

THE ANNUAL REPORT
OF
THE BOARD OF REGENTS
OF THE
UNIVERSITY OF MINNESOTA,
TO THE
GOVERNOR OF MINNESOTA,
FOR THE
FISCAL YEAR ENDING NOVEMBER 30, 1870.

TRANSMITTED TO THE LEGISLATURE OF THE THIRTEENTH ANNUAL
SESSION, 1871.

Saint Paul:
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1871.

UNIVERSITY OF MINNESOTA.

To His Excellency, Horace Austin, Governor of Minnesota:

SIR:—I have the honor to present herewith the annual Report of the Board of Regents of the University of Minnesota, for the fiscal year ending Dec. 23d, 1870.

Respectfully, your obedient servant,

J. S. PILLSBURY,
President of Board of Regents.

REPORT.

The Board of Regents beg leave to submit the following annual report of the condition and interests of the University of Minnesota.

The past year has indeed been a year of progress and success, and it is a matter of peculiar pleasure to note the fact that there has been a gratifying advancement in all matters pertaining to the welfare of the University.

The large increase of students from all parts of the State during the past few months fully assures us that an interest has been awakened in its behalf among the people that urges beyond a doubt the question, how can we best and most rapidly prepare for that large class of young men and young women of the State who will soon be thronging in upon us, seeking the privileges of a State Institution. We earnestly hope that this report may be candidly and considerately read, not only by your Excellency and each member of the Legislature, but by the whole people of our own State, as it chronicles faithfully another period of the rapid development of a University, interesting in its history, and dear to every citizen of our prosperous commonwealth.

Since the opening of the Preparatory Department in 1868 with forty students in attendance, the number has steadily increased, until there are now enrolled upwards of three hundred, representing nearly every section of the state, many of whom are in the regular collegiate course.

That the Board of Regents have been most fortunate in the selection of a President and Faculty is evident to all.

We are satisfied that fewer mistakes have been made in this direction than are commonly made in such cases.

In the organization and classification of a new institution, there is a vast amount of difficult, perplexing and vexatious work to be done, and in this work we have found President Folwell "master of the situation." He has displayed that ability, as well as that untiring zeal and energy, which entitles him to the confidence of all; and the Professors associated with him merit no less praise for their efforts to build up and establish on a sure foundation a State University.

THE PLAN OF ORGANIZATION.

The plan for the organization of the various colleges of the University and their respective courses of study, submitted by President Folwell, was unanimously adopted by the Board of Regents, at their June session, and is now in successful operation. The details of this plan cannot here be exhibited. President Folwell in his report accompanying this, will fully explain them. It is sufficient to say that this plan embraces the various courses of study—scientific and classical, military and industrial, general and professional; comprehending the problem of the education of the whole man, and of all classes, whether fitting for the forum, the hospital, the field, the workshops or the laboratory; aiming as it is believed to confer the greatest good up on the greatest number of the masses.

This plan depreciates no course, but strives to harmonize all, allowing the necessary latitude to young men in selecting that course which will, under given circumstances best qualify them for their life work.

COLLEGIATE DEPARTMENT.

The classical, scientific, military and agricultural departments, have been in operation during the year, and to a large extent have been remarkably successful.

The last two named departments have been thoroughly organized, and now offer to students who may desire to pursue either course of study, increased and enlarged facilities.

THE FACULTY.

But few changes have occurred in respect to the Faculty since the last annual report.

The rapidly growing interests of the University, continually increased the labors of the executive office, until it became necessary to relieve President Folwell from the Professorship of Mathematics.

Prof. E. J. Thompson, of Chatfield, who for the past nine years has been connected with our educational interests, as an eminently successful teacher, an efficient superintendent, and an accomplished scholar, was unanimously elected to fill this chair, and entered upon the discharge of its duties on the 6th of September.

It is to be regretted that the Chair of Agriculture has been made vacant by the resignation of Col. D. A. Robertson, who has so ably filled it during the past year. The chair will be filled at an early day.

The following are the names of the present members of the Faculty, and their respective chairs :

WILLIAM W. FOLWELL, M. A., PRESIDENT,
and Librarian.

G. CAMPBELL, M. A., B. D.,
Professor of Moral and Intellectual Philosophy, and Instructor in the German Language.

EDWARD H. TWINING, M. A.,
Professor of Chemistry, and Instructor in French.

VERSAL J. WALKER, M. A.,
Professor of the Latin Language and Literature.

JABEZ BROOKS, M. A., D. D.,
Professor of the Greek Language and Literature.

ARIS B. DONALDSON, B. A.,
Professor of Rhetoric and English Literature.

RICHARD W. JOHNSON, M. A., MAJ. GEN. U. S. A.,
Professor of Military Science.

EDWIN J. THOMPSON, M. A.,
Professor of Mathematics.

ARTHUR BEARDSLEY, C. E.,
Professor of Civil Engineering and Industrial Mechanics.

NUMBER OF STUDENTS.

DEPARTMENTS.	COURSES.	GENTLEMEN	LADIES.	TOTAL.
Collegiate Department,.....	Classical,	61	21	82
	Scientific,	53		75
Preparatory (or Latin) School,	Latin,	37	22	49
	English,	52	31	83
Unclassified,.....	.....	7	5	12
Grand Total,.....	.....	210	91	..... 301

Prof. Campbell being very anxious to visit Europe and spend a year in the celebrated German Universities, leave of absence was granted him by the Board of Regents. While there he will purchase valuable books for the library and obtain collections that cannot readily be obtained elsewhere, and which will be of great worth to the University.

THE AGRICULTURAL COLLEGE.

We have but to repeat what was said in our last report relative to the Agricultural College. Thus far all the students who have desired work have been employed in taking care of the University buildings, the farm and grounds. The number of students who signify their desire to pursue the agricultural course still continues to be small. But all things are in readiness and we only need to have the farmers send their sons to put this department in a flourishing con-

dition. The faculty of this college ask but a limited number of students and they promise to demonstrate the wisdom of the general government in making provisions for its endowment and practical operation.

MILITARY DEPARTMENT.

This department has been brought into complete organization under the very able management of General Johnson. We take pleasure in bearing testimony to the energy and efficiency with which he has instructed the students and maintained the spirit and enthusiasm of the department since it has been under his charge, and very much regret that he has resigned the Professorship of this department.

OTHER DEPARTMENTS

Of the scientific and classical departments we need make no mention except in words of praise and commendation. The classical department from the very beginning has increased in numbers, efficiency and popularity, and now offers students advantages equal to those of any college in the west.

CIVIL ENGINEERING AND INDUSTRIAL MECHANICS.

The department of Civil Engineering and Industrial Mechanics was established at the June session of the Board of Regents; and Arther Beardsley, formerly a tutor in the University, was elected Professor of this department. Quite a number of students will soon enter upon the regular course of the department, and receive those liberal advantages which are found in this special course.

LIBRARY.

Many additions have been made to the Library since our last report. The Board of Regents voted to appropriate \$4,000 of the \$10,000 appropriation, granted by the last

Legislature, towards the purchase of books for the Library. Accordingly there has already been added about 2,000 valuable and well selected volumes, and Professor Campbell—who is now in Europe—is securing other works of great importance which will soon arrive, so that in a short time we shall have a Library which will at least be an honorable beginning of what we hope to have in our State University.

THE LABORATORY AND MUSEUM.

A few additions have been made to the supply of apparatus in the chemical, philosophical and mathematical departments, and we have also received some choice and valuable collections for the museum. We would in this connection emphasize what we said in our report of last year relative to this department of the University, and we do earnestly solicit all who now have or shall have objects of interest in this direction, to assist in building up the museum.

LAND GRANT.

It will be remembered that reference was made in a previous report to a prospective land grant, the bill for which had already passed the U. S. Senate, but on account of the adjournment of Congress was not acted upon in the House of Representatives. We are gratified to be able to state that this bill has since become a law, and by its operation we have received some 34,000 additional acres of land. We, as well as the people of the whole State, are under special obligations to our Senators and Representatives in Congress for their zealous and persistent efforts in securing this grant, and we hereby tender them our sincere thanks.

RECEIPTS AND DISBURSEMENTS FOR CURRENT EXPENSES.

<i>Receipts from Dec. 22, 1869, to Dec. 22, 1870.</i>	
Balance in hands of Treasurer.....	\$ 791.39
Amount received from State Treasurer during the year....	21,500.00
Received from President Folwell, collected from students and others.....	587.73
Total	\$22,879.12

Disbursements from Dec. 22, 1869, to Dec. 22, 1870.

Paid salaries of the Faculty, since last report.....	\$15,239.54
Paid expenses of Regents.....	835.90
For Chemical Apparatus.....	1,015.40
For Fire Wood.....	921.09
For Insurance on Building and Library.....	731.00
For Printing and Advertising.....	349.50
For Horses, Wagon, and supplies for Farm.....	753.00
For services of Farmer.....	318.13
For services of Janitors.....	325.00
For sundries for labor and various supplies.....	965.30
	<hr/>
	\$21,453.86
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Balance due this fund.....	\$1,425.26

RECEIPTS AND DISBURSEMENTS FOR EXPERIMENTAL FARM.

Receipts from Dec. 22, 1869, to Dec. 22, 1870, from Permanent Fund.

Balance on hand from last year..... \$1,843.87

Disbursements from Dec. 22, 1869, to Dec. 22, 1870.

Paid note favor J. H. McHerron.....	\$1,000.00
Paid interest six months at 10 per cent.....	50.00
Paid D. A. J. Baker for land purchased.....	122.00
	<hr/>
	1,172.00
	<hr/>
Balance due this fund.....	\$671.87

RECEIPTS AND DISBURSEMENTS OF UNIVERSITY LAND FUND.

Receipts.

From H. Johnson, on his note.....	\$200.00
From interest on same 11 months.....	14.67
From cash payment on N. W. $\frac{1}{4}$ of sec. 20, town 110, range 21.....	275.00
	<hr/>
Total.....	\$489.67

Disbursements.

For balance due Treasurer, as last report.....	\$434.50
For recording Mortgage, Stamps, &c.....	3.75
Balance due this fund.....	51.42
	<hr/>
	\$489.67

LIBRARY, FURNITURE AND REPAIR FUND.

This fund arises from an appropriation of ten thousand dollars, made

by the Legislature at its last session, for the purchase of Furniture, Library, &c., and for making repairs on University building.

Receipts.

From proceeds of note negotiated by Regent Pillsbury, on account of this fund.....	\$5,000 00
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Disbursements.

Paid for 1215 volumes purchased of Col. Robertson,.....	\$1,200 00
Paid sundry bills for repairs and material, vouchers filed..	2,646.37
Paid for tin for roof.....	590.30
Remitted Prof. Campbell for the purchase of books.....	601.50
Paid sundry bills for books and repairs.....	50.00
	<hr/>
	\$5,088.17

Balance due Treasurer.....	\$88.17
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This fund is also chargeable with four months interest now due on note of \$5,000.00 above mentioned.....	<hr/> \$150 00
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Appendix "A." is a report in detail of the Treasurer to the Board of Regents.

REPAIRS.

During the summer vacation extensive repairs and alterations were made in the University Building. A new and substantial tin roof has been placed over the entire building. The dormitories on the third floor have all been removed and four convenient and commodious recitation rooms put in their place. Upon the second floor wardrobe rooms and one recitation room has been nicely fitted up. On the first floor a suitable room has been arranged to be used as an office for the Board of Regents, and all the rooms and halls have been painted, grained and calcimined, which together with the new and improved furniture recently added, has given a wholesome and comfortable appearance to all the departments, making them neat and attractive.

IMMEDIATE DEMANDS.

The most pressing and immediate want is a larger build-

ing. It may not be generally known that the present structure is only about one third of the original design, and as such at this time its capacity is greatly overtaxed.

Should the rates of increase of students continue to be the same during the year to come that it has been during the year past, some means must be provided to accomodate them.

We *can not*, we *must not* turn them away. Our sister States, Nebraska and Kansas have recently made appropriations to the amount of \$150,000, each, for erecting State University Buildings, to accommodate a fewer number of students, and these States are no more prosperous, nor are they better able to make such appropriations than is Minnesota. Shall we in the face of present urgent necessities and an exceedingly promising future, hesitate to provide ample facilities for the growth and prosperity of our own State University? Let it not be said, to our shame and regret, that by so doing we ruined its prospects and embarrassed its progress. While the general government has so munificently endowed us with millions of dollars for our common school fund, thereby bequeathing to us a noble heritage, let us not be unwilling to provide an institution where all who may desire can pursue and complete that higher academic education which a university course affords.

These and numerous other considerations ought in a peculiar manner to commend the State University to the fostering care of the Legislature. It should be remembered that no portion of the funds arising from the sale of University Lands can ever be applied to the erection of buildings, but is to remain a permanent fund, the interest of which is to be used for the current expenses of the University.

It is certain that this University must educate many hundreds of the young men and young women of the State, and in order to receive them and properly provide for them, the buildings must soon be completed. *Let it be done at once.* We appeal to the good judgment and wisdom of our Honorable Legislature to decide this vital and important question.

TREASURER'S REPORT.

To the Board of Regents:

GENTLEMEN:—Since my last annual report, I have received from the State Treasurer; from the general fund to pay the current expenses of the University, \$21,500.00 to which add balance on hand from last report, 791.39 and sundry collections from the students and others by President Folwell, - - - 587.73

makes the total available amount	-	-	\$22,879.12
to meet said expenses for the fiscal year ending the 21st inst.			
From this fund I have paid since my last report, for current expenses, including \$100 omitted in last report,			
the sum of	-	-	\$18,954.36
For apparatus,	-	-	1,015.49
For insurance for five years on the building and furniture, on \$43,000, at 1 70-100 per cent.,			731.00
And for horses, wagon, and supplies for University farm,	-	-	753.00
Leaving balance on hand,	-	-	1,425.26
			\$22,879.12

Of the University farm fund there remains in the treasury an unexpended balance of \$671.87.

Of the fund from sales of land for the settlement of the old indebtedness, a balance of \$51.42. During the year one quarter section has been sold, which was the last of

University lands in Rice county. From this sale was realized in cash \$275.00, which with amount of note of H. Johnson and interest collected (\$214.67) paid off balance due the Treasurer in last report, and leaves above balance on hand.

There has been nothing received from the State treasury on account of the appropriation made by the Legislature at their last session for the purchase of a library, and repairing and furnishing the University building. But on the assurance of the State Auditor that the treasury would be able to pay at least half of the appropriation by the first of December, the Executive Committee obtained a loan in the East of \$5,000, at 9 per cent. per annum interest. This amount and four months' interest is now due, which we hope to be able to meet soon by a payment from the State Treasurer on account of the said appropriation.

From above mentioned loan I received	-	\$5,000.00
And have paid for books purchased,	\$1,220.00	
Remitted Prof. Campbell to purchase		
books, - - - - -	601.50	
And have paid for materials and repairs for University building,	3,266.67	\$5,088.17
		<hr/>
Leaving a balance due the Treasurer,	- -	\$88.17

BILLS PAYABLE ACCOUNT.

The only note the Treasury owes is for the above loan, \$5,000, on which there is four months' interest due.

BILLS RECEIVABLE ACCOUNT.

Your Treasurer holds a note for \$275 for time payment on the quarter section of land above mentioned, which is secured by a mortgage on the land sold. For details of receipts and expenditures, see report appended.

Respectfully submitted,

JOHN NICOLS,

Treasurer.

St. Paul, Dec. 20th, 1870.

APPENDIX "A."

John Nicols, Treasurer of University of Minnesota, in account with the Regents.

	DR.	
1869.		
Dec. 18,	To balance from former account.....	\$791 39
" 24,	" am't received from State Treasurer.	2,000 00
1870.		
Jan. 6,	" " rec'd from Prest. Folwell, sun- dry collections.....	105 82 ✓
" 17,	" " received from State Treasurer...	1,000 00
Feb. 3,	" " " " " "	1,500 00
" 16,	" " " " " "	2,000 00
March 17,	" " " " " "	2,000 00
" 30,	" sundry collections by Prest. Folwell	232 92 ✓
April 18,	" amount rec'd from State Treasurer.	1,500 00
"	" " from Prest. Folwell, for wood.....	46 62
May 26,	" amount rec'd from State Treasurer.	500 00
June 7,	" " " " " "	2,000 00
" 21,	" order on State Treasurer.....	3,000 00 ✓
" 22,	" amount rec'd from Prest. Folwell, sundry collections.....	202 37
Oct. 1,	" amount rec'd from State Treasurer.	2,000 00
" 29,	" " " " " "	2,000 00
Nov. 30,	" " " " " "	100 00
		\$22,879 12
April 9, and June 25,	To sundry bills charged in error to this account.....	157 98
		\$23,055 10

1869.

CR. DISBURSEMENTS.

Dec. 20, By telegram. stamps, stationery and ex-
pense attending Regents meeting..... \$7 85

UNIVERSITY OF MINNESOTA.

17

Dec. 23,	By amount paid Prof. Brooks, on salary..	150 00
" 24,	" " " Walker, " ..	240 00
" 27,	" Prest. Folwell, on salary.....	200 00
" 27,	" Prof. Beardsley, "	100 00
" 28,	" Prof. Donaldson, "	400 00
" 28,	" Prof. Twining, "	250 00
" 28,	" Prof. Campbell, "	60 00
" 23,	" Regent Dunnell, expenses meeting the Regents.....	11 00
" 23,	" Regent Donaldson, expenses of three meetings.....	20 00
1870.		
Jan.	" amount paid A. J. Richardson, May 1st omitted.....	100 00
" 4,	" amount paid Prof. Johnson, on salary.	100 00
" 4,	" amount paid Prest. Pillsbury, for sundry bills, vouchers filed.....	191 88
" 4,	" amount paid Janitor's salary, advanced by Prest. Folwell.....	73 75
" 6,	" sundry supplies by Prest. Folwell....	32 07
" 6,	" C. C. Miles' bill, hanging bells.....	3 50
" 6,	" paid Chase & Co., hauling arms, 2 bills	6 50
" 6,	" " E. B. Benjamin, for apparatus and exchange	243 57
" 22,	" " E. S. Ritchie & Son, for apparatus and exchange.....	560 68
" 28,	" " Prof. Brooks, on salary.....	200 00
Feb. 3,	" " Prof. Campbell, on salary.....	200 00
" 3,	" " Prof. Twining, on salary.....	200 00
" 3,	" J. Armstrong for 13 cords maple wood	91 00
" 3,	" Prof. Robertson, salary.....	100 00
" 4,	" Prof. Walker, salary.....	200 00
" 4,	" Prof. Donaldson, salary.....	200 00
" 7,	" Prof. Johnson, salary.....	100 00
" 10,	" insurance on University building and furniture.....	731 00
" 10,	" E. B. Benjamin, for apparatus and exchange.....	211 15
" 10,	" Prof. Robertson, for trees, seeds and farm supplies.....	200 00
" 10,	" C. W. Folsom, for advertising.....	5 00
" 11,	" Pioneer Printing Co.....	26 00
" 12,	" Prest. Pillsbury, for sundry bills, vouchers filed.....	157 37
" 17,	" Prof. Beardsley, account of salary....	200 00
" 17,	" Prest. Folwell, account of salary.....	200 00
" 23,	" Wales & Co., for stationery.....	13 77
March 1,	" Prof. Twining, account salary.....	200 00
" 4,	" Prof. Brooks, account salary.....	200 00
" 4,	" Prof. Campbell, account salary.....	200 00

March 4,	By Prof. Johnson, account salary.....	300 00
" 4,	" Prof. Robertson, account salary.....	100 00
" 19,	" Gas Co., 4 barrels coke.....	2 40
" 19,	" for tin box, lock, etc., for keeping papers.....	2 00
" 26,	" Prof. Brooks, account salary.....	200 00
" 26,	" Prof. Beardsley, account salary.....	100 00
" 28,	" Prof. Campbell, account salary.....	200 00
" 31,	" Prof. Johnson, account salary.....	200 00
" 31,	" Prof. Twining, account salary.....	200 00
" 31,	" Prof. Donaldson, account salary.....	400 00
	" sundry account settled with Prest. Folwell.....	221 05
" 31,	" Prest. Folwell, balance in hand.....	11 87
April 1,	" Prest. Folwell, account salary.....	468 00
" 2,	" Prof. Robertson, account salary.....	100 00
" 9,	" Prest. Pillsbury, sundry bills paid by him, vouchers filed.....	508 54
" 15,	" Prof. Beardsley, account salary.....	100 00
" 21,	" Tribune Co., for printing.....	171 50
" 30,	" Prof. Twining, account salary.....	200 00
" 30,	" Prof. Brooks, account salary.....	200 00
May 7,	" Prof. Campbell, account salary.....	200 00
" 7,	" Prof. Johnson, account salary.....	200 00
" 7,	" Prof. Robertson, account salary.....	100 00
" 7,	" Gov. Marshall, for wood.....	525 38
" 27,	" Prof. Donaldson, salary.....	200 00
June 2,	" Prof. Twining, salary.....	200 00
" 2,	" Prest. Folwell, salary.....	200 00
" 2,	" Prof. Campbell, salary.....	200 00
" 2,	" Prof. Johnson, salary.....	200 00
" 4,	" Prof. Brooks, salary.....	200 00
" 3,	" Prof. Robertson, salary.....	100 00
" 4,	" Prof. Walker, salary.....	200 00
" 4,	" Prof. Beardsley, salary....	100 00
" 21,	" discount on State order 30 days.....	30 00
" 21,	" Prest. Folwell, account salary.....	100 00
" 21,	" Prof. Campbell, salary in full.....	200 00
" 21,	" Prof. Twining, balance in full.....	128 19
" 21,	" Prof. Beardsley, balance in full.....	300 00
" 21,	" Prof. Brooks, balance in full.....	200 00
" 21,	" Prof. Johnson, balance in full.....	200 00
" 21,	" Prof. Donaldson, balance in full.....	400 00
" 21,	" Prof. Walker, balance in full.....	800 00
" 21,	" Prof. Robertson, balance in full.....	100 00
" 21,	" Prest. Pillsbury, for sundry bills paid, vouchers filed.....	171 63
June 29,	" Regent Merriman, for horses purchased for University farm.....	434 00
" "	" Regent Sibley, expenses attending meetings of Board.....	25 00

June 29,	By Regent Thompson, expenses attending meetings of Board.....	58 50
" "	" Regent Harwood, expenses attending meeting of Board.....	13 10
" "	" Regent Donaldson, expenses attending meetings of Board.....	8 50
" "	" President Pillsbury, year's salary.....	200 00
" "	" Sec'y. Merriam, salary.....	100 00
" "	" Treasurer Nichols, "	300 00
July 7,	" President Folwell, balance of salary..	366 67
" "	" " " for sundry bills paid, as per vouchers filed.....	190 96
" 9,	" Regent Thompson, expenses attending meeting.....	38 70
" 12	" Regents' expenses in attending committees and meeting of the Board..	93 80
" 25	" By Prof. Thompson, sundry advances, to apply on salary.....	300 00
" 25	" Prof. Thompson, expenses incurred in traveling.....	26 70
Sept. 10,	" Prof. Brooks, on account salary.....	150 00
" 12,	" Twining " "	50 00
Oct. 1st,	" Johnson " "	150 00
" "	" Twining " "	150 00
" "	" Prest. Folwell, "	100 00
" "	" Professor Robertson, "	100 00
" 4,	" Donaldson, "	150 00
" "	" Thompson, "	150 00
" "	" Beardsley, "	100 00
" 8,	" Press Printing Co. blanks.....	3 00
" 14,	" Prof. Brooks, on salary.....	150 00
" 18,	" M. Bainbridge, farmer, salary 6 mos..	318 13
" 22,	" Prof. Johnson, on salary.....	150 00
Nov. 1,	" Prof. Beardsley, "	100 00
" "	" Prest. Folwell, on salary.....	133 34
" "	" Prof. Twining, on salary.....	100 00
" 2,	" Prof. Donaldson, on salary.....	150 00
" 3	" Prof. Thompson, advanced on salary... ..	250 00
" 3,	" Prof. Brooks. " "	150 00
" 16,	" Prof. Walker, account salary.....	300 00
" 30,	" Prof. Twining " "	150 00
Dec. 1,	" Prof. Beardsley " "	100 00
" 3,	" Prof. Donaldson " "	150 00
" 6.	" Prof. Johnson " "	150 00
" 7,	" Prof. Walker " "	150 00
" 6,	" Prest. Folwell.....	166 66
March 1,	" Paid for two horse wagon complete.....	85 00
Oct. 22,	" Tribune Co., for printing.....	55 00
Aug. 26,	" Sundry bills charged in error to Library account.....	205 76
Dec. 19.	" Sundry bills settled by Prest. Pillsbury,	35 37

21,629 84

By Balance 1,425 26 23,055 10

UNIVERSITY FARM FUND.

1869.		TREASURER, Dr.
Dec. 18,	To balance on hand.....	\$1,843 47

CR. DISBURSEMENTS.

1870, Jan. 4.	By note in favor of J. H. McHerron, paid	\$1,000 00
“ “ 4.	By interest paid on same.....	50 00
“ “ 4.	By amount paid Regent Merriman, advanced D. A. J. Baker, land purchased,	122 00
“ Dec. 19.	By balance carried forward.....	671 87
		<u>\$1,843 87</u>

LAND SALES ACCOUNT.

TREASURER, Dr.

1870, Oct. 4.	To amount of H. Johnson's note, paid	\$200 00
“ “ 4.	To interest, received on same.....	14 67
“ “ 21.	To amount of cash payment on N. W. qr. sec. 20, town 110, range 21....	275 00 \$489 67

CR. DISBURSEMENTS.

1869, Dec. 18.	To balance due Treasurer.....	\$434 40
1870, Sept. 27.	To amount paid for stamps, express charges and recording mortgage,	3 75
1870, Dec. 19.	To balance on hand.....	51 42
		<u>\$489 67</u>

FUND FOR LIBRARY AND REPAIRS.

TREASURER, Dr.

1870, Aug. 26.	To proceeds of note negotiated by Prest. Pillsbury on acct. of this fund	\$5,000 00
1870, Aug. 26 and Oct. 20.	To sundries charged in error to this account.....	205 76
		<u>\$5,205 76</u>

CR. DISBURSEMENTS.

1870, Aug. 29.	By sundry payments to Col. D. A. Robertson for vols. purchased of him for library.....	\$1,200 00
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1870, Aug. 26.	By sundry bills for repair, advanced by Prest. Pillsbury, vouchers filed..	481 66	
" Oct. 23.	By " " " " ..	2,194 48	
" " 22.	By sundry bills presented by President Pillsbury, for tin roof.....	528 80	
" " 22.	By bills for freight and cartage, present- ed by Prest. Pillsbury.....	51 50	
" " 29.	By remitted Prof. Campbell to pur- chase books for Library and ex- change	601 50	
" April 9.	By sundry bills charged in error to Ex. account.....	55 98	
" June 25.	By bill of repairs charged in error to Ex. account.....	120 00	
" Dec. 19.	By two bills settled with Prest. Pills- bury, vouchers filed.....	50 00	
" " 21.	By balance due Treasurer.....	\$5,293 93	\$88 17
			\$5,293 93

ST. PAUL, Minn., Dec. 23d, 1870.

I certify on honor that I have carefully examined the within report, and compared the same with the vouchers on file in Treasurer's office, and find the same to be correct.

R. S. DONALDSON, Member Finance Com. State Board
of Regents Minn. University.

J. S. PILLSBURY, Member of Finance Committee of
University of Minnesota.

THE UNIVERSITY OF MINNESOTA.
SAINT ANTHONY, MINN.,
December 1st, 1870. }

*To the Hon. John S. Pillsbury, President of the Board of
Regents:*

SIR: I have the honor to transmit a report of the interior
affairs and condition of the University for the year ending
November 30th ultimo.

Very respectfully.

Your obedient servant,

WILLIAM W. FOLWELL,
President of the University.

REPORT
OF THE
PRESIDENT OF THE UNIVERSITY.

To the Honorable Board of Regents:

The previous report extended practically up to the close of the First Term of the University Year, 1869-70, ending December 22nd, 1869.

The only important change in our routine after that date, was the introduction of the lectures on agriculture of Professor Robertson, who had reported for duty at the beginning of the second term January 5th, 1870. These lectures were delivered four times per week during that term, the corresponding interval being devoted on Fridays to public rhetorical exercises. During the third term Professor Robertson gave one lecture per week.

We were honored about the middle of the winter term by visits from Committees of the State Agricultural and Horticultural Societies. We trust that like notice may be regularly extended to us hereafter. The countenance and support of those influential societies, will go far to commend the institution to the people at large.

It being impossible to continue the general military exercises during the winter term, Professor Johnson devoted some time, each day to the careful instruction of non-com-

missioned officers, in order to use them at a later period as drill masters. During the summer term the young men received daily drill and exercise in the Manual of Arms, and the Schools of the Soldier and the Company.

The examinations of the first and second terms were conducted in writing; but at the the close of the third term, public oral examinations of all the classes were held in the Assembly Hall. They extended over four days, being varied by music, recitations, declamations, essays and orations. Spite of vigorous advertising, the attendance of patrons and other spectators, was not large. The question has suggested itself, whether the State University ought to cater for the entertainment of the local public of the University town. The show examination or exhibition, is found to be a very insufficient test of the merit of students. Modesty is likely to obscure the best talents and soundest acquirements. The object of the college examination is quite different from that for which the school examination is frequently used, viz: to advertise the school and its teachers. The object of the college examination is to ascertain whether the student has made such progress as to entitle him to be advanced another step toward his degree. He may, therefore, claim an examination to be conducted amid surroundings not calculated to discompose him, and occupying time enough to enable him to make a fair showing of his acquirements. Such is the custom of American colleges. Any other examinations should be additional to the regular, orderly, quiet examinations for grade.

At the close of the year the classes were respectively advanced one grade, thus giving us students of the rank corresponding to sophomores.

The first term of the current year opened according to your appointment on the 6th day of September, and will close on the 22d inst. The number of applications for admission during the term has been one hundred and thirteen (113). Ten applicants have been rejected or failed to complete their examinations. The number of students enrolled during the term is 224; the average daily attendance 210. The absence of Professor Campbell made it necessary

to consolidate the advanced German classes, an arrangement, however which has occasioned no detriment. The following table exhibits the daily routine for the term, and may serve for a sample of our term programmes :

Prof. sors.	Rooms.	I Hour.	II Hour.	III Hour.	IV Hour.
Folwell.....	F	Office Duties,	German.	<i>Geography,</i>	Correspondence.
Campbell*	.	.....	.....	.....	.....
Twining....	I	French,	German,	Chemistry,	<i>Latin Grammar.</i>
Walker.....	E	Cicero,	Virgil,	<i>Latin Grammar</i>	Cæsar.
Brooks.....	B	Æschylus,	Xenophon,	Greek Grammar,	Homer.
Donaldson...	C	† <i>Eng. Grammar</i>	<i>Eng. Grammar,</i>	Study Hall,	History.
Johnson....	G	Algebra,	<i>Geography,</i>	Algebra	History.
Beardsley....	D	<i>Higher Arith.</i>	Higher Algebra,	Physics,	Draughting.
Thompson...	K	<i>Higher Arith.</i>	Trigonometry,	Higher Algebra,	<i>II. Arithmetico.</i>

Military Exercises under Major General Johnson.

* Absent, traveling in Europe. † The italics indicate studies of the Preparatory year.

The "morning roll call" takes place at 8 : 30 o'clock, A. M. All students are required to be present. It is followed by brief and simple devotional exercises. The session closes at 12 : 30 P. M. The Faculty have had under consideration a proposition to throw one-half the day's work over to a second session in the afternoon, but it has not yet been thought advisable to adopt it.

There is one remark which I think I ought to make upon the above scheme. It will be at once discovered that no place is assigned to rhetorical exercises. It is only just to the Professor of Rhetoric to say that ever since his connection with the institution his time has been so fully employed in elementary English instruction, as to leave him but a very small amount of time for the proper duties of his Chair. The dropping off of the English section of our preparatory school after the close of the present year, while it will probably diminish our numbers, will give the relief so much needed in the department of English, a department which should not be allowed to suffer for lack of instructors, nor means of instruction.

I take great pleasure in recording the fact that our work is done this year with a vast increase of comfort and convenience over that of last year, owing to the opening of the new class rooms, and to other much needed improvements on the interior of the building. I am able also to bear testimony to a very general disposition on the part of the students to preserve the rooms, furniture and out-buildings in good order. To acquire the habit of respecting public property, and of using it honorably and economically, is no small part of an education. Every effort will be made here to educate and stimulate our young people to use and not to abuse these buildings and other apparatus of instruction which are placed before them FREE.

NEW ORGANIZATION.

At the request of your honorable President, I insert here a statement of those modifications in the general plan of organization which were formally adopted by you on the 28th of June last (1870), and which, at your adjourned meeting on the 12th of July were put into practical operation by a code of by-laws. Early in the preceding winter a printed circular had been published, setting forth the proposed plan which was thus brought informally to your notice. This document, as I am informed, came before you as the report of a special committee, and as such was duly adopted. It will be proper therefore to insert it here.

THE UNIVERSITY OF MINNESOTA.

PLAN OF ORGANIZATION.

"There shall be established in the University of Minnesota, five or more Colleges or Departments; that is to say, a Department of Elementary Instruction; a College of Science, Literature, and the Arts; a College of Agriculture and the Mechanic Arts, including Military Tactics; a College or Department of Law; and also a College or Department of Medicine." [Laws of Minnesota, 1865.]

" * * * to teach such branches of learning as are related to Agriculture and the Mechanic Arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life, without excluding other scientific and classical studies, and including military tactics." [Act of Congress, granting lands for Agricultural Colleges, 1862.]

A three years preparatory department has been in operation since 1866. Twenty students, most of whom have passed through this Department, are now pursuing the studies of Freshmen in Science or Arts.

It is proposed to drop, as soon as may be practicable, the first year of this preparatory course, and to add to the two remaining years, other two years, corresponding to the Freshman and Sophomore years of our ordinary Colleges, thus forming a Department to be called "THE COLLEGIATE DEPARTMENT," of which the prominent features shall be these, viz :

1. Two or more parallel courses of general scientific and classical studies, designed to prepare students either to enter one of the professional schools, or the Higher Academic course of the University.

2. These courses to be open to both sexes alike.

3. A thorough system of discipline, by means of marking system, military drill, gymnastics, &c.

4. All students to be instructed in those principles of Agriculture (including Horticulture,) the Mechanic Arts and Hygiene, which every "educated man" or woman needs to know.

5. No degrees to be conferred at the end of these courses, but only a certificate of fitness to proceed with some proper University course.

6. A shorter course of scientific studies for students preparing to enter the Colleges of Agriculture, Medicine, &c.

7. Tuition in this Department to be FREE.

8. QUALIFICATIONS FOR ADMISSION; Reading, Writing, Spelling, Arithmetic and elements of Algebra, English Grammar and Geography. Latin Grammar for classical students. After —— years' Latin Grammar and Physiology for all. Age, 14 years.

9. STUDIES — MATHEMATICS, — Algebra, Geometry, Trigonometry, Mensuration (includes Surveying) and Analytical Geometry.

SCIENCES.—Chemistry, Physics, Mineralogy, Botany, and Zoology, Geology, Physiology, Geography, and Astronomy. Of these the Nomenclature and Elements.

LANGUAGES.—English, (including Grammar, Rhetoric, and Logic,) Latin, Greek, French, German, Scandinavian, (any one or *any* two, if the teaching force can be made strong enough.)

OTHER EXERCISES.—Military tactics, Gymnastics and Calisthenics, Drawing, Elocution, &c. Lectures on Agriculture and the Mechanic Arts, and Hygiene.

The theory of this Collegiate Department is, that the student having successfully pursued one or other of its prescribed courses, will be suitably prepared to enter the "College of Science, Literature, and the Arts," or the College of that profession to which he intends devoting his life. It is too much to ask now in a new country, that candidates for Agriculture, Law, Medicine or Business, shall generally have taken the degrees of Bachelor in Arts.

It is not thought necessary to enlarge upon the details of the organization of the professional and technical schools, the number and kinds of which must depend upon the means of the University and the public demands. The first of them to be organized will be that of "Agriculture and the Mechanic Arts." The Higher Academic Department will correspond nearly with the Junior and Senior years of the American Colleges, excepting that there shall be entire academic freedom in the selection of courses. *No degrees* shall be conferred except after successful examinations and that to some extent upon subjects upon which no direct instruction shall have been given.

It is a part of the plan that from year to year some branch or branches shall be dropped off the lower end of the Collegiate courses, so that at length, the whole Department, having been relegated to the schools below, shall "expire by limitation," leaving the federated classical, scientific and professional schools of the University proper. In fact the Collegiate Department is intended to be a model "Secondary School."

See page 34 for a figure illustrating the plan.

For a statement of the advantages claimed for this plan of University organization in our state, and under the circumstances which surround us, I have the honor to refer you to my annual report of this date to the Superintendent of Public Instruction.

The leading ideas of the plan are :

1. That while the University shall provide for the literary and professional classes, the old college discipline in its best form, it shall also furnish to the industrial classes that "liberal and practical education" contemplated in the laws, which have conferred upon her a large part of her endowments.

2. The separation of the natural epochs of Collegiate and University education; the former belonging to the period of youth, the latter to that of early manhood.

3. The simplification of the problem of mixed education by relegating to the high schools that part of education belonging to the former of the periods just named.

4. The elevation of the COLLEGE OF AGRICULTURE AND THE MECHANIC ARTS to equal rank and standing with the professional schools of law and medicine, and the separation of the studies and exercises properly pertaining to it from the elementary branches taught in the common schools, and which it is not the business of *Colleges* to teach.

5. A close and organic connection with all the schools of the State, inviting the co-operation not only of public and secular but of private and denominational institutions. In short the plan contemplates ultimately a complete organization of education in Minnesota.

6. That while the main features of this plan remain unchanged, it admits of great freedom in the arrangement of details to suit the varying conditions of the times. The present arrangement is thought to be that best adapted to the wants of our new and frontier State.

7. A faithful adherence to the letter and spirit of the laws, State and National, which have established and endowed the institution, and which contemplate the University as a *federation* of literary and scientific, professional and technical or industrial *Colleges*, each imparting liberal and practical education.

At the risk of unduly extending this report I add a few of many opinions favorable to the plan of organization received from distinguished American educators

President Hopkins, of Williams College, says:

“The general plan seems to me judicious, and I cannot think you will find difficulty in adjusting it to your wants and means as they shall be revealed.”

President Angell, of the University of Vermont, says:

“A great point will be gained when we have carried second-

ary education up to the mark you have set. I cannot but applaud your courage in attempting the experiment in a new State like yours. * * I do most earnestly wish the highest measure of success to your praiseworthy effort."

President Coppee, of Lehigh University, writes: "The general system strikes me as just and good."

President Read, of the University of Missouri: "Your plan meets my entire approval. * * You have the correct view of agricultural education."

President Chadbourne, of the University of Wisconsin: "Your plan shows that you understand the situation fully, and that your object is to organize the University to meet the present wants of the State, giving it, at the same time, the conditions of growth as new demands are made."

President White, of Cornell University:—Your plan is interesting, and in view of the peculiarities of your intermediate education in the State, very excellent.

President Frieze, of the University of Michigan:—I sincerely hope that you may be able to realize your plan for the development of a University. I can see no deficiency in it. * * * I can see that you and your coadjutors must have infinite faith and patience, and be contented with very gradual and slow progress in the filling up and complete carrying out of the design, but it is certainly correct in principle, and I am convinced that America will never have a University until some of her institutions adopt a course similar to that which you propose.

Hon. Horace Webster, late President of the College of the city of New York. "I like your plan and course of study as given in your circular."

Rev. A. P. Peabody, D.D., of Harvard University:—"I want to express my very sincere and gratified interest in the plan

of your University. I think you have placed your elective system just where it ought to stand. Up to the term corresponding to the close of a sophomore year, a required course will no more than fit a student to make an intelligent and judicious choice, and the whole previous period is needed for studies in which every student ought to be a proficient.

Rev. Dr. Wilson, of Cornell University :—" I express my approval of it in general, without reserve."

Rev. Dr. Kendrick, of the University of Rochester :—" I am glad to see your young State adopting a plan so comprehensive and liberal. * * The general plan seems to me unexceptionable and excellent. The thousand questions of detail will have to be settled by experience."

Major J. H. Whittlesey, of Cornell University :—" I think your plan admirable because it takes existing circumstances in your State as they are. It preserves the lines of demarkation between the different stages of instruction and can adapt its methods to the requirements of each, and it maps out the chart for whatever of growth and development, as a true University, the future demands of the people of your State may require."

Prof. Wm. H. Brewer, Professor of Agriculture in the Sheffield Scientific School of Yale College :—" I heartily commend this plan. I am most decidedly pleased with it, and it seems to me to be the most practical plan, as a whole, for your surrounding conditions."

Professor Albert S. Wheeler, of Cornell University :—" Your plan is very sound and very thorough, (possibly too thorough for Western demands,) but none too thorough for the demands of deep and liberal scholarship."

Hon. Henry Barnard, late U. S. Commissioner of Education :—" It has been a favorite thought of mine for years

to engraft the *Polytechnic* school, as you will see it developed in Zurich, Carlsruhe and other points, on to our American High Schools and Colleges as you have done."

Rev. W. W. Washburn, late Principal of the Preparatory Department of the University of Minnesota: "In your scheme of organization you have comprehended the exact situation of affairs and provided for the wants of that new State very fully. You have crystalized and put into admirable form a thought that has often presented itself to my mind, i. e., that the University courses should branch at the close of the sophomore year. I feel very confident that your plan will succeed, and that it will commend itself to the judgment of any who are acquainted with the wants of new States."

Professor Francis Lieber, of Columbia College, New York City: "I fully approve of your idea of separating more and more the primary schooling from the College proper. Large means are wasted in the United States even by the freshmen classes. All that is taught there can be taught better and much cheaper in common schools, and an upper senior class might be added. (2) Latin can be learned by all, just as well as not, and it ought to be learned by all, especially when English is the language of the country. Latin has the best possible logical effect on the mind—(it *clears* the mind,)—it cultivates taste, it aids to understand our own language, and while it has become a necessity in our international times to know two languages besides our own, it greatly facilitates the learning of foreign languages; and it has become almost indispensable for the understanding of the terminology of the various sciences."

So much for the general plan of organization. In order to exhibit the present arrangement of details, so far as they have been worked out, it will be necessary to introduce some matter from the announcements for the current year.

THE GENERAL ORGANIZATION.

The act of the Legislature of Minnesota, approved February 18, 1868, reorganizing the University, and confirming to it the income to be derived from the sale of lands granted by the United States, "by virtue of an act of Congress donating lands to the several States and Territories which may provide Colleges for the benefit of Agriculture and the Mechanic Arts, approved July 2, 1862," requires the Board of Regents to establish five or *more* Colleges or Departments, that is to say :

- A Department of Elementary Instruction ;
- A College of Science, Literature, and the Arts ;
- A College of Agriculture and the Mechanic Arts ;
- A College or Department of Medicine ;
- A College or Department of Law.

In obedience to the law, the Regents first organized "A Department of Elementary Instruction," which went into operation Oct. 7, 1867, under the name of the Preparatory Department. In order, however, to increase its usefulness, and to make it serve its intended purpose, as a proper introductory school to the higher classical, technical and professional Colleges of the University, this Department of Elementary Instruction has been reorganized and extended. It now embraces along with the three years heretofore assigned to it, two other years which correspond very nearly to the so-called Freshman and Sophomore years of the older American Colleges. It is divided into two periods, of *one* and *four* years, respectively, forming

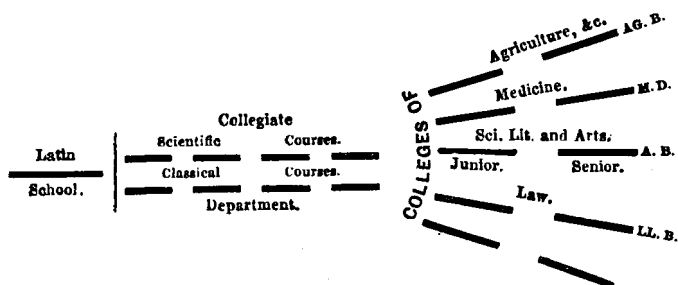
1. The Latin School.
2. The Collegiate Department.

Of the remaining Departments or Colleges, a provisional organization has been made for those of

1. Science, Literature and the Arts.
2. Agriculture and the Mechanic Arts.

The Departments of Law and Medicine will be put in operation as soon as the means of the University will permit.

The following diagram will suggest, though but inadequately, the relations of the various Departments :



REMARKS.—1. The Collegiate Department, receiving the student from the Latin School, or from the public High School, brings him in the course of four years, to the end of the Second (commonly called the Sophomore) year of the ordinary college course. At this point he has his *option*, *whether*, equipped with the fair preparation for special studies acquired in the Collegiate Department to enter at once some one of the professional schools as they may hereafter be established, *or* to proceed with the higher academic studies, classical, scientific or literary, in the “College of Science, Literature and the Arts,” with the view of securing the best and fullest preparation for professional or technical studies. The courses of study offered in this College, cover a period of two years (Junior and Senior), and lead to Baccalaureate degrees. A “*University course in Arts*,” is strongly recommended to all who can, by any reasonable means and sacrifices, attain to it.

2. It is a part of the plan of organization that the studies not only of the Latin School, but also of the Collegiate Department, shall be dropped off as fast as the High Schools can take the work. The University begins wherever they leave off. It is hoped that not very many years may pass before the whole work of the Collegiate Department will have been assumed by those schools.

3. In the announcement for 1870-71, notice was given that after the close of the current academic year, (June 30, 1871), the English course of the Preparatory School would be dropped. Accordingly no further mention of that course will be made, and that school is, for obvious reasons, spoken of as the LATIN SCHOOL.

4. Those interested should take notice, that from the beginning of the next academic year, September 5, 1871, all students of the Latin School will study Latin Grammar. This school is continued for the benefit of those youth who are as yet unable to receive instruction in *Latin* in their local High Schools. It is assumed that those schools can already sufficiently instruct in English Grammar and studies of the same grade. Generally, students are not urged to come to the University to pursue studies in which their High Schools can successfully instruct them.

For convenience, the details of the existing Departments are announced in the following order, viz :

- I. The Latin School.
- II. The Collegiate Department.
- III. The College of Science, Literature and the Arts.
- IV. The College of Agriculture, and the Mechanic Arts.

I. THE LATIN SCHOOL.

1. Candidates for admission must be at least 13 years of age, and must pass satisfactory examinations in

- | | |
|--------------|--------------------------|
| 1. Reading, | 4. Practical Arithmetic, |
| 2. Writing, | 5. Introductory Grammar, |
| 3. Spelling, | 6. Local Geography. |

The examinations in the first three branches are particularly strict.

2. The *principal* studies of this school are :

1. { Higher Arithmetic,
2. { Elementary Algebra.

2. { Geography (reviewed.)
- { United States History.

3. Latin Grammar.

3. Students of this school do not wear the uniform of the Military Corps, nor are they required to drill, except that during the first term of the year they are instructed in the "School of the Soldier without arms."

Students who *pass* the examinations of this school are admitted to the Collegiate Department without further examination.

II. THE COLLEGIATE DEPARTMENT.

1. THE FACULTY.

THE PRESIDENT.

Professor CAMPBELL,

“ TWINING,

“ WALKER,

“ BROOKS,

“ DONALDSON,

“ JOHNSON,

“ BEARDSLEY,

“ THOMPSON.

2. THE COURSES OF STUDY.

The courses of study are :

1. CLASSICAL ; of which the principal studies are Mathematics *and* Latin, with Greek OR German.

2. SCIENTIFIC ; of which the principal studies are Mathematics *and* the Natural Sciences, with ONE at a time of the following languages, viz : English, Latin, Greek, French, German.

In addition to the principal studies, there are exercises in Military Tactics, Drawing, Elocution and Composition, &c., common to all the courses.

Lectures are given upon Agriculture and the Mechanic Arts, and other subjects.

REMARK.—Members of classes are assigned to sections designated by the letters A, B, C, &c., according to the course of studies they are respectively pursuing.

The following synopsis will explain :

Class, —	{	CLASSICAL.	{ Section A, Mathematics, Latin, <i>Greek</i> .
			{ Section B, Mathematics, Latin, <i>German</i> .
	{	SCIENTIFIC.	{ Section C, Mathematics, Science, <i>Latin</i> .
			{ Section D, Mathematics, Science, <i>German or French</i> .
			{ Section E, Mathematics, Science, <i>English</i> .

PROGRAMME.

FOURTH CLASS—*First Year.*

MATHEMATICS,	Algebra—Geometry—Drawing.
SCIENCE,	Math. Geog. and Mapping—Phys. Geography.
LANGUAGE,	{ English, Composition and Rhetoric—Study of Words. Latin, Cæsar and Cicero—Composition. Greek, Grammar and Reader—Composition. German, Grammar and Reader—Composition.
HISTORY,	Outline of Universal History.
RHETORIC,	Compositions—Elocution.

THIRD CLASS—*Second Year.*

MATHEMATICS,	Geometry—Chain Surveying—Drawing.
SCIENCE,	Natural Philosophy—Botany.
LANGUAGE,	{ English, Analytical Reading of Later Authors. Latin, Cicero and Virgil—Composition. Greek, Xenophon and Herodotus—Composition. German, Selections—Composition.
HISTORY,	Roman—English.
RHETORIC,	Compositions—Elocution.

SECOND CLASS—*Third Year.**

MATHEMATICS,	Trigonometry—Mensuration—Drawing.
SCIENCE,	Chemistry—Physiology and Hygiene.
LANGUAGE,	{ English, Anglo-Saxon (optional)—Early Authors. Latin, Livy—Cicero (Moral Works)—Composition. Greek, Herodotus—Homer—Composition. German, Selections from Prose Authors—Conversations. French, Grammar and Reader—Charles XII.
HISTORY,	Grecian—German.
RHETORIC,	Compositions—Declamations.

FIRST CLASS—*Fourth Year.†*

MATHEMATICS,	Descriptive Geometry (Elementary)—Drawing.
SCIENCE,	Physics—Astronomy.
LANGUAGE,	{ English, Logic—General Grammar. Latin, Horace—Tacitus—Antiquities. Greek, Demosthenes—A Tragedy—Antiquities. German, Selections from Lyric and Dramatic Authors. French, Prose Selections—Composition.
HISTORY,	French—Political History of the United States.
RHETORIC,	Themes—Orations.

*Corresponds to Freshman Year. †Corresponds to Sophomore Year.

3. ADMISSION.

Candidates for admission to the Collegiate Department must be not less than 14 years of age. They are examined in

Reading,	Arithmetic and Elementary Algebra,
Writing,	U. S. History,
Spelling,	Geography,
	English or Latin Grammar.

The examinations in reading, writing, and spelling are rigorous.

Candidates for advanced standing will be further examined in the studies already passed by their respective classes or sections. Only *real equivalents* are accepted.

The course of study to be followed is selected for the student at the time of his entrance, by his parent or guardian, who notifies the President of his choice.

4. THE MILITARY ORGANIZATION.

The military exercises are obligatory upon all male students of the Collegiate Department, unless specially excused by the faculty; but only those who declare their intention to complete a course of study are entitled to wear the uniform of the military corps.

5. EXAMINATIONS.

Examinations are held upon the studies of each term, and certificates are given to students who pass. Upon presentation of certificates for all the studies of his course, the student receives a "Final Certificate," which admits him to any appropriate College of the University without further examination.

Any student of the State of Minnesota is entitled, upon application, to be admitted to any examination, and if successful, to receive a certificate to that effect.

The merits of students are ascertained from recitations

and examinations, the relative weight of the latter increasing from year to year.

6. INCIDENTAL EXPENSES.

The charges for incidental expenses are :

For the 1st Term,	-	-	-	-	\$2.00
For the 2d Term,	-	-	-	-	3.00
For the 3d Term,	-	-	-	-	1.00

These sums are paid at the beginning of the Terms respectively, before the student is admitted to recitations. No deductions are made for absence nor late entrance. **TUITION IS FREE.**

III. THE COLLEGE OF SCIENCE, LITERATURE AND THE ARTS.

THE FACULTY.

THE PRESIDENT,
 Professor CAMPBELL,
 “ TWINING,
 “ WALKER,
 “ BROOKS,
 “ DONALDSON,
 “ THOMPSON.

The studies of this college extend over a period of two years, having the same Terms and Recesses as the Collegiate Department.

The courses of study embrace all the secular topics taught to the Junior and Senior classes of the best American colleges.

The option of courses will be as large as the strength of the teaching force will permit.

The merit of students is ascertained from examinations only.

The Degrees of Bachelor of Science, Bachelor of Literature, or Bachelor of Arts will be conferred upon students who complete an appropriate course of study to the satisfaction of the Faculty; but any person not a student of this College may undergo the examinations, and if successful, receive an appropriate degree; but he shall not be entitled thereby to rank as an Alumnus of the University.

REMARK:—This College, as has been observed, has only a provisional organization. At the close of the present year a number of students will pass from the Collegiate Department into this College. The programme of study will be announced in due time.

IV. THE COLLEGE OF AGRICULTURE AND THE MECHANIC ARTS.

THE FACULTY.

THE PRESIDENT,
 Professor ROBERTSON,*
 “ JOHNSON,
 “ BEARDSLEY,
 “ TWINING,
 Mr. BAINBRIDGE.

I. DIVISION OF AGRICULTURE.

The instruction in Agriculture is conducted upon the following general plan :

<i>Departments.</i>	<i>Associated Subjects.</i>	<i>Practical Applications.</i>
CHEMISTRY,	{ GEOLOGY, MINERALOGY,	Nature and origin of soils and their Analysis—Chemistry of Animals and Vegetables — Fertilizers — Food—Process of Dairy, Sugar Factory, &c., &c.
BOTANY,		Horticulture and Pomology, Arboriculture—Improvement of varieties —Cereals—Textile Plants—Weeds, &c.
ZOOLOGY,	{ ANATOMY, ENTOMOLOGY. ORNITHOLOGY, &c.—	Stock-Breeding—Veterinary Science —Insects Injurious to Vegetation —Poultry, Pisciculture, &c.
PHYSICS,	{ METEOROLOGY, CLIMATOLOGY,	Effects of Light, Heat and Electricity —Theory of Winds and Storms—Acclimation of Plants, Animals, &c.
MECHANICS,	{ ENGINEERING, ARCHITECTURE,	Construction and Tests of Farm Implements and Machinery—Roads—Ditching — Fencing — Farm Buildings and Grounds, &c.
ECONOMICS,		General Theory and Practice of Agriculture—Rent—Wages—Accounts —Markets—Transportation, &c.
JURISPRUDENCE,	{ HIST. & LIT. OF AGRICULTURE,	Tenure of Lands—Laws of Highways —Taxation — Estrays — Contracts, &c.

* Resigned.

The course of study extends over a period of two years. The Terms and Recesses are the same as those of the Collegiate Department.

Applicants for admission who bring a Final Certificate for any Scientific course of the COLLEGIATE DEPARTMENT, are admitted without further examination.

Other applicants must be at least 16 years of age, and must pass examinations in the English language, in Arithmetic, Algebra (except higher Equations), Geometry, Plane Trigonometry, Mensuration, and Industrial Drawing; in Geography, and the elements of the following Sciences, viz: Botany, Zoology, Chemistry, and Physics; and in General History.

Students who complete a course of study to the satisfaction of the Faculty, will, upon their recommendation, receive the degree of Bachelor of Agriculture, *but any person not a candidate for this degree, who may appear to be competent to receive the instruction, may attend the classes and undergo examination in any subject; and if successful, will receive a certificate to that effect.*

The merit of students in this College is ascertained from examinations only.

2. DIVISION OF THE MECHANIC ARTS.

The courses of study extend over a period of two years, and lead to the degrees of Civil Engineer, Mechanical Engineer, &c.

The programme of studies has not yet been officially announced.

ATTENDANCE.

I add a detailed statement of the attendance for the year ending this day, using the nomenclature of the tables, which will be readily understood upon reference to the synopsis given on page 37.

The whole number of Students in the Collegiate Department during the year ending Dec. 1, 1870, was 157, classified as follows:

Class.	Section.	Gentlemen	Ladies.	Total.	Classical.	Scientific.	Total.
FIRST.	A,	2	.....	2	.....	.....	.....
	B,	.....	.....	.....	2	.....	.....
	C,	1	.....	1	.....	.....	.....
	D,	2	.....	2	.....	.....	.....
	E,	.....	.....	.....	.....	3	.....
.....	.....	5	.....	5	2	3	5
SECOND.	A,	12	1	13	.....	.....	.....
	B,	4	5	9	22	.....	.....
	C,	2	.....	2	.....	.....	.....
	D,	9	4	13	.....	.....	.....
	E,	2	.....	2	.....	17	.....
.....	.....	29	10	39	.....	.....	39
THIRD.	A,	6	.....	6	.....	.....	.....
	B,	6	2	8	14	.....	.....
	C,	1	1	2	.....	.....	.....
	D,	2	3	5	.....	.....	.....
	E,	1	.....	1	.....	8	.....
.....	.....	16	6	22	.....	.....	22
FOURTH.	A,	23	.....	23	.....	.....	.....
	B,	8	13	21	44	.....	.....
	C,	17	5	22	.....	.....	.....
	D,	11	8	19	.....	.....	.....
	E,	5	1	6	.....	47	.....
.....	.....	64	27	91	.....	.....	91
G. Total.	.....	144	43	157	82	75	157

SUMMARY BY SECTIONS.

Sections.	Gentlemen.	Ladies.	Classical.	Scientific.	Total.
A	43	1	44	.....	.....
B	18	20	38	.....	.....
C	21	6	.....	27	.....
D	24	15	.....	39	.....
E	8	1	.....	9	.....
.....	114	43	82	75	157

In the Preparatory (or Latin) School the Attendance was as follows :

Course.	Gentlemen.	Ladies.	Total.
LATIN.....	37	12	49
ENGLISH.....	52	31	83
	89	43	132

RECAPITULATION.

Departments.	Courses.	Gentlemen.	Ladies.	Total.
Collegiate Department.....	Classical.	61	21	82
	Scientific.	53	22	75
Preparatory (or Latin) School	Latin.	37	12	49
	English.	52	31	83
Unclassified.....		7	5	12
		210	91	.....
Grand Total.....				301

The number of rejected candidates in the course of the year was 25. The examinations of applicants though strict are not severe. Probably none have been rejected whose time could not be more profitably employed elsewhere.

It must be remarked that the scientific courses mentioned above, form the *introductory portions* of the AGRICULTURAL and MECHANICAL Courses.

An inspection of the above tables can not fail to gratify the friends of classical education, showing as they do so large a demand for instruction in the ancient languages, and in the German.

While I regard it as exceedingly desirable to offer to the youth of Minnesota courses of study in which sciences and modern languages replace Greek and Latin to some extent, I ought not to omit remarking that a multiplication of courses involves a multiplication of instructors, and a largely increased expenditure. The time is close at hand when the question will be pressing, whether the people will prefer to save a little money or to have us curtail the liberal assortment of studies now offered in the Collegiate Department.

I desire very earnestly to see developed here a course of study in which the English language shall be taught as a "classic," and be made to yield many of the results in the way of discipline and development of mind and character which follow from the study of the ancient tongues. The German and French—the former in particular—are very valuable vehicles of culture, and therein lies their chief value as school studies. As a rule, schools cannot teach pupils to speak foreign languages.

Although I am uncertain whether suggestions upon subjects not pertaining to our routine of work are expected to be made in this report, I will, with your indulgence, according to the custom of executive officers, respectfully call your attention to a few matters, such as a person on the ground and constantly occupied in the business could not well help entertaining. And first,

OF BUILDING.

I think I may safely say that the University building, or portion of a building, which I found upon my arrival here in September, 1869, was about as ill adapted to the purposes it was serving as any that could be easily devised. Thanks to some alterations and repairs made by your order during the last weeks of the late summer vacation, the structure is not only much improved in appearance, but accommodates our work more efficiently. Still it is far from being what it ought to be, and in one respect it is a signal failure, if indeed a structure should be condemned as a failure, because not answering a purpose which never entered into the conception of the architect. The building would do indifferently well for a school for one sex, but it is not adapted to a *mixed school*. It is worth while to remark here that since the admission of young women to collegiate institutions, a new problem has been imposed upon architects. Neither the structures planned for the old colleges, nor for the female seminaries are suited to the demands of mixed schools. There is a line beyond which the mingling of the sexes is impracticable. There are

many accommodations which cannot be shared in common. In my opinion there should be separate entrances and corridors for ladies, a separate study room, adjacent to which should be their cloak rooms and other apartments. The University building does not now admit of any such arrangement. If the institution is to keep its doors open to the young women of Minnesota, it is bound to provide seemly accommodations.

But secondly, while the present building is ill adapted to the exigencies of a mixed school, it is lacking in many things which are now regarded as indispensable to the comfort and management of any kind of a school.

Its Assembly Hall, a fine room, and four of the classrooms, on the third floor above the basement are reached by a single, narrow, tortuous and ill-lighted staircase, which occasions inevitable confusion and delay daily. It has become necessary to station an "officer of the day" to prevent collisions. In case of a fire below involving this staircase at a time when the students are assembled above, there would be no means of escape within the walls of the building.

Inasmuch as the University town is not yet supplied with gas, it could not be expected that any method of lighting, other than by lamps, could be introduced. The above remark, however, cannot apply to heating nor ventilation. The former is effected by means of forty-three wood stoves of various dimensions. They are all in good order. The latter is not effected at all adequately. It is not an exaggeration to say that the building has no system of ventilation. In regard to this head I would respectfully direct your attention to the remarks of Professor Walker, in his subjoined report. I do not deem it economical, and I doubt whether it is at all feasible to introduce any system of heating and ventilation into this part of a building now standing. Hence the importance of adding the main portion of the plan at least at an early date. When that shall have been erected, it and the wing now standing may be heated and ventilated by the same apparatus.

Again, there does not exist, and it will be difficult to find within the present walls suitable storage for the library and

the cabinets already accumulating. To the library should be attached a commodious reading room for the use of persons consulting its works, many of which it would be impracticable, even if allowable, to remove elsewhere.

The chemical laboratory has no room to spare for the use of students in chemical analysis, and there is as yet no provision for a physical laboratory.

It is now impracticable to make proper and desirable distinctions between students of different departments and of different rank. Thrown as they are into a single mass, a common regime must govern all. This lack will be more apparent next year, when in addition to the departments now in practical operation, two, at least, of the University courses will be represented. Those who are familiar with the customs of colleges will understand more fully the importance of this point. The "University student" is entitled to an amount of freedom, and to a consideration which are not proper to students of lower grade. If we fail to offer such accommodations as are customary in American Colleges and Universities, we shall repel many young men from our doors.

While the departments of elementary instruction should be kept in operation till the schools of the State can assume, as they have begun to do, the work of preparation for University studies, and should be vigorously conducted, they ought not to be suffered to supplant nor to degrade those higher departments less numerous attended to be sure, but which are proper to an institution of University rank standing at the head of a system of education. Such must be the result, if the attempt is made to carry on alongside of our Latin School and Collegiate Department, the Colleges of SCIENCE, LITERATURE AND THE ARTS, and of AGRICULTURE, AND THE MECHANIC ARTS, to say nothing of the Law and Medical Schools in the one building, and in such a building as that now existing. I ought not to dismiss the subject without remarking with emphasis that if the Board anticipate an increase of attendance at the same rate as heretofore no time is to be lost in planning for and erecting additional buildings. With an average daily attendance of two hundred, the

building as now arranged, is comfortably full. I think an arrangement can be made, whereby 300 students can be accommodated without discomfort, but such an arrangement involves the obliteration of the eight dormitories now remaining on the second floor. I will add nothing further for fear that I may obscure the paramount fact that the University needs an enlargement of her building, at the earliest possible moment.

I must, however, not fail to call your attention to a subject not remotely connected with that of buildings. While it may be that the plan of allowing University students to procure such lodgings and maintenance as they choose, is better, as a general policy, than the so-called "Dormitory system," I think it important that no mere theory should control in such a matter. After a careful inspection of the ground I am clearly of the opinion that the institution would gain greatly if it could, even as a temporary thing, offer a considerable number of lodgings at low or nominal rates. Give a student where he may lay his head and he will make a shift to live. In a frontier State we must provide for poor young men and young women. *We must make it possible for a young person to live decently for \$3.00 a week.* This can be done if lodgings can be provided. Particularly is it desirable that suitable dormitories be offered to young women. At the opening of the present term I went with a parent to seventeen different houses within a radius of half a mile from the University building before finding a boarding place for a young lady. I most respectfully urge that this subject receive your early and attentive consideration.

I do not presume, in advance of the action of the Board of Regents, to announce for them any general policy in the matter of University education for women. I merely state the obvious principle that it would be an injustice should any class, nominally entitled to admission, be debarred by the failure of the University to offer proper accommodations, from the actual benefits of the institution. It will be of little use that our doors stand open to young women if our situation and the lack of suitable maintenance preclude them from residence here.

The great length of this report compels me to dismiss several important subjects, for the present, with a bare mention.

FARM GROUNDS.

In the course of the present year it will, as I hope, be feasible to procure a survey in detail of our University grounds and of the farm, by our own students. As soon as this is done, a competent landscape artist should be employed to furnish plans for laying out and decorating them. It would not be necessary nor desirable to execute such plans at once. It would be better to occupy some years, and thereby furnish labor to needy young men. In order, however, to obtain the survey referred to, a certain supply of instruments is indispensable. The remarks of Professor Beardsley may be referred to on this subject.

GEOLOGICAL SURVEY.

I would respectfully submit the question whether steps might not soon be taken towards the employment by the State of our scientific instructors in making a complete survey, geological, mineralogical and topographical of the State.

A prime object on our part would be the opening of a grand field of practical instruction for the young men taking scientific courses.

PRINTING.

I would likewise respectfully advise the consideration of the propriety of procuring, at an early date, the appliances necessary for giving instruction in the art of printing, one of the most useful of the industrial arts, and perhaps better adapted to be taught in schools than any other.

LIBRARY.

I am able to report progress in the matter of cataloguing the library in my charge, but I regret that it has been im-

possible to prepare a catalogue sufficiently complete to be inserted in this report. Such a one can be in readiness without doubt for the report of next year. Let me say that there ought to be a stated fund for the increase of the library of not less than \$2,000 a year.

THE UNIVERSITY COURSE IN ARTS.

It is very important that the courses of study of the College of Science, Literature and the Arts, which has at present only a provisional organization, be framed and set forth in detail at an early date. It will give me great pleasure to co operate in any proper way in this work, which I ought to say should not be delayed.

REPAIRS.

I would respectfully note that at the close of the current year, certain repairs and alterations, planned but not executed during the last summer vacation, should be proceeded with. The Assembly Hall in particular needs renovation, and needs new furniture throughout.

I can not close this document without a referenee to my colleagues of the University Faculty, whose industrious faithfulness in the discharge of their duties deserves the highest praise. I trust the time may soon come when you will be able to make their compensation adequate to their positions and qualifications, and also so to reinforce their numbers as to lighten the heavy burden they are now so cheerfully bearing, in this inceptive period of our history. Experience has demonstrated the amount of time which a University professor can profitably spend in the class or lecture room. That institution, which through a mistaken economy, should reduce its professors to schoolmasters, exhausting their powers in mere tuition, would soon find itself deserted by students and degraded in the estimation of the people.

I regard it as very necessary that the Board take early action toward providing suitable dwellings for the professors,

in the vicinity of the University, not a single one of whom is now both comfortably and conveniently lodged. One member of the Faculty has been forced to rent a house more than a mile away. Remote residence is an injury to the institution, as well as a loss to the professor.

I would also recommend, very respectfully, that no changes be made in the time and manner of paying the professors, except after timely notice, not only to enable them to arrange their business affairs accordingly, but also to offer them the opportunity of acceding to a change of contract.

I have the honor to transmit herewith the annual reports of the members of the University Faculty, and to request your careful consideration of their suggestions.

All of which is respectfully submitted.

WILLIAM W. FOLWELL,
President of the University.

REPORTS
OF THE
PROFESSORS OF THE UNIVERSITY.

REPORT OF PROFESSOR TWINING.

To the President of the University:

SIR;—I have the honor to present the following report of the operations in my department during the year closing with this date. As the time included within its limits embraces the greater part of the academic year 1869-70, and practically the entire first term of the academic year 1870-71, it becomes necessary to present the exhibit of operations in a two-fold way, corresponding to these essentially distinct periods.

The department of chemistry having been made to include provisionally all those subjects which are usually classed under the general head of natural science, the following studies pursued have fallen under my supervision, viz: Physical Geography, Natural Philosophy, Physiology, Chemistry, Botany and Physics. The Professor of Engineering and Industrial Mechanics has taken charge during the present term, of the class in Physics—the mechanical and mathematical portions of which belong more distinctly to that department; and the detail of its work will be found embodied in his own report.

The following tables exhibit the work done in the other branches mentioned, and includes also French, which has for the present been assigned to my care :

1869—70.

Studies.	Class.	Sec.	No. in Class.	Hours pr w/k	Period.	Remarks.
Physical Geography.	Preparatory		71	5	3 terms	Including 1 term of elementary w'k.
Natural Philosophy..	33	5	2 terms	
Physiology.....	24	5	1 term	
Chemistry.....	19	5	2 terms	[Robertson.
Botany.....	11	5	1 term	Instructed by Prof

1870—71.

Chemistry.....	II	A C D	18	5	In progress.	
French.....	I&II	D	13	5	"	[Beardsley.
Physics.....	.....	.....	.....	.....	"	Inst'd by Prof.

I have included in this table the detail of the class in Botany for the third term, 1869-70, since owing to the resignation of the Professor of Agriculture, who instructed the class, no report of their work would otherwise appear. Since the beginning of the third term 1869-70, I have been called on to assist the Professor of Latin, in the elementary work of his department, and during the present term have had charge of the class of beginners in German. This class (IV, Sections B. and D.) includes 32 students, recites 5 hours per week, and is still in progress.

It will probably be necessary to retain for some years, provision for instruction in Physical Geography, but it is every way desirable that the schools should plan their instruction in such a way as to relieve the University of the labor of going over elementary local geography. At the commencement of the last year, it was found that many of the pupils were so ill-informed as to the *loca* of the world that a great deal of time had to be spent upon them, in connection with the necessary preliminaries of Mathematical Geography. With the change in organization of the institution, throwing

Physical Geography one year forward in the course, it is to be expected that this work will hereafter be avoided, and that the first two terms of the year, at most, will suffice for thorough work in both Mathematical and Physical Geography. In consequence of the change above mentioned, this study has been omitted for the present year, the great majority of those students to whom it would regularly fall, having already pursued it under the old regime.

The intercalation of a year in the scientific courses has had the effect of throwing Natural Philosophy also out the list of studies pursued in the present year, so few students being in other departments prepared for the III. class collegiate, that it was deemed best not to expend upon them time which was very much needed in other directions.

The introduction of chemistry as one element of a general education, presents a problem difficult of solution. Unquestionably students *can* learn chemistry; certainly it is highly desirable that they should do so; apparently public opinion favors the study; and probably most students can be led to take an interest in it. The courses of analytical chemistry laid down for working laboratories are such as infallibly lead to acquaintance with the subject, if only average intellect and honest attention are brought to bear upon it. But in these schools, and with these methods, chemistry is removed from the domain of general education, and becomes a specialty. When a student spends from four to six hours a day at the laboratory table, engaged in operations which run on, more or less connectedly, from day to day, the distractions and interruptions of a variety of other studies, cannot but be obstructive to his progress, and are almost inevitably fatal to his interest. To say nothing of the large mass, who are unable to spare the time, and much less to meet the heavy expense of such a course, few young men are likely to spend three, two, or even one year, in the exclusive pursuit of an object which is never half appreciated until long after it is gained. This then must be left to those to whose means it is possible, to whose tastes it is attractive, or to whose aims in life it is indispensable.

On the other hand we are met by the notorious fact, that,

our students learn nothing, and derive no benefit from the study of chemistry as generally pursued in our colleges. The few exceptions fall under the categories given above.

I believe that the study of chemistry can be made profitable in general education, if care is taken to avoid, on the one hand, attempting too much, and on the other, requiring too little. As to the first, a complete knowledge of its facts can only come from that constant practice which constitutes special training, and special pursuit; as to the second the student too easily takes the mere part of an amused spectator. I consider the objects of the study as effected, if the student becomes so familiar with its principles that he can apply them to interpret its phenomena, and so imbued with its spirit that he applies its methods in other departments of study. Enough of facts must be learned to make its principles intelligible; enough of illustration must be used to make these facts all real; beyond this experiment is vanity, and facts vexation of spirit. The fixed relations of fact to fact are the principles of the science, and the mode of investigating these relations is the method of the science, and in the establishment of the habit of scientific method lies the educational value of the science.

I am not satisfied with any of the text-books of chemistry in use; the one which we have adopted I consider the best for the purpose I have indicated, but it is too voluminous for a class-book, and the nature of the illustrations is such that in many cases they cannot be exhibited before a class to any purpose. I hope to be able to prepare, before another year, a course which will in some degree obviate these difficulties, and meet the wants which experience has pointed out.

As, in carrying out such a plan, wants must arise from time to time, which cannot be foreseen, I would suggest that, instead of appropriating, when called for, specific sums for specific purposes, the Board of Regents place at the disposal of the Professor in charge of the Department, annually, such a sum as may be determined upon, to be expended in the purchase of such apparatus as occasion shall call for. It is impossible for any one to make out beforehand a list, containing all the apparatus which he needs, and none that can

be dispensed with. Much will creep in which is superfluous, and much will be left out which is convenient if not essential.

There has been added to our chemical apparatus this fall a small number of articles which were needed. Under the circumstances no increase of the philosophical apparatus has been necessary.

The first steps toward a Mineralogical and Geological cabinet have been made within the past year. A number of valuable mineralogical specimens were obtained from Professor Hall of Illinois, and a small box of minerals and geological specimens, was kindly sent to me by

of Illinois. The want of any room suitably situated and furnished for such collections, tends to discourage any attempts to make them, and the demand for room for other purposes has been such that it has not seemed advisable to apply for space for this object.

With reference to the organization of the University courses in this department, I propose for all students who enter upon special studies requiring a knowledge of applied chemistry, a uniform course of elementary qualitative and quantitative analysis, to be followed by such varied special instruction in the same as their respective professions may require. It is not probable that work of this kind will be called for in our first University year, and I do not therefore think it necessary to embody in this report any plan or estimate for an analytical laboratory. I beg leave to suggest, however, that this subject be borne in mind, since necessity for action upon it will arise in the following year. Even if there are no students in any branch of applied chemistry strictly so called, provision must be made for those who are pursuing either branch of Engineering, to thorough preparation in which, chemical knowledge is, though indirectly, really essential.

EDWARD H. TWINING,
Professor of Chemistry.

REPORT OF PROFESSOR WALKER.

To the President of the University:

SIR—I herein furnish an account of the work and condition of the department of the Latin language and literature. Owing, however, to the shortness of the time and the want of separate records of the department, which would have been kept had it been understood that a separate report would be expected, this will be less complete than I would desire.

On entering upon my duties here in September, 1869, I found three grades of students who had been more or less under instruction in the Preparatory Department. The most advanced class were prepared to enter successfully upon the usual Freshman Latin. The two other classes were composed of pupils who had been here less time, and many of them were quite deficient in the forms of words and elementary principles of the Latin Grammar, although they had passed the elementary reading lessons. There was also a class of pupils who began the study of the language at that time, making four grades of pupils to be taught.

The class of beginners, being larger than could be accommodated in the recitation room and quite too large to be profitably instructed in one class, was divided, and one division placed under the care of Prof. Twining.

At the beginning of the present academic year, September, 1870, some accessions to the classes already formed were received, and a class of eighty beginners, which has been thus far taught in two divisions, one by myself and the other by Prof. Twining. The divisions are quite too large for that individual drill which pupils of their age and stage of progress require, and which, to many, is indispensable to the formation of proper habits of study.

The class of forty-four which was taught in two divisions till the beginning of the present term, with the exception of a few who have gone back, being united constitutes another class too large for practical class work.

Such classes can be lectured to, but Latin cannot be taught

by lectures. They can be successfully taught only when pupils will prepare their lessons thoroughly, by having the privilege of listening to the instruction and recitation of their classmates, of taking the chances of reciting any or all of the lesson, and of reciting two or three times a week.

The following figures show the number of different pupils belonging to the different grades or classes up to the present time :

Collegiate Department, 1st class, - - -	6
Collegiate Department, 2d class, - - -	10
Collegiate Department, 3d class, - - -	22
Collegiate Department, 4th class, - - -	44
Preparatory or Latin School, - - -	80
	<hr/>
Total, - - - - -	162

The following is an outline of the course of instruction :

LATIN SCHOOL.

The inflections of the language—the relations expressed by word endings—and the corresponding English expressions—general rules of syntax on case, agreement and mode.

FIRST COLLEGIATE YEAR.

Exceptions in declension and gender—irregular verbs—idiomatic syntax—reading Latin text understandingly with proper use of pauses and inflection—translation and grammatical analysis of the text.

SECOND COLLEGIATE YEAR.

Quantity of syllables and versification—figures of grammar and of rhetoric—mythology.

THIRD COLLEGIATE YEAR.

A literal and a free translation into English idioms—Roman history.

FOURTH COLLEGIATE YEAR.

Odes and Epistles of Horace—Germania and Agricola of Tacitus.

The most *vital* want at present is a supply of pure air in the recitation room. The pupils are now subjected to a current of cold air from an open window, (the most approved method of taking cold), or to the unhealthful and stupifying influence of *foul air*.

Additional wall maps of ancient geography are much needed, as, at present, the same map would sometimes have to be in three rooms at the same time to meet the demands upon it.

V. J. WALKER,
Prof. of Latin.

December 1st, 1870.

REPORT OF PROFESSOR BROOKS.

To the President of the University;

SIR:—I entered upon my duties as Professor of Greek at the opening of the College year of 1869–70. I found two classes in this department, viz: the 3d Preparatory, and the Freshman. The 3d Preparatory numbered 6; the Freshman 5. A class of beginners, or 2d Preparatory, was organized, consisting of 7. In addition to these classes of my own department, which were maintained through the year, I had charge of a class in Universal History during the fall and winter terms, numbering 8. There were changes in these numbers during the year, made by additions, and by withdrawals from the University. At the close of the college year in June, 1870, the classes in Greek stood as follows:

Freshman Class, - - - -	4
3d Preparatory, - - - -	6
2d Preparatory (Beginners), - - - -	6
	—
Total, - - - - -	16

Of these 3 withdrew from the University, at the close of the year; 1 was temporarily suspended for misdemeanor; and 2 failed to reach the standard of scholarship requisite for advancement. The number therefore carried over to the following year—1870-71—was 10. In September, 1870, at the opening of the college year, the classes stood as follows, all of them being, under the new organization, in the Collegiate department:

I Class (or Sophomore) in course,	-	-	2
II Class (or Freshman) in course,	-	-	4
Admitted on examination,	-	-	2
III Class (or 3d Preparatory) in course,	-	-	4
Admitted on examination,	-	-	1
IV Class (or Beginners),	-	-	23
Total,	-	-	36

Of the above, one member of the IVth Class has since changed to the Scientific Course.

COURSE OF STUDY.

IVth Class.—

Greek Grammar, Hadley.

Greek Exercise Book, Boise.

III Class.—

Xenophon's Anabasis, Boise.

Exercises in Greek Composition, drawn immediately from the Text.

Geography of the Anabasis; Persian History; Lives of Cyrus and Xenophon.

II Class.—

Homer's Iliad, Boise.

Demosthenes, Champlin.

History of Greece, Smith.

Greek Antiquities, Bojesen.

Geography of Greece; the Mythology and Literature of the Iliad; Exercises in Greek Composition.

I. Class.—

One or more of the Tragedies.

Plato.

Exercises in Greek Composition.

UNIVERSITY COURSE.

Author's on Comedy, Oratory, and Philosophy; Lectures on the Greek Language, Literature, Art, &c.

METHODS OF INSTRUCTION.

It will not be expedient to give these in detail. The following are the general principles and methods.

1. Greek is pronounced according to the accents, and with the so-called continental sound of the vowels and diphthongs.

2. The mind of the beginner is not to be crowded with the details of grammatical rules. The knowledge of grammar and of words should proceed equally together.

3. Not only are the general meanings of words to be learned, but their precise signification in the passage read.

4. Passages are to be pronounced understandingly with formally translating them, and choice ones to be committed to memory.

5. Logical and grammatical analysis of sentences and passages.

6. The sentence is taken in grammatical order, and the vernacular given for the original word for word.

7. The thing to be done in the regular translations of the class is to give the exact meaning of the author in the best idiomatic, grammatical English.

8. The sentence is taken in the order of the original, and the vernacular given word for word; this gives the author's modes of thinking and expression, and the idioms of the language; then place the idioms of the original and of the vernacular side by side, and compare them.

9. Question on the facts, allusions, sentiments, tropes, scope of passage, history, chronology, mythology, biog-

raphy, geography, customs, laws, arts &c. ; and in all grammatical forms, elements, rules &c., etymologies, composition, &c.

10. Re translate the English rendering into Greek, and compare.

So far as the Author is concerned study :

1. The chief facts in the life of the Author.
2. The contemporary history and political condition of the country, and the author's relation to them, and the character of the people.
3. The expression and logical scope of his thought, and the wisdom, &c., of his views.

TIME EMPLOYED.

During the Fall and Winter terms of last year I was employed the full session each day, making $18\frac{1}{2}$ hours for the week. During the Spring term, $\frac{3}{4}$ of each day's session, making 16 hours for the week. This present term I am engaged the full session each day, making 20 hours for the week. In addition to these hours, is the time given to examining and correcting, almost daily, exercises in Greek, and other papers; also the time in making out the papers for pass examinations, and examining the work of the classes on these; the making out of the weekly reports, and of these annual ones; also that given to Faculty meetings; the total of these cannot be specifically given, yet it is within bounds to say that it amounts in this department to 5 or 7 hours a week.

SUGGESTIONS.

With great respects I would make one or two suggestions.

1. That, except for very strong reasons, no student be allowed to begin Greek who has not studied Latin at least one year.
2. That Students entered for a full course, who, for any reason, have not passed the term examinations, be required to present themselves for examination at such time subse-

quently as may be deemed proper by the Professor or Faculty; provided always, that no student shall be advanced to the next class who fails to pass on such delinquent study within one year from his first failure or absence.

I will close my report by expressing the confident hope that this Department will soon have in the University Library a liberal supply of reference and other books which relate to the language, the people and the country of the Greeks, so that the students in Greek may be encouraged to do their best in these studies, and that the University may be full abreast of the learning of the world in this Department.

JABEZ BROOKS,
Professor of Greek.

December 2, 1870.

REPORT OF PROFESSOR DONALDSON.

To the President of University:

SIR—Since the organization of this Department, a majority of students admitted to the University have been so deficient in English studies as to occupy a large portion of the time of the professor in charge in the most elementary instruction; and such must necessarily continue to be the case until the standard of admission is raised; the superstructure cannot be erected until the foundation is laid.

For a proper appreciation and comprehension of the breadth and scope of English Literature and Rhetoric—such as may enable the student to compass the work successfully, it is indispensable that the preliminary work embrace thorough instruction and drill in Grammar and Analysis, a knowledge of the elements of Composition as taught in the better class of text-books on that subject, and a clear and well-mastered outline of General History. While this preparation is being acquired, there will be attained, in the other departments of instruction a great amount of discipline and

knowledge. But the sum total of all these acquisitions is the minimum capital on which to profitably commence the study of English Literature and Rhetoric—an endless field of instruction and delight.

The extent to which the work in this department may be carried, must be determined by time and circumstances. Enough could be readily suggested to occupy more years than are allotted for mastering the "full course." The question as to the distribution of the student's time among the various co-ordinate departments, is one which your experience and wisdom will enable you to decide equitably and for the highest good of all concerned.

Instruction in composition and elocution is incidentally and necessarily involved, to some extent, in all kinds of literary work; and this department is indebted largely, for the aid received in this respect, to all the members of the University Faculty.

The specific work done by the head of this department during the past academic year, has already been presented to yourself in a series of weekly reports which now form a part of the archives of the University. Besides the large classes in Grammar and Analysis, Composition and Rhetoric, classes have been instructed in United States and General History, and, to a limited degree, advanced students have been drilled in Practical Composition and Elocution.

The amount of work required in this department is so varied and extensive, that the question is suggested of transferring instruction in Comparative Grammar and Philology to the Department of Languages, and furnishing the professors who perform this super-added work with such additional teaching force as might thereby be rendered necessary. This suggestion is made from the belief that this work more properly belongs to the Linguistic than to the English dep't.

A. B. DONALDSON.

REPORT OF PROFESSOR JOHNSON.

To the President of the University:

SIR:—I have the honor to make the following report of progress in the Department of Military Science during the year:

I was elected to the Chair of Military Science in August 1869, and reported for duty at the opening of the Fall term, September 15. The Board of Regents not having clearly defined my duties, and the Faculty being unwilling to assume the responsibility of requiring all students to drill, and not having the authority to do so myself, the Fall of 1869 was permitted to pass without organizing the students into companies for instruction in the School of the Soldier and of the Company. During the winter I instructed those students selected for non-commissioned officers, and when drills commenced in the Spring of 1870, I found them of great assistance to me. As soon as Spring opened I divided the body of male students into two companies. Prof. Twining kindly offered to drill company B, while I gave my attention to company A. Arms of an inferior quality, were received from the State, and issued to the companies, and the manual of arms was taught them. By the close of the collegiate year, (June 22d) reasonable progress had been made. The increase of students at the beginning of the Fall term, 1870, rendered it necessary to organize two additional companies (C and D). Prof. Twining again assisted me in drilling the companies, first in the School of the Soldier and then in the School of the Company, until sufficient progress had been made to prepare the companies for battalion drill. For some time I have drilled the battalion daily, Saturday and Sunday excepted.

Each company is officered by officers selected from the students. The commissioned officers are selected from the

First Class, the Sergeants from the Second Class, and the Corporals from the Third Class. A Captain is detailed daily, to report to the President as "Officer of the Day," and during his tour of duty, has charge of the building, and is responsible for the good order of the students.

Much has been done in order to secure the benefits of a military training to the students of University. The military service is light and the duty required of the students does not, in the least, interfere with their study hours or impose upon them hardship or fatigue. I had hoped to be able to do more than I have done. If our students lodged in the building, or convenient to it, they might be brought frequently together for instruction in guard and garrison duty, but at this time many of them reside in Minneapolis and at points so far removed from the University that inconvenience and loss of time would result if they were brought together after the close of the morning hours.

My plan for the work in this department is as follows :

MILITARY STUDIES.

I. *Military Engineering*.—To comprise the principles of fortifications, with their application to field works ; the description and nomenclature of permanent fortifications, military mining, the attack and defence of works, and military roads and bridges.

II. *The Art of War*.—To comprise the history and principles of special tactics ; the organization of armies ; logistics ; or the science of moving and supplying armies, with some account of the administrative arrangements of our own army ; strategy, grand tactics, and accessory operations of war.

III. *Military Law*.—To comprise the origin, principles and limitations of military law, the nature and force of the articles of war and of the general regulations of the army ; a summary of the rules of evidence ; the constitution, jurisdiction and procedure of Courts Martial, Courts of Inquiry, Military Commissions and Military Boards.

MILITARY EXERCISES.

I. *Infantry Tactics*.—To comprise the school of the soldier, company and battalion, with skirmishing; the forms of parade, guard mounting and duties of guards.

II. *Artillery Tactics*.—To comprise at least the “school of the piece” for field guns.

III. Cavalry tactics, to comprise instruction in sabre exercise.

Theoretical instruction should be left optional with the student, but the practical instruction should be enjoined upon all. The necessity for making this course obligatory, as part and parcel of the college curriculum, flows from its nature, requiring an aggregation of numbers to give it effect.

The uniform agreed upon, made of materials manufactured in Minneapolis, can be procured at such a low price as to place it within the reach of all, and all should be required to wear it as the habitual college costume. Discipline and economy call for a regulation to that effect.

In order to a thorough knowledge of the drill, there should be a short exercise *daily*. The weather is so intensely cold and the winters so long, that outdoor exercises are out of the question. A drill hall is therefore necessary. A hall suitable for the purpose can be erected at an expense not to exceed \$2,500. This same building would answer for an armory and for a *gymnasium*. The sum is so small and the advantages are so great that I trust the necessary appropriations may soon be made and the building erected.

The inferior arms first furnished by the State, have been taken back, and we have received in lieu of them the Springfield Rifle Musket, an excellent arm, but it is too heavy for the greater portion of our students.

I made a requisition, which was forwarded approved by the President of the University, the President of the Board of Regents, and also Governor Austin, on the War Department for Cadet muskets, but they have not been furnished.

Would it not be well for the State to purchase say 200 Cadet rifles to be used by the students?

Should the necessity ever arise that these arms should be required, they could be turned in at a moments notice. At all events, they would be held as the property of the State, and subject to the orders of the Governor.

During last year I instructed two classes in arithmetic and algebra. This year I have given instruction to two sections of the fourth class in algebra and one class in geography and for a short time a section in history. All this in addition to the duties devolving upon me as Prof. Mil. Science.

R. W. JOHNSON,
Maj. Gen. U. S. A.,
Prof. Mil. Science.

REPORT OF PROFESSOR THOMPSON.

To the President of the University of Minnesota:

SIR:—I have the honor to make the following report of the Mathematical Department of the University.

This report must necessarily be imperfect, as I am comparatively a stranger in the Institution, and it is quite likely that opinions may now be entertained that will be essentially modified and corrected by experience and acquaintance with the department.

The number of students, classes, and sections of classes embraced in the Department is as follows, viz :

CLASS.	SECTION.	NO. OF STUDENTS.	INSTRUCTOR.
Trigonometry.		10	Professor Thompson.
Loomis' Algebra.	1	18	" Beardsley.
" "	2	14	" Thompson.
Bourdon Algebra.	1	41	" Johnson.
" "	2	35	" Johnson.
Higher Arithmetical.	1	35	" Thompson.
" "	2	31	" Thompson.
" "	3	29	" Beardsley.
Total number in the Department... .213			

These classes, as far I am informed, are in a prosperous condition, and doing good work. The class in Trigonometry have completed the study, and commenced Conic Sections. Owing to the thorough drill the members of this class received in Geometry, they have been enabled to make rapid progress and do more work in an allotted space of time than classes of similar grade generally accomplish.

METHODS OF INSTRUCTION.

It is the aim of this Department to adopt those methods of instruction which shall lay the foundation of systematic knowledge. Theoretical, analytical and practical work combined, is the kind of work we desire to do. Written as well as oral analyses of problems are and will be made a prominent feature in the instruction of the Department, as it tends to a strictly logical development of mathematical science, it being believed that one of the principal benefits of the study of Mathematics is to teach the learner how to reason with elegance and exactness. It is sincerely hoped that such methods will at all times prevail as shall train up a race of self-reliant, persistent scholars; ready to meet, and sure to overcome difficulties of whatever nature and degree; taking pleasure in their work, and able to do it thoroughly, swiftly and well, and whose self-reliance and courage shall not be confined to college days, but win for them substantial and deserved success in their various walks of life.

Permit me to suggest that the standard for admission in this department be raised, and that the requirements for admission be so definitely and clearly stated that no one will *presume* to present himself for examination, with mere apologies for fitness, expecting to be passed "on conditions." I think it wise to have it understood that students presenting themselves for admission into the Latin school *must sustain* a thorough examination in the Relations and Properties of Numbers in their Integral, Decimal and Fractional forms; Compound Numbers, Ratio, Proportion, Percentage, including Banking and Exchange, and for admission to an advanced

standing a FULL EQUIVALENT for those studies which the class they desire to enter have completed.

I believe such measures would not invite to the University material which should remain in our public schools and would also soon harmonize our grades.

As I understand each Professor is wholly responsible for his department, I feel that the Professor of this department should be so liberated from class room work that he can spend at least one hour each week inspecting those classes of the department which may be under other instructors.

It would greatly add to the efficiency of the department if it could be supplied with those mathematical forms and globes which are of great value in teaching the higher mathematics, and I trust the Board of Regents may be urged to purchase them without delay.

EDWIN J. THOMPSON,
Professor of Mathematics.

REPORT OF PROFESSOR BEARDSLEY.

To the President of the University:

SIR:—I have the honor to report that during the past academic year, 1869-70, while holding the position of Assistant Professor of Mathematics and Instructor in Industrial Drawing, I gave instruction, under your direction to the following classes:

Term.	Name of Class.	No. of Students	Subject of Study.	Hours per week	Remarks.
1.	Second (then called Freshman)	18	Higher Algebra,	5	To Gen. Theo. Eqs.
	Third.....	16	Algebra,	5	To Q adratrics.
	Preparatory.....	21	Arithmetic,	5	
2.	Second.....	14	Draughting,	5	Line. Plane Problems.
	Fourth.....	21	Algebra,	5	To Quadratics.
	Preparatory.....	21	Arithmetic,	5	
3.	Second.....	9	Draughting,	5	Line. Shade, Scale.
	Third.....	18	Geometry,	5	Plane, Solids.
	Fourth.....	18	Geometry,	5	Plane, Solids.
	Preparatory.....	17	Arithmetic,	5	

In addition to the work indicated above, I had the immediate supervision of the Study Hall, and of the ringing of the hourly bells, and I kept the record of the delinquencies. The careful examination of the frequent written exercises demanded of my classes, gave me many additional hours work after the daily sessions were over.

PROGRESS MADE BY THE CLASSES DURING THE YEAR.

1. *Arithmetic*.—Very many changes were made in the membership of this class, and on this account largely, the class advanced but slowly.

2. *Algebra*.—The Freshman class (as it was then called) began the year with the subject of Quadratic Equations, in Ray's Higher Algebra, and advanced to the General Theory of Equations. The Third and Fourth classes used Loomis' Treatise on Algebra, as a text book, and advanced to Equations of the Second Degree. The classes worked faithfully and passed excellent examinations.

3. *Geometry*.—Evan's School Geometry was used as a text book, and the entire subject, as there treated, was faithfully studied by the Third and Fourth classes.

4. *Drawing*.—The members of the Second (Freshman) class received one hour's daily instruction during the second and third terms in the use of drafting instruments, in line drawing, tinting, shading with the brush and line shading, construction of plane problems, and in the construction of the various kinds of scales.

Present Term.—I am instructing daily during the present term the following classes :

Name of Class.	No. in Class.	Subject of Study.	Hours p'r week
First,	6	Physics,	5
First,	5	Descrip. Geom. (Elementary Projections)	5
Second,	18	Higher Algebra,	5
Second,	10	Draughting (Line, Tinting, &c.)	5
Preparatory,	29	Arithmetic,	5

Of these the Algebra and Arithmetic classes were taken

to relieve the Professor of Mathematics of a portion of the great amount of work which his department at present includes.

Physics.—A fair start has been made in Physics. The class will take up acoustics and optics next term.

Drawing.—The second class of this year is taking the same course as was studied by the second class of last year. The first class is receiving a course in plans, elevations and sections, and in isometrical drawing, with simple shadows.

Department of Civil Engineering and Industrial Mechanics.—At the meeting of the Board of Regents in July last I was elected to the Chair of this department, and I deem it my duty to lay before you at this time my views upon the conduct of the work thus entrusted to me.

I propose two courses of study:—

1. A course in Civil Engineering; and
2. A course in Mechanical Engineering.

These courses of study should be planned with direct references to the teaching of "such branches of learning as are related to * * the Mechanic Arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."*

To this end provision should be made not only for those students who are candidates for a degree, but also for those who can afford to spare but a few months from their industrial pursuits and who wish to gain as much of the technical and practical knowledge underlying their occupations as their limited time and means will permit.

The aim of the regular courses should be to give to the students of Engineering in addition to a broad and liberal culture such studies essentially technical and practical as will prepare him for immediate usefulness in his profession when he has received his degree.

Both courses should rest upon the same basis of preparatory culture, that furnished by the scientific courses of the collegiate department of the University, and should embrace at least two years of professional study and practice in the laboratory, field and draughting room.

*Act of Congress providing for Colleges Agriculture and the Mechanic Arts.

The studies specially pertaining to Engineering are, the making of the various kinds of drawings; Descriptive Geometry, with its applications to masonry, carpentry and machinery; Shades, Shadows and Prospective; Theory, Adjustment and use of the various Surveying and Engineering Instruments; Analytical Mechanics, with its applications to Civil and Mechanical Engineering; &c.

My endeavor will be to render the instruction as practical as possible by means of frequent operations in the field and by the making and study of working drawings of ideal and of actual structures.

It is very desirable that the University be provided as soon as possible with the necessary field instruments, and I recommend the early purchase of a transit, a level and rod, two chains, pins, &c., the estimated cost of which is \$547. I also recommend that the draughting room be provided with single draughting tables.

The first and second classes will begin the study of surveying next term and will be prepared for work in the field by the beginning of the summer term when I hope to put them at work upon a survey of the University farm. These classes already contain four Engineering students and four others who desire taking partial courses in Engineering study. I have made no inquiries in the lower classes.

Respectfully submitted,

ARTHUR BEARDSLEY,

Professor of Civil Engineering and Industrial Mechanics.