

THIRTEENTH
BIENNIAL REPORT

[No. 24 IN SERIES]

OF

The Board of Regents

OF

The University of Minnesota

To the Board of Control of State Institutions

for the

Fiscal Years 1903 and 1904 ending July 31st

Transmitted to the Legislature at the Thirty-Fourth
(Thirteenth Biennial) Session, 1905.

THIRTEENTH BIENNIAL REPORT
 OF THE
BOARD OF REGENTS
 OF THE
UNIVERSITY OF MINNESOTA.

University of Minnesota,
 Office of the Board of Regents,
 Minneapolis, Dec. 12, 1904.

The Board of Control of State Institutions.

Gentlemen: I have the honor, in behalf of the Board of Regents, to submit herewith the thirteenth biennial report of the Board of Regents of the University for the biennial period ending July 31, 1904.

Very respectfully your obedient servant,
GREENLEAF CLARK,
 President.

ATTENDANCE.

The attendance for the last three academic years, in the several departments is shown in the following table:

TABLE OF ATTENDANCE.

	1901-2	1902-3	1903-4
College of Science, Literature and the Arts.....	1,179	1,215	1,252
College of Engineering and the Mechanic Arts.....	345	394	397
School of Mines.....	109	111	118
School of Chemistry.....	.....	.....	36
Department of Agriculture.....	619	638	705
College of Law.....	504	476	535
College of Medicine and Surgery.....	362	314	266
College of Homeopathic Medicine and Surgery....	20	18	14
College of Dentistry.....	107	142	137
College of Pharmacy.....	62	55	68
Summer school	237	318	212
Graduate Department	176	159	137
Totals	3,720	3,840	3,877
Duplicates	64	50	31
Totals less duplicates.....	3,656	3,788	3,846

CURRENT EXPENSE.

The total amount in the state treasury to the credit of the general university fund, in the fiscal year ending July 31, 1903, was \$442,042.06. The amount expended in the same year, including bills incurred before but paid after its expiration was \$451,121.21, showing an excess of expenditure over actual receipts of \$9,079.15—a deficit. The total amount in the treasury to the credit of the same account in the year ending July 31, 1904, was \$472,659.45, and the expenditures in the same year, including bills incurred before, but paid after its expiration was \$463,586.24, an excess of receipts over expenditures of \$9,073.21—a balance. The estimates of the amount which will be available for the several departments of the university in the fiscal year are subject to three contingencies; the amount that will be paid into the state treasury from tax collections, upon which our income partly depends, and more especially the time of such payments; the amount that will be received from tuitions and fees; and the amount that will be received from the sales of agricultural products. The apparent balances against the university at the close of the fiscal year are wholly or largely due to the failure of some of the counties to pay into the state treasury the taxes due to the state on the June settlement, till after the close of the fiscal year. That of 1902-3 is due in part to a depression in tuition receipts, but more largely to the failure of counties to make seasonable tax returns, and that of 1903-4 is due wholly to the latter cause. These balances adjust themselves, or are readily adjusted, by the operations of the succeeding year; so that there need be no difficulty in keeping the expenditures, for all practical purposes, within the limit of our income, though it may be at the expense of efficiency. Moneys coming into the treasury for the benefit of the university, from the June tax settlement, and from the federal government under the Hatch and Morrill bills, and for interest on a part of its permanent fund, constituting together a considerable part of our income, are not received until after the close of the academic year. This necessitates the borrowing of money by the university, in the winter and spring months, to meet its current expenses. It is suggested that this necessity may be avoided, and interest saved, by the enactment of a law authorizing the temporary transfer, to a limited amount, and under proper supervision, of moneys from the general revenue fund to the general university fund. The state auditor is of opinion that this may be done without embarrassment to the treasury. The paramount need of the university is more means for its current expenses. There is a constant struggle to supply things that are needed for educational work and for experimentation, and still keep within the limit of our resources. It is incumbent on us to say that economy now verges on, if it has not reached, the stage of waste. The growth of the institution has been so rapid that it has been difficult, not only for the legislature, but for the management, with the best intentions, to keep pace with

the development. A comparison was instituted last year with the other state universities, as respects the ratio of expenditure for current expenses to the number of students, not for the purpose of basing on it an estimate beyond the requirements of strict economy, but to emphasize the necessity of more means for current expenses to keep the institution up to the standard of the day, and make it effectual for the realization of the expected beneficial results of its work. The following table shows the results of such comparison. It is compiled from information obtained directly from the presidents of the universities of the states named therein respectively, and contains all the universities from which replies were received, except the University of Missouri, in the appropriations for which current expense is so combined with the expenses of equipment of buildings and laboratories, the purchase of books, the grading of the campus, and other purposes, that the amount appropriated for current expense cannot be eliminated. Enrollment in summer schools is included in the number of students in the respective institutions, and there is included under the heading "Appropriations for Current Expenses" the entire amount available for such purpose, whether derived from direct appropriations, from estimated avails of an annual tax, from the federal government, from interest, from tuitions, or any other source:

COMPARATIVE TABLE.

State Universities.	Number of Students 1902-03.	Appropriations for current expenses 1903-04.	Per capita appropriations for current expense
Wisconsin	2,870	\$529,000	\$184.32
Michigan	3,792	708,500	186.84
Kansas	1,294	194,650	150.42
Indiana	1,416	290,000	197.41
California	*3,922	583,000	148.67
Illinois	†3,289	500,000	152.02
Nebraska	2,560	335,000	138.67
North Dakota	‡493	73,000	148.07
Ohio	1,735	400,000	230.54
Iowa	1,442	240,000	166.43
Minnesota	3,788	481,900	127.21

The figures 481,900 for Minnesota are obtained by adding to the amount in the state treasury in the year 1904 \$443,629.41, the amount unpaid by delinquent counties, \$38,263.53—\$481,892.94.

*Including all affiliated departments in San Francisco, except Mark Hopkins Institute of Art, which receives no state aid. These affiliated departments are all self-sustaining, except the Medical School.

†Including professional schools at Chicago which are self-sustaining.

‡Of whom 125 were in preparatory department.

Collections from tuitions and fees increased from \$90,658.03 in the year ending July 31, 1901, to \$104,000 in the year ending July 31, 1902, to \$104,915.39 in the year ending July 31, 1903, and to \$125,048.50 in the year ending July 31, 1904. These increments

are due in part to increased attendance, and, in part, to a readjustment of the rates of tuition. The policy of the management is, to impose the highest rates of tuition upon students of the professional colleges, and students of the other departments whose education on special lines in applied science and the industrial arts, qualifies their graduates to enter at once upon the work of their professions; and to impose light tuitions upon students in the other departments. In the judgment of the board it will not be judicious or wise, at least for the present, materially to increase the rates of tuition as now established; and consequently no further increase in the revenues from this source is to be expected in the future, except such as arises from an increase in the attendance. The following table shows the yearly rates of tuition as now established in the several departments:

TABLE OF TUITION RATES.

	Residents.	Non-Residents.
The College of Science, Literature and the Arts....	\$20.00	\$40.00
Graduate students	10.00	10.00
The School of Chemistry.....	30.00	60.00
The College of Engineering and Mechanic Arts....	30.00	60.00
The School of Mines.....	30.00	60.00
The College of Agriculture.....	20.00	40.00
The School of Agriculture.....	5.00	10.00
The Dairy School.....	15.00	15.00
The short course for farmers.....	10.00	10.00
The College of Law.....	60.00	60.00
Matriculation fee (payable but once).....	10.00	10.00
Graduate students	30.00	30.00
College of Medicine and Surgery.....	100.00	100.00
College of Homeopathic Medicine and Surgery—		
First and second years.....	100.00	100.00
Third and fourth years.....	80.00	80.00
College of Dentistry	100.00	100.00
College of Pharmacy—		
First year	75.00	75.00
Second and third years	80.00	80.00
Diploma fee	10.00	10.00
Summer School—Elementary section		5.00
Summer School—University section	5.00	10.00

In addition to the tuition, fees are charged to cover the expense of material and breakage in laboratory work.

Nearly two-thirds of the current expenditures of the university are for salaries and wages. The salaries of professors and instructors have always been, and now are, low; and it is more and more evident, as stated in our last report, that some raises must be made, from time to time, not only in justice to a class of devoted and accomplished men, but to hold our men; in other words, to prevent the most valuable and useful from going to other institutions at higher salaries. It is degrading and detrimental to the university to place it in the position of a training ground for the trial, test

and proof of men in its faculties for the benefit of other institutions. Just and judicious administration will therefore require more money for the salary list, not only for the reasons above stated, but because an increase of registration from year to year renders imperative an increase in the teaching force.

After careful and conservative estimates, the board begs to represent, that in their judgment, the judicious, salutary and economical administration of the university will require for current expenses in the next biennial period, not less than \$100,000 per year in addition to receipts from all other sources.

THE COLLEGE OF SCIENCE, LITERATURE AND THE ARTS.

The growth in this, the oldest and largest of the several departments, is steady and constant. Its registration has increased from 941 in the year ending July 31, 1900, to 1,252 in the year ending July 31, 1904. Its culture is general, rather than on specific lines. It aims not only to bestow upon its students general knowledge in science, literature and the arts, but to train the mind, and to develop mental and moral power in the individual, and thereby to disseminate reflected beneficial influence in the community. Its course of study is practically the same as that which, up to a comparatively recent date, constituted the exclusive work of the old and renowned educational institutions of the country. The old main building, for many years the only one on the campus, and which in later years has sheltered this department, was totally destroyed, together with its contents, by fire in September last. As a consequence the sub-departments of English Language and Literature, Greek Language and Literature, Latin Language and Literature, German Language and Literature, Scandinavian Language and Literature, French Language and Literature, Political Economy, Rhetoric, History and Mathematics are now without a home. The various classes have been provided for as best they could be, and professors, instructors and students are courageously and with admirable spirit going on with their work under great and perplexing disadvantages. The insurance on the building was \$58,000, and on the contents \$5,000, all of which has been collected. The amount collected on the contents has, from the necessity of the case, been used to replace, as far as it would go, department books and other things necessary for constant use in the instructions of the several classes.

As stated in our last report the building had become congested and inadequate for its uses; and more room for the department, and for desirable enlargement in the scope of its work, had become a pressing need. A new building to accommodate this great, important and growing department, must needs afford much more room than the one which has been destroyed. And in this connection we beg to call your attention to the expediency of constructing better buildings at the university than has heretofore been the general

custom; and to the prevailing sentiment throughout the country that public buildings, built for time, and intended to endure, should, in the interest not only of safety, but of true economy, be solidly constructed and fireproof. It is estimated that such a building, large enough to accommodate the department and meet its coming needs, cannot be erected for less than \$425 000 in addition to the \$58,000 received from insurance, and we respectfully recommend that an appropriation of that amount be made for the construction of a new main building to become available at the earliest practicable time.

THE COLLEGE OF ENGINEERING AND THE MECHANIC ARTS.

The policy of the management has been to raise the educational standard in this college, as well as others, rather than to increase the number of its students; and the rules to that end have been more rigidly enforced in the last decennium than ever before. At the close of the year 1902-3 the department of design and industrial art was abolished, not so much from the want of appreciation of its desirability, as with the object of saving the expense of it. Notwithstanding the policy above mentioned, and the abolition of the school of art, the number of students in the college increases steadily from year to year. In 1901-2 the attendance was 327 in all departments; in 1902-3 it was 373, and in 1903-4 the attendance more than made up for the loss of art students, and reached 384. There has been but slight increase in expenses in the year last past over the preceding year, but if the attendance continues to increase it will be necessary to add to the corps of instructors.

One of the most important events of the past two years to be noted is the recent creation of a department of municipal and sanitary engineering. It was found that it would not add greatly to the expenses of the college, and that modern conditions demanded it for the conservation of the comfort, health and life of our citizens. Much needed equipment in the engineering department and repairs to its work shops, and additions to its electric plant, now being made out of the appropriation for these objects, which became available in the year ending July 31, 1905, will be of great aid in the work of the department, and will add greatly to the facilities for affording light from our own resources. The dean of the college reports a noticeable improvement in scholarship of its students.

A recent fire in the mechanic arts building damaged the building to the amount of \$1,409 and destroyed contents of the value of \$3,646.30, all of which loss is covered by insurance. It is proposed to apply the insurance money, when collected, to the restoration of the building and the replacement of the equipment destroyed. The contents destroyed were mostly the equipment of the laboratory for mechanical practice in the basement. Before the fire occurred the board had determined upon the wisdom of removing the laboratory

from the basement of this building, where it had outgrown its accommodations, and was a disturbance to the other work of the building, to an addition to the power plant building of 40x60 feet, to be constructed at an estimated cost of \$20,000. Out of the appropriation of \$40,000 by the last legislature "for equipment and repairs in engineering department and electric light plant," \$10,000 was allotted for the enlargement of the electric light plant. It is found that while this sum will be sufficient to provide a plant adequate for the present demands, yet such plant will not be large enough to afford in addition light to the new bacteriological building and other buildings now about to be constructed, and that true economy requires that the addition to the plant be made large enough for these additional requirements, which will enhance its cost to about \$15,000. To accomplish these objects and to afford the contemplated and much needed addition to the equipment of the department, including some additional equipment for such new addition, will require \$10,000. We therefore recommend that an appropriation of \$20,000 be made for an addition to the power plant building for a laboratory for mechanical practice, and additional general equipment in the department.

THE SCHOOL OF MINES.

The new School of Mines building has been completed, and the equipment made possible by the appropriation of 1903 has been installed. More elaborate and efficient instruction has been the outcome of these much needed improvements. The high standard of attainment required for a diploma in this school has given it a high rank, and its graduates are in demand for responsible positions.

In order to keep the school up to its avowed standard of excellence, it is necessary that it be supplied, from time to time, with the latest and most efficient machinery and apparatus. The rapid development in metallurgical lines makes this imperative. Prof. Appleby, the dean of the college, than whom no one is better informed, says that no other engineering lines are characterized by so radical and evolutionary changes (naming as an instance the cyanide process, which revolutionized the treatment of gold ores); and that antiquated machinery and apparatus, and obsolete processes, cannot develop a successful engineer. The constantly recurring expense of such new and improved machinery and apparatus should not be charged to, and so help to deplete, the current expense fund.

It is considered that \$2,000 per year will meet the requirements in this regard, and we respectfully recommend that an annual appropriation of that amount be made for apparatus and machinery in the School of Mines.

THE COLLEGE OF LAW.

The addition to the Law School building has been completed and equipped out of the appropriation of 1903 for the purpose.

This much needed improvement has accomplished its object, and placed the school upon a satisfactory basis, as respects its accommodation. The number of students has constantly increased, notwithstanding the requirements for admission are more rigidly enforced, and qualifications for a degree are more closely scrutinized, till the attendance in the year last past reached 535. If all the students of the school graduated, and engaged in the practice of the law, there might be ground for a contention that the profession did not require so many men, and the night classes might be abolished; but there are many young men who purpose to engage in other pursuits, who attend the law school for the knowledge of the rules of business, and the mental discipline it affords; and inasmuch as the law school is self sustaining, and the tuition paid by these men covers the cost of their instruction, it is not deemed wise or judicious, for the present, to restrict the facilities now afforded. There is, however, a strong sentiment in the board in favor of the adoption of higher requirements for admission, and a higher standard of attainment for graduation, at no distant day.

THE COLLEGE OF MEDICINE AND SURGERY.

The increase, three years ago, of minimum entrance requirements to one year of college or university academic work, in addition to a high school degree, has reduced the number of students from 362 in the year ending July 31, 1902, to 266 in the year ending July 31, 1904; and a further reduction to about 200 is anticipated from the same cause, from which point its registration will probably gradually increase. As a result of the advanced requirements, the quality of the student body has improved in a gratifying degree. There is a strong sentiment in the faculty, with which the Board of Regents are in sympathy, in favor of adding another year of academic work to the entrance requirements at an early day, which will place the school upon a higher plane of scholarship than any of the medical schools of the country except Harvard and Johns Hopkins.

Since the last report a system has been put in operation, which co-ordinates the course of the College of Science, Literature and the Arts with that of the Medical Department, so as to admit of the completion of both courses in six instead of eight years. Thirty-six students registered in this course the first year, and beneficial results are confidently expected from the innovation.

The didactic work occupies the time of the professors and instructors to such a degree, that less opportunity is afforded than is desirable for investigation and research; still some creditable work has been done in these lines.

Quite extensive examinations have been made by the Departments of Pathology and Bacteriology and of Medical Chemistry, in collaboration with the State Board of Health and local laboratories,

of the water supply and sewage disposal of the public institutions and cities of the state. The most important achievement in the line of research in the last year is the discovery of the cause of "spotted fever," a disease which has been the scourge of certain sections of Montana and Idaho for twenty years, and whose mortality has been from 70 to 80 per cent. The work was undertaken for the Montana Board of Health by Drs. Wilson and Chowning of the Pathological and Bacteriological departments. Their researches have shown that this disease is due to an animal parasite which is present in the blood and organs of the afflicted patient, and belongs to the same family to which Texas fever in cattle is due. A study was made of its method of transmission, and such facts divulged in regard to the disease and its transmission as will lead, as it is hoped, to effective preventative and remedial measures. The results of the investigation have been promulgated in the medical journals.

The introduction of a laboratory for the Pasteur treatment and study of hydrophobia is contemplated.

The co-ordination of the State Board of Health, of which Prof. Wesbrook is the bacteriologist, and the university department of pathology and bacteriology, of which he is the head, is helpful to both. They have much in common, owing to the similarity in the phases of their work. The routine and research work of the health department, involving public health problems, results in the accumulation of material of no further use to them, but valuable for museum collections and for instruction, and familiarity with laboratory processes of practical investigation is of great value and importance to medical students, who, after their graduation, are in demand for health officers. No pains have been spared in planning the new bacteriological building. Prof. Wesbrook visited the best laboratories, not only of this country, but of Europe, where he was cordially received and afforded every facility to examine and to take descriptions and photographs of laboratories, their arrangement and equipment. It is designed that this building shall contain the laboratories of pathology, bacteriology and hygiene of the university, and the laboratories of the State Board of Health, constructed and equipped so as to meet the most modern and approved requirements. It is expected that these laboratories will become an important center of knowledge, training, research and authority, as respects not only the investigation of diseases of the human family, but of animals as well, where diseases are common to both, though the investigation of the diseases of the latter is not now directly in charge of the health department.

It is expected that the new building will be completed in the year 1905. This will necessitate a further appropriation for its equipment by the next legislature, so that the laboratories may be available for use immediately after the completion of the building. The last legislature appropriated \$5,000 for its partial equipment; and it is estimated that in order to equip the building and its labora-

tories up to the most modern and approved standards will require a further appropriation of \$25,000 and we recommend that it be made. There is need of a new animal building to take the place of one which became dilapidated and has been torn down, to breed animals for use in the laboratories. Such animals cannot be obtained from other sources when required and in sufficient numbers. We recommend that an appropriation of \$2,500 be made for such a building.

COLLEGE OF HOMEOPATHIC MEDICINE AND SURGERY.

The number of students in this college in the year 1899-00 was 24; in 1900-1, 27; in 1901-2, 20; in 1902-3, 18; in 1903-4, 14. At the meeting of the board held Oct. 1, 1903, the requirement then in force, of one year's college or university academic work in addition to a high school degree, for admission to the medical schools, was, at the earnest solicitation of the homeopathic faculty, suspended for a period of two years, as to the School of Homeopathy. The reason assigned for this action was the serious effect the advanced requirement was having upon the patronage of the school.

An informal effort was made by the board to unite the two schools, by establishing in the College of Medicine and Surgery a chair for teaching the materia medica and therapeutics of the homeopathic school, and giving the medical students opportunity to attend upon the instruction of both chairs, or to elect between them. Some of the prominent physicians of both schools were disposed to favor the plan; but the State Homeopathic Medical Society took action in the matter, and decidedly opposed the innovation.

COLLEGE OF DENTISTRY.

Nothing is needed but the necessary facilities to make this department of high order. The conditions remain the same as set forth in our last report. The qualifications for admission are fully up to the general standard of such institutions; the curriculum contemplates a thorough course, and its faculty are faithful and efficient. Its students pay a tuition of \$100 per year, and collections from the infirmary amounted in the last year to \$10,676.23. These collections are from charges, at low rates—much below standard prices—for work done by the students, under the inspection of the professors and instructors, for patients, who are able to bear a part, but not the whole, of the ordinary expense.

It was the purpose of the board to recommend the construction and equipment of a building to accommodate this department and the College of Pharmacy, which is in like predicament as respects facilities. With such accommodations it is thought the two colleges would soon become self sustaining. But the necessities of the university growing out of the destruction of the main building are so

great and urgent that we refrain from such recommendation, and the department must continue to struggle along, as best it may, for a while longer, unless the legislature in its wisdom shall otherwise determine.

THE COLLEGE OF PHARMACY.

There has been no change as respects the accommodations of this department since our last report. The great needs are more room and more laboratories. The course of study requires more laboratory work than most other courses, from the nature of the subject. The curriculum is of a high order, and notwithstanding the drawbacks above mentioned, and the depressing influence of hope deferred, the faculty and students under the example and inspiration of Prof. Fred J. Wulling, the dean of the school, have gone on, with the most admirable patience, courage and spirit, to do the best they could, and with results much better than could be expected. The members of the senior class, as a rule, are in demand for responsible positions several months in advance of graduation.

It is hoped that some additional accommodations and facilities may be afforded this department after the completion of the bacteriological building.

DEPARTMENT OF AGRICULTURE.

This department has continued, with success, its important work during the last two years, though somewhat crippled in its experimental work, in common with other departments of the university, by lack of means. Its registration increases steadily and constantly from year to year, and no reason is apparent why such increase should not continue in the future. The number of students in the College of Agriculture is now 30, a desirable increase, because it affords a more adequate resource for scientific men for instruction and research. The dean of the department states that it has now enrolled the largest number of strictly agricultural students found in any American institution. The farm and station have continued their work of hybridizing, growing and distributing new varieties of wheat, flax and other grains; of developing and testing the utility of different varieties of fruits; of elucidating and disseminating methods for improving and conserving the fertility of soils; of experimental and practical application of the best methods of dairying; of the development and test of grasses and vegetables; of practical instruction in the useful mechanic arts; of investigation and instruction in farm management; the economic use of human and animal foods; the breeding and type of animals, and on other lines. The demonstrated usefulness of the school and station will obviously continue to attract students, and the general plant will, from time to time become, as other departments of the university have become,

congested, and require enlargement. Among the needs of the department is a steel water tank to replace a wooden one, which has been in use twelve years, and is now decaying. It is estimated that such tank with its tower and connections with the water system will cost \$5,500.

There is also needed a reel and hose for protection against fire, which will cost \$1,000. We recommend that appropriations be made for these objects.

It is found that the appropriation of \$250,000 to be raised by taxation pursuant to the act of the last legislature in this behalf, for the construction and equipment of a main building, a live stock building and the enlargement of the heating and lighting plant, will not be adequate for all these purposes. The live stock building has been constructed at a cost of about \$35,000. It is estimated that the cost of enlarging the heating and lighting plant will be \$20,000, and the cost of equipping the main building, when completed, will be about \$20,000. There will therefore be left, out of this appropriation, for the construction of the main building \$175,000. It is found that this amount is insufficient for the construction of a fire proof building planned to meet its requirements, and the State Board of Control is averse to any other than fire proof construction, with which view this Board is in hearty accord. It is estimated that to construct such a fire proof building large enough to meet present requirements, and planned with a view to its uses, and not in the grip of an inadequate cost price, will require an expenditure of \$250,000.

There is need of a girls' dormitory. The present accommodations are inadequate for the increasing numbers, and the Board, after thorough investigation and consideration of the subject, find no escape from the conclusion that the dormitory system at the school is, under present conditions, indispensable. The estimated cost of such a dormitory is \$30,000.

There is no adequate drill hall at the school for instruction in military science. Drill out of doors in the winter months, during which the sessions of the school are held, is impossible. Not only the importance of military training for our youth, but our obligations to the federal government admonish us that this matter should be no longer deferred. It is thought a suitable drill hall, which will answer the purpose of a gymnasium as well, can be built and equipped for \$40,000. The room now used for the purpose would then become available, with some alterations, for a much needed increase of facilities for mechanical work.

The barn accommodations for the dairy herd are inadequate for experimental and educational uses. On account of the rapid increase of students more dairy cattle are needed to furnish milk enough for class work. It is also deemed desirable that the dairy herd should be separated from the other stock. When the dairy hall is vacated by the Dean, and the subdivision of agriculture on

the occupation of the new main building, it will be necessary to rearrange the same, thus making increased accommodations for the dairy school. It is estimated that the cost of an additional barn for the dairy herd, the remodelling and equipping of dairy hall, and for additional silos needed will be about \$30,000.

The agricultural farm as now occupied consists of 256 acres owned by the State, and 173 acres of leased lands, of which 20 acres is leased from the Agricultural Society at a low rent. All of this leased land, or an equivalent acreage, is necessary for the school and for experimental purposes. Lands necessary for the school and station ought not to be held by such a precarious right of enjoyment. There is also a tract of land of about forty acres in such immediate proximity to our buildings as to be, as at present improved, a source of annoyance, and which would become of greater annoyance, and positive detriment, in case it should be used for more unsightly or uncouth purposes. Aside from the reason above stated, the acquisition of this land is justified for general uses.

This leased land, except that owned by the Agricultural Society, or in its place an acreage of say, 160 acres, as well as the tract of land last above referred to, ought in the opinion of the Board to be acquired for the use of the school and station by purchase or condemnation.

To supplement the former appropriation so as to admit of the construction of an adequate fire proof main building, and to provide means for the erection and equipment of a girl's dormitory, the construction and equipment of a drill hall and gymnasium, the construction and equipment of a dairy barn, rearranging and equipping dairy hall and for additional silos, and to defray the expense of the purchase or condemnation of additional lands for the use of the school and station, we beg respectfully to suggest a continuation of the taxation provided for in the act of the last legislature for such time as is necessary to secure means for the accomplishment of these ends.

WOMAN'S BUILDING.

There is a long felt need of a building on the campus devoted to the exclusive use of women, for rest, comfort, social intercourse, association meetings, and such other purposes as it may be found useful for.

The need of such a building is so strongly felt by the young ladies of the University that they have undertaken to raise the money necessary for its construction, through their own efforts; and by entertainments and other agencies have, after two years of effort now on hand a fund of \$1,000 for the purpose. It is evident that the burden of such an enterprise is too great for them, and that they should be relieved of it. They are ready, however, if such a building shall be erected, to assume the burden of furnishing it, which, with the fund now on hand, would seem to be within their resources.

THE GENERAL LIBRARY.

We beg respectfully to repeat the recommendation of our last report that an appropriation of \$5,000, available one-half in each year, be made for a subject catalogue, an indispensable agent in the useful employment of any general library.

The library has received no considerable acquisition to its strength in several years. The multiplicity of objects of expenditure, in the building up and development of the institution, have made it difficult, with the most generous intention, to satisfy all the needs as they arise. The general library needs to be brought up-to-date and strengthened by an addition of books.

In order that the expense of this may be distributed, and the perennial need of new and additional books may be supplied, we respectfully recommend that an annual appropriation of \$10,000 be made for additions to the general library, and of \$3,000 for the cost of periodicals, of rebinding books, and for incidental expenses.

ORDINARY REPAIRS.

We call attention to the usual appropriation for ordinary repairs. The appropriation for this object by the last legislature was \$10,000 per year, and the Board are of opinion that the appropriation of the same amount for each of the two next years will be sufficient.

MILITARY SCIENCE.

Lieut. Haydn S. Cole having, at his own request, been relieved, Maj. Geo. H. Morgan of the Ninth Cavalry was assigned by the War Department to the charge of the military instruction in the University in the spring of 1903. Instruction and drill have gone on at the campus, and at the Agricultural School, as heretofore, and a commendable amount of proficiency in the cadets is observable. The aim of the Commandant has been, in the language of his report, "To consider and treat the corps of cadets so far as possible as a volunteer regiment to be organized and instructed as quickly and efficiently as possible—the officers and non-commissioned officers thus being instructed in the duties and responsibilities they would be compelled to assume were they called upon by the government in case of war." We beg to call especial attention to the following recommendation of Major Morgan. He says that while it is not considered a hardship for the cadet, that he should furnish his own uniform, and that it would verge on paternalism for the State to furnish it; yet that extra equipment for the commissioned officers and for the band and trumpet corps should be supplied as soon as possible; and he adds "That with care an outfit to cost not over \$600 would last for years, and might be considered a reasonable expense

for a regiment of 800 cadets." The Board concur in this view, and respectfully recommend that an appropriation of \$600 be made for the purpose above indicated.

ENDOWMENTS.

GILFILLAN TRUST.

The income received from this fund from its inception up to August 1, 1904, amounts to....		\$6,000.00
There has been returned to the fund for principal and interest on loans.....		267.56
		<hr/>
Total receipts		\$6,267.56
There has been loaned to 40 students.....	\$4,045.00	
There has been paid out for expenses:		
For record books and stationery....	\$19.94	
For rent of safe in deposit vault....	17.00	
		<hr/>
		36.94
Balance on hand August 1, 1904.....		2,185.62
		<hr/>
		\$6,267.56

The income from this fund is affording much needed assistance to students who are compelled to rely upon their own resources for their education, and there can be no doubt that the beneficent purpose of the donor will be realized.

Since August 1, 1904, applications for loans have been allowed but not yet made, to the amount of \$1,650—and there has been returned to the fund for principal and interest on loans \$52.50.

THE LUDDEN TRUST.

The Hon. John D. Ludden, by an indenture of trust executed in June, 1904, endowed the University of Minnesota with the further sum of \$5,000, to be held, invested, and reinvested, through its Board of Regents, and the income thereof to be collected, received and applied by said Board to the financial assistance of students of either sex in the School of Agriculture, in the same manner as is provided in his former deed of trust of the same amount; thus increasing his endowment to \$10,000. Mr. Ludden delivered into the hands of the Regents for the principal sum one Northern Pacific registered gold bond of the denomination of \$5,000, payable to "The University of Minnesota" in gold coin on the first day of January, 1897, with interest at four per cent per annum, payable quarterly in gold coin; being a bond of the same series as that delivered over for the principal of the first donation. The premium on the purchase of this bond was paid by Mr. Ludden, thus enlarging his donation. The income from this fund received up to August 1, 1904, amounts to \$450, and up to that date two students had been aided from it by gift, such being the provision of the trust, to the amount of

\$100, and \$3.75 was disbursed for account books, leaving \$346.25 to the credit of the income account at the commencement of the current year.

THE ELLIOTT SCHOLARSHIP LOAN FUND.

The income account from the inception of the trust to the close of the last fiscal year shows as follows:

Received from interest.....	\$750.00
Received for principal and interest on loans	315.00

\$1,065.00

Loaned to 13 students.....	\$1,015.00
Paid for account book.....	3.00
Balance August 1, 1904.....	47.00

\$1,065.00

This endowment is for assisting young men in the School of Mines.

FENCE AROUND ATHLETIC FIELD.

Mr. Alfred S. Pillsbury has constructed around that part of the campus used as an athletic field, a substantial brick wall at an expense of \$15,000—a useful and valuable acquisition to the University.

OTHER DONATIONS.

Prof. E. W. D. Holway presented to the University for the herbarium a valuable collection of rust and other fungi, estimated to comprise, with duplicates, 10,000 specimens, and also a valuable mycological library.

Mrs. Martha S. Cutts donated \$500 to establish and maintain a prize in the College of Medicine and Surgery.

Mr. F. W. Sardeson, instructor in paleontology, donated to the University, in June last, a valuable collection of fossils.

The donations for scholarships, prizes, and other purposes made to the University prior to the last biennium, too numerous to mention in detail, have all been duly administered according to the directions of the several donors.

All of the endowments and donations, including Pillsbury Hall, the gift of the late John S. Pillsbury, have been conferred upon "The University of Minnesota," a corporation of which the Regents are the members, in trust to be managed and administered by its Board of Regents; and The University of Minnesota has accepted the several trusts and obligated itself for their faithful performance.

THE GEOLOGICAL AND NATURAL HISTORY SURVEY.

The natural history branch of the survey has continued to be the exclusive field of operations for the two years last past. The receipts and expenditures, in that period, and the condition of the fund at its close are shown as follows:

Balance to the credit of the fund August 1, 1902		\$47,791.84
Receipts in the year ending July 31, 1903:		
From salt spring land sales.....	\$16,650.75	
From sales of geological survey reports.....	85.55	
		16,736.30
Total receipts		\$64,528.14
Disbursements in the same year.....		18,337.13
		\$46,191.01
Balance August 1, 1903.....		\$46,191.01
Receipts in the year ending July 31, 1904:		
From salt spring land sales.....	\$10,929.40	
From sales of geological survey reports.....	29.05	
		10,958.45
Total receipts		\$57,149.46
Disbursements in the same year.....		11,384.41
Balance August 1, 1904.....		\$45,765.05

Land contracts are now outstanding to the amount of \$7,869.33. Only tracts of Agricultural College lands, amounting to 40 acres remain unsold, the estimated value of which is \$6 per acre

THE BOTANICAL DEPARTMENT.

Field work has been prosecuted the last two years, on the north shore of Lake Superior, and in Hennepin, Dakota and Kandiyohi Counties. The funds at the disposal of the Board will not admit of much further general field work; so, with the exception of odds and ends, it may be regarded as completed. Preliminary reports of some of the work may be given, but most of it will be incorporated in the final report.

The accessions to the library of the department, during the biennium, amount to 1,486 bound volumes, and about 16,000 pamphlets. This is inclusive of the valuable mycological library presented to the University by Prof. E. W. D. Holway.

The herbarium has been increased in the two years, by the addition of 28,691 specimens, including the important collection of rust and other fungi presented by Prof. Holway, estimated to comprise, with duplicates, some 10,000 specimens. Since the last report the entire collection, for the purpose of its preservation, has been put through the carbon bi-sulphide preserving process, special tanks and methods having been devised for the purpose.

Two new parts of the "Minnesota Botanical Studies" have been prepared by the head of the department (who has undertaken the authorship of the whole series of his own motion) published, and disseminated, comprising 274 octavo pages and 28 plates, and at the suggestion of Prof. MacMillen, Prof. Fræman has undertaken the preparation of an untechnical treatise on the Plant diseases of Minnesota, the manuscript of which is now ready for publication. This publication will be of very definite and permanent value to the crop growers and gardeners of the State.

Since the last biennial report there have been discovered and announced through the botanical survey 147 varieties of plants, not previously known to occur in Minnesota, of which 9 are entirely new to science.

The prime necessity of this department is more room, as fully set forth in our last report, but its supply will not be urged at this time. There is, however, imperative need of a new plant house for growing and storing plants required for daily use in the class rooms, the old ones having become dilapidated and past repair. For the construction of such plant house and the necessary equipment, including pipes and connections for heating, we recommend an appropriation of \$10,000.

THE ZOOLOGICAL DEPARTMENT.

The field work in this department has been limited to such matters as were immediately related to the final report on the birds and fishes of the State, now in course of preparation, and the funds remaining from the proceeds of the sales of the Salt Spring lands will not justify its further general prosecution. The manuscript for the final report on the birds and fishes is in an advanced state of preparation, and its publication now only awaits the preparation of the illustrated plates. The stored specimens and material have been thoroughly overhauled and are found in a condition to be utilized. There is the same need in this department, as in the botanical department, of room to preserve and utilize the results of the survey.

CARE OF CRIPPLED AND DEFORMED CHILDREN.

This work was intrusted to the Board of Regents by the provisions of Chapter 289, Laws of 1897. It was promptly taken up and has been carried on without interruption down to the present time. We have earnestly endeavored to carry out the provision of the law and to give the children coming within its terms the benefits and advantages contemplated by it.

The Board of Regents has entered into a contract with the Board of Control of the City and County Hospital in St. Paul, by the terms of which provision is made for the care of the children at that insti-

tution. A large two-story brick building, detached from the other hospital buildings, has been set apart for the use of the children in our charge. Another building, also detached, is given for school room and kindergarten work. These buildings are well lighted, heated and ventilated and are kept in a thoroughly sanitary condition.

Under our contract the City Hospital is to care for the children as patients are cared for in first-class hospitals, including attendance of trained nurses day and night, food, washing, bandages and medicines; in fact, everything that the children need except physicians' attendance and braces or mechanical appliances. The Board of Regents pays the Board of Control of the Hospital for the services above mentioned \$3.75 per week for children under twelve years of age, and \$4.50 per week for children between twelve and sixteen years, the latter being the maximum age at which any are received.

This contract has been renewed from time to time for periods of two years each as the work has been continued in our hands by the legislature and new appropriations made. The current period will expire May 1, 1905. We have found our arrangement with the City Hospital economical and very satisfactory. The children have received most excellent care from Dr. Anker the superintendent, and from all of his assistants.

The work was commenced in October, 1897. Since that date and up to December 1, 1904, 248 patients have been received into the hospital. During the two years which have elapsed since the making of our last report 85 patients have been received into the hospital. For a full statement of what has been accomplished in the medical and surgical treatment of these children during the past two years, reference is made to the annual reports which have been published and distributed to all physicians in the state.

Dr. Gillette the surgeon-in-chief receives no compensation for his services. They are entirely voluntary. He does a large amount of work for these children and he does it in a conscientious and careful manner. To his efforts, more than to those of any other person, the success of the work is due.

Inasmuch as some of the children remain in the hospital two or three years, and most of them at least six months, we have deemed it advisable to employ a teacher, who can give them such instruction as they are capable of receiving. Miss Katherine Kennedy, of St. Paul, is employed for this purpose, at a salary of \$45 per month. She has done excellent work among the children. She not only gives practical and useful instruction, but, with the aid of a piano, she does much to enable the children to pass pleasantly what might otherwise be dreary days of confinement in the hospital.

The expenditures for the fiscal year ending July 31, 1903, were \$8,583.13. Of this amount \$7,622.68 was paid to the City and County Hospital for the care and nursing of the children under the special contract above mentioned; \$332.50 was paid for kindergarten teacher; \$300 was paid for clerk hire and superintendence; \$162.50 was paid for braces and mechanical devices. The balance was for books, postage, rent of piano, printing, etc.

The expenditures for the fiscal year ending July 31, 1904, were \$9,587.81. Of this amount \$8,623.66 was paid to the City and County Hospital for the care and nursing of the children under the contract above mentioned; \$470 was paid for the kindergarten teacher; \$300 was paid for clerk hire and superintendence; \$83.87 was paid for printing the report and mailing same to all physicians in the state. The balance was for rent of piano, braces, books, postage, etc.

The work is steadily increasing and it seems quite probable that when the next biennial period commences on August 1, 1905, there will be 65 patients in the hospital and that before it closes the number will increase to 75. It will not be safe to enter on this period with an appropriation of less than \$15,000 per annum.

As to whether the work should be continued we repeat what we said in our last report: "As to the future of this work, we would say that, in our judgment, it ought to be continued by the state through some agency. There are, no doubt, many hundreds of indigent children in Minnesota suffering from various deformities, such as club feet, hip disease, spinal disease and dislocation of joints, most of which cannot only be remedied, but entirely cured, under the care of a competent orthopedic surgeon, having at his command suitable hospital facilities, braces, mechanical appliances, etc. Few people appreciate what modern science has been able to accomplish in this direction. And this can be done without any considerable pain or suffering to the child. On the contrary, the child is, in most instances, relieved from pain as soon as the treatment commences. If these children are taken while young they may be saved from the terrible misfortune of going through life as cripples and hunchbacks, and instead of being helpless paupers and beggars they may become respectable, self-supporting citizens. It is difficult to imagine a more humane or a more profitable work in which the state could engage or to which it could devote a small part of its revenue."

The work of carrying out the provisions of the law above mentioned is entirely foreign to the duties of the Board of Regents in the management of the University. The legislature saw fit to assign to the board the duty of inaugurating the work in the first instance and has ever since continued to invoke its services in carrying it on. The work itself was, no doubt, regarded as an experiment, and the placing of it in our hands as a temporary arrangement. We

have made an earnest effort to give it a fair trial and to expend the money placed at our disposal economically and solely for the purpose for which it was intended. If the legislature at its coming session shall be able to find some other agency through which the state can carry on this work we shall be much pleased.

UNIVERSITY MANAGEMENT.

The State Board of Control entered upon the performance of that part of the financial management of the University devolved upon them, near the close of the year 1902-03. The expenditures of the year 1903-04 for current expenses amounted to \$463,586.24. Of this amount \$329,499.76 was paid for salaries and wages, which by law are, and must needs be, for intelligent and successful administration under the control of the same authority which exercise the educational management. The bills for fuel in the same year, in addition to about 500 tons on hand at its commencement, amounted to \$28,443.29. The balance of \$105,643.19 was expended for a great variety of educational instrumentalities, ranging all the way from delicate instruments for scientific work, to the commonest articles of necessity. Under the system of the Board of Control, which contemplates the letting of contracts for supplies to the lowest bidder, whenever practicable, detailed estimates containing lists of every article to be needed for certain fixed periods of time, and the quantity and estimated cost of each item, are required to be made by the heads of departments. These estimates are first carefully investigated by the Executive Committee of the Board of Regents, and approved, with such reductions and modifications as the conditions seem to warrant, and are then transmitted, pursuant to law, to the Board of Control, who consider it their duty, under the law of their organization, to make a new and independent investigation of the necessity of the several articles embraced in them. This leads to repeated conferences by the Executive Committee and the heads of departments with the Board of Control, and adds greatly to the burdens of all concerned. There are many educational instrumentalities, some of which have to be purchased abroad, which, from their especial nature, cannot well be let to the lowest bidder, and are often most economically obtained through the heads of departments, who are familiar with the best sources of supply. In the making up of these detailed estimates omissions occur and unforeseen conditions arise which make the acquisition of articles not embraced in them indispensable. This necessitates new and additional estimates to go through the same process of a double investigation. While the result is the adoption by the Board of Control of the estimates as approved by the Executive Committee, with a few minor exceptions, the aggregate amount of which is quite small

and inconsiderable, yet injurious delays result from the double process, and what is of more importance the heads of departments are burdened with an excess of detailed work of a character which is distasteful to them, and consumes an unwarranted portion of their time, which ought to be devoted to their educational work, a loss of time that is not, and cannot be, compensated for by any economic advantages to be gained by the purchase of these educational instrumentalities through an independent agency. There has been hearty co-operation between the two boards with a view to the best attainable results under the anomalous conditions in which they are placed. Contracts for fuel and for the construction of buildings and improvements, after the plans, in the making of which this Board has a share of the responsibility, are settled, can be submitted to the competition of coal dealers and builders with equal advantage through either agency.

A system which is adapted to those institutions whose chief requirements are the shelter, care and subsistence of involuntary inmates, is ill adapted to the educational requirements of a great and diversified university; and after a year's experience of the working of the laws as now framed, we beg to reiterate our conviction that the educational management and the financial management of the University are so interwoven that their separation in whole or in part cannot conduce to its intelligent, successful or economical administration; and we beg further to reiterate our conviction that a non-political board of eminent citizens, appointed by the Governor and confirmed by the Senate, composed of graduates of colleges, professional men, and business men, who shall serve without reward, or the hope of reward, save only in the consciousness that they are doing something in their day and generation, to promote the public welfare, is best adapted to administer the affairs of a diversified university. The history of the old colleges and universities in this country and elsewhere, all of which are governed on this theory, and their memorable success as shown in the record of the achievements of their alumni, not only justifies the old way, but points the danger, in this intensely commercial age, of trying the experiment of operating a university, whose scope of instruction ranges from the teaching of the humanities through various grades of applied science, art and technology, to the simpler, but not less important, forms of the industrial arts, by a board of salaried officials without experience of university life or work. Fidelity to our trust demands that this statement of present conditions, and of our well considered views in respect to the same, be made. We most respectfully, but earnestly, urge that the University be restored to its old foundation, the foundation established by its founders, and contemplated in the Constitution of the State.

RECAPITULATION OF APPROPRIATIONS RECOMMENDED.

For current expenses, \$75,000:00 per year.....	\$150,000.00
For construction and equipment of main building, in addition to the insurance collected	425,000.00
For addition to power house building and equipment in the en- gineering department	20,000.00
For construction and equipment of new plant and storage house	10,000.00
For equipment of new bacteriological building.....	20,000.00
For ordinary repairs, \$10,000 per year.....	20,000.00
For additions to the general library, \$10,000 annually.....	20,000.00
For periodicals, rebinding, and repair of books, and incidental expenses, of the general library, \$3,000 per year.....	6,000.00
For improvement of the campus, \$5,000 per year.....	10,000.00
For new animal house.....	2,500.00
For equipment for commissioned officers and the band and trum- pet corps	600.00
For new apparatus and machinery in the School of Mines, \$2,000 annually	4,000.00
At the Agricultural School and Station:	
For new steel water tank and connections.....	5,500.00
For reel and hose.....	1,000.00
Total	\$694,600.00

Continuation of tax of last session for additional means for con-
struction and equipment of main building, a girls' dormitory,
the construction and equipment of a drill hall and gym-
nasium, the construction and equipment of a dairy barn,
rearranging and equipping dairy hall, additional silos, and
the acquisition of additional land for the farm and station.

The following schedules and statements show the administrative
and executive officers and the faculty and instructors of the Uni-
versity; also the financial report of the University accountant, show-
ing in detail the receipts and disbursements for the several depart-
ments for current expenses, and the expenditure of special appro-
priations for each of the two years last past. The disbursements
of the University for the last year, as well as the purchase of the
things it needed, and the construction of buildings and other im-
provements, after the plans were agreed on, have been under the
management of the State Board of Control; but it has been thought
best to continue our system of detailed accounting through the last
year, as well as the first, for the sake of conformity.

Attention is called to the report of the President of the Univer-
sity to the Board of Regents which is appended hereto.

All of which is respectfully submitted in behalf of the Board of
Regents.

GREENLEAF CLARK,
President.

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 B. F. CARTER, *Accountant and Purchasing Agent*

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 WILLIAM M. LIGGETT, *Dean and Director of Department of
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THE FACULTY

- CYRUS NORTHROP, LL. D., President, 519 Tenth Avenue S. E.
 FRANK MALOY ANDERSON, M. A., 1629 University Avenue S. E.
 Assistant Professor of History.
- WILLIAM R. APPLEBY, M. A., 911 Fifth Street S. E.
 Dean of the School of Mines and Professor of Metallurgy.
- FREDERICK H. BASS, C. E., Minneapolis
 Assistant Professor of Sanitary Science, in charge of
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- JOHN PARSONS BEACH, Harvard Chambers
 Assistant Professor of Music.
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 Special Lecturer on English Literature.
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 Dean of the College of Science, Literature and the Arts,
 and Professor of Mathematics.
- HENRY T. EDDY, C. E., Ph. D., 916 Sixth Street S. E.
 Professor of Engineering and Mechanics.
- JOHN J. FLATHER, Ph. B., M. M. E., 1103 Fourth Street S. E.
 Professor of Mechanical Engineering.
- WILLIAM W. FOLWELL, LL. D., 1020 Fifth Street S. E.
 Professor of Political Science; Lecturer on International Law;
 Librarian.
- GEORGE B. FRANKFORTER, M. A., Ph. D., Flat 1, 602 Fourth Avenue S.
 Professor of Chemistry and Dean of the School of Chemistry.
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- BENJAMIN F. GROAT, B. S., 1312 Fifth Street S. E.
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Professor of Geology and Mineralogy; Assistant Curator of the
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- ARTHUR EDWIN HAYNES, M. S., M. Ph., Sc. D., 703 River Parkway
Professor of Engineering Mathematics.
- WILLIAM R. HOAG, C. E., 1516 Seventh Street S. E.
Professor of Civil Engineering; Topographer of the Geological
and Natural History Survey.
- JOHN C. HUTCHINSON, B. A., 3806 Blaisdell Avenue
Professor of the Greek Language and Literature.
- GEORGE FRANCIS JAMES, Ph. D., 106 Willow Street
Professor of Pedagogy.
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the Mechanic Arts.
- WILLIAM H. KAVANAUGH, M. E., Minneapolis
Assistant Professor of Mechanical Engineering in Charge of
Experimental Engineering.
- WILLIAM H. KIRCHNER, B. S., 618 Tenth Avenue S. E.
Assistant Professor of Drawing, College of Engineering and the
Mechanic Arts.
- FREDERICK KLAEBER, Ph. D., 616 Ninth Avenue S. E.
Professor of Comparative and English Philology.
- FRANCIS P. LEAVENWORTH, M. A., 1628 Fourth Street S. E.
Professor of Astronomy and Director of the Observatory.
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- E. EUGENE McDERMOTT, M. S., 1301 Sixth Street S. E.
Assistant Professor of Rhetoric and Elocution.
- HOPE McDONALD, M. S., 1216 Harmon Place
Assistant Professor of History.
- CONWAY MACMILLAN, M. A., 1004 Seventh Street S. E.
Professor of Botany; Botanist of the Geological and Natural
History Survey.
- FRANK L. McVEY, Ph. D., 621 15th Avenue S. E.
Professor of Political Economy.
- JOHN G. MOORE, B. A., 2810 University Avenue S. E.
Professor of the German Language and Literature.
- GEORGE H. MORGAN, LL. B., Major U. S. A. Minneapolis
Professor of Military Science and Tactics.
- HENRY F. NACHTRIEB, B. S., 905 Sixth Street S. E.
Professor of Animal Biology; Zoologist of the Geological and
Natural History Survey; Curator of the Zoological Museum.
- EDWARD E. NICHOLSON, M. A., 914 Seventh Street S. E.
Assistant Professor of Chemistry.
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Professor of Latin.
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Professor of Rhetoric and Elocution.

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- EDITH J. SNELL, B. A., St. Anthony Park
Instructor in Mathematics, Geography, History, School of Agriculture.
- M. SONDEGAARD, St. Anthony Park
Instructor in Cultures and Starters, Dairy School.
- DAVID F. SWENSON, B. S., Minneapolis
Instructor in Philosophy.
- JAMES M. TATE, Minneapolis
Instructor in Wood Work, College of Engineering and the Mechanic Arts.
- WILLIAM I. THOMAS, Minneapolis
Instructor in Rhetoric.
- HENRY L. ULRICH, M. D., Minneapolis
Assistant in Clinical Microscopy, College of Medicine and Surgery.
- J. A. VYE, St. Anthony Park
Instructor in Penmanship and Accounts, School of Agriculture, and Secretary of the Experiment Station.
- ALBERT M. WEBSTER, B. A., Minneapolis
Instructor in Latin, College of Medicine and Surgery.
- JAMES M. WALLS, D. M. D. St. Paul
Instructor in Operative Technics and Demonstrator of Operative Dentistry, College of Dentistry.
- H. L. WHERLAND, Minneapolis
Assistant Engineer, College of Engineering and the Mechanic Arts.
- B. D. WHITE, St. Anthony Park
Instructor in Creamery Management, Dairy School.
- GRACE L. WHITTRIDGE, St. Anthony Park
Assistant in Physical Culture for Women, School of Agriculture.

M. RUSSEL WILCOX, M. D., Demonstrator of Physiology, Department of Medicine.	Minneapolis
VAN H. WILCOX, M. D. Assistant in Operative Surgery, College of Medicine and Surgery.	Minneapolis
ELEANOR M. WILKINSON, Instructor in Physiology and Dietetics, College of Medicine and Surgery.	Minneapolis
HUGH E. WILLIS, LL. M., Quiz Master and Instructor in Law, College of Law.	Minneapolis
LOUIS B. WILSON, M. D., Senior Demonstrator of Pathology, College of Medicine and Surgery.	Minneapolis
F. R. WRIGHT, M. D., Clinical Instructor in Dermatology and Genito-Urinary Diseases, College of Medicine and Surgery.	Minneapolis
FRANK R. WRIGHT, D. D. S., M. D., Lecturer on Anæsthesia and Chief of the Anæsthetic Clinic, College of Dentistry.	Minneapolis
ANTHONY ZELENY, M. S., Instructor in Physics.	Minneapolis

 UNIVERSITY SCHOLARS.

- In Anatomy*—Karl Klemer, C. C. Tyrrell.
- In Animal Biology*—Neil S. Dungay, E. E. Hemingway, M. A.
- In Bacteriology and Pathology*—Chelsea Pratt, Robert L. Tebbitt, S. E. Williams, George C. Dittman, George E. Dix, John L. Devine, George E. Thomas.
- In Botany*—Daisy Hone, B. A., Arthur M. Johnson.
- In Chemistry*—Marjorie Cole, Arnold V. Dahlberg, Francis C. Frary, Frank Grout, Edward Gutsche, Joseph Hopkins, Frank J. Longworth, William Methley, Charles D. Poore, Anton R. Rose, A. E. Carr, E. A. Loomis.
- In Drawing*—Franklin R. McMillan.
- In French*—Jules T. Frelin.
- In Geology*—E. McM. Pennock.
- In Gymnasium*—Frederick R. Schweitzer.
- In Histology and Embryology*—E. E. Olander, C. W. Wilkowski, J. E. Hynes and Charles McMahon.
- In History*—Helen E. Camp, B. A.
- In Observatory*—Sturla Einarson.
- In Pedagogy*—Charles M. Holt.
- In Philosophy*—Bernice M. Cannon, B. A.
- In Physics*—Alois F. Kovarik.
- In Political Economy*—Irwin A. Churchill.
- In Rhetoric*—Ella C. Ruscoe.
- In Surgical Pathology*—Hugh S. Willson.

REPORT OF THE PRESIDENT OF THE UNIVERSITY.

Gentlemen of the Board of Regents.

The demand for higher education is increasing in all parts of our country. This is proved by the largely increased number of students in attendance at the various colleges and universities. It is explained by the fact that the higher education has come to be generally recognized as valuable even for men in business and by the further fact that women in great numbers are now for the first time seeking this education. The preparatory schools have so increased in number as to be able to prepare students for colleges in all parts of the country thus making it easy and comparatively inexpensive for the student to fit himself for entrance to the college.

Moreover as the education offered is made broader it appeals to larger numbers; and thousands every year now enter college who would never think of doing it if the old curriculum had been maintained furnishing preparation only or mainly for the so-called professions. Never before in the history of the world has it been as possible for the children of the poor to secure a college education as it is now. The people of Minnesota realize this, and very many persons of small means are reaping the benefit of the state's liberality. The public appreciation of the University of Minnesota is shown by the continued increase in the number of students. Although in several of the colleges the standard of admission has been raised, producing a diminution in the number of students entering these colleges, notably the College of Medicine and Surgery, yet the total number of students in the University continues to rise, though at a somewhat less rate the last year than in previous years; but the number in attendance the last year was about forty larger than in any preceding year. Judging by the past there is every reason to suppose that the number in attendance the coming year will be still greater and if the increase shall equal the average of the last ten years it will be about two hundred.

The following is the statement in detail of attendance in the various colleges of the University during the last two years:

	1902-1903.		Total.
	Men.	Women.	
Graduate students	117	42	159
The College of Science, Literature and Arts.....	503	712	1,215
The College of Engineering and the Mechanic Arts	368	26	394
The School of Mines.....	111	.....	111
Department of Agriculture.....	513	125	638
The College of Law.....	471	5	476
The Department of Medicine.....	504	25	529
The Summer School—University section less duplicates	73	245	318
Totals	2,660	1,180	3,840
Duplicates	51	1	52
Totals, excluding duplicates.....	2,609	1,179	3,788

	1903-1904.		Total.
	Men.	Women.	
Graduate students	82	35	117
The College of Science, Literature and Arts.....	479	773	1,252
School of Chemistry.....	36	.....	36
School of Mines.....	118	.....	118
College of Engineering and the Mechanic Arts....	396	1	397
Department of Agriculture.....	562	143	705
College of Law.....	529	6	535
Department of Medicine.....	472	13	485
The Summer School.....	52	160	212
Totals	2,726	1,131	3,857
Duplicates	11	.....	11
Net totals	2,715	1,131	3,846

SALARIES.

While the total of the salaries paid by the University is large, because it is necessary to employ a large number of teachers to instruct the thousands of pupils the average salary is very small—and very few of the salaries are as large as they ought to be. A professor has social relations and social duties; he can not live in obscurity or squalor; he cannot spend all his salary on the ordinary necessities of life without dwarfing both his own soul and his influence on others—and yet with the cost of living what it has been recently, it is difficult to see how some of the teachers of the University can provide for the bare necessities of life out of their very small salaries. I hope that the Board of Regents will ask for a sufficient increase in the appropriation for current expenses to enable the Board to relieve its employes of positive discomfort and to make it possible for its teachers to do their work under the best conditions without perpetual financial anxiety. No one of the teachers, I am sure, expects or desires any lavish expenditure for them; but they all desire and deserve to have a comfortable support in return for the qualifications and the labor which they place at the service of the State.

APPROPRIATION FOR THE LIBRARY.

The cutting down of the annual appropriation for the Library from seventy-five hundred dollars a year to five thousand and the charging to this appropriation expenses not incurred for the general library, has reduced the amount available for the purchase of books to so low a figure as to endanger the welfare of the University at a vital point. A University without books or without the books which contain the results of the latest researches of scholars in all lines of investigation is not an ideal institution. I am sure that the people of Minnesota wish their University to be so good that they

may safely commit to it the education of their children, and may also as citizens be proud of it as an honor to the State. No other thing can contribute so much to this as a generous provision for the Library. Inasmuch as the cost of rebinding and repairing books, and of supplying magazines and periodicals is charged to the appropriation for the Library, there is left for the purchase of books not more than three thousand dollars of the present appropriation which is not adequate for the wants of the University. An appropriation considerably larger than five thousand dollars should be asked for.

TRAINING FOR BUSINESS AND PUBLIC LIFE.

There are some subjects not now taught in the University for which provision ought to be made—I refer particularly to a class of subjects closely related to political economy and especially valuable in the training of men for business and for public life—Economic Geography, Institutes of Commerce and Statistics are perhaps most important.

The time seems to me to have come when provision should be made for a course of instruction in the subjects which underlie business of the more complicated character such as is characteristic of the present age; and I recommend that additional appropriations be asked for to meet the necessary expense. Students taking the business course would pursue for considerably more than half the time studies already provided in the University courses. It is to supplement these by studies specially related to business and public service that additional teachers are needed.

A BUILDING FOR WOMEN.

There are in the University more than eight hundred women, most of whom are in the College of Science Literature and Arts, and during the day are present in the buildings or on the grounds of the Campus. There is no building specially devoted to the comfort of these women. It has seemed to these women, and to the large and influential body of women in Minnesota known as the Minnesota Federation of Women's Clubs, that a special building ought to be provided for women. With entire unanimity the women of the State ask that an appropriation of twenty-five thousand dollars may be made for this purpose by the legislature, and they request the Board of Regents to include this in their legislative budget—It is a reasonable request. I am sure it will seem so to the Regents—And I am equally sure that the men of Minnesota in the legislature will not refuse to grant the request if it is made and is known to be the request of the women of Minnesota.

THE COLLEGE OF SCIENCE, LITERATURE AND ARTS.

The work in the College of Science, Literature and Arts has been carried forward without any disturbance of the peace and order of the College. The tendency is more apparent than ever before for men to enter technical or professional schools, while women seek the courses devoted to general culture. As a consequence the number of women in the College of Science, Literature and Arts is considerably larger than the number of men. This is not in itself a matter for regret inasmuch as many of the women are fitting themselves for teaching. I should, however, regret to see the men devote themselves too exclusively to technical work to the utter neglect of general culture. I think that time will show what is the wisest course and that any undue tendency to specialize will be corrected by experience, and men will choose wisely the course which will do them the most good whether it be for general culture or for technical skill. This college suffers more than any other on account of the insufficiency of the General Library to which the Librarian in his report refers in vigorous terms.

A rearrangement of the work in this college was made in 1904 to go into operation at the opening of the first semester in the following collegiate year. In accordance with this arrangement work is now conducted in all parts of the day, six days in the week excepting Saturday afternoon instead of five days as heretofore. The courses of study were shortened to three exercises a week instead of four as formerly. This permits two courses to be given every hour each week in one room—the courses coming on alternate days. The aggregate work to be done by the student is not diminished by shortening the courses. The result of these changes is a more continuous use of recitation and lecture rooms by which the congestion of students and classes was very much relieved until on the morning of the twenty-fourth of September the Old main Building was totally destroyed by fire. The Faculty at once took the necessary steps to provide places for the classes driven out of the Main Building. Very great credit is due Dean Downey for the promptness and patience with which he studied the needs and the possibilities of the hour and the perfect manner in which order was in a day brought out of what threatened to be chaos. Every department in the University that could possibly spare a room for a time or part of the time cheerfully did its best to relieve the situation; the Y. M. C. A. Building was pressed into use for a large number of classes; the post office was established in the rotunda of the Library Building; and although the pressure is not pleasant and rooms are crowded beyond all comfort, students and faculty alike have accepted with good humor the unpleasant situation as inevitable and the year promises to be a successful one in spite of the greatly regretted fire which destroyed a building exceedingly serviceable as well as most venerable of the University buildings. A new building must of course be erected at the earliest possible moment; and as it must provide

accommodations for ten departments, some of which have more than five hundred students, it is to be hoped that the new building may be large enough for the needs and that we shall not in this case repeat the mistake so often made by us in the past of erecting too small a building.

I am glad to present herewith the special reports of the Deans of the various Colleges and Schools embraced in the University. In most cases these reports are given in full as presented to me by the Deans. In a few cases the reports have been shortened by the omission of portions not specially important to the public.

THE COLLEGE OF ENGINEERING AND MECHANIC ARTS.

Dean F. S. Jones of this College reports as follows:

“Several noteworthy changes in the College of Engineering and Mechanic Arts have been made during the past two years.

The great importance of thorough mathematical training has prompted the faculty to announce that since the prosecution of the work in the engineering course depends so largely on the preliminary training in mathematics, no student will be admitted to this college with a condition in any mathematical subject.

The ever increasing amount of technical work necessary to be done during the four year college course has necessitated a reduction in the amount of language work, and the curriculum at present requires every student to take one year of English with a proviso that at least two years of some language other than English be offered for entrance. It will be seen that English has been strengthened in the college curriculum and that preparatory schools are encouraged to do more work in languages and less along mechanical and technical lines.

One year of chemistry is now required for entrance with the intention of completing the required work in chemistry earlier in the course, leaving the upper years for strictly professional work. In order to accomplish this, physics has been increased during the sophomore year and decreased in the Junior year, and students are encouraged to pursue a course in shop work and manual training in the summer school, so that this work may not be burdensome during the college year.

A number of changes have been made with a view to a greater freedom of choice in the matter of electives, and we find that many students avail themselves of this choice and really complete courses in more than one engineering line. Many mechanical engineers, for example, have completed not only the mechanical engineering course, but have so selected their subjects as to fit them for electrical and civil engineering work.

One of the most important changes to be noted is the establishment of the course of municipal and sanitary engineering, and the creation of a sub-department in this very important line of work.

The demand throughout the state for men who are trained in this branch of engineering is increasing so rapidly that the development of this particular department is imperative. It has necessitated the introduction of courses of study in biology, water analysis, bacteriology and public health and hygiene, and at a recent meeting of the Board of Regents Mr. Frederick H. Bass was made assistant professor of civil engineering and put in charge of this particular work. It is hoped and believed that it will rapidly develop into one of the most important departments of this college.

Many of the difficulties of the students are being corrected by the efficient services of the Committee on Students' Work, and whereas in former years irregularities in students' records were the rule they have now become the exception. Two years ago not a single senior had finished his work at the time appointed for the recommendations to the Board of Regents for degrees. Last year, not a single senior was behind in his work at this time.

It is with very great pleasure that I call your attention to the harmonious working together of the various departments of this college. For many years each department was conducted without particular regard for the common good, and the college as a whole lacked unity. At the present time, the welfare of the entire college is considered before that of any single department, and there is a most encouraging unity of action and purpose.

In the matter of discipline there is little to report, and it is hoped that the reorganization of the Engineers' Society among the students will result in great good in elevating the moral and intellectual tone of the students, which is the avowed object of this society.

Changes in the material equipment have already been reported to the President of the Board of Regents, but you may deem it worthy of notice that the old Mechanic Arts building has been thoroughly remodeled and enlarged and will be of much greater value to the college than it has been in the past. The improvements on this building amounted to \$10,000, provided for by the last legislature. Other material improvements are: The increase of the University electric light plant, for which \$10,000 was provided; the equipment of a new forge shop, at a cost of \$2,500; and increased equipment in various departments of the college, amounting in all to \$15,000.

The greatest need of the college at the present time is a room for use as a mechanical laboratory, and it is hoped that this may be secured in the near future.

There have been no changes in the faculty except for the addition of three assistants, but the attendance has been increasing from year to year, and at the present time is the largest in the history of the college, notwithstanding the fact that the abolition of the work in industrial art and design reduced the attendance very materially.

The per capita cost of educating an engineering student has decreased slightly for the past three years, and the increase in fees has made the college much more nearly self-supporting.

Our class rooms, laboratories and workshops are full. Our instructors are busy throughout the day, and if the attendance continues to increase it will be impossible to care for the larger number of students without adding to our instructing force.

In closing, it gives me great pleasure to report that there is an ever increasing demand for men who have been trained in this college, and long before commencement day the prospective graduates of the Engineering College have secured desirable positions in their chosen professions."

DEPARTMENT OF AGRICULTURE.

Dean William M. Liggett makes the following report:

Substantial progress has been made in the Department of Agriculture. The number of students has increased from 618 in 1902 to 720 in 1904. All of the practical lines of instruction have been maintained with the same degree of efficiency as in former years. In order to further improve the practical work of the school, the young men are now required to have had at least six months' farm experience before entering the institution. A special course in farm mathematics has been added, dealing more specifically with those problems of the farm requiring mathematics. This course is given by Principal D. D. Mayne. A short course in English is now given in the first year, which, with the farm mathematics, has materially strengthened the curriculum. The practical work in the school has been farther developed; particularly noteworthy are the livestock practicums, which include the handling, care and feeding of farm animals.

The work in the School of Agriculture has been characterized by great earnestness on the part of both faculty and students. A number of valuable text books have been written by different members of the faculty and published by prominent publishing houses. These books are in use in a number of Agricultural Colleges and Universities.

The farmers' short course, designed for mature farmers who are unable to take the three years' school course, has been well attended, and the work enthusiastically received. The course for dairymen has also been well attended, and many of those who have taken the work have won prizes and high awards for skill in butter-making.

The Experiment Station, although organized primarily for purposes of investigation, has exerted an educational influence. Numerous requests have been received from this and other states for the bulletins, which have been used for class room purposes and for study by farmers' clubs.

Through the farmers' institutes, various affiliated agricultural societies, and the agricultural press, different members of the faculty have assisted materially in disseminating agricultural knowledge.

The pioneer stage of agricultural education has passed, and the work is now rapidly assuming a definite pedagogical form which possesses a distinct educational value from a purely disciplinarian point of view. The wisdom of the Board of Regents in establishing the School of Agriculture in 1888 is now quite evident. It is estimated that over 3,500 students have been in attendance since its opening. A very large proportion of this number are now actively engaged in farming in this state.

While the object of the School of Agriculture is to train young men and young women to become successful farmers, and intelligent and useful citizens, a few have taken the course with the view of entering the College of Agriculture. The courses of study in the School and College have recently been correlated so that graduates of approved high schools can enter the College of Agriculture and complete the course in four years. This includes the practical work given in the School, the advanced technical work of the College, together with such general science and other subjects given in the College of Science, Literature and Arts as are necessary to form a basis for technical instruction in agriculture. This course was successfully inaugurated last year and gives promise of being a valuable acquisition to our system of agricultural education. It is pleasing to note that the graduates of the College of Agriculture have been much sought after by Agricultural Colleges and Experiment Stations, the agricultural industries, the National Department of Agriculture, owners of large estates, and the agricultural press. A strong course in Forestry, and also one in Home Economics, of an advanced and scientific nature, have been added during the past biennial period.

In the Experiment Station the work has gradually assumed definite and fruitful lines of investigations relating to agriculture. Problems relating to crops, soils, farm animals, horticulture, forestry, dairying, feeding of live stock, entomology, human and animal foods, and the business of farming have been studied and valuable bulletins published.

Experimental work in the Dairy Division has been continued along along two well defined lines: first, the relation of type of animal to economic milk production, and second, the scientific phase of animal nutrition. The Minnesota station first showed by an experiment with a large number of cows through a series of years, that the economic production of milk depended upon the conformation of the animal rather than upon breed. This finding has been verified in numerous experiments conducted by experiment stations in this and other countries.

It was incidentally discovered during the experiment above referred to, that the feeding standards formulated by the German

scientists and used and taught in all our Agricultural Colleges for nearly half a century were not applicable to conditions existing in this country, and the new standards used in their stead are meeting with the approval of the ablest American authorities in this line of work.

To maintain and further develop the Department of Agriculture, particularly the School, a continuation of the present liberal policy on the part of the Board of Regents, the legislature and the people of the state is necessary. Other states are spending much larger sums upon agricultural education, and Minnesota cannot afford to take a backward step after developing its magnificent School of Agriculture.

THE COLLEGE OF LAW.

Dean W. S. Pattee of the College of Law presents the following report:

“During the past two years the Department of Law of the University of Minnesota has experienced a steady and gratifying growth and development in several directions.

First. At its last session the legislature appropriated \$30,000 for an addition to the Law Building and for its equipment. The addition has been made; the old portion of the building has been reconstructed internally; and the whole structure thus enlarged and improved has been equipped with gas, electricity, furniture and other necessary conveniences, so that no Law School Building in the country is better adapted and suited to the purposes of a Legal Department.

Second. There has been a steady increase in the number of students during the last two years; there being in attendance last year five hundred and thirty-five. This increased enrollment has taken place notwithstanding an increased severity in the application of our rules for admission and graduation.

Third. Our Library has received several important additions. Beside the regular annual increase of State and Federal Reports, a set of the Reprint of all the English Reports has been procured; and through the generous donation of Hon. A. D. Keyes the library has received under his will about one thousand volumes, containing many valuable books, and all of which are suited to the use of a College of Law. These books are not yet in the possession of the College, but will be at the expiration of a period of time designated in the gift.

Fourth. An additional Professor and an Instructor in Law have been added to the teaching force, and such distinguished lawyers as C. W. Bunn and Frank B. Kellogg have been added to our staff of lecturers.

Fifth. There has been a steady improvement in the methods of instruction, such as naturally attends experience and the cordial in-

terchange and comparison of views between the faculties of the leading law schools of the land.

THE COLLEGE OF MEDICINE AND SURGERY.

Dean Parks Ritchie reports as follows:

The College of Medicine and Surgery enters upon its seventeenth year with an enviable reputation and a firm purpose to reach a higher plane of excellence.

The increase of our entrance requirements to one year of Academic work, in addition to a high school course or its equivalent, has improved the quality of our student body to a most gratifying extent. The inauguration of the six-year course leading to the degree of B. S. and M. D., is a distinct advance and will certainly attract a better grade of students, more than thirty men registering for that course the first year of its operation. The request of our Faculty that the Board of Regents further advance our entrance requirements to at least two years of University Academic work was denied. It is our hope and expectation, that in the near future this request may be granted, giving us the highest Academic standing of American Medical Colleges, with the exception of Harvard and Johns Hopkins Universities.

Our work for the past two years has been up to the level of the best medical schools in this country. Our laboratories are admirably planned, fairly well equipped, and some of our teachers have more than a national reputation. When our new pathological building shall have been completed and equipped, we can "point with pride" to the best medical laboratories of any college in the West with a single exception.

In our clinical teaching we labor under the disadvantage, that excepting the University dispensary and the St. Paul Free Dispensary the University has no control of any hospital in the Twin Cities. The clinical service is supplied solely by the personal efforts of the instructors, and for which none of them receive any salaries. The University should have absolute control of the clinical facilities of one or more hospitals in each city, and clinical instructors should receive some financial compensation in recognition of their worth and work.

We have recently met with a painful loss in the death of our Professor of Surgery, Dr. James H. Dunn. An admirable teacher, a skillful surgeon and a loyal friend, his colleagues and students alike mourn his untimely death and "refuse to be comforted."

The following additions and changes in our Faculty have occurred since last report. Dr. John W. Little was elected Clinical Professor of Surgery. Dr. Andrew Henderson Clinical Professor of Medicine, but has since resigned owing to a change of residence. Dr. H. J. O'Brien, Clinical Professor of Surgery. Dr. George D.

Head Clinical Professor of Medicine and Microscopy. In the revision of the Chair of Medicine, Dr. Chas. L. Greene was made Professor of the Practice of Medicine, and Drs. Chas. H. Hunter and E. J. Abbott were made Clinical Professors and Chiefs of Medical Clinics in Minneapolis and St. Paul respectively. Dr. Frank C. Todd was made Professor of Ophthalmology or Otology vice Dr. J. F. Fulton resigned. The title of Dr. Archibald MacLaren was changed to Clinical Professor of Surgery. At the annual meeting Dr. M. D. Hurd was elected Secretary of the Faculty succeeding Dr. R. O. Beard. At a recent meeting Dr. J. E. Moore was nominated by the Regents as Professor of Surgery vice Dr. Dunn deceased. Dr. Shadle Professor Diseases of the Nose and Throat vice Dr. Laton resigned. Dr. John L. Rothrock Clinical Professor of Gynecology vice Dr. A. MacLaren, and Dr. Wm. R. Murray Clinical Professor Diseases of the Nose and Throat vice Dr. Schadle.

COLLEGE OF HOMEOPATHIC MEDICINE AND SURGERY.

Dean Eugene L. Mann presents the following report:

The College of Homeopathic Medicine and Surgery respectfully submit the following report:

All of our old students have returned save one member of the Senior class, a practicing dentist, who has decided to give up his medical course on account of his increasing dental practice.

It is impossible at this time to give the number in the Freshman class, as owing to the system of registration, we do not get our full numbers until the second semester, when individual work in this department begins; there are at present only three registered with us, but at this time last year we had but two and this number was increased to six in the second semester. All of these have returned this year.

A review of the incoming classes in the other Homeopathic Colleges of the country does not show that Minnesota students are going elsewhere for their medical education, and the practitioners of the state are not disloyal to the home school.

The recent changes in medical education have, in a great measure, eliminated the old time Preceptor and most students of medicine go direct from school or college to their medical studies without time spent in a physician's office. An organized attempt is being made to reach this class through influential homeopathic patrons in the various cities of the state whom we are seeking to keep informed of the college and its needs. We hope that returns from our efforts in this direction will result in increased attendance at the College.

THE COLLEGE OF DENTISTRY.

Dean W. P. Dickinson reports as follows:

The enrollment for the last two years has been as follows:

	Freshmen.	Juniors.	Seniors.	Unclassed.	Total.
1902-03.....	71	28	33	10	142
1903-04.....	45	58	26	8	137

At the present time, in the first semester of

1904-05.....	29	36	58	6	129
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The enrollment was larger than usual in 1902-03 because it had been announced that the following year the course in Dentistry would be extended to four years.

The enrollment in 1903-04 was swelled by the announcement that the following year the requirements for admission would be increased so as to include a four years' high school course and evidence of mechanical ability.

The smaller attendance at the present time is mainly due to delay in publishing the Bulletin containing information that the course had been changed from four years to three years in harmony with other schools. The number of students could easily be doubled in a few years, if the College were provided with a building adapted to modern dental teaching, and the proper encouragement were given by the Regents in other needs.

There have been no radical changes in the teaching, but the work has kept pace with new and valuable ideas and methods. The work done has received the commendation of the profession, and each year an increasing number of students from other schools have sought to enter the Junior and Senior classes.

THE COLLEGE OF PHARMACY.

Dean F. J. Wulling makes the following report:

The number of students has not increased materially during the past few years, but the quality and scholarship have decidedly improved. Nearly all the students have had a full high school course as preparation for their work, or other training equivalent thereto. The work done in the college commands the respect of the pharmacists of this and neighboring states, and as a rule the members of the Senior class are offered very satisfactory positions several months in advance of their graduation.

The college is in urgent need of larger quarters. There is so much laboratory work to be done that the amount of room needed in proportion to the number of students is greater than in most other colleges of the University. At present the College occupies practically only two working rooms and in these, seven laboratory subjects are conducted—and in addition the rooms are used for

lectures and recitations. The larger of these rooms can accommodate at most thirty-six students and only eighteen at a time.

The College of Pharmacy has a course of study that is up to date but it is difficult to do justice to it in such cramped quarters. The College, in the judgment of those most familiar with the work to be done, needs a junior pharmaceutical laboratory, a senior laboratory, one for dispensing, one for pharmaceutical botany and pharmacognosy, a room for grinding and powdering drugs, a room for museum to be used also as a reading and reference room, a lecture room, two recitation rooms, a laboratory for special work, and rooms for the supplies for various laboratories. Furnished with these accommodations the College would compare favorably with the other departments of the University. It is worthy of mention that the Dean and Faculty of this College while fully understanding the needs of the College, have been very patient, waiting while other colleges were provided for and hoping that their turn to be cared for would come in due time. It seems to me that the time has come, and the College of Pharmacy should be provided with proper accommodations in a new building that will meet the wants of both Dentistry and Pharmacy, or in the Laboratory of Medical Science when the new Bacteriological building is completed. The work in materia medica, therapeutics, didactic general chemistry, qualitative analysis, toxicological chemistry and urinalysis, formerly given during the entire year, has within the last two years been concentrated in one semester, the work being doubled for the time, and the result has been satisfactory.

The death of Prof. Charles J. Bell, in January, 1903, removed an efficient member of the faculty and for a time delayed the work of both classes in general chemistry, toxicology and urinalysis. Professor Carel has since had charge of the work.

Repeated requests have been received from pharmacists and clerks for a shorter course than two years. It has been decided by the Faculty, after careful consideration of these requests, that the shortening of the course would not be consistent with the high aims of the College and that a refusal to shorten the course would work no injury to those desiring to give only one year to professional study, since they can now take the work of Junior year if they choose to do so. The research work done by the College has consisted mainly of analyses, chemical, macroscopical and microscopical, of drugs and chemicals used in medicine. The result of this work is reported annually to the State Pharmaceutical Association.

THE SCHOOL OF MINES.

Dean W. R. Appleby reports as follows:

"I herewith submit report, as requested, on the Minnesota School of Mines. The new School of Mines building has been completed and the equipment made possible by the legislative appropriation of

1903 has been installed. The building is designed to accommodate only technical work of the School of Mines. The new building is 150 feet long by 65 feet wide and is modern in every respect. It is a brick building three stories high. The lower floor is occupied by the assaying and metallurgical laboratories. The second floor contains offices, two large lecture rooms, departmental library and a museum. The third floor provides two quiz rooms and a large well lighted draughting room, thesis room, dark room and a blue print room. The equipment is strictly up-to-date and is complete as far as the funds available would permit. In order to keep the school abreast of the times more efficient machinery and apparatus should be purchased as these articles appear in the market. The rapid development in metallurgical lines makes this imperative. The cyanide process revolutionized the treatment of gold ores. Antiquated machinery, apparatus and obsolete processes cannot develop a successful mining or metallurgical engineer. To serve the best interests of the state and to make the money already appropriated by past legislatures most productive, the School of Mines must meet these changes by the installation of the most modern pieces of machinery and apparatus.

With suitable quarters and increased laboratory facilities the School of Mines has continued to grow. More elaborate and efficient instruction has been the outcome of these much needed improvements. The ease with which the graduates of this school obtain employment and the positions of trust they hold reflect credit on the work given by the various departments. The high standard of scholarship has been upheld by requiring the student to complete the entire work of each year before passing into advanced work of the following.

The mining interests of Minnesota are of great and increasing importance. There is a steady demand for trained engineers. We have a number of graduates on the engineering staffs of the various mining companies operating on our own iron ranges. While our school is in a flourishing condition and has the advantage of being established at a university centre, it is to be regretted that the instructors and students are not in closer touch with the mining men of the state. The work of instruction and the standing of the graduates of the school among the managers and officials of the various mining companies would be greatly benefited by closer intercourse with the latter and frequent visits from the heads of the departments in the School of Mines. This need could be met by having the state provide for short annual visit of the students to the iron districts. An opportunity should be given the instructors in mining work to make additional visits, preferably at the opening and the close of the shipping season."

SCHOOL OF CHEMISTRY.

Dean George B. Frankforter makes the following report:

"The School of Chemistry has seen material growth during the past two years. The total number of students has increased nearly twenty per cent. This increase has been largely in the advanced and technical work and the demand for technologists is such as to warrant even greater specialization than has occurred during the past two years.

EQUIPMENT.

The appropriations have been increased during the past two years, on account of the increase in the number of students. The equipment is about what it was two years ago. There has been a little gain in technical apparatus and therefore it is possible to offer the students a wider range of technical work. The laboratories in general are a little better equipped than they were two years ago.

GENERAL CHEMICAL WORK.

The enormous demand made by the nation on the science of chemistry has made it necessary that students in chemistry should be taught more than the simple principles of the science. Each problem worked out by the students in the laboratory now represents, besides the principle involved, some practical phase in the industrial world. This duo-didactic idea seems to be absolutely essential in modern scientific education. The work during the past two years has been arranged more than ever along this line.

RESEARCH WORK.

In addition to the general work already referred to, considerable time has been given to chemical research work. While this work is of vital importance, less attention has been given to it than should have been done on account of the general prescribed work.

This work has been done almost entirely in a search after truth, at the same time the industrial side has not been overlooked. A discovery which simply increases the storehouse of knowledge without benefiting the human race is not worthy of being called a discovery. This has been the stand taken in following the young chemists in their work. Subjects have therefore been assigned with a practical as well as a purely theoretical side. During the past two years the following subjects have been studied and many new substances have been made:

1. Investigation of Isopyrum, a plant growing in Minnesota. Two alkaloids were isolated. One of these is entirely new. It has medicinal properties

2. Investigations of Rhus Glabra (Sumach). This work was begun with the idea of determining the commercial value of this abun-

dant shrub. Besides the examination of the tannin present, two new forms of the cholesterols were separated.

3. Eugenol (Oil of Cloves). The work on this very important compound was begun from a purely theoretical point of view. A number of new compounds have been made. Some of these have decided medicinal properties.

4. An examination of *Mililotus* (Sweet Clover). The leaves and the seed were examined and the quantity of coumarine determined.

5. The oils of the common Mullein.

6. An examination of the Deep Well and Spring Waters of Minnesota.

7. An investigation of the Pitch of the Northern Pine. A number of new substances have been made from this pitch. The turpentine has also been carefully studied.

8. The Pitch of the Douglas Fir including the Turpentine. A method of obtaining the pitch from the wood has been worked out and a number of new compounds have been made. This work with that of the Northern Pine extends over a period of five years and now includes some twenty-five new compounds with a mass of new facts concerning colophonium and turpentine.

This work has been largely done outside of regular hours. Most of it has been done in collaboration with advanced chemical students."

THE GENERAL LIBRARY.

The Librarian, Dr. W. W. Folwell, reports as follows:

"The General Library had as its nucleus in September, 1869, when the first college work was begun about one bushel basket full of public documents. In the course of the first term of that year the Regents purchased a collection of books made by Col. D. A. Robertson of St. Paul who was for a short time our first professor of Agriculture. These books were partly historical, and partly what would now be called sociological, in their character. With new purchases the library contained by the end of the year 2,000 volumes. In the year following Professor G. Campbell on leave of absence in Europe bought some three thousand volumes and the President of the Board reported the library as numbering upwards of 5,000 volumes and being "the finest and most complete in the State." The report of the Board for 1871 contained a printed author-catalogue.

In 1873 the library of Dr. Tappan, Ex-President of the University of Michigan, numbering some 2,000 volumes was acquired, and these with new purchases and donations swelled the accessions to about 10,000.

Already the University had been made a designated depository of U. S. public documents, and the original nucleus has since grown into one of the best collections in the country. About 100 volumes only are needed to complete our "Congressional Set."

Since this purchase last mentioned no additions have been made in bulk. The limited annual appropriations have been carefully expended for books of first necessity as advised by heads of departments. The periodicals which have been subscribed for have been bound and form valuable additions.

The General Library now contains about 72,999 volumes, of which 53,500 are stored in the library building, and are under the immediate care of the library force.

The first need of the General Library is a complete card catalogue of authors, subjects and titles. The small working force has never sufficed for more than the provisional author catalogue.

The complete catalogue mentioned will at all times be an exhaustive index of all persons, things and transactions named in the books of any account down to date. A card catalogue is always complete and can be added to at will.

According to the best practice the cards should be printed. Considering what is got for the money, printing is really cheaper than manuscript or typewriting.

A library without a catalogue is like a book without an index, or a cargo of freight without an invoice.

The appropriation asked for two years ago of \$2,500 for each of two years was a reasonable estimate.

The completion of our "Congressional set" is a special need. The cost may be \$300.

Regarded as a collection for general use the library needs books of reference, sets of periodicals, reports of learned societies, and proceedings of public bodies.

No departments have been so favored that any can be regarded as well supplied. Every head of department will inform you that the library is weak in his lines. And it is. It needs enrichment all round and on all lines. Especially is this true for those departments of which books are the apparatus, Philosophy, Political Science, Sociology, History and Literatures.

Another matter which will soon press for attention is the multiplication and expansion of departmental libraries. At the present time the following have been established.

Astronomy,	Engineering, Mining,	Mechanics,
Biology,	French,	Military Science,
Botany,	Geology,	Pedagogy,
Chemistry,	German,	Physics,
Drawing,	Greek,	Philology,
Engineering, Civil,	History,	Rhetoric,
Engineering, Electrical,	Latin,	Scandinavian.
Engineering, Mechanical,	Mathematics,	

At first they were formed by withdrawal of books from the shelves of the general library. Later the collections have been enlarged by specific purchases out of the library fund. These purchases are drawing heavily on this fund. The following is a rough count of the

numbers of volumes added to the general collection and to the departmental libraries in the last three University fiscal years, so far as the library records show:

	Gen. Library.	Dept. Library.
1901-1902.....	1,649	1,668
1902-1903.....	1,365	1,936
1903-1904.....	1,350	860
Totals	<u>4,364</u>	<u>4,464</u>

Of the purchases for some departmental libraries such as Biology, Botany, Chemistry, Rhetoric, the librarian has no knowledge. The whole number of books in departmental libraries is something over 20,000.

Two important questions are already demanding consideration.

1. What shall be the general policy as to departmental libraries? Shall they be limited to a comparatively small collection of books specially desirable for departments, especially little used or not at all by readers generally? If they are to become large and growing collections, it is obvious that they must soon become independent libraries, each with a proper force for operating it.

2. What relation shall the departmental libraries have to the general library? Shall they be regarded as branches of the general library under the supervision of the librarian?

The present usage is various. Some of the departmental libraries are managed as absolutely independent establishments in which the librarian of the University is not expected in any way to meddle. Others insist on the assistance of the library force in classifying and cataloguing the books, and taking the annual inventory. Many departments have their binding ordered through the general library. Some make their own arrangements. Most order their periodicals through the general library; a few subscribe independently.

The above remarks have no reference to College Libraries of the University, such as those of Law, Medicine, and Agriculture. The suggestion is submitted that for these, independent funds should be established so that they need not draw at random in the general library appropriation.

Some years ago it was found desirable to restrict the loan of books from the general library to students, to nights and holidays.

In the present year on account of persistent abuse of this privilege it became necessary for the protection of the students themselves to withdraw it, and no books are now loaned to students. No loud complaints have been made but there is foundation for the suggestion that this rule is too sweeping. It is said with truth, that there are many books which students might be allowed to borrow for home reading for some days without injustice to others. I am of opinion that this suggestion ought to be entertained and if approved of, that provision should be made for carrying it out.

We have many books of general literature, and in time shall have many more, which are not daily nor frequently in use for reference or consultation. Many of our students have not had opportunity to acquaint themselves with such books. They have some leisure which might properly be devoted to general reading. Some students have a pardonable desire to read widely in the best books.

I therefore respectfully submit the following proposition for your consideration.

1. Let the general library be divided into two collections.
 - a. The reference collection.
 - b. The circulating collection.
2. Move the latter into a separate room, properly fitted up, and place a special attendant in charge.
3. Issue to registered students these books for periods varying with the demands.
4. Require a moderate deposit of money to cover loss, damage and delays.

There would be some expense for shelving and furniture and the cost of service would be somewhat increased, but I am convinced that the benefits resulting would warrant any reasonable increase."

COMMENT.

I commend to the Board the information and recommendations contained in the reports of the Deans and the Librarian. I can only ask of the Board the adoption of a general policy in respect to some of these matters as the successful working out of the various problems must after all, be the result of wise administration and the harmonizing of methods and conditions. It is not difficult to see what the University needs. The question is— with so many needs which ones shall be supplied first. I do not expect to see the University wants all met in my time. But we are making progress and if we have clear views of just what we want to do, our progress will be more rapid.

GENERAL MANAGEMENT.

I am under very great obligations to the Deans of the various Colleges and Schools in the University for the fidelity and wisdom shown by them in the management of their respective trusts. While I am not aware that my own duties have diminished in quantity they have been connected more closely than heretofore with the whole University and less with one special College. Much of my attention has been given to matters of business which came into prominence by reason of the divided authority of the Board of Control and of the Board of Regents. I have done everything in my power to make life pleasant for the Purchasing Agent and to prevent friction in administration and I hope I have succeeded in my

endeavors. Certainly the most friendly relations exist at the present time between the various bodies to which has been intrusted the government of the University. But while this is true I can not but say that it seems to me to be the wisest course for the Legislature to free the University from the authority of the Board of Control. The University has learned some useful things from the Board of Control and will undoubtedly, if set free, continue the reforms which have been made. The Board of Regents will be able to manage the affairs of the University with much less of circumlocution delay and uncertainty than at present with two heads to the institution.

DEATH OF JUDGE GREENLEAF CLARK.

Judge Greenleaf Clark, President of the Board of Regents of the University of Minnesota, died at Lamanda Park, California, December seventh, nineteen hundred four. Judge Clark had spent the summer in St. Paul, and appeared to be about as well as usual, though his friends knew that he was not in vigorous health. He devoted himself during the Fall to the preparation of his Biennial Report as President of the Board of Regents. He attended a meeting of the Executive Committee Thursday, November seventeenth, nineteen hundred four and presented his report to the committee and announced his immediate departure for California for his health. He was evidently suffering at the time from the consciousness of inability to work and from the effects of his illness. He bade the Committee "Goodbye" with his usual heartiness and cheerfulness. On the evening of November twenty-fourth, Thanksgiving Day, he left St. Paul for California. The news of his death was received thirteen days later.—A letter written to me by a friend at Judge Clark's request three days before his death, but not received by me till after his death, said that "Judge Clark arrived at Lamanda Park Monday, November twenty-eighth. He was completely worn out and greatly changed in looks. One had only to see him to realize that he was a very sick man. He was at once put to bed and was never able afterwards to sit up." His death occurred nine days later.

On the morning of December eighth I announced the death of Judge Clark to the students of the University and in doing so, spoke as follows:

"The news comes to us this morning that Judge Greenleaf Clark, President of the Board of Regents of the University of Minnesota, died last night at Lamanda Park, California.

This announcement will bring very deep sorrow to the friends of the University and to all who were associated with Judge Clark in the activities of life

He was a gentleman of the old school, with all the regard for honor which characterized the best men of the generation to which he belonged. He was a native of New Hampshire, a graduate of

Dartmouth College, in N. H., and at the last Commencement Judge Clark was honored by Dartmouth with the degree of Doctor of Laws.

All his life of many years in Minnesota, Judge Clark was the close and confidential friend of Governor John S. Pillsbury, and he became President of the Board of Regents after Governor Pillsbury's death in 1901.

Judge Clark completed his biennial report to the Governor, as President of the Board of Regents, about two weeks ago, and leaving the report with the Executive Committee, he bade us goodbye for the winter, intending to go at once to California. He went to California, according to his usual custom, and in two weeks the word comes that he has died.

A more loyal friend, a more honorable gentlemen, a citizen more devoted to the welfare of the state, or an officer of the University with more wisdom and devotion to its interests does not survive him for there was no one in all these respects superior to him.

I feel his death as a personal bereavement.

He was the last member of the Board of Regents as it was constituted when I was called to the state. Other men are living who were then Regents, but they are no longer Regents. He has been continued as a member of the Board during all these twenty years and he has always been a wise counselor and the truest of friends. No one can fill Judge Clark's place. There are other good men who can fill their own place, but none of them can fill his place."

I am sure that every member of the Board of Regents will feel that the University has lost, in the death of Judge Clark, one of its ablest and most devoted friends, and will also experience a deep sense of personal bereavement as they realize that the noble, courteous and conscientious gentlemen who has so long been a member of the board and for three years has presided at its meetings, will no more share in its counsels and no more lighten the burdens of official life by his pleasant companionship.

Respectfully submitted,

CYRUS NORTHROP,
President.

FINANCIAL STATEMENT.

Minneapolis, Aug. 1, 1904.

Hon. Greenleaf Clark, President of the Board of Regents.

Sir: I herewith submit the financial report of the University of Minnesota for the fiscal year commencing Aug. 1, 1902, and ending July 31, 1903.

D. W. SPRAGUE,
Accountant.

GENERAL STATEMENT OF RECEIPTS AND DISBURSEMENTS
FOR THE FISCAL YEAR ENDING JULY 31, 1903.

CURRENT EXPENSE RECEIPTS.

Balance on hand Aug, 1, 1902			\$37,324.61	
Less unpaid warrant of July	\$13,033.46			
Less June and July bills paid \$1,678.26 after August 1st.....	\$2,440.64	\$4,118.90	\$17,152.36	
True balance				\$20,172.25
From Grants Made by U. S. Government—				
Approved March 2nd, 1861, and July 2nd, 1862, being interest on bonds of various states in which the resulting funds are invested.....			\$53,203.62	
United States Treasurer, Hatch Fund.....			15,000.00	
United States Treasurer, Morrill Fund.....			25,000.00	
				\$93,203.62
From State Appropriations—				
23/100 of one mill revenue tax.....			\$152,518.00	
Deficiency appropriation			35,000.00	
				\$187,518.00
From the University—				
Fees collected and deposited by the Accountant..	\$104,915.39			
Farm sales and other miscellaneous receipts....			21,199.31	
				\$126,114.70
Total				\$427,008.57

DISBURSEMENTS.

By paid expense lists as per detailed statement..	\$416,870.75			
By sums paid out and transferred by Auditor....		3,160.02		
				\$420,030.77
				\$6,977.80
Add Revolving Fund turned into Treasury at close of year.....				3,000.00
Auditor's balance Aug. 1, 1903.....				\$9,977.80
The amount of funds collected and turned into the treasury during June and July, 1903, the last two months of the year, was one hundred forty-seven thousand dollars, something over one-third of the income of the University for that year. This is practically true every year. That being the case, there are times during the year when there are no funds available to meet expense lists when due.				
The total expense lists for the year 1902-03, was.....			\$447,961.19	
The amount paid previous to August 1st as above stated was			416,870.75	
				\$31,090.44
Leaving a balance unpaid of.....				\$9,977.80
Amount in Treasury August 1st.....		\$9,977.80		
Delayed taxes paid after August 1st.....		12,033.49		
				\$22,011.29
Leaving a deficit of.....				\$9,079.15

DETAILED STATEMENT OF RECEIPTS FOR THE FISCAL YEAR
ENDING JULY 31, 1903.

CURRENT EXPENSE.

True balance on hand August 1st, 1902.....		\$20,172.25
Receipts from the United States Government—		
Income from Permanent Productive Fund:		
Interest on Minnesota Village bonds.....	\$3,437.89	
Interest on Land Contracts	16,980.23	
Interest on Alabama bonds	2,145.00	
Interest on Delaware bonds	3,930.00	
Interest on Massachusetts bonds	2,400.00	
Interest on Tennessee bonds	3,600.00	
Interest on Minnesota bonds	8,540.00	
Interest on Virginia bonds	10,650.00	
Interest on Bank Deposits	1,520.50	
	<hr/>	
Total interest	\$53,203.62	
From U. S. Treas. for Exp. Station, Hatch Fund.	15,000.00	
From U. S. Treas. for Agr. College, Morrill Fund	25,000.00	
	<hr/>	\$93,203.62
Receipts from State Appropriations—		
From State Treasurer, 23/100 mill Revenue Tax..	\$152,518.00	
From Deficiency appropriation.....	35,000.00	
	<hr/>	\$187,518.00
Receipts from the University—		
Tuition from students and from laboratory fees..	\$104,915.39	
Sales—experiment station	9,441.92	
Sales and fees—School of Agriculture.....	6,837.61	
Dental Infirmary receipts.....	1,900.00	
Minnetonka fruit farm, sales.....	1,772.18	
Miscellaneous Items as follows:		
Dept. of Physical Culture, rental of lockers.....	322.50	
Free Dispensary, receipts	259.60	
Dept. of Physiology, animals sold Bd. of Health..	93.60	
General Library, collections for damaged books..	5.90	
General Library, books ordered for professors...	8.35	
Outside work by plumber.....	25.74	
Rent of Armory	20.00	
U. S. Government, refund of duties paid.....	19.60	
Adjustment of salaries	252.46	
Rent of printing press	6.00	
"Overages" at bank	8.06	
Refund on paid bills.....	112.90	
Collections for glass broken.....	1.50	
Rent of lots on river bank.....	22.00	
Refund by R. R. Co.'s on freights.....	13.00	
Receipts from typewriter	1.58	
Receipt from telephone	3.35	
N. W. Telephone Co., for poles sold to them....	71.46	
	<hr/>	\$126,114.70
Total receipts		\$427,008.57

THIRTEENTH BIENNIAL REPORT

DISBURSEMENTS BY EXPENSE LISTS.

	University Payroll.	Farm Payroll.	University Bills.	Farm Bills.	Totals.
August—					
University payroll.	\$3,044.26				\$3,044.26
Farm payroll		\$5,580.94			5,580.94
University bills			\$7,042.50		7,042.50
Farm bills				\$2,462.41	2,462.41
September—					
University payroll.	21,989.37				21,989.37
Farm payroll		5,465.18			5,465.18
University bills			11,902.52		11,902.52
Farm bills				2,232.05	2,232.05
October—					
University payroll.	23,134.07				23,134.07
Farm payroll		6,843.28			6,843.28
University bills			15,651.26		15,651.26
Farm bills				8,045.17	8,045.17
November—					
University payroll.	22,989.67				22,989.67
Farm payroll		7,073.59			7,073.59
University bills			11,316.26		11,316.26
Farm bills				5,766.88	5,766.88
December—					
University payroll.	23,401.94				23,401.94
Farm payroll		7,673.62			7,673.62
University bills			6,412.00		6,412.00
Farm bills				4,666.61	4,666.61
January—					
University payroll.	23,343.50				23,343.50
Farm payroll		7,426.38			7,426.38
University bills			6,679.48		6,679.48
Farm bills				3,771.47	3,771.47
February—					
University payroll.	23,242.48				23,242.48
Farm payroll		6,984.72			6,984.72
University bills			7,832.59		7,832.59
Farm bills				4,815.49	4,815.49
March—					
University payroll.	22,960.89				22,960.89
Farm payroll		7,029.73			7,029.73
University bills			6,567.23		6,567.23
Farm bills				3,865.75	3,865.75
April—					
University payroll.	22,746.89				22,746.89
Farm payroll		5,665.58			5,665.58
University bills			3,490.83		3,490.83
Farm bills				2,276.03	2,276.03
May—					
University payroll.	23,233.95				23,233.95
Farm payroll		5,173.34			5,173.34
University bills			6,567.15		6,567.15
Farm bills				1,618.02	1,618.02
June—					
University payroll.	22,024.54				22,024.54
Farm payroll		5,041.30			5,041.30
University bills			3,343.76		3,343.76
Farm bills				543.83	543.83
July—					
University payroll.	2,863.43				2,863.43
Farm payroll		5,290.57			5,290.57
University bills			8,936.90		8,936.90
Farm bills				1,926.78	1,926.78
Totals	\$234,974.99	\$75,253.23	\$95,742.48	\$41,990.49	\$447,961.19

CURRENT EXPENSE.

STATEMENT OF RECEIPTS AND DISBURSEMENTS BY COLLEGES.

	Receipts.	Disbursements.
General University	\$2,667.08	\$61,424.94
College of Science, Literature and Arts.....	29,669.25	133,835.19
College of Engineering.....	8,444.75	34,604.70
College of Law.....	22,390.00	20,233.13
School of Mines.....	2,495.00	7,636.54
College of Medicine and Surgery—		
Fees	\$26,773.89	
Animals sold	93.60	26,867.49
College of Dentistry—		49,291.35
Fees	\$11,873.00	
Infirm. Rects.	1,900.00	13,773.00
College of Pharmacy.....	2,047.00	13,291.81
College of Homeopathic Medicine and Surgery..	1,222.00	4,689.02
Free Dispensary	259.60	2,689.13
The Experiment Station.....	9,441.92	3,021.66
School of Agriculture.....	6,837.61	9,441.92
		62,755.55
		54,488.17
Totals	\$126,114.70	\$447,961.19

CURRENT EXPENSE.

SUMMARY OF DISBURSEMENTS BY DEPARTMENTS.

	Salaries.	Bills.
General University	\$27,629.03	\$33,795.91
Department of Botany	5,850.00	3,547.64
Department of Biology	5,895.00	2,244.59
Department of Chemistry	10,572.86	13,064.83
Department of Physics	7,724.23	1,937.15
Department of Geology	4,235.00	1,386.39
Department of Political Science	7,500.00	191.60
Department of Philosophy	4,305.00	83.83
Department of History	6,850.00	.75
Department of Rhetoric	8,313.50	245.07
Department of Pedagogy	2,425.00	4.00
Department of Mathematics	4,625.00	3.00
Department of Astronomy	2,100.00	12.30
Department of English	5,400.00	9.45
Department of Greek	4,250.00	
Department of Latin	6,300.00	
Department of German	6,585.00	
Department of French	5,650.00	
Department of Scandinavian	1,900.00	
Department of Physical Culture (men)	2,405.00	235.85
Department of Physical Culture (women)	1,743.83	205.37
Department of Military Science	1,320.00	136.86
Department of General Academic	1,898.60	2,578.49
Totals, Science, Literature and Arts.....	\$107,898.02	\$25,937.17
College of Law	\$16,299.22	\$3,933.91
School of Mines	\$2,400.00	\$5,236.54
Department of Electrical Engineering	\$2,255.00	\$970.30
Department of Mechanical Engineering	10,466.52	3,206.85
Department of Civil Engineering	5,200.00	236.20
Department of Drawing	5,050.00	193.39
General Engineering	6,790.76	235.68
Totals, Engineering	\$29,762.28	\$4,842.42

SUMMARY OF DISBURSEMENTS BY DEPARTMENTS.—Continued.

	Salaries.	Bills.
College of Medicine and Surgery (general).....	\$7,595.00	\$2,732.65
Department of Anatomy	4,000.00	1,789.01
Department of Pathology and Bacteriology	6,632.50	4,170.71
Department of Medical Chemistry	3,955.00	1,523.47
Department of Physiology	5,197.32	3,325.81
Department of Histology	5,245.00	3,124.88
Totals, Medicine and Surgery.....	\$32,624.82	\$16,666.53
College of Homeopathy	\$1,902.50	\$786.63
College of Dentistry	\$11,519.12	\$1,772.69
College of Pharmacy	\$3,650.00	\$1,039.02
Free Dispensary	\$1,290.00	\$1,731.66
University totals	\$234,974.99	\$95,742.48
Experiment Station	\$8,148.84	\$12,579.35
Agriculture	11,305.70	3,516.11
Animal Husbandry	5,781.99	10,428.67
Chemistry	2,124.06	774.55
Dairy Husbandry	1,200.00	.....
Entomology	1,208.10	57.13
Horticulture	3,233.93	548.96
Veterinary	1,469.38	378.78
Totals	\$34,472.00	\$28,283.35
Agriculture, School of	\$22,418.41	\$7,391.97
Agriculture	1,200.00	.....
Animal Husbandry	1,890.00	.....
Chemistry	2,890.25	922.93
Dairy Husbandry	6,018.79	4,732.39
Entomology	1,200.00	43.00
Horticulture	3,734.38	252.41
Veterinary	1,429.40	364.24
Totals	\$40,781.23	\$13,706.94
School and Station totals.....	\$75,253.23	\$41,990.49
Grand total		\$447,961.19

CURRENT EXPENSE.

DISTRIBUTION OF ACCOUNTS.

	University.	Farm.
1. Salaries of officers.....	\$203,979.53	\$46,843.25
2. Salaries of employees.....	30,995.46	28,409.98
3. Fuel and lights.....	21,918.17	9,734.66
4. Freight and express.....	1,194.47	1,005.37
6. Library	6,168.14	1,656.24
5. Postage	1,186.35	991.48
7. Stationery and printing.....	5,252.56	3,690.58
8. Furniture and fixtures.....	1,961.80	833.27
9. Scientific apparatus and instruments.....	18,202.07	800.57
10. Building	129.90	.....
11. Equipment of building.....	456.21	84.27
12. Live stock .....	.....	4,703.55
13. Tools, implements, machinery.....	876.54	866.29
14. Feed	339.05	7,212.47
15. Seeds and plants.....	42.41	417.95
16. Supplies for instruction and illustration.....	13,224.93	2,128.59

DISTRIBUTION OF ACCOUNTS.—Continued.

	University.	Farm.
17. Repairs	708.12	1,265.82
18. Traveling expenses	1,066.53	608.67
19. Petty supplies	2,992.45	2,107.76
20. Museum	79.50	.....
21. Taxes, rents, ads.....	4,393.90	1,556.35
22. Publications	726.99	192.00
23. Contingent expenses	517.50	76.95
24. Labor bills	14,304.89	2,057.65
Totals	\$330,717.47	\$117,243.72

THE TWO STATEMENTS ABOVE COMBINED.

1. Salaries of officers.....	\$250,822.78	
2. Salaries of employes.....	59,405.44	
		\$310,228.22
3. Fuel and lights.....	31,652.83	
4. Freight and express.....	2,199.84	
5. Postage	2,177.83	
6. Library	7,824.38	
7. Stationery and printing.....	8,943.14	
8. Furniture and fixtures.....	2,795.07	
9. Scientific apparatus and instruments.....	19,002.64	
10. Building	129.90	
11. Equipment of building.....	540.48	
12. Live stock	4,703.55	
12. Tools, implements and machinery.....	1,742.83	
14. Feed	7,551.52	
15. Seeds and plants.....	460.36	
16. Supplies for instruction and illustration....	15,353.52	
17. Repairs	1,973.94	
18. Traveling expenses	1,675.20	
19. Petty supplies	5,100.21	
20. Museum	79.50	
21. Taxes, rents and ads.....	5,950.25	
22. Publications	918.99	
23. Contingent expenses	594.45	
24. Labor bills	16,362.54	
		137,732.97
Total current expense.....		\$447,961.19

The Anatomical Building was burned Jan. 29, 1902. Origin of the fire not definitely known. The Ore Testing Works was struck by lightning Saturday night, Aug. 29, 1902. Both buildings were very seriously damaged. The contents of the two buildings were almost entirely destroyed.

With the consent of the auditor the funds derived from the insurance on the two buildings and their contents were placed at the disposal of the Executive Committee with which to repair the buildings and to replace, as far as possible, the contents.

Received from the several insurance companies the sums set opposite their names, on account of losses sustained by fire in the Anatomical Building.

RECEIPTS

London Assurance Corporation		\$2,283.24
The Phoenix	\$1,632.98	
	7.28	
	<hr/>	1,640.26
The Hartford	\$1,849.74	
	7.28	
	<hr/>	1,857.02
American Fire	\$1,632.98	
	7.28	
	<hr/>	1,640.26
Connecticut Fire		18.77
Commercial Union		18.77
The Hannover		18.77
North British Mercantile		18.77
Providence		18.77
American Central		7.28
The Home		7.28
The Atlas		14.56
The Franklin		10.20
The St. Paul Fire & Marine.....		10.20
The Aetna		7.28
	<hr/>	
Total		\$7,571.43

DISBURSEMENTS.

Frank McMillan, repairs anatomical building.....	\$3,000.00
D. Appleton & Co., equipment anatomical building.....	138.00
C. A. Erdmann, expenses east and supplies purchased.....	150.00
Chas. H. Ward, models for anatomical department.....	149.25
J. Straith Briscoe, 29M. anatomical charts @\$3.75.....	108.75
Chas. H. Ward, bill of models.....	142.50
The Kuy-Scherrer Co., bill of skeletons.....	175.75
F. G. McMillan, repairs on anatomical building.....	1,898.00
Minneapolis Office & School Furniture Co., repairs on desk	5.00
Chas. H. Ward, models.....	79.50
Frank R. McMillan, repairs on anatomical building....	929.32
R. McMillan & Co., repairs on medical building.....	72.79
Wagner & Nelson, repairs on medical building.....	35.00
Chas. A. Erdman, prepared skeletons and sundries....	244.94
Chas. H. Ward, model digestive organs.....	15.00
The Kuy-Scherrer Co., 2 skeletons—platypus, frog....	27.50
Glessner & Washburn, 4 dozen stools.....	42.00
The Faller Anatomical Co., 4 Faller's dissedious series	58.50
B. E. Dahlgreen, anatomical models.....	40.00
Frank Sherman, repairs gasoline engine.....	13.00
W. M. Simms, miscellaneous hardware.....	33.48
R. B. Thompson, lumber	3.11
C. C. Tyrrell, laboratory assistance.....	50.00
W. M. Simms, hardware and tools.....	22.83
Gustav Fock, books	12.10
Lea Brothers & Co., Star on nervous diseases.....	6.00
Ernst Leitz, model cerveau epimeri.....	119.11
	<hr/>
Total	\$7,571.43

Received from the several insurance companies the sums set opposite their names, on account of losses sustained by fire in the Ore Testing Works:

RECEIPTS.

American Fire Insurance Co.....	\$1,737.47
Caledonia Fire Insurance Co.....	1,023.08
Phoenix Fire Insurance Co.....	2,300.00
United Firemen's Insurance Co.....	685.39
Girard Fire & Marine Insurance Co.....	685.39
Total	<u>\$6,412.33</u>

DISBURSEMENTS.

R. McMillan & Co., repair building as per contract....	\$2,250.00
Electric Machinery Co., repair motors.....	269.00
Janney, Semple, Hill & Co., drills and tools.....	41.70
Denver Fire Clay Co., apparatus and tools.....	632.01
W. S. Nott Co., asbestos board.....	5.75
Harry B. Cramer Co., painting.....	167.40
General Concentrates Co., brass top for concentrator.	35.00
The Plumbing & Steamfitting Supply Co., plumbing...	5.92
Smith & Thompson, balances	141.05
R. B. Thompson, lumber	11.82
Richards & Co., Limited, still, sand, bath.....	34.65
E. P. Reichhelm & Co., furnaces, mufflers, blowers...	549.40
Plumb. & Steam Fit. Supply Co., tools.....	26.80
W. S. Nott Co., belting.....	15.44
Minneapolis Office and School Furniture Co., 4 tables.	220.00
W. K. Morison & Co., stock and dies.....	17.25
W. S. Nott Co., leather belting.....	7.00
Fairbanks, Morse & Co., repair scale, brush cart....	17.50
Union Iron Works, supplies	581.70
J. J. Gerber, iron supplies.....	58.27
Plumb. & Steam Fit. Supply Co., plumbing supplies...	22.24
Janney, Semple, Hill & Co., bill of tools.....	28.78
Gardner Hardware Co., hardware supplies.....	68.61
Denver Fire Clay Co., sundry supplies.....	43.59
F. W. Braun & Co., 1 cyanide plant, complete.....	36.00
Enterprise Machine Co., 52 shafting caps, make pulley, etc.	30.35
Electric Machinery Co., one 5-horsepower motor.....	125.00
E. P. Reichhelm & Co., 21 No. 6 ruffles.....	100.80
Borden, Selleck & Co., repair platform scale.....	7.50
Minneapolis Electric & Construct. Co., telephone connections	26.00
Janney, Semple, Hill & Co., 1 grind stone.....	4.66
Northern Machinery Co., 1 grind stone in frame.....	12.00
Minneapolis Office & School Furniture Co., 10 lockers in sections	45.00
F. E. Satterlee & Co., Sundries, as per bill.....	182.40
Sturdevant & Co., machinery	360.00
W. & L. E. Gurley, instruments.....	82.00
F. E. Satterlee & Co., check wheels.....	10.25
Minneapolis General Electric Co., hanging and lengthening arc lamps	2.50
Minneapolis Steel Mch. Co., iron pulley and sundries..	26.53
W. S. Nott Co., leather belting.....	54.80
Minneapolis Electric & Construct Co., wiring, lamp cords, etc.	30.00
Parmelee Wrench Co., 3 wrenches.....	7.50
O. B. Metcalf	8.50
Balance undrawn	9.66
Total	<u>\$6,412.33</u>

SPECIAL APPROPRIATIONS.

GENERAL LIBRARY.

Balance Aug. 1, 1902.....		\$1,139.71
Appropriation for 1902-1903.....		7,500.00
Disbursements 1902-1903, books and binding.....	\$6,503.52	
Balance August 1, 1903.....	2,136.19	
Totals	\$8,639.71	\$8,639.71

SCHOOL OF MINES SUPPORT.

Appropriation for 1902-1903.....		\$5,000.00
Disbursements 1902-1903.....	\$4,999.88	
Balance cancelled by Auditor.....	.12	
Totals	\$5,000.00	\$5,000.00

SALARIES SCHOOL OF MINES INSTRUCTORS.

Appropriation for 1902-1903.....		\$4,500.00
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DISBURSEMENTS.

Professor W. R. Appleby's salary.....	\$2,700.00	
Professor Geo. D. Shepardson's salary.....	1,800.00	
Totals	\$4,500.00	\$4,500.00
The balance of Prof. Shepardson's salary, \$600.00, was paid out of current expense fund.		

ENLARGING AND IMPROVING CAMPUS.

Appropriation		\$11,000.00
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DISBURSEMENTS.

Purchase of adjoining lots.....	\$9,088.75	
Filling and grading lots.....	900.00	
Balance August 1, 1903.....	1,011.25	
Totals	\$11,000.00	\$11,000.00

EXTRAORDINARY REPAIRS, INCLUDING TUNNEL.

Appropriation		\$20,000.00
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DISBURSEMENTS.

Paid C. A. Erickson on tunnel contract.....	\$2,720.00	
Balance August 1, 1903.....	17,280.00	
Totals	\$20,000.00	\$20,000.00

CHEMICAL BUILDING DEFICIT.

Balance August 1, 1902.....		\$4,078.30
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DISBURSEMENTS.

Apparatus and supplies.....	\$2,542.96	
Balance August 1, 1903.....	1,535.34	
	<hr/>	<hr/>
Totals	\$4,078.30	\$4,078.30

GENERAL REPAIRS.

Balance August 1, 1902.....		\$633.73
Appropriation		8,000.00

DISBURSEMENTS.

Expenditures at University.....	\$5,093.97	
Expenditures at Farm.....	1,775.23	
Balance August 1, 1903.....	1,764.53	
	<hr/>	<hr/>
Totals	\$8,633.73	\$8,633.73

PRINTING.

Balance August 1, 1902.....		\$970.00
Appropriation		2,000.00
Disbursements	\$2,354.37	
Balance August 1, 1903.....	615.63	
	<hr/>	<hr/>
Totals	\$2,970.00	\$2,970.00

DEPARTMENT OF MINES BUILDING.

Appropriation		\$47,500.00
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DISBURSEMENTS.

Building	\$34,865.30	
Heating plant	2,982.00	
Architect's fees	1,559.04	
Superintending	100.00	
Equipment (300 arm chairs).....	900.00	
Advertising	11.30	
Miscellaneous	29.17	
Balance August 1, 1903.....	7,053.19	
	<hr/>	<hr/>
Totals	\$47,500.00	\$47,500.00

ANATOMICAL BUILDING.

Balance August 1, 1902.....		\$273.44
Expenditures	\$273.44	
	<hr/>	<hr/>
Totals	\$273.44	\$273.44

THIRTEENTH BIENNIAL REPORT

CLINICAL BUILDING.

Balance August 1, 1902.....		\$25.42
Expenditures	\$25.42	
Totals	\$25.42	\$25.42

PHYSICAL LABORATORY.

Balance August 1, 1902.....		\$32,367.19
DISBURSEMENTS.		
Building	\$16,020.00	
Equipment	5,000.96	
Heating	1,099.00	
Architect	455.38	
Plumbing	1,769.39	
Electric light system.....	926.20	
Grading and walk.....	225.50	
Miscellaneous	348.99	
Total	\$25,845.42	
Balance Augst 1, 1903.....	6,521.77	
Totals	\$32,367.19	\$32,367.19

ENGINEERING AND MECHANIC ARTS BUILDING.

Balance August 1, 1902.....		\$4,059.32
DISBURSEMENTS.		
Buildings	\$232.80	
Equipment	152.75	
Machinery and fixtures.....	2,646.29	
Heating and lighting.....	720.24	
Grading and walk.....	167.21	
Miscellaneous	86.29	
Total	\$4,005.58	
Balance August 1, 1903.....	53.74	
Totals	\$4,059.32	\$4,059.32

AGRICULTURAL CHEMISTRY BUILDING.

Appropriation		\$25,000.00
DISBURSEMENTS.		
Building	\$18,212.00	
Plumbing and heating.....	2,813.00	
Electric wiring	431.25	
Architect's fees	727.00	
Advertising for proposals.....	3.60	
Furniture and fixtures.....	1,967.02	
Grading	93.20	
Floor in old Chemistry building.....	34.35	
Electrical machinery and ventilating.....	627.05	
Hardware, oil, paint, lumber, glass, etc.....	91.53	
Totals	\$25,000.00	\$25,000.00

GIRLS' DORMITORY.

Balance August 1, 1902.....		\$176.80
DISBURSEMENTS.		
Equipment	\$103.37	
Balance August 1, 1903.....	73.43	
Totals	\$176.80	\$176.80

DAIRY HALL REPAIRS.

Balance August 1, 1902.....		\$289.59
DISBURSEMENTS.		
Freight on brick, etc.....	\$54.95	
Plumbing and lumber.....	61.34	
Apparatus	25.33	
Sanitary pump and labor.....	42.60	
Painting, pipe covering and chair.....	18.05	
Balance August 1, 1903.....	87.32	
Totals	\$289.59	\$289.59

SWINE HOUSE.

Appropriation		\$3,000.00
DISBURSEMENTS.		
Benson Building Co., contractor.....	\$2,300.00	
Architect's fees	80.50	
Materials and labor.....	619.38	
Balance cancelled by Auditor.....	.12	
Totals	\$3,000.00	\$3,000.00

VETERINARY BUILDING.

Balance August 1, 1902.....		\$2,685.13
DISBURSEMENTS.		
Building	\$351.16	
Equipment	561.53	
Plumbing, etc.	247.15	
Apparatus and supplies.....	282.85	
Total	\$1,442.69	
Balance August 1, 1903.....	1,242.44	
Totals	\$2,685.13	\$2,685.13

GRAND RAPIDS SUPPORT.

Balance August 1, 1902.....		\$822.77
Appropriation		4,000.00
Cash receipts, sales of produce.....		1,398.16
Disbursements	\$5,139.68	
Balance August 1, 1903.....	881.25	
Revolving fund	200.00	
Totals	\$6,220.93	\$6,220.93

THIRTEENTH BIENNIAL REPORT

CROOKSTON SUPPORT.

Balance August 1, 1902, Revolving fund.....		\$300.00
Appropriation		6,000.00
Cash receipts, sale of products.....		2,689.67
Expense paid	\$8,045.53	
Balance August 1, 1903.....	644.14	
Revolving fund	300.00	
Totals	\$8,989.67	\$8,989.67

CROOKSTON BARN.

Balance August 1, 1902.....		\$5,636.22
DISBURSEMENTS.		
Materials and labor.....	\$331.35	
Balance August 1, 1903.....	5,304.87	
Totals	\$5,636.22	\$5,636.22

CROOKSTON FENCES.

Balance August 1, 1902.....		\$111.92
Expenditures	\$111.92	
Totals	\$111.92	\$111.92

CROOKSTON LIVE STOCK.

Appropriation		\$2,500.00
Expenditures	\$150.00	
Balance August 1, 1903.....	2,350.00	
Totals	\$2,500.00	\$2,500.00

GRAND RAPIDS BARN.

Balance August 1, 1902.....		\$115.22
Disbursements	\$115.22	
Totals	\$115.22	\$115.22

FINANCIAL STATEMENT.

(Under Board of Control.)

Minneapolis, Aug. 1, 1904.

Hon. Greenleaf Clark, President of the Board of Regents.

Sir: I herewith submit the financial report of the University of Minnesota for the fiscal year commencing Aug. 1, 1903, and ending July 31, 1904.

JOSEPH D. BREN,
Cashier U. of M.

GENERAL STATEMENT OF RECEIPTS AND DISBURSEMENTS
FOR THE FISCAL YEAR ENDING JULY 31, 1904.

CURRENT EXPENSE RECEIPTS.

Deficit August 1, 1903, as per General Statement of 1902-1903		\$9,079.15
From Grants Made by U. S. Government—		
Approved March 2, 1861, and July 2, 1862, being interest on bonds of various states in which the re- sulting funds are invested	\$51,470.76	
Interest on bank deposits.....	2,281.79	
U. S. Treasurer, Hatch fund..	15,000.00	
U. S. Treasurer, Morrill fund.	25,000.00	
		\$93,752.55
From State Appropriations--		
Deficiency appropriation		45,000.00
23/100 of 1 mill revenue tax... \$142,029.68		
Less tax of 1902-03 paid after August 1, 1903.....	12,033.49	
		129,996.19
From the University—		
Fees, farm sales, and miscellane- ous, receipts collected and deposited by the Account- ant		\$152,600.77
Transfer from Revenue fund..		268.61
		<u>421,618.12</u>
Total receipts less deficit August 1, 1903, as above.....		\$412,538.97

DISBURSEMENTS.

Total expense lists paid in 1903-04	\$475,619.73	
Less unpaid expense lists of 1903 paid in 1903-04	\$31,090.44	
Less salaries and bills of 1903-04 paid in August, 1904-05.....	48,387.13	
		<u>79,477.57</u>
Auditor's balance August 1, 1904.....		396,142.16
Balance of 23-100 mill revenue tax delayed till August, 1904....		\$16,396.81
		<u>38,263.53</u>
Total		\$54,660.34
Less salaries and bills of 1903-1904 paid in August, 1904.....		48,387.13
		<u>\$6,273.21</u>
Balance		\$6,273.21
Add Revolving fund.....		2,800.00
		<u>\$9,073.21</u>
True balance		\$9,073.21

DETAILED STATEMENT OF RECEIPTS FOR THE FISCAL YEAR
ENDING JULY 31, 1904.

CURRENT EXPENSE RECEIPTS.

Balance on hand August 1, 1903.....	•	\$9,977.80
From United States appropriations—		
Income from permanent productive fund:		
Interest on Minnesota village bonds....	\$3,006.66	
Interest on Land contracts	16,769.10	
Interest on Delaware bonds	3,930.00	
Interest on Massachusetts bonds	3,150.00	
Interest on Tennessee bonds	3,600.00	
Interest on Alabama "A" consols.....	2,140.00	
Interest on Virginia bonds	10,650.00	
Interest on Minnesota bonds	8,225.00	
Interest on bank deposits	2,281.79	
Total interest	\$53,752.55	
From U. S. Treasurer for Experiment Station, Hatch fund	\$15,000.00	
From U. S. Treasurer, Morrill fund.....	25,000.00	
		\$93,752.55
From State Appropriations—		
State Treasurer, 23-100 mill revenue tax....	\$142,029.68	
State Treasurer, deficiency appropriation...	45,000.00	
		187,029.68
From the University—		
Students' fees, farm sales and other sources—		
Students' fees, etc.....	\$125,048.50	
Experiment station, sale of farm prod- ucts	7,532.91	
School of Agriculture, students' fees and sales	7,438.39	
Dental Infirmary receipts.....	10,676.23	
Miscellaneous items as follows:		
Telephone messages	14.76	
Material sold	76.20	
Refund of salaries.....	145.27	
Rent of Elmquist lot.....	12.00	
Refund on paid bills.....	396.68	
Locker fund	295.50	
Work done for outside parties.....	20.53	
Rent of armory.....	45.00	
Free Dispensary rects.....	340.20	
Miscellaneous	8.00	
		152,050.17
Interest on stumpage drafts.....		550.60
Transfer from revenue fund.....		268.61
		\$443,629.41

CURRENT EXPENSE.

SUMMARY OF DISBURSEMENTS BY DEPARTMENTS, 1903-1904.

	Salaries.	Bills.
General University	\$34,369.31	\$30,179.43
Science, Literature and Art.....	3,202.50	694.69
Botany	5,700.00	1,820.28
Chemistry	10,644.20	8,690.51
Biology	5,900.00	1,864.03
Physics	7,879.00	961.75
Geology	4,238.50	485.29
Political Science	7,650.00	.....
Philosophy	3,825.00	11.64
Astronomy	2,100.00	34.85
Mathematics	5,350.00	210.53
History	7,050.00	.35
Rhetoric	8,463.00	174.90
Pedagogy	2,425.00	4.00
Physical culture	4,695.00	175.14
Military science	1,175.00	231.11
English	5,500.00	1.80
Greek	3,750.00	3.00
Latin	6,700.00	.....
German	6,500.00	1.00
French	5,950.00	.....
Scandinavian	2,000.00	.....
Totals	\$145,066.51	\$45,544.30
General engineering	\$6,685.00	\$114.18
Electrical engineering	4,295.00	602.64
Mechanical engineering	11,590.00	2,988.10
Civil engineering	5,400.00	593.67
Drawing	3,000.00	54.27
Totals	\$30,970.00	\$4,352.86
School of Mines.....	2,335.00	3,281.63
College of Law	17,775.00	2,117.76
General medical and surgery.....	7,462.65	1,111.27
Anatomy	4,550.00	1,553.92
Bacteriology and pathology.....	7,215.00	3,082.39
Medical chemistry	3,590.00	1,483.09
Physiology	6,116.00	2,492.61
Histology	5,565.70	1,942.99
Totals	\$34,499.35	\$11,666.27
Homeopathy	1,960.00	472.08
Dentistry	16,290.00	6,085.99
Pharmacy	4,035.00	942.43
Free Dispensary	1,620.00	2,524.54
Totals University	\$254,550.86	\$76,987.86

SUMMARY OF DISBURSEMENTS BY DEPARTMENTS, 1903-1904.—Continued.

	Salaries.	Bills.
School and Station.....	29,670.22	16,586.42
Agriculture	13,198.88	4,555.36
Animal husbandry	6,168.39	5,610.03
Farm chemistry	5,257.35	1,368.76
Dairy husbandry	7,204.63	3,561.95
Entomology	2,400.00	2.97
Horticulture	7,542.09	464.60
Veterinary	3,507.34	277.56
Totals farm	\$74,948.90	\$32,427.65
Grand totals	\$329,499.76	\$109,415.51
Total current expense.....		\$438,915.27

CURRENT EXPENSE.

DISBURSEMENTS BY EXPENSE LISTS—PAYROLL AND BILLS—1903-04.

August—	
University payroll	\$3,874.08
Farm payroll	5,077.20
University bills	593.18
Farm bills	348.76
September—	
University payroll	23,809.65
Farm payroll	5,392.00
University bills	5,423.66
Farm bills	1,398.32
October—	
University payroll	23,974.47
Farm payroll	6,822.51
University bills	7,789.33
Farm bills	3,859.46
November—	
University payroll	24,397.13
Farm payroll	7,064.71
University bills	6,414.16
Farm bills	2,727.22
December—	
University payroll	25,213.65
Farm payroll	7,645.83
University bills	14,496.01
Farm bills	7,031.69
January—	
University payroll	24,581.17
Farm payroll	7,130.77
University bills	7,664.67
Farm bills	912.61
February—	
University payroll	24,369.60
Farm payroll	7,063.82
University bills	5,100.38
Farm bills	4,293.12

DISBURSEMENTS BY EXPENSE LISTS—PAYROLL AND BILLS—1903-04.—Continued.

March—		
University payroll	25,045.70	
Farm payroll	7,112.30	
University bills	6,976.88	
Farm bills	1,596.54	
April—		
University payroll	24,764.39	
Farm payroll	5,708.49	
University bills	7,836.61	
Farm bills	4,930.13	
May—		
University payroll	25,733.26	
Farm payroll	5,286.76	
University bills	5,524.28	
Farm bills	1,447.65	
June—		
University payroll	24,875.63	
Farm payroll	5,045.62	
University bills	4,109.12	
Farm bills	1,085.64	
July—		
University payroll	3,912.13	
Farm payroll	5,598.89	
University bills	5,059.58	
Farm bills	2,796.51	
Total University payroll		\$254,550.86
Total farm payroll		74,948.90
Total University bills		76,987.86
Total Farm bills		32,427.65
Grand total		\$438,915.27
Items paid by State Auditor—		
Interest on Massachusetts bonds.....		545.83
Fees paid to State Treasurers.....		167.82
Revolving fund		2,800.00
July payroll, May, June and July bills, 1902-03, paid in August, 1903-04.....		31,090.44
Old bills rendered prior to August 1, 1903, paid during year 1903-04.....		2,100.37
Total		\$475,619.73

STATEMENT OF RECEIPTS AND DISBURSEMENTS BY COLLEGES FOR
THE YEAR ENDING JULY 31, 1904.

	Receipts.	Disbursements.
General University	\$1,361.85	\$64,548.74
College of Science, Literature and Arts.....	38,503.25	126,062.07
College of Engineering.....	15,386.75	35,322.86
College of Law.....	25,782.50	19,892.76
School of Mines.....	3,550.25	5,616.63
College of Medicine and Surgery.....	24,164.00	49,165.62
College of Homeopathy.....	1,319.00	3,576.62
College of Dentistry.....	24,138.73	22,375.99
College of Pharmacy.....	2,880.25	4,977.43
The School of Agriculture.....	7,438.39	53,688.55
Experiment Station	7,532.91	53,688.00
Totals	\$152,057.88	\$438,915.27

THIRTEENTH BIENNIAL REPORT

CURRENT EXPENSE.

DISTRIBUTION OF ACCOUNTS.

1. Salaries	\$254,550.86	\$74,948.90
2. Fuel and lights.....	\$24,239.17	\$10,355.22
3. Freight and express.....	1,577.21	709.60
4. Postage	1,193.81	1,012.51
5. Library	30.75	.....
6. Stationery and printing.....	2,705.36	1,163.98
7. Furniture and fixtures.....	1,281.18	332.69
8. Scientific apparatus and instruments.....	5,809.27	436.00
9. Building .....	.....	17.50
10. Equipment of building.....	1,128.10	583.25
11. Live stock	175.00	1,995.08
12. Tools, implements and machinery.....	527.78	492.91
13. Feed	543.88	5,712.27
14. Seeds and plants.....	31.14	563.16
15. Supplies for instruction and illustration....	22,844.30	3,351.48
16. Repairs	498.48	115.93
17. Traveling expenses	922.35	568.99
18. Petty supplies	3,445.50	2,160.50
19. Museum	250.23	.....
20. Taxes, rents, ads.....	7,132.34	1,571.68
21. Publications	1,561.94	1,056.94
22. Contingent expenses	464.00	127.33
23. Labor bills	626.07	100.63
Totals	\$76,987.86	\$32,427.65

THE TWO STATEMENTS ABOVE COMBINED.

1. Salaries		\$329,499.76
2. Fuel and lights.....	\$34,594.39	
3. Freight and express.....	2,286.81	
4. Postage	2,206.32	
5. Library	30.75	
6. Stationery and printing.....	3,869.34	
7. Furniture and fixtures.....	1,613.87	
8. Scientific apparatus and instruments.....	6,245.27	
9. Building	17.50	
10. Equipment of building.....	1,711.35	
11. Live stock	2,170.08	
12. Tools, implements and machinery.....	1,020.69	
13. Feed	6,256.15	
14. Seeds and plants.....	594.30	
15. Supplies for instruction and illustration....	26,195.78	
16. Repairs	614.41	
17. Traveling expenses	1,491.34	
18. Petty supplies	5,606.00	
19. Museum	250.23	
20. Taxes, rents, ads.....	8,704.02	
21. Publications	2,618.88	
22. Contingent expenses	591.33	
23. Labor bills	726.70	
		\$109,415.51
Total		\$438,915.27

SPECIAL APPROPRIATIONS.

MINES BUILDING.

Balance of appropriation, Aug. 1st, 1903.....	\$7,053.19
Appropriation year 1903-04.....	25,000.00
Total	<u>\$32,053.19</u>

EXPENDITURES.

Building and equipment.....	\$18,296.17
Furniture	3,679.00
Supplies	1,948.20
Repairs and labor.....	4,723.04
Freight	227.12
Electrical wiring and lighting.....	1,183.25
Lumber	117.35
Total	<u>\$30,174.13</u>
Balance August 1st, 1904.....	\$1,879.06

CAMPUS.

Balance August 1st, 1903.....	\$1,011.25
Appropriation 1903-1904	3,000.00
Total	<u>\$4,011.25</u>

EXPENDITURES.

Sidewalk	\$999.02
Supplies	185.92
Seed	63.16
Labor	2,137.12
Electric wiring	615.00
Total	<u>\$4,000.22</u>
Balance August 1st, 1904.....	\$11.03

CHEMISTRY BUILDING DEFICIT.

Balance of appropriation August 1st, 1903.....	\$1,535.34
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EXPENDITURES.

Equipment	\$614.60
Supplies	443.97
Plumbing	85.98
Total	<u>\$1,144.55</u>
Balance August 1st, 1904.....	\$390.79

THIRTEENTH BIENNIAL REPORT

MEDICAL BUILDING INSURANCE.

November 30 insurance receipts.....	\$4,288.74
January 22 insurance receipts.....	334.93

Total	<u>\$4,623.67</u>
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EXPENDITURES.

Building	\$3,843.09
Furniture	49.00
Supplies	36.74

Total	<u>\$3,928.83</u>
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Balance August 1st, 1904.....	\$694.84
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PRINTING.

Balance of appropriation August 1st, 1903.....	\$615.63
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EXPENDITURES.

Gas for lectures.....	\$8.00
Labor	292.61

Total	<u>\$300.61</u>
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Balance August 1st, 1904.....	\$315.02
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DENTAL BUILDING—FIRE LOSS.

EXPENDITURES.

Insurance receipts	\$2,250.00
Building	\$50.00
Equipment of building.....	65.00
Miscellaneous repairs	98.63
Labor	257.22
Supplies	1,510.54

Total	<u>\$1,981.39</u>
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Balance transferred to Current Expense Fund...	\$268.61
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LIBRARY.

Balance August 1st, 1903.....	\$2,136.19
New appropriations, 1903-1904.....	5,000.00
Total	<u>\$7,136.19</u>

EXPENDITURES.

Books and periodicals, etc.....	\$5,968.11
Printing	356.27
Supplies	810.62

Total	<u>\$7,135.00</u>
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Balance August 1st, 1904. Cancelled.....	\$1.19
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MACHINERY BUILDING.

Appropriation \$5,000.00

EXPENDITURES.

Building	\$4,557.50	
Advertising and prints.....	6.84	
		<hr/>
Total		\$4,564.34
Balance August 1st, 1904.....		\$435.66

PHYSICAL LABORATORY.

Balance of appropriation Aug. 1st, 1903.....	\$6,521.77	
Transfer from revenue fund.....	62.75	
		<hr/>
Total		\$6,584.52

EXPENDITURES.

Equipment of building.....	\$1,598.42	
Electric wiring	284.33	
Supplies	1,031.67	
		<hr/>
Total		\$2,914.42
Balance Aug. 1st, 1904.....		\$3,670.10

ENGINEERING AND MECHANIC ARTS BUILDING.

Balance appropriation August 1st, 1903.....		\$53.74
Expenditures	\$46.32	
Balance August 1st, 1904.....	7.42	

LAW BUILDING.

Appropriation \$30,000.00

EXPENDITURES.

Building and equipment.....	\$26,445.19	
Steam heating	1,980.00	
Supplies	262.73	
Advertising	6.70	
Labor	25.00	
Decorations	225.00	
Electrical supplies	52.00	
Furniture	740.00	
Repairs	14.35	
		<hr/>
Total		\$29,750.97
Balance August 1st, 1904.....		\$249.03

THIRTEENTH BIENNIAL REPORT

REPAIRS UNIVERSITY.

Appropriation 1903-1904	\$6,666.67
Transfer from revenue fund.....	257.22
Total	<u>\$6,923.89</u>

EXPENDITURES.

Hardware	\$10.03
Building and equipment.....	1,489.06
Repairs	1,544.00
Lumber	240.84
Supplies	729.27
Labor	1,800.25
Furniture	307.83
Total	<u>\$6,121.28</u>
Balance August 1st, 1904.....	\$802.61

REPAIRS TUNNEL.

Balance appropriation August 1st, 1903.....	\$17,280.00
Transfer from revenue fund.....	7.71
Transfer from university repairs fund, balance Aug. 1st, 1903.....	1,764.53
Total	<u>\$19,052.24</u>

EXPENDITURES.

Building tunnel	\$17,654.54
Lumber	116.70
Equipment	632.00
Supplies	437.00
Labor	212.00
Total	<u>\$19,052.24</u>

SCHOOL OF MINES—INSTRUCTORS.

Appropriation 1903-1904	\$4,500.00
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EXPENDITURES.

Salaries	\$4,500.00
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SCHOOL OF MINES—SUPPORT.

Appropriation 1903-1904	\$5,000.00
Salaries	\$4,350.00
Supplies	634.31
Total	<u>\$4,984.31</u>
Balance August 1st, 1904.....	\$15.69

AGRICULTURAL SCHOOL BUILDINGS.

New appropriation \$50,809.97

EXPENDITURES.

Building	\$10,211.80	
Advertising	3.20	
Prints	6.60	
		<hr/>
Total		\$10,221.60
Balance August 1st, 1904.....		<hr/> \$40,588.37

DAIRY HALL.

Balance of appropriation August 1st, 1903..... \$87.32

EXPENDITURES.

Electric furnace	\$45.00	
Plumbing and lumber.....	37.78	
		<hr/>
Total		\$82.78
Balance August 1st, 1904.....		<hr/> \$4.54

VETERINARY AND LIVE STOCK BUILDING.

Balance of appropriation August 1st, 1903..... \$1,242.44

EXPENDITURES.

Equipment	\$195.60	
Supplies	616.03	
		<hr/>
Total		\$811.63
Balance August 1st, 1904.....		<hr/> 430.81

GIRLS' DORMITORY.

Balance of appropriation August 1st, 1903..... \$73.43

EXPENDITURES.

Labor	71.16	
		<hr/>
Balance August 1st, 1904.....		\$2.27

BOYS' DORMITORY.

Appropriation \$40,000.00

THIRTEENTH BIENNIAL REPORT

EXPENDITURES.

Building	\$28,808.10	
Equipment of building.....	7,145.05	
Electric wiring	809.60	
Petty supplies	1,728.19	
Lumber	42.62	
Hardware	15.99	
Advertising	3.70	
Labor	465.36	
Total		\$39,018.61
Balance August 1st, 1904.....		\$981.39

REPAIRS—FARM.

Appropriation 1903-1904	\$3,333.33
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EXPENDITURES.

Hardware	\$87.94	
Equipment	267.90	
Miscellaneous repairs	330.65	
Lumber	723.86	
Supplies	918.42	
Labor	969.77	
Total		\$3,298.54
Balance August 1st, 1904.....		\$34.79

AGRICULTURAL CHEMISTRY BUILDING AND EQUIPMENT.

Appropriation August 1st, 1903.....	\$5,000.00
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EXPENDITURES.

Building and equipment.....	\$1,493.57	
Lumber	193.35	
Furniture	348.74	
Supplies	1,914.69	
Labor	752.11	
Wreight	5.58	
Total		\$4,708.04
Balance August 1st, 1904.....		\$291.96

CROOKSTON DRAINAGE.

Appropriation	\$5,000.00
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EXPENDITURES.

Ditching	\$771.00	
Brick and tile.....	82.20	
Supplies	129.08	
Labor	150.00	
Total		\$1,132.28
Balance August 1st, 1904.....		\$3,867.72

CROOKSTON STOCK.

Balance appropriation Aug. 1st, 1903.....	\$2,350.00
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EXPENDITURES.

Stock	\$1,496.15
Balance August 1st, 1904.....	\$853.85

CROOKSTON BARN.

Appropriation August 1st, 1903.....	\$5,304.87
Receipts from sales.....	344.00

Total	\$5,648.87
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EXPENDITURES.

Building	\$5,012.00
Advertising	9.10
Supplies	29.44
Lumber	447.58
Material and labor.....	150.75
Total	\$5,648.87

CROOKSTON SUPPORT.

Balance appropriation Aug. 1st, 1903.....	\$ 644.14
Appropriation 1903-1904	6,000.00
Receipts from sales, etc.....	1,706.64

Total	\$8,350.78
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EXPENDITURES.

Salaries	\$3,632.91
Repairs	122.95
Lumber and machinery.....	243.97
Feed and fuel.....	498.12
Supplies	3,187.19
Express, freight, etc.....	86.55
Wages	325.57
Total	\$8,097.26

Balance August 1st, 1904.....	\$253.52
Revolving fund	300.00

Total	\$553.52
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THIRTEENTH BIENNIAL REPORT

GRAND RAPIDS SUPPORT.

Balance August 1st, 1903.....	\$881.25
Appropriation 1903-1904	4,000.00
Receipts from sales, etc.....	761.56
	<hr/>
Total	\$5,642.81

EXPENDITURES.

Salaries	\$2,235.32
Repairs	196.30
Furniture	62.00
Stock	240.00
Feed	454.00
Freight, express, etc.....	180.86
Supplies	1,450.40
Wages	141.68
	<hr/>
Total	\$4,960.56
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Balance August 1st, 1904.....	\$682.25
Revolving fund	200.00
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Total	\$882.25

B. F. CARTER,
Purchasing Agent and Accountant.