	
Kate Milleam	10 00	
Viola Mack	10 00	
Frank D. Mallo	10.00	
Alice Major	10 00	
George W. Marshall	10 00	
Mortha L. Norton	10 00 10 00	
George W. Norton	10 00	
Mary O'Connor	10 00	
Matilda S Ouray	10 00	
Albert Ormsby	10 00	
Harriet J. Patridge	10 00	
Alice B. Partridge	10 00	
Alice E. Proctor	10 00	
Mary E. Proctor	10 00	
Ida Pritchard	10 00	
Theresa C. Place	10 00	
Mary L. Place	10 00	
Sophy Pfeiffer	10 00	
Caroline Pfeiffer		
Fanny F. Roy	10 00	

		,
WARD AND SMITH BEQUEST — continued.		-
Emma J. Roy.	\$10 00	1
Eva L. Richey	10 00	
Charles G. Roohr	10 00	
Henry F. L. Rhoor	10 00	
Mary Skinner	10 00	
Lydia Skinner	10 00	
Alfred W. Sipperly	10 00	
Charles Specht	10 00	
Ella L. Stoddard	10 00	
Mira Stetson	10 00	
Sadie I. Sheldon	10 00	
Nina Siggelkow	10 00	
Margaret Sanders	10 00	
Sarah F. Sanders	10 00	
Ella Sanders	10 00	
Mary E. Tracy	10 00	
Hattie Thorne	10 00	
Agnes Thorne	10 00	
Willie V. Tully	10 00	
Delia Van Dusen	10 00	
Daniel W. Wilkins	10 00	
Alice Wilkins	10 00	
James Burt.	10 00	
George Burt	10 00	
John R. Baker	10 00	
Eva L Briggs Laura M. Blunt	10 00 10 00	
William A. Brown	10 00	
Jason A. Cressy.	10 00	
Alice M. Colburn	10 00	
Mary E. Delap.	10 00	•••••••
Eugene R. Divens	10 00	
Laura P. Dutcher	10 00	
George Eason	10 00	
Sarah M. Floyd	10 00	
Lillie Gear	10 00	
Willie S. Gear	10 00	
Bertha A. Gear	10 00	
Geo. C. Glines	10 00	
John L. Hadaman	10 00	
Walter Hill	10 00	
Frank W. Howard	10 00	
John Hatfield	10 00	
Mary A. Losselyoung	10 00	
Margaret Lusk	10 00	
Sarah E. McDonald	10 00	
Alice Mılem	10 00	
Many Mangh	10 00	ļ
Mary Marsh	10 00	
Charles Newell	10 00	· · · · · · · · · · · · · · · · · · ·
Addie Newell	10 00	
Carrie E. Newell	10 00	
Johanna H. Nash	10 00	
Hanna Neyhart	10 00 10 00	
Florence Pritchard	10 00	
_ 1010H00 _ 110Hatu	10 00	· · · · · · · · · · · · · · · · · · ·

	e10 00	
WARD AND SMITH BEQUEST—continued.	\$10 00	
	10 00	
Anna E. Randall	10 00	
Juliet Record	10 00	
Hattie E. Robinson	10 00	· · · · · · · · · · · · · · · ·
Lottie E. Robinson	10 00	
Margaret Richardson	10 00	
Jameson Richardson	10 00	• • • • • • • • •
Florence E. Stillwell	10 00	
Adelia Skinner	10 00	
Julia T. Skinner	10 00	
Margaret E. Skinner	10 00	
Alice J. Skinner	10 00	
Nettie M. Tubbs	10 00	
John W. Thayer	10 00	
Martha E. Vangorder	10 00	
Rosetta Vanderbilt	10 00	
Burton Walker	10 00	
Emarett Wood	10 00	
Hattie Winebrenner	10 00	
David Winebrenner	10 00	
David Willeplender		4,735 34
Jas. H. Stillwell	10 00	1,100 02
Emma Turis	10 11	
Emma Turis	50 58	
Emma Turis	10 00	
Effie J. Olin	10 00	
Mary Mathews.	10 00	
Margaret E. Baker		1
Rosetta Jones	10 00	
Clara Richardson	10 00	
Geo. F. Lull	10 00	
May A. Rood	10 00	
Eva L. Baker	10 00	
Mary J. Ledgett	10 00	
Chas. F. Shaw	10 12	
Wary J. Ledgett	47 80	
Lottle C. Hopkins	10 00	
Rehecca Smith	50 84	
Rehecca Smith	10 16	
Eugene Ingersoll	50 28	
Wm B Faith	10 00	
Geo Luck	10 00	
Wm H Smith	10 00	
Alfred Collar	10 00	
Mary C Massingale	10 00	
Christian M Nash	10 00	
Mary A. Hogoboom	51 00	1
Mary A. Hogoboom	10 19	1
Adel Fountain	50 73	1
Adel Fountain	10 14	1
Kittie L. Baker	10 00	
Geo. Mott Baker	10 00	1
Lena C. Layton	50 80	
Lena U. Layton	10 15	
Lena C. Layton	10 10	
Kittie E. McIlraine		
Elizabeth Richardson	10 00	
Chas. F. Shaw	50 80	
David E. Haynes	10 00	1
0 0 17		

^{2 -} OR. HOME.

Ward and Smith Bequests - continued.		
Denist Trans.		
David E. Haynes	\$48 12	
Phebe Gansell	51 20	
Phebe Gansell Mary C. Marcum	10 22	3
Mary C. Marcum	10 00)
Laura E. Marchm	10 00	
Mary C. Nash	10 00	· · · · · · · · · · · · · · · · · · ·
Wm. F. Stillwell	10 00	1
G. W. Stillwell	15 22	
G. W. Stillwell.	51 12	
James W. Steadman	10 00	
James W. Steadman	49 80	
Kate Matthews	10 00	
Lewis G. Johnson.	51 15	1
Lewis G. Johnson	10 23	
Geo, B. Nash	10 00	
F. W. Aufderheide	10 00	
Jose McManus	10 00	
Edward Pritchard	10 25	
Hattie Hawes	10 45	
Life F. Nash	10 00	
Life F. Nash	49 35	
Eme M. Mack	10 40	
Eme M. Mack	52 10	
Geo. H. Thayer	10 00	
Geo. H. Thaver	49 75	
Hattie M. Sawyer.	10 46	
Hattie M. Sawyer	52 14	
Willie Gray	10 46	
Willie Gray	52 14	
Julia Worley	10 40	
Julia Worley	51 80	
Nettie Wheeler	10 45	
Nettie Wheeler	52 15	1
Sarah E. Preston	10 50	
Sarah E. Preston	52 30	
Geo. Becker	10 10	••••••
Geo. Becker	52 10	
Albert E. Howard	10 52	
Albert E. Howard	52 40	
Willie Angell	10 53	
Willie Angell	52 50	
William Lusk	10 53	
William Lusk.	52 40	
Homer H. Lewis	10 13	
Homer H. Lewis	52 72	
Volney A. Brown.	52 50	• • • • • • • •
Everett V. Howard	10 10	• • • • • • • • • • • • • • • • • • • •
Everett V. Howard	52 50	• • • • • • • • • • • • • • • • • • • •
Michael McDormott	10 55	
Michael McDormott	52 65	· • • • • • • • • • • • • • • • • • • •
Ella J. Ellis		••••••
Ella J. Ellis	$10 52 \\ 52 60$	• • • • • • • • •
Edith Mansfield		•••
Edith Mansfield	10 53	• • • • • • • •
Total disbursements.	52 55	@4 4M0 00
Balance September 30, 1878.		\$4,470 08 1,050 49
		1,000 40
Total	•••••	\$5,520 57

THIRD

ANNUAL REPORT

OF THE

STATE BOARD OF HEALTH

OF THE

STATE OF WISCONSIN,

FOR THE

YEAR ENDING DECEMBER 31, 1878.

MADISON, WIS.:

DAVID ATWOOD, STATE PRINTER.

1879.

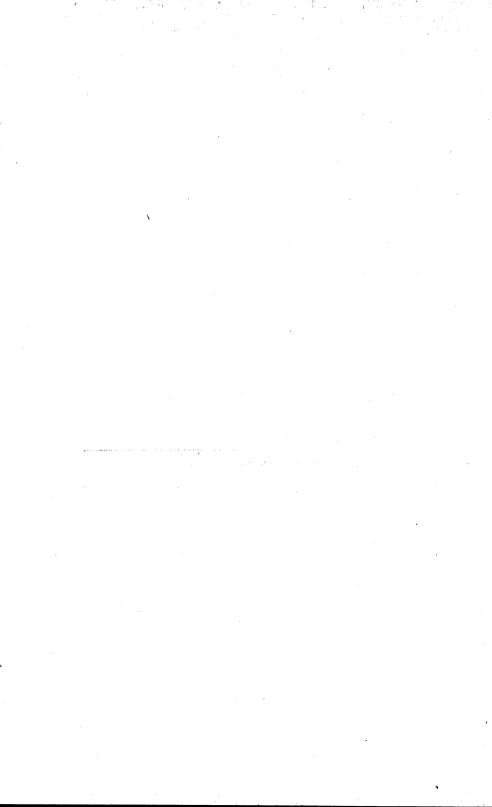
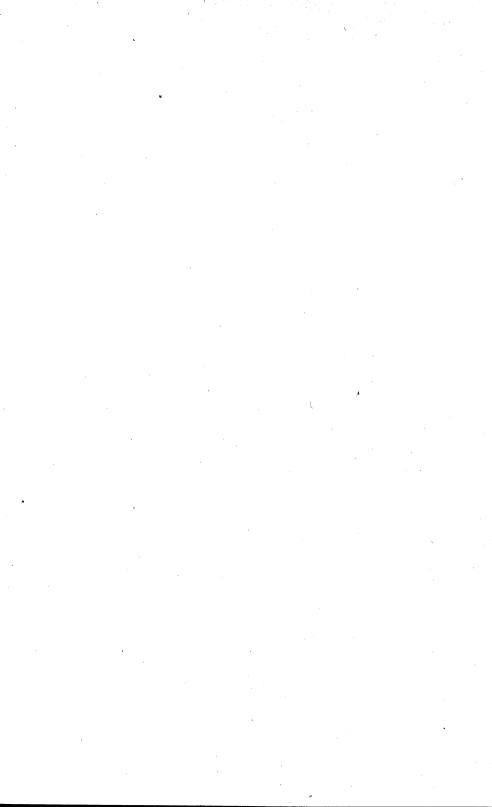


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GENERAL REPORT OF THE BOARD.

State of Wisconsin,

Office of the State Board of Health,

December 31, 1878.

His Excellency, WILLIAM E. SMITH,

Governor of Wisconsin:

Sir: In accordance with the law under which the State Board of Health was organized, its third annual report is herewith presented.

In an accompanying report from the secretary of the board, there has been given an account of the chief measures which have been taken in pursuance of the object for which the board was constituted, and to that report in connection with this general one, you are respectfully referred, for information as to the details of its operations.

Nothing can be more true than that the state has a vital interest in the vigor and healthfulness of her citizens. A community lacking health, must of necessity be an impoverished community, and we invite especial attention to that part of the secretary's report in which the reports of local health boards are discussed, and the immense loss to the state resulting from diseases believed to be preventable, shown. There is no reason whatever to doubt that a large part of this great loss might have been prevented, had proper hygienic measures been taken, and the precautions observed which modern sanitary science has proven efficacious wherever they have been scrupulously observed. In this view, it will be noticed that the far greater evils of suffering and sorrow, which are inevitable accompaniments of sickness and death, are not considered, for upon these no valuation in money can be placed, and for them no pecuniary compensation can be considered an atonement.

1 - S. B. H.

THE SPECIAL WORK

that has been entrusted to this board, which includes "a general supervision of the interests of the health and life of the citizens of the state, of making sanitary investigations and inquiries into the cause of disease, and the gathering proper information for diffusion among the people," is one which demands the most earnest efforts of the best minds in the commonwealth. In endeavoring to perform it to the best of their ability, the members of the board have sought the aid of men outside of their own number, who, either through practical experience or special study, were qualified to give such instruction upon various points as was contemplated by the law. It gives them great pleasure to say that their requests for assistance have nearly always met with hearty responses from those to whom they were addressed, and that the present report is, as a consequence, enriched by valuable contributions obtained in this manner which are worthy of careful study.

In addition to the material thus obtained, each member of the board has been charged, as heretofore, with the investigation of some one or more matters of interest and importance as regards the health of the people of the state, some of the results of which studies are given hereafter.

A matter of deep interest to this board, and one on which the people of Wisconsin are to be congratulated, is the growing interest in matters pertaining to sanitary science, of which evidence is given in the secretary's report, and in the extracts from the special correspondence. Nor is this interest confined to our own state; at the present time, no less than nineteen states of the Union have enacted laws under which State Boards of Health have been organized, and have entered upon their great and highly important work under auspices more or less favorable. The number of these State Boards is now more than double what it was at the beginning of 1876, and it seems possible that the close of the present decade will see few, if any, members of the Union in which the subject of state medicine will not be carefully studied, under the authority of the various legislative bodies. More than this, there is at present a growing feeling, intensified and stimulated, no doubt, by the re-

membrance of the fearful calamity which has so recently devastated a large part of our country, which favors the establishment of a national public health organization. A memorial has already been presented to the national legislature from the American Public Health Association, urging the immediate appointment of a "Provisional National Health Commission," preparatory to an organization such as that above referred to, from which memorial we make the following extract:

"We are entirely convinced that the future of public hygiene in this country depends mainly upon the proper organization of state and local boards of health, and upon such recognition of their importance and utility by the people and their legislators, that the necessary means and powers shall be granted to them which will enable them properly to perform their duties. Such boards can do good work, not only for their own localities but for the nation."

In obedience to the law which directs that this board shall make sanitary investigations and inquiries respecting the causes of disease and mortality, and "the effects of localities, employments, conditions, habits and circumstances on the health of the people," it has during the past year officially investigated the sanitary conditions of what is known as the Crawfish Valley, in the counties of Jefferson and Dodge. The publicity which has been given to this act, makes it proper that special mention thereof should be made in this report to your excellency, and that the conclusions at which this board has unanimously arrived after a careful study of the evidence collected, should be stated.

The investigation was made at the request of a large number of the residents of that region, 145 of whom, including citizens and officials of the towns of Milford, Shields, Portland and Lowell, signed petitions, one of which was presented from each of the towns named, asking that such an investigation be made.

These petitioners alleged that an excessive amount of sickness, due, in their opinion, to the overflowage of lands caused by a mill-dam erected on the Crawfish river, at Milford, prevailed in the region referred to. This board, having first sought to obtain all available information concerning the history and sanitary conditions of the country by means of correspondence and conference

with physicians and other citizens, including the proprietors of the mill-dam in question, afterward, by a majority of its members, made a personal sanitary investigation of the district embracing the vicinity of the Crawfish river, in the lower part of Dodge and the upper part of Jefferson counties.

The Crawfish Valley may be briefly described as an exceedingly level tract of country many miles in length, traversed by a tortuous and sluggish stream, the Crawfish river, which, rising in the southeastern part of Columbia county, soon enters Dodge county, near the southern boundary of which it receives the Beaver Dam river; it then passes into Jefferson county, where it finally empties into Rock river, thus affording the natural and only drainage for a section of country embracing at least eight or ten townships.

For perhaps a mile above the dam referred to by the petitioners, the river passes through highlands, and has well defined and somewhat bold banks; for four or five miles further, the eastern bank of the stream is generally fairly elevated, while that on the west is very low. From this point northward for several miles, the land on both sides of the river is flat and marshy, and much of it is too nearly on a dead level for the unaided eye to detect any deviation This description applies to a tract varying in width from comparatively narrow limits at the south to wide marshes as one goes northward. The movement of the water through a large part of this tract is so sluggish as to be scarcely discernible; to the northward there is an extensive body of "floating bog," portions of which are from time to time detached and driven, as the winds may favor, until they find new places of lodgment, thus causing additional obstruction to the flowage and tending to the establishment of new channels. In many cases, the boundaries of the stream are wholly lost in overflowed lands, which support only growths of rushes, wild rice, and other aquatic plants. places, probably to the extent of thousands of acres, the level of the ground water is so near to the surface that the land is capable of yielding only a harvest of coarse and nearly valueless grass. The flat land usually terminates quite abruptly at the foot of the higher grounds on either side.

In seeking for the facts in regard to the sanitary condition of this

country, the board has been met not only with vague and uncertain statements, but also with assertions wholly irreconcilable with each other, made by both physicians and unprofessional men. some of the oldest and most prominent physicians in that vicinity assert that "there has been no more sickness and no sickness of a different type, and no larger mortality along the Crawfish river for the last thirty years than in the adjacent country," and that it is, comparatively free from malarial disease. Others, and these most immediately in contact with the region, declare that while there are few distinct outbreaks of malarial disease, the tendency of all diseases is to assume either an intermittent or a remittent type, and that such tendency seriously complicates the treatment of diseases They also affirm that certain inotherwise easy of management. flammatory affections prevail, one of them stating that for several years past all epidemics which have occurred in that section of the country have been most severe in the vicinity of these low lands.

These latter statements are in accordance with the common conclusions of observant physicians in respect to the unhealthful influence of low marshy grounds, both in this country and abroad, and they are such as the appearance of the section under discussion would justify us in anticipating, and yet, after the most careful examination of the records of sickness exhibited by the petitioners, and of all facts bearing upon the subject that could be otherwise obtained, this board has not found that there has been what in its opinion can justly be considered an excessive amount of sickness or any very unusual mortality.

The board is, however, unable to reach any opinion that is wholly conclusive, as in the absence of carefully collected vital statistics extending through a series of years, there are no wholly trustworthy data upon which to found conclusions. It is unquestionably true that some houses are in dangerous proximity to these marshes, and are so situated that they can have neither proper house drainage or safe water supply, and that in the attempt to cultivate portions of this marshy ground the citizens making such efforts are subject to exposures which are highly prejudicial to health. But the board find two facts that need to be taken into consideration, which tend

very powerfully to modify the sanitary condition of this country, which are:

First — That comparatively but a small proportion of the bottom lands is sufficiently above the level of constant soil saturation to permit of its being occupied as a place of human residence; hence, we find nearly all the homes of the citizens of this district upon the higher land on either side, as a matter of necessity if not from choice. Many of these homes are in fact upon ground that is well elevated and at a considerable distance from the marshy tracts, and their immediate surroundings, including domestic drainage and water supply, are usually exceptionally good.

Second - In a very large proportion of this region the soil saturation is so excessive as to be held at a point where malaria is not likely to be developed. Sir Thomas Watson has well said: "For producing malaria it appears to be requisite that there should be a surface capable of absorbing moisture, and that this surface should be flooded and soaked with water, and then dried. The higher the temperature and the quicker the drying process, the more plentiful and virulent is the poison that is evolved." Dr. Tebault also observes that at a point of thorough saturation a marsh ceases to yield malaria in its greatest potency, "and that above that point salubrity is restored." It is the testimony of many citizens that substantially this condition prevails in this locality to a very great extent, and that the water either remains upon these bottom lands quite uniformly as to quantity, or that it is more or less constantly increasing and submerging new territory.

The questions of what can be done to make the homes of the more unfortunately situated of these people more healthful, and to remove from them apparent sources of danger, is a broad one, the solution of which involves practical difficulties. The observance of every possible precaution which can tend to make the immediate surroundings of each individual home as perfect as possible in a sanitary sense, is the first step toward such a solution; care must be taken that the evils of imperfect domestic drainage, imperfect ventilation and unhealthful water supply be not added to those already existing. It is among the plainest teachings of common prudence that the natural drainage of such a country should have been

most carefully guarded, and, if possible, aided by art, and it cannot be doubted that the thorough drainage of this valley, if practicable, would after a time render more healthful and secure from danger the homes of all who live either in or very near it. Whether such drainage is practicable, and whether the natural drainage of the valley has been interfered with and the present water-soaked condition of the district wholly or partly caused by the erection of the mill-dam referred to, are questions which can be determined only by careful survey, but are not questions properly before this board to consider or determine.

The following brief reference to the several papers presented herewith and designed to form a part of this report is deemed appropriate. Each one of them has received the careful scrutiny of the board, and they are collectively believed to convey in popular untechnical language such information upon the several topics discussed as will render them practically valuable to the people for whose especial instruction and benefit they were prepared.

Dr. E. L. Griffin, the president of the board, has made a special study of

DIPHTHERIA IN ITS RELATION TO FILTH CAUSES.

The extent to which this disease has prevailed in many parts of Wisconsin during the past year, the frequency with which it yet occurs, its too often fatal termination, and the number of distinguished individuals who have been stricken down by its malignancy, all conspire to render Dr. Griffin's article upon it peculiarly interesting and valuable at the present time. The growing conviction that this dangerous malady is wholly or in very great part preventable by the use of proper sanitary measures, that the valuable lives which have recently been prematurely ended both in America and Europe might have been saved, gives additional force to the paper. which should be widely circulated and carefully studied.

Dr. S. Marks contributes a paper on

THE PREVENTION OF TYPHOID FEVER,

one of the diseases most certainly known at the present day to be caused by filth. In this article the breeding places of the malady,

and the channels through which its germs find entrance into the human system, are clearly shown. The necessity for the exercise of caution in digging wells, and for so choosing their location as to render the contamination of the water supply impossible, is enforced by striking instances, and the need of keeping cellars dry, clean and well ventilated placed in a strong light. The unsanitary conditions of many dwelling houses and of their surroundings are mentioned, and shown to be the immediate causes of the outbreak of the disorder in many cases.

Intimately connected with all healthful life is the character of the soil on which we reside, and the subject of

LAND DRAINAGE, AND THE OBSTRUCTION OF WATER COURSES,

upon which Dr. J. T. Reeve has written, is therefore one of practical interest. Very little attention has hitherto been called to this subject in this state, though it is one which is attracting great attention elsewhere. Dr. Reeve has shown that land drainage is both profitable and healthful, and that these two interests seldom, if ever, conflict with each other. This paper shows the necessity for the drainage of dwelling sites, and that life upon a soil that is saturated or that holds water in excess is never safe—and it contains some suggestions concerning the evils which may arise from interference with nature's methods of drainage by the obstruction of rivers and other water courses, which are commended to the attention of legislators.

Dr. Walter Kempster, of the Northern Hospital for the Insane, contributes an article on

SOME OF THE PREVENTABLE CAUSES OF INSANITY.

The various phases of mental disease from which no age, or occupation, or station in life, is altogether exempt, its causes, and the methods best adapted for its cure, have engaged the special attention of many of the most thoughtful minds, more particularly in recent years, and the question of how to avoid this worst calamity of human life, is one that cannot fail to be of universal interest. That this calamity can be prevented in a large percentage of cases, "by individual effort, by wise and wholesome laws, and by a proper

training of the mental faculties," is asserted by the writer, and his hints and suggestions are commended to the careful attention of all who desire to preserve that chiefest of all earthly blessings, a sound and vigorous mind in a sound and healthy body.

Prof. Anderson, of the State University, has written a brief but suggestive article upon

THE INFLUENCE OF READING UPON HEALTH.

Almost everyone knows from personal experience how powerfully the mind affects the body in many ways, but comparatively few recognize the fact that the conditions of mind produced by reading works of fiction, addressed in great part to the passions and the imagination, have the powerful influence in this direction which they really possess. Prof. Anderson has done good service in calling attention to this fact, and in pointing out moreover the character of much of the reading matter current, especially among our young people. In addition to the books so justly criticised by him, there is another class which deserves an equal amount of reprobation that finds its way into many houses where its character is not suspected. We refer to that class which, under the guise of conveying instruction in an entertaining way, blends with the information given, false and demoralizing views of life and of men. The knowledge thus imparted cannot redeem these books from utter condemnation, when the fact is remembered that those portions of the works in question which are supposed to give them their peculiar value are rarely by any chance perused, the reader almost invariably skipping them when, as is always the case, they interrupt the thread of the narrative which forms the most attractive feature. These books, whose name is Legion, are as harmful in their effects upon mind and body as are those which Prof. Anderson so properly criticises, and they should share in the sentence of banishment from home, school and other libraries for which he pleads.

Dr. G. F. Witter furnishes an article in continuation of his subject of last year, upon

THE WATER SUPPLY OF WISCONSIN,

in which he calls attention to some dangerous defects of the present utter want of system for supplying a great primary need of

life, and pointing out the means by which even those not possessing any technical knowledge can examine the water used for household purposes, and determine with a good degree of accuracy upon its fitness for drinking. The remedies for existing evils are While Wisconsin is not yet in the condition also shown. of some of the older states, where the fouling of the soil and the consequent contamination of the water has been going on for generations, until at the present time it is almost impossible to find a well from which water fit to drink.can be obtained, it is yet certain that the utmost care on the part of our citizens is even now needful. "Wells cannot be depended on for supplies of wholesome water unless they are carefully and thoroughly guarded from sources of surface and subsoil pollution. Some of the foulest of well waters are clear, sparkling and have no unpleasant taste or odor."*

Prof. T. W. Chittenden has made an extended investigation into the condition of the water in actual use in one of the smaller cities of this state, the results of which are set forth in a paper, entitled

AN INVESTIGATION OF THE DRINKING WATER OF A CITY,

in which also the methods of examination are detailed at some length, and the results clearly set forth. The connection between a bad water supply and the virulence of an epidemic is here shown, as it has been in numerous other instances of late years. Appended to this paper are tables modeled upon those published by the Massachusetts Board of Health, in which are given the results of analyses of various well and spring waters in actual use in the city in question, and showing in suggestive contrast the comparative purity at the present time of water drawn from several rivers of the state. On presenting this paper to the board, the writer remarked upon the difficulty of convincing the non-scientific portion of the community that any importance could attach to the many minute precautions deemed necessary by chemists and other scientists even in such an apparent trifle as drawing a sample of water for analysis. A probable consequence of the neglect of

^{*} Report of Mass. State Board of Health for 1878.

these seemingly over refined and scrupulous measures is to be observed in the wide difference noted in the analysis of the waters of the Wisconsin river and those of some others. It is not probable that the water of the particular stream named is in reality so much purer than that of other rivers, the Fox, for example, as the figures given in the tables would indicate; in all likelihood, a large part of the difference would vanish had the sample of water for examination been taken from the latter stream by the analyst himself, with the employment of all the precautions used in the case of the former.

Prof. Chittenden contributes a second paper upon

SCHOOL BUILDINGS,

prepared at the request of the board, in which he has endeavored to show the most important features of a properly constructed school house. That there is urgent need of reform in the construction of our school buildings, is evident to every one who has given the subject any consideration, and it is believed this paper will repay careful perusal. We commend it especially to school officers. More than one-fifth of our entire population is in school, and these "second homes" which communities provide for their children, should be constructed with careful consideration of the physical as well as the mental needs of their inmates. Such has been the thought of the writer in the preparation of this article, and in contrast with the style of structure described in his paper, we quote the following from a letter recently received at the secretary's office:

"I have recently visited a couple of our village schools. What is called the intermediate is kept in an old house formerly used as a dwelling. Its dimensions are 22 feet 8 inches long, 17 feet 3 inches wide, and 7 feet 10 inches high. The number of scholars in attendance on the average is forty. The cubic space allotted to each is about seventy-six feet.* [The superficial area is rather less than ten square feet to each scholar.] The room is heated by a box stove; the scholars' and teacher's faces were flushed with a

^{*}No school room ought to be constructed or permitted to be occupied which provides less than 300 cubic feet of space for each inmate, with efficient provision for an entire change of air at least three to five times per hour. The room above described should under no circumstances have been made to accommodate more than ten scholars.

purplish color, and I noticed that the respiration of the latter was about thirty-two per minute. [The normal rate is about eighteen.]

"The other school was in a better building, with a high ceiling; the ground surface was 28 by 25 feet, or seven hundred square feet. The number of pupils enrolled was one hundred. They would just cover the floor if packed close!"

We fear that an investigation of the school buildings throughout the state would discover some in which even close packing would not enable all their occupants to find room upon the floor; we have heard within the year of some schools which are so overcrowded as to forbid the attendance of the same scholars at the morning and afternoon sessions, a circumstance which may not, however, be an unmixed evil. One defect of our school accommodations to which Prof. Chittenden calls attention, is a disgrace to our civilization, and ought to be remedied, if no other means will avail, by stringent legislative enactment.

General J. Bintliff, as chairman of a special committee of the board on the

INSPECTION OF PUBLIC BUILDINGS,

has continued his labors in this department, and presents a report which shows the defective construction of some of our highest educational institutions. The subject is one worthy the especial attention of our authorities. In such institutions as those here reported upon, above all others, we should find the most efficient provision for perfect ventilation, and the most scrupulous attention to sanitary surroundings, not only because the physical welfare of their inmates require it, but also that these institutions may become educators in these prime essentials of healthful life. We submit the suggestion made a year ago, that if the plans of all public buildings, churches, halls and school houses were submitted to the supervision of some competent central authority, very much might be done to correct some of their most vital defects.

SPECIAL CORRESPONDENCE.

In the extracts from letters received at the secretary's office from various parts of the state, will be found a large amount of in-

teresting information furnished by careful observers. Many valuable suggestions are made to the board through the medium of these communications, and many gratifying assurances that not medical men alone, but a large number of our non-professional citizens appreciate the work of the board, and are in full sympathy with it.

CONCLUSION.

In conclusion, the board desires to express its thanks to all who have rendered assistance in the work of spreading a knowledge of sound sanitary principles among the people of this state, and its hope that sufficient means will be placed in its hands to enable it to give its reports, through which much must be done in the way of disseminating such knowledge, the widest possible circulation.

Very respectfully,

E. L. GRIFFIN,
JOHN FAVILL,
SOLON MARKS,
JAMES BINTLIFF,
J. T. REEVE,
H. P. STRONG,
G. F. WITTER,
State Board of Health.

The Metric System.

THE METRIC SYSTEM.

This system of weights and measures has been adopted by most of the civilized nations in the world, and has been legalized by the congress of the United States.

It is already in exclusive use in some departments of the government service, and its universal adoption would be in the interest of economy, convenience and precision. It is a decimal system having but a single unit each for length, capacity and weight; the prefixes which indicate multiplication and division of these standards are the same in all, pointing out either increase or diminution by 10, 100, 1000, etc., thus rendering the system perfectly simple, and as easy of comprehension as is our present decimal system of coinage, and wholly avoiding the cumbrous and complicated tables of weight and measure at present in use.

We append a table giving its most important features, with the value of the standards in inches, quarts and grains; omitting those divisions and multiples which, like the mills and dimes in our decimal coinage, are not in common use.

The standard of Length, upon which the whole system is founded, is

The Metre, which is equal to 39.37 inches.

The subdivisions of the metre which are most in use, are

The Centimetre ($_{1\overline{0}\overline{0}}$ of a metre) = 0.3937 inch.

The Millimetre ($\frac{1}{1000}$ of a metre) = .03937 inch.

(For ordinary calculations, it will be thus seen that two and one-half centimetres, very nearly equal one inch.)

The multiple of the metre most generally employed is the *Kilometre* $\bigcirc \equiv (1000 \text{ metres})$, which is equal to .62137 (about $\frac{5}{8}$) of a mile.

The standard of CAPACITY is

The Litre, which is equal to 1.0567 quarts; its subdivisions and multiples are not very extensively used; they are the decilitre = $\frac{1}{16}$ litre, the centilitre = $\frac{1}{100}$ litre, and the millilitre = $\frac{1}{1000}$ litre.

The *Kilolitre* (1000 litres) is equal to 264.17 gallons, and is the multiple in most common use.

The standard of WEIGHT is

The Gramme, which is equal to 15.432 grains Troy.

The subdivisions most employed are

The Centigramme ($\frac{1}{100}$ gramme), and the Milligramme ($\frac{1}{1000}$ gramme), and the multiple most employed is the Kilogramme (1000 gramme) mes).

SECRETARY'S REPORT.

To the Board of Health and Vital Statistics of the State of Wisconsin:

Gentlemen: I have the honor to present the following third annual report of the secretary and executive officer of the State Board of Health of Wisconsin, it being for the year ending December 31, 1878.

The term of office of Dr. H. P. Strong having expired on the 31st of January, 1878, he was nominated by the governor for renewed membership in the board, and the nomination was confirmed by the senate. The list of members of the board therefore remains unchanged; it is as follows:

J. T. Reeve, M. D., of Appleton, Gen. Jas. Bintliff, of Darlington, Solon Marks, M. D., of Milwaukee, John Favill, M. D., of Madison, E. L. Griffin, M. D., of Fond du Lac, G. F. Witter, M. D., of Grand Rapids, H. P. Strong, M. D., of Beloit, term expires Jan. 31, 1879. term expires Jan. 31, 1880. term expires Jan. 31, 1881. term expires Jan. 31, 1882. term expires Jan. 31, 1883. term expires Jan. 31, 1884. term expires Jan. 31, 1885.

During the year the board has held regular or special meetings as follows:

At Madison, Jan. 23, 24, 25.

At Fond du Lac, June 24.

At Watertown, July 17, 18, 19.

At Hubbleton, Aug. 28, 29.

At Madison, Aug. 29, 30, 31.

At Milwaukee, Dec. 17, 18, 19.

At a meeting held at Madison in January, the annual election of a presiding officer took place under the rules adopted at the organization of the board. Dr. E. L. Griffin was unanimously re-elected as president for the ensuing year.

The following committees were appointed:

On Finance, Drs. Favill, Marks and Witter.

On Legislation, Gen. Bintliff and Drs. Strong and Witter.

On Printing, Drs. Reeve, Favill and Griffin.

The following subjects were assigned as special fields of investigation and report to the different members of the board under the rules:

The preventable causes of typhoid fever, to Dr. Marks.

The water supply of the state in its relations to the public health, to Dr. Witter.

Homes for the people, to Gen. J. Bintliff.

General hygienic knowledge, a necessity for the people, to Dr. H. P. Strong.

Diphtheria as dependent on local filth causes, to Dr. E. L. Griffin.

An investigation into the extent to which hygienic study is pursued in our public schools, with suggestions thereon, to Dr. J. T. Reeve.*

The following subjects, while not specially assigned to any member, were recommended as worthy of special study:

- 1. Some of the more obvious causes of infant mortality, and how to avoid them.
 - 2. The habits of the people as affecting their lives and health.

It was also

Resolved, That a committee of three be appointed to visit the public institutions and buildings of the state, to report upon the sanitary condition of the same, and to suggest such changes as may be deemed necessary to promote their healthfulness.

Gen. Bintliff and Drs. Marks and Reeve were appointed as such committee by the president, and power was given to the chairman

^{*}Ata subsequent meeting of the board, Dr. Reeve was requested to prepare a paper on "Land drainage, and the influence of obstructions to water courses upon the public health." In consequence of this request, he was relieved from the performance of the special duty previously assigned to him.

of the committee to associate with those gentlemen such other members of the board as he might deem expedient.

The Committee on Legislation presented a report in which was embraced the draft of a bill intended to secure a more perfect system of registration of births, deaths and marriages in the state. The proposed bill embodied such changes as in the opinion of the board were calculated to secure greater efficiency in the collection of such returns, and all medical members of the legislature, together with such others as were known to be specially interested in the matter, were invited to meet with the board, to the end that the bill might be thoroughly reviewed.

After this conference the bill, as finally approved, was introduced into the legislature then in session, but failed to become a law, and the statutes for the registration of vital and mortuary statistics in Wisconsin therefore remain unchanged.

Although the number of births and deaths recorded has been greatly increased, there being respectively about 2.37 times as many births, and 4.50 times the number of deaths reported during the year 1877, as in the year 1876, it is yet very evident that these returns are still so imperfectly made that no value can attach to them as bases of comparison for sanitary purposes.

No comparison of the returns of the above years with those of 1878 can yet be made, but it is known that in some localities, at least, the increase of returns in the last mentioned year over the two previous ones has been very great.

The reports of the secretary of state for the years 1876 and 1877 show the gratifying fact, that whereas in the former there were thirty-six counties in Wisconsin from which no returns whatever of births were made, and no less than forty which made no reports of deaths occurring within their limits, every county in the state, with three exceptions only,* made some report, more or less complete, of both, in the latter year. There has been but little increase in the number of marriages reported, the returns of which are evidently far more nearly correct.

^{*}Pepin Co. makes no report whatever of births or deaths. Barron Co. reports two births and no deaths, and Douglas Co. reports no birth and only one death.

²⁻S. B. H.

The whole subject of registration of vital statistics is confessedly one of remarkable difficulty in its practical management. While every community "is bound by the mere principles of selfinterest and economy to establish such a system of registration of all vital statistics of any importance as shall enable it to know its own life history, and the influences that are moulding it for better or worse," * it is nevertheless true, that no state in the Union has as yet succeeded in collecting these statistics in such a manner as to cause the results to be regarded as even very nearly correct, though in some cases so near an approach to correctness has been attained as to render their statistics of great value. We are as yet very far from paying to this matter the serious attention which its importance demands; the Board of Health of the District of Columbia remarks that "European nations are so careful in this regard that they kept a record of their citizens even when they are absent from their homes, and request the vital statisticians of all foreign countries to certify to the death of any of their citizens occurring abroad." It also says, and we heartly indorse the wish: "We hope to see the day when this department shall be established, not only in every state, but in every city and district of the nation."

In the state of Wisconsin, with its sparsely settled districts, its varied nationalities, and the intense pursuit of the immediately practical, common to all new countries, the work of gathering these statistics with any approach to accuracy, is inevitably a labor which can only be performed with a large expenditure of time, patience and money. The legislation which this board sought to secure, last winter, contemplated the enforcement throughout the state of the only rule that has yet been found competent to secure correct returns in municipalities, i. e., the requirement of permits for the burial of the dead. It was believed by our legislators that such a requirement would entail hardship upon the inhabitants of sparsely settled districts, and that compliance with the law would often, ignorantly if not willfully, be evaded; hence the defeat of the bill of which mention has been made.

This being a matter the prudent and careful management of

which is of the highest importance, especially in the event that it should appear wise to urge the making of any radical changes in the present law, the board has not thought it well to seek further legislation upon it this winter. It appears indeed probable that the present national congress will be asked to co-operate with states in securing quinquennial collections of statistics throughout the Union, and the result of this request may have an important bearing upon the question. This board therefore simply holds the matter in abeyance, trusting that in the future there may come such a modification of public and legislative sentiment as will make it easy not only to secure any needed changes in the law, but will favor the scrupulous collection of statistics, the value of which to states and communities is becoming more and more apparent. In the mean time, the board, while using all consistent effort to secure compliance with the present law, has found in other branches of sanitary work ample employment for its time.

A somewhat striking illustration of the value of such statistics has been presented during the past year, in which it became the duty of the board, in the course of a sanitary investigation, to compare a district under investigation in which an undue amount of sickness and of mortality was alleged to have arisen from local causes, with other and neighboring districts, in which case the entire absence of all mortuary records rendered it impossible to make such comparisons with any degree of accuracy. Such returns, carefully collected and recorded, extending over a series of years, would here have been of the greatest service in enabling the board to reach a correct conclusion.

But though, as has been said, no value can attach to the collection of vital statistics hitherto made, as bases of comparison for sanitary purposes, they nevertheless possess all the legal value they ever had, and this value is increased pari passu with the increased number of the returns.

LOCAL BOARDS OF HEALTH.

The secretary is happy to report not only a large increase in the number of local boards which have complied with the law in reporting to this board, but also that many of the reports indicate that greater care has been taken in their preparation. There are still, however, many clerks who do not properly apprehend the fact that the duly elected officers of a township form a board of health, and that the clerks of such townships are, ex officio, clerks of the boards of health, and that a report from them is a duty required by law, which duty is wholly independent of any assistance they may receive from the boards of which they are members, or of the further question, whether such boards have ever assembled as boards of health or not.

For the better information of all concerned, we append the text of the statute by which it is made the duty of clerks and health officers to report annually to this board:

"The health physician and the clerk of the board of health, in every town, city and village, shall each, at least once a year, report to the State Board [of Health] their transactions, and such facts as shall be required, upon blanks and according to instructions furnished; and shall also make special reports whenever required. All officers of the state, the physicians of all mining, manufacturing and other companies or associations, all presidents, officers and agents of any company incorporated by or doing business under the laws of this state, shall, when requested, furnish, so far as practicable, the State Board [of Health] or its secretary any information required touching the public health; and every person refusing to comply with the provisions of this section shall forfeit ten dollars." (Rev. Stat., chap. 56, sec. 1410.)

The statute constituting town, city and other authorities local health boards will be found elsewhere in this report.

Quite a large number of these clerks have made the apologetic statement that such duty was wholly new to them, and that they were unable to obtain accurate statistics or to give anything like full answers, if indeed they could give any answers whatever, to

all the questions asked of them. These difficulties are fully appreciated by this board, but the clerks of local boards are again asked to remember that, for the present at least, this board is largely dependent upon them for much of the information that it needs, and that with a general knowledge of the facts required by this board in mind, it will surely be possible for them to give much information which is approximately if not absolutely correct, and from which conclusions of much value may be drawn. It has been gratifying to note the large number of voluntary communications that have been made to this office in connection with the formal reports, and it is hoped that all who have knowledge of any facts affecting the sanitary conditions of the community, will feel no hesitation in putting this board in possession of them; such information will always be welcomed by the board, either in connection with annual reports or at other times, while, if so desired, no publicity will be given to the name of the individual furnishing it.

Copies of the circulars sent to the clerks of local health boards throughout the state, and of the blank form upon which their annual report to this board should be made, are appended hereto.

Office of State Board of Health,
Appleton, Wis., May, 1878.

To the Clerk of the Local Board of Health:

DEAR SIR: — Herewith I send you a blank on which to make

your second annual report to this office.

Where no other local board of health has been organized, the statutes provide that the officers of every township, village or city, in this state, are a legally constituted health board, with clearly defined duties and powers.

Such boards have authority to appoint physicians as health officers; have the power to examine into all nuisances, sources of filth or causes of sickness, and to enter any building or premises for this purpose. They may make such rules and regulations concerning the same as they may judge necessary for the public health, which rules must be obeyed under heavy penalties. They have power to order removed or destroyed, at the expense of the owner or occupant of any premises, any nuisance, source of filth or cause of sickness that they may discover upon them, and, in the event of refusal or neglect to do so for twenty-four hours, may cause the same to be

done at the expense of said owner or occupant. They also have the power to isolate or remove to a separate house cases of any conta-

gious disease which is dangerous to the public health.

In brief, these boards are the properly constituted health guardians of their respective communities, and as such are legally clothed wiith ample powers to enforce any needful regulations. such boards the State Board of Health desires to co-operate, and that such co operation may be intelligent and efficient, section 7, chapter 366 of the laws of 1876, provides "that it shall be the duty of the clerk of the local board of health in each township, city and village in the state, at least once a year, to report to the State Board of Health their proceedings and such other facts required, on blanks and in accordance with instructions received from the State Board of Health," and that special reports shall be made whenever

In accordance with these provisions of law, you will please fill the enclosed blank and return it to this office as soon as possible. As the making of such report is your duty under the law, whether your board has ever met in an official capacity or not, any expenses for postage, stationery, etc., are properly included in the ordinary

expenses of your office.

With the blank sent to your predecessor for his first annual report. there was sent also a duplicate which he was requested to retain. If this was done, it will assist you in making this report. A duplicate of the blank for the second report is enclosed, on which you are requested to copy your report and file the same in your office

for future reference.

It is not expected that you are in possession of such accurate knowledge respecting the prevalence of disease as will enable you to fill this blank with absolute correctness in all cases, but it is hoped that the experience of last year has given you some knowledge of what facts would be required, and that you are prepared to make this report with an approximation to such correctness. the absence of positive knowledge, you will please bear in mind that your best estimates (stated as such) will form the most reliable information at present attainable by the board.

In the circular of last year, occasion was taken to urge upon each local board of health to appoint some physician as its health officer. This recommendation is repeated, and if your board has already a health physician, it is advised that you consult with that officer, particularly with reference to the questions concerning the character

and prevalence of the diseases referred to.

You will please make such special reports to this office as will give to it early information of the outbreak or prevalence in your community of any contagious disease or diseases arising from causes which are believed to be preventable. Voluntary communications from the members of your board will always be welcomed.

A copy of the second annual report of this board will soon be

mailed to your address; please give it a permanent place in your office for the benefit of your successors.

By order of the Wisconsin State Board of Health, J. T. REEVE, M. D., Secretary.

Annual Report of the Clerk of the Board of Health for the year ending May 31, 1878.

To the Secretary of the State Board of Health:
Sir: — The territory for which this report is made includes the corporate limits of the*————————————————————————————————————
Their principal occupation is About of the land in this * was originally covered with timber, chiefly About still remains covered with timber, and during the last year the timber has been removed
from about —— acres. There are now under cultivation about —— acres. The nature of the soil is ———, and the crops
chiefly raised are ———. This *————————————————————————————————————
bodies of water, to wit: ——. I estimate the number of acres of low or wet laud from swamps.
etc., to be now about ———. The proportion of this land which is capable of being efficiently drained is ———, and the number of acres of originally wet or low land that have been thoroughly
drained during the last year is about ———. The drinking water in this *——— is derived chiefly from
, and the quality of the water is §; the wells are of the average depth of feet.
The proportion of dwellings having cellars which are either habitually damp or damp in wet weather is
The average distance of privies from dwelling houses in this;

The average distance of privies 1 source of water supply is ---- feet; the least distance in any known case is ----- feet.

[Please give on a separate sheet, a full history of any cases where it is known or supposed that sickness has been caused by the contamination of the water supply through filtration into it of the contents of privies.]

The diseases which have been most prevalent in this *---- during the last year have been -----

Upon the whole, the amount of sickness has been ¶----- than

^{*}Insert township, village or city. †Give approximate proportion of nationalities represented. ‡Insert poorly, well, abundantly, etc. \$Hard or soft. ¶ Greater or less.

it has averaged for some years past in the proportion of _____, and

the number of deaths has been \(\begin{array}{c} \) in the proportion of \(\).
There have been in this *, during the last year, to the best
of my knowledge and belief:
cases of, and ——— deaths from small-pox, and there are
now sick with this disease ——— cases.
cases of, and deaths from diphtheria, and there are
now sick with this disease ——————————————————————————————————
cases of, and deaths from scarlet fever, and there
are now sick with this disease ———— cases.
cases of, and deaths from typhoid fever, and there
are now sick with this disease ———— cases.
now sick with this disease ——— cases.
cases of, and deaths from whooping cough, and
there are now sick with this disease ———— cases.
[Please give in detail, on a separate sheet, the history of any
special epidemics and the origin, where known, of any of these dis-
eases; also the means which have been adopted to prevent their
spread, with results.
The diseases prevailing at the date of this report, other than
those above enumerated, are ——.
The board of health of this * has appointed as its
health physician. His P. O. address is ——.
During the past year it has held —— regular or special meet-
ings, and its most important acts have been
Dated,
Signature, ————, Clerk of the Board of Health for the *——— of ————, State of
Wisconsin Of Health for the * of, State of
Wisconsin.

Any additional information, written on a separate sheet, will be thankfully received — especially on the following points:

Reports of any cases of disease clearly traceable to local causes: such as impurity of drinking water from decomposing animal or vegetable matter, unhealthy food, stagnant water, etc.

Reports of any extraordinary amount of sickness or of unusual fatality in special localities. Instances of spread of contagious diseases in any unusual manner, etc.

Report of cases of sickness or of death, the origin of which is clearly traceable to the occupation of the individuals.

Report of unusual sickness or fatality among animals.

Instances of injury to life or property from kerosene oil or other explosive burning fluids.

Your opinion as to the principal sources of danger to the health of the citizens in your locality, and suggestions whereby local causes of disease may be removed, etc.

^{*}Insert township, village or city. † Give approximate proportion of nationalities represented. ‡Insert poorly, well, abundantly, etc. § Hard or soft. ¶ Greater or less.

Reports have been received in reply to the above circular, and upon the blanks furnished, from 687 towns, cities or villages, the number being greatly increased in comparison with the preceding year, as will be seen by the following

STATEMENT,

In which will be found the names of all cities, townships and villages, from which annual reports have been received for the year ending May 31, 1878:

Adams Co. — Adams, Big Flats, Dell Prairie, Easton, Leola, Monroe, New Chester, New Haven, Preston, Quincy, Richfield, Rome, Strong's Prairie.

Ashland Co. - Ashland, La Pointe.

Barron Co. - Barron, Cedar Lake, Clinton, Dallas, Prairie Farm, Rice Lake, Shetek, Stanford, Sumner.

Bayfield Co. - Bayfield.

Brown Co.—Allouez, Bellevue, Depere, Eaton, Green Bay (town of), Holland (east), Humboldt, New Denmark, Pittsfield, Preble, Rockland, Scott, Suamico, East Wrightstown.

Buffalo Co. - Alma, Belvidere, Buffalo, Canton, Cross, Dover, Gilmanton, Glencoe, Lincoln, Maxville, Milton, Modena, Naples,

Nelson, Waumandee.

Burnett Co. - Grantsburg, Marshland, Trade Lake, Wood Lake. Calumet Co. - Brillion, Charlestown, Harrison, New Holstein,

Stockbridge, Woodville.

Chippewa Co. — Anson, Auburn, Bloomer, Chippewa Falls,

Eagle Point, Edson, Flambeau, La Fayette, Sigel, Wheaton.

Clark Co. — Beaver, Colby, Eaton, Fremont, Hixon, Levis,
Lynn, Mayville, Pine Valley, Sherman, Sherwood Forest, Thorp, Washburn, Warner, York.

Columbia Co. - Arlington, Caledonia, Columbus Town, Columbus City, Courtland, Dekorra, Ft. Winnebago, Leeds, Lewiston, Lodi, Lowville, Marcellon, Otsego, Pacific, Portage City, Randolph, Scott, Springvale, West Point, Wyocena.

Crawford Co. — Clayton, Eastman, Prairie du Chien.

Dane Co. - Albion, Berry, Black Earth, Blooming Grove, Blue Mounds, Christiana, Cottage Grove, Cross Plains, Dane, Deerfield, Dunkirk, Fitchburg, Madison (town of), Montrose, Oregon, Primrose, Pleasant Springs, Roxbury, Springfield, Sun Prairie, Vermont, Vienna.

Dodge Co. - Beaver Dam, Burnett, Clyman, Elba, Emmet, Fox Lake, Herman, Hustisford, Lebanon, Leroy, Lomira, Oak Grove, Portland, Rubicon. Randolph, Shields, Theresa, Trenton, Waupun;

Williamstown.

Door Co. - Brussels, Clay Banks, Forestville, Gibraltar, Jack-

sonport, Liberty Grove, Sevastopol, Sturgeon Bay, Union, Washington.

Douglas Co. - Superior.

Dunn Co. — Colfax, Dunn, Eau Galle, Elk Mound, Grant, Lucas, Menominee, New Haven, Peru, Red Cedar, Rock Creek, Sand Creek, Sheridan, Sherman, Spring Brook, Stanton, Taintor, Weston.

Eau Claire Co. - Augusta, Brunswick, Drammen, Fairchild,

Lincoln, Ludington, Otter Creek, Pleasant Valley, Union.

Fond du Lac Co. — Alto, Auburn, Calumet, Eden, Empire, Fond du Lac City, Friendship, Ripon City, Rosendale, Taycheedah.

Grant Co.—Beetown, Boscobel, Cassville, Castle Rock, Clifton, Ellenboro, Fennimore, Harrison, Hickory Grove, Jamestown, Lancaster, Liberty, Lima, Little Grant, Marion, Millville, Mount Ida, Paris, Patch Grove, Platteville, Smelzer, Waterloo, Woodman.

Green Co. — Adams, Albany, Brooklyn, Cadiz, Clarno, Decatur, Exeter, Monroe, Mt. Pleasant, New Glarus, Spring Grove, Sylvester, Washington, York.

Green Lake Co. - Berlin City, Brooklyn, Green Lake, Kingston,

Mackford, Manchester, St. Marie, Seneca.

Iowa Co. — Clyde, Dodgeville, Eden, Franklin, Highland, Mifflin, Mineral Point (town), Pulaski, Ridgway, Waldwick, Wyoming. Jackson Co. — Alma, Hixton, Manchester, Millston, Northfield, Springfield, Black River Falls.

Jefferson Co. — Cold Spring, Concord, Farmington, Hebron, Ixonia, Koshkonong, Lake Mills, Milford, Oakland, Palmyra, Sullivan, Sumner, Waterloo, Watertown (town of), Watertown City.

Juneau Co. — Armenia, Clearfield, Fountain, Germantown, Kildare, Kingston, Lemonweir, Lindina, Lisbon, Lyndon, New Lisbon, Plymouth, Seven Mile Creek, Summit.

Kenosha Co. — Brighton, Randall, Salem, Somers, Wheatland. Kewaunee Co. — Ahnapee, Casco, Kewaunee, Kewaunee Village, Lincoln.

La Crosse Co. — Bangor, Barre, Burns, Campbell, Farmington, Greenfield, Hamilton, Holland, La Crosse, Onalaska, Shelby, Washington.

La Fayette Co. — Belmont, Benton, Elk Grove, New Diggings, Seymour, Shullsburg, Wayne, White Oak Springs, Willow Springs.

Lincoln Co. - Jenny, Pine River.

Manitowoc Co. — Centreville, Cooperstown, Eaton, Gibson, Kossuth, Liberty, Maple Grove, Manitowoc City, Mishicott, Newton, Rockland, Schleswig, Two Creeks, Two Rivers.

Marathon Co. — Berlin, Hamburg, Holden, Hull, Knowlton, Maine, Mosinee, Rib Falls, Spencer, Stettin, Texas, Wausau (town),

Wein, Weston.

Marquette Co. — Buffalo, Crystal Lake, Douglas, Harris, Moundville, Neshkoro, Newton, Oxford, Packwaukee.

Milwaukee Co. - Franklin, Granville, Greenfield, Lake, Mil-

waukee (town), Milwaukee City, Oak Creek.

Monroe Co. — Adrian, Angelo, Byron, Glendale, Greenfield, Jefferson, La Fayette, La Grange, Leon, Lincoln, Little Falls, New Lyme, Oakdale, Portland, Ridgeville, Sheldon, Tomah, Wellington, Wilton.

Oconto Co. - Gillet, Langdale, Little Suamico, Oconto City,

Pensaukee, Peshtigo, Stiles.

Outagamie Co. — Appleton, Black Creek, Buchanan, Centre, Cicero, Dale, Deer Creek, Ellington, Freedom, Grand Chute, Greenville, Kaukauna, Liberty, Maine, Maple Creek, Osborn, Seymour.

Ozaukee Co. - Belgium, Cedarburg, Fredonia, Grafton, Port

Washington, Saukville.

Pepin Co. - Albany, Durand, Frankfort, Lima, Waterville,

Waubeck.

Pierce Co. — Clifton, Diamond Bluff, El Paso, Gilman, Hartland, Isabelle, Martell, Oak Grove, Prescott, River Falls, Rock Elm, Salem, Spring Lake, Trenton, Trimbelle, Union.

Polk/Co. - Alden, Apple River, Balsam Lake, Clam Falls, Farmington, Laketown, Lincoln, Loraine, Luck, Milltown, Osceola, St.

Croix Falls, Sterling, West Sweden.

Portage Co. — Almond, Amherst, Belmont, Eau Pleine, Grant, Hull, New Hope, Pine Grove, Plover, Sharon, Stevens Point, Stockton.

Racine Co. - Burlington, Caledonia, Mt. Pleasant, Norway, Ra-

cine, Raymond, Waterford, Yorkville.

Richland Co.—Akan, Bloom, Dayton, Forest, Henrietta, Ithaca, Marshall, Orion, Richland, Richwood, Rockbridge, Sylvan, Westford, Willow.

Rock Co. — Avon, Beloit (town of), Bradford, Centre, Clinton, Fulton, Harmony, Janesville (town of), Johnstown, La Prairie, Lima, Magnolia, Milton, Newark, Plymouth, Porter, Rock, Spring Valley, Turtle.

St. Croix Co. — Baldwin, Cady, Cylon, Eau Galla, Emerald, Erin Prairie, Hammond, Hudson (town), Hudson City, Kinnickinnick, Pleasant Valley, Star Prairie, Somerset, Springfield, Stanton,

St. Joseph, Troy.

Sauk Co. — Delton, Excelsior, Franklin, Freedom, Greenfield, Honey Creek, Lavalle, Merrimack, Prairie du Sac, Reedsburg, Sauk City, Spring Green (town), Spring Green (village), Sumpter,

Troy, Washington, Westfield, Winfield.

Shawano Co. — Almon, Angelica, Belle Plaine, Green Valley, Grant, Hartland, Herrman, Hutchinson, Fairbanks, Howe, Lesser, Maple Grove, Navarino, Pella, Richmond, Seneca, Waukechon. Sheboygan Co. — Greenbush, Herman, Lima, Mitchell, Mosel,

Sheboygan Co. — Greenbush, Herman, Lima, Mitchell, Mosel, Russell, Sheboygan (town), Sheboygan City, Sheboygan Falls, Sheboygan Village, Sherman.

Taylor Co. - Little Black, Medford, Westboro.

Trempealeau Co. - Albion, Arcadia, Burnside, Caledonia, Dodge, Hale, Lincoln, Pigeon, Sumner, Trempealeau, Unity.

Vernon Co. - Bergen, Clinton, Coon, Forest, Genoa, Greenwood, Hamburg, Harmony, Jefferson, Kickapoo, Liberty, Stark, Sterling, Webster, Wheatland, Whitestown.

Walworth Co. - Bloomfield, East Troy, Elkhorn, Geneva, La Fayette, La Grange, Linn, Lyons, Richmond, Spring Prairie, Sugar Creek, Walworth, Whitewater.

Washington Co. - Addison, Barton, Erin, Farmington, Germantown, Hartford, Jackson, Kewaskum, Polk, Richfield, Schleisingerville, Trenton, Wayne, West Bend (village).

Waukesha Co. — Brookfield, Lisbon, Mukwonago, Muskego, New Berlin, Ottawa, Oconomowoc (town), Vernon, Waukesha.

Waupaca Co.—Caledonia, Dayton, Dupont, Farmington, Fremont, Helvetia, Larrabee, Lind, Little Wolf, Matteson, Mukwa, Rovalton, St. Lawrence, Union, Weyauwega.

Waushara Co. - Aurora, Coloma, Dakota, Deerfield, Hancock, Leon, Marion, Mt. Morris, Oasis, Plainfield, Poysippi, Richford, Rose, Saxville, Springwater, Warren.

Winnebago Co. — Black Wolf, Clayton, Menasha City, Neenah

(town), Nekimi, Nepeuskun, Oshkosh City, Poygan, Rushford, Utica, Vinland, Winchester, Winneconne, Wolf River.

Wood Co. — Auburndale, Centralia, Grand Rapids (town), Lin-

coln, Marshfield, Rock, Wood.

These reports, which are all properly recorded for permanent preservation and reference, form a kind of panoramic representation of the sanitary condition of the state from year to year, from which many facts of interest and importance to the health and lives of our citizens may be gathered, the character and course of an epidemic noted, together with any local conditions which may either tend to the aggravation of such an epidemic or to the deterioration of the public health in general. Many of them have been accompanied by letters, which have added to the information contained in the formal reports facts, of interest and value.

The clerks of local boards have formed a convenient and appropriate medium through which have been distributed a large number of the circulars printed by this board on the prevention and restriction of contagious diseases and the treatment of the apparently These circulars have been frequently called for, and the secretary has taken great pleasure in their distribution in all appropriate cases, believing, with a correspondent from Benton, that

"they are a good means of popular sanitary education," being "read and appreciated by the people."

The number of local boards of health that have appointed health officers is much greater than at the date of the last report of the secretary, though as the appointment of such officers is a matter wholly optional with the local boards, the number is yet very much smaller than it should be.

From many quarters word comes to us that "our country is so exceptionally healthy that the appointment of a health officer seems entirely unnecessary." Yet we venture to say, that in every one of these localities a competent sanitary inspector would find causes of disease and ill-health lurking concealed in many an unsuspected corner, the removal of which would amply repay its cost in the higher standard of health that would surely follow. We feel it, therefore, our duty again to urge the subject upon their attention; many a community has been ravaged by diphtheria, typhoid or scarlet fever, and the like, which would have remained unscathed, or, at worst, would have escaped with but a light visitation, had proper authority been used to clear out all foul cellars, disinfect cesspools and privies, and put the community generally in a state of defense against these universally dreaded foes.

The whole number of health officers appointed by the local boards, of which this office has any knowledge, is one hundred and thirty. To many appointees the position is a wholly new one, and it may seem to them, and to the boards appointing them, that there are no special duties in connection with the office for them to perform. Yet a careful inspection of towns, even among those regarded as exceptionally healthy, would, in many cases, reveal the fact that the healthfulness is due to other causes than the intelligent pains and care taken to secure it. That abundant occupation exists for such an official in every town in the state we have heretofore tried to show, and we repeat here, from a former report, some brief suggestions concerning the character and duties of these important officials:

"The power to appoint physicians as health officers is given to local boards of health, and in all cases where it is practicable a physician should be selected, because, as a class, physicians can best

appreciate all those influences which are sources of danger to the public health.

"It is impossible to point out in detail the various duties which devolve upon health officers generally. To them and to the boards they represent is committed the guardianship of the health and lives of their fellow citizens. Those who are thus honored and confided in, should therefore seek by special study to prepare themselves for this responsibility. They should be students of sanitary science—men of skilled judgment—who are capable of leading both the boards they represent and the people in sanitary knowledge, and of giving to them such practical hygienic instruction as will tend to avert disease, or restrict it to its smallest possible limits.

"As worthy the most careful observation and study of such officers, we recommend such topics as the foods and clothing, the habits and occupation of the people, the construction and ventilation and drainage of their habitations, and of their public buildings and school houses, the location of their wells, or other water supply, with reference to cesspools, privy-vaults, barn-yards, or other sources of soil contamination from filth, the drainage of swamps and low lands, etc.; in short, of everything which can unhealthfully affect the character of air, of water, or of soil, to the purity of which

every man has an inherent right.

"Of necessity, the various unsanitary influences affecting particular localities can be known fully, only to those favorably situated for studying those influences. The health officer of every local board of health should therefore seek to inform himself concerning his special locality, and particularly to understand the unsanitary conditions which favor the presence of that large class of diseases which are known to be preventable. Such knowledge will enable him promptly to advise with reference to the probable approach of such diseases, and of the local causes contributing thereto, to the end that such sanitary rules may be promulgated and enforced as will avert the threatened calamity, or, if this be impossible, to check and stay the progress of disease. In many cases of contagious disease, this may be accomplished by the thorough isolation of the first persons sick, and thus destructive epidemics may be averted. In all such cases the local board, under the direction of the health officer, should act with the utmost promptness."

The secretary acknowledges the receipt of many valuable communications from officers of this class, some of which may be found among the communications of special correspondents.

Before dismissing this subject, it may be well to give the following summary of the powers and duties of local boards of health, prepared by the attorney general of the state from the new revised statutes:

- 1. Town boards, village boards, and the common councils of every town, village and city, shall be boards of health, unless otherwise provided in city or village charter.
- 2. Every such board of health may take such measures and make such rules and regulations as they may deem most effectual for the preservation of the public health.
- 3. May examine into all nuisances, sources of filth, and causes of sickness, and may make such rules and regulations respecting the same as they may judge necessary for the public health and the safety of the inhabitants.
- 4. Whenever any nuisance, source of filth, or cause of sickness shall be found on private property, the board of health shall order the owner or occupant thereof to remove the same at his own expense within twenty-four hours, and if he shall neglect or refuse to comply, he shall forfeit not less than five nor more than fifty dollars, and said board may cause the same to be removed and may recover all expenses incurred therefor, from the said owner or occupant, or from such other person as shall have caused or permitted the same.

Whenever the board of health shall think it necessary for the preservation of the health of the inhabitants, to enter any building or vessel in their city, village or town, for the purpose of examining into and destroying, removing or preventing any nuisance, any member of the board may make complaint, under oath, to a justice of the peace of his county, whether such justice be a member of such board or not, stating the facts in the case, so far as he has knowledge thereof. Such justice shall thereupon issue a warrant directed to the sheriff or any constable of the county, commanding him to take sufficient aid, and, being accompanied by two or more of the [members of the] board of health, between the hours of sunrise and sunset, to repair to the place where such nuisance, source of filth or cause of sickness complained of may be, and the same destroy, remove or prevent, under the direction of the members of such board of health.

Signed,

ALEX. WILSON,
Attorney General.

About one-third of all the townships reporting to this office make no report of the diseases concerning which special inquiry was made, to-wit: small-pox, diphtheria, scarlet fever, typhoid fever, measles and whooping cough, and it is inferred — in many instances, indeed, it is expressly stated — that no case of any one of the above named diseases had occurred during the year for which the reports were made. Forty-five towns report the occurrence of small-pox to a greater or less extent, one or two having suffered quite severely; two hundred and twenty-six report that diphtheria has prevailed, in some quite extensively; scarlet fever has appeared in one hundred and ninety-two localities, typhoid fever in one hundred and seventy, and measles in one hundred and twenty-four. Whooping cough has been prevalent in one hundred and ninety-five communities.

Of the above-named diseases, three towns only report themselves as having been visited by all, during the year. Sixteen places report the presence of five out of six of the unwelcome guests, forty-seven have seen four of them, and seventy-five have given unwilling entertainment to three. Two have obtained a lodgment in one hundred and fifty-one localities, and a single one has had a footing in one hundred and forty-eight.

Every one of these diseases is classed by our best writers among preventable diseases. Small-pox might be absolutely "stamped out of existence" in a comparatively short time, by a system of compulsory vaccination rigorously enforced, while the means of preventing scarlatina and diphtheria are treated of at length in this and in former reports of this board, as well as by means of circulars upon the subjects, which, as has already been said, have been freely sent wherever and whenever they have been called for. It is hardly too much to say that at least nine-tenths of all the cases of the six diseases named above, occurring throughout the state during the past year, could, in their origin, have been traced to some wholly avoidable cause. Had the systems of isolation recommended, not only by this board, but by all the most reliable writers upon contagious and infectious disorders, been put into operation and rigidly enforced, in every instance in which small-

pox, diphtheria, scarlet fever, measles, or whooping cough appeared in any community, it is safe to say that a second case could hardly have occurred; while with regard to diphtheria and typhoid fever, scarcely anything seems better established than the fact that they are, in a large majority of cases, in their origin at least, filth diseases, and may be avoided by proper attention to perfect cleanliness in all respects, especially by scrupulous and fastidious attention to the character of the water supply. One correspondent, who writes that the circulars of the board were freely distributed and did much service in his neighborhood, adds (and others have written to the same effect) that "people would visit the sick, and would not be restrained from holding and attending public funeral services in case of death," which public services were without doubt the efficient means of scattering disease and suffering and death broadcast through many a community.

Public sentiment in this state will not tolerate the adoption of regulations already enforced in some older communities, both in Europe and America, which allow only the officials of the local health boards to come into contact with the body of one dead from any contagious or infectious disorder; forbid all funeral ceremonies at the time of burial, and in some cases hurry the corpse away for interment within a very few hours after death, nor is such stringency needful, perhaps, in our comparatively thinly settled communities; yet there is abundant evidence contained in the correspondence received at this office, that great need for caution exists, and that ignorance of the dangers arising from the needless exposure of the body at funeral services, has already caused the sacrifice of many valuable lives.

But there is yet another aspect in which the returns of death and disease are to be considered; another point of view from which they must be seen before their full significance can be apprehended; that from which the individual is regarded only as a member of the body politic; one in whom the state has a valuable pecuniary interest, which is lessened by sickness and infirmity, and entirely lost in case of death or total disability.

"In this view man may be regarded as a productive machine, 3—S. B. H.

which creates property or sustenance for itself and the commonwealth. The state has an interest in the health and strength and effective power of each of its members, and it has a claim upon all to develop themselves bodily and mentally to the greatest extent, and thus to add each one to the aggregate power and wealth of the whole."*

Hence the sum total expended by individual families upon sickness and death, becomes a very important factor in the estimation of the political economist, in whose character we now propose to examine the reports already considered from other standpoints.

It will be remembered that these reports are for the year ending May 31, 1878, and hence are not an index of the amount of disease now prevailing. Small-pox, for example, which, as has already been stated, was reported as having occurred in forty-five different localities, does not now exist, and for several months, so far as is known, has not existed anywhere within the limits of the state. This circumstance, however, is of no importance as regards our present purpose, which is to draw certain economic conclusions from the figures to be presented.

The following tabular view gives the actual number of cases of each of the diseases named as they have been officially reported by the clerks of the local health boards. The aggregate number of localities from which reports have been received in which information is given as to the presence or absence of one or more of these disorders during the past year, is five hundred and fifty-three. The returns from the city of Milwaukee have been purposely omitted from this table, in order to give greater prominence to the prevalence of these diseases in the less densely populated portions of the state: †

^{*} Dr. E. Jarvis, in Mass. Rept. of 1874.

[†] The official reports of the city of Milwaukee gives the number of deaths in that city from the six diseases under consideration, and for the same year, at 331. For the year preceding, to wit, for the year ending May 31, 1877, during the prevalence of a special epidemic, the deaths from the same disease were 688. For the calendar year 1876, the deaths numbered 451. Since Milwaukee has a population less than one-tenth as great as that represented in the tables, it will be seen that the estimates made are not greater than we would be warranted in anticipating.

	Small Pox.	Diphtheria.	Scarlet Fever.	Typhoid Fever.	Measles.	Whooping Cough.
Number of localities where disease has appeared	45 421 70	226 3,324 618		1,016		195 4,862 57

This table, it must be understood, is constructed upon the basis afforded by the numbers given in the reports forwarded to this office, and by no means represents the total amount of sickness from the six diseases referred to, even in the districts which have reported. For, while all localities are included from which any numerical statements whatever have been received concerning the maladies in question, no account could be taken of many places from which indefinite returns were made, such as "few," "some," "several," "many" and the like.

With this explanation it will, we think, be entirely fair to assume that the districts which have not reported at all upon these diseases, have suffered from them at least in proportions similar to the regions from which reports have been sent. Upon this supposition, we shall have the following as the probable numbers of cases and deaths from the six disorders under discussion, occurring through the whole state, Milwaukee excepted, during the year for which the reports were made:

Total number of cases of sickness	30,813
Total number of deaths resulting	2,346

Now upon a very moderate estimate, taking into account the known character of all these maladies, each one of these cases of sickness has caused an expenditure of fifteen dollars, in addition to which, each case that has terminated fatally has rendered needful a further expenditure, amounting to at least fifty dollars. Hence we have the following figures to represent the cash outlay caused

by the sickness resulting from the six diseases named, a very large proportion of which might certainly have been prevented by proper hygienic means:

Cost of sickness	
Total More than a half million of dollars!	\$579,495

But these figures do not by any means represent the total cost to the community of the above amount of sickness. Supposing that only one-fifth of all who have been ill have been producers, that the average term of illness has been but ten days, and that the value produced in each case was one dollar per diem only, we shall then have a further sum of \$61,630 as the loss sustained by reason of temporary disability; and if we allow, as is entirely fair, a moderate sum as a charge for the care of the sick, estimating the value of this service in each case at \$2.50, or on an average rate of twenty-five cents per diem, and setting the duration of each case at ten days as above, we have the sum of \$77,032.50 to represent the cost of this item, thus making the grand total \$718,157.50,* or nearly three-quarters of a million of dollars as the cost to the people of the state, outside of the city of Milwaukee, of an amount of sickness almost wholly preventable, and this too, be it remembered, during a year when, notwithstanding the fact that certain disorders have been to a greater or less extent epidemic, the large majority of officials who make any report upon the subject at all, declare that the amount of sickness has been less than, or not more than equal to the average of former years. †

^{*}The force of these figures may be better appreciated, perhaps, when we state that they exceed the total combined annual cost of the salaries of all state officers, of the legislature, of the supreme and circuit courts of the state, of the State Historical Society, of the State's Prison, of both of the Hospitals for the Insane, of the Institutes for the Deaf and Dumb, and for the Blind, of the Industrial School for Boys, of the Soldiers' Orphans' Home, and of the State Library.

⁺ Out of a total number of 466 town clerks and health officers who have reported concerning the *amount* of sickness during the year ending May 31, 1878, as compared with the preceding years, 328 report less sickness than common, 34 report about the usual amount, and 104 affirm that their districts have suffered more from sickness than in former years.

This is doubtless true of the state at large and of sickness in general, the reports concerning other diseases from numerous correspondents, being to the effect that their attacks have been exceptionally light. Nor is the amount of sickness and mortality from the diseases under consideration to be esteemed as something very exceptional, since the number of deaths from them, as reported in the vital statistics accompanying the United States census of 1870, is given at 2,133 for the whole state, the total number of deaths from all causes being given by the same authority at 9,960.

Viewing the matter in this light, we believe that we have stated the cost to the people of the above mentioned preventable diseases at a much lower sum than the truth would warrant us in doing. We see, then, that even as a matter of dollars and cents alone, if no higher considerations were involved, the state can well afford—that indeed it is the bounden duty of the state—to extend to its citizens every aid for the prevention of disease, or for its restriction within the smallest possible limits.

It is not claimed that the figures given above are absolutely correct; it will, however, be borne in mind that they are based upon the best and official estimates of the men who, in each community, are in the best possible position for forming accurate opinions upon the subject. As a matter of fact, it appears very certain that in many instances the estimates of the number of cases is very much too low,* inasmuch as from many localities the number of deaths only is reported. It is highly improbable that in any single town any one of these diseases terminated fatally in all instances; on the contrary, it would seem almost certain that for each death there were additional cases of sickness which ended in recovery. No liberty, however, has been taken with these figures on this account, and they are given in the above statement precisely as they were received at this office.

^{*}That the truth of this assumption may be the more apparent, we note here that in the reports of the city of Milwaukee for the year 18.7, the ratio of mortality of the three most fatal of these diseases (no statistics of the others being given), is officially stated at almost exactly twenty five per cent, while we have assumed it at but little over fifteen per cent.

ANNUAL REPORTS.

The importance of printing a greatly increased number of copies of the annual report of the board has been very apparent, the number allowed to the board for distribution being wholly insufficient even to supply a copy to each of the local boards of health. who by law are required to report to the State Board annually. while the main object of publishing these reports is at once defeated, if there be not a supply sufficient to insure their liberal distribution among the people, for whose especial benefit the instructive articles upon the prevention of disease have been prepared. Recognizing this fact, the last legislature passed a special act, authorizing the publication of 6,000 copies of the second report, in addition to those printed under ordinary usages, thus making the number 8,000 copies in all, and enabling the secretary to give them a wide circulation throughout the state. It is much to be regretted that this act was not permanent in its operation, but, through the ambiguity of its language, applied only to a single year. As the reports have hitherto increased each year in value and interest, it is hoped that this defect may be remedied at the coming session of the legislature.

Very gratifying testimony to the interest in sanitary matters is given by the fact that these reports have been largely called for by our citizens. To this result the press throughout the state has greatly contributed, by its frequent commendatory notices of the work of the board, which fact has been recognized by the board in the adoption of the following preamble and resolutions:

Whereas, The press of the state, with very few exceptions, by its frequent friendly utterances in regard to sanitary science, and its cordial sympathy with the State Board of Health, has evinced its interest in and willingness to promote the cause of preventive medicine; therefore

Mesolved, That the State Board of Health gratefully recognizes this friendly attitude, and fully appreciates this support.

Resolved, That it shall be the policy of the board to more fully avail itself of this channel through which to reach the people of the state with such facts, hints or suggestions as relate especially to the removal of sources of danger to public health and the promotion of personal hygiene.

SPECIAL CORRESPONDENTS.

The number of these has been increased, during the past year, only to a limited extent. The board earnestly desires to secure, in every important locality in the state, one or more correspondents among "men who are in full sympathy with the objects for which this board is laboring," but there are yet many districts in the state in which the board has no regular or efficient assistance of this It is hoped that such a body of intelligent and interested auxilliaries can be organized, and that the board may be enabled confidently to look to them for the purpose of securing information, trustworthy in character, concerning any epidemic or other "diseases that may at any time prevail in the state, and the causes thereof, together with any facts of interest concerning the sanitary condition of the district in which the observer may live." The results of this effort have thus far been very encouraging, and the board looks with great confidence for the co-operation of a corps of workers thus obtained and organized, in gathering knowledge and in extending its work among the people.

The board has no desire or intention to limit the work of special correspondents to members of the medical profession. If hitherto its appeals have been chiefly addressed to them, it has been for the reasons that through the media of state and county medical associations they were more readily accessible, and because by training and general habits, it was supposed that they possessed peculiar qualifications for the work. But teachers, clergymen, architects, and men and women in many other walks of life, ought to be as much interested as any in the diffusion of sanitary knowledge, and the board desires to repeat and emphasize the wish expressed at its organization, that all citizens of the state shall cordially co-operate with them in their efforts to cultivate a field which still lies fallow to so great an extent.

"Communications upon local or general causes of disease, studies or statistics of the topography, geology or water supply of the state in their relations to disease, or upon any other branch of the general subject, are invited from all who are interested in sanitary

science." The Massachusetts Board of Health and the Agricultural and Horticultural societies of our own and other states have received valuable communications from women; certainly there are some subjects, especially those relating to home hygiene, conditions of living, and similar topics, which no one can treat so well or from so thoroughly practical a standpoint as she who presides over the household, and upon whom so much responsibility rests both in sickness and in health.

A copy of the following circular was sent to all regular correspondents of the board, in September last, and extracts from the correspondence thus developed are herewith presented. We invite especial attention to these extracts, as exhibiting a marked increase in the interest shown in sanitary studies during the past year. The fact that such interest is exhibited, is among the most gratifying evidences that the work of the board is exerting a beneficial influence upon the people of the state.

OFFICE OF STATE BOARD OF HEALTH, APPLETON, September —, 1878.

DEAR SIR: This board desires again to obtain from its special correspondents, such definite information as they may be able to give of the diseases which have been prevalent in the state during the past year, and of the causes contributing thereto. therefore have the kindness to reply to the following questions:

1. Within your observation, what has been the amount and type of the sickness in your locality, for the year ending September 1, 1878, as compared with previous years? Give the causes of any variation as far as you are able to do so.

2. Please give a brief statement of the diseases which have been

most prevalent in your locality during this time.

3. In your judgment, have any of these diseases been to any extent preventable, and if yes, will you favor us with your views as to their causes, and of the best methods for their prevention?

4. Please report at length any special cases of disease clearly

traceable to local unsanitary conditions of any kind.

5. Please give your opinion as to the principal sources of danger

to the health of the citizens of your locality.

6. State any facts known to you whereby the healthfulness of your locality has been affected, whether favorably or unfavorably, by changes therein by the drainage of wet lands, by the removal of forest trees, by the building of dams, canals or other public works.

In indicating to you in this manner some of the points on which information is desired, the board wishes it to be understood that any information bearing on the work before it, will be acceptable. The board is anxious that you should make accurate and careful observation as to any and all local causes of the diseases which you observe and treat, and that you incorporate the result of such observations in your reports to it. It is the hope of the board to secure a corps of correspondents who will each be so fully in sympathy with its work that they will, as they have opportunity, make independent investigations and studies as to the causes and prevention of disease, and communicate the results thereof to the board. To this end it solicits the utmost freedom of correspondence. If it be desired that any portion of your report be considered as confidential, in the sense that the the board will not be at liberty to make extracts from it for publication, if desired, please state that fact in your report.

Please reply by the 15th of October if possible, using the enclosed stamped envelope and leaving any excess of postage to be

paid at this office.

By direction of the State Board of Health.

J. T. REEVE, M. D., Secretary.

PAPERS PRESENTED WITH THIS REPORT.

Inasmuch as the papers which have been approved for publication in the third annual report are specifically mentioned in the general report of the board, no further reference to them is deemed necessary in this place.

THE LIBRARY.

The library of the board has been increased during the past year by the receipt of the following volumes:

By Gift — Transactions of the Medical Association of the State of Maine from 1874 to 1878, inclusive, 5 vols., from C. O. Hunt, M. D., secretary; Transactions of Medical Association, State of New Hampshire, 1878, from G. P. Conn, M. D., secretary; Transactions of Medical Association, State of New York, from 1873 to 1878, inclusive, 5 vols., from the Society; Transactions of Medical Society, State of Michigan, 1878, from G. P. Ranney, M. D., secretary; Report of Board of Health and State Medical Society, Alabama, 1878, from T. A. Means, M. D., secretary; Transactions State Medical Society

ciety, Wisconsin, 1878, from the secretary; Transactions State Agricultural Society, Wisconsin, 1877-78, from G. E. Bryant, Esq., secretary; Report of Department of Agriculture, Illinois, vol. 14, 1876, from S. D. Fisher, Esq., secretary; Farm Drainage, circular 43, Department of Agriculture, Illinois, from S. D. Fisher, Esq., secretary; First Annual Report State Board of Health, Minnesota, from F. Staples, M. D.; Sixth Annual Report of same Board, from C. N. Hewitt, M. D., secretary; Report of State Board of Health, Massachusetts, 1878, from C. F. Folsom, M. D., secretary; Report of State Board of Health, Michigan, 1877, from H. B. Baker, M. D., secretary: Second Biennial Report of State Board of Health, Maryland, from C. W. Chancellor, M. D., secretary; Report of Board of Health, District of Columbia, 1877, from the Board; Report of Board of Health, city of Mobile, 1876, from J. S. Searle, M. D., health officer; Report of Board of Health, city of Brooklyn, 1875-76, from H. A. La Fetra, secretary; Report of Board of Health, city of Dayton, Ohio, 1878, from T. L. Neal, M. D., health officer; Report of Board of Health, Reading, Penn., 1878, from the Board; Report of Board of Health, city of New York, year ending May 1, 1875, from the Board; Report on Public Hygiene and State Medicine, from F. W. Hatch, M. D., Sacramento, California; Address on Hygiene and Preventive Medicine, by H. I. Bowditch, M. D., from Col. F. H. Putney; Smithsonian Reports, 1873-74, from the secretary; Registration Statistics, Michigan, 1872, from H. B. Baker, M. D., superintendent; Report of Board of Health, city of Milwaukee, 1877, from I. H. Stearns, M. D., health officer; Report of Board of Health, city of New Haven, 1877, from C. A. Lindsay, M. D., health officer; Report of Board of Health, Hudson county, New Jersey, from the Board; Report of Board of Health, city of Richmond, Va., 1876, from C. S. Brittan, M. D.; Report of Board of Health, city of Richmond, Va., 1877, from J. L. Caball, M. D.; First Annual Report Board of Health, State of New Jersey, from E. M. Hunt, M. D., secretary; First Annual Report Board of Health, State of Mississippi, from W. Johnson, M. D., secretary; Eighth Annual Report of Vital Statistics, city of Albany, N. Y.; Wisconsin Historical Collections, 1873-76, one vol., from the Society; Reports on Barracks and Hos-

pitals, on Hygiene of the United States Army, with descriptions of Military Posts, on Transportation of Sick and Wounded by Pack Animals, and Approved Plans and Specifications for Post Hospitals, from the office of the Surgeon General, U. S. Army; Report of State Board of Charities and Reforms, Wisconsin, 1877, from the Board; Report of the Department of Public Works, city of Chicago, 1876-77, 1 vol., from E. B. Chesbrough, Esq., city engineer; Legislative Manual, State of Wisconsin, 1878; from Hon. H. B. Warner, Report of Secretary of State, 1878; Report of Department of Agriculture, 1872-3-5-6-7, from Hon W. G. LeDuc, Commissioner of Agriculture, Washington, D. C.; Report on Drainage and Sewerage of the city of Salem, Mass., from D. M. Balch, Esq.; Report of Asylum for Feeble Minded Children, Lincoln, Illinois, 1877, from C. T. Wilbur, M. D., superintendent; Compendium of Massachusetts Census, 1875, from Hon. C. D. Wright; Sixth Annual Report of Dairymen's Association, Wisconsin, 1878, from the Society; Vital Statistics of City of Wilmington, Del., 1877; Nomenclature of Disease, prepared for the use of Medical Officers, United States Marine Hospital Service, from J. H. Woodworth, M. D., Supervising Surgeon General; Report of Supervising Surgeon General United States Marine Hospital Service, 1876-77, from J. H. Woodworth, M. D.; Instructions for Registry and Returns of Marriages, Births and Deaths in the State of New Jersey, from E. M. Hunt, M. D.; Schools of Forestry and Industrial Schools in Europe, Economic Tree Planting, and Lessons from European Schools and the American Centennial, from B. G. Northrop, Esq., Secretary Board of Education, Connecticut; Report on Registration of Marriages, Births, Deaths and Divorces, State of Connecticut, made by the State Librarian to the General Assembly, 1876-77; Causation of Typhoid Fever (Fiske Prize Fund Essay), from Rhode Island Medical Society; Ames Eagle Odorless Excavating Apparatus; and Investment for the Insane, from A. Ames, M. D.; Annual Report of Hospital for the Insane, Maryland, 1877, from A. Ames, M. D.; Public Libraries in the United States of America, Parts 1 and 2, from Bureau of Education, Washington, D. C.; Dangerous Cosmetics, by M. Benjamin, from the author; Adulteration of

Secretary's Report.

Milk, by H. A. Mott, Jr., Ph. D., from the author; New York Quarterly Cancer Journal, July, 1878, Explorations in Cell Pathology, and New York Medical Eclectic for July, 1878, from R. S. Newton, M. D.; Triumphs of Medicine, by J. R. Buchanan; Is Modern Education Affecting the Eyesight of Children? by A. W. Calhoun, M. D., from the author; Annual Report of Northern Hospipital for Insane, Oshkosh, Wis., 1878, from W. Kempster, M. D.; Transactions of Medical Society, State of Tennessee, 1878, from J. D. Plunket, M. D.; The Brighton Abattoir, Brighton, Mass.; Chicago Medical Journal and Examiner, August, 1878, from E. Wigglesworth, M. D.

This office is also receiving regularly the weekly and monthly reports of the boards of health of various cities throughout the United States, which it acknowledges by exchange. Thanks are due to many of the newspapers of the state, of which copies containing sanitary items of general interest have been sent to this office.

The following volumes have been purchased for the use of the board during the year:

Popular Science Monthly, 9 vols.; Waring's Draining for Profit and for Health; Bayle's House Drainage; Klippart's Land Drainage; Youth's Book of Health; How We Raised Our Baby; Historical Atlas of Wisconsin; Flint's Physiology; Dunglison's Medical Dictionary; Blandford's Insanity; Wiley's Hospital Construction; Mitchell on Nerves; Maudsley's Body and Mind; Chavasse's Management of Children; Verdi's Maternity; Hufeland's Art of Prolonging Life; Blacks' Ten Laws of Health; Williams on the Eye; Tuke's Insanity and its Prevention; Hodge on Fœticide; Tredgold's Ventilation; Jacobi's Infant Diet; Maudsley's Responsibility in Mental Disease; Perkins' Best Reading: French's Farm Drainage; Beard's Hay Fever; Kingsley's Health and Education; Dobell's Coughs, Consumption and Diet; Marsh's Hand-Book of Rural Sanitary Science; Bigelow's Nature in Disease; Letheby on Foods; Fox on Ozone; Waring's Earth Closets; Dobell's Vestiges of Disease; Miller's Place and Power of Alcohol; Winslow on the Influence of Light; Marcet on Food; Fox's Sanitary Examination of Air, Water and

Secretary's Report.

Food; Gorton's Principles of Mental Hygiene; Wilson on the Skin; Chavasse's Aphorisms; Holbrook's Hygiene of the Brain; Wood on Sunstroke; Getchell's Management of Infancy; Smith's Lectures on Nursing; Egleston's Villages and Village Life; Weale's Water Works; Huxley and Youman's Physiology; Smith's Foods; Smith's Health; Lewes' Physiology of Common Life; Bellow's How Not to be Sick; Butler's Ventilation of Buildings; Helmholtz's Scientific Lectures; Hinton's Physiology; Weale's Drainage of Towns and Buildings; Worcester's Dictionary; Princeton Review for May, 1878; Toronto Sanitary Journal, Vols. 1, 2 and 3; Ziemssen's Cyclopedia, 16 volumes; Goodholme's Cyclopedia, 1 volume; Holly's Modern Dwellings; Hammond's Diseases of the Nervous System; and subscriptions to Sanitarian; Plumber and Sanitary Engineer; and Popular Science Monthly.

EXPENSES.

The report for the year 1877 ended with expenditure shown by voucher No. 95. There should be added to the expenses shown in that report the sum of \$84.15, being for official expenses of members incurred in the year 1877, but not audited at date of making that report, and for which vouchers numbered 96, 97, 98, 99 and 100 were subsequently approved.

The expenses for the present year are shown by vouchers numbered 101 to 178, inclusive, as follows:

Official expenses of members	\$605	54
Postage and box rent	596	32
Paper, stationery, etc	90	33
Printing and binding	119	85
Books and instruments	509	61
Secretary	1,500	00
Office furniture	47	40
Chemicals for experiments	22	80
Analyses and special services	145	10
Miscellaneous, including freight, express, etc	74	96

\$3,711 91

Secretary's Report.

Among the more expensive instruments and appliances found necessary for the work of the board, are a Microscope, an Electric Pen, a Casella's Anemometer, and sundry books of reference, the cost of which has helped to increase the expenses of the year, so that it was necessary to draw upon the savings of previous years; yet, from the economy which has heretofore been practiced, about \$800, of such savings being still unexpended will revert to the state.

In the statement above given, there has not been included a special appropriation of \$300, made by the legislature to aid in printing the reports of the year 1877, heretofore referred to.

Very respectfully,

J. T. REEVE, M. D., Secretary.

DIPHTHERIA.

ITS RELATION TO FILTH CAUSES.

By E. L. GRIFFIN, M. D.,

Fond du Lac.

No disease classed as preventable more properly receives the thought and study of sanitarians, than does diphtheria at the present time. Its death-rate throughout the country is annually on the increase. Its frequent occurrence in many localities in the state; its frequent epidemic character; its great virulence and excessive mortality, should awaken earnest inquiry on the part of health boards with reference to its possible modes of origin, the removal of known causes, and the means best adapted to prevent its spread.

Diphtheria is ranked among the so-called zymotic or fermentative diseases; diseases which are supposed to have their origin in the implantation within the system from without, of some kind of leaven or ferment whose action produces the symptoms of the malady.

This leaven or ferment may find its favorable conditions in polluted water; structural defects of dwellings; a generally polluted atmosphere, or in the specifically polluted respired air of one who has already fallen a victim to the disease.

Diphtheria is justly ranked among the principal epidemic diseases of the country, and contributes very largely to the mortality list. Modern science and sanitary study place it prominently in the list of preventable diseases. Indeed, it may be regarded as one of the best types of preventable diseases.

In its origin and dissemination, it is intimately connected with "structural defects," while it is often spread through personal agencies.

It is preventable, like ague, by the removal of certain local causes.

"When diphtheria gets an introduction to a house, if the children are living under good sanitary conditions, it generally falls lightly; but if the reverse is the case and especially if they happen to be drinking excrementally contaminated water, in its occasionally appalling fatality, greater than that of any of our ordinary infectious diseases of the present day, the disease reminds us of those epidemics of the middle ages from which we are happily now free."

Its cause in many cases may elude our observation; nevertheless it is confidently believed to have always a specific cause, and that patient and persistent research, guided by intelligence, will, in a large majority of cases, discover that cause.

It has become an accepted truth that "the knowledge of a disease is half its cure," and when the medical profession and the common citizen shall come to intelligently recognize the conditions under which this malady reveals itself, and the manner in which it is disseminated, we believe it will be greatly limited in its prevalence, and that the mortality from this cause will be much lessened.

The very general belief that diphtheria is comparatively a new disease is hardly sustained on theoretical or on historical grounds. There can be no doubt but that the earliest constructed habitations of men presented a natural breeding-nest for this disease, and the oldest Greek and Roman writers on medicine make frequent reference to a disease, the symptoms and course of which bear a close resemblance to that which we call diphtheria.

The present name, diphtheria, meaning a prepared hide, from the tough membrane formed in the throat, was given to it by the French writer, Bretonneau, about the year 1820. The name, however, does not appear in the mortuary reports of Europe or of this country until about the year 1855—and it was not generally incorporated into the nomenclature of diseases until a few years

later. In the year 1858-9, it took on an epidemic form of great severity and of wide diffusion both in this country and in Europe, with a fatality so great that the professional mind seemed very generally agreed that it was a new type of the disease.

The mortality from diphtheria is now very great. It ranks next to that of scarlet fever. The loss is largely among children of from two to fourteen years of age.

During the four years, from 1873 to 1876, inclusive, 6,877 persons died of diphtheria in New York city alone. In Massachusetts, it is second in fatality only to consumption, 5,027 having died in that state during the year 1877 from this cause.

This mortality, large as it may seem, does not exceed the proportional death rate from the disease in very many cities and towns in this state.

In the whole range of diseases peculiar to childhood and youth, there is scarcely one whose approach is more sudden, whose progress is more insidious and persistent, whose sequelæ are more deplorable, whose ravages are more extensive, and whose presence in the family excites a more profound apprehension.

It may be stated that great diversity of views prevail with regard to the nature of this disease. By some it is thought to be a constitutional disease with local manifestations. By others, it is believed to be a local disease with constitutional effects.

It is not thought advisable to bring into the discussion of this paper this question, or the one as to what constitutes the infectious element of diphtheria, and the several theories of its implantation, or in what way it may be connected with the low forms of vegetable growth observable upon the affected surface, but rather to confine ourselves to an examination of the question of its probable origin, the modes in which this infection is spread, and what would constitute prudent and rational means for its avoidance and arrest.

While diphtheria may not be as markedly infectious and contagious as scarlet fever, it is very generally conceded to have its origin and to be propagated in one of the three following methods:

- 1. By inoculation.
- 2. By contagion.
 - 4 S. B. H.

3. By certain unsanitary agencies or conditions.

1. Inoculation. That diphtheria is an inoculable disease is admitted by all careful observers. While this method of communication is the least frequent and the one seldom likely to obtain, yet the possibility that the disease can be so conveyed to an otherwise healthy subject, will suggest prudent measures by which such a calamity may be avoided. Recent experiments have shown not only that where there is an immediate contact between the product of diphtheritic inflammation and a softened mucous membrane or denuded skin, contagion will almost immediately take place, but that the disease is nearly if not quite as inoculable as small-pox or syphilis. Corroborative of these statements, are the grave facts that in several instances physicians, when operating upon a diphtheritic trachea, have been inoculated with the disease by some of the matter from the diseased trachea spattering upon their eyes or The frequency with which diphtheria has been propagated by matter coming in contact with denuded skin or wounds, show how readily inoculable it is.

Great care should be taken to prevent any spread of the disease from *contact* with particles of false membranes, which have occasionally killed the physician even before the death of the patient.

2. Contagion. The contagious character of diphtheria is well established. Under certain circumstances not yet fully understood, this contagious factor becomes very virulent. It is a germ disease, so called, like small-pox or scarlet fever. It often seizes robust children, who, at the funeral of playmates, in school or in church, are exposed to its direct influence. The presence of one sick person in a home sometimes communicates the disease to the susceptible, however carefully kept apart. Hence the material of infection must be, to some extent, diffusible through the air.

Like scarlet fever and small-pox, the specific germ of diphtheria clings with great tenacity to particular houses and apartments. Convalescents from this disease retain the power of communicating it for an indefinite length of time. Dr. J. Lewis Smith reports well attested facts brought under his observation, which clearly show that the diphtheritic virus, like that of scarlet fever, may remain for

weeks and months in apartments, notwithstanding moderate disinfection and sanitary precaution.

The infecting element is probably given off principally from the throat, with the breath or with the expectoration. It is more than problematical that the disease is ever disseminated, as some suppose, through mysterious and unknown atmospheric agencies; yet, like other infectious diseases, it is subject to an increased tendency at one time more than another, owing, perhaps, in part to conditions connected with the individual, but confessedly to causes as yet not well understood.

Its radius of infection through the atmosphere seems more limited than that of small-pox or scarlet fever. The case reported by a recent English physician is in strong proof of this statement; where a large school of pauper children entirely escaped the disease, although it was markedly epidemic throughout the village, and many cases occurred in close proximity to the school.

The facility with which the disease can be carried from one place to another, is a matter which has been too generally overlooked, or not considered of sufficient importance to demand precautionary measures.

It is believed that water and milk, the latter especially, by reason of its readiness to absorb volatile organic matter, and the infecting material of certain diseases by mere exposure, may become impregnated by diphtheritic emanations to such a degree as to convey the disease to otherwise healthy persons.

This latter statement receives confirmation by the report of Dr. Nickerson, of Lowell, Massachusetts, where in a certain house a lad was very sick with diphtheria. The stench from this case was very strong and penetrated all apartments of the house. A young child living some distance from this case, in a healthy part of the town, was supplied with milk by this family. This milk was kept for several hours in an adjoining room before it was sent to the residence of the child. This child shortly sickened and died with diphtheria.

In an account of an outbreak of diphtheria in Fitchburg, Massachusetts,* there occurs this impressive history. A young man while

returning home from a distant town became so sick, that on reaching Fitchburg he was unable to proceed further, and was taken to the poor-house. Here he rapidly grew worse and very soon died of malignant diphtheria. A few days after, the daughter of the keeper of the poor-house came down with the same disease and died; the same malignant type of the disease repeating itself in her case. Although living in the same house, she had not visited the apartments of the young stranger. The young man's body was taken to his home for burial, and soon after the funeral two other members of the family were stricken with the disease, and one died. The introduction of this case into the city of Fitchburg was the beginning of an epidemic which ran on for months, and did not reach its maximum of victims until the lapse of a full year, spreading to all parts of the city and vicinity, and exempting no social condition.

3. Certain unsanitary conditions or agencies.

1. Sewer gas and polluted air.

The de novo origin of diphtheria under various recognized unsanitary conditions hardly admits of a doubt. The numerous cases which come under observation in isolated houses, far remote in time and space from any known cases, will admit of no other explanation. The predisposing causes, such as exposure, want, improper clothing, unwholesome and improper food, filth of every kind, including animal and vegetable—agencies which depress the vital forces—are generally found to be present.

It has become a matter of common observation that diphtheria is intimately associated, both in its origin and in its severity, with pollution of respired air. Hence it is called a *filth disease*.

These conditions are not peculiar to city or country, but are alike present in both. The offensive privy, overflowing cess-pool, sink spouts discharging on the ground, hog-pens and barn-yards which form the environments of many country homes, often unobservedly give origin to this fatal malady.

An overwhelming preponderance of cases occur in connection with these defective sanitary conditions, furnishing an argument admitting of no answer, in favor of the proposition that diphtheria

is in some way often originated and promoted by the presence of filth.

In the more aggregated populations where filth is apt to rapidly accumulate, and where sewer gas becomes an inherited legacy, it often finds a congenial soil.

Decay of filth in the dark and away from free access of air is productive of gases especially dangerous, much more so than when this decay goes on in the light and free air. These are the conditions and this the nature of sewer gas, that nondescript whose exact composition the most expert chemist has not yet been able to demonstrate. Under this title we refer to those collective vapors which arise from decomposing organic refuse pent up in sewers or cess-pools with sufficient air and moisture to favor putrefaction, but not enough to fully oxidize or work away the noxious mass. When this gas is introduced into the habitations of men, it insidiously produces a condition of blood-poison, sooner or later manifesting itself in some form of serious disease. .The occurrence of diphtheria in large towns has been observed to bear a suggestive ratio to the introduction of water closets, especially when these modern conveniences are located in close proximity to the sleeping room.

The characteristic effect of this gas is depressed vitality — lowered vital force; a reduction of the muscular, nerve and brain force of the person exposed to its action. This depression of vital force often precedes an attack of diphtheria for days, weeks, and sometimes months. The process of gradual poisoning goes slowly on, until the resistance of the system ceases or admits of a sudden explosion in the shape of an overwhelming onset of the disease, under which death speedily comes; or the resisting power of the system slowly yields and life goes out through fatal blood changes.

During the year 1877, in the city of Boston, whenever a case of diphtheria was reported, an inspector was sent to examine the sanitary condition of the premises, and of 660 examinations made, 446 were found intimately associated with unsanitary conditions. In 200 of the houses examined, there was discovered a

derangement of the water pipe, either above or below the surface, before they enter the sewer.

In the city of Chicago, during the same year, from August 1 to December 1, there were reported to the board of health 162 deaths from diphtheria, occurring in 122 houses. Each of these premises were carefully examined by a sanitary expert, and out of the whole number, only thirteen houses were found to be in good sanitary condition.

Says Dr. De Wolf: "Defective, broken or detached sewers, with basements saturated with filth; catch-basins full and offensive, houses filled with sewer gas; dark, damp and crowded houses, without ventilation; unsewered houses and neighborhoods, draining all slops into street gutters; filthy personal habits, which in some of the unsewered localities can only be characterized as beastly—all this tells the story of diphtheria in the city. Yet, in some instances, families suffer who are most carefully and scrupulously attentive to sanitary conditions. An odorless but poisonous gas may escape through some of the house traps, undetected; and again, evils which are developed and matured in dark and filthy places, "rest not in their cradles, but come forth, and often exert their most fatal effects in homes the most unlike those whose negligence had allowed them to grow and lurk."

Dr. E. M. Snow, of Providence, than whom there is in these matters no more competent observer in the country, says: "It is certain that diphtheria is a filth disease, and usually spreads from the influence or effects of foul air, arising from localized filth.

"With the assistance of a physician, and others, I have made considerable investigation of the causes of diphtheria during the past four months. I may say generally that in every case except one, we have found what we think to be sufficient cause of the disease. These causes are:

- 1. Foul air from privy vaults.
- 2. Foul air from sink-drains or cess-pools, generally through imperfect plumbing.
 - 3. Impure water.
 - "The foul air is much worse when it exists in sleeping rooms.

We have one remarkable case where foul air was fully excluded, and impure water was the certain cause. I am satisfied that all the cases of diphtheria we have here are produced by one or more of these causes mentioned."

In further confirmation of the opinion that diphtheria is essentially a filth disease, and is generally associated with some organic impurity of air cr organic impurity of water, we quote from the expressed opinion of Dr. C. E. Billington, New York, who has made this disease a special study, as follows:

"I fully believe with you that the disease 'is generally introduced into a family through sources of pollution,' the number of cases so caused far exceeding those due to contagion or infection, though the disease is undoubtedly contagious.

"Even where successive cases occur in the same house or the same family, it is more often because all are exposed to the same noxious endemic influence than through communication from one to another, though the latter is not unfrequent, and should be sedulously guarded against. I believe this because I have so often seen successive cases rapidly developed in different families in the same building or neighborhood, where there had been no communication whatever between the families, and where an adequate cause was discovered in some sanitary defect. In other words, the diphtheria-producing virus is mainly bred in decomposing organic matters, and diffused by the emanations therefrom, though it is also reproduced in and disseminated from each case of the disease.

"These processes are greatly multiplied and intensified, as is well known, when to endemic filth causes is super-added that mysterious influence which we call an epidemic. In the years 1874-5, when diphtheria was very prevalent in my dispensary district, it became a matter of common remark to myself and associates, that in certain houses cases of the disease were especially numerous and severe. The sinks in these buildings having since been trapped, and escape pipes for sewer gas having been introduced, under the direction of the board of health, cases of diphtheria have ceased to occur in them, and their character for especial unwholesomeness has en-

tirely passed away. I think there can be no doubt that, could the benign influences of perfect drainage and ventilation, cleanliness and sunlight, be brought universally to bear upon human habitations, there would be no further practical occasion to study the therapeutics of diphtheria."

Dr. George Northrop, of Marquette, reports an outbreak of malignant diphtheria in that place, unmistakably traceable to polluted air, caused by the presence and decomposition of a dead cat in the cold air flue of the furnace. All the children of the family—three in number—were seized in quick succession, and all died, after a few days of sickness.

Two other children, members of a family occupying an adjoining house, and who were frequent visitors in the family afflicted, were also taken sick, and one died. Five adults contracted the disease, some quite severely, but all recovered. No other cases of diphtheria occurred in the place.

Two cases of diphtheritic croup, both of which proved fatal, occurred in the city of Fond du Lac, in the early summer of 1877, which were manifestly traceable to polluted air. The house in which the family resided stood adjoining and in close proximity to a meat market. To the rear end of this shop was attached a shanty shed, where the slaughtering of small animals was done, the blood being drained upon the ground, and allowed to soak away under the shed, and to some extent under the sleeping room of these children, which was adjoining and within a few feet of this slaughter pen. During the heat of early summer, the stench from this accumulated filth was unendurable, and compelled the closure of all doors and windows to maintain an existence. The suspension of this iniquitous practice, and the thorough removal of the accumulated filth, under the persuasion of legal measures, prevented any further trouble.

Dr. Henry P. Wenzel, of Theresa, Wis., reports the history of seventeen cases of diphtheria occurring in his practice, in which he carefully noted the sanitary surroundings of each case. Nearly all of these cases are traceable, unmistakably, to contagion through connection with other cases, or to marked filth conditions. He ar-

rived at the following conclusions, through careful observation of them:

- 1. Diphtheria may be generated by filth, plus a condition of the atmosphere at present unknown.
- 2. Diphtheria is infectious and contagious under certain conditions, and may be transferred through a limited period of time.
 - 3. Filth increases the malignancy of diphtheria.
 - 4. Isolation and cleanliness mitigate its virulence.

Dr. S. Marks, of Milwaukee, reports a case of malignant diphtheria in a young girl, which was followed by prolonged and distressing sequelæ, due to poison by sewer gas. This patient occupied a newly erected house, but an investigation revealed the fact that the wash-basin in the patient's sleeping room was connected with the common sewer without being trapped.

The village of New London, situated upon the Wolf river, has experienced an epidemic of diphtheria perhaps more extensive than any locality in the state from which we have had any report. It first broke out about the middle of April, making its appearance in some three or four families at about the same time, and in no instance could any of these cases be traced to contagion. It prevailed during the months of May, June and July, when there seemed to be a marked abatement of the disease until the middle of September, when it reappeared, more generally diffused, and with greater virulence. It seized upon both young and old alike. Having appeared in a family, it was a rare exception for any member of it to escape an attack.

Dr. J. R. Moore, a local physician, writes: "The disease has been confined almost entirely to the south side of the Wolf river. The north side is almost equally inhabited with the south. The soil here is very low and thoroughly water soaked, a portion of the lots being much of the time under water. Drinking water is very poor, and it is usually considered unhealthy. The south side has an elevation of from 30 to 50 feet above the bed of the river. The soil is light and sandy; the water good, and here are located the best residences of the village.

"The question arises, why should the disease confine itself so en-

tirely to the south side of the river? My views are these: At the upper end of the village, is a hog-yard, the stench from which is sufficient to pollute the atmosphere of any town of twice the size of this. Nearly all the business of the town is done along the north bank of the river; and all the stores and shops are situated on the bank of the river. Many families live above stores, so that slops and excremental matter of all kinds are emptied into the river in high water and upon the bank in low water. This summer the water has been unusually low, and the result has been that from the hog-yard, the privies and slop holes along the river, there has been a polluted and poisonous condition of the atmosphere sufficient to produce any disease. This I believe to be the sole cause of the epidemic of diphtheria which is now afflicting this village."

2. Structural Dampness of Habitation.

While we may not be able to trace a very close connection between an outbreak of diphtheria and special geological formations, we can frequently observe a close relationship between certain conditions of sub-soil and situation of house and the disease. There is abundant evidence to sustain the view, that in its origin it is not unfrequently associated with structural dampness of habitation; conditions very often found within the state. Whatever promotes dampness of the dwelling, such as confined and stagnant water in the cellar, saturated or water-soaked soil beneath the house, allowing dampness from below, or porous material, such as poorly burned brick, wrought into the construction of the house, furnish conditions favorable to the origin of the disease.

Where dampness and filth co-exist in the soil, they furnish conditions most potent for its origin and propagation. It has been found to rage in some places with a virulence resembling the plagues of the last century, where the soil was shallow and the sub-soil impervious, conditions favoring well-pollution from surface drainage.

The favorite haunts of diphtheria have often been found to be low levels in the midst of unsanitary surroundings. A recent writer says: "I can point to isolated houses which have been attacked by diphtheria at intervals of years, where dampness has chiefly re-

sulted from the house being shut in and closely guarded by trees. I have been called upon on several occasions to investigate outbreaks of diphtheria on elevated and open localities, and have invariably found the same condition of dampness of habitation caused by faulty construction of the house, in localities where there was a stagnation of water, either from a flat table-land with an impervious sub-soil, or more frequently from the locality being a division of a water-shed, which is always a cause of stagnation of water."

Whatever conditions serve to favor fungoid growths, would serve to favor the incidence and persistence of the disease.

Dr. J. C. Hall, of Monroe, in this state, reports in regard to the outbreak of diphtheria in that town, that "The first case was that of a girl twelve years of age, who was one of four children occupying a tenement house which was in very bad condition. The house was old, the roof leaky, and the cellar half filled with water. As a consequence, the sills and other parts of the framework were mouldy and rotten. Dampness and decay pervaded the house.

"This case ran on rapidly to a fatal termination; no physician being called until the day before it died. The parents were advised to leave this house if they desired to save the rest of their children. They removed to the country in a few days, but the children were already poisoned and two more of them fell victims to the disease.

"Another significant circumstance is to be noticed. A little girl from the country was visiting at the house I have mentioned at the time the first case occurred. This visitor became ill at the same time, but was immediately taken to her home. This child died in a few days, and soon after the two other children of this family were seized, and both died. Now nothing seems clearer to me than that these six cases originated from the poisonous atmosphere pervading the house which I have mentioned, and that from this source, too, came the special malignancy that characterized these cases. I saw only the first case, but I am informed that all of them exhibited the same marked symptoms of blood-poison from the start.

"Did all the cases we had here, some twenty-five in all, come out of this same miserable house? It is possible, perhaps probable, for

some of the children of this house attended our public schools during the first few days of their sister's illness, the nature of the case not having been recognized."

3.—Contaminated Water.

Diphtheria is often found associated, both in its origin and severity, with impure water, conditions so frequently found in rural districts where well water it almost exclusively used.

"Of the sanitary defects which specially govern the mortality, the most potent is undoubtedly excrementally contaminated water." This has been found very often to be the cause where whole families have been suddenly carried off. The sudden influx of barnyard leachings or of house sewage, into the well, has brought sudden sickness and death into many homes. The following case will illustrate this point:

About the middle of July, 1878, a malignant form of diphtheria broke out in the family of Jacob Smith, in the town of Fond du Lac. Five children in this family died between the dates of July 19th and August 4th. Four of these cases took on the form of diphtheritic croup. The origin of this disease in this instance was undoubtedly contaminated well water.

The farm buildings stand upon a drift formation, with coarse gravelly sub-soil, through which water percolates as through a sieve. The barn is less than one hundred feet from the house. The well is nearly midway between the house and barn. By the side of the barn is a large heap of manure. Between this pile of filth and the well is a sag or basin, the central depression in which is just thirty-three feet from the well. The leaching from this filth is collected in the basin, and is gradually lost in the coarse sub-soil, furnishing an abundant supply of organic residuum for the well. A sample of this water, taken from the well at a later period in the season and subjected simply to Heisch's test, showed it to be very impure. During the heat of midsummer, the children who fell victims to this disease drank very freely of this water.

Repeated examinations of these premises failed to bring to light any other assignable cause of the sudden calamity which came upon

this family. Two other children belonging to another family living within thirty rods of this well, and drawing their supply of water from it, also sickened and died in the month of August, with diphtheria. From these cases, two other children in the neighborhood contracted the disease, but not in a fatal form. No other cases had existed in this vicinity at any time previous. It is quite likely that all of these children were in a condition of slow blood-poison; that the slow reception of minute doses of poison had so far worn away their power of resistance that when the explosion came in the case of the first child attacked, the disease found a ready soil in each of the other children, in which to kindle the same disease upon a very slight contagious influence.

Serious sanitary defects which are the immediate cause of disease, are often found to be present under the fair exterior of our best homes. These defects may escape the observation of the occupants, but should be recognized and pointed out by the intelligent and observing family physician. Cases which must be left unexplained at the time, may, if held under investigation, at a later period, develop facts which will dispel their mysterious nature.

The evidences in support of the frequent filth origin of diphtheria are so abundant, so well authenticated by observers whose testimony is entitled to the utmost credence, as to render it a matter both of prudence and of duty that every case of this disease should be carefully studied in all the possible modifying influences of its surroundings.

As further corroboration of the fact that contaminated well water may give rise to diphtheria, we quote the following report from Geo. W. Jenkins, M. D., Kilbourn City:

"A family of five children, father and mother, were all more or less sick with a fever, induced, as I fully believed, by drinking water which was very much contaminated by drainage from the barnyard.

"The well is situated between the house and barn, with a gentle slope towards the well. The yard was very foul from the accumulation of years, and the water in the well became impregnated with filth from this source, until it looked, tasted and smelt badly.

I ascertained from the family that when they moved upon the place the frost was in the ground, and the water, to all appearances, was good and pure. When the frost came out the water began to look, taste and smell badly. Of this water all the members of the family used until I was called to see the mother and daughter, who were suffering with a malignant form of diphtheria, attended with great depression of all the vital powers and bloody passages from the bowels. I explained to them the probable source and cause of their sickness and forbade the further use of this water. They soon began to improve and made a good recovery after using good water from another source. They continued to use this good water for a time, when they returned to the use of the water in the contaminated well. The mother very soon came down with exactly the same symptoms as before. The family soon left this farm, and a German, who owned it, having a family of eight children, moved upon it.

"He declared that the water was good and pure, and that the doctor did not know any thing about it. After using the water for a short time, one of the children came down with diphtheria, croupal form, and died in less than a week. After this, every member of the family was sick of the same disease, and five of them died in less than ten days from the date of the first attack. Is it reasonable to suppose that the cause of this sickness lay in any other direction than in this filthy well? I think not."

PREVENTIVE MEASURES.

1.—Individual Sanitation.

It has been suggested by Dr. E. M. Hunt, secretary of the State Board of Health of New Jersey, that when diphtheria appears in a family, or when it manifests itself in an epidemic form in any community, that we seek to establish, in the case of all unaffected children, by precautionary or prophylactic treatment, vital resistance to the onset of the disease, by introducing into the system agents of an antiseptic nature, and such as are known to be antagonistic to germ life. The suggestion is based upon the thought that there should be "opposing forces to disease, in its inceptive as

well as in its declarative stages," and that it may be possible "so to surcharge or pre-empt the individual as to nullify the toxic of the disease, or so dilute or suspend it as to make it harmless."

The suggestion is not without great significance, for the tendency of all study and investigation into the causes of zymotic diseases is towards the grand end—the discovery of an agent, as in the case of vaccinia, that shall render the animal economy an inapt soil for the implantation and growth of these diseases.

2.— Outside Sanitation.

Inasmuch as hygienic conditions exercise great influence over the type of diphtheria, it is hardly possible to give too much care concerning the unsanitary conditions that environ the home, or that may be found within it. Drain-pipes, catch-basins, sewers and privies, should be under constant watch-care. These latter deserve special mention. It is believed by the writer that the accumulation of human excreta in the common garden privy, so often neglected, and so repulsive to human sense and sight is the very fountain and origin of many zymotic maladies. In ordinary porous soil, a common well will drain an area around it of one hundred feet radius. How many of the homes of the rich and the poor, all over the state, have the family privy within fearful proximity to the well, rendering it almost morally certain that the water which supplies the family for drinking and cooking purposes will at times be more or less contaminated with privy fluid.

After careful observation in country, in village, and in city, the conviction is reached, that there is no habit of civilized life touching good taste and common decency, so open to criticism and so reprehensible, as the almost universal neglect of the proper and timely removal of human excreta which are allowed to accumulate in near proximity to the dwelling for years and oftentimes for a whole generation of human life, sending forth sickening gases, polluting the air even beyond their recognition by human senses. They are wafted through the house by day on every breeze, and steal unnoticed into all the sleeping apartments by night. Who can deny but that these privy emanations, modified and intensified in their

poisonous character by the concurrent action of a certain degree of temperature and atmospheric humidity, do not, at times, become more virulent and produce an atmospheric medium fearfully inimical to child life. The ancient Hebrew was required by law to cover up with earth his excrement. Well would it be for all if this wise measure of sanitation could be re-enacted and re-enforced. Then would the abominations of open garden-privies, and the still worse disease-breeders, water closets within the house, close to sleeping rooms, be done away with, and the death rate would everywhere be wonderfully diminished.

There is no good reason why diphtheria should not be dealt with as carefully as small-pox or any other contagious disease. It is relatively as fatal. It is as much under the control of preventive and sanitary measures as it is under the control of medicinal treatment.

"If all interested in this matter would, instead of regarding it as a visitation of God, set about inquiring into and removing the cause, much might and would thus speedily be done to stop the disease. For though God has established laws that control results, he has not directed nor ordained that nuisances and pollutions should be left where they will tend to produce disease."

Privy vaults should be kept at all times thoroughly disinfected with dry earth, coal ashes or a strong solution of copperas — two pounds to a pailful of hot water. The contents of the vault should be removed from the premises, or buried at least one hundred feet from the well, twice every year, or often enough to prevent the air from being offensive.

House drains of all kinds should be so constructed and trapped as not to allow the escape of foul gases into the house. These require frequent examination to guard against obstruction and overflow.

The cellar should be kept well drained and dry, and should be as thoroughly and continuously ventilated as the season will admit. No animal or vegetable matter should be allowed to decompose in the cellar or around the building.

3. — Ventilation.

The greatest care should be exercised in every family where diphtheria has made its appearance, that the sick room and all the rooms of the house be kept thoroughly ventilated. Where the ventilation is imperfect, a single case of the disease will produce an infectious atmosphere, which, if connected with and favored by the condition of other members of the household, will develop new cases, and generally of a more malignant type. The peculiarly filthy emanations from a person sick with diphtheria, gives great force and value to this factor in preventive measures.

Cleanliness and purity in all things—in dwellings, in clothing, in person, in food and drink, and in the air we breathe, are the chief agencies upon which we must rely to keep diphtheria from effecting a lodgment and to prevent it from spreading among us. If these precautions are neglected, other measures will frequently prove unavailing.

It is of the utmost importance that the possible results of the first case of diphtheria in a family or in any given community, should be fully comprehended. The presence of such a foe to child-life in the family is an alarming fact. It is necessary that it should be met at once, and the process of reproduction stopped before it gets beyond control.

SPECIAL MANAGEMENT.

- 1. The origin in the body of every patient sick with diphtheria of the seeds by which the disease is spread, points to the necessity for isolation of each case at its very beginning. No measure is of so much value as this. It implies the exclusion of all excepting those who are absolutely necessary for the faithful nursing of the sick. An upper room is always to be preferred, provided it can be properly warmed, lighted and ventilated.
- 2. All needless articles, such as carpets, bureaus, pictures, books and whatever may gather and retain dust, or serve as hiding places for the poison, should be removed from the room before it is occupied by the sick person.

⁵⁻S. B. H.

3. The common and expressive act of kissing the sick should not be indulged in by any member of the family.

4. Food taken into the sick room should not be partaken of by

any one excepting the patient.

5. If the arrangements of the house will admit, each sick patient should occupy a separate room, through fear of aggravating the poison and intensifying the malignancy of the disease.

- 6. The vessels which receive the discharges from the bowels, the bladder and throat, should always contain some disinfecting fluid, and these vessels, when used, should at once be emptied. Bits of cloth should be used to wipe away the discharges from the nose and mouth, and these should be burned and not washed. Articles of clothing which cannot be cleansed by boiling or dry heat, should be burned.
- 7. Some strong disinfecting fluid, such as diluted bromo-chloralum, solution of chloride of lime or solution of copperas, should always be kept in the sick room to meet the various wants, for the cleaning of the utensils and the hands of the attendants.
- 8. After recovery, the patient should receive a general bath, with plenty of soap, be freshly clothed and be removed to another room.
- 9. Those who have the care of a patient sick with diphtheria should be scrupulously careful as to cleanliness of their own person and that of the patient.
- 10. All members of the family afflicted with diphtheria should be excluded from the public schools, and should avoid all intercourse with others so long as the disease may remain the family, or until, in the judgment of an intelligent physician, the danger of communicating the disease to others is past.
- 11. In case of death from diphtheria, the body should be wrapped in a clean sheet and placed in the coffin, as in the case of scarlet fever or small-pox, being well sprinkled with a strong carbolic solution, or solution of chloride of zinc, or well dusted over with chloride of lime, and buried early. It should not be allowed to remain in the room occupied by the living. The funeral should be conducted in a private manner, and always without exposure of the dead.

12. After the recovery or death of the patient from diphtheria, the room which has been occupied, with all its contents, should be thoroughly disinfected by fumigation with sulphur, or by chlorine gas. After being several hours exposed to one of these agents, it should be opened and well ventilated for several days before being re-occupied. Ordinary prudence would suggest repapering and a fresh coat of lime-wash.

Note — To fumigate a room with sulphurous acid, close all the openings into the room, such as doors, windows, and chimney flues. Place upon the stove, hearth, or zinc base, a kettle containing a small quantity of ashes, upon which are placed some live coals. Upon these, put from two to three pounds of broken sulphur. This amount will be sufficient for an ordinary sized room. The room should be kept closed six or eight hours.

To generate chlorine gas, the same preparation of the room should be made. Into an earthen vessel, containing four ounces of peroxide of manganese, pour about one pound of strong muriatic acid. Immediately leave the room, before the gas becomes diffused.

A convenient and efficient disinfectant for use in the sick room is bromochloralum, diluted with eight or ten parts of water.

To disinfect the vessels used in the sick room, and also privies which receive the dejecta of the sick, copperas may be used, in the proportion of one pound to two gallons of hot water.

THE PREVENTION OF

TYPHOID FEVER.

By SOLON MARKS, M. D., Of Milwaukee.

That the yearly visitation of fevers, especially typhoid fever, causes the death of many of our citizens, besides rendering many others who are fortunate enough to survive an attack of this disease, entirely unfit for any kind of labor for weeks, months, and even years, is unquestionable.

If conceded, and I believe it is by all who have given the subject any thought, that human life has a distinctive money value, and that health is indispensable to prosperity, it is evident that not only individuals, but the state as a whole suffers great pecuniary loss from this disease. With these facts before us, it is natural to inquire, if this yearly contribution of human life and property is unavoidable, or with our present knowledge of the conditions which seem necessary for the production of the cause of this fever, whatever it may be, is it within the possibility of human effort to prevent the occurrence of such conditions, and thereby, in a great measure, stay the ravages of this terrible and destructive disease.

We are not prepared to say that a strict observance of well known sanitary laws would insure entire immunity from this discase; but as observation has proven that where this fever is found prevailing as an epidemic, such laws are generally entirely disregarded, we conclude that its prevalence is due, in a great measure to unsanitary conditions.

As might be expected, this fever is most likely to prevail where great numbers are congregated, as in prisons, military camps, and especially old hospitals, where every part of the structure is impregnated with emanations from diseased persons, and where, as is too often the case, the water-closets are badly constructed and provided with imperfect drains. In short, wherever decomposing human filth is allowed to accumulate, the conditions seem favorable to the spread of the disease.

One class of writers and observers is of the opinion, that the products of decomposing human excreta and animal and vegetable substances are, in themselves, sufficient to cause this fever, and claim to have abundant evidence to verify the correctness of their opinion. Others, however, claim that observation and carefully conducted experiments do not corroborate this view, and that the decomposition of the above named substances is not alone sufficient to produce typhoid fever; but that there is a specific typhoid poison which finds in them favorable ground for growth and multiplication.

In corroboration of these views, cities and villages are cited that are noted for imperfect drainage and accumulated filth, that have been exempt from this fever for years, after which, by the introduction of a single case, an epidemic of the disease has ensued.

It is claimed that the specific poison is produced by the decomposition of excrement from typhoid patients; that the excreta do not contain the poison when fresh, but that a few hours exposure to the atmosphere, with a temperature sufficiently high to favor decomposition, will develop a contagion of wonderful vitality, which under favorable circumstances is capable of retaining its infectious properties for a great length of time.

I quote from Ziemssen: "A villager, who had contracted typhoid fever at Ulm, returned to her native village, a place where typhoid fever had not existed for many years. The excreta of this person were thrown on the dunghill. Several weeks later, five persons were employed to remove the dunghill. Of these five, four were attacked with typhoid fever, and one with gastric symptoms and swelling of the spleen. The excreta of these five persons were

buried deep in the dunghill. Nine months later, two persons were employed in completely removing this dunghill. One of them was attacked with typhoid, and died of it."

Notwithstanding the different opinions entertained regarding the part played by animal and vegetable substances in the production of this fever, all agree in this, that they are important factors in the multiplication and spread of the poison, and that the importance of preventing their accumulation in and about human habitations, cannot be over-estimated.

It has been proven, beyond the possibility of a doubt, that not only the atmosphere, but water used for drinking and culinary purposes is often the medium through which the poison enters the system. The opinion, so generally entertained, that water passing a short distance through earth is deprived of all impurities, is erroneous.

Instances are numerous where water, impregnated with dejections from typhoid patients, has passed through hundreds of feet of earth without parting with its impurities.

It is related that in Switzerland, the dejections of typhoid cases were cast into a running brook irrigating a meadow, filtered through a mile of porous earth, and reappeared at a spring from which the people of a town drank. This acted as a source of the disease, and struck down more than seventeen per cent. of the inhabitants.

In view of these facts, it must be apparent to all who give the subject even a passing thought, that the greatest care should be exercised in locating wells a sufficient distance from privy vaults, cess-pools, drains, etc., to prevent the possibility of the water in them becoming impregnated with impurities from these sources.

As already stated, we believe that the prevalence and spread of this fever, both in city and country, is due in a great measure to decaying organic substances. In cities and large towns it requires the utmost watchfulness on the part of both citizens and authorities, especially if not provided with a proper system of sewers, to prevent their accumulating to such an extent as to endanger health.

Even in the country among farming communities, where it would seem that there should be no excuse for unsanitary conditions to exist, these substances are often allowed to accumulate year after year in and about dwellings, thus exposing the inmates to the deleterious influence of malaria rising therefrom, and, in many instances, houses are rendered still more unhealthy by imperfect drainage of cellars. These damp underground rooms being used for the storage of vegetables and other farm products, necessarily contain most of the time more or less organic matter in a state of decay. The gaseous products arising from such decay are sure to find their way into the usually poorly ventilated rooms above.

The well is generally located with a view to convenience, near the kitchen door, in close proximity to where the slops and other refuse is liable to be deposited. The privy is often not more than fifteen or twenty feet from the well, and in some instances even nearer than that, with a vault but a few feet deep, which is neither cemented or planked; in this condition, it is used by the family year after year without being cleansed, every shower filling it with water, liquefying its contents, and placing them in the most favorable state for percolating through the soil in every direction. The cattle barn and yards, horse-barn, pig-stys, hen-houses and other necessary out-buildings are within a few rods of the house, often nearly surrounding it.

It is true that we find farm houses where the internal arrangements and external surroundings are all that can be desired in a sanitary point of view, but any one who will take the trouble to observe the majority of these dwellings, as they exist over our state, will find very many in the unsanitary condition we have described, and it does not require argument to prove that they are not such conditions as tend to insure the highest degree of health; if they are not such as to cause typhoid fever themselves, they certainly tend to lower the vitality of those living in their midst, rendering them less capable of resisting the disease when brought in contact with it, than those who have not been exposed to like depressing influences.

In short, the conditions are such as to favor the development of

an almost unlimited amount of miasm, in case dejections from typhoid patients be deposited in the midst of these decomposing substances, which not only taints the air, but may be absorbed by water, milk and articles of food, endangering all who may chance to come within its influence.

From the fact that this disease is apt to attack great numbers when introduced into a community, many have been led to regard it as a purely contagious disease. Observation, however, has proven that it is not communicated directly from one person to another by contact, or through the breath and exhalations from the body.

"In the London fever hospitals, where 2,506 cases of typhoid fever were treated in $14\frac{1}{2}$ years, there occurred during the whole time only eight cases which originated in the hospital."

It is well known that great numbers of typhoid patients are treated in the wards of our large hospitals, and it is seldom that physicians, nurses or patients contract the disease from being brought in contact with it.

It seems, therefore, from the above evidence, that this fever cannot be classed among contagious diseases.

If it be true, as already stated, that the poison is furnished from decomposing excrement of typhoid patients, and that it is capable of growth and multiplication if deposited in proper soil, we can readily see how, through the media of air, water and articles of food, this disease may spread not only from one member of a family to another, but from house to house, from village to village, and from city to city, without being purely contagious in itself.

It seems from the cases already cited, that there can be but little doubt regarding the vitality of typhoid poison, and of its ability to retain its infectious properties for weeks and months.

In further proof of this vitality, however, I quote from a very interesting essay on the causation of typhoid fever, prepared by George E. Waring, Jr., of Newport, R. I., and for which he was awarded the Fiske fund prize.

"Dr. J. M. Lazzell, in the Transactions of the Medical Society of West Virginia, for 1877, published a paper on the contagiousness

of typhoid fever, in which he describes an outbreak in the family of one Thomas, which in time produced such terror that no nurse or washer-woman could be induced to come to the house. The bed linen and clothing, soiled with typhoid dejections, were boxed up and carried away.

"Three months after the disease had disappeared from the country, and when the general health was good, a girl came from six miles distant to do the house work. Among other things she washed the boxed-up clothing. In ten or twelve days she was taken sick, and went home. Dr. Lazzell was called to her five days later, and recognized the same form of typhoid fever that had occurred in the Thomas family. Eleven members of her household were exposed, and eight of them took the disease. It did not attack a single person not so exposed."

From accumulated evidence, we conclude that when this fever is once introduced into a city, village or neighborhood, nothing but the most untiring vigilance on the part of those having charge of persons suffering from the disease, can prevent its rapid spread.

If possible, the patient should be placed in a well ventilated room in the second story, and disinfectants constantly kept in the apartment.

It is impossible to over-estimate the importance of the proper treatment of the dejections; they should be thoroughly disinfected the moment they are discharged from the bowels, and the utmost care taken to prevent the linen or bedding from being soiled with the excrement; but if this be impossible, it should be placed in some disinfectant fluid until it can be washed and boiled.

Throwing dejections from typhoid fever patients into water-closets, privy vaults or upon ground near dwellings, without their being first thoroughly disinfected, is criminal in the extreme. Depositing these dejections in water-closets in cities and large towns, where a great number of houses are connected with the same system of sewers, is especially dangerous, as through imperfect traps and defective pipes numerous families may be exposed to the poison though living at a great distance from each other.

Various disinfectants are recommended by different writers for

the purpose of disinfecting typhoid dejections, the majority of which will answer the purpose if thoroughly used.

I quote from Liebermeister: "As a rule, I have a porcelain bedpan used, the bottom of which is strewed each time, before being used, with a layer of sulphate of iron; immediately after a passage, crude muriatic acid is poured over the fecal mass, as much as onethird or one-half the bulk of the latter being used for that purpose.

"Where it is practicable, the contents of the bed-pan should be emptied into trenches dug anew every couple of days and filled up when discarded, care being taken that they are not located anywhere in the vicinity of wells. Where nothing else can be done, the dejections will, of course, have to be emptied into the privy vaults, in which case they should be even more thoroughly covered with the crude acid. Any of the underclothing or bed clothing that is soiled during stool, should be immediately immersed in water or in a solution of chloride of zinc, and should be thoroughly boiled."

George E. Waring, Jr., recommends "that a chamber or bed-pan filled to the depth of an inch with dry earth or with sifted anthracite ashes, or with powdered charcoal, be used to receive the evacuations; that this be immediately covered with a further inch in depth of dry material, and that the whole be turned into a shallow hole in the ground and covered with earth not more than two inches deep, so that it may go through with its decomposition in the upper soil within easy reach of the oxidizing air. If to be removed quite away from the premises, the earth containing the dejections may be thrown into a barrel or box, each deposit being covered with fresh earth and carefully protected against rain."

A solution of permanganate of potassium (of the strength of one ounce to one gallon of water) is excellent for disinfecting soiled articles from the sick-room. Solutions of chloride of zinc and sulphate of zinc are also good. Chloride of lime is deservedly popular as a destroyer of putrid gases. Chlorine gas may be generated in a sick room by pouring strong vinegar or diluted sulphuric acid upon chloride of lime placed in proper vessels in the room. Sulphurous acid gas may be classed among the very best disinfectants for rooms that have been used by typhoid patients.

The following directions are given by Dr. Griffin:

"Place in an earthen vessel or iron kettle, containing a small quantity of ashes, a few live coals, upon which place from one to four pounds of sulphur in powder or fragments, according to the size of the room. A room containing 2,000 cubic feet of space would require about 4 pounds of sulphur or $1\frac{1}{2}$ ounces to each 100 cubic feet of space.

CONCLUSIONS.

Notwithstanding the different theories which exist regarding the origin of typhoid fever, we believe the facts already gathered are sufficient to warrant the classification of this fever among the preventable diseases. If typhoid fever is capable of spontaneous origin in the midst of decomposing organic substances, as claimed by Murchison and others, it is certainly within the possibility of human effort to prevent the accumulation of these substances in and about our dwellings. On the other hand, if it be true, as claimed by Budd and those who believe with him, that this fever never originates de novo, but is caused by a specific poison which has its origin in decomposing dejections from typhoid patients, and that decaying organic substances simply furnish favorable soil in which the poison multiplies and spreads, the numerous disinfectants at our command enable us to prevent the decomposition of these dejections, thereby preventing the development of the poison.

Sporadic cases of typhoid fever may, and undoubtedly will occur from time to time, but if those having charge of such cases will conscientiously carry out well known preventive means, the disease will not extend, and epidemics of this fever will be unknown.

LAND DRAINAGE

AND

OBSTRUCTIONS TO WATER COURSES.

By J. T. REEVE, M. D., Of Appleton.

Since the days when "Lot lifted up his eyes and beheld all the plain of Jordan, that it was well watered everywhere," and for that reason chose it for himself and for his flocks and herds, well watered lands have ever been highly esteemed and eagerly sought by the husbandman.

But if often happens that a large portion of the land which man attempts to cultivate is, in a certain sense, too well watered; that water is found upon it not only in the forms of living springs and running streams, but in the unwelcome shapes of stagnant pools, of swamps and marshes, or beneath its immediate surface in the less apparent condition which constitutes soil saturation. Indeed, it is only in exceptional cases that the natural contours of the surface and the conditions of soil and sub-soil are all that can be desired, or in which some means are not necessary to remedy this evil, and to determine whether the occupation of such land can be made either profitable or healthful.

How soon men began to learn that stagnant water might be removed by drainage, or to appreciate any of the benefits of this operation, we have no means of ascertaining. We may, however, imagine the time to have been nearly coincident with his first efforts to cultivate the soil, and we know certainly that drainage

for hygienic and sanitary purposes was scientifically conducted many centuries before the Christian era. Some of the works for these purposes were of immense extent and cost; one of the most eminent of sanitary engineers in modern times has said that "sanitary engineering has no nobler monuments than the aqueducts and cloacæ of ancient Rome," and their perfection and fitness for use after the lapse of twenty-five centuries, witness the truth of the assertion.

The traces of drainage for agricultural purposes, are of necessity much more indistinct, yet it is now nearly three hundred years since Oliver De Serres, a Frenchman, wrote a book in which he minutely describes its principles and practice, declaring that drains should be many and deep without fear of excess on that score, for "thereby not only are wet lands improved, but pools and swamps are converted into most exquisite plough-fields." * essay, indeed, shows an appreciation of the benefits accruing from drainage which is hardly excelled at this present day; neither De Serres, however, nor Bligh, who wrote a half century later, appear to have had any practical knowledge of draining by means of tiles. although these are not of modern invention; for Klippart speaks of the discovery of well preserved specimens in the garden of a convent in France, which had "from immemorial time been renowned for its fertility, the beauty and earliness of its fruits and the friability of its soil." These tiles had been "made with masterly hands." and the existence of tombs over them which had not been disturbed for more than two and a half centuries, shows them to have antedated that period.

But the drainage of lands for agricultural purposes has attracted popular attention, and has been systematically conducted in this country only within a very few years. The United States have yet much to learn upon this subject from older countries. France, Belgium, Germany and England have all encouraged it by direct governmental aid, the latter country appropriating a fund equal to twenty million dollars "to be loaned to farmers to be expended in drainage," subject to repayment in small annual installments. The

^{*} Vide Klippart's Princ. and Pract. of Land Drainage.

stimulus of substantial aid has likewise been extended to this practice in the dominion of Canada, where "certain main drains of great extent and capacity are opened by the government and paid for by general assessment, into which owners of real estate may empty the private drains constructed at their own expense." The legislatures of several states of our own Union have also passed drainage acts, by the aid of which large bodies of marsh lands have been reclaimed. From all of these experiments, as well as from those made by private individuals in numerous places, such results have been obtained as have abundantly established the fact that wherever the value of land is sufficient to warrant the expense of draining swampy or otherwise wet land, such operation becomes a source of very large pecuniary profit; nor does the experience differ in the case of land where there is a superabundance of moisture beneath the surface, even though the surface itself may be dry. There is much land where the surface ordinarily shows no really wet spots, but where a sub-soil exists, that is nearly or quite impervious.

The familiar illustration of a flower-pot with the bottom hole closed, aptly describes such land; the impervious strata below hinder the drainage of the soil, as does the closed bottom of the flower-pot hinder its drainage, until, for a variable height above these strata, the ground is so water-soaked and soggy as to be utterly unfit either for the maintenance of vegetable life or for the occupancy of human beings. Deep sub-soil drainage will usually accomplish for such lands what opening the hole in bottom of the flower-pot accomplishes for it, that is, it will render it light, warm, porous, fertile and healthy.

Such lands may occasionally exist where the surface is very uneven, perhaps even hilly, the water in such cases soaking through the surface soil until it reaches an impervious stratum along which it travels until forced to the surface, perhaps, as a spring on the hill-side, or, failing sooner to reach the surface, it may spread over the low land at its foot, converting it into swamps or marshes. Of all such land, Mr. Waring says that "drainage is the key to all improvement."

The proportion of land to which this description applies, and which would be benefited by sub-soil drainage, is unquestionably very much greater than would be suspected by those who have not given special attention to the subject, or who have been accustomed to think of drainage only as chiefly applicable to land which is either actually swampy or obviously wet upon the surface.*

It may be interesting to note briefly the opinions of a few men who have closely investigated this subject of drainage. Mr. Johnson, a venerable Scotch farmer in Western New York, who was almost the pioneer of tile drainage in this country, and whose eminent success in this kind of work has caused him to be justly regarded as one of the best living authorities on the subject, says that he "never saw one hundred acres in any one farm but that a portion of it would pay for drainage." A committee appointed several years since by the State Agricultural Society of New York, to investigate the subject of drainage, after careful study, declared its belief that there was not, on the average, "one farm in seventyfive, in that whole state, but that needed drainage to bring it into high cultivation." And Mr. Cleveland, in a carefully prepared essay read before the Agricultural Society of the State of Illinois, says: "From data received from a great many sources, I feel no hesitation in declaring my belief that the crops of Illinois might be doubled by a judicious and thorough system of underdraining; " † while Gen. Viele says that drainage for agricultural purposes is the most remunerative of all labor.

^{*} Judge French says: "An American traveling in England, in the growing season, will always be struck with the perfect evenness of the fields of grain upon the well drained soil. Journeying through a considerable portion of England and Wales with intelligent English farmers, we were struck with their nice perceptions on this point; the slightest variation in the color of the wheat in the same or different fields attracted their instant attention. 'That field is not well drained — the corn is too light colored.' 'There is cold water at the bottom there — the corn cannot grow;' were the constant criticisms as we passed across the country. Inequalities that in our more careless cultivation we should pass by without observation, were at once explained by reference to the condition of the land as to water."

[†]Note.—Since this paper was written, a circular issued by the Dept. of Agriculture, Ill., has been kindly sent to me by Mr. S. D. Fisher, Secretary, which shows that the subject of drainage is attracting great attention in that state. One evidence of this fact is that over fourteen million feet of drain-tile was manufactured in Illinois in the year 1877. The circular gives the experience and testimony of many Illinois farmers in favor of the practice of drainage as a source of profit.

Such testimony might be multiplied to indefinite extent—indeed, the opinion of all careful observers seems to be unanimous, that judicious drainage of the soil greatly increases the quantity and likewise improves the quality of the crops grown upon it. This fact, however, seems to be appreciated but to a very limited extent by the farmers of Wisconsin. It does not appear to have been the subject of discussion at any of the meetings of the State Agricultural Society, at least during the last ten years, and with the exception of a brief article from Mr. Stilson, in which he recognizes the fact that a large portion of the land of the state rests upon a close or clay sub-soil which requires draining to make its cultivation profitable, the subject has been only incidentally referred to.*

It appears to the writer to be eminently worthy the closer attention of land owners; many of the farmers of Wisconsin are cultivating a soil, the richness of which enables it in favorable seasons to yield fair and possibly abundant crops, but which has a sub-soil so retentive and impervious that this result depends wholly on the happening that the season may be neither too wet nor too dry. The yield of such land is always an uncertain one, and its owners may toil early and late and yet remain in poverty, not because they have not labored abundantly, but because they contend against the adverse forces of nature. Judicious drainage in all such cases would remove the chief element of uncertainty. Judge French says: "We hear no man say that he lacks skill to cultivate his crop; seldom does a man attribute his failure to the poverty of his soil; but, if we listen to the answers of farmers when asked as to the success or failure of their crops, we shall be surprised perhaps to observe how much of their want of success is attributed to accidents, and how uniformly these accidents result from causes that thorough drainage would remove. The wheat crop of one would have been abundant had it not been frozen out in the fall, while another has lost nearly the whole of his by a season too wet for his land. farmer at the west has planted his corn early, and late rains have rotted the seed in the ground, while one at the east has been com-

^{*}An interesting article on drainage, by Mr. Cook, may be found in the transactions of the Northern Wisconsin Agricultural and Mechanical Association for 1876-77.

pelled by rains to wait so long before planting that the season has been too short. Another has worked his clayey farm so wet (because he had not time for it to dry) that it could not be properly tilled. So their crops have wholly or partially failed, and all because of too much cold water in the soil."

Col. Waring says upon the same point: "To the labor and expense of cultivation which fairly earn a secure return, there is added the anxiety of chance; success is greatly dependent upon the weather, and the weather may be bad. Heavy rains after planting may cause the seed to rot in the ground, or to germinate imperfectly; heavy rains during early growth may give an unnatural development or a feeble character to the plants; later in the season, the want of sufficient rain may cause the crop to be parched by drought; in harvest time, bad weather may delay the gathering until the crop is greatly injured, and fall and spring work must often be put off because of wet.

"The above is no fancy sketch. Every farmer who cultivates a retentive soil will confess that all of these inconveniences conspire in the same season to lessen his returns with very damaging frequency; and nothing is more common than for him to qualify his calculations with the proviso, 'if I have a good season.' He prepares his ground, plants his seed, cultivates his crop, 'does his best'—thinks he does his best, that is—and trusts to Providence to send him good weather. Such farming is attended with too much uncertainty—with too much luck to be satisfactory; yet so long as the soil remains in its undrained condition, the element of luck will continue to play a very important part in its cultivation, and bad luck will often play sad havoc with the year's account."

Lands that need draining are correctly described as "cold and sour." The excessive quantity of water which they retain, finding no sufficient escape beneath, must escape if at all, by evaporation, a process which abstracts so much heat from the soil and from the air above it as to unfit it alike for the healthful growth of crops and for healthful human occupancy. In the experiments of Dr. Madden on the temperature of such soils, it was found that a well-drained soil was $6\frac{1}{2}$ degrees warmer in summer than similar soil

undrained, while from the experiments of Mr. Parks, it may be questioned whether the difference is not often much greater than this.* Concerning the effect of evaporation in producing this lowering of temperture, Col. Waring speaks thus: "It has been found by experiments made in England, that the average evaporation of water from such soils is equal to a depth of two inches per month, from May to August, inclusive; in America it must be very much greater in the summer months than this, but this is surely enough for the purpose of illustration, as two inches of water over an acre of land would weigh about two hundred tons. amount of heat required to evaporate this is immense, and a very large part of it is taken from the soil." At whatever temperature a liquid volatilizes, it absorbs the same total quantity of heat. French remarks, "every gallon of water thus carried off by evaporation requires and actually carries off as much heat as would raise 5½ gallons of water from the freezing to the boiling point."

The drainage of such lands prevents surface washing, leaves the natural interstices between the particles of soil free for the admission of air to the roots of plants, warms the undersoil, permits and promotes necessary chemical changes; gives extra depth and mellowness to the most unmanageable of soils, increases its capacity to absorb moisture from the atmosphere in times of drought, permits its deeper penetration by the frosts of winter, renders it capable of earlier cultivation in the spring, as also of later cultivation in the autumn, thus bringing the seasons into subjection. Experience has also abundantly proven that the increased porosity which the land assumes under this process, greatly increases its power to absorb moisture from the air, and hence enables it better to withstand the draughts of summer.

Another practical benefit of drainage which many Wisconsin farmers can appreciate, is, that it is the best preventive of winter-killing of crops. Concerning this process, Klippart and others explain that where it occurs, there is a stratum of clay or hard-pan too near the surface, through which the autumn rains and melting snows cannot penetrate, and whence, consequently, they have no

^{*} According to French, high authority has placed the difference frequently as high as 150.

way of escaping but by evaporation, which in winter is very slight. The ground is thus saturated, the plants are confined to short roots, and the heaving-up of the surface soil in the process of freezing draws these from their beds; its subsequent settling down after thawing leaves them exposed, and thus the life of the tender plant is utterly destroyed.

Notwithstanding all these facts, the question of the cost of drainage operations will, other considerations excluded, be the controlling one in determining the extent of its practice. The actual necessary outlay for tiles is trifling, but if the labor, which is the chief item, be counted at its cash value, thorough drainage is expensive. As applied to most lands, it cannot be expected to pay for itself in a year, perhaps not in five or ten years; but work of this kind well done may be expected to last for generations, and should be considered in the light of a permanent investment, safer than stocks or bonds, and sure to return a fair if not an extraordinary interest. To half perform it without competent survey, by digging shallow drains* and by resorting to temporary expedients, is to fail of success even in this. In pioneer life, where land is more abundant and cheap than labor, it is doubtless better economy to superficially cultivate additional acres than thoroughly to improve a smaller farm; this however, is not wholly true of Wisconsin, many parts of which have emerged from this condition so far that the question of the profit of thorough and systematic drainage should be most carefully considered. But there is

ANOTHER ASPECT OF THE CASE,

applicable alike to pioneer life and to advanced settlements, and one which chiefly concerns us as sanitarians. Except for this we should not have ventured upon the presentation of the subject; for, while we are interested in the advancement of agricultural pursuits and in the production of better crops of wheat and corn, we are most vitally interested in the production of better and more

^{*}The best scientific and practical men in England have settled down upon four feet as the minimum depth where practicable. At the same time all admit that in many cases a greater depth than four feet is required by true economy. (French.) The same thing was said by De Serres three hundred years ago.

healthful crops of men and women, and as a rule to which there are few exceptions, we believe that the best physical development and the highest degree of health cannot be attained where we do not have

"PURE AIR, PURE WATER AND A PURE SOIL,"

not one of which is compatible with water-soaked, miasma-generating marshes, or with a soil that is not, either artificially or naturally, drained of the superfluous water that falls upon, or otherwise reaches it. Without exception such soils cannot be considered as other than unsafe for human occupancy.

"The whole tendency of recent investigation proves that the controlling cause of our most fatal diseases is to be found in local conditions," and the evidence that stagnant water, swampy lands and soil saturation rank high among these controlling conditions is beyond all question. In the more palpable cases, neither statistics nor illustrations are necessary to prove the assertion, yet there is a wide-spread neglect to adopt the remedy which, while it would directly conduce to the production of healthfulness, would at the same time usually prove to be the source of large pecuniary profit.

Gen. Egbert L. Viele, an eminent sanitary engineer, in a report made in 1870 on the nature and necessity of a system of drainage for sanitary purposes in the city of New York, says: "It is a well established fact that the principal cause of fever is a humid, miasmatic state of the atmosphere, produced by the presence of an excess of moisture in the ground, from which poisonous exhalations constantly arise, carrying into the systems of those who inhale them a virus which, if not sufficiently intense to produce fever, has such a disturbing effect upon the functions of some organs as to weaken the general system, and act as a powerful predisposing cause of some of the most common and fatal maladies to which the human body is subject. It follows as a matter of course that the first effort to improve the salubrity of any place whatever, should be directed toward preventing the aggregations of water in particular localities, and to remove such as have been allowed to collect."

And the same writer, in a discourse before the American Public Health Association four years later, uses the following yet more

emphatic language: "Of all the problems embraced within the scope of sanitary science none are more important, or should claim a larger share of attention, than those connected with drainage and sewerage; since, of all the innumerable causes which, singly or combined, engender preventable disease, the most wide-spread and most certain is the presence of an undue amount of moisture in the soil."

And again: "We have only to look about us to see on every hand individuals constructing edifices, and communities constructing towns and cities, with a reckless disregard of all the warnings of the past, and an equally reckless indifference to future consequences, in utter violation of those laws and principles upon which life itself depends."

It ought to be clearly and everywhere understood that there are no more universal causes of disease than those connected with the soil on which men live, and which it is wholly within their power to change from an unhealthful to a healthful condition; that it is never safe to live upon a water-soaked, undrained soil, and that the tendency of such soil is always to give off malarial exhalations which sap the health if not the lives of those who dwell upon it.

How many are there who know that, during the first half of our civil war, more than 20,000 Federal soldiers died from malarial diseases, and that this number covered nearly one-third of the total mortality of the United States army for the same period?

How many are aware that the official returns, as given in the Medical History of the Civil War, credit malarial diseases with being the cause of 90,269 deaths, while wounds and injuries received in battle caused only 35,822 deaths?*

The importance of the fact that the best and most skilled sanitarians declare their belief that the emanations from undrained soil give rise not only to agues, which all know to be of malarial origin, but to remittents and typhoids, to rheumatisms, neuralgias,

^{*}The source from which the above figures were taken is the Medical and Surgical History of the Civil War, Vol. I, tables 100 and 112. The diseases selected from these tables as being due to water-worked soils were the following: Typhoid, Typho-malarial, Remittent and Intermittent Fevers, Diarrhea, Dysentery, Diaphtheria and Catarrh. If to these had been added the many forms of pulmonary disease which may be traced to soil-saturation, the sum-total would have been far larger.

and a whole host of inflammatory diseases, is yet far from being popularly appreciated. The investigations of Dr. Bowditch, in New England, show that a very large percentage of cases of consumption occurred among those who resided upon an undrained soil, and have clearly established the fact that an intimate relation exists between such a condition of the soil and this most fatal of all diseases. The reports of Mr. Simon, medical officer of the Privy Council of England, have also shown that the death-rate from all causes has greatly decreased in many towns in consequence of drainage operations. At Salisbury, fatal cases of pulmonary disease have been reduced to the extent of 49 per cent., at Rugby, 43 per cent., and at Worthing 36 per cent.

But aside from the diseases directly caused by defective drainage, there is the perhaps yet more important and general fact, that life upon a super-saturated soil so insensibly lowers the vitality of the system as to unfit it to withstand exciting causes of disease of any kind. The strong may for a time apparently resist such influences, but the feeble speedily succumb and die. Thus is explained the excessive mortality that accompanies any epidemic which happens to visit such localities, and the fact is well established that such localities invite the approach of epidemics. Cameron in his Manual of Hygiene gives some very interesting statistics of the mortality from certain epidemics in low lying districts where drainage was impossible, as compared with those of greater elevation. A notable example was the case of the cholera epidemic in London in 1849, when the mortality among the inhabitants living at or near the level of the river Thames was 174 per ten thousand of the population, and decreased with the elevation of the ground with almost absolute uniformity, until, at the height of 350 feet, the death-rate was but six per ten thousand. Dr. Mapother found substantially the same facts in the epidemic of cholera in Dublin in 1866, when three-fourths of all the deaths took place on or close to the sites of obstructed water-courses. ham, of Massachusetts, has shown that the same state of things existed in an epidemic of diphtheria in Lynn, where eighty per cent. of all deaths occurred in the marshy valleys of low lying districts; in

Lowell, also, "the districts bordering on the river yielded from its water-soaked banks a similar undue proportion of deaths." Indeed, the instances where this law can be shown to have held good are far too numerous to quote, and too conclusive to question, so that it requires no great degree of prescience to foretell what localities in any given district, and what homes in any given community, will be most likely to swell the lists of mortality.

From England, where drainage has been much more extensively practiced than in the United States, and where its effects have been much more thoroughly studied, the testimony in regard to its sanitary influence is of the most positive and direct character. Dr. Chadwick says: "In considering the circumstances external to the residence which affect the sanitary condition of the population, the importance of a general land drainage is developed by the inquiries as to the cause of prevalent diseases to be of a magnitude of which no conception had been formed at the commencement of the investigation. Its importance is manifested by the severe consequences of its neglect in every part of the country, as well as by its advantages in the increasing salubrity and productiveness wherever the drainage has been skillful and effectual." And the General Board of Health of that country, after prolonged investigation, publish the following conclusions as to the drainage of suburban lands:

- "1. Excess of moisture, even on lands not evidently wet, is a cause of fogs and damps.
- "2. Dampness serves as a medium for the conveyance of any decomposing matter that may be evolved, and adds to the injurious effects of such matters in the air; in other words, the excess of moisture may be said to increase or aggravate atmospheric impurities.
- "3. The evaporation of the surplus moisture lowers the temperature, produces chills, and creates or aggravates the sudden and injurious changes or fluctuations by which health is injured."

The subject of Drainage in its Relations to Public Health was made one of special study in the section of State Medicine of the American Medical Association in 1874. Dr. Bell, the chairman, in

his circular letter suggesting the study of the subject, says: "Of all the preventable causes of disease throughout the country, defective drainage is unquestionably the most prolific. Directly or indirectly it is the cause of nine-tenths of all the fevers that occur." And from his public address before the association at the meeting referred to, we quote the following statistics:

"The mortality of the United States for 1870 was 492,263. A glance at this tabulated estimate in the census report, will show that about one-half of the total number of deaths were caused by diseases due for the most part to miasms consequent upon soil saturation and stagnant water; that from consumption alone there were 69,896 deaths; from enteric, intermittent, remittent, and typhomalarial fevers, and cerebro-spinal meningitis there were 34,521 deaths. Rheumatism, acute pulmonary affections, croup, diphtheria, and many other diseases well known to be largely due to, or promoted by the same cause, may, for our present purpose, be left out of the count. Of the 69,896 deaths from consumption, and 34,521 deaths from ordinary miasms, three-quarters at the least, or more than 75,000 lives, might have been saved by drainage."

The testimony of other eminent physicians on the same occasion, given as the result of careful and extensive investigation, was equally emphatic to the effect that defective drainage was nearly everywhere recognized as one of the chief causes of sickness and mortality both in cities and in agricultural districts, and many instances were given of the improvement which had taken place in public health as the result of drainage operations, whether undertaken for agricultural or sanitary purposes. It is fortunate, indeed, that the two interests seldom if ever conflict with each other, and that the expenditure of labor and money for drainage, entered upon for pecuniary gain, may be expected to result in the increased healthfulness of the drained districts, while drainage for sanitary purposes may equally be expected to result in causing greater fertility of soil. "We believe, without insisting upon its absolute verity in all cases, that it may be taken as an axiom, that wherever drainage of farm lands is found profitable in a pecuniary point of view in the increase and [greater] reliability of crops, it will be

found advantageous as a hygienic measure to all animal life dwelling upon them. If this is the fact, the farmer whose only idea in draining is with reference to increasing, by proper drainage, the product of his acres, is placing upon a surer foundation his own health and strength and that of his family and live stock; and as he enlarges his granaries to receive the increase of the harvest, he is laying up a store of health and strength to draw upon not only in the winter of his days, but during the whole period of his existence."*

"Wide agricultural districts have been so much benefitted by drainage," says Mr. Denton in his excellent work on sanitary engineering, "that diseases which formerly constantly prevailed have now ceased to exist." And Mr. Baldwin Latham testifies that "works of sub-soil drainage that have been carried out in every civilized country in the interests of agriculture, show beyond doubt that both the health of animals and plants is materially benefitted by works of this character." The copious evidence taken by the Metropolitan Sanitary Commission in 1848, concerning the effect of ordinary agricultural land drainage, as practised in England, upon the improving healthfulness of men and the lower animals, and upon climate, resulted in the production of a vast mass of testimony of the most telling character, and clearly showed that all the benefits claimed by the advocates of land drainage had already been fully obtained in English experience.

A suggestion made by Dr. White in a recent article in the Herald of Health, to the effect that the adoption of a general system of drainage would be followed not only by a diminution of disease and an increase in agricultural productions, but by a greatly improved condition of the public roads, is one well worthy of the attention of all communities as an additional reason for, and benefit from the drainage of lands. Nothing is much more common than for roads to be constructed without the slightest effort to drain away the water that in low lands fills the ditches on either side, and such roads are not only frequently impassable but entail annually a very

^{*} Vide Mr. Lyster, of the Michigan State Board of Health, in an exce'lent article on Drainage for Health. Rept. of Mich. Board for 1874.

heavy tax for repairs, the benefits of which are well nigh inappreciable. No such roads or annual heavy road tax will be found where the drainage of the district is thoroughly carried out.

"It is well known to physicians, and it ought to be appreciated by statesmen," says Dr. Toner, in an address before the American Public Health Association, "that conditions of insalubrity which enfeeble the vitality of a people are much more to be dreaded by a nation than even wars or great epidemics. A region or country, noted for unhealthfulness will increase neither in wealth nor in population. The elements which constitute the greatness of a nation are physical vigor, health and enterprise in its population; to have these the rulers must secure good sanitary conditions."

We have written thus far in the hope that by illustrations of the intimate relations that drainage holds both to the profitable cultivation of the soil and to its fitness for human occupancy, its practice might be encouraged and stimulated. Men are proverbially disinclined to recognize conditions dangerous to their own and their neighbors' health in any of their own personal surroundings; if they can be shown that danger does exist wherever there is undrained soil, and that the practice of drainage, while establishing healthful conditions, will at the same time prove a source of pecuniary profit, we may hope for its more extensive observance, and the purpose of this paper will have been subserved.

But whatever argument may be offered for the drainage of watersaturated soil in other localities, the subject viewed in its sanitary relations assumes the most vital importance when considered in reference to

BUILDING SITES

and their immediate surroundings. "Medical and sanitary science and experience alike forbid the erection of dwellings upon an undrained soil. Heat and capillary attraction bring to the surface that dampness which should have been removed by sanitary engineering. The results are malarial fevers, consumption, suffering and death as punishments for neglecting applications afforded by the light of science."* Thus we see that the very warmth to

^{*} Dr. Moreau Morris.

which we resort to dry our dwellings, serves to draw to them the dampness and noxious gases which the experiments of Petten-kofer and others have demonstrated to exist in the soil as the product of the slow decomposition of organic matter. If this be true of the soil, how much more true it is of many of our cellars, where the decomposition of organic matter goes on with great rapidity, resulting in the production of foul gases unfit for human breathing, which yet permeate the air of the whole house, acting, if not as the direct producers of tangible disease, at least as powerful predisposing causes of fatal maladies.

Dr. Lyster justly says: "The difference between sewer gas, now everywhere recognized as one of the most frequent causes of all zymotic diseases, and that arising from the gradual decomposition of vegetable matter in the cellar of the farm house, is rather one of degree than kind." * Drainage and ventilation are the preventive remedies for this evil; yet men blindly persist in tightly closing an undrained hole in the ground which they dignify with the name of a cellar. A great evil in the construction of many houses, lies in the fact that they are built over such cellars and close to the surface of the ground. We believe that it would result in the annual saving of the lives of hundreds of our citizens if every dwelling house in the state were raised to a height of at least three feet from the ground, so that light and air might freely circulate beneath them. Even in the cases where otherwise well constructed cellars are to be found, the necessity for thorough drainage is seldom fully appreciated. Among the questions to which answers are required from the clerks

^{*}The waste heat from the kitchen fire may be made to serve a most useful purpose in the removal and destruction of these gases; to accomplish this purpose, the chimneys of all dwelling houses should be large and built from the cellar bottom, and should also be so constructed that a par?, say one third; of their area shall be separated from the remainder by a thin partition. With a sufficient opening left in the ventilating flue thus formed, the warmth communicated to it from the chimney proper will suffice to create a strong upward current which will carry the foul and poisonous vapors far above the dwelling. This method of ventilation may also and with excellent effect be applied to living and bed rooms. The effect will be still greater in cases where more than one fire is maintained. In this case the chimney may have three compartments, the central one serving as the ventilating shaft. Where chimneys are already constructed without the division, and not reaching to the cellar bottom, an imperfect yet valuable substitute for this arrangement is to conduct a stove-pipe from the cellar into the chimney, leaving the bottom open.

of local health boards in their last annual report is this: "What proportion of the dwelling houses in your town, city, or village are either habitually damp, or damp in wet weather?" Out of 367 who returned answers more or less definite to this inquiry, only 83 reply that all the dwellings in their towns are dry, leaving more than three-fourths of all the localities in which a varying proportion of the houses are reported as being more or less damp, and therefore more or less dangerous to the health and lives of the dwellers in them. Some of the replies assert that three-fourths. five-sixths, nine-tenths, and in no less than nine cases that all the cellars in those districts are in this condition! Others still, while giving no definite proportions, affirm that "many" "a large proportion," "nearly all," etc., are damp either habitually or at times. It is probably entirely safe to conclude that more than half of all the cellars in Wisconsin are at some season, or through the entire year, wet or damp, and, consequently, in need of thorough drainage. It may and doubtless will be affirmed, that this in some cases is an impossibility; if the assertion be true, the only reply is, that such localities are unfit for the building of human habitations thereon, and should be studiously avoided. Yet if by any combination of circumstances such avoidance is impossible, it is surely the part of prudence in such situations to construct dwellings entirely without cellars, and to raise them well above the surface of the ground, between which and the lowest floor a perfectly free circulation of air should be insured. If this cannot be done, better by far forego any seeming advantage which may accrue from residence in such a spot, and abandon it.

It is not our purpose, however, to do more than to allude thus briefly to the question of drainage as related to building sites, the subject having been discussed by Dr. Marks in the first annual report of this board; neither do we intend to make any reference here to sewerage, further than to call attention to the fact that while drainage has for its distinct and only proper object the removal of superfluous water from the soil, the peculiar office of sewerage is the removal of the waste and filth which are the inevitable accompaniments of life. Both are necessary as well for the

isolated farm house as for dwellings aggregated into village's, towns, and cities, but neither can properly take the place of the other, and the cases in which it is prudent or safe for them to have any common connection or termination even, must be regarded as excep-Nevertheless, instances of the violation of this principle are exceeding frequent. Almost as a rule, wherever there is a drain from the kitchen sink of an isolated dwelling it empties into the cellar drain at a short distance from the house, and very commonly in towns, and even in cities of very considerable pretensions, one common drain or sewer receives not only the drainage of all the cellars in its vicinity, but also the discharge from large numbers of kitchen sinks. It should be no matter of wonder if, from the waste and filth of many households thus accumulated in one putrefying mass, highly poisonous gases are generated to find their way back through wholly untrapped drains into cellars, and thence into the dwellings of those whose sanitary surroundings may otherwise be unexceptionable.

And just here it is in place to remark upon the fact that many of the homes of the more careful and better instructed among our citizens are thus immediately subjected to a physical influence of the most undesirable kind, emanating from the dwellings of the more ignorant and neglectful - indeed, from those of the most filthy and careless among our population; from these last are poured into sewers and drains masses of putrescible filth from which are given off foul vapors and pestilence-producing germs of Following the laws that regulate the diffusion of gases, these penetrate every side drain and connecting pipe, finding most easy access to the houses which in winter are best provided with the means of producing a warm atmosphere within them; thus by the very means employed to secure comfort, foul gases are drawn into these dwellings to mingle with the respired air, and thus, we are persuaded, may be explained the origin of many cases of sickness otherwise inexplicable. Thus also the filth of one household or neighborhood may contaminate another far removed from and apparently wholly unconnected with it.

Another aspect of the question of drainage is presented when we consider the case of

ARTIFICIAL OBSTRUCTIONS.

Not unfrequently even the natural drainage of a country provided by its rivers and other water courses is interfered with by art. The demands of civilization are such that mills and manufactories are usually among the first enterprises undertaken in a new country. Land is cheap and abundant, and for a long time, perhaps, even if a considerable overflowage be caused by the means employed to create the needed power, the interference with other appreciable interests of the country is very slight, if it exists at all. The mill is a real convenience to the people — meets an actual want, and materially assists in developing the resources and promoting the interests of the community. During all this period, the possible sanitary questions that may in the future grow out of the overflowage have hardly been taken into consideration at all, but in the lapse of time the case assumes a wholly different aspect.

Other mills and manufactories may have arisen upon the same stream, so that it not uncommonly becomes necessary to hoard the water for their use in reservoirs or ponds, accumulating in times of abundance a stock upon which to draw in seasons of drought. This involves increased and irregular obstruction of the outflow, and in this way, if not by the original erection of the dam, the level of the ground-water is raised, and much land that otherwise would be dry and healthy is either changed into a swamp, or becomes so water-soaked as to render it much less valuable for cultivation and highly unsafe as a place of human residence. "The evil of obstructions to streams and rivers," says Judge French, looking at the matter solely in the light of its interference with farming interests, "is by no means limited to the land visibly overflowed nor to land at the level of the dam. Running water is never level, or it could not flow, and in crooked streams which flow through meadows obstructed by grass and bushes, the water raised by a dam often stands many feet higher at a mile or two back than at the dam. It is exceedingly difficult to set limits to such a flowage. Water is flowed into the sub-soil, or rather is prevented from running out; the natural drainage of the country is prevented, and land which might well be drained artificially were the stream not

obstructed, is found to be so near the level as to be deprived of the requisite fall by back-water, or the sluggish current occasioned by the dam."

The sanitarian, looking at the effect of this obstruction of water courses, sees, in addition to the common dangers of soil-saturation, the added one that the withdrawal of large quantities of water from the reservoirs in midsummer will leave stagnant pools, and expose animal and vegetable matter, or the more dangerous deposits of sewage, to decomposition at a time when the fever-producing power is at its maximum. The instances of sickness that have been occasioned in this way within our own state, that have come to the knowledge of the Board of Health, have been so numerous as to justify a reference to this matter as a great sanitary evil.

The problem of relief, especially where such institutions have been long established and are under the protection of legal charters, is one of difficult solution, even when the evils caused may be clearly manifest. It would be very far from our purpose or wish to suggest any abridgement of the industrial resources of the state, among which mills and manufactories occupy a foremost position. They are far too valuable a factor in the prosperity of our commonwealth, and too essentially a necessity for the people, to admit of any unnecessary curtailment of their privileges or any needless restrictions upon their development. So far from advocating these, we would extend to such industries the protecting arms of public law and public sentiment, and encourage their increase and multiplication upon every available stream, controlling them only to such extent as is needful for the protection of the public health. And yet it must be said that there is room for more than question, if there are not cases where the interests of an individual, of a corporation or of an industry should be held in subjection to the interests of the community - where neither individuals or corporations should have the right to enjoy a privilege, or maintain a business which abridges the rights of their neighbors or imperils the public health. Gen. Viele relates the experience of a physician who "knew of a case in his own practice, where one mill dam that did not yield an income of \$400 [per annum], had

caused the death of twenty persons." It is to be hoped that there is no parallel to such a case in this state, but it is quite certain that even here in Wisconsin there are cases in which the health of whole communities may be imperilled by the causes here spoken of that it is an eminently proper question for consideration by our law-makers whether, hereafter at least, the granting of charters for the erection of mill-dams or other obstructions to water courses, of whatsoever nature, shall not be postponed until there shall have been given the most careful consideration to each individual case, and to the sanitary questions which may possibly be involved in it. it be held that the charter of a water privilege carries with it the implication "that the legislature had in view all the consequences which were to flow from the act they authorized," then these consequences should be well considered in view of the possible grievious injuries to health and life that may result to the many, while the benefits are confined to the very few.

Dr. Edward Jarvis, in an article on the Political Economy of Health, printed in the Report of the Board of Health of Massachusetts for 1874, very forcibly says: "In as far as human life is more important than all financial interests, and even in the financial view, the creative power of human force is more valuable than all created capital, this cardinal interest of the people individually and collectively should take precedence of all other provisions in all legislation.

"Every law, grant or privilege from the legislature should have this invariable condition: that human health, strength or comfort should in no manner or degree be impaired or vitiated thereby.

"When the legislature grants the right to build a dam and flow the waters of streams and ponds, the grantee is held responsible for all the damage that may be caused thereby to lands, crops and other mills. All this is well, for these may be compensated in money; but besides this he should be held responsible that no damage shall be caused to human life and comfort by the changes in the condition of the waters. This cannot be compensated by money."

The dangers to which the public health is subjected from the

overflowage caused by obstructions to the water courses of a region in the nature of dams, etc., has been widely recognized by sanitarians both in this and in foreign countries. In England and Scotland the subject has been actively discussed and has been the matter of special legislation; but in this country little has been done beyond calling attention to it as a thing which, in many places, is imperilling the lives of whole communities. In the older and more thickly settled states, as a matter of course, the evil is more apparent, and the late Dr. Derby, in the Third Annual Report of the Massachusetts State Board of Health has adduced abundant evidence of the production of extensive epidemics by the causes under consideration; some of such extent as to affect many hundreds of people; and the same writer has well said, that "we are not to expect in the midst of civilization, with all the complications that man's industry has woven about us, that water obstructions can be avoided. They contribute to the wealth and prosperity, and therefore indirectly to the health of the people. But it is also well to remember that they are of themselves, and directly, harmful in a greater or less degree, by putting checks upon nature's plan of water purification. There will never be wanting advocates of any application of natural forces which leads to individual or corporate profit, while considerations of public health are always less obvious, and even when plain enough to those who seek them, are of necessity but partially recognized by those with whose interests they conflict. It seems well, therefore, that attention should be drawn to such injuries as are likely to result from interference with the natural flowage of streams," etc.

The plea of necessity for the erection of mill-powers upon sluggish streams and in flat countries, where such obstructions will cause an amount of overflowage and consequent soil-saturation sufficient to make residence near or upon it unsafe, is not in this state a valid one. Wisconsin is abundantly supplied with rivers and streams whose flow is rapid, and upon which ample reservoirs of pure water can be maintained without danger to the health of her citizens.

If in the future our legislators will refuse to grant charters for 7-S. B. H.

the erection of mill-dams, or for any other obstruction to natural water courses, except where the conditions just named prevail, rarely if ever will any real inconvenience be entailed upon the people. We believe that the time has passed when such obstructions to the natural flow of water can be erected with a reckless disregard of all sanitary laws, and that legislative authority to erect a dam, or otherwise to interfere with nature's methods of drainage, should hereafter be granted only after the most careful surveys shall have been made, and with a full consideration of the sanitary questions which may possibly be involved. We believe also that hereafter the boundaries of all overflowage which may be caused by authorized obstructions, should be both clearly defined and carefully protected by law.

SOME OF THE PREVENTABLE CAUSES OF

INSANITY.

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The old adage, that an ounce of prevention is better than a pound of cure, appears to have taken forcible hold upon the thinking members of the community. Individual effort and advanced ideas in certain communities have given preventive measures an impetus unknown heretofore, and with results which could not have been predicted in the "good old times" when the adage was a proverb only.

To-day, the efforts of the advanced members of the medical profession the world over, are in the direction of the *prevention* instead of the *cure* of diseases; and the success thus far attending this departure is such as to warrant the furtherance of this object, if need be, by the power of the law.

Just where the line is to be drawn ultimately between those diseases which may be prevented, and those which may not, it is impossible to predict; but one fact is apparent and that is sufficient for our present purpose; it is, that wherever prevention has been thoroughly and completely tried, no matter whether the effort was directed against small-pox, diphtheria, scarlet fever, yellow fever or typhoid fever, there the disease has been stayed in its progress; these diseases can not find lodgment where there is no filth. The time has arrived in the progress of civilization, when it is necessary to impress upon communities the importance, and indeed the necessity, of keeping clean bodies, clean houses and clean cities, if they

would enjoy freedom from disease; that cleanliness will yield healthfulness; that dirtiness will beget disease.

This much may be predicated of disease in general, but what has this to do with the subject of this paper? Whatever diseases are to be ultimately considered non-preventable, insanity is certainly not to be so regarded.

Insanity is a disease which may be prevented in a large percentage of cases both by individual effort, by wise and wholesome laws by a proper training of the mental faculties, and a sound education.

To the proper training of the faculties, not so much perhaps in classic literature as in the laws governing mankind, and to individual effort, self control, etc., we are to look for the most perfect results to follow. Ignorance and apathy are the congeners which favor the spread of disease; these must be removed; the people must be made aware that either or both will spread misery and death in their wake, that universal cleanliness of body, home and town, and a close guardianship of health, will prevent insanity as well as other forms of disease.

Upon what facts are these statements based? If any one interested in the matter will turn to the statistics found in nearly every report issuing from hospitals for insane the world over, they will find in the table of causation a large proportion of cases of insanity caused by some circumstances which may be averted or controlled. Taking at random from among the reports of hospitals for insane for 1878, thirteen reports from as many states, it appears from the table mentioned that 1,236 persons became insane from causes clearly within the power of the individuals to have prevented, this being 28 per cent. on the whole number of admissions. And this is limited to causes, as before said, clearly within the power of the individual to prevent.

This estimate is too low, as the reports themselves indicate, for many were not included in the list who might have been placed there with propriety. Without entering further into a discussion of the general subject, let us for a moment examine some of the assigned causes enumerated and see whether they are preventable or not. The list of causes to which we refer are capable of indefi-

nite division, but they can be just as well grouped and treated together. Among the most pronounced causes we may mention over-work; want of proper food; intemperance and dissipation, and disregard of the ordinary laws pertaining to health. Many cases of insanity may, and doubtless do, have as factors, several of the conditions enumerated above combined; thus, over-work and want of nourishment generally attend each other perhaps as cause and effect; while intemperance, so far as it relates to the abuse of alcoholic stimulants and tobacco, may and often does lay the foundation for either or both the above named causes with many others, for the effects of intemperance are far-reaching, extending even to the third and fourth generations of the descendants of those who are addicted to the habit; not that each successive generation will be necessarily drunkards, but they will suffer the penalty which invariably follows the prolonged disregard of a general law. How does over-work produce insanity? Over-work of any kind, protracted for a length of time, may eventually produce insanity; but to avoid generalities and endeavor to benefit by the examples we meet with daily, let us examine briefly the kind of over-work that brings to our state hospitals those persons who have been been classified as insane from over work.

A large part of the population in the northern portion of this state is composed of persons who have sought a residence in the new world. Elated with the prospect of establishing a home and owning it, they settle in the forest. Ax in hand, their sturdy workmanship opens up a clearing in which crops are to be produced for the sustenance of life and for the accumulation of future wealth. Vigorous health, with prospects of emolument, lends strength to the arm of the young emigrant, and for a time he laughs at prolonged toil, frontier hardships and privations. Through wet and dry, cold and heat, from early dawn until latest dark, hard work, involving the active exercise of almost every muscle in the body, characterizes the laborious daily toil of a class of people who are unceasing in their effort to own the land they settle upon, at no matter what cost to the powers of physical endurance. The few hours of sleep snatched from the daily toil (and this begrudged) is not sufficient to rest the body from the fatigues of one day before another begins,

and the process of wearing out exceeds the process of building up, long before nature intended that it should be so.

For a while all is well, and the draught upon the system is not noticed; but slowly, quietly, this drainage of strength, this overwork, begins to make its mark; the subject not being acquainted with the troublesome hindrances which prevent him from accomplishing as much work as usual, ascribes the difficulty to something else, and keeps on his way until, at last, when his farm is cleared and paid for, he finds, alas! that he is broken down, and his incessant hard work, his disregard for the laws of health, his long defiance to the needfulness of rest, of sleep, now deprive him entirely of the latter, and he sinks into a profound melancholy or hopeless dementia, in which unhappy state he ends his days.

If to this condition we add want of the absolute essentials for the proper maintenance of healthy bodies, by lack of nourishment, another element enters into the case, an element which is even more potent for harm than hard work, and the break down will be more certain and the wreck more complete.

This is not an overdrawn picture — there are now many men and women in our hospitals whose history corresponds almost identically with the conditions above enumerated, who have been brought to their present state by over-work, and want of proper rest and food. It may be asked why this should be so, considering that the life of a farmer is regarded as the healthiest of occupations. Doubtless the farmer's life, so long as it is pursued in accordance with the laws governing life, is one of the very healthiest of occupations, but pursued as described, without proper rest, with no regard to the requirements of the body, disregarding wet and cold, no wonder that rheumatic affections attack the individual and prepare an easy way for the advance of other diseases usually connected with impaired circulation of the blood. It is not the occupation, but the ignorance of how to preserve health, that breaks down the individual.

Each individual is endowed with a certain amount of power; that power or force is maintained by properly balancing all the

bodily functions, and this condition is maintained by performing no more work than can properly be done without making a draft upon the system. As surely as the force called upon to accomplish a certain object no matter what, exceeds the amount the individual can properly yield, just so sure does it take away from the power to resist encroachments of disease; indeed, it hastens disease, and hence shortens life.

The power possessed by each individual is a limited quantity; if the demand exceeds the limit, by just so much is health impaired and life shortened.

Exposure to cold and wet, to excessive muscular strain, and protracted hard labor, predisposes the individual to diseases of the circulation, to "heart disease" and to "nervous diseases," which frequently ends in insanity of a chronic type. The laws governing health and life are immutable and can not be ignored. Every one who imagines himself possessed of greater powers of endurance than his fellow man, deceives himself — he has already opened the door through which disease shall soon stalk, and his boasted prowess makes him an easy prey. Eight hours of hard muscular labor is as much as can be borne properly out of the twenty-four without damaging health. Eight may be spent in light work and amusement, and the balance must be spent in sleep. He who seeks to set aside the rule which time and experience both proclaim to be the best, does so with the positive assurance that he is shortening his own life, by bringing upon himself disease in some form.

Nature is a strict accountant. You may draw upon her resources, if you will, but she will demand back everything she gives; if she is not paid in regular installments the demand will come in bulk, and then only death will satisfy her.

With over-work of body there is usually another troublesome difficulty; it is worry of mind. Although seed time and harvest have continued almost uninterrupted since the world began, there is, nevertheless, among a large class of people a feeling that, perhaps, it will fail this year; if the worry is not about the crops it is about something else. Indeed, there seems to be a growing tendency to worry about everything that concerns life in any of its phases, no

matter whether in the walks of the husbandman, or in the departments of commerce or the professions. Worry and fret, needless anxiety irritate every fibre in the brain and prevents nature from accomplishing her usually even course, so that her work can not be smoothly done; the result is always detrimental to healthfulness, inducing "nervousness," loss of sleep or horrible dreams, and in the end melancholy and insanity.

With many in our community over-work is attended by another fertile cause of insanity; that is, underfeeding. By this term (underfeeding) we not only understand want of sufficient food but also improper food, no matter what quantity is eaten; or, again, improperly cooked food, which was originally good and wholesome. It may appear paradoxical to say that there are many instances of a break down in physical and mental health, occurring among people who live on farms, because they do not have enough to eat, but such is nevertheless the fact; among a certain portion of the community, the haste to get rich leads to little less than starvation in the household. I speak from actual observation, in asserting that insane people are brought to this hospital from large farms which they own, who have denied themselves the requisite nourishment to sustain a healthy body; living upon the most parsimonious diet, that the last grain of wheat may be sold. not true of the entire community, but there are people in the community who are accounted "well fixed," of whom it is true. Such cases not unfrequently recover at once, by simply supplying that which they have been deprived of - good food. spoiled in cooking is not much better than a limited supply; indeed, is not so beneficial as a limited supply of good food well cooked.

The average stomach in an agricultural community is treated with little respect; it is often made to do duty which would ruin a grist mill or a soap vat, and it is made the receptacle for morsels never intended by nature for the human economy. "Hard bread," and salt pork fried till it is as tough as sole leather, and swimming in clear fat, which is used as a lubricant to the throat, making swallowing a possibility, the only apparent object being to get the

mass into the stomach as rapidly as possible; and this continued three times a day, year in and year out, is not a method likely to strengthen the digestive apparatus, and it certainly does not supply all that the system needs to maintain health. Pork requires a longer time to digest than any other meat when cooked in a proper manner, and when floated into the stomach, a cinder on a wave of fat, the fact is that it does not digest.

Fried meat of any kind is less easily digested than broiled or boiled — but it will not do to digress from our subject, although a chapter might with propriety be introduced on the part played in the production of insanity by unwholesome and improperly cooked food.

A single fact may be mentioned upon this subject, which is, that the great majority of insane people, when brought to the hospital, have some difficulty with the stomach—generally called dyspepsia by the friends, but it often yields to the kindly influences of a generous diet of well cooked food.

It is no unimportant part that this matter of improper diet plays in the production of all diseases. When badly nourished muscles are called upon to do an amount of work which the well fed would fail to do, another element enters into consideration; an element which a little effort, a little knowledge rightly applied, would exclude entirely from the list of causes. No engineer would expect his engine to do full duty upon a half supply of fuel; then if his fuel was green it would seem hopeless to expect any result. Yet there are men, engineers of their own bodies, who require results just as impossible from the human economy, and wonder when the machine breaks down; the wonder is, that it should hold out so long.

To properly sustain all the functions of health, there must be a variety of healthy foods—the bones require one kind of nourishment, the muscles another, and the nervous system still another, and each will deteriorate unless it obtains the particular kind of food adapted to its wants. Some years ago, a very severe form of "nervous fever" broke out in Massachusetts, and afterwards in Michigan. It was fatal in its effects, the fatality apparently being

due to severe spasms; for a long time the cause of this nervous fever baffled every one; but at last it was traced directly and unmistakably to the use of flour made from grain which was spurred, and from what is sometimes called "musty" grain, both unmarketable products — hence used in the household; a disposition of unsalable farm products not unknown at this time.

It is not supposed that the persons who used this kind of flour knew what the consequences would be, but unfortunately ignorance does not exempt mankind from the penalties attached to broken laws. It is our duty to know how to avoid the causes which lead to unfortunate results. Pork often contains the germs of diseases which are loathsome to contemplate; measly pork is another name simply for pork containing tape worms; and the deadly trichina finds within the muscles of pigs a lurking place, waiting only until it reaches the stomach before beginning its work of destruction and death. These latter conditions are not perhaps direct precursors of insanity, but they are precursors of forms of diseases which, if they do not kill outright, leave the system in a condition which favors the development of any disorder which may seek entrance, ending sometimes in insanity.

There is no necessity for this to be so; that it is, can be made apparent to any person sufficiently interested to make peronal examination.

We come now to the consideration of a cause which, for wide-spread energy, must be regarded as the great cause of insanity. I refer to the habitual use of intoxicants. Without entering into a discussion of the moral considerations pertaining to this subject, it is sufficient to say that the habitual use of intoxicants has caused more wide-spread misery, more revolting crime, more disease and wretchedness in every form than any other agent; without moralizing, however, it becomes us to consider the question in a candid manner, unbiased by personal feeling, and accepting results based upon scientific deductions in precisely the same manner as we receive demonstrations on any other subject, and for like reasons; that is, because they are true.

To start with, it may be necessary to ask whether the prolonged

use of alcohol really does have any effect upon the various organs of the body; if so, upon what organs, and how they are affected.

To those familiar with the literature of this subject, it is "thrice to slay the slain," to assert that the prolonged use of alcohol has a direct effect upon the organization, and that its effects are deleterious; indeed, it has been called the "genius of degeneration," so marked are the pernicious effects of the continued use of alcohol in any of its forms upon the organs of the body.

Alcohol is the base upon which all intoxicants in ordinary use rest; no matter whether the beverage is beer, wine, or whisky, it is only a mixture in which alcohol exists in a greater or less quantity according as it is diluted with more or less water.

What, then, are the effects produced by the introduction of alcohol into the system?

We will suppose a healthy man who has never used alcohol in any form. The first symptom noted after the introduction of alcohol, is more rapid action of the heart; this fact has been established over and over again, both on man and the lower animals, and up to a certain extent the rapidity of the heart action increases proportionately with the increase of the quantity of alcohol drank. As a result, the heart is overworked, and when the alcohol is withdrawn the heart flags - does not beat as fast or as forcibly as in health, and exhibits signs of weakness. When the heart beats fast the blood is sent more forcibly through the blood vessels, giving color to the cheeks, indicating that the blood vessels have been filled up fuller than usual; the condition observed in the cheek is only an index of what is going on elsewhere; if it were possible to see the brain and spinal marrow, the same appearance would be noticed, that is, all the vessels are distended beyond their usual size, and by the process they are to a certain extent impaired. is not brought about by the direct action of the alcohol on the heart or blood vessels, but because of its influence on the brain and nervous system first; and the brain being, so to speak, excited by the stimulus, causes the increased action of the heart. So that, (and this is the particular point to which direction should be called), alcohol exerts its power first upon the nervous system. This is

well established, and has been confirmed over and over again by repeated experiments; it is a scientific fact, and stands apart from all moral bearings of the question.

The fact being established that alcohol acts directly upon the nervous system, it remains now to ascertain what results from its continued use. Without attempting to show the successive steps by which the brain and nervous system are affected by alcohol, it is sufficient to say, because of easy proof, that with every potation of alcohol the blood vessels within the brain, and they are to be numbered by the thousand, are distended; this distension continued, causes the vessel to lose its naturally elastic condition and it becomes permanently enlarged, and in time its walls are thickened. After a longer time the tissue of which the wall is made changes into a fatty state, which renders it comparatively soft and easily torn, and it then happens that we have apoplexy and death, or life long paralysis.

Not only does it affect the walls of the vessels, but it changes the very fibre of the brain itself and in much the same way, that is, by rendering the nerve cells fatty, or by shriveling them and wasting away the brain substance.

It must be admitted by every candid mind not biased by a preconceived idea, that an agent, no matter what its name, capable of producing such effects must give rise to disease of some kind.

What those diseases are can be shown by statistical evidence. Still further proof that alcohol enters into the nerve tissue directly, is found by experimentation upon lower animals; the brain being subjected to examination during life, while the animal is under the immediate influence of alcohol. The conditions already enumerated so far as they relate to the circulation of the blood in the brain, then become visible; in several instances the same condition has been observed upon the human subject. Dr. Richardson, a celebrated English authority, once had an opportunity to examine the brain of a man within a short time after death. He says: "A man in a paroxysm of alcoholic delirium cast himself under the wheels of a railway carriage. The brain, instantaneously thrown out of the skull by the crush, was before me within three minutes after the

accident. It exhaled the odor of spirit most distinctly, and its membranes and minute structures were vascular (full of blood) in the extreme; it looked as if it had been recently injected with vermilion injection. The white matter of the cerebrum [the large brain] studded with red points, could scarcely be distinguished when it was incised, it was so preternaturally red; and the piamater or membrane covering the brain resembled a delicate web of coagulated red blood, so tensely were its fine vessels engorged."

When large doses of alcohol have been given to animals and then the animals killed, the brain has been found saturated with the alcohol. Dr. Maurice Perrin says that "thirteen ounces of the brain tissue of dogs killed during alcoholic intoxication, triturated with seven ounces of water and submitted to distillation, gave nearly a drachm of alcohol. The same quantity of the blood submitted to the same experiment gave rather less." These experiments of Dr. Perrin confirm researches originally made by Dr. Marcet in 1860 and 1862. Another proof, should more be needed to establish the fact that alcohol acts directly upon the brain, is the condition known as delirium tremens, in which the affected individual sees sights and hears sounds, when there is no cause for either sight or sound except in his own disordered brain — disordered because of the presence of alcohol in the nerve tissue, creating hallucinations of the senses.

Again, the blood which carries the life-giving particles selected for the nourishment of the brain is disordered and disorganized by the use of alcohol, so that it can not supply the brain with proper food in proper quantities. The blood of confirmed drinkers, examined by the microscope, shows that it has undergone changes in its make-up which renders it to a certain extent incapable of properly performing its duties; hence the brain suffers doubly—first from the fact that the alcohol finds its way directly into the nerve tissue, and secondly, because it is not properly nourished by the only agent capable of conveying nourishment to it, the blood which is impaired by the alcohol.

Another fact, based upon strictly accurate data, concerning the susceptibility of those persons who habitually use alcohol, to all

forms of disease, is found in a series of figures taken from "Neison's Vital Statistics," where it appears that intemperate persons have much greater mortality from head and digestive diseases than any other class of people, while the influence upon life itself is very great. Thus the average duration of life in a temperate person

At 20 years of age is 44 years.
" 30 " " 36 "
" 40 " " 28 "
" 50 " " 21 "
" 60 " " 14 "

While in the intemperate the chances of living are as follows:

At 20 years of age it is 15 years. " 30 " " 13 "

" 40 " " " 11 " " 10 " " 60 " " " 8 "

These deductions are based upon observations made on 357 persons, and is all that is necessary to establish the fact.

It is correct, then, to state that the intemperate use of alcohol is a continued process of degeneration, affecting primarily the brain and nervous system and disorganizing the body, and that it directly shortens human life by many years, through the disorganization it produces of bodily organs.

The organs it disorganizes most rapidly and effectually are the brain and those concerned in the circulation of the blood, the stomach, liver and kidneys, the latter all intimately connected with the proper nourishment of the body, and when diseased they become active agents in the production of disease ofttimes resulting in insanity.

What are the statistics of institutions for the care of insane persons as to alcohol being a cause of insanity? Upon consulting the tables, it will be seen that quite a percentage of yearly admissions are attributable to the habitual use of intoxicants.

Bucknill & Tuke, who are regarded as good authority the world over on the subject of insanity, in their last treatise on this subject give a series of statistics gathered with great care, relative to the

causation of insanity from the habitual use of alcoholic drinks, and they quote from the reports of institutions in different places, thus: In York, England, Dr. Needham reports 22 per cent. of the ascertainable causes of insanity among men due directly to intemperance; Dr. Clouston, a high authority, gives 22 per cent. for men; Dr. Kirkbride, Philadelphia, gives 22 per cent.; Dr. Earle, Massachusetts, gives 20 per cent., but the most remarkable statistics remain to be given.

M. Lunier published an article in 1872 embodying the results of his observations in the several departments of France, showing how insanity increased with the increased production of alcohol. He states that, "while the consumption of alcohol has nearly doubled between 1849 and 1869, the cases of insanity from intemperance have risen 59 per cent. with men and 52 per cent. with women."

In some of the departments where the proportionate increase in the manufacture of alcohol is known, and where accurate statistics are kept, the showing is remarkable. Thus, in those departments which produce alcohol, and where the annual consumption has increased in twenty years from four quarts per head to seven quarts per head, insanity from this cause has risen from 9 to 22 per cent.

In another department, where the annual consumption of alcohol has risen from six pints per head to three quarts per head, insanity from this cause has increased from 7 to 10 per cent.

In one department, where the annual consumption of alcohol has risen from one pint in 1849, and now (1872) is one quart per head, alcoholic insanity has only increased from 7 to 11 per cent.

In the department of the Somme, where but little alcohol is drank, and scarcely so much in 1869 as in 1849, the number of cases of insanity from this cause has remained almost stationary.

M. Lunier also asserts that the increased number of suicides everywhere in France followed the increased consumption of alcohol.

Dr. Sheppard, the author of a work upon the subject of insanity, says of causes: "Without doubt the most frequent of these is intemperance." In his report for 1876, he says: "It is painful

again to allude to the large part which alcoholic intemperance plays in the production of insanity. A careful analysis of the history of the year's admissions clearly establish a percentage of more than 28 as due to this cause. And I am persuaded from the character of the individuals and the form of their malady in other cases, where the causation is not assigned or can not accurately be traced, that an addition of 12 per cent. may directly or indirectly be attached to the same origin. Thus we have an approximate record of 40 per cent. of the madness of Middlesex as due to a preventable cause, and that cause the growing passion for strong drink."

In a little work by Dr. H. Tuke, published this year, entitled "Insanity and its Prevention," the author states that among the causes intemperance unmistakably takes the lead. This is one of those facts which, amid much that is open to difference of opinion, would seem to admit of no reasonable doubt. "Some years ago I calculated the percentage of cases caused by intemperance in the asylums of England, and found it to be about twelve. This proportion would be immensely increased were we to add those in which domestic misery and pecuniary loss owed their origin to this vice. Although tax-payers grumble about the building of large lunatic asylums, it is amazing how meekly they bear with the great cause of their burden, and how suicidally they resent any attempt made to remove by legislation the area of this widespread and costly mischief."

With what singular force these words of Dr. Tuke apply to the same state of affairs in our own country. From the facts I have been able to gather, and from personal observation, I am satisfied that the average as stated above is low enough; that is, for the direct effect of alcohol in the production of insanity. Statistics of the kind are not easily gathered, because the friends of those who are the victims are not always willing to tell all the facts about the intemperate habits of the patient. A curious confirmation of statistics related to this subject is found in the report of Dr. Yellow-lees, superintendent of the Glamorgan asylum, Wales. In a recent report, he says, that during the second half of the year 1871 the admission of male patients to that institution numbered twenty-

four, while there were forty-seven and seventy-three in the preceding and succeeding half years. In 1873, during the first quarter, there were ten admissions, while in the preceding and succeeding quarters there were twenty-one and eighteen.

During the same period an experience precisely similar was noticed in the local prison; a less number of persons were admitted as criminals than there had been hitherto or subsequently in the same period of time. In seeking for the cause of this exceptional period, it was found that at that time the population, who were largely employed in coal and iron working, were engaged in a general strike, and that the miners and others having no money to spend for drink were obliged to be temperate, and there was a marked decrease of insanity and crime.

Maudsley says, that if it were possible to strike out at once all insanity from off the earth, it would certainly be reproduced by intemperance in the use of alcohol. I cannot close the remarks on the influence that alcohol has upon the production of disease in a more fitting manner than by a quotation from Dr. B. W. Richardson, in his Diseases in Modern Life. He says:

"There are times in the life of man when the heart is oppressed, when the resistance to its motion is excessive, and when blood flows languidly to the centers of life, nervous and muscular. In these moments alcohol cheers. It lets loose the heart from its oppression and lets flow a brisker current of blood into the failing organs; it aids nutritive changes, and altogether is of temporary service to man. So far alcohol may be good, and if its use could be limited to this one action, this one purpose, it would be amongst the most excellent of the gifts of science to mankind. Unhappily the border line between this use and the abuse of it, the temptation to extend beyond the use, the habit to apply the use when it is not wanted as readily as when it is wanted, overbalance in the multitude of men, the temporary value that attaches truly to alcohol as a physical agent. Hence, alcohol becomes a dangerous instrument even in the hands of the strong and wise; a murderous instrument in the hands of the foolish and weak."

From the foregoing we are enabled to determine from scientific 8-S. B. H.

data without appealing to the sympathies, or dwelling upon the moral side of the question, that a large percentage of the cases of insanity are avoidable from this one factor alone. Now combine this with the conditions which almost invariably follow the continued intemperate use of alcohol—domestic distress, poverty, want of food, unkindness, and, indeed, misery of every description, and what a sea of wretchedness is created in which mankind sinks, drowned in the depths of his own creation. Did it end here, it would be bad enough, but it does not; the habitual drinker invariably stamps his offspring with some form of bodily degeneracy. And so on, the widening stream gathers within its murky waters the unhappy multitude, swept onward to inevitable death of body and soul.

Another preventable cause of insanity is that of heredity. It is asserted upon the highest authority, based upon the statistics of years, that insanity is transmittible from parent to child. Statistics, gathered in all parts of the civilized world, confirm the general statement. England, France, Germany, Austria and America, each and all, have instituted enquiries of this kind, and each have arrived at the same results, although the percentages are not the same in each country, being modified by causes not necessary to explain here.

The statistics of Bethlehem hospital show that thirty-two per cent. of the admissions had hereditary predisposition. In what is known as the Retreat in York, England, hereditary predisposition was traced in one-third of the admissions. Baillarger gives the results of his observation in France as nearly seventy per cent.

Dr. Stewart, of Scotland, places the percentage of cases of heredity in the institution over which he presided at forty-nine per cent. The statistics of the Northern hospital at Oshkosh show that the percentage of cases admitted up to this time, who have inherited insanity, averages thirty per cent.

There is not a shadow of doubt that heredity plays a most important part in the causation of insanity, the least calculation placing it at from 25 to 30 per cent. on the whole number of persons admitted, and there are some exellent authors who make the percentage much greater. The chances of insane offspring resulting

from the union by marriage of persons who have been insane, or who inherit insanity directly, is as great, if not greater, than the certainty of transmitting almost any other disease.

Cases almost innumerable may be cited, going to show evidence of transmissibility, if it were needed, but it is unnecessary; the facts are generally known, the difficulty that presents itself is, how to make mankind heed them. It seems to be well established. that the mother's influence in the propagation of this disease is greater than that of the father; hence, when men select wives it behooves them to be careful whom they select, at least so far as this terrible malady is concerned. I know it is the lover's notion, that matches are made in Heaven; that is poetic, it sounds prettily; but there are those who believe that falling in love is a matter of taste, and depends upon the judgment (or want of it) of each of the contracting parties. The importance of securing, each for the other, a sound, healthful companion would be a great advantage to the world, and save a vast amount of sorrow and distress; but such things are unfortunately not often thought of. Just where society may attempt to regulate this matter it is impossible to say, and, indeed, with this subject we have nothing to do. Our duty is to lay the facts before society, then if they suffer they do it intentionally; they do it in the face of experience, and must abide the consequences.

To a reflecting mind one phase of modern civilization is peculiar. An unusual epidemic disease appears from some cause, probably filthiness, in some part of the country, which operates virulently for a time, and carries off a fifth part of all it attacks. At once assistance in the shape of money, sympathy, all that kindness and consideration can do, is done freely. Every device known to art or science is employed to stay the ravage; laws are passed, state and national legislatures make haste to establish strict rules, hoping to "stamp out" the scourge. This is as it should be. At the same time a scourge more terrible, a malady more dreadful, is fastening its fangs deeply in the vitals of the people; it progresses slowly but irresistibly; it is not confined to one locality, it is widespread as the earth, and where the scourge strikes down its tens, this malady strikes down its thousands, yea, its tens of thousands,

Insanity.

and the stream is ever widening, ever deepening, and no strong hand of law is raised to stop its progress or make the attempt to keep it within bounds; the disease is *insanity*, of which it may be said that one-half the causes are apparently preventable.

There are causes of this dire malady which may not be reached by law—the passions of men allowed full sweep, anger, vicious life, faulty education, hope deferred, ambitions crushed, all aid to bring about those states of body and brain which end in madness; these the individual must battle with alone, and conquer or be conquered as God gives him the strength; these must be made the subject matter for individual education, of individual self-government and discipline. It must be made a part of that universal human reason which Carpenter tells us is progressive, and by which we may hope to secure that watchful self-discipline which will benefit not only ourselves but those who are to come after us, by establishing an intellectual and moral constitution which our children and our children's children will inherit.

There are, kowever, some things which it would seem might be done by legislatures to help stay the onward march of this disease.

Intemperance in the use of alcohol gives us certainly 25 per cent. of all the cases of insanity; this is a low estimate, much lower than my experience would dictate. Heredity gives us, at the very lowest computation, as many more; there are then from these two causes alone, 50 per cent. of the cases admitted to hospitals for insane which might be prevented. Add to this the insanity induced by other causes, which we have not time to consider now, but which are certainly within the power of individuals or communities to prevent, and the aggregate would soon roll up a mighty army of men saved from a bitter experience. Who can compute the anguish spared; who can estimate the misery, distress, sorrow and desolation avoided; or the wealth accumulated, the happiness, peace and prosperity that would follow the prevention of any considerable part of the number made insane annually by preventable causes.

To remove only a portion of the trouble, would cut away the roots of untold sorrow, would confer a boon upon mankind to be estimated only by Him who holdeth the destiny of the people in the hollow of his hand.

THE INFLUENCE OF

READING UPON HEALTH.

By PROF. R. B. ANDERSON.

Of the University of Wisconsin.

That vicious and immoral literature has a tendency to poison the mind and heart, and that these in turn, through the passions, act most injuriously upon the physical health, I suppose may be considered as an axiom. That, on the contrary, good wholesome reading, by giving direction to and controlling the passions, has a beneficial influence upon the physical health, is also a truth so self-evident, that no one will presume to question it. The subject in its full extent is an important one, the treatment of which deserves far more ability, time and labor than I can give to it.

Our country is full of a sensational, flashy literature, prepared especially for juvenile readers, which they are greedily devouring. They read about young heroes, who demolish more foes than Don Quixote and achieve more brilliant adventures than the celebrated Baron Munchausen, and finally return home loaded with wealth, to magnanimously forgive their enemies, foremost among whom are their parents. Who can be surprised that such a course of juvenile reading in process of time brings us a beautiful harvest of vice and licentiousness, burglars and murderers. As you sow, so you shall reap.

In reference to what our boys are reading, Prof. W. G. Sumner, of Yale College, contributed an article to the March (1878) number of *Scribner's Monthly*, which gives so able an account of the vi-

cious literature for juvenile readers and its poisonous effect upon the minds of the young, that I make here the following liberal quotations therefrom:

"Few gentlemen, who have occasion to visit news-offices, can have failed to notice the periodical literature for boys, which has been growing up during the last few years. The increase in the number of these papers and magazines, and the appearance, from time to time, of new ones, which, to judge by the pictures, are always worse than the old, seem to indicate that they find a wide market. Moreover, they appear not only among the idle and vicious boys in great cities, but also among school-boys whose parents are careful about the influences brought to bear on their children. No student of social phenomena can pass with neglect facts of this kind, — so practical, and so important in their possible effects on society. * *

These periodicals contain stories, songs, mock speeches, and negro minstrel dialogues, - and nothing else. The literary material is either intensely stupid, or spiced to the highest degree with sensation. The stories are about hunting, Indian warfare, California desperado life, pirates, wild sea adventure, highwaymen. crimes and horrible accidents, horrors (tortures and snake stories), gamblers, practical jokes, the life of vagabond boys, and the wild behavior of dissipated boys in great cities. This catalogue is exhaustive. There are no other stories. The dialogue is short, sharp, and continuous. It is broken by the minimum of description and by no preaching. It is almost entirely in slang of the most exaggerated kind, and of every variety, - that of the sea, of California, and of the Bowery; of negroes, "Dutchmen," Yankees, Chinese, and Indians, to say nothing of that of a score of the most irregular and questionable occupations ever followed by men. When the stories even nominally treat of school-life, they say nothing of school-life. There is simply a succession of practical jokes, mischief, outrages, heroic but impossible feats, fighting, and horrors, but nothing about the business of school, any more than if the house in which the boys live were a summer boarding-house. sensational incidents in these stories are introduced by force, ap-

parently for the mere purpose of producing a highly spiced mixture. * * * There is not a decent good boy in the story. There is not even the old type of a sneaking good boy. The sneaks and bullies are all despicable in the extreme. The heroes are continually devising mischief which is mean and cruel, but which is here represented as smart and funny. They all have a dare-devil character, and brave the principal's rod as one of the smallest dangers of life. There is a great deal of the traditional English brutality in exaggerated forms. The nearest approach to anything respectable is that after another boy has been whipped for mischief done by the hero, the latter tells his friend that they ought to have confessed, but the friend replies with the crushing rejoinder that then there would only have been three flogged instead of one.

Another type of hero very common in these stories is the city youth, son of a rich father, who does not give his son as much pocket money as the latter considers suitable. This constitutes stinginess on the father's part, although it might be considered pardonable, seeing that these young men drink champagne every day, treat the crowd generally when they drink, and play billiards for \$100 a game. The father, in this class of stories, is represented as secretly vicious and hypocritically pious. * * * In this class of stories, fathers and sons are represented as natural enemies, and the true position for the son is that of suspicion and armed peace.

Another type of hero who figures largely in these stories is the vagabond boy, in the streets of a great city, in the Rocky Mountains, or at sea. Sometimes he has some eleverness in singing, or dancing, or ventriloquism, or negro acting, and he gains a precarious living while roving about. This vagabond life of adventure is represented as interesting and enticing, and, when the hero rises from vagabond life to flash life, that is represented as success. Respectable home life, on the other hand, is not depicted at all, and is only referred to as stupid and below the ambition of a clever youth. Industry and economy in some regular pursuit, or in study, are never mentioned at all. Generosity does not consist in even luxurious expenditure, but in wasting money. The type seems to

be that of the gambler, one day "flush" and wasteful, another day ruined and in misery.

There is another type of boy who sometimes furnishes the hero of a story, but who also figures more or less in all of them. That is the imp of mischief—the sort of boy who is an intolerable nuisance to the neighborhood. The stories are told from the standpoint of the boy, so that he seems to be a fine fellow, and all the world, which is against him, is unjust and overbearing. His father, the immediate representative of society, executes its judgment with the rod, which again is an insult to the high-spirited youth, and produces on his side either open war or a dignified retreat to some distant region. * * *

The songs and dialogues are almost all utterly stupid. The dialogues depend for any interest they have on the most vapid kind of negro minstrel buffoonery. The songs, without having any distinct character, seem often to be calculated to win applause from tramps and rioters. * * *

These stories are not markedly profane, and they are not obscene. They are indescribably vulgar. They represent boys as engaging all the time in the rowdy type of drinking. The heroes are either swaggering, vulgar swells, of the rowdy style, or they are in the vagabond mass below the rowdy swell. They are continually associating with criminals, gamblers, and low people who live by their wits. The theater of the stories is always disreputable. The proceedings and methods of persons of the criminal and disreputable classes, who appear in the stories, are all described in detail. The boy reader obtains a theoretical and literary acquaintance with methods of fraud and crime. Sometimes drunkenness is represented in its disgrace and misery, but generally drinking is represented as jolly and entertaining, and there is no suggestion that boys who act as the boys in these stories do ever have to pay any penalty for it in after life. The persons who are held up to admiration are the heroes and heroines of the bar-rooms, concert saloons, variety theaters, and negro minstrel troupes.

From the specimens which we have examined, we may generalize the following in regard to the views of life which these

stories inculcate, and the code of morals and manners which they teach:

The first thing which a boy ought to acquire is physical strength for fighting purposes. The feats of strength performed by these youngsters in combat with men and animals are ridiculous in the extreme. In regard to details the supposed code of English brutality prevails, especially in the stories which have English local color, but it is always mixed with the code of the revolver, and, in many of the stories, the latter is taught in its fullness. These youngsters generally carry revolvers and use them at their good discretion. Every youth who aspires to manliness ought to get and carry a revolver.

A boy ought to cheat the penurious father who does not give him as much money as he finds necessary, and ought to compel him to pay. A good way to force him to pay liberally, and at the same time to stop criticising his son's habits, is to find out his own vices (he always has some), and then to levy black-mail on him. * * *

Quiet home life is stupid and unmanly. Boys brought up in it never know the world or life. They have to work hard and to bow down to false doctrines which parsons and teachers, in league with parents, have invented against boys. To become a true man, a boy must break with respectability and join the vagabonds and the swell mob. * * * The sympathies of a manly young fellow are with criminals against the law, and he conceals crime when he can.

Whatever good or ill happens to a young man he should be gay. The only ills in question are physical pain or lack of money. These should be borne with gayety and indifference, but should not alter the philosophy of life.

As to the rod it is not so easy to generalize. Teachers and parents, in these stories, act faithfully up to Solomon's precept. When a father flogs his son, the true doctrine seems to be that the son should run away and seek a life of adventure. When he does this he has no difficulty in finding friends, or in living by his wits, so that he makes money, and comes back rich and glorious to find his father in the poor-house.

These periodicals seem to be intended for boys from twelve to sixteen years of age, although they often treat of older persons. Probably many boys outgrow them and come to see the folly and falsehood of them. It is impossible, however, that so much corruption should be afloat and not exert some influence. We say nothing of the great harm which is done to boys of that age, by the nervous excitement of reading harrowing and sensational stories, because the literature before us only participates in that harm with other literature of far higher pretensions. But what we have said suffices to show that these papers poison boys' minds with views of life which are so base and false as to destroy all manliness and all chances of true success. How far they are read by boys of good home influences we are, of course, unable to sav. They certainly are within the reach of all. They can be easily obtained, and easily concealed, and it is a question for parents and teachers how far this is done. Persons under those responsibilities ought certainly to know what the character of this literature is."

Books that teach boys to be vulgar, rowdyish and cruel; that teach them to cheat their parents; make them familiar with the life of criminals, gamblers and low people generally; that instruct them that it is necessary to carry revolvers; that show them the way to the saloon; and that hold up before their minds a vagabond life of adventure rather than obedience to parents and teachers, cannot help having a most injurious influence not only upon their minds but also upon their physical health and passions. The tendency of this sort of books is to lead our young men into intemperance and licentiousness and thus to ruin.

But the books and periodicals described by Prof. Sumner are not the only ones that have a corrupting influence upon our youth. There is a large amount of literature of "far higher pretensions" that participates in that influence, and that is more dangerous because the poison is not so easily discovered.

In the first place many of the books in the Sunday school libraries are of a kind of "goody" sort, that, by showing how good little children die poor, crippled, and afflicted in every way, torture

young sensitive minds, and leave them painfully in doubt whether a good life is worth living at all.

Then there are books of the nature of some popular detective stories, that tell of terrible adventures in hovels and dungeons, of hair-breadth escapes among robbers and murderers, and of neckbreaking catastrophes by land and by water. We hold our breath in suspense and our "hairs stand on end," while we read these "thrilling" descriptions. I believe such books tend to break down the nervous system. They make people timid in the dark, and when alone in a house they start at every noise they hear. I sincerely believe that much of the lack of courage that is so prevalent, especially among our most cultivated classes, can be traced back to dime novels, and similar unwholesome stories. And this fidgety, nervous state is certainly evidence of a more or less impaired health.

Many of our frontier stories, notably those which send the young hero out from a bright cheerful home to seek his fortune on the plains, in the mines and among wild beasts, and bring him back a rich and famous man, have a tendency to make the young reader rebellious against authority. He is not content to follow the advice of loving, indulgent parents and teachers, but longs to imitate the example of the hero of his book. At best such reading produces a restless, discontented and feverish state of mind, which is incompatible with a vigorous, healthy, physical growth and development.

Finally, there is a class of romantic, sensational novels, or rather love stories, that ought never to be read, especially by young people. They kindle the passions and develop precociousness. The premature development of the animal passions is injurious to both the man and the woman, even when it does not degenerate into base licentiousness, as is very often the case. Parents should examine carefully every novel before giving it to their sons and daughters to read.

If more care and attention were bestowed upon our reading there would be less of anger, less of fear, less of hatred, and less of grief. These are the passions that are the most influenced by what we

read, and these are the passions that act most directly and severely on our physical health. They overrule the reason, and the result is disease.

Instead of this unnatural and highly-wrought fiction, let our young people read books of travel, discovery, biography and history. Mythology, folk-lore and ballads will help to nourish and strengthen the poetical side of their nature. Science primers will guide them by easy and fascinating steps into the mysteries of nature, and teach them many valuable lessons of life and living. Works like Robinson Crusoe and Baron Munchausen can be safely recommended, for they do not foster a desire to imitate the hero, and are on the other hand highly amusing. The taste for poetry and the fine arts cannot be cultivated too much, but poetry of the pessimistic order should be avoided. Ambition should be stimulated. It is absolutely harmless, excepting when it is debased by pride, or when it prompts a person to overexert his mental or physical powers.

Again I say, then, that our reading may be made to contribute in a thousand ways to our intellectual, moral and physical happiness, or it may bring about a reel of the passions, unstring the nervous system, prostrate the mind and the body, so that both are lost.

WATER

AND THE WATER SUPPLY OF WISCONSIN.

By G. F. WITTER, M. D., Of Grand Rapids.

In a previous paper we discussed the character of pure water, the distinction between it and what may be called normal water, the effects upon the human economy of certain mineral and organic constituents frequently present in water, together with sundry matters of interest drawn from the reports of correspondents in many parts of the state.

We now propose to resume the discussion then commenced, giving additional facts which have come under our own personal notice in regard to the water supply of the state, facts drawn from communications received since the publication of the above mentioned paper and from other authentic sources, and pointing out remedies which may be easily applied in many instances for the state of things shown to exist in too many parts of Wisconsin, a condition which is producing not only a loss of money serious enough to attract attention in these days of financial embarrassment and distress, but a frightful amount in the aggregate of preventable disease, suffering and death.

Let it not be thought that we are talking at random, when we speak of a loss of money occasioned by the condition of our water supply; it will be shown conclusively, as we proceed, that a large amount of sickness is annually chargeable to this, and to this alone, and that a number of the cases so arising prove fatal. Now, an adult

laborer of the lowest grade is estimated to be worth at least one thousand dollars in cash to the community, and his value increases in a rapidly increasing ratio with the amount of skill or knowledge that he possesses. Let such a one die, therefore, from any preventable cause, and the loss to the community is equal to at least one thousand dollars in cash. Sickness alone, even when not fatal, entails a heavy tax upon the resources of the individual, his family, or the town, during its existence, and thus every case which is prevented represents a certain amount of clear gain.

Reports received in answer to circular No. 5 of this board, from many correspondents, show that by far the greater number of our citizens depend for their supply of water, that prime necessity of all life, upon wells of varying construction; common dug wells are probably the most numerous, driven wells perhaps stand next in point of number, and bored wells bring up the rear. This dependence upon wells will probably long continue in the large majority of towns and villages, especially in those where land is comparatively cheap, and which will not, therefore, be for many years closely built up. Hence it becomes a matter of the gravest importance to look carefully after the location of our wells, if we desire to avoid a large amount of preventable disease and death with their attendant suffering.

Of all classes of wells, the common well is unquestionably that most exposed to contamination, and this from a great variety of causes. Privies, sinks, cess-pools, stables, barns, pig-stys, filthy cellars, manure heaps, stagnant pools, all contribute their quotas. When dwellings stand within one hundred feet of each other, their water-supplies are in danger of contamination, from some one or more of these causes, and "eternal vigilance is the price," and in these cases most emphatically the only price at which safety can be insured."

Col. Waring gives forty feet as the least distance within which two lines of drains should be laid in order to drain thoroughly a heavy clay soil, the tiles being laid at a depth of four feet below the surface of the ground. Taking these figures as a basis for calculation, it will be seen that each foot in depth of an ordinary well

will drain a circular area of a heavy clay soil having a radius of five feet, and a proportionately larger area in lighter soils. Estimating the drainage area of a well at only one half of the above amount, and assuming a radius of only two and a half feet for each foot of depth, certainly a very moderate assumption, it will be found that a well twenty feet deep will receive all the drainage from a circular area one hundred feet in diameter, equal to rather less than one-fifth of an acre; while if the radius of five feet be assumed, and, as is seen above, good authority justifies us in so doing, even in heavy clay soils, we shall have a circle of two hundred feet in diameter, with a contributing area of 31,416 square feet, or not far from three quarters of an acre.*

Let any dweller in a town, who may chance to read this paper, draw a plan of the arrangement with respect to each other, of say four or five houses in his own immediate neighborhood, standing at a distance of one hundred feet from each other, locating their barns, privies and other out-houses in their proper relative positions; let him also construct a diagram showing the depths of the privy vaults, cess-pools and the like, and also those of the wells belonging to the several habitations; let him then study from his plan and diagram the probable action of the wells in respect to their drainage capacities, using the figures given in the preceding paragraph as a basis for calculation, increasing or diminishing these figures according to the character of the soil through which the wells are dug, and he will almost certainly rise from the consideration of the subject with more vivid ideas regarding the danger of contamination than any words of ours can convey. It is almost impossible to be safe in using the water of any common well which is surrounded by houses, and in the vicinity of which drains, privyvaults and sinks empty their contents into the surrounding soil.

From a vast mass of evidence bearing upon this point we select the following cases, only adding that almost every medical journal published contains instances of the same kind, and that all which we present are of recent origin. Samples of the water from nine

^{*} An acre of land contains 43 560 sq. ft., one fifth of which is 8,712 sq. ft. A circular area having a diameter of one hundred feet, will contain an area of very nearly 7,854 sq. ft.

wells in the city of Princeton, N. J., were examined, and five o them were found to contain free ammonia, albuminoid ammonia and chlorides in excess; exactly the conditions of things which, according to the authorities quoted by Prof. Chittenden, shows contamination by decaying animal matter. Tracing the effects of these waters upon the sytems of those using them, it was found that diarrheea and typhoidal fevers in all cases accompanied their use.

In a little village in Vermont, twenty-eight cases of typhoid appeared in fifteen families, in February, 1878, under the following circumstances: Two years before the outbreak of the fever a gutter had been sunk on the lower side of the main street, running between the roadway and a well, the wall of which was laid bare by the excavation; this gutter received the drainage from several houses on the upper side of the main street, no one of which was provided with a water-closet, while only two or three had drains communicating with the sewer. In the latter part of January, 1878, the water in the well suddenly became turbid during a thaw, but. after the lapse of a few days, resumed its normal appearance and became apparently as good as ever. Shortly afterwards the fever broke out almost simultaneously in fifteen families, all of whom obtained their water from this well, while not the slightest vestige of the disease was seen in any case where the water used came from other and uncontaminated sources.

A point especially worthy of the closest attention is the very small quantity of contaminated water necessary to the production of most serious effects. There are many cases on record similar to that which we are about to quote, which is especially striking as seeming to show that the fever-producing germs may sometimes be subjected to a temperature of 212 ° Fah. without having their dangerous powers destroyed. Twenty families in the city of Philadelphia had typhoid fever existing in them at the same time, and all of them were supplied with milk from the same source, no case occurring in other families in the same neighborhood who obtained their milk elsewhere. It was found that a case of typhoid existed in the milkman's family, and that the boiler which was used to

heat water for the purpose of washing the milk-cans, was also used to boil the clothes of the typhoid patient. No other connection could be traced, and on this condition of affairs being altered, the spread of the fever was checked.

But it is not necessary to go to New England or Philadelphia to find instances as conclusive and significant as any yet given, and which prove that whatever other means may exist for the spread and propagation of typhoid germs, and it is not questioned that there may be many, contaminated drinking water is among the most efficient. Nor is this the only one, or the most formidable of the disorders, the origin of which may be traced to the same cause.

Turning to the report of this board for 1877, we find detailed cases of typhoid fever, diphtheria, cholera morbus, "a peculiar sequel of which was gastric and visceral irritation, lasting two or three weeks," scarlet fever, remittent fever, "complicated with cerebro-spinal symptoms," diarrhoea and dysentery, attributed by the skillful and cautious observers who report them to such causes as these: Water supply drawn from "wells situated in yards in which hogs and cattle are fattening for market." "Wells which are polluted by the pigs, chickens, cows, and, perhaps, also by the inhabitants of the cabins." "The general absence of pure water for drinking purposes." "Contaminated water-supply." The use of water "entirely from cisterns without efficient filters." "Improper water for drinking and culinary purposes." "Using very foul water obtained from a hole in the ground, only four feet in depth." Certainly in the physical world as in the moral, in the laws of the body as well as in those of the spirit, God is not mocked with impunity; whatsoever men sow, that, and that alone, do they reap.

From answers to circular No. 5, received since the publication of the last report, we select the following cases: A report from New London says: "In one family where three of the children had typhoid fever, and where some members of the family were sick all the time, when called to attend them with fever, I found the privy not twenty feet from the door or well. I had it removed, and, since the recovery of the fever patients, they all have enjoyed

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the best of health. This I regard as a typical case of poisoning from the privy."

Dr. Hubbell, of Medford, writes thus: "Several instances of families being below par in health have come under my notice, where I suspected the filtration of slops thrown near the wells had contaminated the water, as shown by Heisch's test, and a change of the water-supply has restored them to health."

Dr. Davis, of Baraboo, contributes the following: "In one instance a well just back of a dwelling house, in pretty close proximity to a privy, a barn and other outbuildings, became foul from filtration, and the consequence was five cases of typhoid fever in persons who used the water from the well. Three of these cases terminated fatally and two recovered."

From Manitowoc, Dr. Pritchard gives this: "In one family the whole of the members were subject to intestinal disorders, which were cured by changing the drinking water. In this instance the water was loaded with organic matter, not only from kitchen slops but from privy and cess-pool. The proprietor has constructed a sewer and discontinued the use of the water from that well."

Dr. Riddell gives the following opinion concerning the state of things at Chippewa Falls: "There is no doubt that much contamination occurs to drinking water in wells here by surface washing of foul matters into them in the spring. There are a great many wells in the lower city [the waters of which], I am satisfied from personal observation, are not fit to use for drinking purposes on account of [the presence of] organic matter."

Thus it will be seen that all the conditions required to generate disease of the most virulent character are present in Wisconsin, as well as in Europe and in other portions of the United States. And not only does death lurk in our wells and springs; some of our rivers, too, already vie with those of the older and more thickly settled parts of Europe in their evil fame.

From a report made to the common council of the city of Milwaukee upon the drinking waters of that city, published in July, 1878, by O. W. Wight, M. D., health commissioner, we quote the following: "Some of our shallow wells only reach down to the

upper red clay. The waters of these wells are very bad. Other wells penetrate deeper to the lower red clay. The waters of these are not good, but by no means so bad as the first. * * * The first class of shallow wells, or those that reach only to the uppermost layer of clay, are little better than cess-pools. They receive the surface water which is impregnated with slops, offal, stable manure and the contents of privies. The second class, or those that descend to the gravel bed between the upper and lower sheets of red clay, are very much better. They receive water which has been partially filtered. Yet, in most cases, the surface water drips down into them, poisoning them more or less according to the conditions of the locality where they are found. * * * The numbers of these shallow wells run up into the thousands. Many of our people are still dependent upon them for water. All of them are dangerous, some of them extremely so."

Speaking of the rivers which flow through that city, Dr. Wight says: "The Milwaukee river water in the city, where it receives the sewage from sixty or seventy thousand inhabitants, is more dangerous than the waters of the shallow wells."

And again: "Among the dangerous waters is that afforded by rivers to which sewage gains access. The three rivers running into the city are all of this class. They flow through populated regions, and drain cultivated lands. They traverse considerable villages where they receive the manure of stables and hog-pens, the offal of slaughter-houses, the refuse of manufactories, the garbage of habitations, dead animals, and the contents of privies. Within the city, the Milwaukee river receives the sewage from more than half the population of the town. From North street to the lake it is a public nuisance of the worst kind."

Similar testimony is borne by Jas. Johnson, M. D., in a paper quoted in the report of this board for the year 1876.

A prolific and, in most if not in all cases, a wholly unsuspected source of disease is to be found in the wells in school-house yards, from the waters of which fifty thousand children must quench their thirst during school hours. These wells are too often so located as to receive surface drainage, and they are frequently the receptacle

for sticks, old boots, leaves, dead frogs and mice, occasional cats and various other articles similar in character which mischievously inclined boys may think proper to deposit therein. They remain, moreover, unused and stagnant during a considerable portion of the year, and if they are properly cleaned out once in the course of two or three years, it is thought a most praiseworthy exhibition of zeal for cleanliness.

How often do we hear that diphtheria or scarlet fever, or both together, are raging fearfully and fatally among the children of a certain school district, being almost wholly confined to the children attending that particular school! In many such cases we are firmly convinced that the cause will not be hard to find, that the truth will be found at the bottom of a well. We call upon school directors, teachers, parents, all concerned to look well to the danger which may easily arise from this cause. Look after the school yard wells. Do not poison your children with foul water and then charge their sickness and death to the mysterious dealings of an inscrutable Providence.

To the evidence that we have already adduced of the fact that there are in our midst causes of disease, suffering and death which ought to be, and which can be removed, it is needless to add anything more. If we have not already shown that there are grave evils everywhere prevalent in our present condition of water supply, we despair of doing so by any proof at our command. It now remains to point out the remedy for these evils, to show the means whereby they can be done away with.

It is true that the remedies we have to propose are in some cases costly, but life and health are of more value than money.

The remedies are of three classes; 1st. Those that lie within the power of individuals; 2d. Those that must be reached by the action of communities, villages, towns and cities; and 3d. Those which call for the exertion of the sovereign power of the state.

Before proceeding, however, to the discussion of these remedies, let us inquire what ought to be the standard of purity for the water supply of any community, and how persons possessing ordinary intelligence, but no special chemical knowledge, may know whether that standard is really attained.

It has already been shown that an absolutely pure water is nowhere to be had, nor is it perhaps desirable that it should be. Taking, therefore, a normal natural water as our standard, let us inquire into its characteristics. It should be clear and transparent, without perceptible color, odor or taste; free from any suspended matter, and should give a lather readily with a moderate quantity of any good soap. We add a few directions by which anyone of ordinary intelligence can obtain a sufficiently accurate notion of the character of a given sample of water with a moderate expenditure of time and trouble.*

Obtain a bottle or flask of clear white glass, of about a quart capacity, and as thin as possible in the sides. Fill it with the water and hold it in front of any dark colored or black surface so that a strong light shall fall upon it from above and one side. Under these circumstances, any small particles of suspended matter are readily seen. Care, however, must be taken not to mistake minute air bubbles for suspended particles of matter.

Note next the color of the water by placing the flask or bottle in front of a white wall or other surface (a sheet of fine drawing paper answers well for this purpose), and compare it, if practicable, with a bottle similar in size and shape containing distilled water. Rain water, if caught after rain has been falling for several hours, in a clean vessel and at some distance from any building, answers equally well for this comparison. Very slight differences in color can thus be noted. The two flasks should stand side by side in good diffused light; light reflected from a white wall or screen is well adapted to this observation. If the water should be found to contain any large quantity of suspended matter, or to exhibit any very decided tint or color, it is safe to reject it for drinking purposes, at any rate in that condition. It may be practicable to render it fit for use by filtration or other means, of which we shall treat in due time.

Observe next the odor, if any; to do this with advantage, fill a perfectly clean, wide necked bottle of a pint or half pint capacity about one third full, shake it up well and inhale the air above it.

^{*}Wauklyn & Chapman, as quoted by Dr. E. Smith.

Should any disagreeable smell be noticed the water is probably unfit to drink. Warm the water in the same bottle slightly and smell it again; a moderate degree of heat will often render perceptible an odor when none can be observed if the water be cold.

Place next about a pint of the water in a clear glass bottle, add from a half teaspoonful to a teaspoonful of pure white sugar, cork it up tightly, shake well until all the sugar is dissolved and stand the bottle for twenty-four hours in a warm place. If, at the end of that time, any turbidity, milky appearance, any disturbance of the transparency of the water, any appearance of fermentation or any disagreeable odor is noticed, the water should be rejected without hesitation. Water sufficiently pure for drinking ought, under the above named test, to show no perceptible change at the end of forty-eight hours at least.

Further tests, however, should be made before a sample of water is pronounced in all respects fit for use in its natural condition. All the material and apparatus hitherto mentioned are to be found in almost every house. To carry our examination further requires a little more. A few grains each of caustic potash, iodide of potassium and nitrate of silver, together with a few drops of sulphuric acid and a little starch, constitute the means for making a few tests which, taken in connection with the preceding, enable us to form a very correct idea of the character of any water.

Add a very little caustic potash to the water, and observe carefully whether it develops any odor, whether any insoluble substance makes it appearance, and if so, whether much or little, together with its color. A pungent smell will be perceived if ammonia be present; a colored precipitate probably shows the presence of iron, while a white precipitate would probably indicate magnesia.

Make now a little thin starch water and dissolve in it a few crystals of the iodide of potash; when these have thoroughly dissolved add to the solution a few drops of sulphuric acid; if any blue color appears, the test is unfit for use and must be thrown away and a fresh portion prepared with better material. If no effect is produced by the mixture, a little of the acidified and

iodized starch may be poured into the water to be tested and the resulting effect noticed. If any darkening should be apparent, the water can hardly be pronounced fit to drink, and the deeper the tint produced the worse the character of the water.

Finally, a crystal of the nitrate of silver dissolved in the water should not impair its transparency in any very marked degree. A slight cloudiness is not an indication of any serious contamination, but any decided amount of precipitate is to be regarded as suspicious, particularly if it grows rapidly dark in color in daylight.

By the use of the tests detailed above, we are enabled to decide upon the presence or absence of any ammonia or ammonical salts, nitrous acid or nitrites, any undue amount of chlorine and any putrescible sewage. These being absent, a water may be pronounced safe for domestic use with a reasonable degree of certainty; while any water which does not bear examination in the manner described should be rejected and a better one found.

We now come to the consideration of the means by which some of the evils we have spoken of may be avoided, and first to the consideration of those that lie within the reach of individual members of the community. To point out the evil in many cases is also to point out the remedy. Where the proximity of a privy, a stable or some similar source of defilement is the cause of foul water, the removal of these, or better the filling up of the well and the construction of a new one with the use of all needed precautions against contaminating its water, are the obvious means to be employed.

And just here let us offer a word upon the use of a material for curbing wells which, as it seems to us, has many advantages to recommend it. Pipes made of vitrified stoneware are now manufactured of very large size for the purpose of constructing sewers, and are warranted to stand any pressure likely to be brought to bear upon them by the weight of the soil, pavement, travel upon the streets under which they are laid, etc., etc. They can be fitted together in any required length, and the joints made as impervious to the entrance of surface drainage as any other portion of the tube. A well carried to a sufficient depth thus curbed, properly covered

over, for no well should be left uncovered to the air,* and provided with a proper pump, would be as nearly perfect as any such arrangement can be made. It is true that its first cost might be considerable, but the work, thoroughly done, would be done for more than one or two generations, to say nothing of the consideration that health and life would be far safer in the use of water from a well thus constructed than in the use of that from wells open to receive all manner of abominations from the top, curbed with pine boards, which must decay in the course of a few years at the utmost, and receiving the soakage and leachings of all the filth surrounding it in the soil—a well such as that examined not very long ago by an eminent chemist, who pronounced its waters to be worth about two dollars a ton as manure!

The substitution of earth closets for privy vaults is also a measure the adoption of which cannot fail to be attended with excellent results so far as concerns the defilement of wells. This is not the place to speak of their many advantages in regard to the health of our people, but we look upon the general employment of these excellent arrangements as offering one of the best means for preventing the contamination of the soil and the consequent pollution of our wells, in what is certainly the most objectionable of all possible ways.

The use of bored and driven wells is also to be recommended, provided that a sufficient depth is reached in both cases, and provided in bored wells that use is made of a proper tube through the whole depth of the bore. Vitrified tubing, with properly cemented joints, as above described, seems a proper material for such use.

In view of the number of driven wells already in use in various parts of the state, and of the fact that so far as is known no experiment has been made and placed on record by disinterested authority for the purpose of determining the correctness of the prevalent opinion that no surface drainage can reach and contaminate the water furnished by these wells, the following experiment was devised and carried out.

A well tube was driven down into the drift and underlaying clay

^{*} Vide case reported by Prof. Chittenden.

to the depth of twenty feet below the surface and a proper pump connected therewith. One pound of ferrocyanide of potash was then dissolved in a gallon of water, and the solution thus made poured into a funnel-shaped cavity surrounding the tube; a quantity of the crystals of the same salt was then buried just below the surface in close proximity to the tube, these arrangements being completed at 3 o'clock P. M. on the 8th of October, 1878.

The reasons for the selection of the above named salt were these: 1st. That its detection in small quantities was easy, its reactions being characteristic; and 2d. That it was not likely to be found in any natural water.

A heavy rain set in while the arrangements were in progress and continued through the night. At 9 o'clock the next morning (October 9th) thirty-two ounces of the water was drawn from the tube and carefully tested by means of copper sulphate; no evidence of the presence of the potassic ferrocyanide appeared, and the remainder of the thirty-two ounces was then evaporated until only four ounces remained, and the residue, thus concentrated, examined as follows: A small watch-glass, being cleaned with care, was placed in a strong light upon a dead white surface; a small fragment of copper sulphate was then placed in the glass, a few drops of the water poured upon it, and the whole examined by means of a powerful lens; no evidence whatever was seen of the characteristic reaction produced under such circumstances when the ferrocyanic Similar examinations were made on the 10th, 11th salt is present. and 12th of October, respectively, without detecting the ferrocyanide.

On the 12th, the idea suggested itself that a condition of things might possibly exist in the soil which had rendered the whole experiment futile; that the ferrocyanide might have suffered decomposition by means of the oxide of iron naturally present in the soil or derived from the tube. To test this question, a quantity of the clay through which the tube passed was obtained and packed as tightly as possibly in a glass jar, and a quantity of sand placed on top; a wire to represent the tube was then passed down through the sand and clay to the bottom of the jar, and some small crystals

of the salt mingled with the sand. The whole was then saturated with water and allowed to stand for twenty-four hours, at the expiration of which time a careful examination was made to find any Prussian blue that might have been formed. None was seen, and it was then determined to carry the experiment with the jar a step further. A fresh portion of clay was taken and moulded to fit the bottom of the jar; being then carefully taken out, some parts of it were carefully shaved off in such a manner as to leave a small space vacant at the bottom of the jar, when the clay was again replaced; another layer of clay was placed on the first and packed tightly around the sides of the jar, and the other arrangements completed The vacant space was now carefully watched to observe whether any water percolated into it; none was seen, nor upon examination at the end of seventy-two hours could any evidence be obtained of the presence of the ferrocyanide in the cavity at the bottom of the jar.

This experiment is thought to be complete so far as it goes. It is not claimed for it that it is quite decisive of the question of surface water penetrating to the water furnished by a driven well, inasmuch as a larger quantity of the salt might have been employed, for example, ten or twenty its. instead of one or two, or some salt furnishing decided spectroscopic indications, and known to be absent from the water in question, might have been used. It seems, however, to be tolerably certain that when a tube is driven to a sufficient depth, particularly when it penetrates a bed of clay of some thickness, contamination from surface drainage is not greatly to be apprehended, and that the general opinion concerning the advantages of driven wells is so far correct.

It may happen that good and wholesome water is not to be had by digging; that the district is underlaid by such conditions as to shut out all hope of obtaining it by means of any well of reasonable cost, curbed, bored or driven. In such a case there are two resources within the reach of the individual; the first is the construction of a proper cistern of sufficient size and the use of rain water. An adult needs about one half gallon of water daily for drinking; and for washing and miscellaneous purposes, about

twenty gallons more will be required. In several American and European cities, the amount of water furnished per diem for each individual ranges from thirty to one hundred gallons; with only moderate economy, twenty gallons per diem would probably be a sufficient allowance, or one hundred gallons per diem for a family consisting of five members; and calculations for a cistern should not be based upon any allowance much smaller than this.

A gallon contains two hundred and thirty-one cubic inches, hence one hundred gallons will occupy a space of about fourteen cubic feet. A cylindrical cistern seven feet in diameter and eight feet deep will contain a little more than twenty-three hundred gallons, or a supply of water sufficient for a family of five persons for all purposes for about three weeks. To aid still further in making the necessary calculations, the following figures are given: The annual rainfall over the whole state of Wisconsin is stated to be thirty inches, about one-fourth of which falls in the spring, three-eighths in summer, one-fourth in autumn, and one-eighth in winter. The least amount falls along the shore of Lake Michigan, and the greatest in the southwestern portions of the state. One inch of rain will give sixty-two and three-tenths gallons upon one hundred square feet of surface, hence thirty inches will give eighteen hundred and sixty-nine gallons. Or upon the roof of a house measuring forty by twenty feet, having a roof surface of eight hundred square feet, one inch of rain will give four hundred and ninetyeight and seven-tenths gallons, and thirty inches, fourteen thousand nine hundred and sixty one gallons, or enough to fill such a cistern as the one mentioned above about six and one-half times in each year.

Thus it will be seen that a sufficient amount of water falls from the clouds to furnish an ample supply for domestic use, if only proper means are taken to collect and store it.

Every cistern built for this purpose should be provided with an efficient filter, and, of these useful appliances, it would seem that a larger variety is offered for sale in Europe than in America. Sanitarians seem to be very generally of opinion that the best filters yet made are those which utilize the remarkable oxidizing powers

of animal charcoal, of which the forms are numerous. One, which finds considerable favor abroad, is placed in the path of the water as it enters the cistern, which is itself tightly closed to prevent the entrance of any extraneous matter; yet another is placed at the cistern opening of the pipe from which drinking water is drawn, the water being used for other purposes in its unfiltered condition. The first position seems for many reasons the better. In some cases a double cistern is constructed; one a large receiver, the other smaller, connected therewith, the filter being placed between the two, and water drawn only from the smaller.

Space fails us in which to enter upon the proper manner of building cisterns for storing drinking water. We can only say that they should be of stone or well cemented brick, preferably wholly subterranean, and provided with a sufficient man-hole for the purpose of cleaning them out when it may become necessary, which with a proper filter will be very seldom; at all other times the man-hole should be tightly closed.

The second method to which reference has been made, by which pure water can be obtained by a single family, is one the mention of which will alarm a great many, and call up before their minds a vision of complicated apparatus, pipes, boilers and furnaces; we refer to distillation, and this will insure the transformation of water otherwise wholly unfit for any household use whatever, into one which, after proper æration, is as pure as is attainable in the most favored regions, and fitted for any purpose whatever. Nor is the necessary apparatus at all complex or more difficult of management than a tea-kettle; a tea-kettle, in fact, would make a very respectable means of distilling water, and we can easily conceive of circumstances in which the use of water thus purified might be the cheapest and most practicable thing to be done.

All that is requisite is a boiler, which may be so constructed as to stand upon an ordinary cooking or other stove; in the cover of the boiler a tube should be inserted representing the spout of the tea-kettle; this tube should be prolonged to a condenser, which may be any water tight keg or barrel, its size varying with the capacity of the boiler; in this keg or barrel as great a length of

tube should be coiled as possible, and this end should be furnished with a stop-cock, and brought out near the bottom of the barrel, and the apparatus is complete. It is scarcely necessary to say that all connections should fit as tightly as possible, although no great pressure is to be provided for. To use the apparatus, a sufficient quantity of water is placed in the boiler, which is set on the fire, and the connection made with the condenser; this should then be filled with cold water, which will require renewal from time to time as it grows warm, some convenient vessel set under the stop-cock to receive the water as it flows out, after which all that is needed is to keep up sufficient fire, and replenish the boiler from time to time, which may economically be done from the warm water removed from the condenser.

In order to remove the "flat taste" disliked by persons who are not used to drinking distilled water, a few grains of common salt and chalk may be added to each gallon of water before using it; it should also be ærated by pouring it from one vessel to another.

When it happens, as it has already happened, and will happen with greater and greater frequency in the future, that the soil of a given district becomes so contaminated that the water falling upon and passing through it becomes so charged with organic matter as to render its further use dangerous, it then becomes the imperative duty of the village, town or city to take measures for providing a full supply. In Wisconsin, there would seem to be little, if any, difficulty in doing this at a comparatively light expense. All along the eastern part of the state, Lake Michigan stretches its waters, offering an abundant supply for a larger population than can ever occupy its shores; in the central portions the Fox, Wolf, Wisconsin, Black and Chippewa, with their thousand tributaries, furnish resources; while north and south are found numberless smaller streams and lakes of naturally pure and good water; and from all these sources it is easy to obtain a supply as good as any to be found elsewhere in the country.

But our town and village authorities owe to their citizens a present pressing duty. In 1872 or '73, the State Board of Health of Massachusetts caused an investigation of the private wells

and similar sources of water supply to be made, with the unwelcome result of discovering that the greater number of such sources throughout the state were either already contaminated or so situated as to be in danger of contamination by sewage alone.* It is hardly possible that so bad a condition of things yet obtains in Wisconsin, but the investigations of Prof. Chittenden and the reports of correspondents of the committee on Water Supply and of the Board generally, seem to show that matters are already bad enough, and that it is time to look earnestly for a remedy.

Our town and village authorities owe to their citizens the imperative duty of protecting existing sources of water supply against They can and ought to prohibit the use of water contamination. drawn from wells or cisterns within certain specified distances of privies, cess-pools, stables, etc., or, better still, prohibit absolutely the construction of any of these except under such conditions and restrictions as will render the fouling of any source of water supply an utterly impossible thing. Not only the character of our water but the general health and longevity of our citizens will be improved by such restrictions, and even if no right exists to protect people from the consequences of their own ignorance or carelessness, no moralist will deny that the right certainly exists to protect the careful and intelligent against the consequences of recklessness or folly not their own, and against which they are powerless to protect themselves.

The advancing tide of immigration is rapidly increasing our population, and as a necessary consequence, our soil must become more and more contaminated with every coming year, and therefore more and more unable to act beneficially upon the waters which it contains. Hence arise certain duties in regard to our water supply in the future, which no power other than that of the state can properly perform.

In England, the attention of the government was forcibly drawn to the pollution of its streams and rivers by the fearful results of

^{*} Our authority for the above statement is the Medical Record of New York of date March 2, 1878. We endeavored to obtain a copy of the Mass. State Reports for those years, but were unable to do so.

the cholera epidemics of 1849 and 1854. "The city of London is supplied with water by eight companies, five drawing their water from the Thames, two from the Lea, a tributary of the Thames, and one from an artesian well in the chalk. In 1848 and '49 all of these companies delivered unfiltered water, drawn from points in the rivers at which all of the sewage impurities poured into the streams were to be found, and absolute proof, it may be said, was had that the severity of the epidemic at that time was due to the impurity of the water then furnished. A law was passed by which the companies were compelled to draw their supplies from a point above tide-water and above London, and also to filter the water before delivery. The cholera visitation of 1854 found certain parts of London supplied under the improved system contemplated by the law, while still other parts were using the impure and unfiltered water, some of the companies not having effected the required changes; and this epidemic was much more malignant and fatal in these latter portions of the city than in the former, other circumstances being as far as possible equal in the cases selected for comparison. But this was not all. A third cholera epidemic appeared in 1866, and attention was attracted by 'an explosion' as it was called, from the sudden and fearful number of deaths in a district supplied by one company. This company drew water from the river Lea, which, during a part of its course, received the sewage of a large population. It was ascertained that to the mixture of a certain amount of unfiltered, and in other respects impure water, with the ordinary supply, the violence of the epidemic was to be ascribed. It was believed that some fecal matter from cholera patients had found its. way into the Lea, but however this may have been, the fact remains that while impure water had often been mingled with the usual supply and produced an imperceptible effect, yet, when an epidemic existed, the same cause produced fearful results." *

Judging from the experience of older states than our own, both in Europe and America, the time is not far distant when our rivers, streams and lakes must furnish the principal supplies of water for

^{*} The foregoing is condensed substantially from the Mass. B. of H. Rept. for 1876.

our citizens, and of these, very many as yet are sufficiently pure and wholesome for that purpose. Indeed, large numbers of our people, especially in the lumbering districts, use these waters now in preference to any other. It therefore becomes the duty of the state to take all the necessary measures for preserving these waters from contamination as far as that may be practicable. The American Medical Association, at its annual meeting in 1876, adopted unanimously a resolution * declaring it to be "the first duty of states and municipalities, first in importance and first in the order of time, to make a sanitary survey of the water supply, to preserve it against all unnecessary and avoidable contamination." Dr. Kedzie also laid down among others, the following propositions, as true as they are forcible, and they received the general assent of the section of the above named learned body before which they were discused: 1. Uncontaminated water is the right of every one. 2. Needless pollution of water is a crime against society. 3. Water in streams, lakes, etc., is common property, and no one has the right to destroy or injure its potable quality.

To-day is our accepted time; already a very large portion of Wisconsin is stripped of its forests, and the land that has thus been laid bare is being inspected with a view to its future profitable employment. It is a trite thing to say, that before many years the now waste places of the state will be dotted over with farms, mills, manufactories, around which villages, towns, cities will grow up, and all of whose operatives must be supplied with good and wholesome water before all things else. The power of the state alone is adequate to secure them this prime necessity; the supply is now ample and good enough to meet all reasonable demands; let us take care that it be not polluted beyond all hope of reclamation, as has already been done in many of the older states.

Many a town has found its wells growing unfit for use, and has been obliged, in self-defense, to build expensive aqueducts, by which water has been brought for miles, to bore artesian wells at a great cost, of which the water has sometimes proven unfit for drinking after it had been obtained, or finally to erect extensive filter-

beds for the purpose of partially purifying the water which flows past them and which they have themselves defiled. Let us be warned by many such experiences and be wise in time.

Such frightful pestilence as has recently devastated the south may not visit us, but others of as severe a character may, and we ought to prepare to meet them - to meet them? We ought to be so well prepared that, even though a case or two may be found brought from elsewhere into our borders, no pestilence can obtain a foothold amongst us. Let us not fold our hands and sit down in idleness bewailing the severity of God's judgments on the land; God's judgments indeed they are, but upon sins of the body, sins from the consequences of which there is no redemption, the penalty of which is always exacted to the uttermost, and falls too often upon the innocent as well as the guilty. Cholera, small-pox, scarlet fever, diphtheria, measles, are no respecters of persons; if anything seems to be known of these dread destroying angels, it is that they work by the spreading of minute germs which start into life, and, after the law of all life, reproduce their kind whenever and wherever they find a proper soil wherein to grow. While we are seemingly doing our utmost to provide such a soil by leaving our sewage to take care of itself, to filter through our porous soils into our wells and springs, carrying with it these germs of deadly growth, while worse, if worse can be, we drink water drawn from wells separated from privy vaults and cess-pools by only a few feet of earth, and from holes in the ground only a few feet deep, dare we expect to be saved from the ravages of pestilence? Will not pestilence rather be the fruit of our own doings?

All over the land there is springing up a desire stronger than ever yet our country has felt for the beautiful, — a desire, strenuous and eager, that will not be denied. Everywhere, earnest, true and thoughtful men and women are preaching the duty of making our every-day surroundings attractive to the eye; we are urged to plant flowers in our gardens, trees before our gates, to hang pictures upon our walls, to cultivate beauty in all ways and for its practical value as well as for its own sake. All this is right and proper, but let it be remembered that all the beauty with which we can sur-

round ourselves will not prevent the burning heat of fever, the agonizing cramps of cholera, or death by suffocation in diphtheria; that any one of these may enter a home where the choicest works of art decorate the walls, where gems from the sculptor's hand stand on massive pedestals, the rarest flowers give forth their fragrance, and trees the most stately overshadow the entrance, while yet in the rear the privy and cess-pool are found close to the well, their foul contents filtering unchanged through the soil and poisoning every drop of water drawn, so that thus the cool draught, the delicate article of diet prepared, perhaps, with loving skill and tenderest care to tempt the palate of the sick one, may be the vehicle of death instead of life.

Let us look to these things first. Let us learn ourselves and teach our children to guard the source of our water supply against even the slightest pollution, be it of whatsoever kind it may. Let our springs and wells be sacred as those found in the desert, around which no danger is to be feared, where the lives of friend and foe alike are safe. Let him who wantonly pollutes a stream of water, be held "guilty of a crime against society," and be adequately punished. Let us strive to render our brooks and rivers types of that seen, alas! as yet, only in apocalyptic vision! "A pure river of the water of life, clear as crystal, proceeding from the throne of God."

Note. — In the preparation of the foregoing article, we have been under many obligations to Prof. T. W. Chittenden, to whom credit is due for the accounts of exemical operations and tests, condensations from various reports and periodicals, etc., etc.

SUMMARY OF REPORTS.

In answer to circular No. 5, on Water Supply.

Answers to questions contained in the above circular have been received from the following gentlemen, in addition to those hitherto published:

L. G. Armstrong, Boscobel; W. H. Bartram, Fort Howard; A.

W. Bickford, Richland Center; B. C. Brett, Green Bay; R. Broughton, Brodhead; H. B. Cole, Black River Falls; J. N. Cook, Necedah; W. W. Daniells, Madison; J. C. Davis, Fort Atkinson (2); M. M. Davis, Baraboo; N. M. Dodson, Berlin; E. Ellis, Ashland; W. A. Gott, Viroqua; T. W. Haight, Waukesha; S. B. Hubbell, Medford; G. Hutchinson, Durand; G. W. Jenkins, Kilbourn; W. Kempster, Oshkosh; J. J. Leavitt, Fennimore; I. Manley, Markesan; D. Mason, Prairie du Chien; J. R. Moore, New London; W. F. Nichols, Menomonie; H. H. Parrott, Douglas Center; B. O. Reynolds, Geneva; S. S. Riddell, Chippewa Falls; G. M. Steele, Appleton (2); M. Waterhouse, Portage (now dead); A. H. Weld, River Falls; R. M. Wigginton, Watertown; O. W. Wight, Milwaukee; G. D. Wilber, Mineral Point; and besides these, one or two have been received which bear no signature.

Extracts from many of the above communications have been printed elsewhere, and the following synopsis is given here as presenting, in a condensed form, a large amount of valuable and interesting information:

Nineteen correspondents report the principal source of water supply in their respective localities to be wells and springs. Nine report wells and cisterns, and the remainder, with few exceptions, speak of wells only. Lakes, rivers, fountains and artesian wells are mentioned in some cases as furnishing a portion of the supply. One only reports that cisterns are used to any great extent.

No complete system of water supply is reported from any locality, nor any complete system of sewerage. A partial system of water supply is to be noted in two places, and partial systems of sewerage in five; these partial systems of sewerage appear to be the result of private enterprise in all cases. A majority of our correspondents give no answer at all to the questions upon these subjects.

The depth of wells in different localities is reported to range from three feet to nine hundred and sixty-one feet. Three correspondents give the average depth in their neighborhoods at fifteen feet; five report it at twenty feet, and three at twenty-five feet. Two state the average depth at less than thirty feet, while depths of

thirty, thirty-two, fifty and sixty feet respectively, are given each by one writer. The following ranges in depth are reported also, each by one correspondent: three to eight feet, six to ninety feet, eight to one hundred feet, twelve to twenty feet, eighteen to sixty-five feet, twenty to thirty-five feet, twenty to forty feet, twenty to sixty feet, twenty to seventy-five feet. Two mention twenty to fifty feet, while the depth of artesian wells is set down as ranging from 100 to 961 feet. Eight correspondents do not answer the question at all.

Twenty-two replies state that hard water prevails in the localities to which they refer; four only that soft water is used, and four others say that both qualities are found. A few do not touch upon the subject.

A single affirmative answer only is given to the inquiry whether rain-water is used to any extent, against fifteen negatives. More than half of the letters received do not refer to this question in any way. One writer only affirms that any system of filtration or purification is employed in his neighborhood, and adds, "with advantage." Twelve answer negatively, and the remainder not at all.

The responses in relation to the distance of privies and cesspools from wells, etc., are generally very full; no correspondents fail to give some reply to one or both of the questions upon this subject. Two or three give rather indefinite answers to the question, "What is the average distance between privy and well?" "Good distance," "Not near," "A fair distance," are some of these; the last being given in answer both to the question just detailed and to the question, "What is the least distance observed by you between privy or cess-pool and well in your neighborhood?"

Of the remainder, eight give the average distance at fifty feet, two at thirty feet, two forty feet, and one twenty feet only. Two place the average at over seventy feet, while the following ranges are given each by one writer: twenty to one hundred feet, twenty-five to ninety feet, thirty to seventy-five feet; fifty to seventy-five feet; two to three rods; three to eight rods; four to five rods; five to six rods; ten to twelve rods. Average distance of from two to

eight rods, and four rods are named by two and three correspondents, respectively.

Five feet is the least distance observed as existing between cesspool and well, while in no less than three instances privy vault and well are removed from each other a distance of ten feet only. "Twelve feet apart" is the answer from two correspondents, sixteen feet of the same number, while no less than nine report the minimum observed distance as only twenty feet, and seven replies, not including any of those previously mentioned, name two rods (thirty-three feet) or less as the least distance known to their authors.

From the replies to the question concerning disease arising from contaminated water, copious extracts have been given elsewhere; of the remainder, four give no reply to the question, and thirteen say that no such case is positively known to them. Many, however, who answer in this way are careful to limit their replies to their own immediate experience, while others still are careful to guard their negatives from being too broadly construed; one says that "many such cases are reasonably suspected," and a very few answer "no," without any qualification.

No case of disease is reported as originating in water contaminated by the vicinity of grave-yards, nor is any instance noted in which the water of a district has been affected by such a proximity. Two samples of water came under observation, however, one, elsewhere reported, undoubtedly so contaminated, the other showing strong reason for suspicion that such was the case, which suspicion was confirmed by the history of the well from which it came.

Metallic pipes are reported to be in use more or less extensively in fifteen districts, the material being iron in ten, and lead in five cases. Eighteen correspondents know nothing of such pipes being used, and the remainder give no answer to the question.

Three answers only say that any analysis of water has been made in the district; three correspondents do not note the question.

A fact to be regretted is that so few seem to have complied with the request to have the simple test described in the circular made.

Twelve gentlemen, however, have done so in instances numbering from two to thirty. It is to be remarked of these that the greater the number of samples tested the greater the inclination becomes to pronounce well-waters bad; thus, where two specimens have been thus tested the answers are "good" or "passable," while, where twenty or thirty have been examined, the majority give the character of the water as doubtful or bad. In one instance, a correspondent at first confidently answered that the water in his district was undoubtedly good and pure, but a short time afterward sent another note in which he said that, upon applying the test to a number of waters drawn from various wells in his neighborhood, every one showed signs of the presence of putrescible sewage. In several cases only the fact that the test has been made is stated, no results being given.

To the question whether open springs supply water to any extent, ten answer affirmatively, twenty-one in the negative, and the remainder return no response at all.

The questions whether any special cases of contamination have been observed either in the water of a district or in isolated instances, whether water has been contaminated to any extent by decay of wooden curbing, oxidation of metal pipes, etc., or by the use of Paris green, are very generally answered in the negative. The only exception to this are four affirmative answers to the first of these and two to the second.

Answers to the remaining questions are omitted as being of insufficient general interest to require publication.

In conclusion, it is our pleasant duty to thank very heartily and sincerely the gentlemen who, at some inevitable cost to themselves of valuable time and labor, have given us such full and accurate knowledge of the subject of our water supply; the value of the service they have thus rendered to the people of the state cannot be over-estimated, if, indeed, it can be estimated at all. To make visible to all the foul "Dwellers on the Threshold," more real and terrible than any that the artist's imagination has ever conceived, to show the unsuspecting and the ignorant how to avoid their attacks, to prevent the germination of the seeds of death which they

scatter thickly everywhere, these are labors the value of whose results are above all price, labors on which any man may well be proud to enter.

It is greatly to be regretted that our space does not admit of the publication in full of the valuable papers received in answer to our circular. We believe, however, that we have omitted nothing of importance in their contents, nor have failed to mention the name of every correspondent not heretofore published, and having thus done our best, we are fain to hope that all "will be therewith content."

AN INVESTIGATION OF THE

DRINKING WATER OF A CITY.

By Prof. THOS. W. CHITTENDEN, Of GRAND RAPIDS.

In a paper printed in the report of the Board of Health for 1877, we called attention to certain conditions of the present water supply of the people of the state generally, and to some dangers threatening the public health arising from those conditions.

Since the publication of that paper we have made a careful examination of the wells, springs, etc., from which a small city near the center of the state draws its supplies of drinking water, having in view a double object: 1st, to learn to what extent and by what means these sources have been already or may be contaminated; and 2d, to trace out, if possible, any connection existing between the occurrence of certain diseases, as scarlet fever, typhoid fever, diphtheria, etc., and the use of contaminated water for drinking purposes.

The investigation has more than a local interest, from the fact that all the conditions existing in the city in question are to be found in every one of a hundred or more of the smaller cities which lie scattered all over the state. In all of them the system, or rather want of system, by which the people are supplied with the very first necessity of life is the same; in all the same sources of contamination are to be found, and in all, we fear, the same needless and costly sacrifice of life and health has been and is continually made.

The localities in which contamination seemed most likely to occur, were first carefully noted, and then from a number of such

points samples of water were taken for examination. The results of the analysis will be given below.

A cause of contamination is often to be seen which is frequently, if not wholly, overlooked, but which we think can be shown to be powerful for evil: we refer to the use of the refuse of lumber mills, slabs, edgings, etc., for the purpose of filling up ravines or gullies, grading roads and the like, a use which is very general in the city to which this paper refers, and in all parts of the state in which the lumber manufacture is carried on to any extent. Instances are not uncommon in which a thousand cords or more of this material have been employed to make a solid road bed, now over a ravine, again along the bank of a river, while in other cases, where a road is carried over a creek, or other small watercourse, the whole "bottom" is filled in with this refuse, only a small channel being left open through which the water of the stream may flow.

Now, let it be remembered how rapidly wood will decay under such conditions, how large a proportion of the products of its decay are soluble in water, and how far water will flow through a body of soil without being deprived of its dissolved organic matters, and we think it will be admitted that such accumulations constitute a source of contamination to many sources of water-supply, both present and prospective, by no means to be overlooked or neglected.

As was stated by Dr. Witter, in his paper upon "Water" in the report of 1877, absolutely pure water does not exist in nature, nor does it appear that it would be a desirable thing to use even if it were always and everywhere readily procurable. As usually found, it holds certain substances in solution, some gaseous, some solid, some indispensable to the building up of both animal and vegetable tissues, some which contribute to its purification by combining with and thus rendering innocuous much matter that otherwise might be productive of injury. Water too, like the air we breathe, holds in suspension particles without number of solid matter — particles precisely similar in character to "the gay motes which dance in the sunbeam," which may be rendered visible in exactly the same way,

and of which it is almost impossible to get rid. Even water which has been distilled away from all contact with atmospheric air, and that which has been carefully filtered, is full of these particles, and no method has ever been devised by which water may be wholly freed from their presence. The nearest approach to perfectly pure water which has ever been recorded, was made by Prof. Tyndall by the use of extraordinary precautions to insure the cleanliness of the apparatus employed, and even then that eminent philosopher declared himself unwilling to say that no suspended particles were present — that, in fact, the presence of very many was highly probable.

The task of the chemist is thus seen to be confined to answering the question: What proportion of these solid matters contained in water is injurious to health? To this question, he is at present able to return a tolerably definite answer; it is entirely true that there is a limit to his power; he can not say of any given sample of water: "This will, if taken into the human system, produce typhoid fever or diphtheria, or that is certain to be absolutely harmless;" but he can say, with a great degree of certainty: "This is contaminated with decaying vegetable matter, that with decomposed animal substances, and either can be used for drinking purposes only at great risk of health or life." He can determine with marvelous accuracy the presence of certain mineral constituents, read the combinations in which they exist, and can determine whether a given sample of water probably came from a pure or from a foul source. Before laying before the reader the results of our work, it may be that it will interest him to know something of the work itself - something of the delicate processes by which the above mentioned results are achieved, and the methods of reasoning upon which the chemist's conclusions are based.

In all natural waters, as has been said, some solid matters are held in solution; the most important of which are lime, magnesia, soda, potassa and iron; these are usually combined with carbonic, sulphuric, nitric, nitrous, silicic, and phosphoric acids; in addition to these, ammonia and chlorine are very generally present. Nor are these all; in many natural waters iodine, bromine, lithia,

strontia, and various other bodies are known to exist; these, however, are usually in such minute quantities that their effect upon the character of the water, or upon the general health of those who drink it, can not be noted, if indeed it have any effect whatever, and hence the analyst's attention is generally confined to the substances first named, together with such metals as lead, copper, iron, and very rarely some others. Of those substances to which special attention is given, some are more important than others; thus the hardness of water depends upon the quantity of lime and magnesia present in it, and, while it seems to be generally admitted that a moderately hard water is better for drinking purposes than one which contains no hardening constituent at all, it is thought equally certain that an excessively hard water produces some disorders unpleasant in themselves, and at times exceedingly difficult to cure; the determination of the quantity of lime and magnesia, therefore, is one point to which considerable attention is given.

Again, in almost all water, traces of nitric and nitrous acids are present, and by a trace is meant a quantity sufficient to give a distinct sign in answer to the delicate tests employed by the chemist, but too small to be weighed or otherwise measured. These acids are compounds of nitrogen and oxygen, the constituents of the air we breathe, which may be caused to combine by a powerful electrical discharge; hence, rainwater is very apt to contain traces of both, and water which has fallen during a thunder storm is almost certain to do so; but if more than a very slight trace is present, it is a suspicious circumstance, for both these acids are among the results of the decomposition of animal matter, and their presence, especially when another nitrogenous body, to be hereafter spoken of, is also found, is of the gravest significance. Chlorine, too, engages the analyst's attention. This substance is usually found in water in combination with sodium, forming common salt. Now, since salt appears to be an absolute necessity to human life, it would seem, at first sight, to be a matter of very small consequence whether we take it as seasoning to our food or dissolved in the water we drink; but salt forms one of the principal mineral constituents of all the excrementitious products of the human body, being found in the

tears, perspiration, urine, etc., and therefore its presence in large quantity, gives reason for suspecting contamination of the most objectionable kind.

The methods for detecting all the substances as yet specially mentioned are of the simplest and most certain kind. Lime and magnesia may be determined together, by means of a standard solution of soap in alcohol, and the result stated in "degrees of hardness;" or the lime may be first removed by oxalic acid, and the magnesia, if any, then determined by one of two ways, the one by converting it into pyrophosphate, an insoluble salt, the other by the soap test above referred to. For detecting nitric acid, a strong solution of ferrous sulphate (copperas, or green vitriol) is employed, while "Price's test," which depends upon the reduction of iodine, and its union subsequently with starch, serves for the detection of nitrous acid. Chlorine is always detected by means of silver nitrate, with which it forms a compound having very characteristic properties.

But the attention of chemists has long been turned to the discovery of some means whereby the quantity of organic matter could be measured with ease and certainty; several methods of doing this have been devised, but found lacking in one important particular or another, and thrown aside as worthless.

The earliest method consisted in evaporating a given quantity of the water to dryness in a platinum vessel, and carefully weighing the residue; this was then heated to redness and maintained at that temperature until it was judged that all the organic matter had been destroyed, when it was again weighed and the loss set down as organic matter. This primitive way of operating, which we believe is still practiced by a very few old-school chemists, was soon seen to be wholly untrustworthy; not only was the organic matter destroyed, but much of the inorganic also, and hence it was not unusual to find a water set down as containing a large amount of organic matter which really contained very little.

Following this, came what is known as the permanganate process, which is still used when no very great accuracy is required, and in such cases is capable of giving very good results. It depends upon

the fact, that the well-known salt, permanganate of potash, contains a large amount of oxygen which it holds very loosely, and hence gives up very easily to any readily oxidized body; thus if we have a solution of the permanganate of known strength, we can readily calculate the amount of oxygen contained in it, and hence can calculate also the amount of oxygen required to burn up any organic matter that may be present in a given sample of water, and, from the amount of oxygen thus consumed, form a pretty accurate opinion of the quantity of the organic matter. But, besides organic matter, some other body capable of taking oxygen from the permanganate may be present, and before any reliance can be placed upon the results thus obtained, the absence of such bodies must be proven, or, if they are found present, their quantity must be ascertained and proper allowance made for it - sometimes by no means an easy task - or they must be removed, and the risk again incurred of removing with them some part of the organic matter.

Two other methods only remain; the one introduced by Frankland & Armstrong, the other by Wanklyn & Chapman. Frankland's process follows the first described method in evaporating a known quantity of the water to dryness, first, however, destroying any nitric or nitrous salts present by the use of sulphurous acid. residue after evaporation is carefully collected and submitted to ultimate analysis after the method usually employed, i. e., it is burned in a combustion tube, oxygen being supplied by chromate of lead or oxide of copper; the products of combustion are carefully collected and weighed, and the amount of organic matter thus esti-The objections to this method of operating are, first, that it is laborious and demands a very high degree of skill in manipulation; and second, that the limit of error is as large as the whole amount of nitrogen present in a fairly good sample of drinking water, there being room for doubt whether all the nitrogenous salts are destroyed, and almost a certainty that some of the organic matter is lost during the preliminary evaporation.

Wanklyn's method seems to have sprung from the permanganate process already described; its peculiarity is that it operates upon the organic matter without evaporation, renders its destruction cer-

tain if all the operations are properly conducted, and enables the chemist to estimate its amount with great accuracy and to give a fairly correct opinion of its source.

With all these advantages, besides that of requiring only a reasonable amount of skill in its performance, it is not surprising that this process has almost wholly superseded every other, and is the one employed at the present day by the large majority of chemists in England and America, in fact, to use Dr. Frankland's words, "almost universally." It is known as the ammonia process, and depends upon the fact that when nitrogenous organic matter is heated, in contact with a strongly alkaline solution of permanganate of potash, it is converted for the most part into ammonia, and, other things being equal, the proportion of ammonia yielded is so constant that the results of various operations are strictly comparable.

Chemists have long known that in order to obtain water sufficiently pure for many of their operations, it is necessary to reject the first portions which come over in the process of distillation, and also to stop distilling long before all the water in the still, or retort, is exhausted; both the first and the last portions distilled containing more or less ammonia. If, now, 500 cubic centimetres of water be placed in a retort and heat applied until 50 cubic centimetres have been distilled over, 75 per cent. of all the free ammonia dissolved in the whole quantity of water will be found in this 50 cubic centimetres; and if the distillation be carried a little further, the water in the still will be entirely deprived of its dissolved ammonia.

This having been done, all the organic matter originally present remains in the still, and if a measured quantity of a solution of permanganate of potash which has been rendered strongly alkaline by the addition of caustic potash or soda, be poured into the still, upon the recommencement of the distillation, ammonia will again be found in the water coming over, and may be measured by appropriate means. We have several tests for the detection of ammonia, one of which * is so exceedingly sensitive that it is difficult to obtain water sufficiently pure for its preparation; another, the one employed in Wanklyn's process, is almost equally delicate and very

characteristic in its reaction. It is known as Nessler's test, from its discoverer, and "consists of a solution of iodide of potassium saturated with periodide of mercury, and rendered strongly alkaline by means of caustic potash;" when this is added to a solution containing ammonia, a brownish yellow coloration is produced which becomes deeper as the proportion of ammonia becomes larger, thus furnishing a very ready means of judging with great precision of its quantity.

In Prof. Wanklyn's work on water analysis, the operator is directed to test for ammonia at four separate points in the course of each analysis, and further examination is declared to be an unnecessary refinement. In our own work, however, we have not found this to be the case; it is quite true that in the case of free ammonia, three-fourths of the whole amount present was found with remarkable constancy in the first 50 cubic centimetres, but, after concentration and the addition of the permanganate, we have never found the distillate free from ammonia until 200 cubic centimetres have passed over, and we accordingly made it our practice to look for ammonia at five points instead of four in every examination.

The most careful attention to perfect cleanliness of all apparatus used is imperatively demanded in the above described method of analysis; this being given, the results are remarkably accurate and comparatively easy of attainment. They are stated under two heads: free ammonia and albuminoid ammonia, the latter representing the organic matter.

Working in this way, we examined water drawn from several points in and around the city referred to in the beginning of this paper. It may be well here to say that waters may be divided into three general classes, with reference to the quantity of albuminoid ammonia yielded when they are subjected to the method of examination just described: 1st, Waters of extraordinary purity, yielding less than .05 parts per million of albuminoid ammonia. 2d, Waters sufficiently pure for ordinary purposes, yielding not more than .10 or .15 parts per million, and 3d, Foul waters yielding a larger proportion than this of albuminoid ammonia. None of the samples examined by us can be placed in the first class; several of the river

waters and one or two spring waters belong to the second, while nearly or quite all of the well waters fall into the third class, and must be pronounced unfit for drinking purposes.

We have said that the ammonia process of examining a given sample of water enables the chemist to pronounce with a reasonable degree of certainty upon the source of contamination, or rather to distinguish between animal and vegetable matter; the reasoning upon which he bases his conclusions in this respect is as follows: An important constituent of urine is urea, a substance giving rise by decomposition to carbonate of ammonia; if, therefore, upon distilling a specimen of water we find it to contain a large proportion of free ammonia, and upon further examination discover also considerable chlorine, we may feel pretty certain that it is contaminated by animal excretions; one specimen which we analyzed seemed to be, indeed, little better than dilute urine. Again, if but little chlorine is found and little free ammonia also, while the addition of the permanganate solution causes the production of a large amount of albuminoid ammonia which is given off slowly, seemingly almost with reluctance, we may be satisfied that we are dealing with a water contaminated by decaying vegetable matter. water containing a large proportion of chlorine and also yielding much albuminoid ammonia, is probably contaminated with decaying animal matter; and this conclusion is strengthened if we find in addition much nitrogenous matter oxidized to nitrous or nitric acids. In one instance we found this condition of things, and besides, strong indications of phosphoric acid; the water came from a spring flowing out of a low bluff upon which stands a grave-yard, disused only within a few years; the distance from the nearest grave to the point at which the spring flows out of the sand is not more than fifty feet, and to us the evidence of contamination from dead bodies seemed so conclusive that we published a card in the local papers warning the citizens against further use of water from the spring in question.

As yet the limits suggested in the preceding paragraph mark the boundaries of the chemist's power; he cannot say at present that the germs of typhoid, or scarlatina, or diphtheria, do or do

not exist in any given water, but he can say that this or that water is loaded with the products of decay from animal or vegetable sources, and hence is more liable to be the cause of disease and death than another which contains no such filth.

We now proceed to give the results of our investigations: At the first point which claimed attention, stands a house in which three cases of scarlet fever have occurred; the well here is in close proximity to a stable and similar out-buildings. At a second point close by is a case of some interest; three fatal cases of scarlet fever have occurred here in two families who have successively occupied the house, now vacant. It seemed probable, therefore, that here must be some local circumstance which rendered the disease peculiarly malignant, and the well was therefore examined with great attention. It is very shallow, and receives surface drainage under the following circumstances: to the north and east stretches a marshy piece of ground, drained partly by a little stream, and partly by a little ravine or gully which crosses the road just north of the house. The water from this well gave no evidence of chlorine or free ammonia, but contained two hundred and fifty-two parts per million of albuminoid ammonia, thus giving evidence of the presence of decaying vegetable matter in great abund-

Leaving this place we find the water generally good for some little distance, the wells being dug down to the level of the river, from the waters of which they draw their supplies, as is shown by the fact that no water is obtained until that level is reached. The soil through which the water filters to the wells is a mixture of sand and kaolin clay, the latter predominating; now it is a property of clay well known to the chemist, and sometimes of advantage to him, that it absorbs ammonia and precipitates much organic matter in virtue of the alumina which is one of its constituents; hence, water which has filtered through a large body of clay is often remarkably free from organic matter and the products of its decomposition. To this cause is probably due the good character of the water in the wells of this district generally, and the small number of fatal cases of disease, two deaths being noted as occur-

ring here out of a total of fifty-four cases, while at other points the percentage of deaths was far larger.

A little to the east of this locality is the spring above referred to as flowing from a cemetery; its water gave ninety-six parts per million of free, and four hundred and eighty-four parts of albuminoid ammonia; Price's test showed the presence of considerable nitrous acid, and phosphoric acid also was shown to exist in it. No case of disease is known to be due to the use of this water, which fact is probably owing to the circumstance that no household supply is drawn from it; it has a certain reputation, however, with some who consider it a mineral spring, and use its waters for their supposed medicinal and "magnetic" properties.*

To the south of this spring is a locality where many cases of disease have occurred with a large percentage of fatal results. Here a very large proportion of the wells were found to be contaminated by privy and stable drainage; in one case the well stands between the house and the stable, which are not more than twenty feet apart; house, stable and privy, in fact, occupy the corners of a triangle, the longest side of which is not greater than forty feet! Close by stands a dwelling in which three deaths have occurred from scarlatina; fourteen cases of this disease alone, besides several others of diphtheria, having appeared in this immediate neighborhood. In one case the water drawn from the well showed a large amount of flocculent matter, somewhat resembling in appearance flakes of coagulated albumen; this water became turbid and foul in odor in twelve hours under Heisch's test, which was applied in many cases where time did not admit of more thorough examination; the well receives a considerable amount of pollution from the water used in washing and scrubbing. A sample of water from the well attached to the house first mentioned, which is occupied as a boarding house, gave little free ammonia, but .257 parts, per million of albuminoid ammonia; this is probably rather worse than other wells in the vicinity; Heisch's test, however, showed putrescible matter in the water of all.

^{*}We have learned since writing the above that the use of this water produces diarrheal and dysenteric symptoms, which are taken as proof positive of its medicinal properties!

East from this point is a locality similar in its surroundings to the second point of which mention has been made, and here also are noted eight cases of scarlatina, four of which proved fatal. No examination was made of the water of this neighborhood, but its general surroundings are such as to leave little room for doubt that the same conditions prevail here with the same disastrous consequences as were found in the neighborhood above referred to.

Turning again in a southwesterly direction, large mortality from scarlatina was found recorded in yet another vicinity, and here the wells probably derive their water from springs which flow out of the sand bluff east of the locality, spread over a boggy, undrained piece of land, and after having dissolved as much vegetable matter as possible, finally supply the wells close by. In one particular the last named two points resemble each other; in both cases the marshy ground affords pasturage for more or less cattle, whose excrements afford further contaminating material to the water.

A like condition prevails at a number of points near the southern limit of the city. Here all the wells are supplied with water similar in character to that of the two preceding localities, excepting only that few, if any, cattle find much pasture here. Water drawn from a well at one of these places gave .008 parts of free ammonia and .188 parts albuminoid ammonia per million, and this well was selected as being probably a fair representative of all in this locality. The water at several of these points is liable to contamination from a source spoken of in the first part of this paper, i. e., from matter derived from the decay of refuse lumber, a material which has been largely used in this place for the purpose of grading streets. Three cases of fever have occurred here, and others will probably occur as the locality becomes more thickly built up.

At a point east of the above a condition of affairs is found very much resembling that at the fourth point named above. Here, too, house, stable, privy and well are in close proximity to each other, and here too, disease has been rife.

Thus it will be seen that a remarkable connection exists between the condition of wells and other sources of water supply, and the presence or absence of disease of a certain character; wherever in

this city scarlet fever and diphtheria have been most frequent and fatal, the water used has been contaminated by foul matters oozing through the earth into the well from privy vault, or stable, or cesspool, or by the drainage from marshy ground.

As we said in the beginning, the interest and value of this inquiry are far from being local only; we have little doubt that the same method applied to the greater number of the cities of the state would develop a state of things startling enough to contemplate, and prove that the present comparatively low death-rate in Wisconsin is due to natural causes rather than to the care bestowed by our citizens on the condition of their surroundings. When we began the investigation we thought that it would be a useless task, and not until it was completed and we had the result in graphic form before our eyes, did we comprehend the full significance of the information we had obtained.

We believe, moreover, that if a similar examination of every town and considerable village throughout the state should be made, and the people induced to study with care the results obtained, the value of the life that would be saved would, in a single year, more than pay all the expenses connected with the survey.

This investigation shows as conclusively as anything of the kind can show, that an epidemic of scarlatina breaking out in a community is more unmanageable and fatal at those points where, other things being equal, the water supply is most liable to contamination. One fact seems specially worthy of note in this connection; one or two points were found in which few cases of scarlatina occurred, though the disease had raged all around them; several families here are supplied with water brought across the marshy ground near them by means of a small aqueduct constructed at their joint expense; this water comes from springs below the clay which underlies a sand bluff which stretches from north to south through the city; further comment here seems needless, since facts such as these speak for themselves. Again, in another vicinity are several families who also are supplied with water from pure springs close by; here, too, freedom from any serious disease was noted.

Outside of the city several instances of disease arising from foul

or contaminated water are to be noted. In one case, at a short distance to the west, a well had been bored into the sandstone rock for a considerable depth, and for a time furnished water of as good quality as could reasonably be desired. The family, however, after a while fell into a low state of health, for which no sufficient reason could be assigned; intestinal troubles and typhoidal symptoms made their appearance, and the attending physician long sought vainly for their cause; at last his attention was directed to the well, in the water from which he detected a disagreeable taste and odor, and, feeling certain that the ground of the trouble lay here, he insisted upon having an examination made. This was finally done, and resulted in the discovery of a large number of dead mice in all stages of putrefaction; upon the removal of these and the subsequent thorough cleansing of the well, all trouble disappeared and all the members of the family regained their usual health. The well, which up to that time had remained open, was properly covered over and there has been no further sickness, nor is any anticipated.

Here for the present our labor ends. It only remains to present in the following tables the results of the analyses which we have made, not only of wells and springs in the city in question, but of several rivers of the state, the waters of several of which are of better quality for drinking purposes than those usually considered sufficiently good. In making these analyses we kept in view mainly the determination of such constituents as affect injuriously the sanitary qualities of the waters examined, giving small attention to such mineral constituents as could have little effect in producing disease, but bestowing great care upon the determination of the products of decay of organic matter; in so doing we followed the example of the best sanitary chemists both in America and England.

Two separate analyses were made of the waters of the Wisconsin river; one at a low stage of the water during a long drought, the other when the water was sufficiently high to admit of log-driving and the running of lumber. Circumstances did not admit of our pursuing the same course with the waters of other streams, but

there is no reason to doubt that similar variations in the amount of organic impurities would have been indicated had this been done.

Table No. I.

Analyses of water from six rivers of Wisconsin. Results in parts per million.

•	Free Ammonia.	Albuminoid Ammonia.	Chlorine.	Lime.	Magnesia.	Inorganic matter.	Organic and volatile matter.	Total solids.
Wolf river. Fox river. Wisconsin (at low water) Wisconsin (at high water). Yellow river. Black river. Trempealeau river.	.001	.076 .072 .057 .175 .237	.014	$egin{array}{c} 8.026 \ 1.66 \ 1.00 \ 1.37 \ 11.99 \ \end{array}$	5.689		7.749 6.058 6.051 4.539 14.485 18.59 9.142	27.71 32.67 21.98 13.38 36.62 42.54 30.22

The water of the grave-yard spring, table II, contained also nitric, nitrous and phosphoric acids; that of spring No. 6 contained nitrous acid. The tests were applied to the waters just as they came from the springs, i. e., without concentration.

The lime and magnesia contained in No. 7 were probably accidental impurities, neither being present in any marked proportion in the soil from which the water is probably derived or that through which it flows. The family using this water are suffering from diarrhoea, etc., but they "are sure that the water can't have anything to do with it; there is iron in it." This last is a wholly mistaken impression, the water has a brownish tint and a disagreeable taste, but both are probably due to rotten wood.

The water from No. 4 is apparently unobjectionable in all respects, and is the only one concerning which this can be said.

Of the river waters, those from the Black and Yellow are probably unfit for drinking purposes, at least at low stages. The others present no specially objectionable features. We hope at some future day to examine these streams at higher stages of water and under different circumstances; how the same stream differs at dif-

ferent times may be understood by a very cursory examination of the reports of the Croton Water Board of New York; analyses are made of that water regularly once a week or oftener, but any one who, like ourselves, has used it for any long time, cannot have failed to observe remarkable variations in odor, taste, hardness, etc.; and the same thing is true of the supplies of Boston and other eastern cities.

Table No. II.

Analyses of Water from Wells and Springs referred to in preceding pages.

Results in parts per million.

	Free Ammonia.	Albuminoid Ammonia.	Chlorine.	Lime.	Magnesia.	Inorganic matter.	Organic and volatile matter.	Total solids.
1. Well at house in which three fatal cases of scarlatina occurred		959	91			K KQ	94 788	20 24 6
2 Spring flowing from dis-								
used graveyard 3. Well at boarding house	.962	.484	0.03	12.43	4.665	53.652	28.544	82.196
near which scarlatina and diphtheria prevailed	.159	.257	2.87	Trace.		24.861	26.201	51.062
4. Spring supplying several families who enjoyed good health	.002							
5. Well supplying family which suffered from diphtheria								
 Spring not used for drink- ing purposes, so far as known, by any family. 			ļ	!		ļ	1	1
7. Well exposed to contamination from decaying								
now prevalent		.188 .384	6.27	4.27 3.17	3.02 Trace.	22.045 41.376	$12.027 \\ 23.645$	$84.072 \\ 65.021$

Determinations of the gases present in the river waters were also made, but, except in the case of the Wisconsin, they are not deemed of value, not having been made from water freshly drawn from the river, and therefore not representing with any truth the

normal conditions. Water from the Wisconsin gave 6.89 cubic centimetres per litre of oxygen, 13.89 cubic centimetres of nitrogen, and 4.08 cubic centimetres carbonic acid, the temperature being 67° Fah., equivalent to 1.591, 3.208 and .942 cubic inches per gallon respectively. The water was taken from a point about fifty rods below a large rapid.

SCHOOL BUILDINGS.

BY PROF. THOS. W. CHITTENDEN, GRAND RAPIDS.

[In the following paper, while there is little that is claimed as original, nearly all that has been drawn from the many articles consulted during its preparation has been altered and amplified to suit the views and experience of the writer. It is offered by no means as an exhaustive discussion of the requirements of an ideal school building, but to call attention to the many defects existing in a fearfully large number of the school houses of the state, if not in all.

Material has been taken from articles published in the London Lancet, Pall Mall Gazette, Medical and Surgical Reporter, Medical Record, Sanitarian, Proceedings of American Social Science Association, and kindred sources of information.

The system of public instruction in the state of Wisconsin is probably among the best in the United States, and bids fair to rival in time the best to be found in the civilized world. Its provisions are such that a child may begin by learning the alphabet in one of the many primary schools scattered over the state, pass thence through all the various intermediate departments, the grammar and high school, enter the State University, and finally graduate at the age of 20 or 21 prepared to enter on the business of life with all the advantages, neither few nor slight, which a course of study can afford which has been pursued under the supervision of the best instructors and has extended over a term of sixteen years or more.

Such at least is the theory and intention of the state, and the laws are carefully framed for the purpose of carrying these into practice. But too often in our zeal for the cultivation and development of the mind, we overlook the welfare of the instrument

through which alone the mind can manifest its culture and development. "Many children are taken from school suffering from headache, sore throat, feverish condition, weak eyes, etc., etc., caused, it is said and believed, by 'too close application to study,' when if the real cause were ascertained" it would be found to lie in the gross violation of all the laws which govern the healthy action of the body.

The laws of the state which regulate the examination of teachers, prescribe that all candidates for positions in our schools shall be competent to answer a certain percentage of questions upon various branches of knowledge, but among these the hygiene of the school room finds no place, and rarely is anything said or done in the course of an examination that has any tendency whatever to draw the attention of candidates to this most important of all the subjects connected with the teacher's work. In two cases only do we remember to have found any questions proposed during an examination which had a bearing upon the care of the health of the pupils. The questions referred to were: "What is the best means of ventilating a school room?" and "What is the hygiene of the external protecting organs?" And few of the candidates to whom these questions were proposed, had ever given a thought to either of the subjects to which they refer. We should rejoice to learn that we are in error upon this point, to have it proven conclusively that every examiner in the state has paid greater attention to questions of school and general hygiene than we have at present any reason to suppose, but we fear greatly that we are right, and that until school hygiene is made by law an important, yea, the most important subject of examination, the rising generation must continue to suffer.

"Work-houses, lunatic asylums, prisons, are all under competent medical supervision; school rooms, in which our children receive impressions, bodily and mental, which they will carry with them through the whole of their lives, these alone are left uncared for so far as the physician's inspection is concerned, and the slaughter of the innocents may there go on without awakening a single qualm of conscience on anybody's part."

The following extract from a report of the Board of Health of the city of Boston, will apply to a greater extent of territory than is embraced within the limits of that good city: "Let some one who has never given a thought to the matter, enter some of our school rooms at about the middle of an afternoon session, on a damp winter day, where some sixty or seventy pupils are climbing the wearisome heights of knowledge, and the darkest troglodytic dwellings of our city have the scent of an orange grove in full blossom in comparison. Let him ask for the means of ventilation and his attention will be directed to two or three holes in the wall near the ceiling, but he will not be told whether moral suasion is to coax, or corporal punishment drive foul air through them," or supposing it to be withdrawn, what provision is made for introducing pure, warm air to take its place. There is a costly building, not far from the spot on which this article was written, in which a huge ventilating shaft stretches its length from the basement to the roof; registers and valves abound in all the rooms, and, to the eye of the casual visitor, great care seems to have been taken to remove foul and to introduce pure air. But not a single room in the whole building has any connection whatever with the ventilating shaft, and the whole costly and (in a double sense) imposing apparatus is practically useless for want of a proper furnace, and although such a furnace would at once heat the building at a far less cost of money, time and labor than that expended on the existing means, and insure proper ventilation through every room, the people of the district have decided not to provide one for an indefinite time! They taxed themselves cheerfully to a large amount to erect and furnish the building, but with singular inconsistency they decline to provide the means of introducing pure air for their children to breathe.

In order to take up our subject with some approach to system, let us consider what a school building and its surroundings should be, after doing which we shall be in a better position to determine how many of our existing school houses possess all the requisites of a perfect sanitary condition. Let us first look for a suitable

SITE.

It should be elevated rather than low. Dampness of soil should condemn any site, however advantageous it may seem in other respects. The neighborhood of railroads, railroad stations and manufactories should be carefully avoided, as also should any proximity to hotels, "saloons" and places of similar character. of a stream or a body of water is also an undesirable location. It is perhaps not too much to say that every school superintendent in Wisconsin can point to instances within his own jurisdiction in which one or more of the above named objectionable surroundings may be found. Here, the school house is placed in a low, damp spot, generously given to the district for the purpose, because its former owner could dispose of it in no other way, and found that the annual tax upon it amounted to more than the land was worth to him. There, we find the school planted upon a corner cut off from a farm by a railroad, or upon the bank of some large stream; again, a large and noisy manufactory stands directly opposite, with a hotel upon one side and a "saloon" on the other. Now, whatever inducement may be offered, whatever advantage may seem to accrue, a district board may be assured that the selection of any such situation for a school house will prove in the end the worst possible economy.

THE SCHOOL YARD

should contain an area of not less than forty square feet for each scholar; it should be so high that it can never be overflowed by the heaviest rains, enclosed by a substantial fence with proper cattle guards at the entrances, and should be thoroughly drained. Shade trees are desirable, but they should not be placed too close to the building.

A considerable difference of opinion exists as to whether a school yard should be paved or not;* in our own opinion, paved or planked walks should lead from the gates to the main entrances of the building, while the parts of the yard used for recreation should be left unpaved as a matter of safety; boys will play roughly,

^{*} If paved, bricks should never be employed for the purpose.

wrestle, box, emulate the performers of the last circus, etc., and a fall upon unpaved ground is attended with less danger of sprains and broken bones than a fall upon stone pavements or even upon planks.

Separate yards should be provided for boys and girls, and a special enclosure for the use of the primary scholars is eminently desirable, especially where the intermissions for all grades occur at the same hour.

A CELLAR,

or at least an air space of not less than two feet in clear height, should extend under the whole building, and unless the soil be naturally very dry, a thorough system of drainage should underlie the air space or cellar, as the case may be.

THE BUILDING

itself should be so placed that the sun can shine into every room used for study or recitation, preferably during the morning hours, but at any rate at some time and for some hours of each day. This condition may in some cases involve the placing of a school building upon its site without regard to the strict parallelism of its lines with those of the street or road; an arrangement fulfilling the requirement may not be always practicable where land is costly, as in our larger cities, but in the great majority of cases it would be wholly so; so far as architectural considerations are concerned, it is certainly in the power of any competent architect to design any building, after proper inspection of its intended site, so as to produce no outre or disagreeable effect æsthetically, while yet it shall be properly placed with regard to the well-being of its occupants.

Stairs, passages, rooms for the storage of books, apparatus, etc., may be placed upon the shaded side of a building if a shaded side cannot be avoided, but hat and cloak closets should never be so situated.

Few if any school buildings should exceed two stories in height; for, let it be remembered, that a definite amount of force is required to raise a given weight to a given height, and that this is

true whatever may be the character of the weight; it makes no difference whether it be a stone raised by a steam-derrick or a human body raised by muscular force; the same law holds good. To require the exertion necessary to raise a weight of from fifty to seventy five or one hundred pounds to a height of fifty or sixty feet, three or four times within six hours, is sheer barbarity in the case of any growing child, and is especially wrong in the case of girls just arriving at the age of puberty.*

ENTRIES

should be well warmed and ventilated, and should receive sufficient light from out of doors. Serious injury to health often arises from the fact that few entries and passages in our school buildings are warmed by any means whatever. In one of the most costly buildings in the state a peculiarly faulty state of things exists in this respect; a large hall extends through the building from east to west, from either end of which doors open directly into the outer air, no vestibules or other protection of any kind being provided; the school rooms are usually heated in winter to a temperature varying but little from 70°-75° Fah., while the temperature of the hall and other passages is never greatly above that of the external air, which is frequently below 0, reaching -25° or even lower. Thus pupils in the school in question, who are of all ages from six to twenty years, and of all degrees of robustness, are compelled to pass from a well-warmed room into a passage in which the temperature is from 40° to 90° lower, without any previous preparation; we all know how exceedingly uncomfortable we feel when, as sometimes happens in this state, the mercury makes a descent of 40° within five or six hours; let us imagine the effect of a similar or even greater change occurring within five minutes without any adequate preparation therefor.

^{*} A foot-pound is the amount of force required to raise one pound to the height of ore foot; fifty foot-pounds may be either the amount of force required to raise one pound to the height of fifty feet, or fifty pounds to the height of one foot. Hence, to raise fifty pounds to the height of fifty feet requires an amount of force equal to two thousand five hundred foot-pounds, and this repeated four times requires the exertion of an amount of force equal to raising ten thousand pounds to the height of one foot, or vice versa.

We are in little danger now-a-days of being allowed to forget that foul air is a poison, but we are in danger of forgetting that a blast of cold air is far more dangerous; we may breathe impure air for a comparatively long time and experience no immediate ill effects, but we cannot expose ourselves to the risk of being chilled by cold air, pure though it may be, without instant and serious danger; our instincts in such cases are safer guides than our reason. "Foul air is a poison but it is a tolerably slow one, but a chill is as deadly as a dagger or a bullet." We who write these lines have personal knowledge of three separate cases in which young lives of great promise were sacrificed to gross ignorance or reckless defiance of that fact, and of several others in which the foundations of life-long disease and consequent suffering were laid by the same recklessness or deplorable lack of knowledge.

STAIRS

and the walls enclosing them should always be fire-proof; spiral staircases should never be permitted in any school building — a fact proved most conclusively by the fearful accident which occurred many years ago in the Greenwich Avenue school building in New York city; a perfectly straight stairway is to be preferred to any other form, and if stairways are over ten feet in height they should be broken up by a broad landing midway between bottom and top.

Stairs should be at least six feet in width in large school buildings, and never less than four feet in any case; the separate steps should never exceed seven inches in height, or be less than twelve inches wide in the treads. As has already been said, no school house should be more than two stories in height, but in the few instances in the state in which necessity compels the erection of a higher building substantial fire-escapes should be provided.

ROOMS FOR STUDY

must have a floor space of at least fifteen square feet per capita for primary scholars, and twenty square feet per capita for those over ten years of age; they must have a cubic capacity of at least 200

and 250 cubic feet per capita for the above named classes of pupils, and a clear height of not less than twelve feet.

Rooms for recitation which are not in constant use need have only three-fourths of the above amount of floor-surface, the height remaining the same.

All rooms, whether for study, recitation or general assembly, should have a window of at least eighteen inches in height over each door, fitted with such appliances as will enable it to be easily opened and closed by a person standing on the floor.

The walls of all rooms should be hard-finished, and if possible rendered non-absorbent; they should be tinted with some light neutral color; light bluish gray and sea-green are perhaps as desirable tints as any. Walls in a school building should never under any circumstances be papered.

No room used for study or recitation should be so large as to need columns or other supports for the ceiling; when these are necessary, as in chapels or other rooms for general assembly, they should be of iron and as small as is consistent with proper strength, that they may not interfere with the light.

Blackboards should be placed opposite the windows; never on the same side of the room. It has lately been recommended that they should be purple-black or dark green in color.

WINDOWS

must contain a surface equal to thirty square inches of glass, excluding sashwork, for each square foot of floor space. Plain square sashes are better than those having arched or Gothic tops. The lower sills should be from three and one-half to four feet above the floor, and the upper within one foot or less of the ceiling. All windows should open directly into the outer air, and hung with weights.

SEATS AND DESKS

must vary in height to accommodate pupils of different sizes and ages. Except, perhaps, in the case of primary scholars, it is better to provide each individual with a separate seat than to try to economize space by seating two or more pupils at one desk.

Seats should be low enough to allow their occupants to place both feet firmly and squarely on the floor when sitting erect, broad enough "to admit of the entire nates and five-sixths of the under surface of the thighs resting upon them," in the same position, hollowed out so that the weight of the body shall be properly distributed over the whole surface of the glutei muscles instead of being concentrated upon two points only, thus insuring the avoidance of painful pressure,* and always provided with backs, which should be properly curved so as to support the spine without causing any feeling of discomfort, weariness, or undue pressure at any point.

Desks should be so placed as to allow pupils to rest the whole fore-arm upon them without being compelled to lean forward unduly; special attention should be given to the distance between the desk and seat, and also to the height of the bottom of the desk from the floor. Many desks are so constructed as to give the largest possible space for the storage of books, etc., an advantage dearly purchased at the cost of hourly discomfort to the students who use them.

Some fifteen or more years ago we caused desks to be made for the use of two of our pupils, that were provided with a very simple arrangement by which a book could be supported in a nearly vertical position, thus enabling the student to sit in an easy erect position while reading or studying, while, when the desk was needed for writing, etc., the top presented a perfectly smooth surface, inclined at the proper angle. The arrangement was not suited to the requirements of a large school room, but certainly some of our ingenious manufacturers of school furniture ought to be able to design and make a desk in which the same purpose should be answered, without undue interference with a proper supervision of the school room, or any great increase in cost.

^{*}The suggestion has been made, with the view of relieving the pain and fatigue so often caused by the wretchedly planned seats generally used in our schools, and avoiding the confusion and disorder consequent thereon, that seats shall be made so high that a student shall neither stand or sit at his desk, thus being able to throw his weight upon his feet at piessure.

[†]Since the above was written we have seen a circular issued by a Chicago firm, giving a representation of a desk in which the plan mentioned is carried out apparently in a very satisfactory manner. Vide also Report of this Board for 1877, p. 187.

^{12 -} S. B. H.

All seats and desks should be so placed that the pupils shall receive the light from above and on the left hand, rather than from any other direction. A direct front light should always be avoided as should also direct illumination of books, etc., by the sun.

THE ARRANGEMENT OF ROOMS

should be such as will enable the teacher to exercise due supervision without too great a strain upon the nervous system; in the large majority of cases this point receives little, if any, attention. In a room intended to accommodate forty-five pupils — and no larger number should ever be under the charge of any single teacher having at least 900 square feet of floor surface devoted to the pupils, and an additional space of about fifty square feet for the teacher's dais, the figure of an exact square is the worst; a parallelogram measuring 26x37 feet is probably as good a form as any, and the teacher's platform should be placed on one of the longer sides, preferably on the same side with the windows, the blackboards being opposite. Nor do we deem it necessary for the pupils to sit facing the teacher's position; let their desks be so placed that the light shall fall upon them, as we have said, from above and the left hand, even though this should involve the absolute reversal of the usual arrangement of the school room, and seat the students with their backs toward the dais. And, let us say in passing, that this is by no means a new or untried plan: more than twenty years ago we were engaged in a large military academy on the banks of the Hudson river, New York, in which the peculiar arrangement of seats and desks above referred to was carried out and found to work admirably; we have never been engaged in a school room in which good order was more easily maintained.

All doors should be so hung as to open outwards, and should be of sufficient width to allow of two persons passing through them at the same time without crowding or inconvenience. Provision should also be made by which doors can be readily lifted from their hinges in case of need, thus leaving the doorway free from any possible obstruction.

SEPARATE WATER CLOSETS,

or privies, must be provided for pupils of either sex, and when they are placed out of doors they must be connected by means of covered ways with the main building, and properly screened; protection from the weather by covered ways is indispensable in closets for girls and young children of both sexes.

It is probable that there are few, if any, physicians in the state who cannot point to one or more cases of serious disease in females brought on by delaying as long as possible to obey the calls of nature, by reason of a natural reluctance to encounter the discomfort and exposure to cold attendant upon a visit to the privy as that building is usually constructed. As the health of our children, and especially of the mothers of future generations is concerned, it becomes an imperative duty to call attention to this fact. Not only should the privy and its approaches be well protected from the weather, but especial care must be taken to keep them dry, clean and well ventilated; if they are placed within the main building—and that situation has important advantages as well as serious drawbacks—they must be well lighted, warmed and ventilated by an outward current of air.

The best arrangement probably that can be made, especially in cities with a good water supply, is to build a special tower for the water closets, as is recommended by Mr. Eassie; such a tower should be at once connected with and shut off from the main building by a short passage provided with doors at both ends; both closets and passages in this case being furnished with ventilating shafts which must be carried up to the highest point of the building.

Privies should be sufficiently large, and those for boys' use must be provided with urinals of slate or other impervious material. Care must also be taken that all privies and water closets are so arranged as to afford no opportunity for the practice of solitary vices or any other form of licentiousness. Special accommodations should be made for the use of the youngest children. Under no circumstances should any closet be placed under any study or recitation room.

We have spoken at some length of the proper structure and keeping of water closets and privies, because we believe that it is very rare for any matter of such prime necessity to be so generally overlooked and neglected. Our experience of a quarter of a century as a teacher in schools of all grades and in many parts of the United States, has shown us that properly built and decently kept privies in connection with schools are rarely, if ever, to be found. They are often too filthy for any decent boy or girl to approach, and hence the important act of defecation is postponed, and health seriously if not irreparably injured. There is the most urgent need of a thorough reform in this respect.

VENTILATION

must be sufficient to furnish at least 500 cubic feet per hour of pure, warm air to every occupant of every room. For entries, passages, etc., from one-half to two-thirds of this amount is sufficient; for hat and cloak closets quite as much is needed as for recitation and study rooms, and in these, as in water closets, the current should be directly outward to the open air — never by any chance into an entry or, still worse, into an occupied room. Ventilation of cloak rooms, water closets, etc., by means of outer windows is not to be recommended, for the reason that snow and rain may easily enter by them; the use of a sufficiently large air-tube as above recommended is, perhaps, as free from objection as any other method.

HEATING

in a large building is best and most economically accomplished by one large central furnace, which ought also to be made a powerful auxiliary to proper ventilation. There is a singular diversity of opinion among those who have given most attention to the subject, as to where and how the warm air should be introduced into a room. The plan (proposed by Mr. L. W. Leeds) of warming the walls and floors seems among the best of those proposed, but we have no knowledge of its having been practically tested upon a large scale. The Ruttan system of warming and ventilating seems also to promise excellent results.

Heating by means of steam-coils or other radiators is among the most defective of methods, for the reason that heating only is thus

provided for, and the renewal of the air is wholly neglected. When furnaces are used the registers for the admission of warm air should be sufficiently large, as should also the shafts that supply them; the registers placed in the barracks of the British army are required to have an area of ten square inches for each person occupying a room, and the shafts which supply them an equal cross section; if shafts and registers be much smaller than this, the proper beating of the various apartments will require the rapid entrance of a current of air at a very high temperature instead of a gentle current, not warmer than 70° Fah.

The large majority of our school rooms, unfortunately, are heated by means of stoves, one of which is provided for every room in a building; thermometers are almost unknown, and the windows afford the only means of ventilation; these are opened and shut as the teacher, seated at her desk frequently close to the stove. happens to feel uncomfortably warm or cold. Cloak closets, where these are found, are seldom, if ever, provided with any proper means of warmth or ventilation, and the odor, too easily perceptible in them, of "old boots, dirty clothes and perspiration," is foul beyond description. In small buildings the heating apparatus may be a stove of sufficient size placed in a proper chamber in the cellar; there should be a shaft connecting this chamber with the outer air, and a register of sufficient size communicating with the school room above. Care being taken that the fresh-air trunk is kept open for the entrance of the air, and closed to rats or other vermin, a sufficiently warm temperature may be always secured with moderate attention.

If stoves are used in school rooms, no device in the shape of a "damper" should be allowed in the pipes, nor should any means whatever of lessening or obstructing the calibre of the pipes or chimney-flues be tolerated under any circumstances; the draught can be regulated by proper valves in the front of the stove.

HAT AND CLOAK ROOMS

should be attached to all school rooms, and be provided with proper pegs or hooks, placed at such heights from the floor as will enable those for whose use they are intended to reach them without un-

due effort. As has already been said, such closets should be properly lighted, warmed and ventilated, and some means should also be adopted by which damp or wet shoes and out-door wrappings can be properly dried in stormy weather: space for this purpose can generally be found in the basements of our larger school houses.

DRAINS

must be secured from injury by rats and other vermin by means of grated outlets, and proper care in the first construction. Special care must be had lest the water for drinking purposes becomes fouled by leakage from them.

WATER SUPPLY.

In cities furnished with a good system of water supply the pipes should be led into the building, care being taken to protect them from frost. In other localities water should be drawn from the purest accessible source. School authorities are usually too easily satisfied in this most important matter, with doing the thing that can be done with least trouble and expense. "Great vigilance should be maintained to see that, under no circumstances, does the wash from the privy or sink work into the well, as it may do when least suspected by indirect and hidden channels, or by surface drainage, with the result of producing typhoid or dysentery among the children of the school." In a case within our own knowledge the water used in a school in this state was drawn from a spring which flowed in close proximity to a privy in constant use, the distance between spring and privy being only about twenty-four feet; and we have observed other instances in which the school privy and the school pump were but little further apart.

Having thus briefly and imperfectly tried to sketch the main requirements of school buildings in regard to the health of their occupants, let us inquire how many there are in the state which come up to a proper standard in all, or even in the greater part, of the particulars of which we have spoken?

If the state, through its Board of Health, should appoint a competent inspector to examine and report upon the sanitary condition of our schools and their surroundings, a state of things

would be revealed disgraceful in the extreme to any civilized community.

We shall doubtless be told that to build school houses with all the improved surroundings and internal fittings which we consider necessary, would entail too great an expense on any but the most wealthy districts. We answer, in the first place, that the value of life and health in any community is not to be measured by dollars and cents; and, secondly, that the cash value of the lives already sacrificed annually to unhealthy surroundings would more than repay any expenditure by which such sacrifice should be avoided.

Sickness is costly; death still more so. "Simply as a productive machine a healthy child at any age is worth the money that has been expended on him for his support and development. The lowest estimate of the cost of supporting a child is \$50.00 per annum on the average; hence a child of ten years old has actually had expended upon him the sum of \$500.00, and if he die at that age he represents so much capital actually and irrecoverably lost to the community." *

There is urgent need of a better system of training our teachers; they should be able to recognize at once the signs of physical failure in their pupils, to take care of the body as well as train and develop the mind. But of the whole corps of teachers in this state what proportion are able to do so? How many can recognize an incipient spinal distortion or do anything to rectify it? How many know the normal distance of sight and hearing, and are able to apply the simple tests for the detection of defects in either? How many know even as much of near sightedness, to say nothing of astigmatism and other more common defects, than is contained in the text-books of ten or a dozen years ago? And, when the teachers are found who know these things and can do them, how many districts are there who are willing to pay them a price commensurate with the value of their time and labor?

^{*} Report of Massachusetts Board of Health for 1874.

Inspection of Public Buildings.

INSPECTION OF PUBLIC BUILDINGS.

Gentlemen of the State Board of Health: — In the further prosecution of the work assigned to your committee on public buildings, the following report is submitted:

JAMES BINTLIFF, Chairman of Committee.

PLATTEVILLE NORMAL SCHOOL.

The buildings erected for this institution are of stone, consisting of two parallel structures, one 40 by 60 feet, the other 40 by 70 feet, the two being connected by a building 41 by 56 feet, the whole, three stories in height above the basement. The basement is principally occupied by the furnaces, of which there are six, with sufficient capacity to meet all demands made upon them. The connecting building contains two halls, running at right angles with each other, through the centre of the building, with front and rear entrances providing a passage to each of the parallel buildings, and cloak and recitation rooms. In the west end of the south building, the primary department is located, in a room 24 by 28 by 15 feet in size, with seats for 40 pupils. This room contains 10,080 cubic feet of air space; and, including the teacher in the calculation, gives about 246 cubic feet of space to each person. This volume of space is not sufficient for the well-being of teacher and pupils. Providing ample ventilation is supplied, the best authorities name 300 cubic feet of space as the smallest allowance admissible for each person occupying a school room. The other departments of this institution allow space for each pupil as follows: Interme-

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diate, 316 cubic feet; grammar, 300 cubic feet; normal, 260 cubic feet.

VENTILATION.

There are, in several of the rooms of this building, near the ceiling, openings through the outer walls, evidently designed to assist ventilation. These constitute a hindrance rather than a help. At best they afford outlets for the warm air which ascends directly from the registers to the ceiling; and, when certain conditions of the atmosphere prevail, become reversed and act as inlets for cold air.

The primary department of this institution is supplied with warm, pure air from a register 16 by 22 inches in size. Deducting one-third from its capacity for the obstruction caused by the scrollwork of the register, which is a low estimate, and assuming that the motion of the warm air current is at the rate of five feet per second, we have a supply of 716 cubic feet per hour for each person occupying the room. The ventilating flue is an independent one, constructed in the outer wall of the building. The inlet to this flue is at the floor, and is covered with a frame which divides the aperture in two parts, each part being covered with slats, similar to those used in window blinds. Each of these parts is in size 72 by 11 inches. If we deduct one-fourth from the capacity of this flue for the obstruction caused by these slats, and assume that when in operation the motion of the air in the flue is at the rate of four feet per second, we find that it conducts from the room a volume of air equal to 605 cubic feet per hour for each person. With these appliances this room cannot be well ventilated for the following reasons:

- 1. The supply of warm air is insufficient. In consequence of the more rapid motion of all the vital organs, children need as large a volume of air as adults. The best authorities give 1,000 cubic feet per hour as the minimum amount necessary to maintain healthful life in each person confined in a room and engaged in intellectual labor.
- 2. Ventilating flues should have one-third more capacity than the flues for supplying warm air, because, in passing through a

Inspection of Public Buildings.

room, the air loses considerable heat, and its motion becomes slower. The one in this room is smaller. Hence every moment the room is occupied, there is an accumulation of foul air.

A ventilating flue should never be constructed in the outer wall of a building, for the reason that, while it will always work less efficiently than if placed in an interior wall, where it would be warmer, at times it will not work at all, but will reverse its action, and introduce cold air instead of carrying off the foul.

The objections to the ventilation of this room, with the means now in use for that purpose, can be urged with equal or added force against every room in the building except the one occupied by Prof. Beck, and that of the Normal department. The ventilating shaft in the Normal department is heated, which makes its action more certain and rapid. But there are a number of rooms in which there is not even a pretense of ventilation. Notably the two recitation rooms in the grammar department, all those in the second story of the north building, and the whole of the third story. In the rear of the center of this building, and not to exceed fifty feet from its western walls, is located the privy used by the students of both sexes, several hundred in number. The entrances to this building from the two rear doors of the institution are separated by a high board fence. A pit, the whole size of the building, sunk to the rock, some twelve feet in depth, has been in use many years. With the prevailing winds in the west and southwest, as they are in this portion of the Mississippi Valley, we are sure that offensive odors from this vault must at times be carried to the several class rooms, whose windows open on the west side of the building.

Every school house in the land, especially those where our young men and our young women become qualified for the profession of teachers, should be a daily lecture, enforcing the truth that cleanliness in the air we breathe, as well as in the removal of the grosser forms of filth, is next to godliness.

THE STATE UNIVERSITY.

The people of Wisconsin are justly proud of their University. Its unrivalled location for healthfulness and beauty, overlooking

Inspection of Public Buildings.

the Capital City, and the picturesque scenery of the valley of the Four Lakes; the fact that its support is now placed beyond the reach of petty influences, by a permanent endowment, which will grow with the development of our resources and the increase of our wealth; that its faculty is composed of men who have attained eminence in the world of science and of letters, who endeavor to make the University worthy to receive for higher cultivation the best fruits of our common school system; a center, from which through all time to come, shall flow among the people a knowledge of the traditions of learning and of the attainments of the human mind in every department of investigation and of thought; these salient characteristics of our chief educational institution, challenge the admiration and gratify the ambition of every citizen of the state.

Although a matter of deep regret, it is not surprising, that the larger portion of the University buildings are not as well adapted to promote the physical well-being of the students who daily congregate within them, as the other means of the institution are to advance the development of their mental powers; for it is probably true that, prior to 1870, there had not been erected in all of the northwestern states, one public building supplied with adequate means of ventilation in every part. There are evidences of attempts to do something in this direction in all of them; but in every case yet brought under our observation, the means provided for this purpose, prior to that date, betray a singular lack of knowledge of the simplest principles of ventilation, and, of course, never accomplished the object for which they were devised. This is true of

UNIVERSITY HALL,

a noble building erected on the summit of the University grounds. In the interior and the exterior walls of this structure are built a number of flues designed for ventilation; but all attempts to make them operative have long since been abandoned. The reasons for their uselessness are apparent: 1st. There was no means provided for heating them. 2d. A large number, if not all, open into the space between the ceiling of the upper story and roof, from which there is no outlet into space.

This building is principally occupied with rooms for members of the faculty and for recitations. During the portion of the day when the recitation rooms are continuously occupied, they must become very offensive for lack of pure air. Architects have a much better knowledge of the subject than they had, even a decade ago; and by placing furnaces in the basement, which is now unoccupied, any competent architect could construct an efficient system of works for warming and ventilating this building, at a merely nominal cost, when compared with the advantages to be derived from it, and without interfering with any of the present interior arrangements.

THE DORMITORIES.

We are told that other universities do not now furnish dormitory buildings for students, and that the practice will probably soon be abandoned here. To us the better probability seems to be that, long after the present generation has passed away, these buildings will be demanded for their present use by a class of young men who cannot afford to hire board and rooms in the capital city; and that it would be a wise policy to make them healthful and desirable for this class of students.

The two dormitory buildings are each more than one hundred feet in length, three stories in height above the basement; each story, about 12 feet in the clear, is subdivided into four tiers of rooms, two suits in each tier. Each suit is composed of one sitting or study room, and two bed rooms; and is occupied by two, three or four students as circumstances may require. In these rooms the students probably spend more than two-thirds of their time; and no attempt has ever been made to ventilate them. They have not been whitewashed for years. Within twelve feet of the south building is a privy which, in more than one sense, is an offense.

Efficient apparatus for warming and ventilating these buildings, with two furnaces in the basement of each, ought to be constructed and maintained. If such apparatus should be built and the care of it committed to the students, requiring them to keep a record of the temperature in each story of the building, at the end of each hour during the day, note with an anemometer the motion of the

currents, and the variations, if any, and the cause, in different parts of the building, and make a record thereof, also of the aggregate volume of air passing through the building each hour; and, if the record so kept should be made the subject of inquiry and discussion at stated periods, by a member of the faculty, with these students, they would thus acquire a practical knowledge of the principles governing ventilation.

By the adoption of more cleanly habits and more comfortable modes of living among all classes, modern society has put an end to the periodical plagues and devastating epidemics which for centuries swept over Europe with such terrible results; but, living in tight dwellings, without an adequate supply of pure air, has brought to us a long list of diseases. Science, however, has shown us how these diseases may be avoided; and there no longer exists any excuse for our higher institutions of learning continuing one of the practices which has been most influential in bringing these diseases upon us, and thereby aiding in perpetuating them.

LADIES' HALL.

The erection of this building, a few years ago, marked the full establishment in the University of the coëducation of the sexes. It was the intention of the regents that Ladies' Hall should be supplied with all the latest improvements, and made convenient in its adaptations, pleasant and healthful. Capacious in its proportions and elegant in its appointments, with broad piazzas on the south side of the building, extending the whole length of the wing, where, in unpleasant weather, the students can take exercise, it is in many respects an admirable structure. But in regard to ventilation, while a step in advance of the older buildings, it falls far short of what such a building should be in important respects.

The outline consists of a front, a little more than 50 feet square, with an extension to the rear 40 by 90 feet in size; the whole being three stories in height above the basement. Generally the space enclosed by the front part of the building is devoted to the executive department of the institution; the extension is occupied by the students.

There is an excellent system of ventilation provided for the rooms in the front part; none for those in the extension. That is, those rooms where the students spend much the smallest part of their time, are ventilated; those where they study and sleep, are not. Nor is there any ventilation supplied to the long halls which run through the center of the extension, connecting the students' rooms with those in the front part of the building. They are heated by warm air from one of the furnaces in the basement; but there is no means provided for disposing of the foul air which necessarily flows into them from the rooms on both sides whenever the doors are opened. That ventilation appliances should be placed in a building devoted to educational purposes, while the rooms occupied by the students during the periods given to relaxation, study and sleep are excluded from participation in the advantages so necessary to the preservation of health, denotes an unaccountable confusion of ideas on the subject. This defect should be remedied. Physical well-being, which is the true basis of intellectual growth. cannot be maintained in an impure atmosphere. parents are beginning to inquire how much an education is worth. obtained at the expense of having their sons and daughters confined in unventilated rooms for a large portion of their time for years, dwarfing their powers or undermining their constitutions at a period when they should be developing into vigorous manhood and womanhood.

SCIENCE HALL

is one of the most imposing and admirably constructed buildings, for the purposes to which it is devoted, on the continent. It has a frontage of 174 feet, and is about 60 feet in depth, with two wings to the rear, of 127 feet each in length, leaving an open court between the wings. The building is four stories in height; the stories being respectively, 13 feet, 14 feet, 15 feet, and 18 feet high in the clear. A steam engine furnishes the power with which to run machinery needed for experimental and practical work; and the boilers are large enough to furnish steam for the engine and for warming the building. The museums are sufficiently capacious to become a vast store-house of specimens illustrative of the facts of

science, and already contain admirable collections. The lecture rooms are models of convenience; and the laboratories of the several departments are supplied with all the conveniences and apparatus which a wise and liberal policy could obtain. not give a further description of this grand edifice, which, with its varied appliances to aid in imparting instruction, is, to the student, a constant incentive to inquiry. The economy practiced in erecting this building was, in some respects, carried too far. Among others, in providing ventilation. Two ventilating shafts were erected for the pupose of carrying off the impure air. These are located near the junction of the wings with the main building. The shaft on the south side of the building performs its office successfully; the north shaft does not. Where registers are placed in the wall of this shaft good ventilation is obtained; but in rooms at some distance, connected with the shaft by a horizontal duct, there is practically no ventilation. Some of these rooms are recitation rooms which, during the time they are occupied, become very offensive from the accumulation of foul air. The difficulty is probably three-fold. 1. There are too many openings in the wall of the shaft. 2. The ducts are not air-tight. 3. It is very doubtful if, in a building of this size, the principle of providing each room with an opening into the ventilating shaft is a correct one. Rooms at a distance from the shaft cannot be ventilated in this way. Any competent architect, however, can easily, and at a small expense, provide a remedy for this lack of efficiency. A supply of pure air, and, in other respects, cleanly and healthful conditions, are among the first requirements of an intelligent existence; and to the authorities to whom are committed the education of our children, do Boards of Health look with more solicitude than to all other influences combined, to teach a knowledge of these principles.

EXTRACTS FROM

SPECIAL CORRESPONDENCE.

Note. — From the many letters received at this office, chiefly in answer to the circular asking information in regard to the sanitary condition of the state, embodied in the report of the secretary, we make the following extracts, which contain information of so much general interest as to render their publication desirable. The correspondence referred to shows a great increase of interest in the work of the board on the part of the writers, and, moreover, exhibits with much clearness the causes of a large amount of preventable disease.

As was the case last year, our limits compel us to condense into the smallest compass all that we print, and also to omit much material of value. The extracts here given, however, fully illustrate, as we believe, the spirit of the whole correspondence; and while our thanks are due to all the gentlemen who have favored us with the contributions from which the following excerpts have been taken, we are under equal obligations, no less sincerely acknowledged, to many others, from whose communications no extracts are here presented. Many of these last have been of a character such, that while they offer no material of sufficient general public interest to require publication, they have yet been of great service to the board in the prosecution of its special work.

From making extracts from still another class of letters, we have been restrained by the wishes of their writers.

For convenience of reference, the extracts that follow have been arranged in alphabetical order according to the towns, etc., from which they have been received.

Secretary of State Board of Health.

Dr. Guernsey, of *Almond*, writes as follows: "We have had no epidemic during the year; pulmonary diseases have been prevalent, owing, I think, to a greater amount of rain than usual, together with dysentery, cholera morbus, typhoid fever and a few cases of diphtheria.

"Last September I was called to see a young man who was suffering from a malignant attack of typhoid, which I think was caused by using water which received the drainage from a barn yard near by. All the members of the family and several of the attendants also suffered in the same way."

From Dr. Eichenmiller, of Auburn, we have the following: "Parotiditis or mumps was prevalent through this section during June, July and August last, to an extent hitherto unparalleled in the history of the town, both in point of number and in the severity of the disease; nearly every family had one or more members attacked. A peculiarity of the disorder was the fact that at least 90 per cent. of all who were attacked had either enlargement of the testes on one or both sides, or painful enlargement of the inguinal glands, with symptoms denoting a similar condition of the lymphatics. The course of the disease was about two weeks."

From Baldwin, Dr. S. E. Farnsworth writes as follows: "The principal source of danger to health here is in the low grounds, shallow wells with privies near by; privy vaults, in my opinion, should never be allowed, as in time they must of necessity affect the water used for drinking and culinary purposes. This village has been in a very filthy condition ever since its organization."

From Baraboo we have the following from Dr. M. M. Davis: "During the winter and spring, pulmonary and bronchial affections were somewhat prevalent; the type of pneumonia was severe, many times typhoid in character, giving us a larger rate of mortality than had been known before in many years. Diphtheria has appeared sporadically, but the mortality has been large; so far as I know, all cases of diphtheritic croup have terminated fatally.

"In one locality in this village, there were five cases of typhoid fever, three proving fatal. The water used here was from a well 13—S. B. H.

that was surrounded by many out-buildings, including a barn and a privy. As soon as the use of this water was discontinued, typhoid fever disappeared."

From Bell Centre, Dr. R. E. Glover writes to the following effect: "We have had much more sickness than usual; the excess over other years has been caused by miasma, hence agues and remittent fevers have been rife. We have had also several cases of sore throat of a malignant type, fatal cases ending in from two to fourteen days; the fauces were covered with ulcers, devoid of the diphtheritic membrane; the mouth was filled with frothy saliva; when the larynx became affected, the disorder ended fatally.

"Agues can in great measure be prevented by making cut-off's in the river, thus straightening it and lowering its bed, whereby sloughs would be made dry and capable of cultivation."

We have from *Beloit*, from the pen of Dr. S. Bell, the report "that there has been much less sickness than for a number of years past, none indeed, thus far, of a severe type. During the three months just ended we have had very much intermittent fever, mostly quotidian in type, all the cases in the city occurring within a radius of one-half mile from the mill pond, and nearly all along the river. Aside from this we have had but little sickness, as compared with the last four or five years."

From Benton, Dr. H. T. Godfrey sends the following: "There has been a much larger amount of malarial disease than usual in this vicinity, remittent and intermittent, with a few case of spinal meningitis, typhoid fever and mumps. I think many of our diseases are preventable by proper ventilation, care of water supply, etc., but prevention is hardly within the reach of individuals. Among the most fruitful causes of disease here I should number imperfect ventilation of dwellings, pollution of water supply from cess-pools and cattle yards, bad cooking, and badly constructed school houses. There has been a disease which I believe to be typhoid pneumonia prevalent amongst hogs in this section of the country during the past season, many farmers losing their whole herds. Would it be practicable for the Board of Health to appoint

a competent veterinarian to investigate the diseases of domestic animals and their bearing on human health?"

We have recently received a second valued communication from Dr. Godfrey concerning this disorder, from which we make the following quotations, as the subject is one of great importance to the people:

"The disease has been prevalent here for some months past; it usually commences by loss of appetite and dullness, the animal lying in one place all day; then diarrhea sets in, with extreme thirst and difficulty of breathing, which latter symptom gradually increases till the death of the animal, which sometimes takes place in a day or two, and sometimes not for three weeks. In many cases the animals, after a couple of weeks' illness, are attacked with ulcers on the extremities and head, which show no disposition to heal. The breath is very offensive, having an almost gangrenous odor.

"I believe the disease to be highly contagious, as it travels from farm to farm in regular succession, and does not seem to originate in any herd without intercourse with some other. I do not think it is communicable to other domestic animals, as I have seen or heard of no similar disorder in any other stock. I saw yesterday a large lot of infected hogs running freely amongst sheep, horned cattle and horses, the latter animals all in perfect health. * *

* * I will say further that not five per cent. of the animals attacked recover, and none of them ever do well enough to be marketable.

"It seems to me that the point which interests us most as sanitarians, is that farmers with large herds, finding the disease amongst their hogs, will immediately rush the whole of them into market, thus, no doubt, selling to be used as food many animals laboring under the disease in its incubative stage. If men who slaughter hogs were obliged to keep them a week before killing them, and not allowed to kill any animal without previous inspection, it would, I think, secure the public in that respect.

"The disease has raged for some months in Grant, Iowa and Lafayette counties, Wis.; Jo Davies county, Ill., and Dubuque county, Iowa."

Dr. H. B. Cole, of Black River Falls, says: "About all the sickness here the past season has been among children, and has been of the usual summer type. In the northwestern part of the county there has been considerable diphtheria among the Norwegians; cases occurring in damp, low places, and in badly built houses, have been very fatal, all the children dying in four or five days. These people live in remote corners and will not employ a physician or follow directions that may be given; cases are frequently reported in which the body of one child has been kept in the house until several others have died. In many cases the subjects are taken with a chill, become comatose and never rally, dying in from 24 to 48 hours."

From Bloomer Dr. J. I. Hamilton writes as follows: have been more fevers than usual in this locality during the past year, of typhoid and bilious types; diphtheria and diphtheritic sore throat have also been prevalent to some extent. Some atmospheric poison, perhaps arising from the bad condition of our streams and water-courses, seems to me to have been the cause of most of the sickness hereabouts. There is a mill-dam in the town and one two miles above. In very dry weather the water above these dams becomes stagnant and is covered with a confervoid growth to such an extent that the bottom cannot be seen through a depth of two inches of water; such a condition of things cannot be very favorable to the health of those living in the neighborhood. If the gates to these dams could be raised once a week and thus wash out the water-course, a great deal of sickness might be prevented. As health officer of the local board of health, I issued a circular asking our citizens to clean up their door-yards and cellars, take proper care of their privies,* etc., the effect of which I think was good; many acted in the matter, but others could see no necessity for doing anything more than they had always done."

Boscobel, through its health officer, Dr. G. Cameron, sends this:

^{*}If the health officers of local boards of health would more generally imitate this good example of Dr. Hamilton, and follow their circulars by enforcement of obedience to sanitary laws in cases where there may be special need for so doing, the beneficial results of such action would be speedily apparent.

Secretary.

"The inhabitants of this city have suffered but lightly from zymotic diseases. Scarlet fever is the only one that has retained its footing for the past two years; fortunately it has been of a mild type, so mild as to almost obliterate the dread usually felt from its presence. During the fall months the inhabitants along the Wisconsin river suffered to an unusual degree from intermittent fevers, but within the city limits very few cases occurred, and the sanitary condition will compare favorably with that of any former year."

It is said that the death-rate of the city of Boscobel stands at the unusually low figure of only 9 per thousand for the year 1878. It would be interesting to know what part of this exceedingly favorable showing is due to natural causes and surroundings, and what share compliance with sanitary laws has had in producing so excellent a result.

G. Mellberg, of Bussyville, contributes the following: "The location of this village is only about five or six feet above Koskoning Creek at low water; when the water is high the cellars under the houses fill with water, and last summer being very wet, every cellar was a pool of stagnant water, and some cases of congestive chills occurred. What can the (local) board of health do? I think that all these cellars might be drained by ditches and pipes, but I find that some of the owners prefer the expense of chills and fever to that of drainage."

From Douglas we receive the following from Dr. H. H. Parrott: "In answer to your inquiries I would state that during the past year the diseases most prevalent have been fever and diarrhoea, the same complaints that have been most frequent for years past. There are extensive marshes in the neighborhood and they remain undrained which I presume to be in a great measure the causes of the above diseases. The owners of the lands are, with a few exceptions, pecuniarily unable to get them drained, as they are numerous and large, and their drainage would require a combination of many persons to accomplish it. The above mentioned complaints have, however, been less troublesome of late than at any time during ten or fifteen years past; I attribute this in part, at least, to partial

drainage of some of these marshes by individual owners who have attempted to improve their water-soaked lands."

Dr. J. J. Leavitt writes from Fennimore: "There has not been as much sickness on the whole as in some former years. We had influenza during the early fall with bronchitis; later came some pneumonia and diphtheria of rather mild type, none proving fatal, and some bilious and typhoid fever. Many of the diseases, such as diphtheria and scarlet fever, could have been prevented by thorough disinfection, or even by white-washing old and dirty houses, which I had done in several instances, and thereby, I believe, saved several lives. I find these sanitary measures very much neglected, especially among our foreign population. During August and September I had quite a number of cases of bilious fever, all occurring in young men who had been in the habit, during harvest and having, of going in swimming while heated. I do not recall a single instance of the disease that did not occur among those who bathed in cold spring water while heated. No deaths occurred from this cause.

"We have one nuisance in our village, namely, a slaughter house, where from six to ten beef cattle are slaughtered each week. There are not less than from seventy-five to one hundred persons living, eating and sleeping within twenty rods of this place! The attention of our town board has been repeatedly called to it, but they have thus far neglected to take any notice of it. I may add that all the blood is allowed to soak into the ground, and much of the offal is permitted to lie and decay in the hot sun around the building. In the same block is a well which supplies water to all living on the block and several families outside; at no very distant day in the future we shall reap the ripened fruit of this nuisance in the shape of some malignant disease."*

Genesee Station reports briefly as follows through Dr. C. C. Har-

*It is almost certain that there are many localities in the state where a condition of things exists equally bad with that described in the above communication. The consequences cannot fail to be disastrons in the extreme to all who use water so contaminated. Local boards of health have the fullest powers under the present statutes and also under the common law to deal with all such cases, and should proceed promptly and without fear or favor, inasmuch as life and health are the most valuable of all temporal possessions.—Secretary.

ris: "During the last year there has been less sickness of all kinds than during any one of the ten preceding years which I have been here. I have treated more cases of pneumonia than of any other one disease."

From Geneva, Dr. G. E. Catlin writes: "Within my observation extending over an area of about eight miles' radius around this village, the amount of sickness has been less than last year. the autumn and winter months the type of fevers in this vicinity was quite generally typhoid; i. e., there were more cases of typhomalarial and enteric fevers than I have seen for eight years. There were fewer cases of pneumonia and diphtheria hereabouts than last year, but the few cases were of a very malignant type. No epidemic of any kind. I think the worst cases of diphtheria and typhoid could have been prevented by proper attention to cleanliness about the dwellings and wells. In October, 1877, nine cases of malignant diphtheria in one family could be traced to nothing but filth inside and out of the dwelling, and cess-pools around the house; the well contained much decaying animal matter. At this time there was no epidemic of diphtheria, but afterward eight cases of malignant type occurred traceable to contagion from the above. Five cases of typhoid fever that I treated were clearly traceable to bad well water, decayed animals being found here also in the well; four of these recovered and one died.

From Kilbourn, we have the following from Dr. G. W. Jenkins: "The inhabitants of this city are paying more attention to keeping streets and alleys clean. Cisterns are more frequently cleaned out, and more water is filtered for both culinary and drinking purposes. I am quite satisfied that some of the sickness might have been prevented by the timely removal of manure, decaying vegetable matter, etc., and the filling up of cess-pools in the back alleys and streets of our village. The principal sources of danger to health, here, are impure water for drinking purposes, and filthy alleys. Within the past year, more attention has been paid to procuring pure water for drinking purposes by sinking wells into the sand rock, drilling into it by horse-power until a sufficient supply

of water is obtained, which is usually done at a depth ranging from 80 to 110 feet. From the rock up to the surface the well is thoroughly cemented, leaving a bore of the same diameter as that in the rock, thus effectually cutting off all surface drainage. The water, which is usually brought to the surface by means of a windmill, is nearly or quite as soft and as pure as can be obtained from the earth.

"In the farming sections, more attention is paid to the location of wells; barn yards are more frequently cleaned out, and greater attention is paid to the well-being of the members of the household than was paid even so lately as a year and a half ago."

From Lincoln, Mr. F. Gregor sends this report: "I have no means of finding out how many cases of sickness have occurred in this town, but I know there have been many of diphtheria, whooping-cough, measles, and some few of typhoid fever. Our people generally doctor themselves, and it is almost impossible to find out what diseases really exist among them. One thing which deserves mention [and reprobation—Sec'x] is the way in which people take care of their wells; they generally have a hole by the well filled with water in which the hogs are allowed to wallow at all times. No wonder they get sick!"

From Mauston, Dr. J. E. MacNeill writes thus: "Your circular desiring information regarding the health and sanitary conditions of this locality was duly received. I am hardly prepared to give you much information of value. There has been little disease prevailing here, except malarial trouble, of which there has been considerable, especially at Lemonweir, three miles from here, where it is rather low and little or no attention is paid to drainage."

From Milford, Dr. J. J. Bennett sends the following full and interesting information: "The amount of sickness in this locality for the year ending September 1, 1878, has been much less than for the corresponding period in 1877. The diseases which have been most prevalent are measles, whooping-cough, bronchitis, diarrhea, dysentery, intermittent and remittent fevers. So far as I am able to judge, none of these diseases could have been prevented by at-

tention to sanitary means, for this section of the country is well supplied with good water; barns, privies, etc., are nearly all at a good distance from dwellings and water supplies, and the great majority of dwelling houses are comfortable and susceptible of being well warmed and properly ventilated. The best method of preventing disease in this locality is, probably, to teach the people hygiene—a thing that the masses everywhere are too indolent and self-conceited to learn.

"In February, 1877, two families in this village occupied rooms in the same house; a young man, a member of one of these families, had scarlet fever, and was put into an upper chamber, every precaution being used to prevent the spread of the contagion; only a brother belonging to the same family contracted the disorder, and both patients recovered. The sick-rooms were thoroughly disinfected and cleansed, and all clothing, etc., baked, boiled and otherwise treated, except a box which stood in a room separated by a loose board partition from the sick room, and containing some woolen dresses belonging to the other family. Two months later this second family removed to another house taking the box with them; somewhere about January 15, 1878, the mother ripped up one of the dresses from the box and made from it a frock for her six-yearold daughter, fitted it upon the child on her return from school, and afterward hung it away in a closet. On the 21st or 22d of the same month this child was seized with scarlatina anginosa, from which she recovered in about 14 days. The usual exertions were made to prevent the disease from spreading, and I have no knowledge of any other case occurring within ten miles around. Now, did the child contract scarlet fever from that infected dress? Remember that it was only fitted upon her, not worn, but put away and not brought out until after her recovery, when it was properly disinfected and worn in the company of other children without any evil results. My theory is, that the disease-germ (whatever that may be) found its way through the cracks in the partition, became entangled in the loose woolen material, and passed into the circulation through the respiratory passages while the dress was being fitted upon her. The box was uncovered during the whole of the

time that the sick persons occupied the adjoining room, but no member of the well family entered the apartments of the other until several days after all danger of infection was reasonably supposed to be over."

From Neenah, Dr. J. R. Barnett writes: "There has been no prevailing disease in this vicinity during the past year. It is a little hard to account for the unusual health of the community during a season somewhat remarkable for the length and intensity of its heated term, and especially for the comparative exemption of children from diseases characteristic of the period.

"It is very probable that one cause operating in all localities in the state can be counted as of some importance in producing this 'state of things — the more temperate and wholesome modes of living necessitated by the hard times. Here the people have been spared the extreme of want, with its necessary attendants, feeling only the restraint in living which is obviously for the public good."

From New Richmond we have the following from Dr. O. N. Murdock: "I think my report for this section quite encouraging. Pertussis is the only disease that has prevailed epidemically in this section during the past year, and that only to a limited extent, no case proving fatal. There was an unusual amount of cholera morbus during the latter part of July and first of August, or during harvest, caused undoubtedly by the combined effects of extreme heat, over-exertion, and undue indulgence in eating and drinking, especially the latter. I neither saw nor heard of any fatal cases. There has not been the usual amount of what I term accidental disease—such for instance as pneumonia, pleuritis, bronchitis, etc., traceable to exposure and careless habits.

"During the month of December I attended four cases of typhoid fever in a single family, the pneumonic and typhoidal symptoms appearing so simultaneously that it was difficult to determine which was the original disease and which the complication. I found the family had neither spring nor well as a water supply, but procured their drinking water from a lake a mile distant. The water appeared quite pure, the lake having an outlet and no bogs or swails

connected with it. Four barrels of water were drawn at a time, and the family were obliged to store it in the kitchen until used, on account of the freezing weather; that amount was sufficient to last about two weeks. It soon became warm and distasteful, and was in every sense of the word stagnant and very unwholesome. The mother called my attention to the two younger children, one of whom had an inflamed sub-maxillary gland, and the other an enlarged lymphatic gland in the groin. Noting the scrofulous diathesis and the character of the water, I regarded the disease as typhoid fever, and the pneumonia as the complication. All the cases ended in recovery.

"Since my last, we have succeeded in getting the village incorporated, and the health officers, of whom I am one, have made many sanitary improvements, such as cleaning out foul alleys and privies, enforcing the thorough drainage of cess-pools, and their removal, in some cases, in which they were in undue proximity to wells."

From Oconto, we have the following from Dr. D. P. Moriarty: "The main cause of disease here is the use of water from the river, the banks of which are covered with out-houses. The majority of diseases in the past have been preventable; drainage is the best method. All traceable diseases may be attributable to general unsanitary conditions — cause, no local board of health, and no sanitary measures. All improvements seem to benefit the public health."

From Oshkosh, Dr. G. M. Steele writes as follows: "For the past year we have had little sickness, and nothing of any special interest. Most prevalent have been phthisis, diphtheria, pertussis, lung and throat troubles, measles, scarlatina and mumps. None have been very prevalent until this fall, when we have had quite an epidemic of diphtheria; we have also had a greater prevalence of fall fevers than at any time during the last three or four years. Diphtheria has claimed a number of victims in our city and the surrounding country. In a large majority of cases that have come under my observation, I have found local filth contamination; and generally in proportion to the amount of filth is the disease more or less malignant. The worst type of it that I have seen was in a family where

the living-room had water and rotten, mouldy timber under it, and there was no ventilation, and absolutely nothing inside the house that was clean. The parents and four children inhabited this tenement, and all the children had the disorder in a malignant form; two were buried together, and a third died within a month of acute phthisis, supervening on diphtheria. The fourth made a good recovery. The family was poor and their living not generous.

"At another house, three out of five children had the disease; the other two were very young; two of these cases were quite severe, though none died. Here the household slops were thrown about the back yard; this being very small, much poison emanating from the ground was mingled with the air breathed by all in the house; to make matters still worse, in front of the dwelling was a sink hole left in repairing the street, into which emptied a neighbor's slop drain. The stench from this cess-pool was at times so great that the neighbors could hardly stand it, yet it has not been attended to by any one! At still another house occurred one death out of three cases. Here the cellar drain connected with the slop drain of a neighbor, and the living room thus was infected with foul gas; this room was directly over the cellar, between which and it was an ill-fitting trap door.

"In a butcher's family living over the shop, five cases occurred, some very malignant, and one ending fatally. These premises were kept very clean, and possibly the disease was taken during a visit to a relative's family, where a malignant case died. It is not always possible to detect local causes, but in the large majority of severe cases these were not wanting. I am freely convinced that the sanitary conditions of our city might be so improved that diphtheria and its allied affections would be materially lessened and their virulence greatly modified."

From Oxford, Dr. A. G. Stoddard writes thus: "There have been some changes in the relative proportions of different diseases during the past year. Our annual run of typhoid began later and is having a milder course than usual. Many babies have died of stomach and bowel troubles during dentition. We have had no small-pox, scarlet fever, measles, whooping-cough, etc., but did have

a few cases of diphtheria during the month of March, which were very malignant. Last winter did not give us many cases of acute pneumonia, but catarrhal troubles predominated and many old people suffered from senile bronchitis. Our more malignant cases of typhoid may almost if not quite invariably be traced directly to some local cause. I believe one, if not the chief cause, to be the very general ignorance that prevails in regard to the simplest hygienic rules. Poverty also seems to be a great breeder of zymotic diseases. For example, an Irish family in my neighborhood all took fever almost simultaneously; I found the cellar filled with vegetables stored for winter use, and no ventilation except through large crevices in the floor which separated it from the room in which the family lived; everything had a filthy and poverty-stricken appearance."

Peshtigo sends the following through Dr. L. J. Smith: "We have had no serious visitation of disease; there were a few cases of small-pox in one of the lumber camps last winter (1877-8), but the disease did not spread and there was no fatality. There was also some diphtheria last fall, but only one death so far as I know; the disorder visited seven families widely separated from each other; two of these were in the village and the sanitary conditions were bad; the want of cleanliness and ventilation were marked in both; nearly every member of both families, which were large, became the subject of the disease.

"The surface drainage of this village is bad; the ground on which it stands is low and surrounded by swamps which in some places invade the village itself. The soil is altogether sand with some vegetable humus intermixed and is about ten feet in depth, being underlaid by lime-stone; water from the surface readily filters through to the river level. The water supply is derived almost wholly from wells in this drift, their average depth being some ten feet. After rains the taste of the water is very perceptibly modified. In the spring and winter of 1877 we had one of the most terrible epidemics of scarlet fever on record."

Mr. R. J. Gilbert writes from Plymouth as follows: "The

most noticeable cause of sickness in this locality is traced to a mill-race in the village of Hanover. When the mill runs so constantly as to draw all the water out of the race and pond, the malaria that rises therefrom during hot weather is almost suffocating. During the year 1877 much typhoid fever occurred from this source; every family along the line of the race and those within range of the prevailing winds therefrom was effected, not one escaping."

From Racine, we have the following communication from Prof. R. C. Hindley: "One element of danger, especially in places like this where insufficient sewerage is the rule, is that of contamination of well waters by the contiguity of privies, etc. The subject has been mentioned in your reports, but my own observations have rendered my convictions on the subject very strong.

"A source of danger to the lives and property of the people of this state lies in the fact that, so far as my observation goes, almost all of the kerosene sold in Wisconsin is below the standard required by law (110° Fah. fire test), and is, outside of that fact, of an explosive character. Out of ten samples tested by me, all of which were obtained from different sources, only one came up to the required standard, the worst taking fire at 31° below the point named in the statute. Many dealers are, no doubt, ignorant of the dangerous character of the article they sell; and no one can tell from the appearance of the sample of kerosene whether it is safe to use or not,* and for that reason a properly qualified inspector should be appointed, with power to test all oil offered for sale in the state."

Retreat sends the following through Dr. S. A. Mellen: "In answer to your circular I have to report that the amount and type of sickness in this vicinity is about the same as usual, being bilious fevers, intermittents and remittents, neuralgia, rheumatism, bowel troubles in summer and lung difficulties in the winter; all are of mild type and yield readily to the usual remedies. Generally they are not preventable; some few cases are brought on, doubtless, or

^{*}Other things being equal, the oil which has the greatest specific gravity is to be preferred. Thus of two samples of a gallon each, one weighing six and the other seven pounds, the latter would, in all probability, be the safer for general use. Prof. Hindley touches a point on which the people are vitally interested.

aggravated by carelessness. In one family within my observation, sickness occurred by using water from what is called a pond hereabouts; a hole is scooped in the ground, puddled with clay and allowed to fill with water from the rain and melting snow; these ponds are intended for watering stock. The cistern belonging to the family I speak of caved in and its members used water from the pond, which was in the stable yard; horses, cattle, pigs and people helped themselves at will. As a consequence, the whole family became sick except one young man who worked elsewhere and came home only on Sunday. When the use of this water was left off the patients recovered.

"Another family of five persons contracted fever from the use of surface water drawn from a cistern, into which it had found its way from an undrained cellar; the fever soon took on a typhoid character, and was intractable until the cause was removed. There was formerly much sickness arising from the use of water from badly constructed cisterns, but people now are beginning to understand the matter, and are building them of stone and cement, thus rendering them safe.

"We had a small epidemic of scarlet fever extending over a triangular tract of country of about five miles in length of base and about three miles in altitude. I think the circulars issued by your board were of service in giving a good idea of the proper treatment and showing how the spread of the disease might be prevented; people would visit the sick, however, and attend funerals."

From Richland Centre, Dr. H. J. Wall writes as follows: "The diseases most prevalent have been scarlatina, diphtheria, or cynanche maligna, measles, small-pox, and the various types of intermittent fever. All these, as a rule, have been more than usually intense, and attended by a more than the usual rate of mortality, owing directly to a markedly depraved condition of the blood, which has been a more or less prominent feature in every case that has come under my notice. The cases which were particularly intense were traceable to impure water, ill-ventilated and dirty cellars, in some cases amounting to veritable cess-pools; and proximity

to streams where the overflow has been frequent and extensive, accompanied by an unusually high temperature. This locality (Pine River Valley) is subject to diseases of malarial origin, arising from the presence of numerous dams in the course of the river. A greater attention to the condition of the sources of water supply, to drainage and to the cleanliness and ventilation of cellars would undoubtedly have mitigated, or entirely prevented, many of the worst cases of disease in our midst."

Another communication from the same place by Dr. A. W. Bickford says: "Since the middle of summer malarial fever and ague have been very prevalent. We have also had variola, scarlatina and diphtheria; much sickness might have been prevented by drainage, cleanliness and better sanitation generally. Four cases of cerebro-spinal meningitis occurred in two families where the cellars were wet; in fact, water stood in both all winter, which undoubtedly was the cause of the disease; all four cases were fatal."

From St. Martin we have received the following from Dr. T. C. Malone: "The prevalent diseases here are bilious and intermittent fevers, bronchial and lung troubles, with a few cases of scarlet fever, diphtheria and measles, mostly of a mild character.

"In September, 1878, typhoid fever of a severe type appeared in a family of nine children, all of whom were down with it within three weeks. The house was small and poorly ventilated; the barn and barn yard were near the house, and the well from which water was taken for house use was very near to the barn yard; the water from the well seemed good, but was not tested in any way. All the conditions about the house were favorable to the development of disease, and the family assured me that they had been the same for ten years, during which time all had enjoyed good health.

"Diphtheria in one family assumed a very malignant form, although there were no other cases in the neighborhood; I could find nothing on the premises to account for the outbreak except the water used for cooking and drinking; this was drawn from a well near the house and I believe contained decaying animal matter;

the well was cleaned, without finding anything to substantiate this belief, but the unpleasant odor and taste were removed from the water."

We have received several valuable communications from *Theresa*, by Dr. H. P. Wenzel, giving a large amount of interesting information, which we regret that we are unable to print at length. We condense from them the following summary:

"Small-pox was imported by a cattle buyer from Milwaukee, in December, 1877. Three of the family where he stopped were taken sick within a week; the whole family were vaccinated and the house quarantined against ingress or egress; the disease was stamped out. The remaining members of the family had only light febrile attacks; there were no deaths.

"Diphtheria prevailed from September, 1877, to April, 1878. In the beginning it was very virulent; undoubtedly the filthy surroundings of houses and yards was the cause of this; toward the last of the epidemic, the disorder was very mild and physicians did not see half the cases. There was an unusual prevalence of tonsillitis; erysipelas occurred in a very severe form, patients making slow recoveries. Acute diarrhæa in adults and inflammation of the bowels in children were moderately severe, but few deaths resulted.

"Thorough sanitary regulations, strictly enforced, against filth, etc., will certainly stamp diphtheria out of existence. My first attention in all cases of this disease was directed to cleanliness, then to isolation and ventilation; these, punctually carried out, mitigated the disorder in every instance. Four cases occurred in one family, the two first proving rapidly fatal, the others recovering; the virulence of the disorder in the first was due to the filthiness of the house and its surroundings, while the recovery of the others was owing in great part to a thorough cleansing of the premises, and the profuse employment of fresh whitewash.

"Two children in one family were taken sick with a severe form of typhoid fever, both being typical cases of the disease. They live on a hill containing about 120 acres, a large marsh lying on three sides. The hill is drift, humus about 18 inches, then great

^{14 -} S. B. H.

and small boulders; the house stands at the top of the hill, about 35 yards from the marsh on the west; it contains three rooms below, cellar beneath and garret above; is built of logs and plastered inside; the cellar is ventilated, dry and clean, the surroundings of the house neat, and the family tidy. There is no privy on the prem-I believe the disease here to be due to the impurity of the water used; it is obtained from a spring at the foot of the hill, about a foot above the margin of the marsh and 20 feet from stagnant water, which was covered during a part of the summer and fall with a green fungus, and had a very peculiar odor; there is no chance for washings to enter the spring except by percolation, which the soil facilitates by its porosity. I believe the contamination came from the marsh, and that some malaria also was connected with the outbreak of the fever. The water tastes sweet, and is clear as crystal. My theory lies with the ground water, not with surface drainage.

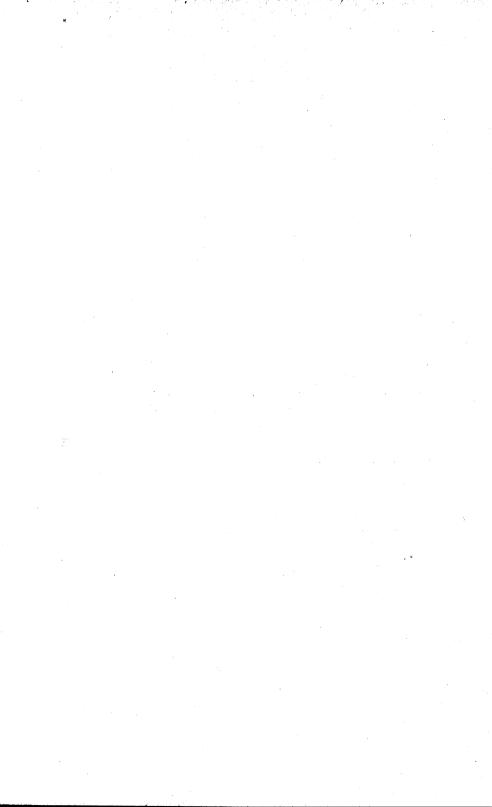
"The principal sources of danger to health are filth, stagnant water, impure water, imperfect drainage, faulty sinks, shallow and foul privies, damp houses, foul, unventilated and damp cellars, and the saturation of the soil around dwellings with excrementitious matters. Some lands have been drained, and a better condition of health is apparently the result. The mill dam at this place backs Rock river for miles, and all persons taken sick in proximity to it have a severe type of disease. I do not think, however, that it has produced any special disease, but closer investigation is necessary to determine this point."

From Waupaca, Dr. G. R. Taylor writes: "Our county, at least this part of it, has been very free from any epidemic disease.

"Consumption prevails largely among the Norwegians — seldom among the Germans. The only source of danger to the health of our citizens that is apparent at present, is the close proximity of privies and wells; in many instances they are not more than from six to ten feet apart! The soil being sandy all fluids pass rapidly through it, and must of necessity enter the wells; the only reason that all of our wells are not already contaminated, is that the soil has not yet become surcharged with filth; its doing so is only a

question of time and population. I have called public attention to this subject, but fear that it will require a visitation such as has just passed over the south to cause the people to heed any admonition."

From Watertown, Dr. R. M. Wigginton writes: "The amount of sickness here is small and the type mild. One case of diphtheria was clearly traced to decomposing vegetables in the cellar; the principal danger to health comes from the want of proper drainage and sewerage."



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