

FOURTH BIENNIAL REPORT

[No. 15 IN SERIES]

OF

THE BOARD OF REGENTS

OF

THE UNIVERSITY OF MINNESOTA,

TO THE GOVERNOR,

FOR THE

FISCAL YEARS 1885 AND 1886, ENDING JULY 31ST.

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TRANSMITTED TO THE LEGISLATURE AT THE TWENTY-FIFTH (FOURTH BIENNIAL) SESSION, 1886

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ST. PAUL, MINN.:  
THE PIONEER PRESS COMPANY.  
1887.

The present university "charter" was enacted by the legislature Feb. 18, 1868. The first annual report was that for 1868, transmitted to the legislature of 1869. The last annual report was for that of 1878. There have been accordingly eleven annual reports, and this fourth biennial report is No. 15 of the series.

The annual reports of progress of the geological survey of Minnesota will be found in the annual reports of the board of regents, beginning 1872. The annual report of the survey for 1881 was printed separately, no other reports of or to the board being printed in that year.

THE UNIVERSITY OF MINNESOTA,  
OFFICE OF THE BOARD OF REGENTS, }  
Nov. 1, 1886. }

SIR: In compliance with law I have the honor to forward herewith the third biennial report of the Board of Regents for the fiscal years 1885 and 1886, ending July 31st.

Very respectfully,

Your obedient servant,

HENRY H. SIBLEY,

*President.*

To the Hon. LUCIUS F. HUBBARD,  
*Governor of Minnesota.*

## THE BOARD OF REGENTS.

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The board of regents is composed at this date of the following gentlemen:

The Hon. GREENLEAF CLARK, M. A., St. Paul; term expires in.....	1889
The Hon. CUSHMAN K. DAVIS, St. Paul; term expires in.....	1889
The Hon. JOHN B. GILFILLAN, Minneapolis; term expires in.....	1888
The Hon. KNUTE NELSON, Alexandria; term expires in.....	1887
The Hon. JOHN S. PILLSBURY, Minneapolis; term expires in.....	1887
The Hon. HENRY H. SIBLEY, St. Paul; term expires in.....	1888
The Hon. THOS. S. BUCKHAM, M. A., Faribault; term expires in.....	1888

### AND EX-OFFICIO,

The Hon. LUCIUS F. HUBBARD, St. Paul,	The Governor of the State.
The Hon. DAVID L. KIEHLE, M. A., Minneapolis,	The State Superintendent of Public Instruction.
CYRUS NORTHROP, LL. D., Minneapolis,	The President of the University.

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## OFFICERS OF THE BOARD.

H. H. SIBLEY.....	<i>President.</i>
D. L. KIEHLE.....	<i>Recording Secretary.</i>
H. P. BROWN.....	<i>Treasurer.</i>

### EXECUTIVE COMMITTEE.

J. S. PILLSBURY.....	<i>Chairman.</i>
CYRUS NORTHROP.....	<i>Secretary.</i>

J. B. GILFILLAN, D. L. KIEHLE.

### COMMITTEE ON COURSE OF STUDY.

C. K. DAVIS,	GREENLEAF CLARK,
CYRUS NORTHROP.	

### COMMITTEE ON AGRICULTURAL FARM.

J. S. PILLSBURY,	L. F. HUBBARD,
CYRUS NORTHROP.	

### COMMITTEE ON LIBRARY AND MUSEUM.

D. L. KIEHLE,	GREENLEAF CLARK,
CYRUS NORTHROP.	

### AUDITING COMMITTEE.

THOMAS S. BUCKHAM,	J. B. GILFILLAN.
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## THE GENERAL FACULTY.

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The membership of the general faculty at the present time is as follows:

CYRUS NORTHROP, LL. D., President.

WILLIAM W. FOLWELL, LL. D.,  
Professor of Political Science and Librarian.

JABEZ BROOKS, D. D.,  
Professor of the Greek Language and Literature;  
and in charge of the department of Latin.

NEWTON H. WINCHELL, M. A., Prof. Geol. and Min.,  
State Geologist and Curator of the General Museum.

CHARLES N. HEWITT, M. D., Professor of Preventive Medicine.

JOHN G. MOORE, B. A.,  
Professor of the German Language and Literature.

CHRISTOPHER W. HALL, M. A.,  
Professor of Geology, Mineralogy and Biology.

JOHN C. HUTCHINSON, B. A.,  
Assistant Professor of Greek and Mathematics.

JOHN S. CLARKE, B. A.....Assistant Professor of Latin.

MATILDA J. WILKIN, B. L., Instructor in English and German.

MARIA L. SANFORD.....Professor of Rhetoric and Elocution.

WILLIAM A. PIKE, C. E.,  
Professor of Engineering and in charge of Physics.

JOHN F. DOWNEY, M. A., C. E.,  
Professor of Mathematics and Astronomy.

JAMES A. DODGE, Ph. D.....Professor of Chemistry.

CHARLES W. BENTON, B. A.,  
Professor of the French Language and Literature.

EDWARD D. PORTER, M. A., Ph. D.,  
Professor of the Theory and Practice of Agriculture.

FRANKLIN STAPLES, M. D.,  
Professor of the Practice of Medicine.

DANIEL W. HAND, M. D.....Professor of Surgery.

- WILLIAM H. LEONARD, M. D.,  
Professor of Obstetrics and Diseases of Women  
and Children.
- PERRY H. MILLARD, M. D.,  
Professor of Anatomy and Physiology.
- THOMAS PEEBLES, B. A.,  
Instructor in Mental and Moral Philosophy and Logic.
- O. J. BREDÁ,  
Professor of the Scandinavian Languages and Literatures.
- GEORGE EDWIN MACLEAN, Ph. D.,  
Professor of the English Language and Literature.
- CHARLES E. SMITH, M. D.,  
Professor of Materia Medica and Therapeutics.
- GEORGE W. WOOD, M. D.,  
Professor of Diseases of the Nervous System,  
and of Medical Jurisprudence.
- CHARLES SIMPSON, M. D.....Professor of Pathology.
- CHARLES F. SIDENER, B. S.....Instructor in Chemistry.
- HENRY F. NACHTRIEB, B. S.....Assistant Professor of Biology.
- HARRY P. JUDSON, M. A.,  
Professor of History and Lecturer on Pedagogics.
- FREDERICK S. JONES.....Instructor in Physics.
- WILLIAM R. HOAG, B. C. E.....Instructor in Civil Engineering.
- JOHN H. BARR, B. M. E.....Instructor in Mechanical Engineering.

The financial condition of the university, as obtained from the records of the state auditor, is as follows:

1. The Permanent University Fund has been increased to the following:

In the year ending July 31, 1885 .....	\$716,024 94
In the year ending July 31, 1886 .....	851 526 75
Increase in two years.....	188,738 45

2. The revenue from the Permanent University Fund is named the General University Fund, and has been as follows:

In the year ending July 31, 1885 .....	\$33,385 69
To which add balance from 1884.....	6,473 61
Annual appropriation for 1885.....	36,000 00
Aggregate for 1885 .....	\$75,859 30

In the year ending July 31, 1886 .....	44,156 83
Annual appropriation for 1886.....	35,000 00
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Aggregate for 1886 .....	\$79,156 83
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Total revenue for two years .....	\$155,016 13

## DISBURSEMENTS.

For support of university in 1885.....	\$72,140 08
For support of university in 1886.....	71,357 71
Fees to county treasurer, etc .....	483 81
Balance .....	11,034 53
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	\$155,016 13

By statute of 1881, a fund for the erection of new buildings was provided for, amounting to \$180,000, to be expended in sums of \$30,000, in each of the years 1881, 1882, 1883, 1884, 1885, and 1886. The appropriation for the two years first named could not be drawn from the state treasury, there being no money on hand applicable to the object, and the work of construction was necessarily delayed. Since then the gymnasium and hall for military instruction, and the building devoted to mechanics arts and physics have been completed. There remains of the appropriation undrawn the sum of \$88,280, but the board, finding it impossible to comply with the terms of the act, which required the erection of five separate buildings with the amount set apart for that purpose, and deeming it a duty not to exceed the expenditure authorized by the legislature, has decided not to proceed further in the construction of the other buildings specified in the act, until it has submitted the whole question through your Excellency, to the legislature at the approaching session. To meet the requirements of the university, a larger and more expensive class of structures than those originally contemplated must be provided for, and after mature consideration, the board has fixed upon \$150,000 as the minimum requisite, in addition to the amount unexpended, to erect the three edifices, to-wit: the Library, Science Hall, including the Museum, and the Observatory; and they respectfully ask, if consistent with your views, that you will embody in your message an earnest recommendation to the legislature that the sum specified be appropriated during the coming session, so that the much needed buildings may be contracted for early in the spring, and pressed to speedy completion.

Your Excellency is respectfully referred to the accompanying report of the president of the university, for details in the premises.

The great State of Minnesota can not, with credit to herself, allow her chief educational institution to lag behind those of her sister states, for the want of the means and appliances necessary to place her in the front rank of the universities and colleges of the Northwest. Wisconsin, Michigan, Iowa and other states have set her a noble example of liberality in that direction. The legislature of Minnesota has always met the recommendations of the board of regents in a generous spirit, and if the appropriation specified should be made, the board feels assured that the buildings thus provided for will be adequate to meet the demands of the institution for many years to come, and afford every facility to students in all departments of higher education.

The board also respectfully request your Excellency to recommend such legislation as will bestow upon the president of the university, who is now *ex-officio*, a member of the board of regents, the right to vote at the meetings of the board, to which he is not now entitled by law.

The board takes great pleasure in testifying to the very satisfactory progress made in the university, under the direction of the accomplished president, aided by a faculty composed of instructors of unsurpassed ability and scholarship. They have labored under many disadvantages, caused by a want of sufficient space and other appliances, all of which will be remedied when the buildings contemplated shall have been completed, ready for occupancy, and the board confidently looks forward to that period as a new departure in the history of the university, with a certainty that thenceforward it will assume a position of equality with the leading educational agencies of the country.

#### THE LIBRARY.

The accompanying report of the librarian shows the number of accessions since the last report, by purchase, to be 1,528 volumes; by donation, 634 volumes; total, 2,162 volumes. A list of the donors, to whom the usual acknowledgment has been transmitted, is given. The report also contains a list of the periodicals supplied, by purchase and gifts.

The attention of the board is asked to the following communi-



cation of the librarian accompanying the report, containing suggestions as to the increase of the library in general, desiderata for the new building, and the development of the library after its erection, and some expenditures thought to be immediately necessary.

THE UNIVERSITY OF MINNESOTA, }  
 Sept. 17, 1886. }

*President Northrop:*

In connection with a report of the library for the biennial period ending in 1886, I submit the following communication, containing memoranda and suggestions toward the enrichment of the library.

May I ask you to lay the same before the board of regents and ask that they receive consideration, notwithstanding no such communication has been called for? My interest in the library, my desire to see its usefulness increased, and my belief that action can not long be deferred, may, I trust, be regarded as a sufficient excuse for intruding my opinions.

Very respectfully yours,

WILLIAM W. FOLWELL, *Librarian.*

THE UNIVERSITY OF MINNESOTA, }  
 September, 1886. }

*To the Honorable, the Board of Regents:*

The high importance of the library, as part of the equipment of the university, has, from its foundation been assented to by your honorable body, and the expenditures have been, relative to available means, fairly liberal.

This importance has increased with the lapse of time and the development of the institution, and the period has arrived when, it is respectfully submitted, the further enrichment of the library should receive special consideration at your hands.

Among the reasons for this, are:

*First*—A few years ago our faculty was small, and occupied principally in instructing a large body of low-grade students in elementary branches. There was no time for, nor much necessity for, wide reading. At the present time we are a large faculty instructing real college students in a great variety of advanced studies, and several professors are partly occupied with graduate students in special investigations. Books are now an

absolute necessity. If the library does not furnish them, professors must purchase such as their moderate incomes will permit, after supporting their families.

Some of these graduate students come from other colleges. Last year we had on our rolls men from Yale, Amherst, Bowdoin, Beloit, Iowa, etc. To have these men find us unacquainted with and unprovided with leading books in philosophy, economics, history, politics, etc., is a humiliation not easy to endure.

The increase of the library by several thousand volumes is indispensable both to our usefulness and our good repute.

*Second*—In some departments of learning a book ten years' old is simply a curiosity. In all scientific departments this is notoriously true, and the fact holds in a degree in mathematics, political science, philology, the modern languages, and even in the classics. A college professor who does not see, read and utilize some of the new books is in a ridiculous situation. Our library needs at once to be stocked with modern books.

*Third*—The extension of the so-called "historical method" has revolutionized our methods of instruction. A generation ago the teacher inculcated the doctrines of one book—his text-book; to-day he opens the literature of the subject and sends his pupils in troops to the library to consult the books of many authors, in many languages. The value of books and how to use them are generally felt, if not clearly understood, by modern students. This fact is a great stimulus to professors who understand that they can not be comfortable if unacquainted with the books which they know their students to be consulting.

*Fourth*—A complete revolution in library management. This may be illustrated by a comparison of two libraries.

#### 1. ———COLLEGE LIBRARY IN 1856.

A mass of volumes, piled up without order, in a remote room, ill-lighted, never warmed, largely old theological books from ministers' libraries. There is no catalogue or list of any kind. Once a week the Latin professor opens the library. On rare occasions a curious and enterprising student looks in. If he wants a book he is welcome to it, if he can find it by rummaging the dusty shelves. At the expiration of thirty minutes the key is turned. There was no such probability as that a student would ever be referred to the library; the notes of his text-book were the limit of his investigations.

That library—a pretty fair type of small college libraries thirty years ago, was simply a useless, but respectable, appendage; but the statement in the catalogue that “the library contains —— thousand volumes, and large additions are soon expected,” had an attractive and assuring ring.

## 2. COLUMBIA COLLEGE LIBRARY IN 1886.

There is a special library building lately completed, comprising reading rooms, ample administration rooms, rooms for the use of investigating students, and storage for many thousands of volumes.

The present number of books is 80,000, and there is a large collection of current periodicals.

To manage and handle this modest collection of 80,000 volumes (and a large percentage of them are “dead matter”), Mr. Melvil Dewey, the chief librarian, on a full professor’s salary, controls the services of thirty-one paid assistants constantly occupied.

The library is open throughout the day and evening. A person entitled to the use of the books can at any moment have all the resources of the library placed at his disposal. The chief librarian is an expert bibliographer and not a mere clerk, or book-keeper. It is his business, and that of his assistant librarians (six in number), to know what are the principal authorities in the main departments of learning; that is their profession, just as it is the profession of a mineralogist to know minerals, or an entomologist to know insects.

The librarian is a professor and gives courses of instruction in library use and economy. He is able and ready to advise students and investigators in regard to the literature of many subjects.

There are many much larger American college libraries, but the one here named best illustrates the plan of an ideal modern library.

The ideal library is not a mere collection of books, it is books PLUS skilled hands and brains to discover and record the contents of books and put them instantly before the eyes of busy men. The modern library is a perennial “digest” of book knowledge. It involves a large proportionate expenditure for administration with the purpose of converting mere dead volumes into live books.

Such are the principal reasons why your honorable body are asked to entertain the subject of developing the library. It need hardly be said that a young college not yet sufficiently endowed can not be expected to undertake to operate the system of Columbia College with its immense revenues. Still the example of Columbia, already followed by other colleges, shows the line of advance, and illustrates well the idea of the modern library. The rate of progress must depend on resources. To expect a considerable development of the library when the new building shall be ready is thought not to be unreasonable.

## II.

In view of the erection of the new building, which ought not to be delayed, the following memoranda relative (1) to the building itself, and (2) administration, are submitted:

1. To secure abundant space and complete interior appliances, the exterior should be made severely plain. Economy and good taste also suggest this.

2. There should be a great reading room, amply lighted, in which should be kept all reference books, and a large part of the "live" books, mostly in cases open to readers.

3. There should be another room for newspapers and periodicals.

4. Storage for old and "dead" books should be provided in what is known as the "stack plan."

5. Some special collections of books should be placed in separate rooms for "seminary" work.

6. There should be some small rooms or compartments for the use of persons making special investigations.

7. "Administration rooms" will be added, of course.

8. Some libraries find it an economy to have a printing office and a bindery.

9. The building should have the completest outfit of speaking tubes, electrical bells, "lifts" and "runways," to economize labor.

But a building, however elaborately equipped, does not make a library. A building stored with the best and costliest of books does not make a library. There must be a sufficient force of skilled librarians and other assistants. Upon the opening of the new building the minimum force should be—

1. One chief librarian, who may for a time also occupy a professor's chair.
2. Two assistant librarians; one to select, order and receive books; another to catalogue and shelve books.
3. One clerk to issue books and keep the accounts.
4. A janitor.
5. One messenger — a boy.

This force would need to be reinforced when collections increased and readers multiplied.

The salaries of such a force will not be less than \$3,500 a year.

Fuel, lights, repairs and other current expenses will amount to at least \$1,000. The purchasing fund could not with decency be less than \$3,000 and ought to be \$5,000 a year. At a minimum \$7,500 a year will be the cost of maintaining the library on a modest scale.

This estimate does not contemplate swelling out into a great public library of hundreds of thousands of volumes, but only a college library of limited size and range.

### III.

The foregoing memoranda (under II) look to the future development of the library. Attention is also asked to a few immediate needs.

1. The immediate re-establishment of the stated purchasing fund, and raising it to \$3,000, which may include the three hundred dollars for periodicals, now a separate appropriation.

No library can grow symmetrically without a stated purchasing fund. Many valuable works are published serially and some can only be had by subscription.

Bargains and chances to secure rare books and sets of books and periodicals slip away while waiting for action on special requisitions. A small fund should be always at the disposal of the librarian to nail bargains. Spasmodic purchases overwork the librarians at times, to leave them at other times less fully employed.

By the device adopted last year, with the permission of the executive committee, of moving books rarely called for to the back rooms, our main storage room can still accommodate a few thousand volumes, with little or no classification on the shelves,

however. There is no necessity to stop buying, and the need of buying is pressing. The completion of some sets, and the purchase of others entire is greatly desired by professors and students.

2. A small expense fund should be placed at the disposal of the librarian to pay freights, cartages, express charges and occasional services.

3. A stated annual appropriation in some form should be made for repairing and binding. We have a large number of unbound and damaged volumes, useless and deteriorating. No books have been bound in three years.

4. Additional assistance is now absolutely necessary to efficiency. The equivalent of one more person's time is necessary to carry on the usual work. If we follow our custom of printing the titles of our accessions in the forthcoming report of the board, it will be necessary to employ one other person for some weeks to prepare the copy and read the proof sheets.

5. The great economy of purchases made by members of the faculty and the librarian in person can not have escaped the notice of the board. Buying through agents and sub-agents absorbs a considerable percentage of the funds. The suggestion is therefore submitted that the librarian be authorized to visit one or more of the principal book markets once in each year. The opportunity to select books and bindings will increase the value of the collections.

6. The formation of a library council to regulate the disbursements of the purchasing fund make up the list of periodicals, and advise in general as to the management and increase of the library is finally suggested for consideration. This plan has been found to work well in Cornell University. The council might be composed of:

1. The president of the university. 2. The chairman of the executive committee. 3. Two members of the faculty. 4. The librarian.

These recommendations would be put into effect by the adoption of the following resolutions:

*Resolved*, (1) That there is hereby appropriated and placed at the disposal of the committee the sum of \$2,000 to purchase books and periodicals for the library in the university year 1886-87, and each year thereafter, until otherwise ordered by this board.

(2) That there is hereby appropriated and placed at the dis-

posal of the librarian the sum of \$300 to purchase books in emergencies advantageously, in the university year 1886-87, and in each year thereafter until otherwise ordered by this board.

(3) That there is hereby appropriated and placed at the disposal of the librarian the sum of \$300 for repairing and binding books and periodicals.

(4) That the librarian be authorized to employ, under the direction of the executive committee, additional help, not to exceed in amount the time of one person.

[Such work can be done by students, or others, by the hour; 15 cents for common labor, 20 cents for clerical work.]

(5) That the librarian be authorized, under direction of the executive committee, to visit one or more book markets once in each year.

#### GEOLOGICAL SURVEY.

I submit herewith the thirteenth annual report of the state geologist, for the year 1884, and the fourteenth annual report, for the year 1885, *vide* Supplement II. During the summer of 1886, the work of the survey has been carried on mainly in the extreme northern part of the State. Three geological parties, with equipment for field observations, have been engaged a part of the past summer, and two throughout the season. The region examined is occupied entirely by the crystalline and schistose rocks of the pre-primordial age, and embraces the rocks that have within a few years been productive of large amounts of iron ore within the limits of the State. The origin, quality, extent and accessibility of this ore have been one of the chief objects of research by the survey, and it is confidently expected that when the work is finished and published the iron resources of Minnesota will be found to equal, if not exceed, those of any other state in the Union.

The scientific results of this investigation, united with those of the three seasons formerly devoted by the survey to this part of the State, will be prepared for publication as soon as possible.

The cost of the season's work, in excess of what has generally been expended in one season, has been about \$3,400. This includes some microscopic lithological work done during the season at the university.

I also submit herewith the report of the professor of agriculture in charge of the experimental farm, for the years 1883-1885 (*vide* Supplement I).

## TREASURER'S REPORT.

## REPORT OF R. A. DAVISON,

*Treasurer of the Board of Regents, for the Fiscal Year ending  
July 31, 1885.*

## CURRENT EXPENSE.

		DR.	CR.
1884.			
Aug. 1.	To balance from last statement.....	\$24,921 17	
" 6.	To cash received from state treasurer.....	2,832 64	
" 20.	To cash received from state treasurer.....	1,800 00	
Sept. 5.	To cash received from state treasurer.....	1,609 12	
" 16.	To cash received from state high school board for clerical work .....	79 88	
Oct. 1.	To cash received from state treasurer.....	6,830 21	
" 30.	To cash received from state treasurer.....	5,475 48	
Dec. 5.	To cash received from state treasurer.....	6,916 93	
" 10.	To cash received for wood sold.....	4 50	
1885.			
Jan. 8.	To cash received from state treasurer.....	4,345 00	
Feb. 7.	To cash received from state treasurer.....	4,345 00	
Mar. 16.	To cash received from state treasurer.....	7,828 37	
April 8.	To cash received from state treasurer.....	7,673 22	
" 30.	To cash received from state treasurer.....	5,923 99	
June 1.	To cash received from state treasurer.....	7,742 77	
July 9.	To cash received from state treasurer.....	8,817 35	
" 31.	To balance from account students' fees .....	85 00	
1885.			
Jan. 9.	By voucher returned to state auditor, drawn in error from current expense ac- count, should be heating apparatus ac- count .....		\$2,000 00
July 31.	By balance from apparatus account.....		430 05
" 31.	By balance from chemical laboratory ac- count .....		673 65
" 31.	By balance from college of agriculture ac- count .....		9,366 88
" 31.	By balance from employe's account .....		6,039 63
" 31.	By balance from incidentals account.....		2,440 46
" 31.	By balance from heating and fuel account..		2,790 82
" 31.	By balance from library account.....		1,951 64
" 31.	By balance from repairs account .....		262 84
" 31.	By balance from salaries for instruction.....		41,250 00



July 31.	By balance from workshop account.....	\$34 74
" 31.	By balance from signal service station account.....	189 35
" 31.	By balance from medical department.....	200 06
" 31.	By balance to new account.....	29,600 51
		\$97,230 63
1885.		\$97,230 63
Aug. 1.	To balance.....	\$29,600 51

SALARIES FOR INSTRUCTION.

1884.		No. of Cert.	Cr.
Aug. 21.	By paid Cyrus Northrop, advanced on salary .....	6	\$1,800 00
" 30.	By paid August pay roll.....	9	200 00
Sept. 30.	By paid September pay roll.....	39	3,770 00
Oct. 31.	By paid October pay roll.....	46	3,770 00
Nov. 26.	By paid November pay roll.....	64	3,770 00
" 26.	By paid W. A. Pike, extra salary.....	65	100 00
Dec. 20.	By paid December pay roll.....	73	3,770 00
1885.			
Jan. 31.	By paid January pay roll.....	82	3,770 00
Feb. 5.	By paid W. A. Pike for extra work ...	90	150 00
" 28.	By paid February pay roll.....	113	3,820 00
Mar. 31.	By paid March pay roll.....	127	3,795 00
April 30.	By paid April pay roll.....	135	3,795 00
May 1.	By paid H. F. Nachtriebe for April....	136	200 00
" 30.	By paid May pay roll.....	162	3,895 00
June 23.	By paid John F. Downey, additional..	180	150 00
" 30.	By paid June pay roll.....	184	3,895 00
July 8.	By paid C. W. Hall, additional pay....	200	50 00
" 10.	By paid C. W. Benton, additional pay	203	100 00
" 23.	By paid J. C. Hutchinson, add'l pay..	212	150 00
" 14.	By paid W. A. Pike, additional pay....	208	100 00
" 31.	By paid July pay roll.....	218	200 00
" 31.	To balance carried to account current expense.....		\$41,250 00
			\$41,250 00
			\$41,250 00

GEOLOGICAL SURVEY.

1884.		No. of Cert.	Cr.
Aug. 1.	By balance from last statement.....		\$39,267 10
" 11.	By paid H. V. Winchell, work in mu- seum .....	4	22 00
" 23.	By paid N. H. Winchell, sundry ex- penses .....	5	82 05
" 30.	By paid H. V. Winchell, sending re- ports, etc.....	8	35 00

	No. of Cert.	CR.
1884.		
Aug. 30. By paid pay roll for August .....	9	\$175 00
Sept. 9. By paid Geo. L. Dickinson, museum trays .....	22	5 00
“ 19. By paid L. Lesqueroux, labor and expenses .....	31	51 60
“ 29. By paid Wm. Howling, mounting specimens .....	38	30 10
“ 30. By paid pay roll for September .....	39	300 00
Oct. 15. By paid H. V. Winchell, work in laboratory.....	42	25 00
“ 31. By paid pay roll for October.....	46	300 00
Nov. 18. By paid N. H. Winchell, sundry expenses .....	49	20 93
“ 29. By paid pay roll for November .....	64	300 00
Dec. 20. By paid pay roll for December.....	73	300 00
1885.		
Jan. 31. By paid pay roll for January.....	82	300 00
Feb. 5. By paid N. H. Winchell, sundry expenses .....	88	40 47
“ 5. By paid N. H. Winchell, sundry expenses .....	89	30 24
“ 10. By paid J. A. Dodge and C. F. Siden-er, extra labor.....	103	120 00
“ 11. By paid C. L. Herrick, sundry expenses .....	104	17 00
“ 28. By paid pay roll for February .....	113	500 00
Mar. 26. By paid N. H. Winchell, petty expenses .....	121	46 93
“ 31. By paid pay roll for March.....	127	400 00
April 20. By paid pay roll for April.....	135	400 00
May 4. By paid O. W. Oestlund, April salary..	141	75 00
“ 30. By paid pay roll for May.....	162	375 00
June 3. By paid S. M. Williams, merchandise	165	7 00
“ 30. By paid pay roll for June .....	184	375 00
July 1. By paid H. V. Winchell, labor in June	186	75 00
“ 1. By paid N. H. Winchell, petty expenses .....	187	25 45
“ 7. By paid N. H. Winchell, expenses at New Orleans.....	196	101 92
“ 11. By paid Wm. Howling, mounting animals.....	205	28 00
“ 23. By paid W. S. Barrows & Co., animals	216	60 00
“ 31. By paid pay roll for July.....	218	594 00
“ 31. To balance to new account .....		\$44,484 80
		<u>\$44,484 80</u>
1885.		
Aug. 1. By balance.....		<u>\$44,484 80</u>

## EMPLOYES AND WORKMEN.

1884.		No. of Cert.	CR.
Aug. 30.	By paid August pay roll .....	9	\$75 00
Sept. 30.	By paid September pay roll .....	39	263 30
Oct. 31.	By paid October pay roll .....	46	275 00
Nov. 29.	By paid November pay roll .....	64	275 00
Dec. 20.	By paid December pay roll, part .....	73	150 00
" 31.	By paid December pay roll, balance...	73	125 00
1885.			
Jan. 31.	By paid January pay roll .....	82	275 00
Feb. 5.	By paid Jno. Nealin, assistant fireman	85	23 00
" 5.	By paid Jno. Nealin, assistant fireman	86	30 00
" 9.	By paid E. A. Cuzner, two months gardener.....	102	150 00
" 28.	By paid Jno. Nealin, assistant fireman for February .....	112	30 00
" 28.	By paid pay roll for February.....	113	350 00
Mar. 31.	By paid pay roll for March.....	127	340 00
April 1.	By paid Jno. Nealin, assistant fireman for March.....	130	30 00
" 8.	By paid R. A. Davison, salary as treas- urer from January, 1882, to Janu- ary, 1885.....	129	1,083 33
" 11.	By paid J. B. Gilfillan, salary as sec- retary for two years.....	133	600 00
" 25.	By paid D. L. Kiehle, salary as secre- tary for three months.....	134	75 00
" 30.	By paid pay roll for April.....	135	345 00
May 30.	By paid pay roll for May.....	162	345 00
June 16.	By paid W. W. Folwell, as librarian for 1884 and 1885.....	177	500 00
" 30.	By paid pay roll for June.....	184	295 00
July 1.	By paid W. H. Yattaw, June salary...	185	50 00
" 3.	By paid D. L. Kiehle, services as sec- retary .....	190	75 00
" 31.	By paid pay roll for July.....	218	280 00
" 31.	To balance carried to current expense account.....		
			<u>\$6,039 63</u>
			<u>\$6,039 63</u> <u>\$6,039 63</u>

## INCIDENTALS.

1884.		No. of Cert.	CR.
Sept. 3.	By paid F. A. Johnson, clerical work, July and August .....	10	\$21 35
" 3.	By paid F. A. Johnson, envelopes bought .....	11	27 70
" 4.	By paid J. E. Gallow, help in cleaning buildings .....	13	50 00

		No. of Cert.	CR.
1884.			
Sept. 4.	By paid Bradner Smith Paper Co., stationery.....	15	\$6 75
" 6.	By paid Johnson, Smith & Harrison, printing .....	17	17 50
" 8.	By paid Baldwin Brown, carriage .....	19	5 00
" 9.	By paid Evening Journal, advertising.	21	17 00
" 11.	By paid Tribune Job Department, printing.....	24	16 50
" 15.	By paid C. D. Whitall & Co., stationery.....	27	3 00
" 16.	By paid Smith & Speedy, repairing papers .....	28	2 50
" 16.	By paid D. L. Kiehle, publishing commencement.....	29	146 00
" 17.	By paid Commercial Bank, sundry expenses .....	30	18 03
" 25.	By paid John A. Schlener & Co., merchandise.....	36	8 14
Oct. 13.	By paid Evening Journal, printing....	41	8 00
" 21.	By paid Pioneer Press Co., printing....	43	25 52
" 28.	By paid Wingate Bros., glass frame ...	45	1 25
Nov. 20.	By paid Hunter & Fowble, merchandise .....	53	24 15
" 20.	By paid Johnson, Smith & Harrison, printing .....	54	16 50
" 20.	By paid Johnson, Smith & Harrison, printing .....	55	44 50
" 21.	By paid J. E. Gallow, help cleaning agricultural hall.....	57	12 00
" 21.	By paid C. D. Whitall & Co., stationery, etc.....	58	19 00
" 26.	By paid Nelson, Tenney & Co., lumber.....	66	2 68
Dec. 10.	By paid Wm. W. Folwell, sundry expenses .....	72	7 44
1885.			
Jan. 10.	By paid Janney, Semple & Co., glass, etc .....	76	7 62
" 20.	By paid Wm. A. Pike, expense in seeing mechanical buildings.....	77	108 40
" 26.	By paid Ole Erickson, handling wood..	80	9 38
Feb. 5.	By paid W. F. Decker, sundry expenses .....	87	14 42
" 5.	By paid Auerbach, Finch & Van Slyck, merchandise.....	91	3 13
" 6.	By paid E. W. Pyle, oil and merchandise .....	93	16 13
" 6.	By paid MacClary & Quigley, material and labor .....	96	56 25

1885.		No. of Cert,	Cr.	
Feb.	6.	By paid Ariel Association, advertising	99	\$75 00
"	17.	By paid Folds & Griffith, matting, etc.	106	77 01
"	26.	By paid Martin Buttors, fixing wells, etc.....	107	7 50
"	27.	By paid J. H. Hagan, material and labor.....	110	11 80
"	28.	By paid W. F. Carr, petty bills.....	111	2 48
Mar.	5.	By paid Johnson, Smith & Harrison, printing.....	114	13 25
Feb.	4.	By paid E. D. Porter, hauling wood and work on campus.....	83	213 02
Apr.	1.	By paid W. F. Carr, stationery.....	128	1 00
May	5.	By paid Ory Bates, digging well, etc..	144	12 25
"	6.	By paid Johnson, Smith & Harrison, printing.....	145	11 00
"	6.	By paid Johnson, Smith & Harrison, printing.....	146	16 50
"	11.	By paid MacClary & Quigley, labor...	148	5 50
"	13.	By paid W. J. Dyer & Bro., repairing organ.....	149	5 00
"	16.	By paid Evening Journal, advertising.	151	8 00
"	16.	By paid E. W. Pyle, brooms, oil, etc..	152	6 90
"	22.	By paid Nelson, Tenney & Co., lum- ber.....	154	3 26
"	23.	By paid Kenyon & Lara, shades.....	155	18 00
"	28.	By paid Louis Dreka, diplomas.....	159	28 75
"	30.	By paid Jabez Brooks, paid for stamps	161	50 00
June	1.	By paid H. J. Smith & Co., picture frame.....	163	25 55
"	2.	By paid Bradner Smith Paper Co., stationery.....	164	22 50
"	3.	By paid Union Railway Storage Co., drain tile.....	166	2 63
"	23.	By paid C. D. Whitall & Co., mer- chandise.....	179	4 50
"	24.	By paid I. Monasch, work on diplomas	181	18 00
"	24.	By paid W. F. Decker, petty expenses	182	38 23
July	2.	By paid F. A. Johnson, blanks and printing.....	189	18 85
"	3.	By paid Tribune Job Printing Co., printing and binding.....	191	377 46
"	6.	By paid E. M. May & Son, refresh- ments on commencement day.....	193	157 00
"	7.	By paid Pioneer Press Co., advertising	197	80 60
"	7.	By paid A. C. H. Bausman, printing.....	199	114 00
"	9.	By paid C. H. DuBois, advertising....	201	7 00
"	9.	By paid J. E. Gallow, help in cleaning.	202	7 75
"	11.	By paid W. F. Decker, extra labor....	204	38 70

## BIENNIAL REPORT

1885.		No. of Cert.	CR.
July 11.	By paid Danz orchestra, music, commencement .....	206	\$170 00
" 16.	By paid Mayhew Bros., merchandise..	209	12 80
" 23.	By paid Janney, Semple & Co., merchandise.....	210	12 58
" 23.	By paid Janney, Semple & Co., merchandise .....	211	6 25.
" 23.	By paid Globe Publishing Co., advertising .....	214	29 00
" 23.	By paid St. Paul Dispatch, advertising,	215	15 00
" 3.	To balance carried to current expense account.....		
		\$2,440 46	
		<u>\$2,440 46</u>	<u>\$2,440 46</u>

## LIBRARY.

1884.		No. of Cert.	CR.
Sept. 5.	By paid Mrs. Mary Bowen, work in library .....	16	\$31 35.
" 8.	By paid J. C. Gilman, dusting books, etc.....	20	7 50
" 13.	By paid Lettie M. Crafts, work in library .....	26	17 10
" 19.	By paid Gustav E. Stechert, books.....	32	140 62
Nov. 18.	By paid W. C. Rowell, books.....	48	3 90
" 19.	By paid Gustav E. Stechert, books.....	50	25 20
" 19.	By paid Gustav E. Stechert, books.....	51	95 74
" 19.	By paid Gustav E. Stechert, books.....	52	90 80
" 22.	By paid Geo. W. Tryon, books.....	59	5 00.
" 22.	By paid Gustav E. Stechert, books.....	63	4 25
Dec. 9.	By paid C. C. Pease, books.....	71	15 00
1885.			
Jan. 21.	By paid Commercial Bank, draft for books .....	78	6 25.
" 21.	By paid Gustav E. Stechert, books.....	79	293 74
Feb. 5.	By paid Gustav E. Stechert, books.....	92	249 40
Mar. 30.	By paid Gustav E. Stechert, books.....	125	27 98
Apr. 11.	By paid Gustav E. Stechert, books.....	131	11 88.
May 2.	By paid C. W. Moulton, work in library	137	5 70
" 5.	By paid Gustav E. Stechert, books.....	143	347 88.
June 10.	By paid Yale College Library, books..	176	115 00
" 20.	C. J. Rockwood, draft sent to J. S. Clark.....	178	250 00.
July 13.	By paid Lettie M. Crafts, extra labor..	207	14 80
" 23.	By paid Gustav E. Stechert.....	213	163 75.
" 24.	By paid Lettie M. Crafts, extra work..	217	28 80.
" 31.	To balance carried to current expense account.....		
		\$1,951 64	
		<u>\$1,951 64</u>	<u>\$1,951 64</u>

## APPARATUS.

1885.		No. of Cert.	DR.	CR.
Feb.	6.	By paid C. A. Hoffman, photographic outfit.....	95	\$80 00
May	5.	By paid Young & Sons, transit and attachments .....	142	325 00
"	8.	By paid Wm. A. Pike, expressage paid.	147	7 00
"	16.	By paid Janney, Semple & Co., micrometer.....	153	5 00
"	28.	By paid J. P. Gilmore, merchandise...	157	3 00
June	4.	By paid Wm. A. Pike, printing materials .....	168	10 05
July	31.	To balance carried to current expense account.....	\$430 05	
			<u>\$430 05</u>	<u>\$430 05</u>

## CHEMICAL LABORATORY.

1884.		No. of Cert.	DR.	CR.
Sept.	29.	By paid J. A. Dodge, sundry expenses	37	\$153 35
Nov.	20.	By paid Geo. Huhn & Co., mdse.....	56	32 58
"	22.	By paid Eimer & Amend, chemicals...	60	157 24
"	22.	By paid C. T. Milligan, chemicals, etc.	61	39 60
"	22.	By paid Becker Bros., scales and weights .....	62	96 30
Dec.	6.	By paid Geo. Huhn, chemicals.....	70	15 32
1885.				
Feb.	7.	By paid N. W. Fuel Co., coke, etc.....	101	5 75
Mar.	28.	By paid Geo. Huhn, merchandise.....	123	19 99
Apr.	11.	By paid Geo. Huhn, merchandise.....	132	7 76
June	6.	By paid H. H. Molloy, instruments, etc.	169	56 00
"	6.	By paid McClary & Quigley, two cases.	170	11 00
July	6.	By paid James A. Dodge, chemicals, etc.....	194	21 01
"	6.	By paid James A. Dodge, chemicals, etc.....	195	127 71
"	6.	By paid Geo. Huhn, chemicals, etc....	198	14 04
1885.				
Feb.	2.	To students' fees in Chem. Lab. department .....	\$84 00	
July	31.	To balance carried to current expense account.....	673 65	
			<u>\$757 65</u>	<u>\$757 65</u>

## COLLEGE OF AGRICULTURE ACCOUNT.

		No. of Cert.	DR.	CR.
1884.				
Aug. 8.	By farm pay roll for July .....	2		\$1,004 64
Sept. 10.	By paid Janney, Semple & Co., mdse...	23		20 80
" 20.	By paid E. D. Porter, investigating poisonous vegetation.....		33	197 90
" 20.	By paid farm pay roll for August .....	34		1,142 50
" 23.	By paid J. W. Hull, blacksmithing ...	35		46 25
Oct. 4.	By paid farm pay roll for September ..	40		915 72
Nov. 5.	By paid farm pay roll for October.....	47		943 98
" 28.	By paid farm pay roll for November...	67		862 39
1885.				
Jan. 10.	By paid Janney, Semple & Co., bas- kets, rope, etc.....	75		7 08
" 26.	By paid N. W. Fertilizing Co., 4 tons, at \$22.00 .....	81		88 00
Feb. 4.	By paid farm pay rolls for December, 1884, and January, 1885 .....	84		1,005 27
" 6.	By paid E. F. Sykes & Co., work and material .....	98		4 75
Mar. 6.	By paid J. M. Pottle & Co., mdse.....	115		65 50
" 9.	By paid Geo. Huhn & Co., mdse .....	116		69 47
May 2.	By paid farm pay roll for Feb., 1885..	138		396 67
" 2.	By paid farm pay roll for March, 1885	139		449 17
" 2.	By paid farm pay roll for April, 1885..	140		474 09
" 27.	By paid farm pay roll for May, 1885 ..	156		534 90
July 2.	By paid E. D. Porter, expenses, Farm- ers' Lecture Course.....	188		622 63
" 3.	By paid farm pay roll for June .....	192		596 87
1885.				
Feb. 4.	To cash for work by teams on campus		81 70	
July 31.	To balance carried to account current expenses.....		9,366 88	
			<u>\$9,448 58</u>	<u>\$9,448 58</u>

## PROF. PIKE'S BOOK.

1884.				
Aug. 1.	By balance from last statement.....			\$81 86
1885.				
July 31.	To balance to new account .....		\$81 86	
			<u>\$81 86</u>	<u>\$81 86</u>

## HEATING AND FUEL.

1884.				
Sept. 4.	By paid J. E. Gallow, tending heating apparatus .....	14		\$60 00
" 12.	By paid C. M. Douglass & Co., fuel....	25		239 94



1885.		No. of Cert.	DR.	CR.
Feb.	6.	By paid Armstrong & Truesdell, fuel..	94	\$402 24
"	27.	By paid Armstrong & Truesdell, fuel..	108	733 48
"	27.	By paid McMullen & Co., fuel.....	109	240 00
Mar.	12.	By paid Alex. Brunette, fuel.....	117	40 50
"	13.	By paid John Maddock, fuel.....	118	161 10
"	18.	By paid John Maddock, fuel.....	118	161 10
"	27.	By paid C. A. Smith, fuel.....	122	127 50
"	28.	By paid J. H. Larson, fuel.....	124	162 54
"	30.	By paid E. W. Pyle, oil, etc.....	126	2 70
May	28.	By paid Minneapolis Fuel Co., fuel....	158	87 32
June	3.	By paid L. P. Hubbard, fuel.....	167	366 75
"	8.	By paid E. W. Pyle, oil, etc.....	171	5 65
July	31.	To balance carried to account current expense .....		
			\$2,790 82	
			<u>\$2,790 82</u>	<u>\$2,790 82</u>

## WORKSHOP.

1884.				
Oct.	22.	By paid Janney, Semple & Co., tools, etc.....	44	\$32 24
1885.				
Feb.	13.	By paid J. R. Hoffin, 1 gallon cylin- der oil .....	105	2 50
July	31.	To balance carried to current expense account.....		
			\$34 74	
			<u>\$34 74</u>	<u>\$34 74</u>

## STUDENTS' FEES.

1885.				
April	7.	To cash paid by students as fees .....		\$85 00
July	31.	By balance carried to current expense account .....		
				\$85 00
			<u>\$85 00</u>	<u>\$85 00</u>

## REPAIRS.

1884.		No. of Cert.	DR.	CR.
Aug.	7.	By paid J. A. Briggs, plastering and kalsomining.....	2	\$32 40
Sept.	3.	By paid Wheaton, Reynolds & Co., material .....	12	1 56
"	5.	By paid J. H. Hagan, labor and mate- rials.....	18	25 00
Dec.	1.	By paid M. W. Glenn, labor and ma- terials.....	68	35 05
"	3.	By paid C. A. Bicknell, mason work, etc.....	69	134 70

## BIENNIAL REPORT

		No. of Cert.	DR.	CR.
1885.				
Feb. 6.	By paid E. T. Sykes & Co., plumbing, etc.....	97		\$25 44
May 16.	By paid E. T. Sykes & Co., materials..	150		8 69
July 31.	To balance carried to current expense account.....		\$262 84	
			<u>\$262 84</u>	<u>\$262 84</u>

## BUILDING ACCOUNT.

1884.				
Aug. 1.	To balance from last statement .....		\$6,154 62	
" 6.	To cash received from state treasurer.....		3,000 00	
1885.				
Feb. 18.	To cash received from state treasurer.....		3,720 00	
July 31.	By balance brought from military building account.....			\$7,516 81
" 31.	By balance carried forward.....			5,357 81
			<u>\$12,874 62</u>	<u>\$12,874 62</u>
1885.				
Aug. 1.	To balance.....		<u>\$5,357 81</u>	

## MILITARY BUILDING ACCOUNT.

		No. of Cert.	DR.	CR.
1884.				
Aug. 6.	By cash paid S. C. Cutter, on contract.	1		\$3,000 00
" 30.	By paid L. S. Buffington, services as architect.....	7		300 00
1885.				
Feb. 6.	By paid S. C. Cutter, balance on con- tract.....	100		3,720 00
May 29.	By paid R. A. Davison, interest on money advanced.....	160		496 81
July 31.	To balance carried to building account.		\$7,516 81	
			<u>\$7,516 81</u>	<u>\$7,516 81</u>

## MEDICAL DEPARTMENT.

1885.				
June 10.	By paid P. H. Millard, time, railroad fare, etc.....	172		\$58 79
" 10.	By paid Franklin Staples, time, rail- road fare, etc.....	173		117 87
" 10.	By paid D. W. Hand, time, railroad fare, etc.....	174		9 50
" 10.	By paid G. Weston Wood, time, rail- road fare, etc.....	175		13 90
July 31.	To balance carried to current expense account.....		\$200 06	
			<u>\$200 06</u>	<u>\$200 06</u>

SIGNAL SERVICE STATION.

	No. of Cert.	DR.	CR.
Mar. 24. Wm. A. Pike, paid for sundry instruments.....	120		\$185 40
June 29. Wm. A. Pike, paid expressage, etc.....	183		3 95
July 31. To balance carried to current expense account.....		\$189 35	
		<u>\$189 35</u>	<u>\$189 35</u>

ENLARGEMENT OF CAMPUS.

1884.			
Aug. 1. To balance from last statement.....		\$1,080 85	
1885.			
July 31. By balance to new account.....			\$1,080 85
		<u>\$1,080 85</u>	<u>\$1,080 85</u>
1885.			
Aug. 1. To balance.....		\$1,080 85	

WATER SUPPLY.

1884.			
Aug. 1. To balance from last statement.....		\$402 93	
1885.			
July 31. By balance to new account.....			\$402 93
		<u>\$402 93</u>	<u>\$402 93</u>
1885.			
Aug. 1. To balance.....		\$402 93	

SALT SPRING LAND SALES.

	DR.	CR.
1884.		
Aug. 1. To balance from last statement.....	\$29,718 46	
" 6. To sundry interest payments paid by H. G. Stordock.....	91 98	
Oct. 6. To sundry interest payments paid by H. G. Stordock.....	527 10	
" 18. To sundry interest payments paid by Citizens National Bank, Fergus Falls.....	210 50	
" 22. To sundry interest payments on certificates, paid by First National Bank, Fergus Falls	687 67	
Nov. 5. To sundry interest payments on certificates, paid by H. G. Stordock .....	187 66	
1885.		
April 22. To payment on certificates Nos. 88 and 89.....	\$131 40	
Less commission paid Stordock....	14 45	
	116	
June 16. To sale under certificate No. 80.....	\$560 00	
Less commission paid Stordock....	14 00	
	546 00	
' 23. To sundry interest payments on certificates, paid by Stordock .....	288 70	

## BIENNIAL REPORT

1885.		DR.	CR.
June 30.	To payment of balance due on certificate No. 30, received from First National Bank, Fergus Falls.....	\$212 50	
July 6.	To interest payment from Otjen Bros, on secs. 34 and 35, T. 136, R. 45, sec. 2 and W. ½ sec. 12, T. 135, R. 45.....	550 91	
" 8.	To sundry interest payments on certificates, paid by H. G. Stordock.....	758 71	
" 31.	By balance carried to new account.....		\$33,897 14
		<u>\$33,897 14</u>	<u>\$33,897 14</u>
1885.			
Aug. 1.	To balance.....	\$33,897 14	

## HEATING APPARATUS.

1885.		DR.	CR.
Jan. 8.	To cash from state treasurer.....	\$2,000 00	
July 31.	By balance.....		2,000 00
		<u>\$2,000 00</u>	<u>\$2,000 00</u>
Aug. 1.	To balance.....	<u>\$2,000 00</u>	

## FURNITURE ACCOUNT.

1885.		DR.	CR.
Jan. 8.	To cash from state treasurer.....	\$2,000 00	
July 31.	By balance.....		2,000 00
		<u>\$2,000 00</u>	<u>\$2,000 00</u>
Aug. 1.	To balance.....	<u>\$2,000 00</u>	

## LAND SALE FUND.

1884.		DR.	CR.
Aug. 1.	To balance from last statement.....	\$528 42	
1885.			
July 31.	By balance.....		\$528 42
		<u>\$528 42</u>	<u>\$528 42</u>
Aug. 1.	To balance.....	<u>\$528 42</u>	

## SUMMARY OF ACCOUNTS AUG. 1, 1885.

1885.		DR.	CR.
Aug.	1. By balance to building account.....		\$5,357 81
"	1. By balance to current expense account.....		29,600 51
"	1. By balance to enlargement of campus acct.		1,080 85
"	1. By balance to heating apparatus account...		2,000 00
"	1. By balance to furniture account .....		2,000 00
"	1. By balance to land sale fund account.....		528 42
"	1. By balance to salt spring land account.....		33,897 14
"	1. By balance to water supply account.....		402 93
"	1. To balance from geological survey account..	\$44,484 80	
"	1. To balance from Prof. Pike's book account..	81 86	
"	1. To cash on hand .....	30,301 00	
		<u>\$74,867 66</u>	<u>\$74,867 66</u>

## REPORT OF R. A. DAVISON,

*Treasurer of the Board of Regents, from Aug. 1, 1885, to Sept. 1, 1885, or to the time H. P. Browne was elected and qualified.*

## CURRENT EXPENSE.

1885.	No. of Cert.	DR.	CR.
Aug. 1. To balance from last statement...		\$29,600 51	
“ 4. To cash received from state treasurer.....		1,343 44	
“ 31. By balance from the college of agriculture account.....			\$701 00
“ 31. By balance from employes acct...			280 00
“ 31. By balance from incidentals acct.			147 95
“ 31. By balance from library account.			18 22
“ 31. By balance from salaries for instruction.....			200 00
“ 31. By balance to new account.....			29,596 78
		<hr/>	<hr/>
		\$30,943 95	\$30,943 95
Sept. 1. To balance.....		\$29,596 78	

## SALARIES FOR INSTRUCTION.

1885.	No. of Cert.	DR.	CR.
Aug. 31. By cash paid E. D. Porter, for August.....	16		\$200 00
“ 31. To balance carried to account current expense.....		\$200 00	
		<hr/>	<hr/>
		\$200 00	\$200 00

## EMPLOYEES AND WORKMEN.

1885.	No. of Cert.	DR.	CR.
Aug. 31. By cash paid August pay roll.....	16		\$280 00
“ 31. To balance carried to account current expense account.....		\$280 00	
		<hr/>	<hr/>
		\$280 00	\$280 00

COLLEGE OF AGRICULTURE.

1885.		No. of Cert.	DR.	CR.
Aug. 8.	By cash paid on July pay roll, farm .....	8		\$701 00
" 31.	To balance carried to account cur- rent expense.....		\$701 00	
			<u>\$701 00</u>	<u>\$701 00</u>

INSURANCE.

1885.		No. of Cert.	DR.	CR.
Aug. 26.	To cash received from state treas- urer.....		\$315 00	
" 26.	By cash paid McMillan & Hast- ings, insurance.....	17		\$315 00
			<u>\$315 00</u>	<u>\$315 00</u>

INCIDENTALS.

1885.		No. of Cert.	DR.	CR.
Aug. 5.	By paid N. H. Winchell, petty expenses.....	1		\$4 00
" 5.	By paid Tribune Job Printing Company, printing.....	3		31 75
" 6.	By paid J. E. Gallow, expenses in cleaning buildings.....	6		14 00
" 11.	By paid Miller Bros., merchan- dise.....	9		17 45
" 11.	By paid C. D. Whittall & Co., mer- chandise.....	10		4 85
" 14.	By paid Minneapolis Tribune Company, printing.....	13		47 90
" 14.	By paid Evening Journal, print- ing and advertising.....	15		28 00
" 31.	To balance carried to current ex- pense account.....		\$147 95	
			<u>\$147 95</u>	<u>\$147 95</u>

LIBRARY.

1885.		No. of Cert.	DR.	CR.
Aug. 6.	By paid W. W. Folwell, to bal- ance account, petty expenses...	7		\$ 77
" 14.	By paid Nelson, Tenney & Co., stock for shelves, etc.....	14		17 45
" 31.	To balance carried to current ex- pense account.....		\$18 22	
			<u>\$18 22</u>	<u>\$18 22</u>

## BIENNIAL REPORT

## GEOLOGICAL SURVEY.

1885.		No. of Cert.	DR.	CR.
Aug. 1.	By balance from last statement...			\$44,484 80
" 5.	By paid N. H. Winchell, petty expenses.....	2		97 15
" 6.	By paid Whitall, Tatum & Co., merchandise.....	4		18 10
6.	By paid Jas. W. Queen & Co., merchandise.....	5		4 75
11.	By paid J. S. Pillsbury, money advanced Prof. Winchell at New Orleans to purchase specimens.....	11		100 00
" 14.	By paid Frank Hayward, museum trays.....	12		8 25
" 31.	By paid August pay roll.....	16		325 00
" 31.	To balance.....		\$45,038 05	
			\$45,038 05	\$45,038 05
Sept. 1.	By balance.....			\$45,038 05

## BUILDING ACCOUNT.

1885.		DR.	CR.
Aug. 1.	To balance from last statement...	\$5,357 81	
" 31.	By balance.....		\$5,357 81
		\$5,357 81	\$5,357 81
Sept. 1.	To balance.....	\$5,357 81	

## ENLARGEMENT OF CAMPUS.

1885.		DR.	CR.
Aug. 1.	To balance from last statement.....	\$1,080 85	
" 31.	By balance.....		\$1,080 85
		\$1,080 85	\$1,080 85
Sept. 1.	To balance.....	\$1,080 85	

## HEATING APPARATUS ACCOUNT.

1885.		DR.	CR.
Aug. 1.	To balance from last statement.....	\$2,000 00	
" 31.	By balance.....		\$2,000 00
		\$2,000 00	\$2,000 00
Sept. 1.	To balance.....	\$2,000 00	



FURNITURE ACCOUNT.

		DR.	CR.
1885.			
Aug. 1.	To balance from last statement.....	\$2,000 00	
" 31.	By balance.....		\$2,000 00
		<u>\$2,000 00</u>	<u>\$2,000 00</u>
Sept. 1.	To balance.....	<u>\$2,000 00</u>	

LAND SALE FUND.

1885.			
Aug. 1.	To balance from last statement.....	\$528 42	
" 31.	By balance.....		\$528 42
		<u>\$528 42</u>	<u>\$528 42</u>
Sept. 1.	To balance.....	<u>\$528 42</u>	

SALT SPRING LAND SALES.

1885.			
Aug. 1.	To balance from last statement.....	\$33,897 14	
" 31.	By balance.....		\$33,897 14
		<u>\$33 897 14</u>	<u>\$33,897 14</u>

WATER SUPPLY.

1885.			
Aug. 1.	To balance from last statement.....	\$402 93	
" 31.	By balance.....		\$402 93
		<u>\$402 93</u>	<u>\$402 93</u>
Sept. 1.	To balance.....	<u>\$402 93</u>	

PROF. PIKE'S BOOK.

1885.			
Aug. 1.	By balance from last statement.....		\$81 86
" 31.	To balance.....	\$81 86	
		<u>\$81 86</u>	
Sept. 1.	By balance.....	<u>\$81 86</u>	

SUMMARY OF ACCOUNTS.

Sept. 1, 1885.

1885.			
Sept. 1.	By balance from building account.....		\$5,357 81
" 1.	By balance from current expense account.....		29,596 78
" 1.	By balance from enlargement of campus.....		1,080 85
" 1.	By balance from heating apparatus.....		2,000 00

		DR.	CR.
1885.			
Seps.	1. By balance from furniture .....		\$2,000 00
"	1. By balance from land sale fund.....		528 42
"	1. By balance from salt spring lands.....		33,897 14
"	1. By balance from water supply.....		402 93
"	1. To balance from geological survey.....	\$45,038 05	
"	1. To balance from Prof. Pike's book.....	81 86	
"	1. To balance, cash turned over to H. P. Browne, new treasurer.....	29,744 02	
		<hr/>	<hr/>
		\$74,863 93	\$74,863 93
Sept.	1. By balance, cash to H. P. Browne.....		<u>\$29,744 02</u>

## REPORT OF H. P. BROWN,

*Treasurer of the Board of Regents of the State University, from  
Sept. 1, 1885, to Aug. 1, 1886.*

## CURRENT EXPENSE.

		DR.	CR.
1885.			
Sept.	1.	To balance from last statement.....	\$29,596 78
"	9.	To cash received from state treasurer.....	1,818 90
Oct.	13.	To cash received from state treasurer.....	8,117 52
"	13.	To cash received from high school board for services .....	486 00
Nov.	4.	To cash received from state treasurer.....	7,155 93
Dec.	2.	To cash received from wood sold.....	42 38
"	3.	To cash received from state treasurer.....	6,608 49
"	18.	To cash received from state treasurer.....	5,215 00
1886.			
Jan.	2.	To cash received from state treasurer.....	1,189 96
"	2.	To cash received from rent of Perkins' house on campus .....	138 70
Feb.	5.	To cash received from state treasurer.....	6,105 28
Mar.	3.	To cash received from state treasurer.....	6,732 55
"	31.	To cash received from state treasurer.....	6,294 32
Apr.	30.	To cash received from state treasurer.....	5,732 78
May	29.	To cash received from state treasurer.....	6,281 25
July	1.	To cash received from state treasurer.....	8,762 29
"	31.	To balance from account students' fees.....	935 00
"	31.	By balance from account chemical lab.....	\$511 48
"	31.	By balance from account campus .....	620 59
"	31.	By balance from account college of agri- culture.....	4,197 35
"	31.	By balance from account employes.....	4,801 66
"	31.	By balance from account farmers' institute	475 48
"	31.	By balance from account heating and lighting .....	2,816 13
"	31.	By balance from account incidentals.....	2,458 61
"	31.	By balance from account library.....	1,961 15
"	31.	By balance from account laboratory, bi- ology and mines.....	697 26
"	31.	By balance from account physical lab.....	12 25
"	31.	By balance from account printing and ad- vertising.....	1,056 19

		DR.	CR.
1886.			
July 31.	By balance from account repairs.....		\$484 64
" 31.	By balance from account salaries for in- structors.....		46,335 00
" 31.	By balance from account stationery and postage.....		281 57
" 31.	By balance from account college of medi- cine.....		620 35
" 31.	By balance to new account.....		33,883 42
		<u>\$101,213 13</u>	<u>\$101,213 13</u>
1886.			
Aug. 1.	To balance.....	<u>\$33,883 42</u>	

## SALARIES FOR INSTRUCTION.

		No. of Cert.	DR.	CR.
1885.				
Sept. 9.	By paid C. W. Hall, additional salary.	12		\$50 00
" 30.	By paid September pay roll.....	41		4,570 00
Oct. 31.	By paid October pay roll.....	70		4,590 00
Nov. 30.	By paid November pay roll.....	99		4,590 00
Dec. 19.	By paid December pay roll.....	116		4,590 00
1886.				
Jan. 30.	By paid January pay roll.....	134		4,590 00
Feb. 27.	By paid February pay roll.....	164		4,590 00
Mar. 31.	By paid March pay roll.....	183		4,590 00
April 30.	By paid April pay roll.....	196		4,590 00
May 29.	By paid May pay roll.....	222		4,590 00
June 30.	By paid June pay roll.....	265		4,590 00
July 31.	By paid July pay roll.....	293		405 00
" 31.	To balance carried to account current expense.....		\$46,335 00	
			<u>\$46,335 00</u>	<u>\$46,335 00</u>

## EMPLOYES AND WORKMEN.

1885.				
Sept. 19.	By paid D. L. Kiehle, three months' salary as secretary.....	30		\$75 00
" 30.	By paid September pay roll.....	41		350 00
Oct. 30.	By paid October pay roll.....	70		350 00
Nov. 30.	By paid November pay roll.....	99		350 00
Dec. 4.	By paid D. L. Kiehle, three months' salary.....	102		75 00
" 31.	By paid December pay roll.....	116		350 00
" 31.	By paid extra salary to fireman.....	119		30 00
1886.				
Jan. 30.	By paid January pay roll.....	134		380 00

1886.		No. of Cert.	DR.	CR.
Feb. 27.	By paid February pay roll.....	164		\$380 00
Mar. 10.	By paid D. L. Kiehle, three months' salary .....	170		75 00
" 31.	By paid March pay roll .....	183		380 00
Apr. 30.	By paid April pay roll .....	196		350 00
May 29.	By paid May pay roll.....	222		350 00
June 5.	By paid D. L. Kiehle, three months' salary.....	225		75 00
" 30.	By paid June pay roll.....	265		350 00
July 30.	By paid salary of R. A. Davison, treasurer, to Sept. 1, 1885.....	291		266 67
" 30.	By paid salary of H. P. Browne, treasurer, to July 1, 1886.....	290		333 33
" 31.	By paid July pay roll.....	293		281 66
" 31.	To balance carried to account current expense.....		\$4,801 66	
			<u>\$4,801 66</u>	<u>\$4,801 66</u>

## GEOLOGICAL SURVEY.

1885.		No. of Cert.		CR.
Sept. 1.	By balance from last statement.....			\$45,038 05
" 7.	By paid U. S. Grant, August salary....	6		52 00
" 9.	By paid C. W. Hall, petty expenses....	11		16 90
" 10.	By paid North Star Desk Works, specimen case.....	13		40 00
" 22.	By paid F. L. Washburn, for services	32		52 00
" 22.	By paid E. O. Ulrich, field expenses..	33		18 00
" 30.	By paid pay roll for September.....	41		285 00
Oct. 5.	By paid F. L. Washburn, field expenses.....	45		120 25
" 5.	By paid L. Paille, ten-foot show case.	46		59 50
" 31.	By paid N. H. Winchell, petty expenses.....	68		41 84
" 31.	By paid N. H. Winchell, compass and freight.....	69		41 10
" 31.	By paid October pay roll.....	70		275 00
Nov. 2.	By paid Clark & Parmatier, horse....	72		75 00
" 30.	By paid November pay roll.....	99		275 00
Dec. 4.	By paid F. L. Washburn, field expenses.....	105		80 85
" 4.	By paid F. L. Washburn, services.....	106		82 00
" 4.	By paid F. L. Washburn, services.....	107		20 00
" 5.	By paid H. V. Winchell, services.....	108		11 75
" 7.	By paid U. S. Grant, services.....	111		17 25
" 9.	By paid N. H. Winchell, petty expenses.....	113		7 46
" 19.	By paid December pay roll.....	116		275 00

1886.		No. of Cert.	Cr.
Jan. 11.	By paid Empire Dist. Co., one barrel alcohol.....	124	\$27 60
" 21.	By paid Thos. Cahill, services.....	133	28 00
" 30.	By paid January pay roll.....	134	275 00
Feb. 6.	By paid H. F. Gross, birds' eggs.....	136	25 00
" 10.	By paid N. H. Winchell, petty expenses.....	138	32 60
" 10.	By paid H. V. Winchell, services for January.....	139	75 00
" 10.	By paid N. H. Winchell, petty expenses.....	140	15 65
" 27.	By paid U. S. Grant, laboratory work	162	18 65
" 27.	By paid February pay roll.....	164	275 00
Mar. 10.	By paid N. H. Winchell, museum trays, etc.....	169	29 32
" 31.	By paid March pay roll.....	183	275 00
Apr. 26.	By paid N. H. Winchell, petty expenses.....	188	27 35
" 26.	By paid N. H. Winchell, petty expenses.....	189	18 92
" 27.	By paid John B. Hawley, making plats.....	191	49 70
" 29.	By paid Les Lesquereaux, examinations, etc.....	193	65 75
" 29.	By paid Warren Upham, drafting maps	194	200 00
" 30.	By paid April pay roll.....	196	275 00
May 10.	By paid U. S. Grant, laboratory work	204	9 25
" 29.	By paid H. V. Winchell, laboratory work.....	221	6 00
" 29.	By paid May pay roll.....	222	275 00
June 7.	By paid H. V. Winchell, laboratory work.....	228	6 50
" 7.	By paid N. H. Winchell, petty expenses.....	229	49 24
" 8.	By paid E. J. Weeks, leather bags.....	234	15 00
" 10.	By paid Pioneer Press Co., printing...	238	11 25
" 11.	By paid C. A. Hoffman, apparatus.....	240	46 00
" 11.	By paid C. A. Hoffman, chemicals.....	241	3 25
" 11.	By paid Gray & Donaldson, mdse.....	242	5 70
" 15.	By paid Miller Bros, mdse.....	246	16 60
" 17.	By paid A. C. Bausman, plat books...	247	3 00
" 18.	By paid Chas. T. Leonard, tents, etc..	256	44 90
" 30.	By paid June pay roll.....	265	275 00
July 2.	By paid C. H. Oppel & Sons, mdse....	269	16 90
" 2.	By paid M. E. Reed, clerical work....	270	22 00
" 2.	By paid Morrison & McGregor, field supplies.....	270	233 51
" 8.	By paid S. M. Williams, plats and stationery.....	274	9 20

		No. of Cert.	DR.	CR.
1885.				
July 29.	By paid John T. Barnum, repairing trunk.....	288		\$2 00
" 31.	By paid July pay roll.....	293		275 00
" 26.	By paid W. J. Scott, three jars reptiles.....	294		3 00
" 31.	To balance to new account.....		\$49,925 79	
1886.			\$49,925 79	\$49,925 79
Aug. 1.	By balance.....			<u>\$49,925 79</u>

## LAND SALES FUND.

Sept. 1.	To balance from last statement.....		\$528 42	
1886.				
July 31.	By transferred to account college of agriculture, to close out account....			\$528 42
			<u>\$528 42</u>	<u>\$528 42</u>

## INCIDENTALS.

		No. of Cert.	DR.	CR.
1885.				
Sept. 2.	By paid C. W. Hall, petty expenses...	2		\$5 70
" 9.	By paid C. W. Hall, petty expenses...	10		131 45
" 11.	By paid Cyrus Northrop, petty expenses paid .....	17		36 05
" 11.	By paid Cyrus Northrop, petty expenses paid .....	18		148 37
" 11.	By paid W. H. Jacoby, photography..	19		69 50
" 12.	By paid Richards & Co., mdse.....	27		5 54
" 23.	By paid E. W. Pyle, merchandise.....	35		8 00
" 26.	By paid J. E. Gallow, extra help in cleaning .....	38		50 <sup>00</sup>
Oct. 1.	By paid J. B. Gilfillan, livery bills paid, etc.....	42		33 25
" 2.	By paid E. A. Cuzner, extra help cleaning .....	43		10 05
" 7.	By paid Edward S. Holden, expenses as witness .....	48		100 00
" 29.	By paid F. S. Jones, petty expenses...	55		5 63
" 29.	By paid McClary & Quigley, material and labor.....	56		29 75
" 30.	By paid W. H. Jacoby, photographic work.....	62		100 00
Nov. 2.	By paid E. W. Pyle, oil, etc.....	71		6 00
" 4.	By paid Walrath & Cleveland, toilet set .....	75		6 50
" 6.	By paid B. B. Marshall, repairing steam gauge .....	77		4 50

## BIENNIAL REPORT

		No. of Cert.	DR.	CR.
1885.				
Nov. 14.	By paid Greenleaf Clark, traveling expenses .....	93		\$235 00
" 14.	By paid C. K. Davis, retaining fee ....	94		250 00
" 21.	By paid J. B. Gilfillan, traveling expenses.....	95		115 25
" 23.	By paid D. E. Pickett, labor and material at spring .....	96		54 00
Dec. 30.	By paid S. G. Dickinson & Co., waste basket .....	117		2 85
" 30.	By paid Mrs Mary Bowen, services....	118		13 65
1886.				
Jan. 15.	By paid Clough Bros., lumber.....	129		11 38
" 19.	By paid C. D. Whittall & Co., tracing cloth .....	132		3 50
Feb. 4.	By paid J. W. Day, ice .....	135		4 05
" 10.	By paid J. S. McCary, carpenter work .....	137		26 00
" 11.	By paid Wm. Cushing, dictionary.....	142		5 29
" 11.	By paid E. W. Pyle & Co., brooms, etc.	147		7 65
" 11.	By paid E. W. Pyle, merchandise.....	148		10 15
" 11.	By paid E. W. Pyle, merchandise.....	149		5 20
" 12.	By paid A. C. & C. F. Peters, frames, etc.....	153		21 00
" 27.	By paid W. F. Decker, labor .....	163		13 00
Mar. 1.	By paid Folds & Griffith, shades.....	165		15 50
" 26.	By paid J. T. Lucas, repairs on cooler	181		3 70
" 27.	By paid Jos. Kennedy, clerical work .	182		52 50
May 4.	By paid C. K. Davis, services in N. P. contest .....	203		347 75
" 5.	By paid E. W. Pyle, brooms, etc.....	201		3 60
" 5.	By paid E. W. Pyle, brooms, etc.....	202		3 60
" 11.	By paid J. C. Gilman, sundry work...	205		15 55
" 21.	By paid Louis Dreka, diplomas.....	216		28 75
" 22.	By paid E. W. Pyle, brooms, etc.....	218		5 30
" 27.	By paid H. F. Nachtrieb, special labor	220		25 00
June 5.	By paid D. L. Kiehle, clerical work...	226		52 00
" 7.	By paid J. S. Pillsbury, traveling expenses in securing president.....	230		315 00
" 7.	By paid J. S. Pillsbury, to J. Baker for tax title.....	231		15 00
" 14.	By paid E. W. Pyle, brooms, etc.....	243		4 60
" 18.	By paid J. E. Gallow, help in cleaning	257		12 00
" 29.	By paid F. C. Walker, cleaning carpets	263		5 50
July 13.	By paid Vernon Bailey, black bear....	278		25 00
" 31.	To balance carried to current expense account.....			
			\$2,458 61	
			<u>\$2,458 61</u>	<u>\$2,458 61</u>



## HEATING AND LIGHTING.

		No. of Cert.	DR.	CR.
1885.				
Sept. 26.	By paid David Fitzgerald, hauling wood.....	40		\$51 75
Nov. 25.	By paid E. S. Grindall, hauling wood	98		15 00
Dec. 1.	By paid David Fitzgerald, hauling wood.....	100		40 00
" 10.	By paid E. W. Pyle, oil, etc.....	113		6 55
1886.				
Jan. 15.	By paid V. Truesdell, coal.....	128		368 62
Feb. 12.	By paid Minneapolis Fuel Co., coal...	151		316 71
" 12.	By paid C. W. Foss, lamp.....	152		5 50
Mar. 12.	By paid Geo. C. Moore, fuel.....	173		290 00
" 13.	By paid Tomblor & Co., fuel.....	175		150 69
" 13.	By paid E. S. Grindall, hauling wood	176		4 20
May 20.	By paid Minneapolis Fuel Co., fuel...	210		93 50
June 7.	By paid Gull River Lumber Co., fuel.	232		333 00
" 7.	By paid Gull River Lumber Co., fuel.	233		490 00
" 8.	By paid V. Truesdell, fuel.....	235		449 16
" 9.	By paid Geo. C. Moore, fuel.....	237		201 45
July 31.	To balance carried to current expense account.....		\$2,816 13	
			<u>\$2,816 13</u>	<u>\$2,816 13</u>

## LIBRARY.

1885.				
Sept. 9.	By paid G. E. Stechert, books.....	9		\$225 88
" 11.	By paid Cyrus Northrop, periodicals, etc.....	16		342 47
Oct. 28.	By paid J. C. Gilman, work in library	51		16 50
Nov. 14.	By paid Gustav E. Stechert, books.....	92		130 00
Dec. 3.	By paid Nordvesten Book Department, binding.....	101		9 75
" 4.	By paid Gustav E. Stechert, books.....	103		137 26
1886.				
Feb. 11.	By paid Gustav E. Stechert, books.....	145		254 79
" 11.	By paid Gustav E. Stechert, books.....	146		120 08
Mar. 18.	By paid H. F. Nachtrieb, books.....	177		59 72
Apr. 26.	By paid J. H. Rosselot, library work..	190		10 35
May 1.	By paid Leo M. Crafts, library work..	198		9 60
" 21.	By paid Gustav E. Stechert, books.....	215		145 99
June 10.	By paid Gustav E. Stechert, books.....	239		5 45
" 24.	By paid W. W. Folwell, salary as librarian, etc.....	260		506 00
July 6.	By paid Lettie M. Crafts, library work	272		3 00
" 27.	By paid Mrs. Mary Bowen, library work.....	282		22 45

## BIENNIAL REPORT

		No. of Cert	DR.	CR.
1885.				
Sept. 9.	To cash for books sold.....		\$31 73	
Dec. 4.	To cash for books sold .....		6 41	
1886.				
July 31.	To balance carried to current expense account.....		1,961 15	
			<u>\$1,999 29</u>	<u>\$1,999 29</u>

## PHYSICAL LABORATORY.

1886.				
Jan. 11.	By paid Henry J. Green, repairs.....	122		\$12 25
July 31.	To balance carried to current expense account.....		\$12 25	
			<u>\$12 25</u>	<u>\$12 25</u>

## COLLEGE OF AGRICULTURE, OR EXPERIMENTAL FARM.

1885.				
Sept. 5.	By paid E. D. Porter, labor pay roll August.....	3		\$686 00
Oct. 9.	By paid E. D. Porter, labor pay roll September.....	49		571 60
Nov. 2.	By paid Clark & Parmatier, horse.....	72		125 00
" 7.	By paid E. D. Porter, labor pay roll October.....	78		390 25
" 7.	By paid R. Douglas & Sons, evergreens	79		103 00
" 9.	By paid M. Pierce, grape vines .....	80		25 00
" 9.	By paid Sedgwick Bros., gate, etc.....	86		21 35
" 9.	By paid Fairbanks, Morse & Co., re- pairing.....	88		5 50
Dec. 5.	By paid E. D. Porter, labor, pay roll November .....	109		428 11
1886.				
Jan. 5.	By paid J. M. Pottle & Son, wagon re- pairs.....	121		17 00
Feb. 11.	By paid W. H. Walmsley & Co., mdse.....	144		19 30
" 13.	By paid Geo. Huhn & Co., mdse.....	155		25 60
" 13.	By paid Geo. Huhn & Co., mdse.....	156		9 50
" 15.	By paid E. D. Porter, labor, pay roll December.....	159		235 00
" 15.	By paid E. D. Porter, labor, pay roll January.....	160		200 00
Mar. 9.	By paid Louis Laramie, halters and harness.....	168		48 00
Apr. 6.	By paid E. D. Porter, labor pay roll February .....	184		235 00

## UNIVERSITY OF MINNESOTA.

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	No. of Cert.	DR.	CR.
1886.			
" 16. By paid Miller Bros., merchandise .....	186		\$65 59
July 28. By paid E. D. Porter, labor pay roll			
March .....	283		235 00
" 28. By paid E. D. Porter, labor pay roll			
April .....	284		417 85
" 28. By paid E. D. Porter, labor pay roll			
May .....	285		510 35
" 28. By paid E. D. Porter, labor pay roll			
June .....	286		618 95
1885.			
Sept. 5. To campus account, for labor and			
team work .....		\$222 20	
1886.			
Mar. 13. To campus account, for labor and			
team work .....		45 00	
July 31. To amount transferred from land sale			
fund account .....		528 42	
" 31. To balance carried to current ex-			
pense account .....		4,197 35	
		<u>\$4,992 97</u>	<u>\$4,992 97</u>

## CHEMICAL LABORATORY.

1885.			
Sept. 12. By paid Eimer & Amend, chemicals..	22		\$474 46
Oct. 13. By paid E. T. Sykes & Co., sink and			
connections .....	50		48 83
" 29. By paid F. G. McMillan, material and			
labor .....	54		53 15
" 30. By paid Geo. Huhn & Co., mdse.....	60		115 87
Nov. 9. By paid Becker Bros., mdse.....	82		58 00
1886.			
Feb. 10. By paid Johnson Bros. & Amos, print-			
ing .....	141		4 50
" 13. By paid Geo. Huhn & Co., mdse.....	154		15 54
Apr. 29. By paid Geo. Huhn & Co., mdse.....	192		16 73
1885.			
Dec. 7. To cash paid as students' fees.....		\$153 60	
1886.			
June 19. To cash paid as students' fees.....		122 00	
July 31. To balance carried to current expense			
account .....		511 48	
		<u>\$787 08</u>	<u>\$787 08</u>

## BIENNIAL REPORT

## CAMPUS ACCOUNT.

		No. of Cert.	Dr.	Cr.
1885.				
Sept. 5.	By paid E. D. Porter, labor and team work.....	4		\$241 25
" 5.	By paid experimental farm, labor and team work.....	5		222 20
1886.				
Mar. 13.	By paid E. D. Porter, labor and team work.....	174		111 50
July 2.	By paid Chas. Tompson, labor.....	267		38 63
" 2.	By paid Chas. W. Jackson, labor.....	268		7 01
" 31.	To balance carried to current expense account.....		\$620 59	
			<u>\$620 59</u>	<u>\$620 59</u>

## STATIONERY AND POSTAGE.

1885.				
Sept. 11.	By paid Cyrus Northrop, petty bills...	15		\$281 57
1886.				
July 31.	To balance carried to Current Expense account.....		\$281 57	
			<u>\$281 57</u>	<u>\$281 57</u>

## LABORATORY OF BIOLOGY AND MINERALOGY.

1885.				
Oct. 28.	By paid Johnson Bros. & Mann, books..	52		\$18 38
" 29.	By paid Wheaton, Reynolds & Co., labor.....	57		2 60
" 30.	By paid H. H. Molloy, apparatus.....	64		11 15
" 31.	By paid H. F. Nachtrieb, sundry expenses.....	65		32 79
" 31.	By paid H. F. Nachtrieb, instruments, etc.....	66		8 83
Nov. 9.	By paid W. H. Walmsley, microscope..	83		16 00
" 9.	By paid Bausch & Lomb Optical Co., microscope.....	84		146 25
" 9.	By paid F. J. Emerick & Son, microscope.....	85		78 57
" 14.	By paid Eimer & Amend, mdse.....	91		56 88
Dec. 4.	By paid Chas. Dawson, mdse.....	104		5 00
1886.				
Jan. 11.	By paid Chas. Dawson, mdse.....	123		4 00
" 11.	By paid Adam Pfeifer, mdse.....	125		98 50
" 18.	By paid H. F. Nachtrieb, petty expenses.....	131		14 07
Feb. 11.	By paid W. H. Walmsley & Co., two microscopes.....	143		31 75

UNIVERSITY OF MINNESOTA.

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1886.		No. of Vchr.	DR.	CR.
Mar. 1.	By paid H. H. Molloy, instruments...	166		\$7 00
Apr. 15.	By paid H. H. Molloy, instruments...	185		4 00
" 30.	By paid H. H. Molloy, instruments...	195		18 10
June 1.	By paid C. W. Hall, instruments.....	223		57 16
July 12.	By paid H. F. Nachtrieb, petty ex- penses.....	276		11 23
" 12.	By paid H. F. Nachtrieb, petty ex- penses.....	277		75 00
" 31.	To balance carried to current expense account.....		\$697 26	
			<u>\$697 26</u>	<u>\$697 26</u>

FARMERS INSTITUTE.

1886.				
May 4.	By paid O. C. Gregg, salary and ex- penses.....	200		\$132 84
" 11.	By paid O. C. Gregg, expenses.....	206		95 48
June 23.	By paid O. C. Gregg, salary and ex- penses.....	259		121 73
July 2.	By paid O. C. Gregg, salary and ex- penses.....	266		125 43
" 31.	To balance carried to current expense account.....		\$475 48	
			<u>\$475 48</u>	<u>\$475 48</u>

PRINTING AND ADVERTISING.

1885.				
Sept. 2.	By paid Johnson Bros., printing .....	1		\$56 50
" 8.	By paid Pioneer Press Co., advertising	7		32 00
" 11.	By paid Cyrus Northrop, paid for ad- vertising.....	14		6 00
" 12.	By paid Fergus Falls Printing and Publishing Co., advertising.....	20		8 00
" 12.	By paid Sanford Niles, advertising....	21		18 00
" 25.	By paid Tribune Job Printing Co., printing .....	37		21 50
Oct. 30.	By paid Ariel Association, advertising	58		75 00
Nov. 4.	By paid Geeseman & Murphy, print- ing.....	73		4 50
Dec. 5.	By paid Tribune Job Printing Co., printing .....	110		165 10
1886.				
Feb. 16.	By paid Minneapolis Tribune Co., ad- vertising.....	157		54 19
Mar. 25.	By paid Pioneer Press Co., advertising	179		11 20
May 20.	By paid Johnson, Smith & Harrison, printing .....	212		16 50

		No. of Vehrs.	DR.	CR.
1886.				
May 21.	By paid St. Paul Dispatch, advertising	217		\$3 00
June 14.	By paid Johnson Bros. & Amos, printing.....			
		244		33 45
" 14.	By paid Johnson, Smith & Harrison, printing.....			
		245		458 50
" 18.	By paid Journal Printing Co., printing	249		9 75
1885.				
Oct. 30.	By paid A. C. Bausman, printing.....	63		5 00
" 30.	By paid Pioneer Press Co., printing ..	59		8 00
1886.				
June 10.	By paid Nordvesten Publishing Co., advertising.....			
		264		70 00
July 31.	To balance carried to current expense account.....			
			\$1,056 19	
			<u>\$1,056 19</u>	<u>\$1,056 19</u>

## REPAIRS.

1885.				
Sept. 8.	By paid E. T. Sykes & Co., plumbing..	8		\$30 73
" 14.	By paid Porter & Leslie, plastering.....	28		14 50
" 15.	By paid Preston & Nott, packing.....	29		8 67
" 19.	By paid Herzog Manufacturing Co., repairing railing.....			
		31		6 00
" 24.	By paid J. H. Hagen, painting.....	36		19 45
" 26.	By paid Galpin & Emerson, material and labor.....			
		39		65 71
Oct. 5.	By paid John T. Lucas, repairing roof..	44		2 00
" 30.	By paid Mayhew Bros., papering.....	61		119 22
" 31.	By paid E. L. Ames, paper hanging...	67		57 70
Nov. 4.	By paid John Speedy, paper hanging..	74		16 00
" 9.	By paid Boyson & Rasmussen, kalso-mining, etc.....			
		81		38 79
1886.				
Jan. 16.	By paid Miller Bros., merchandise....	130		5 96
Feb. 11.	By paid North Star Iron Works, materials.....			
		150		37 14
" 16.	By paid E. T. Sykes & Co., materials..	158		5 69
" 17.	By paid M. Lara & Co., matting.....	161		5 30
Apr. 17.	By paid Janney, Semple & Co., merchandise.....			
		187		9 80
May 20.	By paid J. S. McClary, glass, etc.....	209		10 00
" 21.	By paid Miller Bros., hardware.....	213		14 40
July 8.	By paid Ball & Naylor, pipes, valves, etc.....			
		275		17 58
" 31.	To balance carried to current expense account.....			
			\$484 64	
			<u>\$484 64</u>	<u>\$484 64</u>

## MEDICAL DEPARTMENT.

		No. of Vchr.	DR.	CR.
1886.				
June 18.	By paid P. H. Millard, services and expenses.....	250		\$62 45.
" 18.	By paid P. H. Millard, services and expenses.....	251		82 75.
" 18.	By paid G. W. Wood, services and expenses.....	252		78 35.
" 18.	By paid D. W. Hand, services and expenses.....	253		65 00.
" 18.	By paid Franklin Staples, services and expenses.....	254		151 80.
" 18.	By paid Chas. E. Smith, services and expenses.....	255		70 00.
July 27.	By paid W. H. Leonard, services and expenses.....	279		30 00.
" 27.	By paid W. H. Leonard, services and expenses.....	280		40 00.
" 29.	By paid Chas. Simpson, services and expenses.....	289		40 00.
" 31.	To balance carried to current expense account.....		\$620 35	
			<u>\$620 35</u>	<u>\$620 35</u>

## STUDENTS' FEES.

		DR.	CR.
1885.			
Sept. 11.	To paid by Cyrus Northrop, fees paid.....	\$935 00	
1886.			
July 31.	By balance carried to current expense account.....		\$935 00.
		<u>\$935 00</u>	<u>\$935 00</u>

## BUILDING ACCOUNT.

		No. of vchr.	DR.	CR.
1885.				
Sept. 1.	To balance from last statement.....		\$5,357 81	
Nov. 4.	To cash from state treasurer.....		8,000 00	
1886.				
July 1.	To cash from state treasurer.....		10,000 00	
" 15.	To cash from state treasurer.....		10,000 00	
" 31.	By balance from account college mechanical arts building.....			\$13,185 71.
" 31.	By balance from account military building.....			300 00.
" 31.	By balance to new account.....			19,872 10.
			<u>\$33,357 81</u>	<u>\$33,357 81.</u>
Aug. 1.	To balance.....		<u>\$19,872 10</u>	

## BIENNIAL REPORT

## MECHANIC ARTS BUILDING.

		No. of Vehr.	DR.	CR.
1885.				
Nov. 24.	By paid W. D. Kimball, services as architect.....	97		\$100 00
1886.				
Mar. 9.	By paid Otto Munson, labor.....	167		10 00
" 11.	By paid S. C. Cutter, payment on contract.....	171		2,000 00
June 5.	By paid S. C. Cutter, payment on contract.....	224		2,000 00
" 8.	By paid J. McCune, agent, freight on stone.....	236		122 50
" 25.	By paid L. S. Buffington, services as architect.....	261		650 00
July 7.	By paid S. C. Cutter, payment on contract.....	273		8,000 00
" 27.	By paid Wheaton, Reynolds & Co., materials.....	281		2 42
" 29.	By paid Janney, Sample & Co., bolts..	287		6 58
" 31.	By brought from account apparatus for building of mechanical arts.....			175 00
" 31.	By brought from account incidentals for building of mechanical arts.....			119 21
" 31.	To balance carried to building account.....			
			\$13,185 71	
			<u>\$13,185 71</u>	<u>\$13,185 71</u>

## APPARATUS, COLLEGE OF MECHANIC ARTS.

1885.				
Oct. 28.	By paid American Tool & Machine Co., tools.....	53		\$50 00
1886.				
May 4.	By paid Tinius, Olsen & Co., tools.	199		125 00
July 31.	To balance to account mechanical arts building.....			\$175 00
			<u>\$175 00</u>	<u>\$175 00</u>

## INCIDENTALS, COLLEGE OF MECHANIC ARTS.

1886.				
Mar. 23.	By paid Tinius, Olsen & Co., merchandise.....	178		\$70 00
" 25.	By paid C. D. Whitall & Co., tracing cloth.....	180		3 50
May 1.	By paid J. H. Barr, petty expenses	197		12 72
" 20.	By paid Beede & Bray, lumber.....	211		8 00
June 7.	By paid W. R. Hoag, petty expenses.....	227		6 75



	No. of Vchr.	DR	CR.
1356.			
June 17.	By paid J. P. Gilmore, merchandise.....	248	\$5 00
" 26.	By paid Janney, Semple & Co., merchandise.....	262	3 24
July 31.	By paid F. H. Adams, tracings....	292	10 00
" 31.	To balance to mechanical arts building account.....		
		\$119 21	
		<u>\$119 21</u>	<u>\$119 21</u>

## MILITARY BUILDING.

1886.			
Jan. 15.	By paid S. C. Cutler, labor and material.....	127	\$300 00
July 31.	To balance to building account.....		
		\$300 00	
		<u>\$300 00</u>	<u>\$300 00</u>

## ENLARGEMENT OF CAMPUS.

1885.			
Sept. 1.	To balance from last statement.....		\$1,080 85
" 1886.			
July 31.	By balance to new account.....	\$1,080 85	
		<u>\$1,080 85</u>	<u>\$1,080 85</u>
Aug. 1.	To balance .....	<u>\$1,080 85</u>	

## FURNITURE.

1885.			
Sept. 1.	To balance from last statement.....	\$2,000 00	
" 12.	By paid Quimby & Abbott, furniture	23	\$134 25
" 12.	By paid De Coster & Clark, furniture..	24	267 50
" 12.	By paid De Coster & Clark, furniture..	25	140 50
" 12.	By paid De Coster & Clark, furniture..	26	75 00
Oct. 6.	By paid L. Paille, two wardrobes.....	47	110 00
Nov. 5.	By paid M. Lara & Co., carpets.....	76	86 48
" 12.	By paid Folds & Griffith, carpets.....	89	60 20
" 12.	By paid Folds & Griffith, carpets.....	90	160 97
Dec. 7.	By paid Bradstreet, Thurber & Co., furniture .....	112	91 00
" 16.	By paid M. L. Sanford, sofa and table	115	14 00
1886.			
Jan. 11.	By paid De Coster & Clark, one chair	126	10 00
Mar. 12.	By paid Frank Glessner, finishing table .....	172	3 00
May 20.	By paid C. W. Foss, filters, etc.....	207	15 80
July 1.	By balance carried to new account....		831 30
		<u>\$2,000 00</u>	<u>\$2,000 00</u>
Aug. 1.	To balance.....	<u>\$831 30</u>	

## INSURANCE.

	No. of Veh.	DR.	CR.
1885.			
Dec. 3.	To cash from state treasurer.....	\$500 00	
1886.			
Feb. 26.	To cash from state treasurer.....	535 00	
Jan. 4.	By paid McMillan & Hastings, in- surance.....	120	\$297 52
May 20.	By paid Gale & Co., insurance.....	208	90 00
" 21.	By paid McMillan & Hastings, in- surance.....	214	576 00
" 24.	By paid Corser, Stone & Co., insur- ance.....	219	90 00
June 21.	By paid St. Paul Fire and Marine In- surance Company.....	258	135 00
July 31.	To balance carried to new account.....	153 52	
		<u>\$1,188 52</u>	<u>\$1,188 52</u>
Aug. 1.	By balance.....		<u>\$153 52</u>

## HEATING APPARATUS.

1885.			
Sept. 1.	To balance from last statement .....	\$2,000 00	
" 22.	By paid North Star Iron Works Co., grate bars.....	34	102 00
Nov. 11.	By paid F. A. Schoemaker, furnace and stoves .....	87	223 20
1886.			
July 31.	By balance to new account .....		1,674 80
		<u>\$2,000 00</u>	<u>\$2,000 00</u>
Aug. 1.	To balance.....	<u>\$1,674 80</u>	

## WATER SUPPLY.

1885.			
Sept. 1.	To balance from last statement .....	\$402 93	
1886.			
July 31.	By balance to new account .....		\$402 93
		<u>\$402 93</u>	<u>\$402 93</u>
Aug. 1.	To balance.....	<u>\$402 93</u>	

PROF. PIKE'S BOOK.

	DR.	CR.
1885.		
Sept. 1. By balance from last statement .....		\$81 86
1886.		
July 31. To balance to new account .....	\$81 86	
	<u>\$81 86</u>	<u>\$81 86</u>
Aug. 1. By balance .....		<u>\$81 86</u>

SALT LAND SALES.

1885.		
Sept. 1. To balance from last statement.....	\$33,897 14	
“ 3. To paid on certificate No. 23, remitted by First Nat. Bank, Fergus Falls.....	467 50	
“ 23. To paid on certificate No. 90, remitted by H. G. Stordock .....	71 04	
Oct. 24. To paid on sundry int. payments, remit- ted by Citizens Nat. Bank, Fergus Falls	81 85	
“ 26. To paid on sundry int. payments, remit- ted by First Nat. Bank, Fergus Falls....	787 40	
Nov. 16. To paid on certificate No. 91, remitted by H. G. Stordock .....	121 00	
“ 24. To paid sundry payments, interest, and re- mitted by H. G. Stordock.....	421 44	
1886.		
Mar. 31. To paid on certificates Nos. 48, 57 and 78, received from Citizens Nat. Bank, Fer- gus Falls .....	1,372 41	
Apr. 6. To paid on certificate No. 93, received from H. G. Stordock .....	217 50	
May 22. To paid on sundry certificates, received from Citizens Nat. Bank, Fergus Falls...	780 50	
June 24. To paid on sundry int. payments, received from Citizens Nat. Bank, Fergus Falls...	84 00	
July 17. To paid on sundry int. payments, received from Citizens Nat. Bank, Fergus Falls...	39 90	
“ 2. To paid interest on certificate No. 5, by Chas. J. Wright.....	71 46	
“ 10. To paid sundry interest payments, by H. G. Stordock.....	244 92	
“ 20. To paid interest on certificates, by C. J. Otjen.....	494 50	
“ 27. To paid interest on sundry certificates by H. G. Stordock .....	56 41	
“ 31. By balance to new account .....		\$39,208 97
	<u>\$39,208 97</u>	<u>\$39,208 97</u>
Aug. 1. To balance.....	<u>\$39,208 97</u>	

## BIENNIAL REPORT.

		SUMMARY OF ACCOUNTS.	
1886.		DR.	CR.
Aug.	1. By balance from building account.....		\$19,872 10
"	1. By balance from current expense account..		33,883 42
"	1. By balance from enlargement of campus account.....		1,080 85
"	1. By balance from furniture account .....		831 30
"	1. By balance from heating apparatus account		1,674 80
"	1. By balance from salt spring land account..		39,208 97
"	1. By balance from water supply account.....		402 93
"	1. To balance from geological survey account..	\$49,925 79	
"	1. To balance from insurance account.....	153 52	
"	1. To balacce from Prof. Pike's book account	81 86	
"	1. To cash on hand.....	46,793 20	
		<hr/>	<hr/>
		\$96,954 37	\$96,954 37
		<hr/>	<hr/>

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**EIGHTEENTH ANNUAL REPORT**

(FOURTH BIENNIAL REPORT)

OF THE

**PRESIDENT**

OF THE

**UNIVERSITY OF MINNESOTA**

TO THE

**BOARD OF REGENTS.**

1884-85 AND 1885-86.

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THE UNIVERSITY OF MINNESOTA,  
MINNEAPOLIS, MINN., Sept. 1, 1886.

*To His Excellency, Lucius F. Hubbard, Governor of Minnesota.*

SIR: I have the honor to transmit herewith the fourth biennial report (No. 15 of the series), of the condition and progress of the University for the years 1884-85, and 1885-86.

Very respectfully,

Your obedient servant,

CYRUS NORTHROP,

*President.*

REPORT  
OF THE  
UNIVERSITY OF MINNESOTA.

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*To His Excellency, L. F. Hubbard, Governor of Minnesota:*

During the two years which have passed since I became president of the University of Minnesota, the university has enjoyed a good degree of prosperity, as evinced by the increasing number of its students; its enlarged force of teachers, the additions to its library and apparatus, the erection of a commodious building for the college of mechanic arts, and the physical laboratory; the reorganization of the college of agriculture; the organization and successful working of a graduate department, and the spirit and zeal of instructors and students in every department of the institution.

While thus the internal evidences of prosperity are very satisfactory, it is not less gratifying to observe the manifestations of good will towards the institution on the part of the people of the State, especially as shown in the closer relations between the highschools and the university—relations which seem to realize the hope of my predecessor, as expressed in his last biennial report, “that at no distant day, the high schools of the State may form a broad and direct avenue from the common schools to the university.” The action of the board of regents, in authorizing the admission to the freshman class in the university of all students who present diplomas as graduates of first-class high schools, cannot fail to strengthen these relations and to be most salutary in its results, both to the university and the high schools, and thus to do much towards accomplishing the purpose of the State in establishing its system of public education, and in providing for the higher education in the university as a part of that system.

## CHANGES IN THE BOARD OF REGENTS AND THE FACULTY.

Since the last biennial report no change has occurred in the membership of the board of regents, except that occasioned by a change in the presidency of the university. In the faculty a number of changes have occurred—none of them, however, involving the removal of any professor—and some, happily, caused by the enlargement of the courses of study. Mr. C. L. Herrick, instructor in zoology, having been appointed professor in another institution, declined a reappointment in the university and was succeeded by Henry F. Nachtrieb, B. S., as assistant professor of biology.

Prof O. J. Breda, who had been elected professor of the Scandinavian languages and literatures while in Europe, but who had not entered upon his duties at the time of the last report, has been on duty during the last two years, teaching Latin the first year and German and the Scandinavian languages the second year. His work is of growing importance and will soon require that all his time be given to his own department.

Prof. George E. MacLean, Ph. D., who was an instructor in English literature during the last term of 1883-84, was soon after elected professor of English literature, and entered upon the duties of the office at the opening of the university year 1884-85.

History, until the third term of 1884-85, under the care of the instructor in mental and moral philosophy, was at that time made a separate department, and Harry Pratt Judson, B. A., was elected professor. He entered upon the duties of his office at the opening of the year 1885-86, and has taught during the year, dividing his time between Latin and history. For the future his whole attention will be given to history and to pedagogics. In the latter subject Professor Judson gave a course of lectures to the senior class the past year, and he will give an enlarged course in the same subject to successive classes.

During the year 1885-86 Fred. S. Jones, B. A., has been the instructor in physics, a subject heretofore under the care of the professor of engineering.

John H. Barr, B. M. E., has been instructor in mechanical engineering during the past year, having succeeded Mr. Wilbur F. Decker, B. M. E., who declined a reappointment, and Mr. William R. Hoag, B. C. E., has been an instructor in civil engineering during the same time having succeeded Mr. W. F. Carr, who was instructor in civil engineering during the year 1884-85,



and who succeeded Henry M. Waitt, B. S., on duty the preceding year.

Prof. John S. Clarke, B. A., for some years assistant professor of Latin, was elected, in the third term of 1885-86, professor of Latin, and placed in charge of the department, Professor Brooks, for several years past in charge of the Latin department, being relieved of the same.

Prof. John C. Hutchinson, B. A., for some years assistant professor of Greek and mathematics, was, in the third term of 1885-86, elected professor of Greek and mathematics, with the title of associate professor of Greek and mathematics. By these changes in the faculty, three graduates of the university, two graduates of Williams College, and one graduate of Yale College, have been added to the faculty, and two graduates of the university have been advanced to full professorships. It gives me great pleasure to say that all the gentlemen who have been added to the faculty since the last report have proved themselves to be most capable instructors, and they have all been very helpful to me in my work.

#### 6. *Degrees Conferred.*

Since the last report, degrees have been conferred as follows:

	1885	1889
Bachelors of arts.....	3	6
Bachelors of science.....	3	6
Bachelors of literature.....	6	6
Bachelors of civil engineering.....	2	
Bachelor of mechanical engineering.....	1	
Bachelor of architecture.....		1
Bachelor of agriculture.....	1	
Bachelors of medicine.....	2	3
Master of science.....	1	
	<hr/>	<hr/>
	19	22

The names and residences of these graduates are given in appendix "A."

The following table shows the number and kinds of degrees which have been conferred by this university:

	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1886	1885	Total.
B. A. ....	2	1	3	3	9	5	8	4	10	11	8	9	3	6	82
B. S. ....		1	2	5	3	8	10	9	10	9	7	9	3	6	82
B. L. ....			1		4	1	6	4	7	11	7	3	6	6	56
B. C. E. ....			3	3			2					2	3	2	15
B. M. E. ....						1					1		1		3
B. Arch. ....					1									1	2
B. A. ....										1			1		2
M. A. ....								1	1						2
M. S. ....										1			1		2
M. ....												2	2	3	7
Totals. ....	2	2	9	11	17	15	26	18	28	33	25	26	19	22	253

The whole number of persons graduated is two hundred and forty-three (243), five persons having received degrees, both in science and in engineering, one person having received a degree, both in arts and in science, and four bachelors having received a master's degree, after passing the required examinations. No honorary degrees are conferred by this university.

The whole number of women who have been graduated is seventy-two, viz.: bachelors of arts, 13; of science, 20; of literature, 40; one person having received a degree both in arts and in literature. The work done by the women to secure their degrees is the same as that done by the men who graduate. I am happy to say that, after two years' experience here of "the co-education of the sexes," I know of nothing to make me regret the presence here of both ladies and gentlemen as students.

#### ATTENDANCE.

The number of students in attendance in the year 1884-85 was slightly greater than the number in attendance in the year 1883-84. The number in attendance in the year 1885-86 was nearly one hundred greater than the number in attendance in the preceding year. But, unfortunately, the students whose names appear on our registry are not all present and at work during the entire year. It was to me a matter of no little sur-

prise and disappointment to find at the end of my first week in office, September, 1884, that only one hundred and twenty students had registered, while the calendar of the university showed that two hundred and seventy-eight had registered during the preceding year. Accustomed, as I had been, to have all the students of a college report for work on the first day of the collegiate year, I could not understand why there should be considerably less than half of the apparent student body present and at work when the first week ended. I soon learned, however, that in this particular of regularity in attendance from the opening of the year to the end, the students in the West differ widely from those in the East, and that to a considerable extent the failure of students in the West to report for work on the first day of the term was supposed to be due to the necessity of their earning at least a part of their own living, and therefore of conforming their engagements for study to the requirements of their business engagements. So far as irregularity in attendance is a necessity, it is proper for the authorities of the university to allow it, but it should be clearly recognized by all concerned that any considerable degree of irregularity—especially the entrance of many students after the term has been some weeks in progress—is a very great injury, not merely to those who enter late, but also to those who are regular and prompt in attendance. I am happy to say that the promptness in registering at the opening of the year, and the regularity in attendance, were much greater in 1885-86 than in the previous year. I believe that, hereafter, students will understand that when the university announces a day on which to begin work, work will be begun on that day; and that it is reasonable for the student to conform to the requirements of the university rather than for the university to conform to the requirements of every student. The university is a State institution, and its policy in all respects should be liberal so as to meet the real wants of the people. But its policy must not be so liberal as to destroy the university or to convert it into an educational camp meeting, to which all may go when they please and in what way they please.

For the enrollment and classification of students during the two years covered by this report, 1884-85 and 1885-86, see appendix "B."

#### ADMISSIONS.

The record of admissions to the university is as follows:

## RECORD FOR 1884-85.

	Gentlemen.	Ladies.	Total.
Examined.....	96	53	149
Admitted.....	49	24	73
Rejected.....	47	29	76

## RECORD FOR 1885-86.

	Gentlemen.	Ladies.	Total.
Examined.....	136	57	193
Admitted.....	108	35	143
Rejected.....	28	22	50

The number of high school board certificates presented at the university during the year 1884-85 was one hundred and sixty-one, and during the year 1885-86, three hundred and thirty-nine.

The different towns represented by the candidates presenting the certificates in 1884-85, and in 1885-86, the number of certificates from each town, the subjects, and the number of candidates presenting certificates, are shown in appendix "C."

## INSTRUCTION.

The reports of the instructors in the university, during the two years covered by this report, have been received and are on file, subject to inspection by the board or by any one who may be interested therein. It gives me great pleasure to bear witness to the fidelity and ability displayed by the instructors now in service, and especially to speak of their readiness to assist me in all my efforts to make the university better, and of their own honorable ambition to do everything possible in their several departments to promote sound scholarship. While I have no occasion to single out particular instructors for special commendation where all have been so earnest and faithful, I am sure it will not be considered invidious, if I make special mention here of my sense of obligation to my predecessor, Dr. Folwell. Coming to the university, as I did, an entire stranger to its established method of administration, I might easily have been embarrassed by the multitude of questions coming to me at once for decision. From this I have been enabled to escape, and my escape is due, in a large measure, to the generous spirit of helpfulness exhibited by Dr. Folwell. I desire to put on record here my

grateful appreciation of his personal friendship to myself, and of his manly bearing in all our relations.

#### LIBRARIAN'S REPORT.

I transmit herewith the report of the librarian, and respectfully call the attention of the board to the suggestions therein contained, respecting the proper management of a college library, and the present and prospective needs of our own library.

#### BUILDINGS.

I regard it of great importance to the university that the work of erecting the new buildings required for the present wants of the university, should be pressed forward with all possible dispatch. The new building and equipments for the college of mechanic arts, will meet the wants of that college for some years to come, and will enable it to do excellent work. The physical laboratory in this building, with its new and very fair equipment, will meet a long-felt want, and will do much to make the department of physics as prominent as its importance deserves.

A new building for the purposes of science is needed at once, and I hope that during the coming year science hall may be built, large enough to furnish lecture rooms and laboratories for the instruction in botany, geology, mineralogy, zoology and physiology; and also museums for the collections in these departments. Considering the number of students engaged in scientific study in the university, and the amount of work required to be done, the present accommodations furnished by the university for progress in science, both in the line of study and of original investigation, are less satisfactory than those in any other department. Some progress towards what is needed has been made in the past year in the matter of apparatus for instruction, but our wants cannot be met till the new building is erected. Meanwhile, though our work of instruction is well done, we suffer by comparison with some neighboring states, where the amplest accommodations for the departments of science have been provided with the greatest liberality. The sooner, therefore, science hall can be erected, the better it will be for the work and the reputation of the university.

## OTHER BUILDINGS.

We need, of course, an observatory, and it should be built as soon as possible, at least as soon as the science hall is completed. And then a library building—so necessary for the proper use of the library by the students—must not be long in following. While provision has been made in whole or in part for all of these buildings, I speak of them here because we need them *now*; and because we need them now, I desire to express the hope that nothing will be permitted to interfere with this work, so immediately necessary, of erecting the buildings already planned. I am sure that the State of Minnesota will not wish to be behind Wisconsin, Iowa, Kansas, and Nebraska, in providing the necessary buildings for the accommodation of its state university; and I hope they will not be satisfied until, in every respect, its university can be considered as at least the equal of that institution which, more than all things in its history or in its possession, makes the State of Michigan known and honored throughout the country.

## THE COLLEGE OF AGRICULTURE.

The college of agriculture has been reorganized and its course of study materially changed. It is now practically separated from the other departments of the university in respect to both its requirements for admission and its course of study; and it is only so far connected with the other departments as the instruction in them may coincide with that required in the agricultural course, in which case the necessity for separate instructors is avoided. But it will be impossible to carry forward the agricultural college, on the proposed plan, without an increase in the available teaching force. If we wait for large numbers of agricultural students before we provide instructors, we shall wait in vain. The presence of learned instructors, ready to teach whatever is valuable in science as related to agriculture, will draw students to the institution. There should be a professor of entomology, a professor of veterinary science, and a professor of botany provided for, at an early day; while the multitudinous and distracting duties of the present professor of agriculture should, in a large measure, be placed upon a farm superintendent, thus giving time and opportunity to the professor of agriculture to concentrate his attention on strictly experimental

work, and the publication of bulletins giving the results of experiments, and upon teaching so far as may be required.

In the natural order of things, in view of the change in the course of study and the relation of the experimental farm to the agricultural college, the place for the college will be found to be at the farm, and, with the increase in the number of students and teachers, some provision will need to be made for the accommodation of the students and teachers beyond what the present commodious farm house can furnish. The erection of cottages, more or less in number according to the need, neat and attractive, but not extravagant—not better than the average successful farmer would build for his home, would seem to be the most economical and satisfactory way of meeting the requirements of the situation. Such an arrangement will give the farmers of the State an agricultural college to all intents and purposes separate from the university, at an expense exceedingly moderate, both in the original outlay and the annual cost, compared with what would be required for a new institution separated in every particular from the university.

The college of agriculture, as now organized, offers an opportunity to the sons of farmers, with a good common school education, to begin at once the work of securing, not only a scientific knowledge of agriculture, but a general education which will be of the greatest service in fitting them for the duties of citizenship. I sincerely hope that many will avail themselves of the opportunity to take the course of study now offered. It is a mistaken idea that any profession is ennobled or made more attractive by pushing its technical and manual operations at once to the front to the exclusion of the intellectual culture which makes the man before the specialist. No matter what the occupation, mental culture is the first essential for it. The best-trained and best-educated farmer will not be the one who neglects his arithmetic and grammar to study soils and stock, but it will be the one who trains his mind to do good work in whatever he may engage in, and then applies himself to the acquisition of the special and technical knowledge necessary for successful farming. Our agricultural course, as now prescribed, happily combines the two processes, discipline and the acquisition of technical knowledge. If the college shall receive the generous support of the people, it will amply meet the wants of the people for agricultural education.

## FARMERS' INSTITUTES.

While but few students have been at work on the farm in practical agriculture, much has been done by the department for the improvement of agriculture in the State, by the holding of farmers' institutes as often as circumstances permitted during the past year, and at various points in the State. The value of these institutes can be best judged by the farmers for whose benefit they were held. I do not doubt that the institutes are of real benefit to the State, and I think that special legislative provision should be made for their support. Minnesota is and must be, essentially, an agricultural State, and whatever will promote the interests of a diversified agriculture, the legislature of the State should be careful to provide for.

## THE COLLEGE OF MEDICINE.

I am not satisfied with the present condition of the college of medicine. I have no fault to find with the faculty. They are gentlemen of learning in their profession, and well-fitted, I do not doubt, to give instruction in their several branches of learning. But they do not give instruction, and, under the present plan of organization, they can not. Year by year we announce, for the edification of all students who may be thinking of entering our college of medicine: "No instruction is offered in this college. The faculty is an examining body solely." I am clearly of the opinion that the college of medicine should either be made more or be made less.

If all medical students in the State were willing, or were required, to take the examinations of this college for a degree, and could not practice without a degree, the present organization of our college of medicine would be excellent. Indeed in some respects it would be an ideal arrangement, the examining body being entirely different from the teaching force. But as that is not and can not be, it seems to me that the machinery of the present organization costs more than the product is worth. It is to be hoped that some plan may be devised by which the university may be able to give instruction in medical science, and do something, as I think it ought, to elevate that science in the State. Whatever plan may be devised, I should hope it would be one that would unite in its support the medical profession in the State, and would se-



cure the hearty co-operation of the professors in the various medical colleges of the State, who are already engaged in giving instructions in the science of medicine. I do not ask for immediate action upon this subject, because I think it probable that in two or three years the situation will be more favorable than now. But I desire it to be distinctly understood that the university of Minnesota proposes at no distant day, to establish a college of medicine that shall give instruction, that shall be inferior to no medical school in the country, and that the only reason why the regents delay in establishing such a school is their inability, at the present moment, to establish such a school as they desire, and their entire unwillingness to establish a school that shall merely add one to the multitude of medical institutions that are already engaged in adding largely each year to the number of half-qualified practitioners of medicine.

In connection with this subject I desire to put on record my very decided opinion that when such college is established, fees should be charged to the students—fees large enough to pay the salaries of the professors, and thus the State be relieved, in a large degree, of the expense for what, though serviceable to the State, is yet in the main, a matter of personal advantage to the students and prospective doctors of medicine. This will be a departure from the policy of the regents in respect to an absolutely free education. But there is a limit beyond which free education should not go. In my judgment the line should be drawn at professional education.

#### THE PREPARATORY CLASS.

The improvement in the character of the high schools of the State, the manifest desire of school boards and principals to improve the standing of their schools and to make them first-class, and the fact that a respectable number of students now enter the university as freshmen, all give assurance that the necessity for maintaining in the university a sub freshman, or preparatory, class is passing away. I congratulate the board on the prospect of soon having the university relieved of this work, which properly belongs to the schools and not at all to a university. The dropping out of the preparatory class, heretofore the largest in the institution usually, will undoubtedly diminish the number of students for a time. But it will enable the university to devote its efforts to higher work exclusively, and the time

will not be long before the number of students will be as great as ever, and they will all be college students.

#### GRADUATE DEPARTMENT.

As the university thus prepares to abandon to the schools instruction in the lower branches, it should also prepare to carry its own students further in their studies than heretofore, and especially it should be prepared to give instruction in its own lines of work to graduates who may desire to carry their studies and investigations further than the limits of the present curriculum allow. The graduate department of the university, already established and in successful operation, thus far without any additional expense to the State or the university, will meet this requirement. There were in the graduate department during the year 1884-85, 17 students, 15 of whom were graduates of the university of Minnesota and 2 of other institutions. In the year 1885-86 there were in the same department 25 students, 12 of whom were graduates of the university of Minnesota, while the other 13 represented 11 different colleges. The work in this department, though not less important than that in any other, must yet be subordinate to that of the regular academic courses, and can be carried forward only so far and so long as the time and zeal of the instructors may permit. With the abandonment of the preparatory year, however, will come enlarged opportunities for work in this department, and for such original work in connection therewith as the professors desire to do, but which they can not do to any great extent while their attention and time are so largely occupied with the instruction of undergraduates. It is of no small importance that the university should be able to do work in the line of original investigation. This it can never do, so long as its professors are fully occupied with the routine work of teaching. But with a generous support of the graduate department much may be hoped for in the way of original investigation both by students and professors. I ask at this time no special action in behalf of the graduate department, but I do ask that its work shall be appreciated and encouraged, and that the board shall be ready to provide whatever may be necessary in the line of books or apparatus to make this department a blessing, not only to the graduates of our own university, but also to the graduates of all colleges who may be inspired by a genuine longing for higher knowledge.

I can not close this, my first biennial, report without expressing my deep sense of obligation to all with whom I have been associated in work, and especially to the board of regents, for their unvarying kindness and readiness to co-operate in every plan which has seemed likely to promote the welfare of the university. With such hearty co-operation and support from the regents and the faculty, my work has been pleasant, and with the same spirit manifested in the future I can not doubt that the university will increase rapidly, not merely in the number of its students, but in the number of its departments and in the extent and value of its work.

CYRUS NORTHROP,  
*President.*

## APPENDIX "A."

At the thirteenth annual commencement, held June 12, 1885,  
the following persons received degrees:

## COLLEGE OF SCIENCE, LITERATURE AND ARTS.

*For Bachelor of Arts.*

Mary Lathrop Benton.....	Minneapolis.
Samuel Lolfest Langland.....	Cedarville.
Charles William Moulton.....	Cleveland, O.

*For Bachelor of Science.*

James Gray.....	Minneapolis.
Cassius Marcius Locke.....	Minneapolis.
Curtis Langdon Greenwood.....	Rochester

*For Master of Science.*

Clarence Luther Herrick, B. S., 1880.....	Minneapolis.
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*For Bachelor of Literature.*

Howard Strickland Abbott.....	Rockford.
Albert Melancthon Baldwin.....	Tower City, D. T.
Bertha Minnie Brown.....	Richfield.
Mary Eliza Irving.....	Owatonna.
Ida Victoria Mann.....	Minneapolis.
Mary Lorain Smith.....	Le Sueur

## COLLEGE OF MECHANIC ARTS.

*For Bachelor of Mechanical Engineering.*

Elbert Ellsworth Bushnell.....	Minneapolis.
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*For Bachelor of Civil Engineering.*

Patrick Thomas Fitzgerald.....	Donnelly.
Albert Irving Reed.....	Hastings

## COLLEGE OF AGRICULTURE.

*For Bachelor of Agriculture.*

Thomas Ezekiel Wurrell.....Champlin.

## COLLEGE OF MEDICINE.

*For Bachelors of Medicine.*

Karl Henry E. Castle.....St. Paul.  
William Byther Pineo.....Minneapolis.

At the fourteenth annual commencement, held June 3, 1886,  
the following persons received degrees:

## COLLEGE OF SCIENCE, LITERATURE AND ARTS.

*For Bachelors of Arts.*

John Williams Adams.....Lake City.  
Henry James Grannis.....High Forest.  
James C. E. King.....Otsego.  
Elizabeth Quincy Sewall.....St. Paul.  
William Franklin Webster.....Clearwater.  
Ida Victoria Mann, B. S., 1885.....Minneapolis.

*For Bachelors of Science.*

John William Bennett.....Montrose.  
Fremont Crane.....Mapleton.  
Mary Whitmore Elwell.....Minneapolis.  
Frank Amos Johnson.....Marshall.  
Joseph Kennedy.....Oshawa.  
Lillian Lincoln Ware.....Brownsdale.

*For Bachelors of Literature.*

Jennie May Amy.....Minneapolis.  
Leo Melville Crafts.....Minneapolis.  
Ada May Kiehle.....Minneapolis.  
Maud Julia Lyall.....Minneapolis.  
Josephine Florence Marrs.....Minneapolis.  
May Alden Powell.....Minneapolis.

*For Bachelor of Architecture.*

Charles Comstock Woodmansee.....Minneapolis.

*For Bachelors of Medicine.*

William C. E. Van Damm.....Minneapolis.  
A. W. Brunnell.....Minneapolis.  
James J. O'Reiley.....Olga, Dakota.

## APPENDIX "B."

The following tables exhibit the enrollment and classification of the students:

## SUMMARY, 1884-85.

COLLEGE OR DEPARTMENT.	CLASS.	Gentlemen.	Ladies.	Totals.
Graduate Students.....		9	8	17
College of Science, Literature, and Arts.....	{ Senior.....	5	4	9
	{ Junior.....	11	9	20-29
	{ Senior.....	3		3
	{ Special.....	4		4
Mechanic Arts.....	Artisans' Training School. { A B C D	4		4
		2		2
		12		12
		50		50-75
Agriculture.....	Junior.....	1		1
	Sophomore.....	26	4	30
Collegiate Department.....	Freshman.....	31	16	47
	Subfreshman.....	34	20	54
	Special.....	35	22	57-188
Totals.....		227	83	310

## SUMMARY, 1885-86.

DEPARTMENT.	CLASS.	Gentlemen.	Ladies.	Totals.
Graduate Students.....		19	6	25
College of Science, Literature and Arts.....	{ Senior.....	9	8	17
	{ Junior.....	26	1	27-44
College of Mechanic Arts.....	{ Senior.....	1		1
	{ Junior.....	1		2
	Sophomore.....	30	9	39
	Freshman.....	30	17	47
	Subfreshman.....	83	30	113
	Special.....	33	17	50-249
Artisans' A.....	" B.....	4		4
	" C.....	1		1
	" D.....	17		17
	" D.....	64		86
Totals.....		318	88	406

Of the whole number of students in the year 1884-85 all but twenty-nine were enrolled as residents of Minnesota; and in the year 1885-86 all but thirty. Some of those who are enrolled as residents of Minneapolis are residents only for the purpose of gaining an education, their families residing in the city temporarily for the education of the children.

The number of students in the regular classes of the university, in the various courses, during the two years covered by this report, was as follows:

## 1884-85.

	Classical.	Scientific.	Modern or Literary.	Total.
Senior.....	3	4	5	12
Junior.....	5	5	6	16
Sophomore.....	8	17	5	30
Freshman.....	11	19	17	47
Sub-Freshman.....	8	29	17	54
Total.....				159
To which should be added two Seniors in Civil Engineering, one Senior in Mechanical Engineering, one Senior in Agriculture and one Junior in Architecture.....				5
Total.....				164

## 1885-86.

Senior.....	5	6	6	17
Junior.....	7	15	5	27
Sophomore.....	8	19	12	39
Freshman.....	9	24	14	47
Subfreshman.....	14	69	30	113
To which should be added one Senior in Architecture and one Junior in Civil Engineering.....				2
Total.....				245

## APPENDIX "C."

The following statement shows the towns from which came candidates for admission to the university, who presented certificates of the state high school board—also the number of certificates presented from each town represented—the subjects upon which the certificates were given—and the number of candidates presenting certificates in the years 1884-85, and 1885-86:

In the year 1884-85:—Austin 11, Anoka 16, Albert Lea 5, Faribault 8, Minneapolis Academy 12, Mankato 14, St. Peter 9, Fergus Falls 12, Lake City 28, Litchfield 10, Winnebago City 14, Cannon Falls 6, Red Wing 8, Willmar 2, Duluth 1, Winona 5.

In the year 1885-86:—Albert Lea 7, Anoka 48, Elk River 15, St. Cloud 13, Farmington 7, Lake City 82, Litchfield 10, Sauk Centre 5, Hastings 11, Garden City 1, St. Peter 21, Henderson 33, Red Wing 9, St. Charles 2, Carver 7, Mankato 8, Howard Lake 7, Owatonna 14, Minneapolis Academy 39.

The certificates presented were as follows:

In 1884-85:—Arithmetic 11, elementary algebra 11, plane geometry 12, geography 6, United States history 4, general history 8, physiology 8, English grammar 8, Latin grammar 6, Cæsar 9, Cicero 8, Greek grammar 2, physical geography 10, natural philosophy 11, elementary astronomy 13, ancient history 6, higher algebra 7, solid geometry 3, anabasis 3, Virgil 7, chemistry 5, botany 3.

In 1885-86:—Arithmetic 26, elementary algebra 28, plane geometry 17, geography 23, United States history 21, general history 17, physiology 17; English grammar 17, Latin grammar 13, Cæsar 16, Cicero 12, natural philosophy 22, physical geography 33, ancient history 12, higher algebra 7, solid geometry 11, Virgil 8, chemistry 13, botany 11, elementary astronomy 13, drawing 2.

The number of candidates presenting their certificates was twenty-seven in 1884-85, and forty-five in 1885-86.